LG
Life's Good

MULTI V™

INDOOR UNIT ENGINEERING MANUAL

Variable Refrigerant Flow Indoor Units

5,000 to 96,000 Btu/h

PROPRIETARY DATA NOTICE

EM-MultiV-IndoorUnits-07-14

About LG Electronics, Inc.

LG Electronics, Inc. is a global leader and technology innovator in consumer electronics, mobile communications, and home appliances. LG Electronics comprises four business units—Home Entertainment, Mobile Communications, Home Appliance, and Air Conditioning and Energy Solutions. LG is one of the world's leading producers of flat panel televisions, audio and video products, mobile handsets, compressors, air conditioners, and washing machines. LG's commercial air conditioning business unit was established in 1968 and has built its lineup of residential and commercial products to include VRF, Multi-Zone systems, Duct Free Split Systems, Packaged Terminal Air Conditioners (PTACs), and room air conditioners. In 2011, the air conditioning and energy solutions business unit grew to include LED lighting and solar products. For more information visit www.lghvac.com.

Variable Refrigerant Flow (VRF) Technology

In the early 1980s, VRF technology was introduced to the world as an alternative method of cooling and heating in commercial structures designed to minimize energy consumption. VRF systems have become the system of choice for designers internationally because these systems offer better comfort at substantially lower operating costs when compared to traditional HVAC systems. Older systems are being replaced with newer more efficient systems making VRF a viable option. Today, VRF is gaining popularity in the United States. LG air-source systems offer the opportunity to eliminate ductwork in the same configuration. The systems offer zoning without the need for zone damper systems. The advanced controls provide exceptional building dehumidification and temperature control and can rapidly adapt system operating parameters to the ever changing building load.

Quality Commitment

LG is committed to the success of every Multi V project by providing the best industry technical support during project engineering, installation, and commissioning. LG offers a variety of classes designed for engineers, architects, installers, and servicers to ensure that every Multi V installation is completed successfully. Classes are conducted at LG's training centers and in field locations at various times throughout the year and upon special request.

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INDOOR UNIT BENEFITS

Aesthetics

Multi V indoor units offer a wide range of styles and features and match universally with all Multi V systems.

Light Weight

Multi V indoor units are lightweight, making them easy to move without the need for lifts. Their light weight also allows indoor units to be easily hung, in most cases without additional support requirements.

Small Size

The small size of Multi V indoor units allows for easy installation in many spaces. In fact, they are among the smallest in the industry. Indoor units fit in locations traditional air handlers will not. Whether you are installing a ceiling cassette or ducted unit, it will be an easy fit in the tightest spaces.

Reduced Cost

Fewer materials and less installation time and labor make the LG Multi V system more cost effective than conventional ducted systems. Indoor units can be piped using copper refrigerant lines instead of larger, more labor intensive water piping. In most cases, Multi V indoor units do not require ductwork.

INDOOR UNIT BENEFITS

Quiet

Multi V indoor units are among the quietest in the industry with rated sound levels as low as 23 dB(A). In addition to features like temperature, airflow and dehumidification control, extremely low sound levels help contribute to a relaxing environment.

Dehumidification

Multi V units offer the best in dehumidification. Most direct expansion (DX) systems cycle to maintain setpoint which affects efficiency, reduces their runtime and hinders proper dehumidification. Load matching with Multi V not only occurs with the variable speed compressor, but also with the electronic expansion valves and variable speed fans in each individual indoor unit. This allows the system to run longer at lower loads, providing ultimate dehumidification and adding comfort to reduced energy consumption. In addition, Multi V indoor units can be set to operate in dehumidification mode which helps remove moisture from the air, even when there is no call for cooling.

Individualized Zone Control

Multi V systems allow the user to control the space to the exact temperature desired. Each evaporator is equipped with its own variable speed fan and electronic expansion valve, giving unfettered temperature control, airflow direction, and fan speed control to occupants in every zone. If cooling or heating is not wanted, the user can simply turn off their indoor unit, or turn it to fan mode for air movement. This further enhances comfort, while promoting reduced power consumption.

INDOOR UNIT BENEFITS

Indoor Air Quality

All Multi V indoor units incorporate a reusable washable filter. Since distribution and return ducts are not required for this system, dust and duct mold accumulation are reduced. With independent indoor units, odours from one zone will not be carried to other zones. Art Cool™ Mirror and wall mounted indoor units can be set to go through a fan cycle at the end of cooling operation for 30 minutes to warm up and dry the coil, which prevents mold growth. Ceiling cassette units, Art Cool™ Mirror and wall mounted units come standard with plasma filters.

Air Purifying System

Washable Filter

Indoor units come factory supplied with a washable filter. These filters come standard on all indoor units except Vertical/Horizontal Air Handling units.

Plasma Filter

The plasma filter developed uniquely by LG comes factory installed and powered as standard on 1, 2, and 4-way ceiling cassettes, Art Cool™ mirror and wall mounted indoor units.

General Information

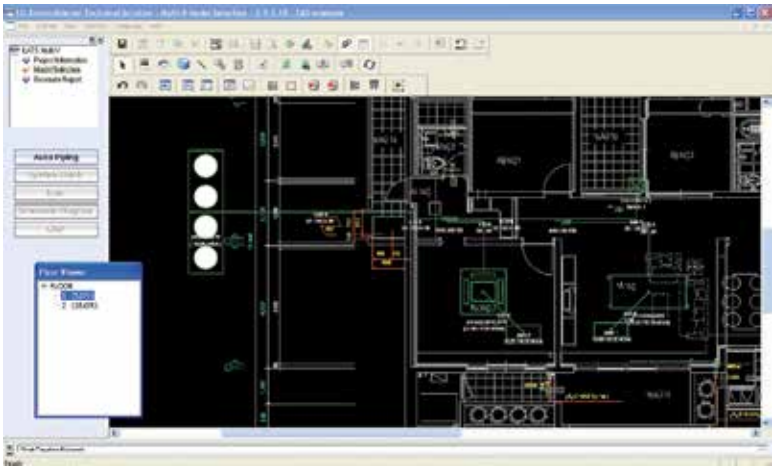
All LG indoor units are factory assembled, wired, piped, and provided with an internal factory-mounted electronic expansion valve (EEV), control circuit board, fan, and motor. Each is designed to operate using 208–230/60/1 power with voltage variances of ±10%. The refrigeration circuit is pressure-tested at the factory and shipped with a holding charge of dry nitrogen gas. Each unit is provided with a factory installed nonmetallic condensate drain pan. With the exception of the vertical/horizontal air handler, an insulated, flexible condensate drain hose is provided to connect the unit drain pan nipple to a field-provided condensate drain pipe.

Indoor Unit Coil

Indoor unit coils are a minimum of two rows and are composed of copper tubes with mechanically bonded aluminum fins. Coils are pressure tested at a minimum of 551 psig. Units are provided with either a 45º flare or brazed refrigerant pipe connections.

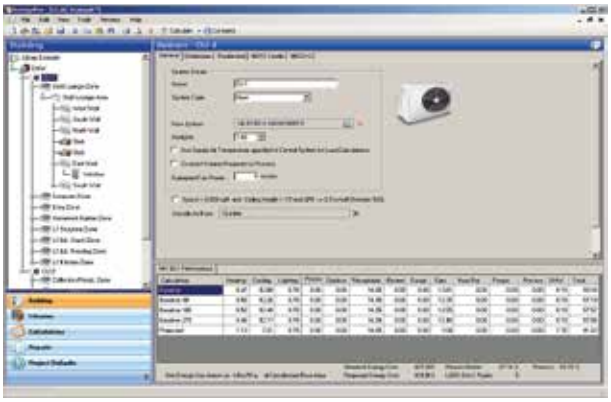
Intuitive Design

The LATS (LG Air Conditioning Technical Solution) Multi V design and layout software provides an intuitive, quick, and simple method to design a Multi V refrigerant pipe system. LATS Multi V checks piping length elevations and it assists with the sizing of indoor and outdoor units by calculating component capacity based on design conditions. LATS Multi V is the industry's only VRF modeling software that can import AutoCAD™ drawings and lay out the Multi V system to scale. When the designer finishes the AutoCAD™ system layout, all of the piping lengths will be calculated, and a drawing file with the Multi V system will be available for export and integration into the building drawing set.



Energy Modeling

LG stands behind efficiency and performance. You will find Multi V in the EnergyPro building energy simulation software from EnergySoft®. EnergyPro is approved by the California Energy Commission to accurately model and provide necessary documentation to comply with the rigourous California Title 24 Standards, ASHRAE 90.1 compliance, and calculate the number of LEED® Energy and Atmosphere Credit (EAc-1) earned by the design team. The software accurately models energy consumption and utility costs based on building design, orientation, location and other design conditions.



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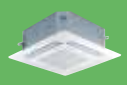
	4-way (2' x 2' chassis)		pg. 127
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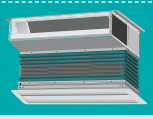
	Ducted (Low Static, Bottom Return)		pg. 279
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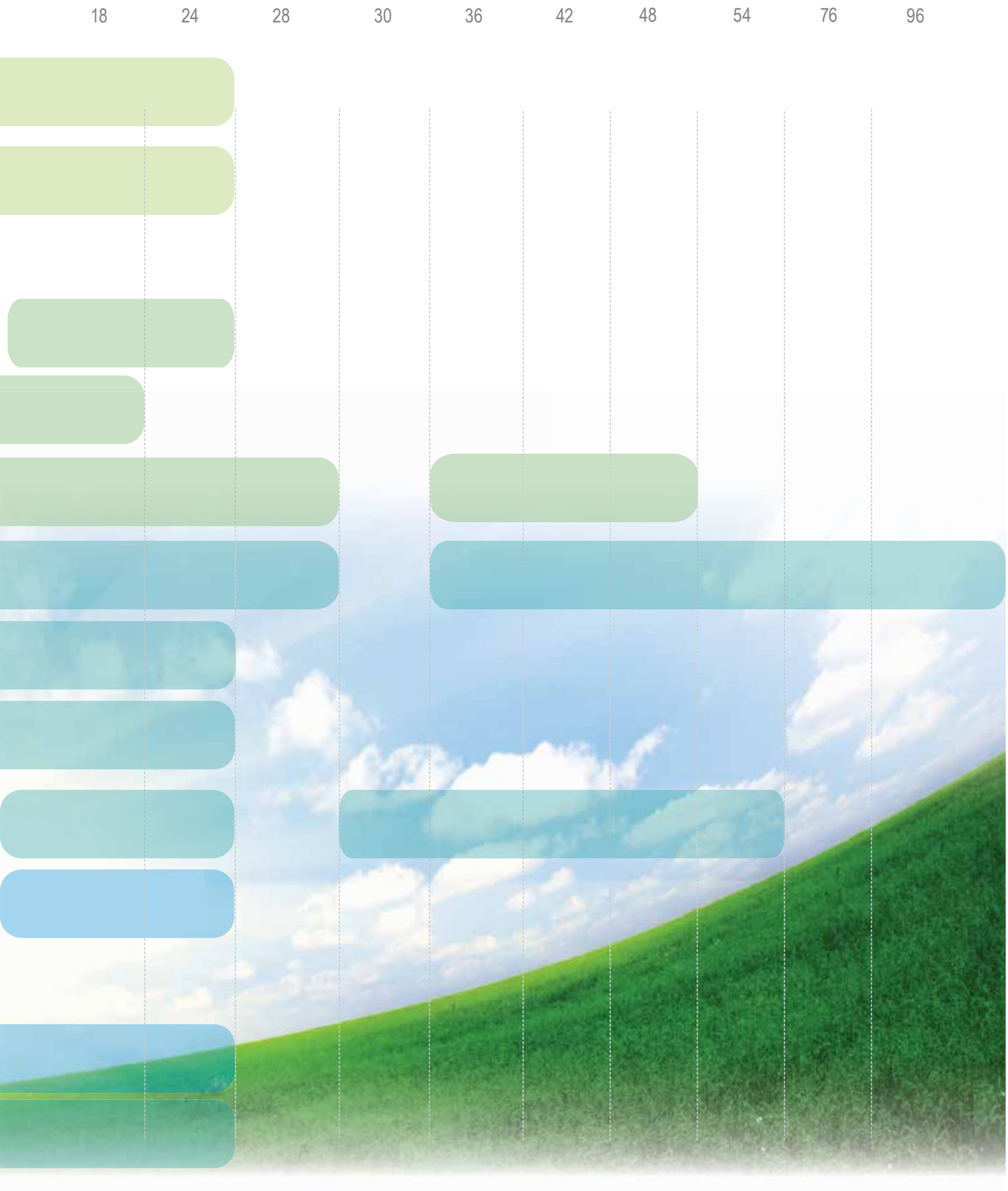
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GENERAL DATA

MULTI V

Indoor Units

Specifications

Table 1: Summary Data—Suspended / Flush Mounted Indoor Units

Unit/Type[1]	ARNU*****[2]	Dimensions (W x D x H) (inches)	Nominal Capacity Btu/h		Air Flow Rate (CFM) (H/M/L[4])	Weight (lbs.)	Pipe Connections (inches, O.D.) (Liquid, Vapor)
			Cooling[3]	Heating[3]			
Wall Mounted–ART COOL™ Mirror 	073 SER2	36-1/16 x 6-1/2 x 11-1/8	7,500	8,500	247/212/141	25	1/4, 1/2
	093 SER2		9,600	10,900	282/247/177		
	123 SER2		12,300	13,600	353/283/212		
	153 SER2		15,400	17,100	371/283/212		
	183 S8R2	43-5/8 x 7-7/8 x 11-13/16	19,100	21,500	508/459/388	34	
	243 S8R2		24,200	27,300	632/508/424		3/8, 5/8
Wall Mounted–Standard 	073 SEL2	35-1/4 x 6-1/2 x 11-1/8	7,500	8,500	198/177/163	20	1/4, 1/2
	093 SEL2		9,600	10,900	247/230/212		
	123 SEL2		12,300	13,600	336/318/300		
	153 SEL2		15,400	17,100	371/318/300		
	183 S5L2	42-15/16 x 7 x 11-13/16	19,100	21,500	424/371/318	27	
	243 S5L2		24,200	27,300	494/459/353		3/8, 5/8
Ceiling Cassette–1 Way 	073 TJC2	Body: 33-7/8 x 16-3/16 x 5-7/16 Panel: 42-1/8 x 18-7/8 x 13/16	7,500	8,500	265/229/212	Body: 26 Panel: 3	1/4, 1/2
	093 TJC2		9,600	10,900	265/229/212		
	123 TJC2		12,300	13,600	283/247/212		
Ceiling Cassette–2 Way 	183 TLC2	Body: 32-11/16 x 21-5/8 x 8-7/8 Panel: 41-5/16 x 25-3/16 x 1-5/8	19,100	21,500	459/424/353	Body: 49 Panel: 9	
	243 TLC2		24,200	27,300	601/530/459		3/8, 5/8
Ceiling Cassette–4 Way (2' x 2') 	053 TRC2	Body: 22-7/16 x 22-7/16 x 8-7/16 Panel: 27-9/16 x 27-9/16 x 7/8	5,500	6,100	265/247/212	Body: 29 Panel: 5	1/4, 1/2
	073 TRC2		7,500	8,500	265/247/212		
	093 TRC2		9,600	10,900	283/265/251	Body: 32 Panel: 5	
	123 TRC2		12,300	13,600	307/283/247		
	153 TQC2	Body: 22-7/16 x 22-7/16 x 10-3/32 Panel: 27-9/16 x 27-9/16 x 7/8	15,400	17,100	388/353/328	Body: 35 Panel: 6	
	183 TQC2		19,100	21,500	396/388/353		
Ceiling Cassette–4 Way (3' x 3') 	093 TPAA	Body: 33-1/16 x 33-1/16 x 9-11/16 Panel: 37-3/8 x 37-3/8 x 1-7/16	9,600	10,900	484/424/364	Body: 52 Panel: 10	3/8, 5/8
	123 TPAA		12,300	13,600	484/424/364		
	153 TPAA		15,400	17,100	600/530/470		
	183 TNAA	Body: 33-1/16 x 33-1/16 x 11-5/16 Panel: 37-3/8 x 37-3/8 x 1-7/16	19,100	21,500	685/600/530	Body: 57 Panel: 10	
	243 TNAA		24,200	27,300	897/812/742		
	283 TMAA	Body: 33-1/16 x 33-1/16 x 11-5/16 Panel: 37-3/8 x 37-3/8 x 1-7/16	28,000	31,500	812/742/636	Body: 61 Panel: 13	
	363 TMAA		36,200	40,600	918/812/706		
	243 TPC2	Body: 33-1/16 x 33-1/16 x 8 Panel: 37-3/8 x 37-3/8 x 1-7/16	24,200	27,300	600/529/459	Body: 46 Panel: 10	
	283 TPC2		28,000	31,500	671/565/494		
	363 TNC2	Body: 33-1/16 x 33-1/16 x 9-5/8 Panel: 37-3/8 x 37-3/8 x 1-7/16	36,200	40,600	883/742/671	Body: 52 Panel: 10	
	423 TMC2	Body: 33-1/16 x 33-1/16 x 11-5/16 Panel: 37-3/8 x 37-3/8 x 1-7/16	42,000	43,800	1059/954/848	Body: 57 Panel: 10	
	483 TMC2		48,100	51,200	1095/1024/954		

[1]All indoor units require 208–230V/60Hz/1Ph and an AWG18-2 communication cable.
[2]Model # shows nominal capacity and frame size designator.
[3]Nominal cooling capacity rating obtained with air entering the indoor unit at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB) and 75ºF wet bulb (WB). Nominal heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and 60° F wet bulb (WB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
[4]H/M/L = High/Medium/Low

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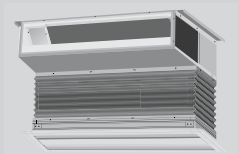
Table 2: Summary Data—Recessed Mounted Indoor Units

Unit/Type[1]	ARNU*****[2]	Dimensions (W x D x H) (inches)	Nominal Capacity Btu/h		Air Flow Rate (CFM) (H/M/L[4])	Weight (lbs.)	Pipe Connections (inches, O.D.) (Liquid, Vapor)	ESP (inches)
			Cooling[3]	Heating[3]				
Ducted High Static 	073 BHA2	34-3/4 x 17-3/4 x 10-1/4	7,500	8,500	300/265/212	58	1/4, 1/2	0.31
	093 BHA2		9,600	10,900	353/300/265			
	123 BHA2		12,300	13,600	424/353/300			
	153 BHA2		15,400	17,100	477/424/300			
	183 BHA2		19,100	21,500	547/477/438	59		
	243 BHA2		24,200	27,300	646/597/547		3/8, 5/8	
	153 BGA2	46-1/2 x 23-5/8 x 15	15,400	17,100	487/417/293	84		0.39
	183 BGA2		19,100	21,500	537/487/417			
	243 BGA2		24,200	27,300	671/537/487			
	283 BGA2		28,000	31,500	915/851/770			
	363 BGA2		36,200	40,600	1,141/1,024/894			
	423 BGA2		42,000	43,800	1,218/1,141/1,084			
	283 BRA2	48-1/2 x 23-5/8 x 15	28,000	31,500	1,278/1,134/1,007	117		0.55
	363 BRA2		36,200	40,600	1,381/1,176/1,049			
	483 BRA2		48,100	51,200	1,582/1,434/1,176			
	543 BRA2		54,000	61,400	1,801/1,582/1,434			
	763 B8A2	61-3/4 x 27-1/8 x 18-1/8	76,400	86,000	2,119/1,766/1,766	192	3/8, 3/4	0.86
	963 B8A2		95,900	107,500	2,542/2,260/2,260		3/8, 7/8	
Ducted low Static - Convertible 	073 B1G2	32-5/8 x 22-5/8 x 7-1/2	7,500	8,500	300/265/229	47	1/4, 1/2	0.08
	093 B1G2		9,600	10,900	335/300/265			
	123 B1G2		12,300	13,600	371/335/300			
	153 B1G2		15,400	17,100	406/371/335			
	183 B2G2	43-5/16 x 21-3/4 x 7-1/2	19,100	21,500	565/494/424	58		
	243 B2G2		24,200	27,300	671/600/530		3/8. 5/8	
Ducted Low Static - Bottom Return 	073 B3G2	32-1/2 x 23-3/8 x 7-1/2	7,500	8,500	283/229/194	47	1/4, 1/2	
	093 B3G2		9,600	10,900	318/247/212			
	123 B3G2		12,300	13,600	353/283/229			
	153 B3G2		15,400	17,100	388/353/283			
	183 B4G2	46-7/16 x 22-5/8 x 7-1/2	19,100	21,500	494/424/353	58		
	243 B4G2		24,200	27,300	600/530/353		3/8, 5/8	

[1]All indoor units require 208–230V/60Hz/1Ph and an AWG18-2 communication cable.
[2]Model # shows nominal capacity and frame size designator.
[3]Nominal cooling capacity rating obtained with air entering the indoor unit at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB) and 75ºF wet bulb (WB). Nominal heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and 60° F wet bulb (WB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
[4]H/M/L = High/Medium/Low

GENERAL DATA

Specifications

Table 2 Continued

Unit/Type[1]	ARNU*****[2]	Dimensions (W x D x H) (inches)	Nominal Capacity Btu/h		Air Flow Rate (CFM) (H/M/L[4])	Weight (lbs.)	Pipe Connections (inches, O.D.) (Liquid, Vapor)	ESP (inches)
			Cooling[3]	Heating[3]				
Vertical/Horizontal Air Handling Unit 	123 NJA2	18 x 21-1/4 x 48-11/16	12,000	13,500	480/480/380	117	1/4, 1/2	0.5
	183 NJA2		18,000	20,000	530/480/380			
	243 NJA2		24,000	27,000	710/640/480		3/8, 5/8	
	303 NJA2		30,000	34,000	880/800/630			
	363 NJA2		36,000	40,000	990/880/800	121		
	423 NKA2	25 x 21-1/4 x 55-3/16	42,000	46,000	1250/1100/1100	165		
	483 NKA2		48,000	54,000	1400/1260/1000			
	543 NKA2		54,000	60,000	1475/1400/1260			

[1]All indoor units require 208–230V/60Hz/1Ph and an AWG18-2 communication cable.
[2]Model # shows nominal capacity and frame size designator.
[3]Nominal cooling capacity rating obtained with air entering the indoor unit at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB) and 75ºF wet bulb (WB).
Nominal heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and 60° F wet bulb (WB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
[4]H/M/L = High/Medium/Low

Table 3: Summary Data—Surface Mounted/Floor Standing Indoor Units

Unit/Type[1]	ARNU****[2]	Dimensions (W x D x H) (inches)	Nominal Capacity Btu/h		Air Flow Rate (CFM) (H/M/L[4])	Weight (lbs.)	Pipe Connections (inches, O.D.) (Liquid, Vapor)
			Cooling[3]	Heating[3]			
Ceiling Suspended 	183VJA2	37-7/16 x 8-11/16 x 25-5/8	19,100	21,500	565/495/424	55	1/4, 1/2
	243VJA2		24,200	27,300	636/565/495		3/8, 5/8
Convertible Surface Mounted 	093VEA2	35-7/16 x 7-7/8 x 19-5/16	9,600	10,900	268/243/219	31	1/4, 1/2
	123VEA2		12,300	13,600	325/268/244		
Floor Standing – with Case 	073 CEA2	42 x 8 x 25	7,500	8,500	300/265/229	60	1/4, 1/2
	093 CEA2		9,600	10,900	335/300/265		
	123 CEA2		12,300	13,600	371/335/300		
	153 CEA2		15,400	17,100	406/353/335		
	183 CFA2	52-15/16 x 8 x 25	19,100	21,500	565/494/424	75	
	243 CFA2		24,200	27,300	635/565/494		3/8, 5/8
Floor Standing – without case 	073 CEU2	38-1/2 x 7-1/2 x 25-3/16	7,500	8,500	300/265/229	45	1/4, 1/2
	093 CEU2		9,600	10,900	335/300/265		
	123 CEU2		12,300	13,600	371/335/300		
	153 CEU2		15,400	17,100	406/353/335		
	183 CFU2	49-7/16 x 7-1/2 x 25-3/16	19,100	21,500	565/494/424	60	
	243 CFU2		24,200	27,300	635/565/494		3/8, 5/8

[1]All indoor units require 208–230V/60Hz/1Ph and an AWG18-2 communication cable.
[2]Model # shows nominal capacity and frame size designator.
[3]Nominal cooling capacity rating obtained with air entering the indoor unit at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB) and 75ºF wet bulb (WB).
Nominal heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and 60° F wet bulb (WB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
[4]H/M/L = High/Medium/Low

GENERAL DATA

Zone Controllers

Specifications

Table 4: Summary Data—Zone Controllers

Zone Controller	Name	Model No.	Case Color	Max Wire Length (ft)	Description
	Simple Controller with mode selection	PQRCVCL0Q	Black	164	Allows control of indoor unit on/off, operation mode, fan speed, and temperature setpoint for up to 16 indoor units.
		PQRCVCL0QW	White		
	Simple Controller without mode selection	PQRCHCA0Q	Black	164	Allows control of indoor unit on/off, fan speed, and temperature setpoint for up to 16 indoor units.
		PQRCHCA0QW	White		
	LG Programmable Thermostat	PREMTB10U	White	164	Allows control of indoor unit on/off, operation mode, occupied and unoccupied temperature setpoints, fan speed, and airflow direction for up to 16 indoor units. Programmable schedule with 5 events per day with control of occupied/unoccupied, on/off, mode, setpoints and fan speed. Advanced functions include two setpoint autochangeover, minimum difference between setpoints, setback and timed override.
	Wireless Handheld	PQWRHDF0	Ivory	----	Allows control of indoor unit on/off, operation mode, fan speed, and temperature setpoint. Also provides subfunction control.
	Wall-Mounted Remote Temperature Sensor	PQRSTA0	Ivory	50	Allows remote temperature measurement for cassette and ducted units.

Before specifying or placing an order, refer to the V-Net Network Solution Engineering Product Data Book and review the detailed technical data provided to fully understand the capabilities and limitations of these devices.
For information on controller compatibility refer to Table 9 - Controls and Options.

Table 5: Summary Data—Zone Controller Communication Cables

Communication Cable	Name	Model No.	Wire Length (ft)	Description
	Wired Remote Group Control Cable Assembly	PZCWRCG3	32	Required when grouping multiple indoor units with a single zone controller.
	Wired Remote/Group Control Extension Cable	PZCWRC1	32	Increases the distance between a remote controller and an indoor unit or between indoor units in a control group.

Before specifying or placing an order, refer to the V-Net Network Solution Engineering Product Data Book and review the detailed technical data provided to fully understand the capabilities and limitations of these devices.
For information on controller compatibility refer to Table 9 - Controls and Options.

Table 6: Summary Data—Speciality Application Devices

Speciality Application Device	Name	Model No.	Connect to	Application	Binary Signals Input/ Output	Description
	Dry Contact Unit 24 VAC	PQDSB1	Indoor Unit	On/Off, Run Status, Error Status	1/2	Enables the indoor unit to be controlled and monitored by third party controls using binary inputs and outputs.
	Dry Contact Unit for Setback	PQDSBC		On/Off, Mode, Controller Lock, Power Save, Run Status, Error Status	2/2	
	Dry Contact Unit for Thermostat	PQDSBNGCM1		On/Off, Thermo On/ Off, Mode, Fan Speed, Run Status, Error Status	---	Enables the indoor unit to be controlled and monitored by a third party thermostat or controller.
	Digital Output (DO) Kit	PQNFP00T0	Comm Bus	On/Off	0/1	One 25 amp DPST normally open relay. Used with central controller to control third party device manually or by schedule.
	Auxiliary Heater Relay Kit	PRARH0	Indoor Unit	Third party supplemental heat control	0/1	Adds coordinated control of an external heater with normal heat pump operations. Contact energizes at 2.7°F below setpoint. De-energizes at 2.7°F above setpoint.
		PRARS0				
	Power Distribution Indicator (PDI) Premium	PQNUD1S41	Comm Bus	Energy consumption monitoring	8 / 0	Monitors total outdoor unit power consumption for up to eight systems, and distributes per indoor unit based on weighted calculation.
	Mode Selector Switch	PRDSBM	Outdoor Unit	Multi V Heat Pump Only	---	Locks outdoor unit into Heat, Cool, or Fan Mode.

Before specifying or placing an order, refer to the V-Net Network Solution Engineering Product Data Book and review the detailed technical data provided to fully understand the capabilities and limitations of these devices.
For information on controller compatibility refer to Table 9 - Controls and Options.

GENERAL DATA

Central Controllers

Specifications

Table 7: Summary Data—Central Controllers (connect to the outdoor unit terminals Internet A, Internet B)

Central Controller	Name	Model No.	Devices per Controller	Systems per Comm Bus	Devices per Comm Bus	No. of Comm Bus Ports	Binary Signals Input/ Output	Power, Conn	Description
	AC Smart Premium	PQCSW421E0A	128	16	128	1	2 DI / 2 DO	24 VAC	Provides scheduling, autochangeover, setback, remote controller lock, setpoint, range limit, run time limit, web access, email alarm notification, visual floorplan navigation, peak/demand control, software device interlocking, PDI integration, and AC Manager Plus integration advanced functionality in addition to basic unit control and monitoring.
	AC Ez	PQCSZ250S0	32	16	256	1	---	12 VDC, ODU	Provides for scheduling in addition to basic indoor unit control and monitoring.
	Advanced Control Platform(ACP) Standard	PQCPC22N1	256	16	64 (128 with PDI Premium)	4	2/2	24 VAC	Provides for scheduling, remote controller lock, setpoint range limit, web access, peak/demand control, PDI integration, and AC Manager Plus integration advanced functionality in addition to basic unit control and monitoring.
	Advanced Control Platform (ACP) Premium	PQCPC22A1	256	16	64 (128 with PDI Premium)		10/4	24 VAC	

Before specifying or placing an order, refer to the V-Net Network Solution Engineering Product Data Book and review the detailed technical data provided to fully understand the capabilities and limitations of these devices.
For information on controller compatibility refer to Table 9 - Controls and Options.

Table 8: Summary Data—Integration Solutions (connect to outdoor unit terminals Internet A, Internet B)

Integration Solution	Name	Model No.	Devices per Controller	Systems per Comm Bus	Devices per Comm Bus	No. of Comm Bus Ports	Power	Binary Signals Input/ Output	Description
	BACnet® Gateway	PQNFB17C1	256	16	64 (128 with PDI Premium)	4	24 VAC	10/4	Allow integration of LG equipment for control and monitoring by open protocol BACnet® and LonWorks® building automation and controls systems.
	LonWorks® Gateway	PLNWKB100	64	16	64	1	24 VAC	2/2	

Before specifying or placing an order, refer to the V-Net Network Solution Engineering Product Data Book and review the detailed technical data provided to fully understand the capabilities and limitations of these devices.
For information on controller compatibility refer to Table 9 - Controls and Options.

GENERAL DATA

Controls and Options

Table 9: Indoor Units—Controls and Options

	Feature	Wall Mounted—Standard Finish	Wall Mounted—ART COOL™ Mirror	1-Way Cassette	2-Way Cassette	4-Way Cassette		Ducted High Static
	Nominal Chassis Size (MBh)	7–24	7–24	7–12	18–24	5–18	24–48	7–96
Airflow	Air supply outlets	1	1	1	2	4	4	1
	Airflow direction (left/right)	manual / auto	auto					
	Auto airflow direction (up/down)	√	√	√	√	√	√	
	Fan speed (Heating mode)	3	3	4	4	4	4	3
	Fan speed (Cooling mode)	4	4	5	5	5	5	3
	Fan speed (fan mode)	3	3	4	4	4	4	3
	Chaos swing (random louver swing)	√	√					
	Chaos wind (random fan speed)	√	√	√	√	√	√	
	Jet-cool (power cooling)	√	√	√	√	√	√	
Operation	E.S.P. control			√	√	√	√	√
	High ceiling			√	√	√	√	
	Auto-restart after power restore	√	√	√	√	√	√	√
	Hot start	√	√	√	√	√	√	√
	Diagnostics	√	√	√	√	√	√	√
	Soft dry (dehumidification)	√	√	√	√	√	√	√
	Auto changeover[1]	√	√	√	√	√	√	√
	Auto operation[6]	√	√	√	√	√	√	√
	Auto clean (coil dry)	√	√					
	Child lock	√	√	√	√	√	√	√
	Forced operation	√	√	√	√	√	√	
	Group control – Requires the use of one Group control cable kit (PZCWRCG3) for every additional indoor unit	√	√	√	√	√	√	√
	Sleep mode	√	√	√	√	√	√	√
	Timer (on/off)	√	√	√	√	√	√	√
	Weekly schedule	√	√	√	√	√	√	√
	Two thermistor control	√	√	√	√	√	√	√
	Test operation mode	√	√	√	√	√	√	√
Filter	Plasma[3]	√	√	√	√	√	√	
	Washable anti-fungal[2]	√	√	√	√	√	√	√
Controllers	7-day programmable controller	o	o	o	o	o	o	o
	Simple controller w/mode	o	o	o	o	o	o	o
	Simple controller w/o mode	o	o	o	o	o	o	o
	Wireless hand held controller	o	o	o	o	o	o	o[4]
Others	Condensate lift			√	√	√	√	√
	Ventilation air			√		√[5]	√[5]	√
	Casing	√	√	√	√	√	√	
	Standard grille			√	√	√	√	
	Auto elevation grille						√[7]	
	Color panels		3					
	Suction grille							
	Suction canvas							
	Aux. heat kit							

[1]For Heat Recovery systems only.
[2]Primary washable filters.
[3]Secondary plasma filters.
[4]Requires 7-day programmable zone controller.
[5]Requires ventilation kit PTVK430 (For TR, TQ frames) or PTVK410+PTVK420 (For TP, TN, TM frames) (Temperature, humidity, and volume limitations apply).
[6]Heat Pump systems only.

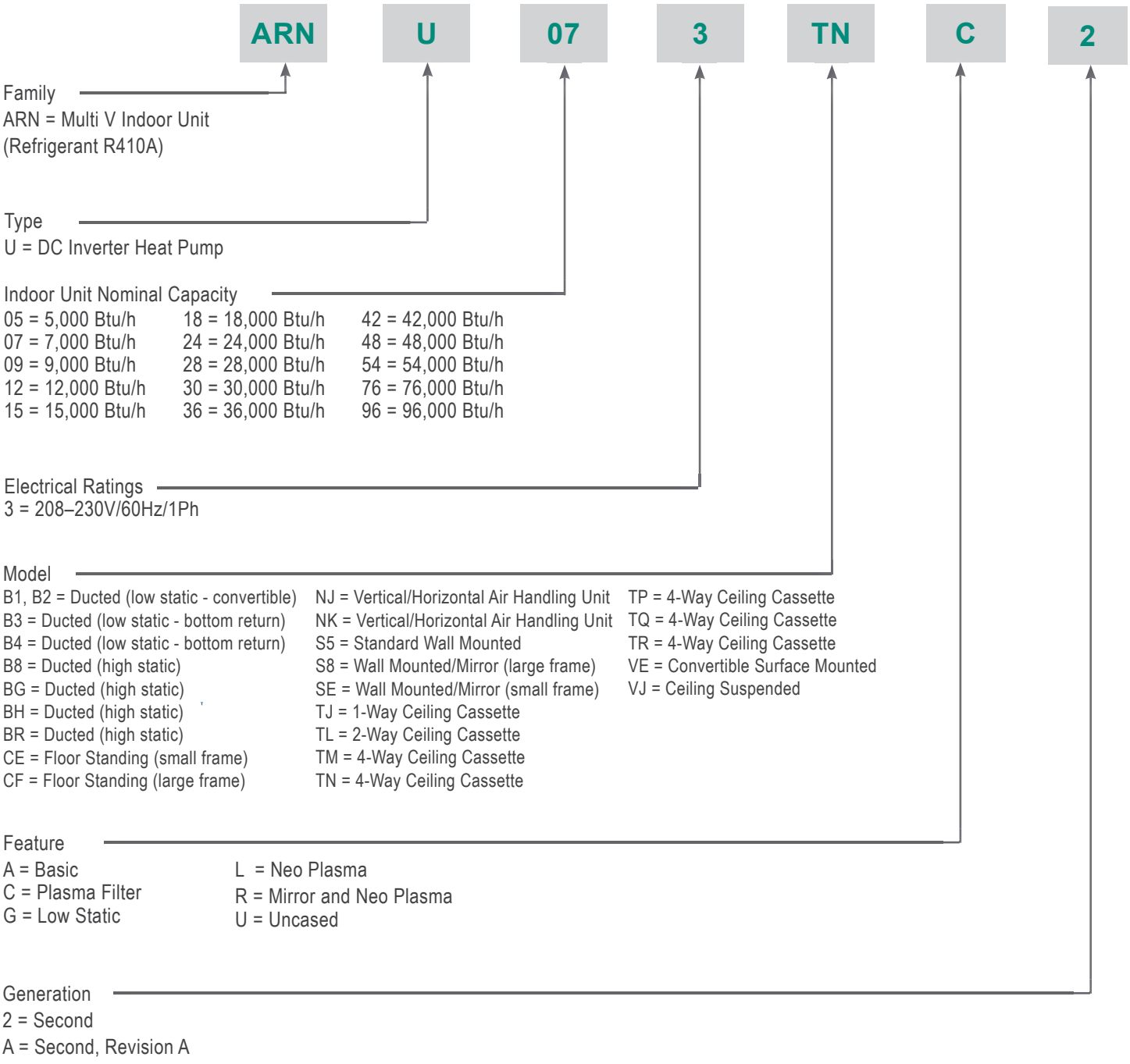
√ = Standard feature
o = Unit option

GENERAL DATA

Controls and Options

Ducted Low Static-Convertible	Ducted Low Static—Bottom Return	Vert.-Horiz. AHU (NJ)	Vert.-Horiz. AHU (NK)	Ceiling Suspended	Convertible Surface Mount	Floor Mount—Cased	Floor Mount—Uncased
7–24	7–24	12-36	42-53	18–24	9–12	7–24	7–24
1	1	1	1	1	1	1	1
				manual	manual		
				√	√		
3	3	3	3	3	3	3	3
3	3	3	3	4	4	3	3
3	3	3	3	3	3	3	3
				√	√		
				√	√		
√	√	√	√			√	√
				√	√		
√	√	√	√	√	√	√	√
√	√	√	√	√	√	√	√
√	√	√	√	√	√	√	√
√	√	√	√	√	√	√	√
√	√	√	√	√	√	√	√
√	√	√	√	√	√	√	√
√	√	√	√	√	√	√	√
				√	√		
√	√	√	√	√	√	√	√
√	√	√	√	√	√	√	√
√	√	√	√	√	√	√	√
√	√	√	√	√	√	√	√
√	√	√	√	√	√	√	√
		√	√				
√	√			√	√	√	√
o	o			o	o	o	o
o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o
o[4]	o[4]	o	o	o	o	o[4]	o[4]
√	√						
√	√						
				√	√	√	
	o						
	o						
		√	√				

UNIT NOMENCLATURE



WALL MOUNTED

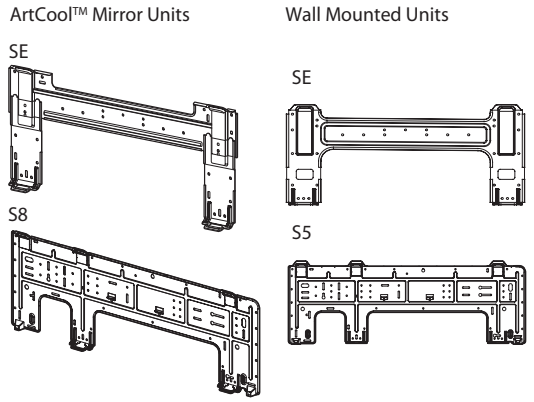
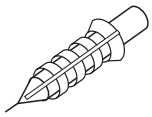
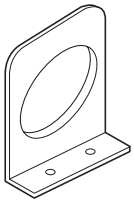
ACCESSORIES

Accessory	Model Number	Image
Silver Changeable Front Panel[1]	PSAPECV10 (7-15 MBh) PSAP8CV10 (18-24 MBh)	

[1]For use with Art Cool™ Mirror units.
All accessories are sold separately.

FACTORY SUPPLIED PARTS & MATERIALS

Factory Supplied Parts

Part	Quantity	Image
Installation Plate	1 Set	
Type “A” Screw	Wall Mounted Units - SE Models - 6 S5 Models - 8 Art Cool Mirror Units SE Models - 4 S8 Models - 4	
Plastic Anchors[1]	4	
Conduit Mounting Plate	1	

[1]Not supplied with standard wall mounted units.

Factory Supplied Materials

- Owner’s Manual
- Installation Manual

ART COOL™ MIRROR WALL MOUNTED

GENERAL DATA

Art Cool™ Mirror Wall Mounted Unit Specifications

ARNU073SER2, ARNU093SER2, ARNU123SER2

Table 10: Art Cool Mirror Unit General Data

Type	Art Cool Mirror		
	ARNU073SER2	ARNU093SER2	ARNU123SER2
Cooling Mode Performance			
Capacity (Btu/h)	7,500	9,600	12,300
Power Input[1] (W)	40	40	40
Heating Mode Performance			
Capacity (Btu/h)	8,500	10,900	13,600
Power Input[1] (W)	40	40	40
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	37/33/23	39/35/25	41/36/27
Net Unit Weight (lbs)	25	25	25
Shipping Weight (lbs)	29	29	29
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Cross Flow	Cross Flow	Cross Flow
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	247/212/141	282/247/177	353/283/212
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	1/4 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	1/2 Flare
Condensate Line (in, ID)	5/8	5/8	5/8

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.
[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Art Cool™ Mirror Wall Mounted Unit Specifications

ARNU153SER2, ARNU183S8R2, ARNU243S8R2

Table 11: Art Cool Mirror Unit General Data

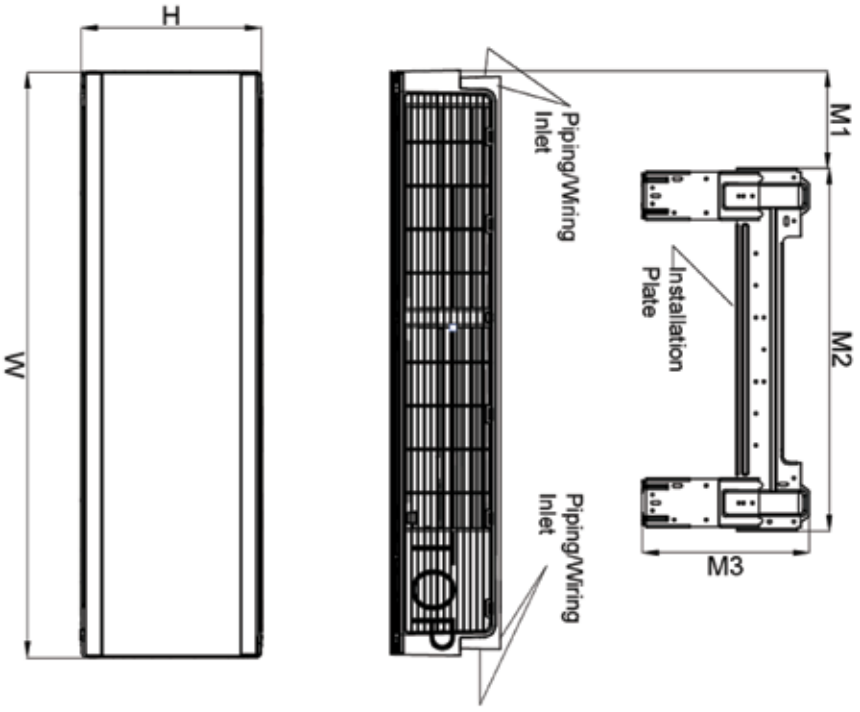
Type	Art Cool Mirror		
	ARNU153SER2	ARNU183S8R2	ARNU243S8R2
Cooling Mode Performance			
Capacity (Btu/h)	15,400	19,100	24,200
Power Input[1] (W)	40	35	35
Heating Mode Performance			
Capacity (Btu/h)	17,100	21,500	27,300
Power Input[1] (W)	40	35	35
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	42/36/27	37/34/31	43/37/32
Net Unit Weight (lbs)	25	34	34
Shipping Weight (lbs)	29	38	38
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Cross Flow	Cross Flow	Cross Flow
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	371/283/212	508/459/388	632/508/424
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	3/8 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	5/8 Flare
Condensate Line (in, ID)	5/8	5/8	5/8

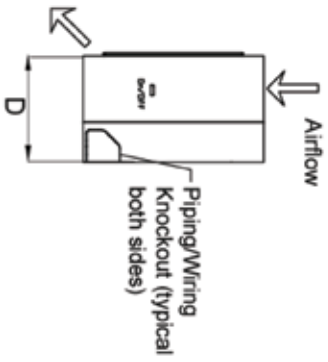
EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.
[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

SE Chassis



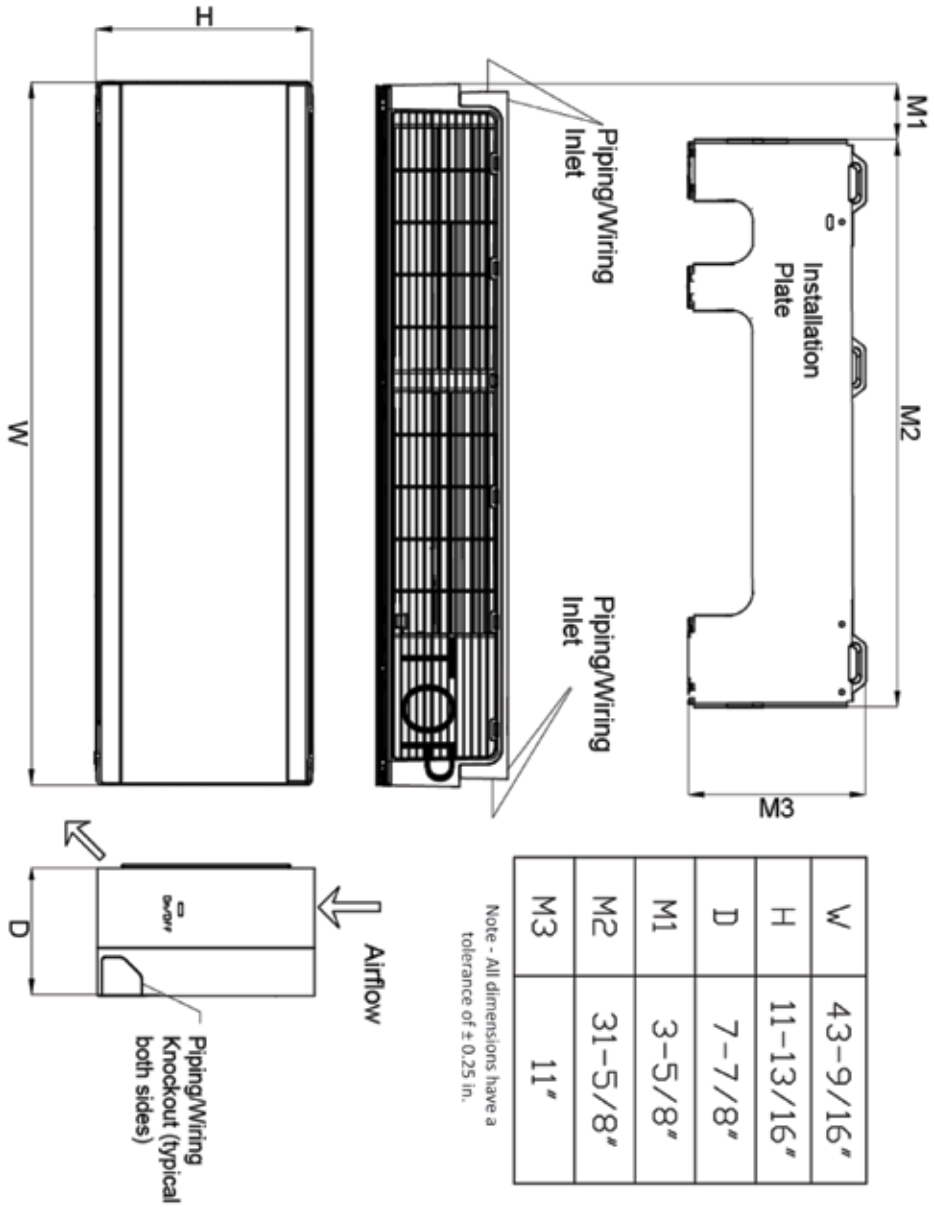


W	36-1/16"
H	11-1/8"
D	6-1/2"
M1	5-5/8"
M2	22-3/8"
M3	10-1/2"

Note - All dimensions have a tolerance of ± 0.25 in.

DIMENSIONS

S8 Chassis



W	H	D	M1	M2	M3
43-9/16″	11-13/16″	7-7/8″	3-5/8″	31-5/8″	11″

Note - All dimensions have a tolerance of ± 0.25 in.

PERFORMANCE DATA

Cooling Capacity

ARNU073SER2, ARNU093SER2

Table 12: ARNU073SER2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
25	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
30	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
35	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
40	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
45	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
50	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
55	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
60	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.6	5.6
65	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.5	5.5
70	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.3	5.5
75	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.1	5.3
80	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.7	5.6	8.9	5.3
85	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.3	5.7	8.4	5.4	8.6	5.1
90	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.2	5.6	8.3	5.3	8.4	5.0
95	5.0	4.1	6.0	4.7	6.8	5.0	**7.5**	**5.3**	8.0	5.5	8.2	5.3	8.3	5.0
100	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	7.9	5.5	8.0	5.2	8.2	4.9
105	5.0	4.1	5.7	4.5	6.5	4.8	7.2	5.1	7.4	5.1	7.7	5.0	7.9	4.8
110	4.8	4.0	5.4	4.2	6.0	4.5	6.8	4.8	6.9	4.8	7.4	4.8	7.7	4.7

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 13: ARNU093SER2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
25	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
30	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
35	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
40	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
45	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
50	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
55	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.3
60	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.3	7.2
65	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.1	7.1
70	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	11.9	7.0
75	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	11.6	6.8
80	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.1	7.2	11.3	6.8
85	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.7	7.3	10.8	6.9	10.9	6.5
90	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.5	7.1	10.6	6.8	10.8	6.4
95	6.3	5.2	7.7	6.0	8.6	6.4	**9.6**	**6.8**	10.3	7.1	10.5	6.7	10.7	6.4
100	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.1	7.0	10.3	6.7	10.5	6.3
105	6.3	5.2	7.3	5.7	8.3	6.1	9.2	6.5	9.4	6.5	9.9	6.5	10.1	6.2
110	6.1	5.1	6.9	5.4	7.7	5.7	8.6	6.1	8.8	6.1	9.4	6.1	9.8	6.0

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU123SER2, ARNU153SER2

Table 14: ARNU123SER2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
25	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
30	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
35	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
40	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
45	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
50	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
55	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
60	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.7	9.2
65	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.5	9.1
70	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.3	9.0
75	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	14.9	8.7
80	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.3	9.2	14.5	8.7
85	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.7	9.3	13.8	8.8	14.0	8.4
90	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.4	9.1	13.5	8.7	13.8	8.2
95	8.1	6.7	9.8	7.7	11.1	8.2	**12.3**	**8.7**	13.2	9.1	13.4	8.6	13.7	8.2
100	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	12.9	8.9	13.2	8.6	13.4	8.1
105	8.1	6.7	9.3	7.3	10.6	7.9	11.8	8.4	12.1	8.4	12.7	8.3	12.9	7.9
110	7.9	6.5	8.9	6.9	9.8	7.3	11.1	7.9	11.3	7.9	12.1	7.9	12.5	7.7

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 15: ARNU153SER2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
25	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
30	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
35	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
40	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
45	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
50	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
55	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
60	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.7	11.6
65	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.4	11.4
70	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.1	11.2
75	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	18.6	11.0
80	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	17.9	11.6	18.2	10.9
85	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.1	11.6	17.2	11.1	17.6	10.5
90	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	16.8	11.4	16.9	10.9	17.2	10.3
95	10.2	8.4	12.3	9.6	13.9	10.3	**15.4**	**10.9**	16.5	11.4	16.8	10.8	17.1	10.2
100	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	16.2	11.2	16.5	10.7	16.8	10.1
105	10.2	8.4	11.7	9.2	13.2	9.8	14.8	10.5	15.1	10.5	15.9	10.4	16.2	9.9
110	9.9	8.1	11.1	8.7	12.3	9.2	13.9	9.8	14.2	9.8	15.1	9.9	15.7	9.6

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU183S8R2, ARNU243S8R2

Table 16: ARNU183S8R2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
25	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
30	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
35	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
40	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
45	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
50	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
55	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
60	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.4	14.5
65	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.1	14.3
70	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	23.7	14.1
75	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	23.1	13.8
80	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.2	14.6	22.5	13.7
85	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.2	14.6	21.4	13.9	21.8	13.2
90	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	20.8	14.4	21.0	13.7	21.4	13.0
95	12.6	10.6	15.3	12.1	17.2	13.0	**19.1**	**13.8**	20.4	14.3	20.8	13.6	21.2	12.9
100	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	20.1	14.1	20.4	13.5	20.8	12.8
105	12.6	10.6	14.5	11.5	16.4	12.4	18.3	13.2	18.7	13.2	19.7	13.0	20.1	12.5
110	12.2	10.2	13.8	10.9	15.3	11.5	17.2	12.4	17.6	12.4	18.7	12.4	19.5	12.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 17: ARNU243S8R2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
25	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
30	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
35	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
40	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
45	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
50	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
55	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
60	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.0	18.4
65	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	30.5	18.1
70	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	30.0	17.9
75	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	29.3	17.5
80	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.1	18.4	28.6	17.4
85	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	26.9	18.5	27.1	17.6	27.6	16.7
90	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	26.4	18.2	26.6	17.4	27.1	16.4
95	16.0	13.4	19.4	15.4	21.8	16.4	**24.2**	**17.4**	25.9	18.1	26.4	17.2	26.9	16.3
100	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	25.4	17.8	25.9	17.1	26.4	16.2
105	16.0	13.4	18.4	14.6	20.8	15.7	23.2	16.7	23.7	16.7	24.9	16.5	25.4	15.8
110	15.5	13.0	17.4	13.8	19.4	14.6	21.8	15.7	22.3	15.7	23.7	15.7	24.7	15.3

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 18: ARNU073SER2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	5.7	5.7	5.7	5.7	5.6	5.6	5.6	5.6
0	-0.4	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8
5.0	4.5	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5
10.0	9.0	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8
15.0	14.0	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.1
20.0	19.0	7.7	7.7	7.7	7.7	7.5	7.5	7.4	7.3
25.0	23.0	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.7
30.0	28.0	8.2	8.2	8.2	8.2	8.2	8.1	7.8	7.6
35.0	32.0	8.5	8.5	8.5	8.5	8.4	8.2	7.8	7.4
40.0	36.0	8.8	8.8	8.8	8.8	8.5	8.2	7.8	7.4
45.0	41.0	9.2	9.2	9.2	8.9	8.5	8.2	7.8	7.4
47.0	43.0	9.5	9.4	9.4	8.9	**8.5**	8.2	7.8	7.4
50.0	46.0	10.2	9.8	9.4	8.9	8.5	8.2	7.8	7.4
55.0	51.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4
60.0	56.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4

TC: Total Capacity (MBh)

Table 19: ARNU093SER2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0	-0.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
5.0	4.5	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.3
10.0	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
15.0	14.0	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.2
20.0	19.0	9.9	9.9	9.9	9.9	9.7	9.7	9.5	9.4
25.0	23.0	10.4	10.4	10.4	10.4	10.4	10.1	10.0	9.9
30.0	28.0	10.6	10.6	10.6	10.6	10.6	10.4	10.0	9.7
35.0	32.0	10.9	10.9	10.9	10.9	10.8	10.6	10.0	9.5
40.0	36.0	11.3	11.3	11.3	11.3	10.9	10.6	10.0	9.5
45.0	41.0	11.8	11.8	11.8	11.4	10.9	10.6	10.0	9.5
47.0	43.0	12.2	12.1	12.0	11.4	**10.9**	10.6	10.0	9.5
50.0	46.0	13.1	12.5	12.0	11.4	10.9	10.6	10.0	9.5
55.0	51.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5
60.0	56.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5

TC: Total Capacity (MBh)

Table 20: ARNU123SER2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
0	-0.4	9.4	9.4	9.4	9.4	9.4	9.2	9.2	9.2
5.0	4.5	10.6	10.5	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9
15.0	14.0	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.4
20.0	19.0	12.4	12.4	12.4	12.4	12.1	12.1	11.9	11.7
25.0	23.0	12.9	12.9	12.9	12.9	12.9	12.6	12.5	12.4
30.0	28.0	13.2	13.2	13.2	13.2	13.2	12.9	12.5	12.1
35.0	32.0	13.6	13.6	13.6	13.6	13.5	13.2	12.5	11.9
40.0	36.0	14.1	14.1	14.1	14.1	13.6	13.2	12.5	11.9
45.0	41.0	14.7	14.7	14.7	14.3	13.6	13.2	12.5	11.9
47.0	43.0	15.2	15.1	15.0	14.3	**13.6**	13.2	12.5	11.9
50.0	46.0	16.4	15.6	15.0	14.3	13.6	13.2	12.5	11.9
55.0	51.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9
60.0	56.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU153SER2, ARNU183S8R2, ARNU243S8R2

Table 21: ARNU153SER2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	11.5	11.5	11.5	11.5	11.3	11.3	11.3	11.3
0	-0.4	11.8	11.8	11.8	11.8	11.8	11.6	11.6	11.6
5.0	4.5	13.3	13.2	13.0	13.0	13.0	13.0	13.0	13.0
10.0	9.0	13.9	13.9	13.9	13.7	13.7	13.7	13.7	13.7
15.0	14.0	14.7	14.7	14.7	14.7	14.7	14.7	14.5	14.4
20.0	19.0	15.6	15.6	15.6	15.6	15.2	15.2	15.0	14.8
25.0	23.0	16.2	16.2	16.2	16.2	16.2	15.9	15.7	15.6
30.0	28.0	16.6	16.6	16.6	16.6	16.6	16.2	15.7	15.2
35.0	32.0	17.1	17.1	17.1	17.1	16.9	16.6	15.7	14.9
40.0	36.0	17.8	17.8	17.8	17.8	17.1	16.6	15.7	14.9
45.0	41.0	18.5	18.5	18.5	18.0	17.1	16.6	15.7	14.9
47.0	43.0	19.2	19.0	18.8	18.0	**17.1**	16.6	15.7	14.9
50.0	46.0	20.6	19.7	18.8	18.0	17.1	16.6	15.7	14.9
55.0	51.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9
60.0	56.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9

TC: Total Capacity (MBh)

Table 22: ARNU183S8R2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

Table 23: ARNU243S8R2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

Electrical Data

Table 24: Art Cool™ Mirror Wall Mounted Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU073SER2	187-253	0.29	15	0.3	60	208-230V	1	40	40
ARNU093SER2		0.29	15	0.3				40	40
ARNU123SER2		0.29	15	0.3				40	40
ARNU153SER2		0.29	15	0.3				40	40
ARNU183S8R2		0.29	15	0.3				35	35
ARNU243S8R2		0.29	15	0.3				35	35

MCA : Minimum Circuit Ampacity MOP : Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 25: Art Cool™ Mirror Wall Mounted Unit Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU073SER2	37	33	23
ARNU093SER2	39	35	25
ARNU123SER2	41	36	27
ARNU153SER2	42	36	27
ARNU183S8R2	37	34	31
ARNU243S8R2	43	37	32

Figure 1: ARNU073SER2

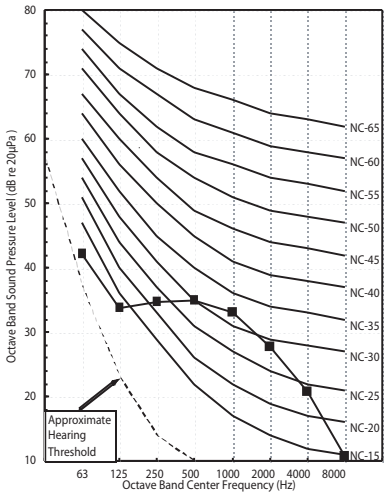


Figure 2: ARNU093SER2

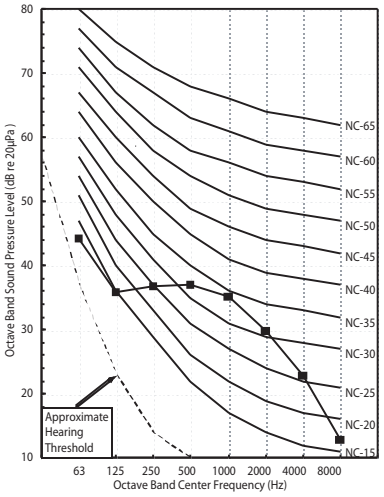
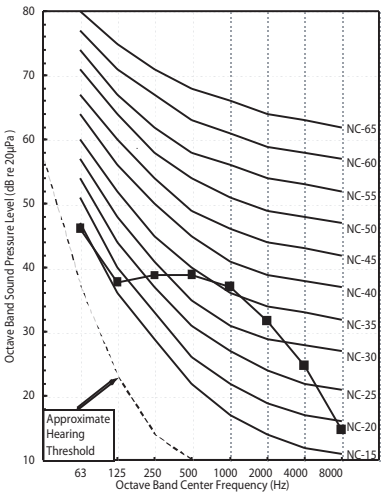


Figure 3: ARNU123SER2



ACOUSTIC DATA

SE, S8 Chassis

Figure 4: ARNU153SER2

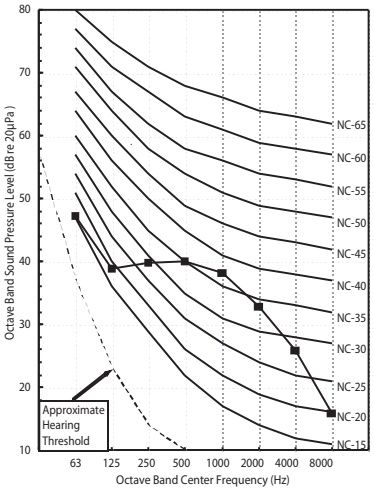


Figure 5: ARNU183S8R2

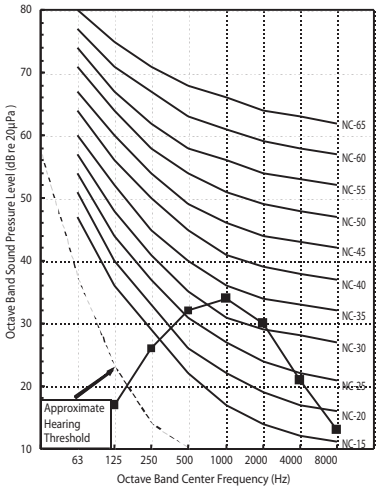
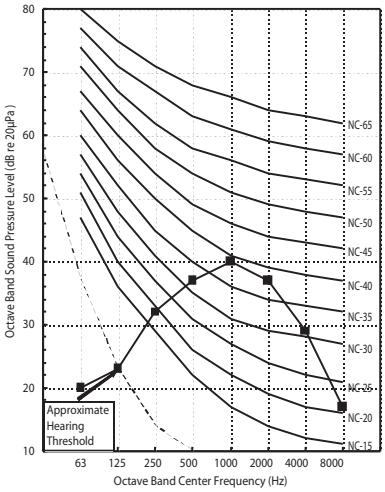


Figure 6: ARNU243S8R2



- Measurements are taken 3.3 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions :

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 7: Sound Levels

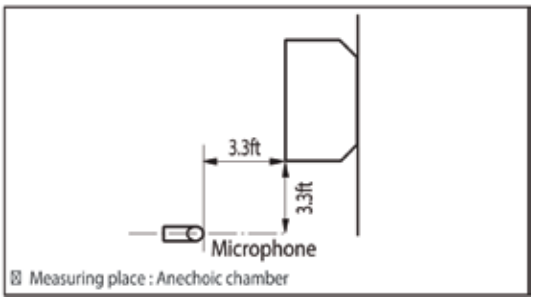


Figure 8: SE, S8 Chassis Piping Diagram

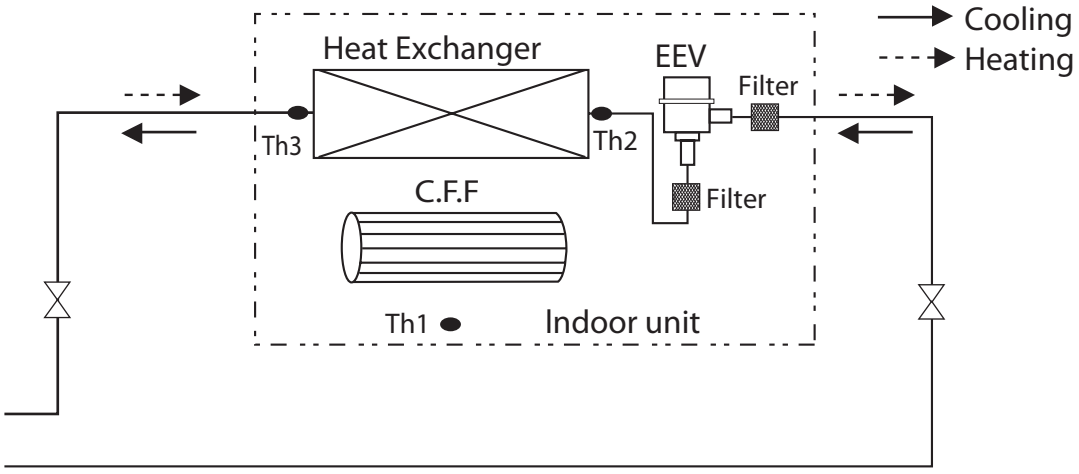


Table 26: SE, S8 Chassis Refrigerant Pipe Connection Port Diameters

Model	Liquid (inch)	Gas (inch)
ARNU073SER2	1/4	1/2
ARNU093SER2	1/4	1/2
ARNU123SER2	1/4	1/2
ARNU153SER2	1/4	1/2
ARNU183S8R2	1/4	1/2
ARNU243S8R2	3/8	5/8

LOC.	Description	PCB Connector
Th1	Return air thermistor	CN-TH1
Th2	Pipe in thermistor	
Th3	Pipe out thermistor	CN-TH2

WIRING DIAGRAMS

SE, S8 Chassis

Figure 9: SE, S8 Chassis Wiring Diagram

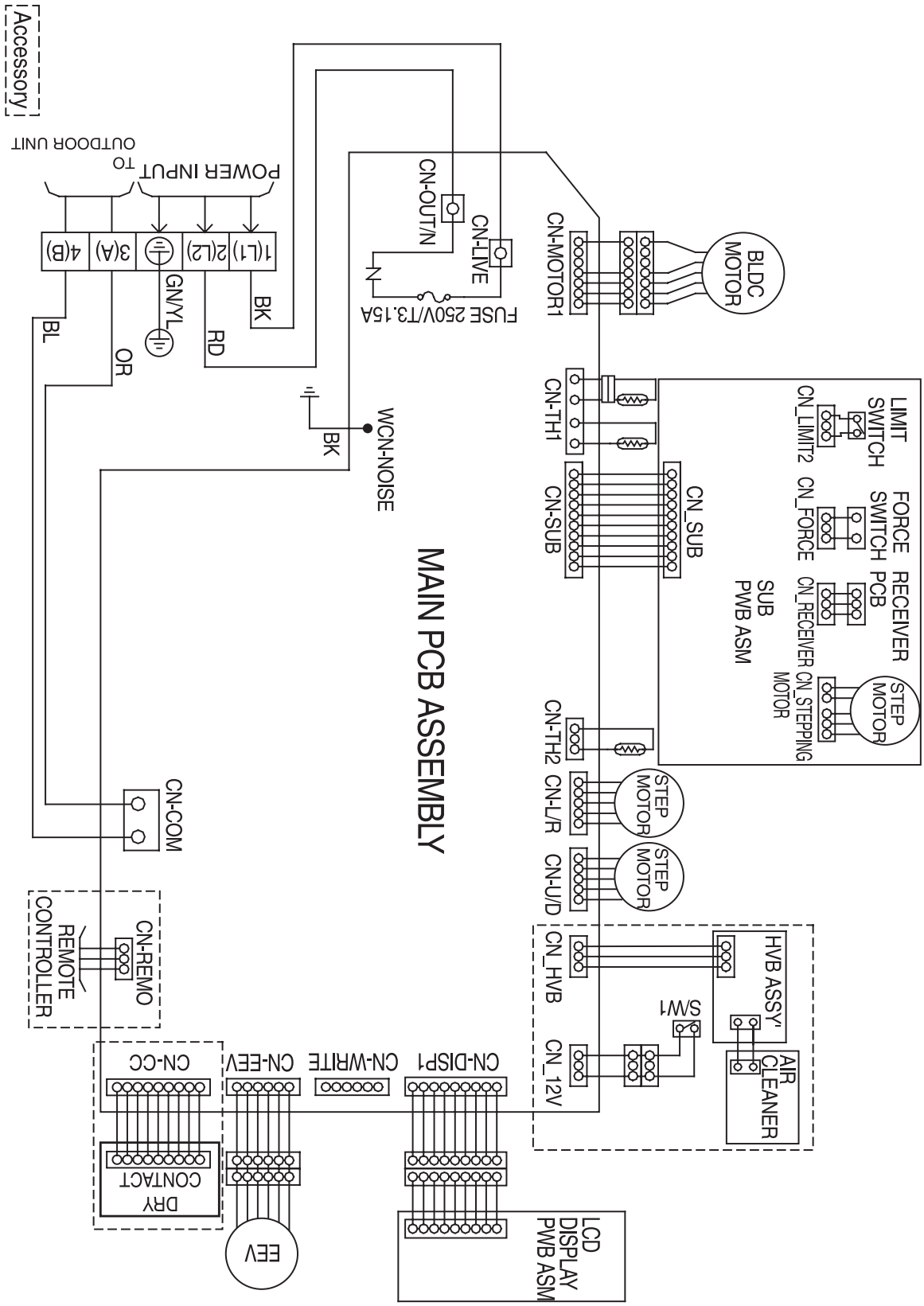
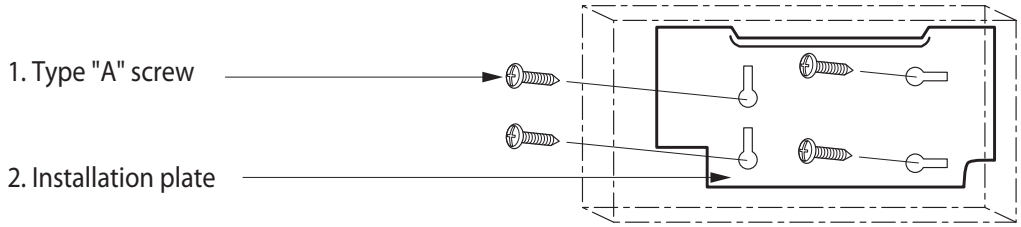


Table 27: SE, S8 Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV output	EEV control output
CN-L/R	Step motor	Step motor output for left/right
CN-U/D	Step motor	Step motor output
CN-TH1	Room/pipe sensor	Room & pipe thermistor
CN-TH2	Discharge pipe sensor	Discharge pipe thermistor
CN-SUC	Step motor (front)	Front panel step motor
CN-HVB	Air purifier	Air purifier output
CN-VFD	Display	Display of indoor status
CN-12V	Safety connection	Safety of indoor status
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-HVB	Air clean	Air clean control

Figure 10: Installation Parts

Installation Parts Provided



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Spanner (Half union)
- Thermometer

Required Parts

- Installation plate
- Type “A” screws
- Plastic anchors
- Conduit mounting plate
- Pipes - vapor line and liquid line (field provided)

⚠WARNING

- *Please read all instructions before installing the product.*
- *When the power cord is damaged, all replacement work must be performed by authorized personnel only.*
- *Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.*

Selecting the Best Location

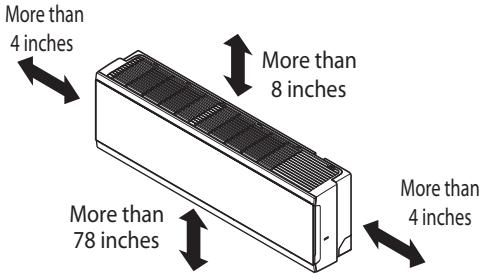
Do’s

- Place the unit where air circulation will not be blocked.
- Place the unit where drainage can be obtained easily.
- Place the unit where noise prevention is taken into consideration.
- Ensure there is sufficient space from the ceiling board and floor.
- Ensure there is sufficient maintenance space.

Don’ts

- The unit should not be near a heat source or steam.
- The air circulation should not be blocked by obstacles.
- Do not install the unit near a doorway.

Figure 11: Selecting the Best Location



INSTALLATION & BEST LAYOUT PRACTICES

Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing unit in places where cooking oil or iron powder is generated.
- Avoid installing unit where flammable gas is generated, flows, stored or vented.
- Avoid installing where sulfurous acid gas or corrosive gas is generated.
- Avoid installing unit near high frequency generators.

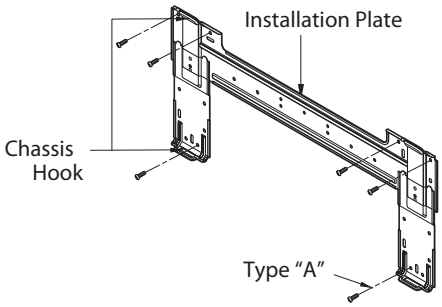
Mounting

The mounting wall should be strong and solid enough to protect the unit from vibration.

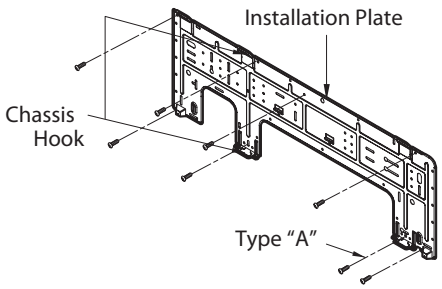
- Mount the installation plate on the wall using 4 type “A” screws. If mounting the unit on concrete, consider using anchor bolts.
- Always mount the installation plate horizontally by aligning the marking-off line using a thread and a level.

Figure 12: Mounting Installation Plate

SE chassis



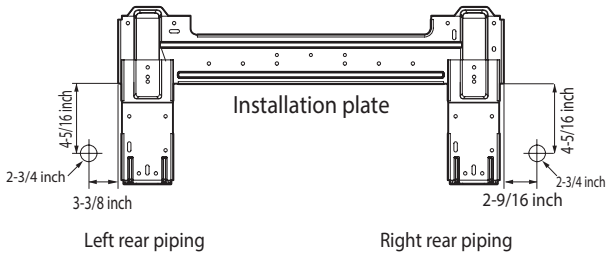
S8 chassis



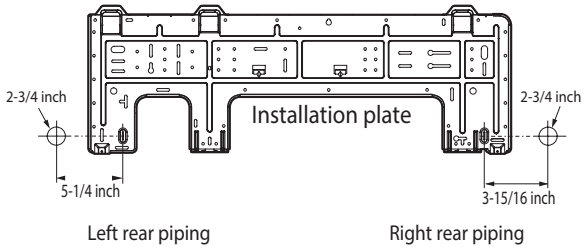
Installation Plates

Figure 13: Installation Plates

SE chassis



S8 chassis



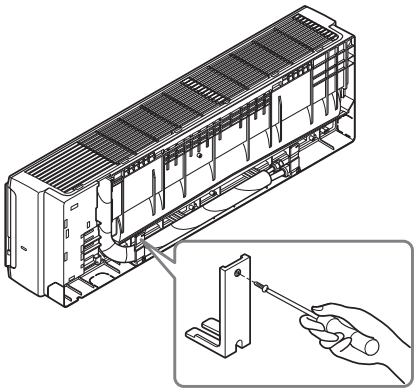
⚠WARNING

If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

Preparing for Installation

- Prepare the unit's piping and drain hose for installation through the wall.
- Remove the plastic tubing retainer (see illustration below) and pull the tubing and drain hose away from chassis.
- Replace the plastic tubing holder in the original position.

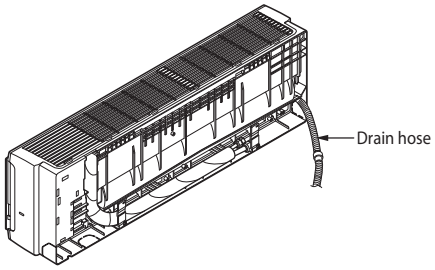
Figure 14: Installation Preparation



Right Rear Piping

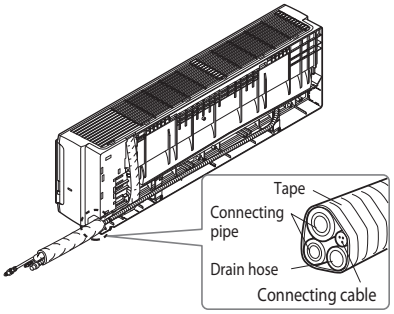
1. Route the indoor tubing and the drain hose to the required piping hole position.

Figure 15: Routing Tubing and Drain Hose



2. Insert the connecting cable into the indoor unit from the outdoor unit through the piping hole. Do not connect the cable to the indoor unit.
3. Make a small loop with the cable for easy connection later.
4. Tape the tubing, drain hose and the connecting cable. Be sure that the drain hose is located at the lowest side of the bundle.

Figure 16: Taping Piping

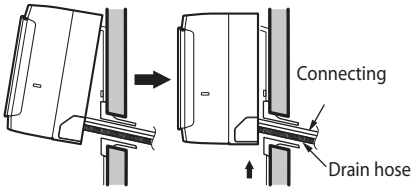


If the drain hose is routed inside insulate the hose with an insulation material (foamed polyethylene or equivalent is recommended) so that condensation does not damage furniture or floors.

Indoor Unit Installation

1. Hook the indoor unit onto the upper portion of the installation plate. Ensure that the hooks are properly seated on the installation plate by moving it left and right.

Figure 17: Installation

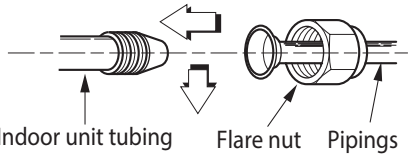


2. Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots (clicking sound).

Connecting Piping

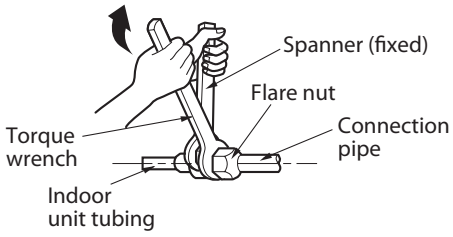
1. Align the center of the pipe and tighten the flare nut by hand.

Figure 18: Aligning Piping



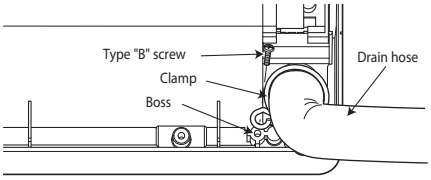
2. Tighten the flare nut with a wrench.

Figure 19: Tightening Flare Nut



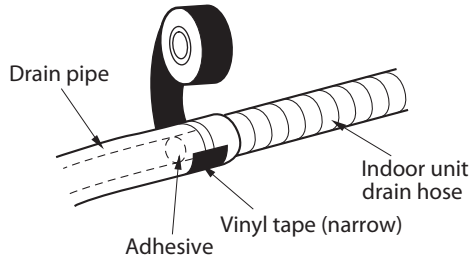
3. Mount the clamp on the boss with a type "B" screw (optional).

Figure 20: Mounting Clamp



4. When extending the drain hose from the indoor unit, install the drain pipe.

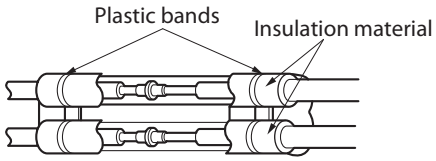
Figure 21: Drain Hose



Insulation Material

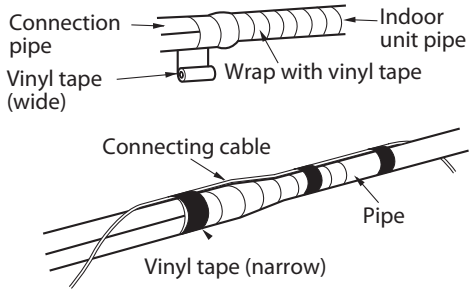
1. Overlap the connection pipe, pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape to prevent a gap.
2. Using vinyl tape, wrap the area which accommodates the rear piping housing section.

Figure 22: Insulation Material



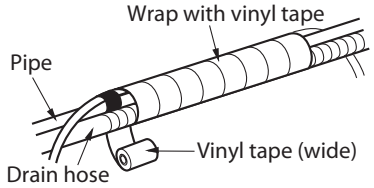
3. Using vinyl tape, wrap the area which accommodates the rear piping housing section.

Figure 23: Housing Section



4. Using vinyl tape, bundle the piping and drain hose together over the range where they fit into the rear piping housing section.

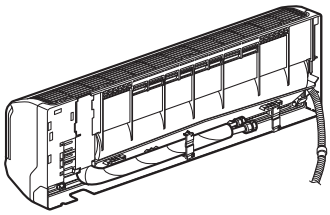
Figure 24: Bundling Piping



Left Rear Piping

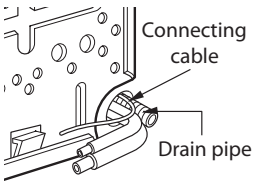
1. Route the indoor tubing and the drain hose to the required piping hole position.

Figure 25: Routing Tubing



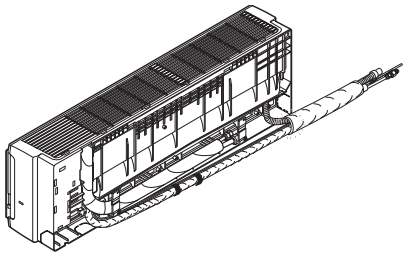
2. Insert the piping, drain hose and the connecting cable into the piping hole.

Figure 26: Connecting Piping



3. Insert the connecting cable into the indoor unit. Do not connect the cable to the indoor unit.
4. Make a small loop with the cable for easy connection later.
5. Tape the drain hose and the connecting cable.

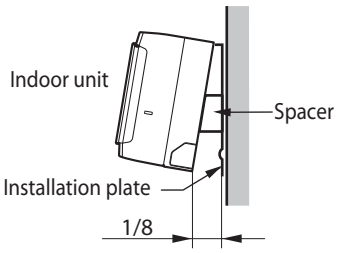
Figure 27: Connecting Cable



Indoor Unit Installation

1. Hang the indoor unit from the hooks at the top of the installation plate.
2. Insert the spacer between the indoor unit and the installation plate and separate the bottom of the indoor unit from the wall.

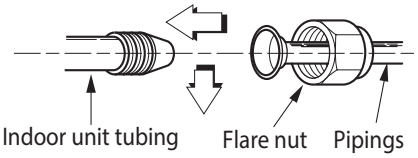
Figure 28: Installation



Connecting Piping

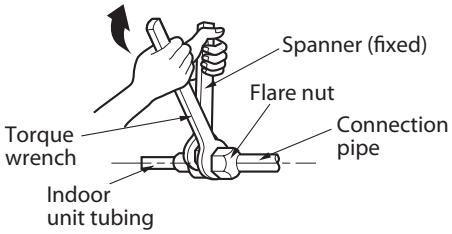
1. Align the center of the piping and tighten the flare nut by hand.

Figure 29: Aligning Piping



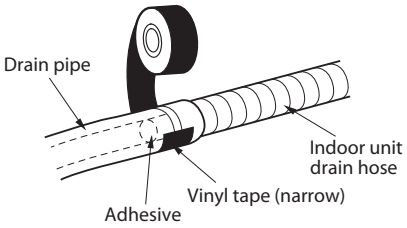
2. Tighten the flare nut with a wrench.

Figure 30: Tightening Flare Nut



3. When extending the drain hose from the indoor unit, install the drain pipe.

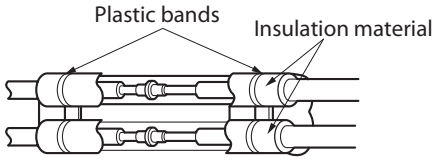
Figure 31: Drain Hose



Insulation Material

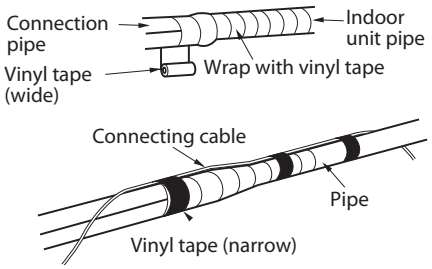
1. Overlap the connection pipe heat insulation and the indoor unit pipe heat insulation material. Bind them together with vinyl tape to prevent a gap.

Figure 32: Insulation Material



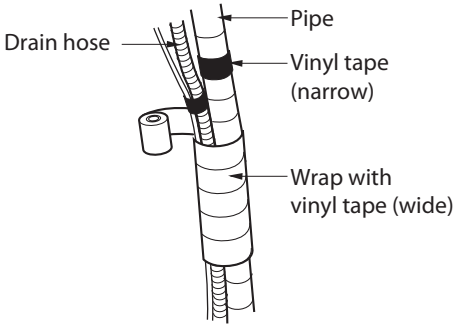
2. Using vinyl tape, wrap the area that accommodates the rear piping housing section.

Figure 33: Housing Section



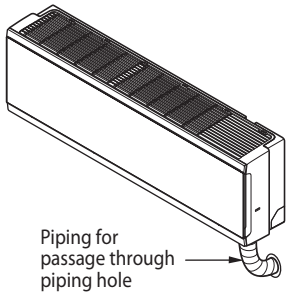
3. Using cloth tape, bundle the piping and drain hose together over the range where they fit into the rear piping housing section.

Figure 34: Bundling Piping and Drain Hose



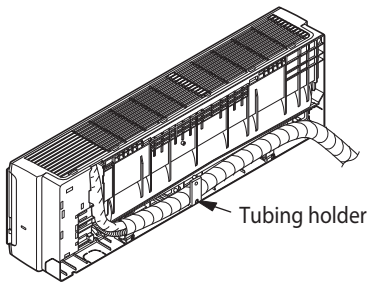
4. Reroute the piping and the drain hose across the back of the chassis.

Figure 35: Rerouting Piping



5. Hook the edge of the tubing holder to tap on the chassis and push the bottom of the tubing holder to be engaged at the bottom of the chassis.

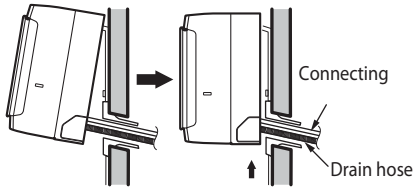
Figure 36: Tubing Holder



Indoor Unit Installation

1. Remove the spacer.
2. Ensure that the hooks are properly seated on the installation plate by moving it left and right.

Figure 37: Installation

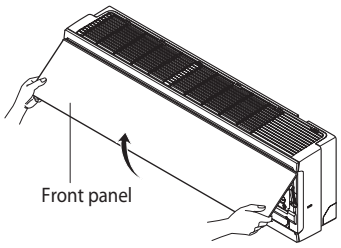


3. Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots (clicking sound).

Connecting Pipes

1. Remove the front panel of the indoor unit from the indoor unit cabinet.
2. Set the air direction louvers up-and-down to the horizontal position by hand.
3. Remove the securing screws that retain the front panel.
4. Pull the lower left and right sides of the grille toward you and lift it off.

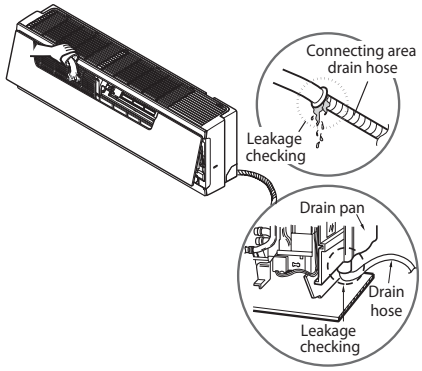
Figure 38: Front Panel



Checking the Drainage

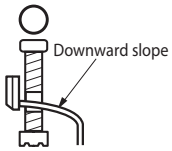
1. Pour a glass of water on the evaporator.
2. Ensure that the water flows through the drain hose of the indoor unit without any leaks and goes out the drain exit.

Figure 39: Checking Drainage



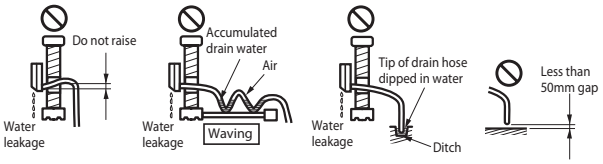
3. The drain should point downward for easy drain flow.

Figure 40:Downward slope



4. Do not make drain piping.

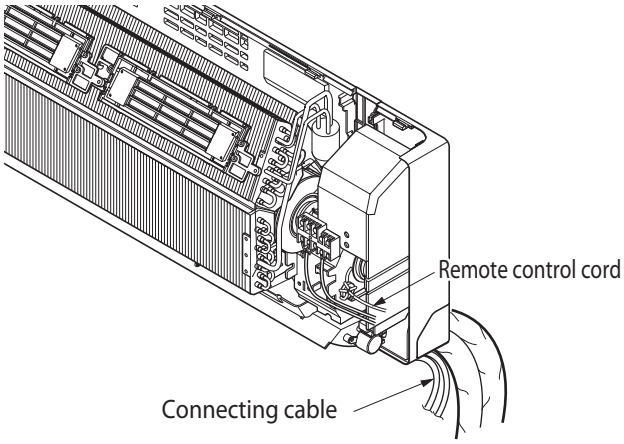
Figure 41: Drain Piping



Connecting to the Indoor Unit

1. Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
2. Ensure that the color of the wires from the outdoor unit and the terminal No. are the same as those on the indoor unit.

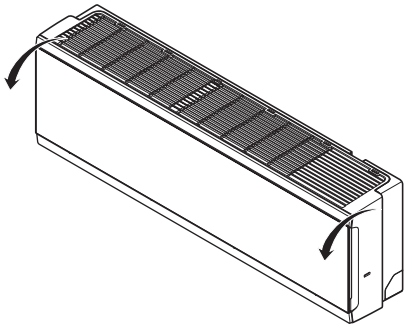
Figure 42: Connecting Wires



Attaching the Grille

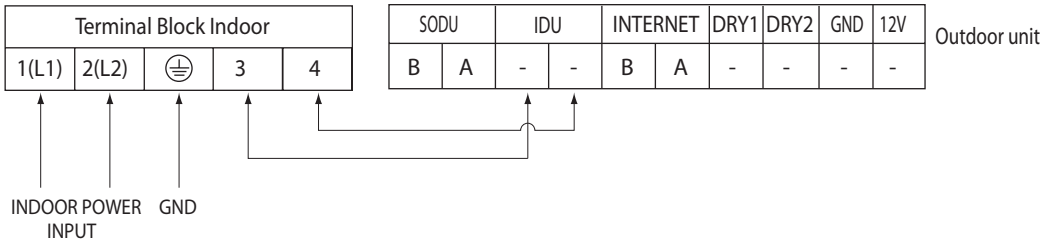
1. Grasp the lower left and right side of the grille and engage the four tabs on the top inside edge of the chassis.
2. Press the grille towards the chassis until it is back into its original place.

Figure 43: Attaching Grille



Wiring Connection

Figure 44: Wiring Connection



Wiring

- Always have separate power for the indoor unit.
- Follow the circuit diagram pasted on the inside of the control box cover.
- Confirm the specification of the power source.
- Confirm that the electrical capacity is sufficient.
- Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
- Confirm the cable thickness is as specified in the power sources specification.
- Always equip a leakage breaker where conditions are wet or moist.
- A way to disconnect from a power supply should be incorporated in the fixed wiring and have an air gap contact separation of at least 1/8 inch in each active (phase) conductor.

The following problems can be caused by voltage drop-down:

- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

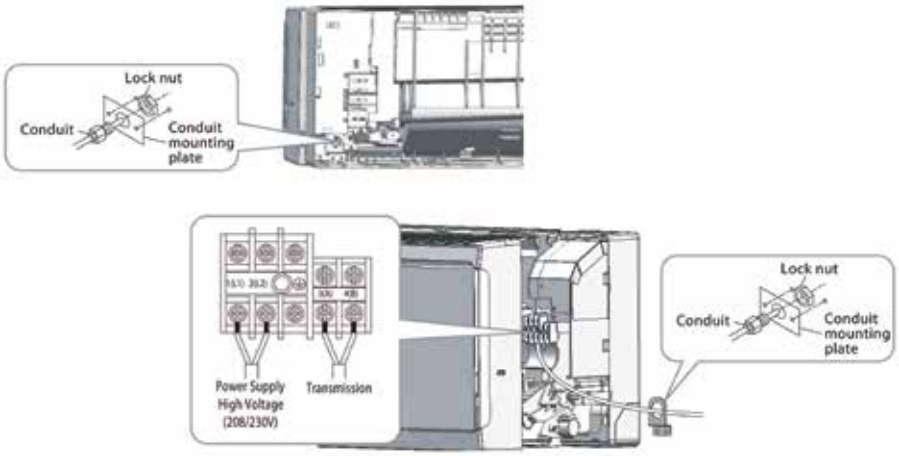
⚠WARNING

1. Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.

2. The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Cable Connection Method

Figure 45:Cable Connection Method



⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Wired Remote Controller Installation

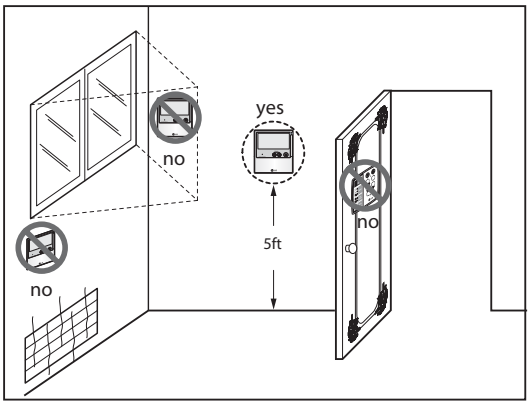
Since the room temperature sensor is inside the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

Figure 46: Wired Remote Controller Installation



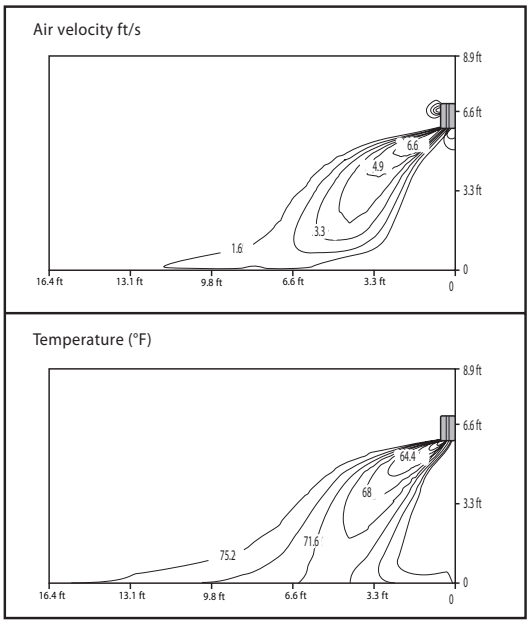
AIR VELOCITY & TEMP DISTRIBUTION

ARNU073SER2, ARNU093SER2

Figure 47: ARNU073SER2

Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°

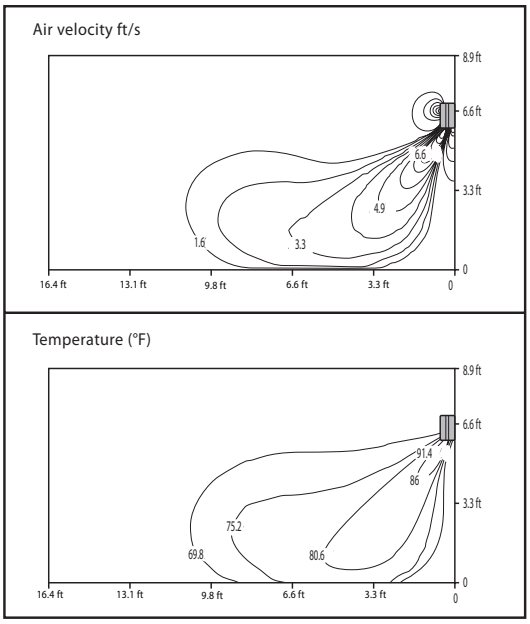
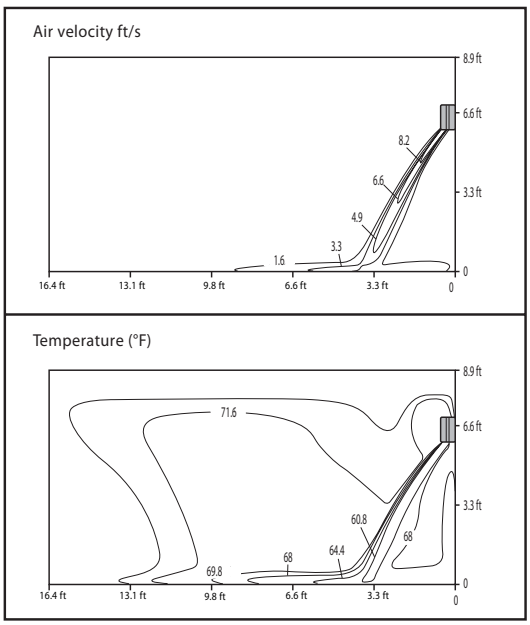


Figure 48: ARNU093SER2

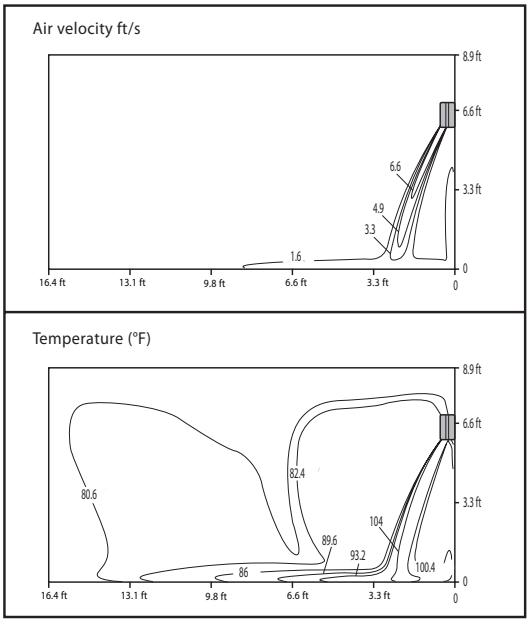
Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°



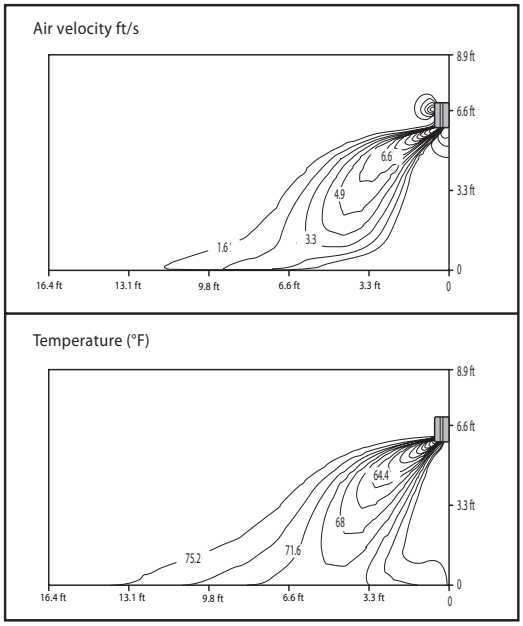
AIR VELOCITY & TEMP DISTRIBUTION

ARNU123SER2, ARNU153SER2

Figure 49: ARNU123SER2

Cooling

Discharge angle: 45°



Heating

Discharge angle:60°

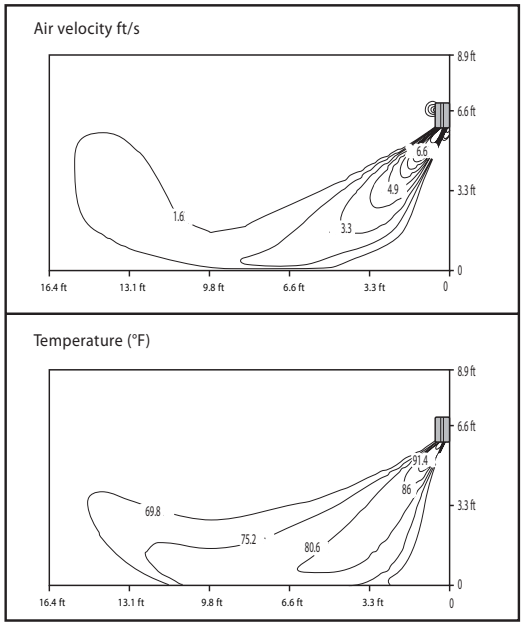
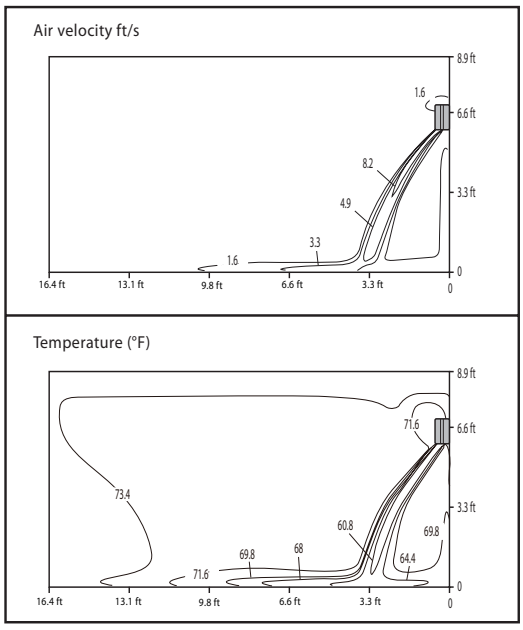


Figure 50: ARNU153SER2

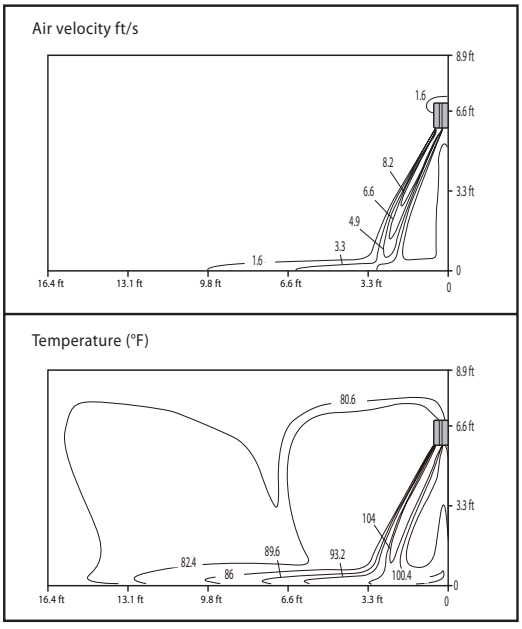
Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°



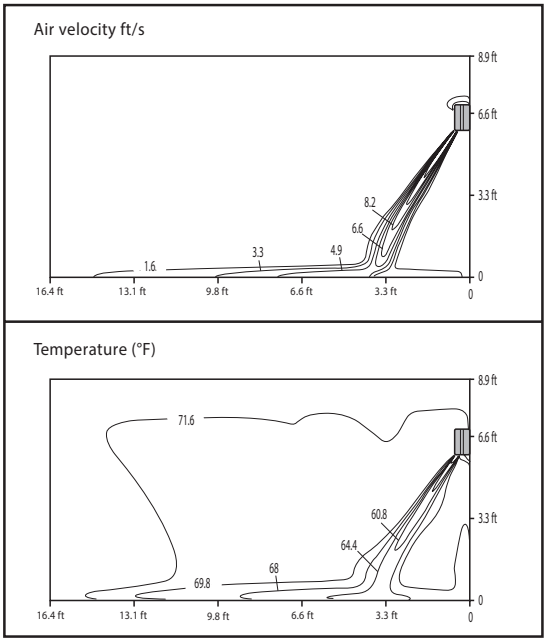
AIR VELOCITY & TEMP DISTRIBUTION

ARNU183S8R2, ARNU243S8R2

Figure 51: ARNU183S8R2

Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°

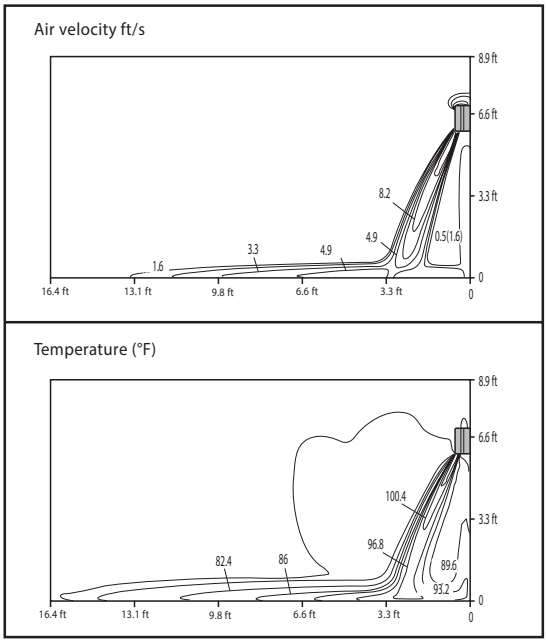
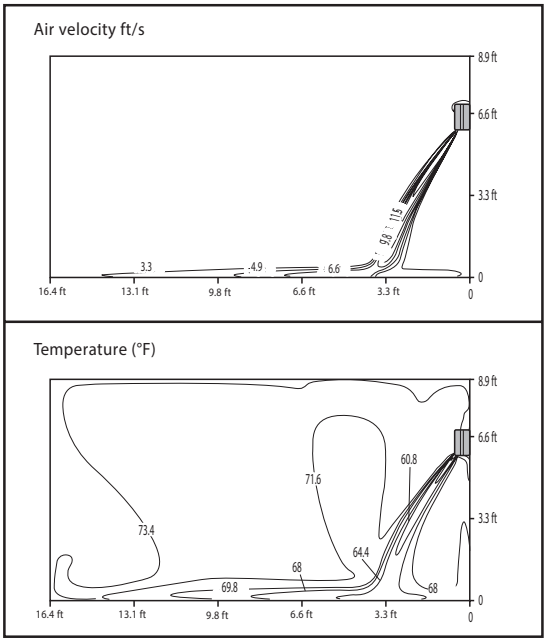


Figure 52: ARNU243S8R2

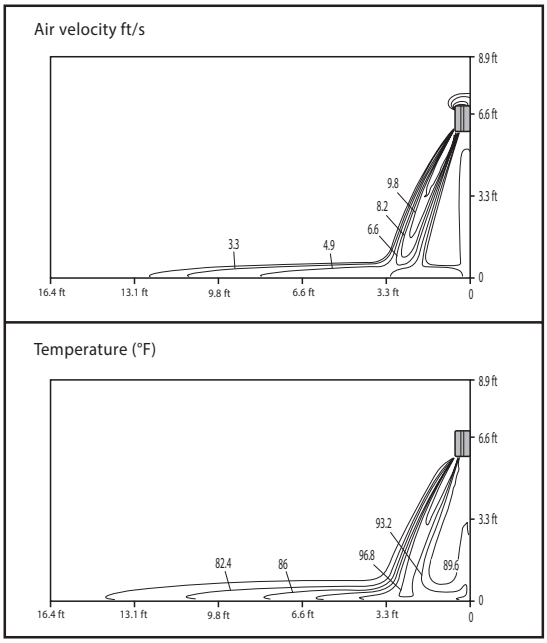
Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°



STANDARD WALL MOUNTED

GENERAL DATA

Standard Wall Mounted Unit Specifications

ARNU073SEL2, ARNU093SEL2, ARNU123SEL2

Table 28: Wall Mounted Unit General Data

Type	Standard Wall Mounted		
	ARNU073SEL2	ARNU093SEL2	ARNU123SEL2
Cooling Mode Performance			
Capacity (Btu/h)	7,500	9,600	12,300
Power Input[1] (W)	40	40	40
Heating Mode Performance			
Capacity (Btu/h)	8,500	10,900	13,600
Power Input[1] (W)	40	40	40
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	37/33/23	39/35/25	41/36/27
Net Unit Weight (lbs)	20	20	20
Shipping Weight (lbs)	25	25	25
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Cross Flow	Cross Flow	Cross Flow
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	198/177/163	247/230/212	336/318/300
Piping			
Liquid Line (in, OD)	1/4	1/4	1/4
Vapor Line (in, OD)	1/2	1/2	1/2
Condensate Line (in, ID)	5/8	5/8	5/8

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes. This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).

[1]Power Input is rated at high speed.
[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Standard Wall Mounted Unit Specifications

ARNU153SEL2, ARNU183S5L2, ARNU243S5L2

Table 29: Wall Mounted Unit General Data

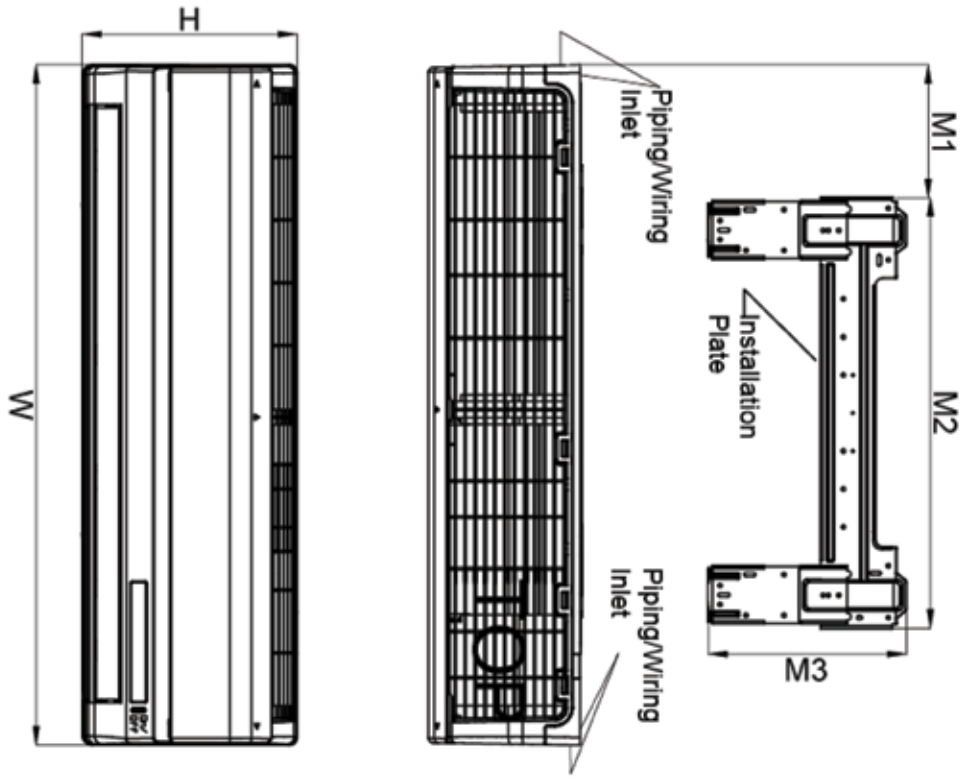
Type	Standard Wall Mounted		
	ARNU153SEL2	ARNU183S5L2	ARNU243S5L2
Cooling Mode Performance			
Capacity (Btu/h)	15,400	19,100	24,200
Power Input[1] (W)	40	40	40
Heating Mode Performance			
Capacity (Btu/h)	17,100	21,500	27,300
Power Input[1] (W)	40	40	40
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	42/36/27	44/40/36	46/41/38
Net Unit Weight (lbs)	20	27	27
Shipping Weight (lbs)	25	32	32
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Cross Flow	Cross Flow	Cross Flow
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	371/318/300	424/371/318	494/459/353
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	3/8 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	5/8 Flare
Condensate Line (in, ID)	5/8	5/8	5/8

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).

[1]Power Input is rated at high speed.
[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

SE Chassis

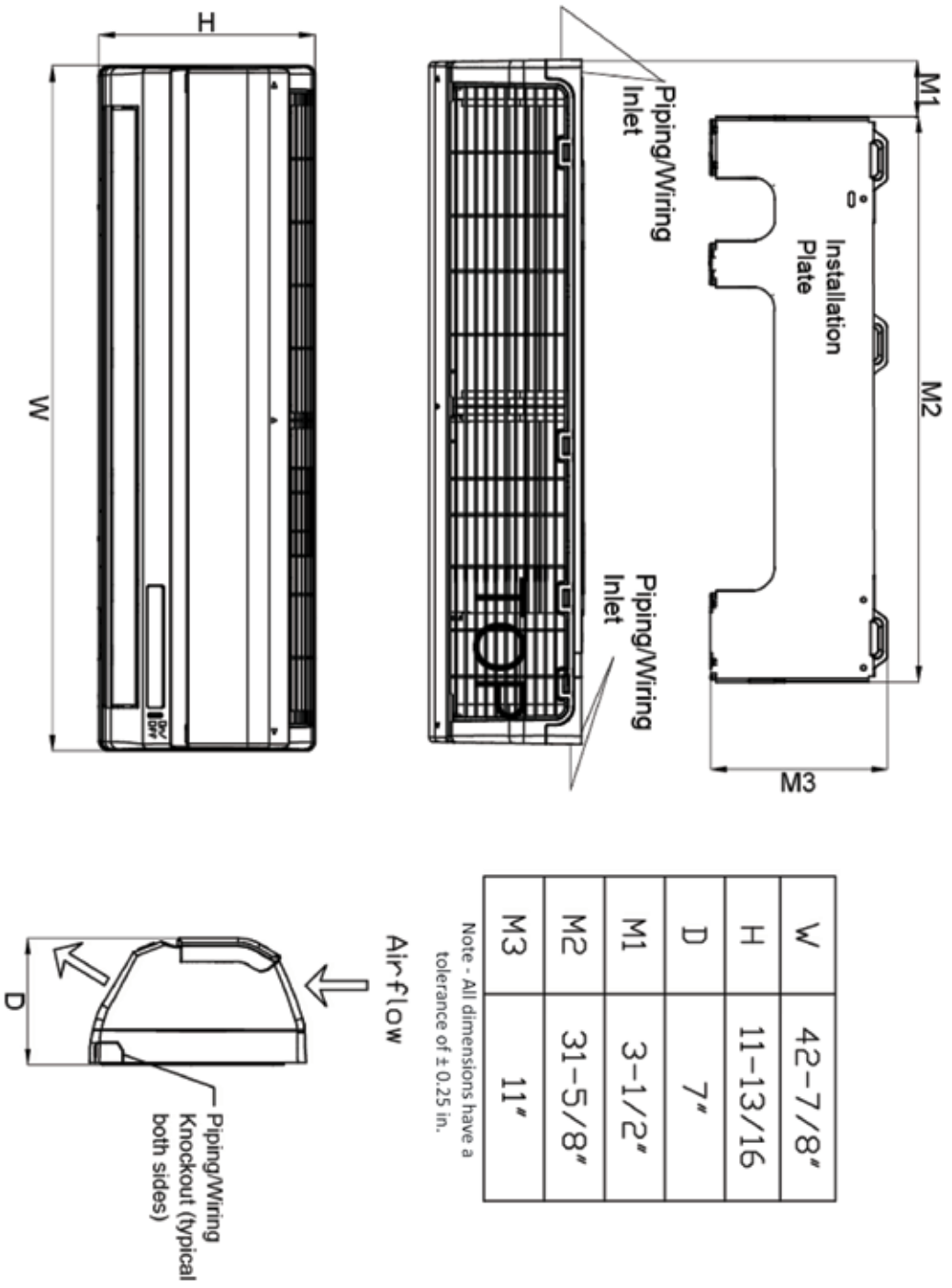


W	H	D	M1	M2	M3
35-1/4"	11-1/8"	6-1/2"	5-5/8"	22-3/8"	10-1/2"

Note - All dimensions have a tolerance of ± 0.25 in.

DIMENSIONS

S5 Chassis



W	42-7/8"
H	11-13/16
D	7"
M1	3-1/2"
M2	31-5/8"
M3	11"

Note - All dimensions have a tolerance of ± 0.25 in.

PERFORMANCE DATA

Cooling Capacity

ARNU073SEL2, ARNU093SEL2

Table 30: ARNU073SEL2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
25	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
30	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
35	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
40	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
45	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
50	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
55	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.7	5.7
60	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.6	5.6
65	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.5	5.5
70	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.3	5.5
75	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.9	5.7	9.1	5.3
80	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.4	5.7	8.7	5.6	8.9	5.3
85	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.3	5.7	8.4	5.4	8.6	5.1
90	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	8.2	5.6	8.3	5.3	8.4	5.0
95	5.0	4.1	6.0	4.7	6.8	5.0	**7.5**	**5.3**	8.0	5.5	8.2	5.3	8.3	5.0
100	5.0	4.1	6.0	4.7	6.8	5.0	7.5	5.3	7.9	5.5	8.0	5.2	8.2	4.9
105	5.0	4.1	5.7	4.5	6.5	4.8	7.2	5.1	7.4	5.1	7.7	5.0	7.9	4.8
110	4.8	4.0	5.4	4.2	6.0	4.5	6.8	4.8	6.9	4.8	7.4	4.8	7.7	4.7

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 31: ARNU093SEL2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
25	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
30	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
35	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
40	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
45	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
50	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
55	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.3
60	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.3	7.2
65	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.1	7.1
70	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	11.9	7.0
75	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	11.6	6.8
80	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.1	7.2	11.3	6.8
85	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.7	7.3	10.8	6.9	10.9	6.5
90	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.5	7.1	10.6	6.8	10.8	6.4
95	6.3	5.2	7.7	6.0	8.6	6.4	**9.6**	**6.8**	10.3	7.1	10.5	6.7	10.7	6.4
100	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.1	7.0	10.3	6.7	10.5	6.3
105	6.3	5.2	7.3	5.7	8.3	6.1	9.2	6.5	9.4	6.5	9.9	6.5	10.1	6.2
110	6.1	5.1	6.9	5.4	7.7	5.7	8.6	6.1	8.8	6.1	9.4	6.1	9.8	6.0

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 32: ARNU123SEL2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
25	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
30	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
35	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
40	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
45	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
50	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
55	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
60	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.7	9.2
65	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.5	9.1
70	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.3	9.0
75	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	14.9	8.7
80	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.3	9.2	14.5	8.7
85	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.7	9.3	13.8	8.8	14.0	8.4
90	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.4	9.1	13.5	8.7	13.8	8.2
95	8.1	6.7	9.8	7.7	11.1	8.2	**12.3**	**8.7**	13.2	9.1	13.4	8.6	13.7	8.2
100	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	12.9	8.9	13.2	8.6	13.4	8.1
105	8.1	6.7	9.3	7.3	10.6	7.9	11.8	8.4	12.1	8.4	12.7	8.3	12.9	7.9
110	7.9	6.5	8.9	6.9	9.8	7.3	11.1	7.9	11.3	7.9	12.1	7.9	12.5	7.7

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 33: ARNU153SEL2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
25	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
30	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
35	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
40	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
45	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
50	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
55	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.9	11.6
60	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.7	11.6
65	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.4	11.4
70	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	19.1	11.2
75	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	18.3	11.6	18.6	11.0
80	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.2	11.7	17.9	11.6	18.2	10.9
85	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	17.1	11.6	17.2	11.1	17.6	10.5
90	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	16.8	11.4	16.9	10.9	17.2	10.3
95	10.2	8.4	12.3	9.6	13.9	10.3	**15.4**	**10.9**	16.5	11.4	16.8	10.8	17.1	10.2
100	10.2	8.4	12.3	9.6	13.9	10.3	15.4	10.9	16.2	11.2	16.5	10.7	16.8	10.1
105	10.2	8.4	11.7	9.2	13.2	9.8	14.8	10.5	15.1	10.5	15.9	10.4	16.2	9.9
110	9.9	8.1	11.1	8.7	12.3	9.2	13.9	9.8	14.2	9.8	15.1	9.9	15.7	9.6

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU183S5L2, ARNU243S5L2

Table 34: ARNU183S5L2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
25	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
30	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
35	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
40	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
45	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
50	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
55	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
60	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.4	14.5
65	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.1	14.3
70	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	23.7	14.1
75	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	23.1	13.8
80	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.2	14.6	22.5	13.7
85	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.2	14.6	21.4	13.9	21.8	13.2
90	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	20.8	14.4	21.0	13.7	21.4	13.0
95	12.6	10.6	15.3	12.1	17.2	13.0	**19.1**	**13.8**	20.4	14.3	20.8	13.6	21.2	12.9
100	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	20.1	14.1	20.4	13.5	20.8	12.8
105	12.6	10.6	14.5	11.5	16.4	12.4	18.3	13.2	18.7	13.2	19.7	13.0	20.1	12.5
110	12.2	10.2	13.8	10.9	15.3	11.5	17.2	12.4	17.6	12.4	18.7	12.4	19.5	12.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 35: ARNU243S5L2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
25	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
30	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
35	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
40	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
45	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
50	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
55	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
60	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.0	18.4
65	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	30.5	18.1
70	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	30.0	17.9
75	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	29.3	17.5
80	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.1	18.4	28.6	17.4
85	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	26.9	18.5	27.1	17.6	27.6	16.7
90	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	26.4	18.2	26.6	17.4	27.1	16.4
95	16.0	13.4	19.4	15.4	21.8	16.4	**24.2**	**17.4**	25.9	18.1	26.4	17.2	26.9	16.3
100	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	25.4	17.8	25.9	17.1	26.4	16.2
105	16.0	13.4	18.4	14.6	20.8	15.7	23.2	16.7	23.7	16.7	24.9	16.5	25.4	15.8
110	15.5	13.0	17.4	13.8	19.4	14.6	21.8	15.7	22.3	15.7	23.7	15.7	24.7	15.3

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 36: ARNU073SEL2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	5.7	5.7	5.7	5.7	5.6	5.6	5.6	5.6
0	-0.4	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8
5.0	4.5	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5
10.0	9.0	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8
15.0	14.0	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.1
20.0	19.0	7.7	7.7	7.7	7.7	7.5	7.5	7.4	7.3
25.0	23.0	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.7
30.0	28.0	8.2	8.2	8.2	8.2	8.2	8.1	7.8	7.6
35.0	32.0	8.5	8.5	8.5	8.5	8.4	8.2	7.8	7.4
40.0	36.0	8.8	8.8	8.8	8.8	8.5	8.2	7.8	7.4
45.0	41.0	9.2	9.2	9.2	8.9	8.5	8.2	7.8	7.4
47.0	43.0	9.5	9.4	9.4	8.9	**8.5**	8.2	7.8	7.4
50.0	46.0	10.2	9.8	9.4	8.9	8.5	8.2	7.8	7.4
55.0	51.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4
60.0	56.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4

TC: Total Capacity (MBh)

Table 37: ARNU093SEL2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0	-0.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
5.0	4.5	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.3
10.0	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
15.0	14.0	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.2
20.0	19.0	9.9	9.9	9.9	9.9	9.7	9.7	9.5	9.4
25.0	23.0	10.4	10.4	10.4	10.4	10.4	10.1	10.0	9.9
30.0	28.0	10.6	10.6	10.6	10.6	10.6	10.4	10.0	9.7
35.0	32.0	10.9	10.9	10.9	10.9	10.8	10.6	10.0	9.5
40.0	36.0	11.3	11.3	11.3	11.3	10.9	10.6	10.0	9.5
45.0	41.0	11.8	11.8	11.8	11.4	10.9	10.6	10.0	9.5
47.0	43.0	12.2	12.1	12.0	11.4	**10.9**	10.6	10.0	9.5
50.0	46.0	13.1	12.5	12.0	11.4	10.9	10.6	10.0	9.5
55.0	51.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5
60.0	56.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5

TC: Total Capacity (MBh)

Table 38: ARNU123SEL2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
0	-0.4	9.4	9.4	9.4	9.4	9.4	9.2	9.2	9.2
5.0	4.5	10.6	10.5	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9
15.0	14.0	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.4
20.0	19.0	12.4	12.4	12.4	12.4	12.1	12.1	11.9	11.7
25.0	23.0	12.9	12.9	12.9	12.9	12.9	12.6	12.5	12.4
30.0	28.0	13.2	13.2	13.2	13.2	13.2	12.9	12.5	12.1
35.0	32.0	13.6	13.6	13.6	13.6	13.5	13.2	12.5	11.9
40.0	36.0	14.1	14.1	14.1	14.1	13.6	13.2	12.5	11.9
45.0	41.0	14.7	14.7	14.7	14.3	13.6	13.2	12.5	11.9
47.0	43.0	15.2	15.1	15.0	14.3	**13.6**	13.2	12.5	11.9
50.0	46.0	16.4	15.6	15.0	14.3	13.6	13.2	12.5	11.9
55.0	51.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9
60.0	56.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU153SEL2, ARNU183S5L2, ARNU243S5L2

Table 39: ARNU153SEL2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	11.5	11.5	11.5	11.5	11.3	11.3	11.3	11.3
0	-0.4	11.8	11.8	11.8	11.8	11.8	11.6	11.6	11.6
5.0	4.5	13.3	13.2	13.0	13.0	13.0	13.0	13.0	13.0
10.0	9.0	13.9	13.9	13.9	13.7	13.7	13.7	13.7	13.7
15.0	14.0	14.7	14.7	14.7	14.7	14.7	14.7	14.5	14.4
20.0	19.0	15.6	15.6	15.6	15.6	15.2	15.2	15.0	14.8
25.0	23.0	16.2	16.2	16.2	16.2	16.2	15.9	15.7	15.6
30.0	28.0	16.6	16.6	16.6	16.6	16.6	16.2	15.7	15.2
35.0	32.0	17.1	17.1	17.1	17.1	16.9	16.6	15.7	14.9
40.0	36.0	17.8	17.8	17.8	17.8	17.1	16.6	15.7	14.9
45.0	41.0	18.5	18.5	18.5	18.0	17.1	16.6	15.7	14.9
47.0	43.0	19.2	19.0	18.8	18.0	**17.1**	16.6	15.7	14.9
50.0	46.0	20.6	19.7	18.8	18.0	17.1	16.6	15.7	14.9
55.0	51.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9
60.0	56.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9

TC: Total Capacity (MBh)

Table 40: ARNU183S5L2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

Table 41: ARNU243S5L2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

Electrical Data

Table 42: Standard Wall Mounted Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU073SEL2	187-253	0.29	15	0.3	60	208-230V	1	40	40
ARNU093SEL2		0.29	15	0.3				40	40
ARNU123SEL2		0.29	15	0.3				40	40
ARNU153SEL2		0.29	15	0.3				40	40
ARNU183S5L2		0.29	15	0.3				40	40
ARNU243S5L2		0.29	15	0.3				40	40

MCA : Minimum Circuit Ampacity MOP : Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 43: Standard Wall Mounted Unit Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU073SEL2	37	33	23
ARNU093SEL2	39	35	25
ARNU123SEL2	41	36	27
ARNU153SEL2	42	36	27
ARNU183S5L2	44	40	36
ARNU243S5L2	46	41	38

Figure 53: ARNU073SEL2

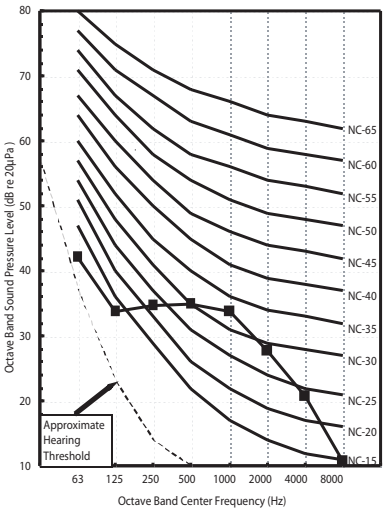


Figure 54: ARNU093SEL2

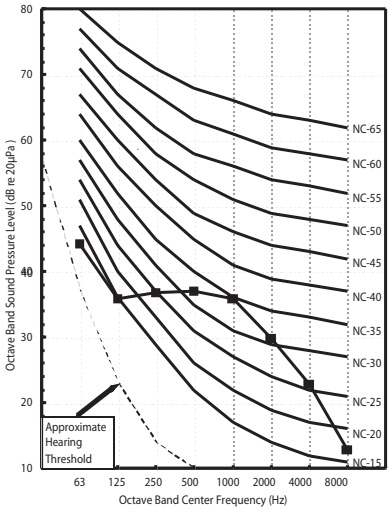
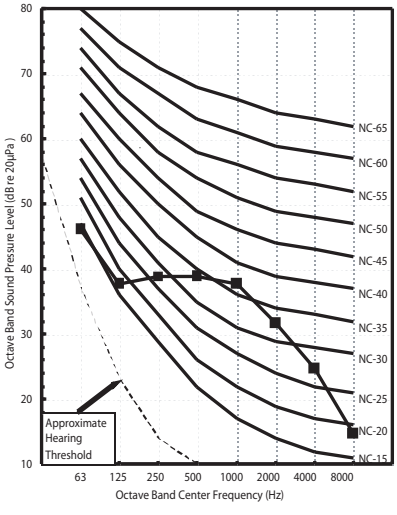


Figure 55: ARNU123SEL2



ACOUSTIC DATA

SE, S5 Chassis

Figure 56: ARNU153SEL2

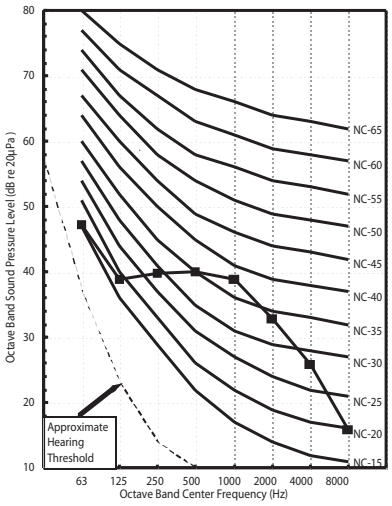


Figure 57: ARNU183S5L2

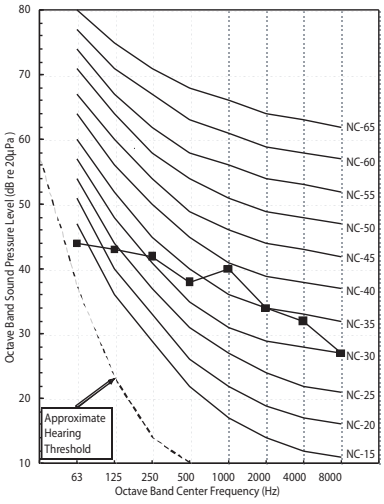
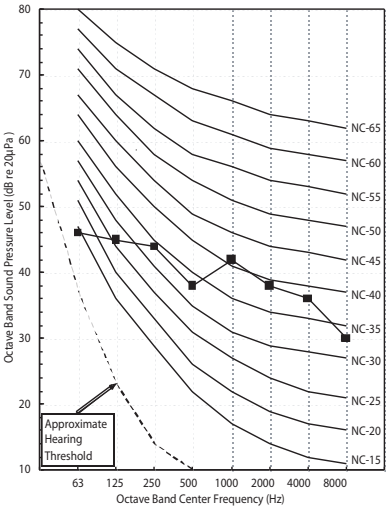


Figure 58: ARNU243S5L2



- Measurements are taken 3.3 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions :

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 59: Sound Levels

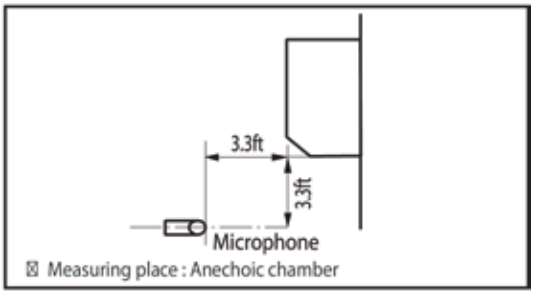


Figure 60: SE, S5 Chassis Piping Diagram

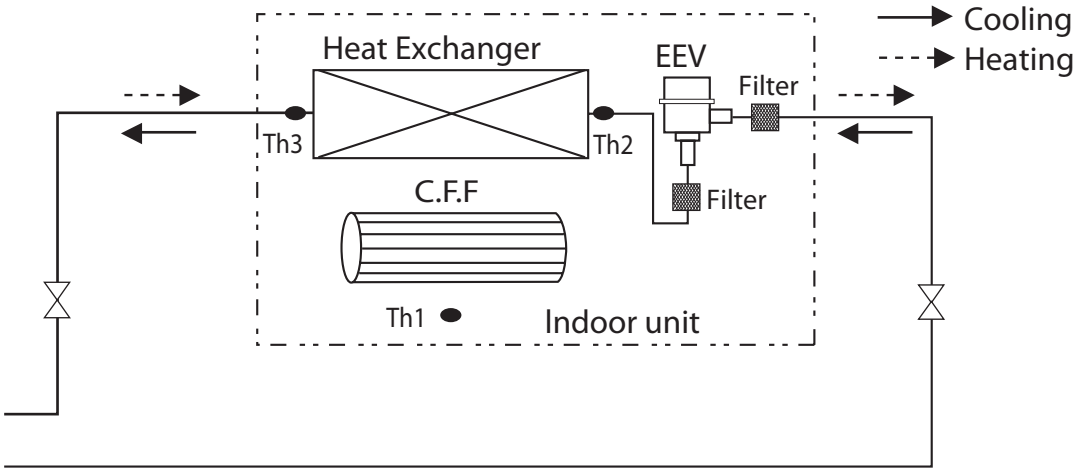


Table 44: SE, S5 Chassis Refrigerant Pipe Connection Port Diameters

Model	Liquid (inch)	Gas (inch)
ARNU073SEL2	1/4	1/2
ARNU093SEL2	1/4	1/2
ARNU123SEL2	1/4	1/2
ARNU153SEL2	1/4	1/2
ARNU183S5L2	1/4	1/2
ARNU243S5L2	3/8	5/8

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

WIRING DIAGRAMS

SE Chassis

Figure 61: SE Chassis Wiring Diagram

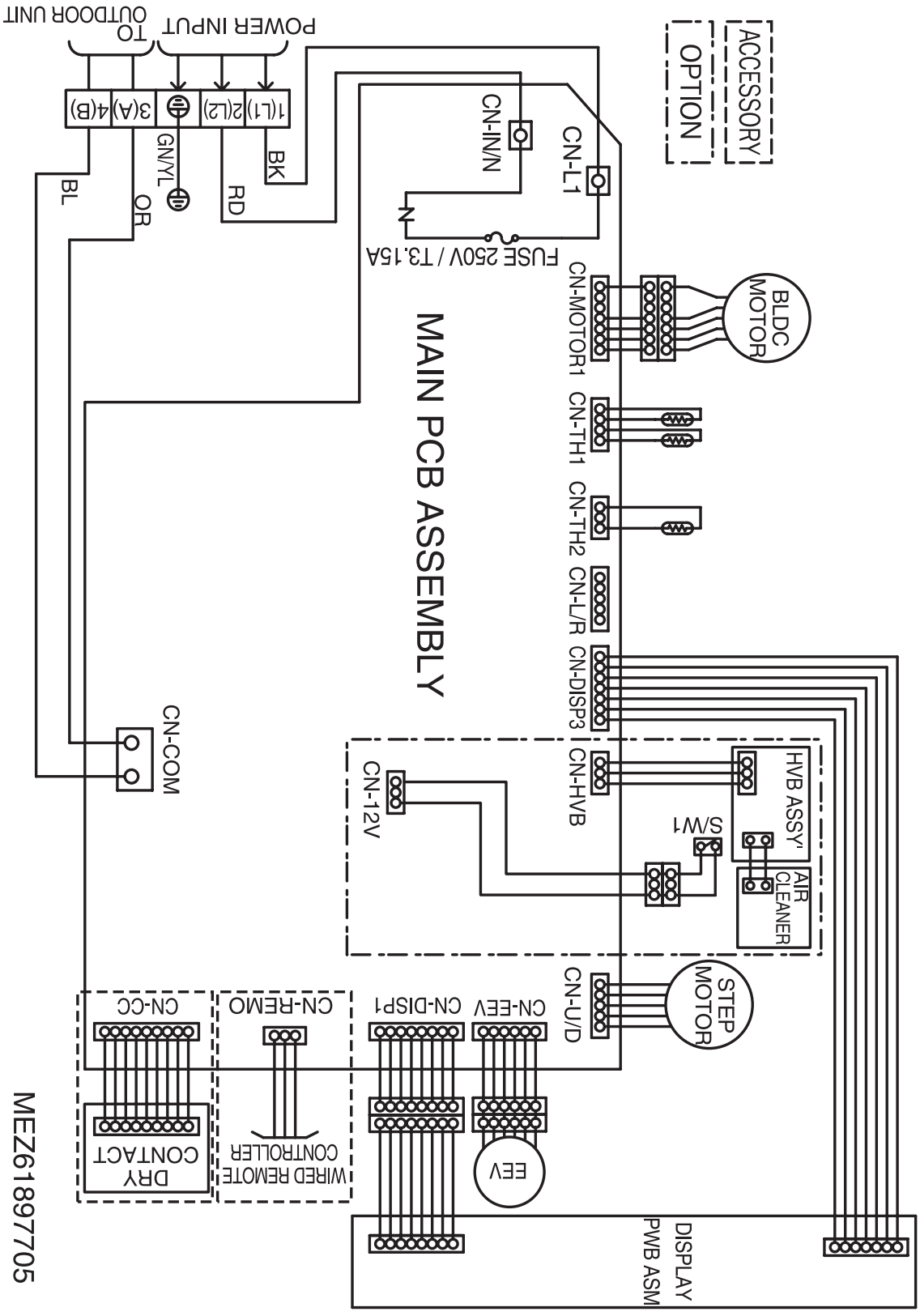


Table 45: SE Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-COM	Communication	Connection between indoor and outdoor
CN-DISP1	Display	Display of indoor status
CN-DISP2	Display	Display of indoor status
CN-EEV	EEV output	EEV control output
CN-U/D, CN-L/R	Step motor	Step motor output
CN-TH1	Room/pipe sensor	Room and pipe thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-HVB	Air clean	Air clean control

WIRING DIAGRAMS

S5 Chassis

Figure 62: S5 Chassis Wiring Diagram

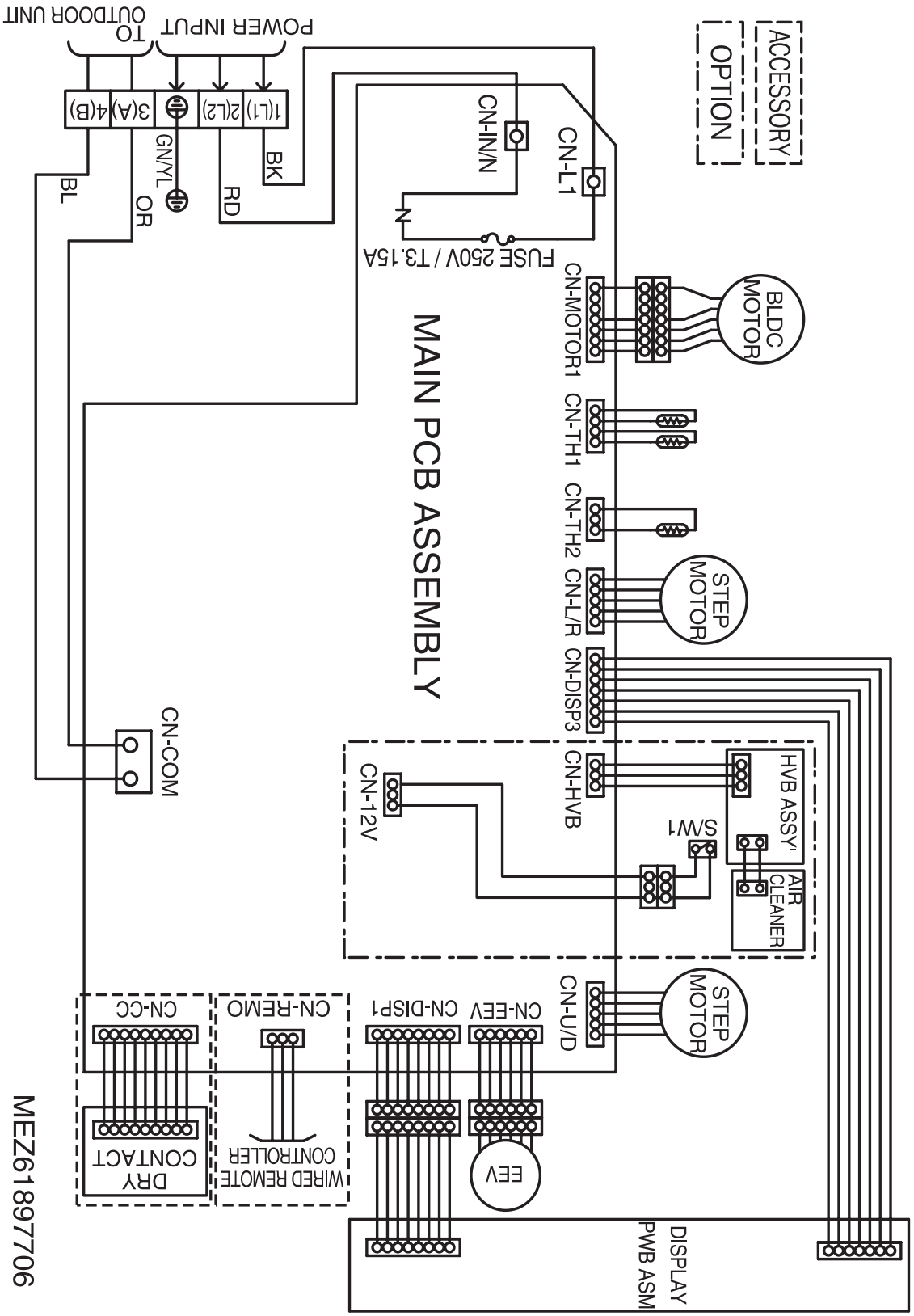
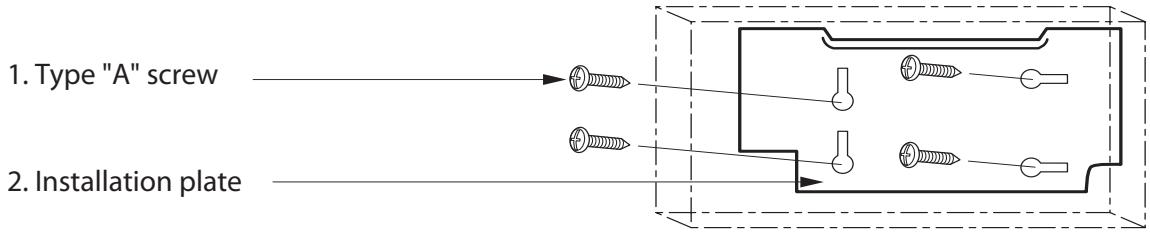


Table 46: S5 Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-COM	Communication	Connection between indoor and outdoor
CN-DISP1	Display	Display of indoor status
CN-DISP2	Display	Display of indoor status
CN-EEV	EEV output	EEV control output
CN-U/D, CN-L/R	Step motor	Step motor output
CN-TH1	Room/pipe sensor	Room and pipe thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-HVB	Air clean	Air clean control

Figure 63: Installation Materials

Installation Parts Provided



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Spanner (Half union)
- Thermometer

Required Parts

- Installation plate
- Type “A” screws
- Plastic anchors
- Conduit mounting plate
- Pipes - vapor line and liquid line (field provided)

⚠WARNING

- *Please read all instructions before installing the product.*
- *When the power cord is damaged, all replacement work must be performed by authorized personnel only.*
- *Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.*

Selecting the Best Location

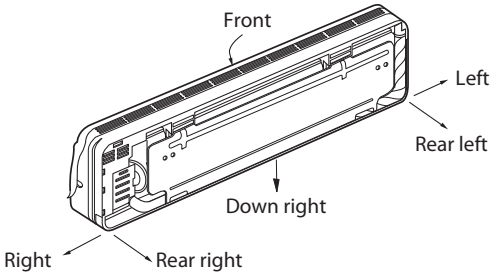
Do’s

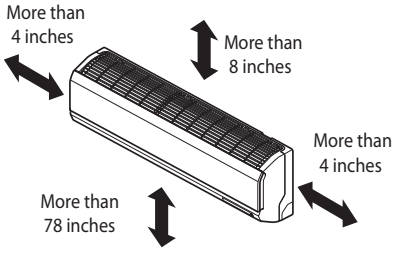
- Place the unit where air circulation will not be blocked.
- Place the unit where drainage can be obtained easily.
- Place the unit where noise prevention is taken into consideration.
- Ensure there is sufficient space from the ceiling board and floor.
- Ensure there is sufficient maintenance space.

Don’ts

- The unit should not be near a heat source or steam.
- The air circulation should not be blocked by obstacles.
- Do not install the unit near a doorway.

Figure 64: Selecting the best location





Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing unit in places where cooking oil or iron powder is generated.
- Avoid installing unit where flammable gas is generated, flows, stored or vented.
- Avoid installing where sulfurous acid gas or corrosive gas is generated.
- Avoid installing unit near high frequency generators.

Mounting

The mounting wall should be strong and solid enough to protect the unit from vibration.

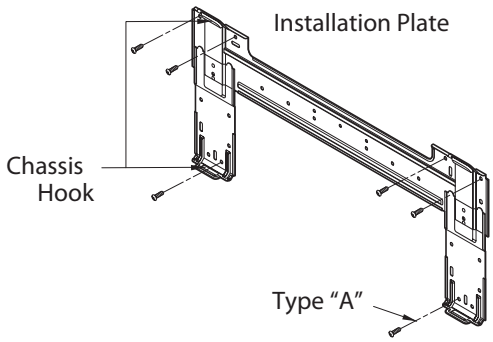
- Mount the installation plate on the wall using 4 type "A" screws. If mounting the unit on concrete, consider using anchor bolts.
- Always mount the installation plate horizontally by aligning the marking-off line using a thread and a level.

⚠WARNING

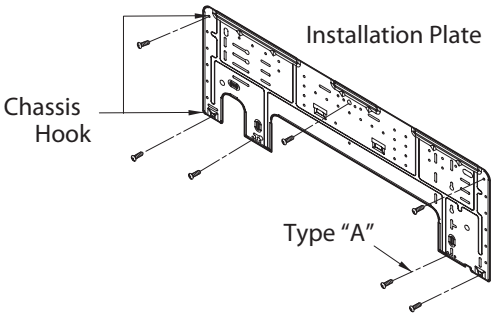
If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

Figure 65: Mounting Installation Plate

SE chassis



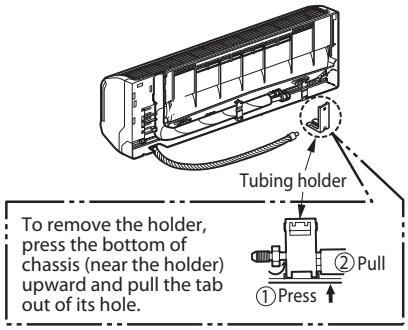
S5 chassis



Preparing for Installation

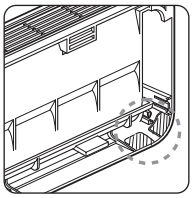
- Prepare the unit's piping and drain hose for installation through the wall.
- Remove the plastic tubing retainer (see illustration below) and pull the tubing and drain hose away from chassis.
- Replace the plastic tubing holder in the original position.

Figure 66: Tubing Holder



⚠CAUTION

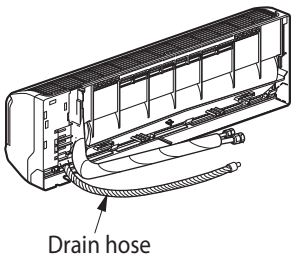
While installing the unit, ensure remaining parts are removed so they do not damage the piping and drain hose, especially the power cord and connecting cable.



Left Rear Piping

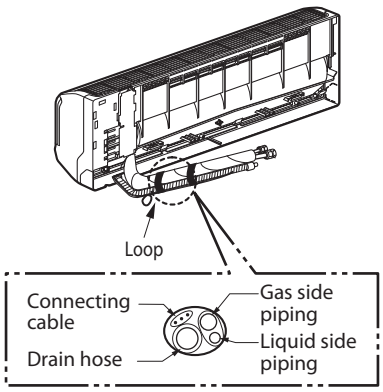
1. Route the indoor tubing and the drain hose in the left rear direction.

Figure 67: Drain Hose



2. Insert the connecting cable into the indoor unit from the outdoor unit through the piping hole. Do not connect the cable to the indoor unit.
3. Make a small loop with the cable for easy connection later.
4. Tape the tubing, drain hose and connecting cable. Be sure the drain hose is located at the lowest side of the bundle.

Figure 68: Taping Piping

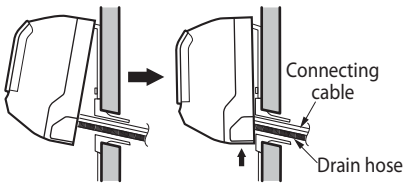


If the drain hose is routed inside insulate the hose with an insulation material (foamed polyethylene or equivalent is recommended) so that condensation does not damage furniture or floors.

Indoor Unit Installation

1. Hook the indoor unit onto the upper portion of the installation plate. Engage the two hooks of the rear top of the indoor unit with the upper edge of the installation plate.
2. Ensure that the hooks are properly seated on the installation plate by moving it left and right.

Figure 69: Installation

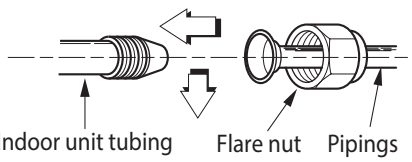


3. Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots (clicking sound).

Connecting Piping

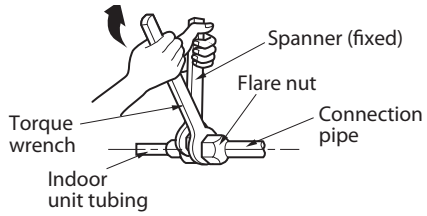
1. Align the center of the piping and tighten the flare nut by hand.

Figure 70: Connecting Piping



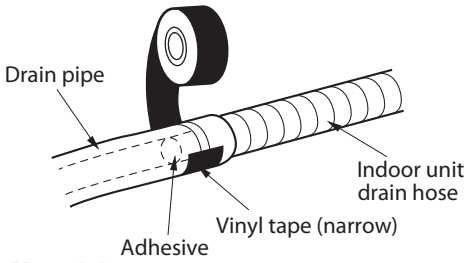
2. Tighten the flare nut with a wrench.

Figure 71: Tightening Flare Nut



3. When extending the drain hose from the indoor unit, install the drain pipe.

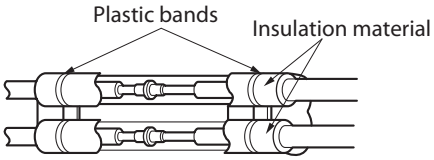
Figure 72: Drain Pipe



Insulation Material

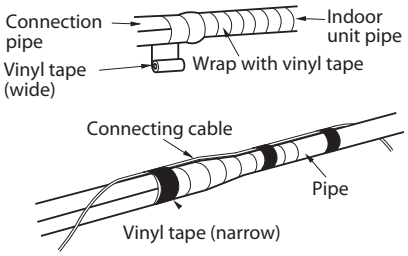
1. Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape to prevent a gap.

Figure 73: Insulation Material



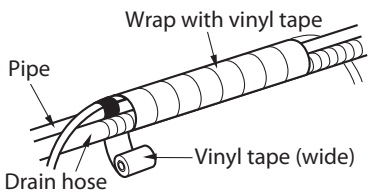
2. Using vinyl tape, wrap the area that accommodates the rear piping housing section.

Figure 74: Housing Section



3. Using vinyl tape, bundle the piping and drain hose together over the area where they fit into the rear piping housing section.

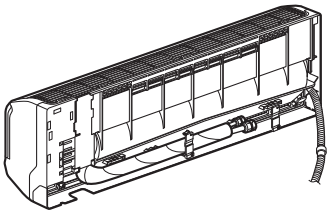
Figure 75: Bundling Piping



Right Rear Piping

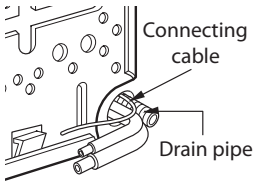
1. Route the indoor tubing and the drain hose to the required piping hole position.

Figure 76: Routing Tubing



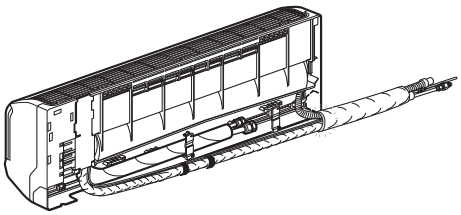
2. Insert the piping, drain hose and the connecting cable into the piping hole. Do not connect the cable to the indoor unit.

Figure 77: Connecting Pipe



3. Make a small loop with the cable for easy connection later.
4. Tape the drain hose and the connecting cable.

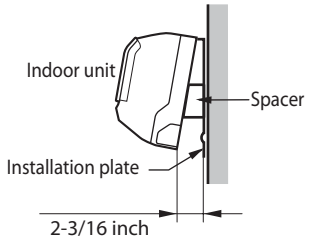
Figure 78: Taping Hose and Cable



Indoor Unit Installation

1. Hang the indoor unit from the hooks at the top of the installation plate.
2. Insert the spacer between the indoor unit and the installation plate and separate the bottom of the indoor unit from the wall.

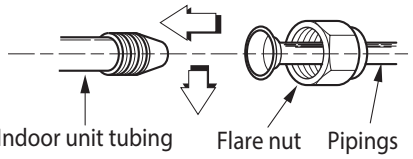
Figure 79: Installation



Connecting Piping

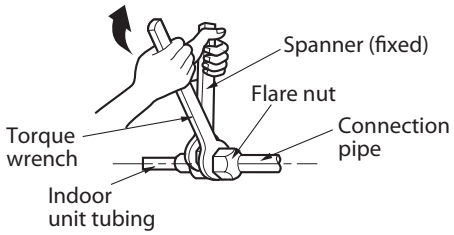
1. Align the center of the pipe and tighten the flare nut by hand.

Figure 80: Aligning the Pipe



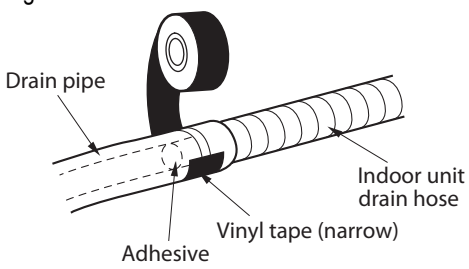
2. Tighten the flare nut with a wrench.

Figure 81: Tightening Flare Nut



3. When extending the drain hose from the indoor unit, install the drain pipe.

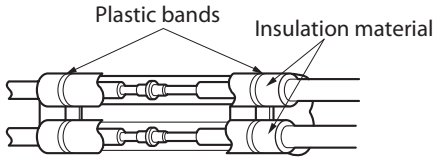
Figure 82: Drain Hose



Insulation Material

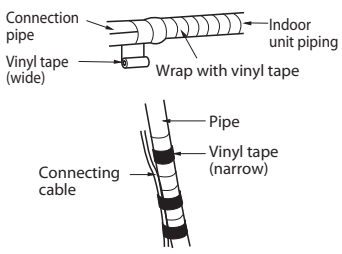
1. Overlap the connecting pipe heat insulation and the indoor unit pipe heat insulation material. Bind them together with vinyl tape to prevent a gap.

Figure 83: Insulation Material



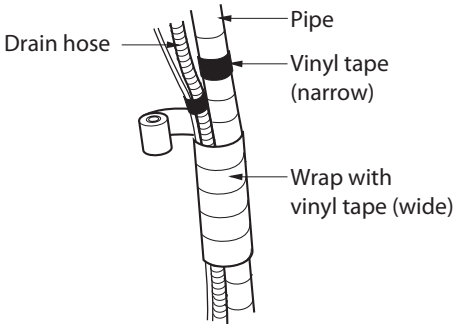
2. Using vinyl tape, wrap the area which accommodates the rear piping housing section.

Figure 84: Housing Section



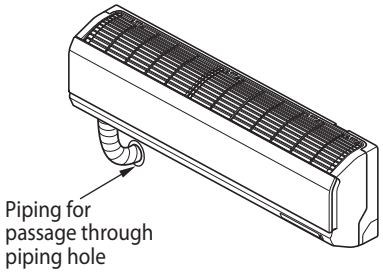
3. Using cloth tape, bundle the piping and the drain hose together where they fit into the rear piping housing section.

Figure 85: Tightening Flare Nut



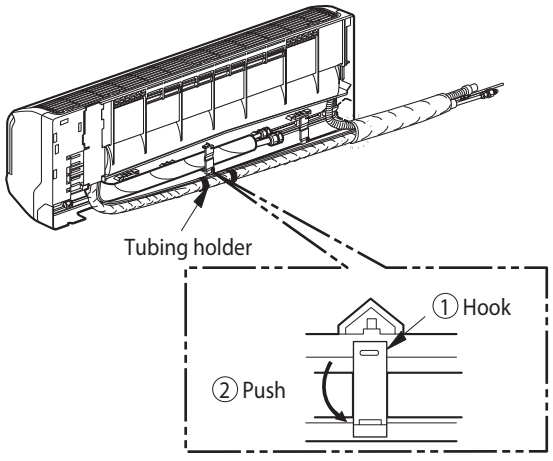
4. Reroute the pipe and the drain hose across the back of the chassis.

Figure 86: Rerouting Piping and Drain Hose



5. Hook the edge of the tubing holder to tap on chassis and push the bottom of the tubing holder to be engaged at the bottom of the chassis.

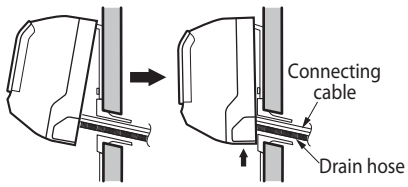
Figure 87: Tubing Holder



Indoor Unit Installation

1. Remove the spacer.
2. Ensure that the hooks are properly seated on the installation plate by moving it left and right.

Figure 88: Installation

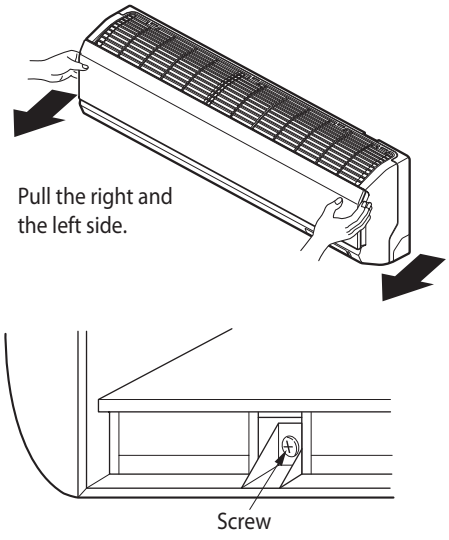


3. Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots (clicking sound).

Connecting Pipes

1. Remove the front panel of the indoor unit from the indoor unit cabinet.
2. Set the air direction louvers up-and-down to the horizontal position by hand.
3. Remove the securing screws that retain the front panel.
4. Pull the lower left and right sides of the grille toward you and lift it off.

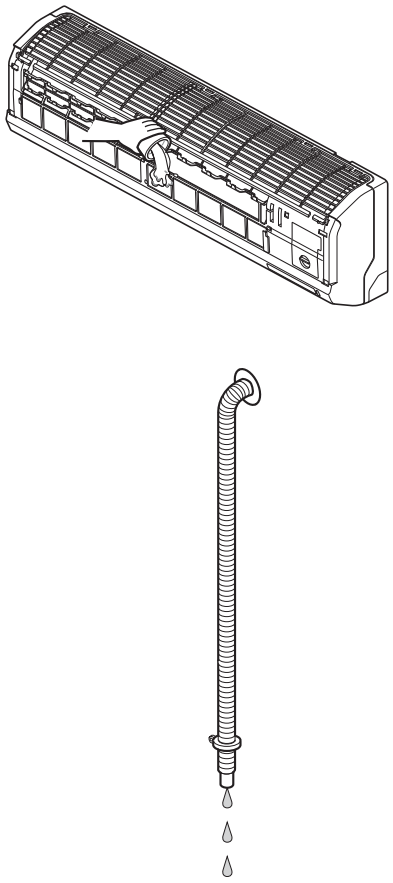
Figure 89: Connecting Pipes



Checking the Drainage

1. Pour a glass of water on the evaporator.
2. Ensure that the water flows through the drain hose of the indoor unit without any leaks and goes out the drain exit.

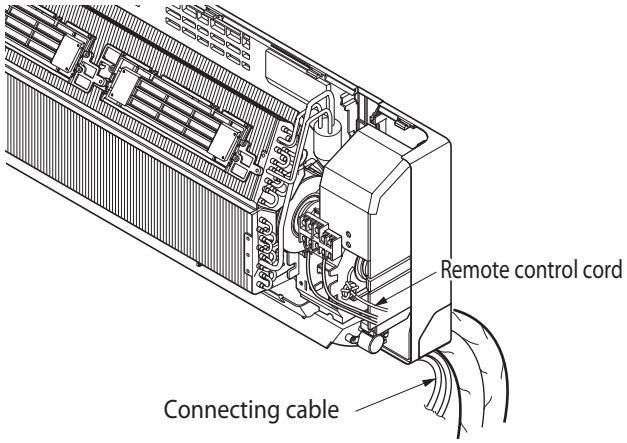
Figure 90: Checking Drainage



Connecting to the Indoor Unit

1. Individually connect the wires to the terminals on the control board according to the outdoor unit connection.
2. Ensure that the color of the wires from the outdoor unit and the terminal No. are the same as those on the indoor unit.

Figure 91: Connecting Indoor Unit



3. Grasp the lower left and right side of the grille and engage four tabs on the top inside edge of the chassis.
4. Press the grille toward the chassis until it is back in place.

Figure 92: Attaching the Grille

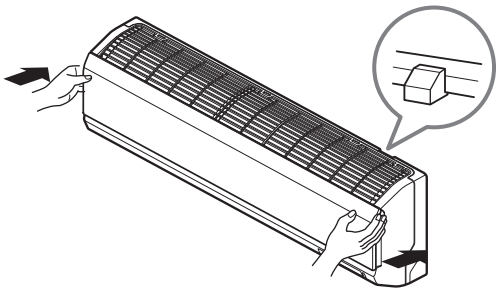
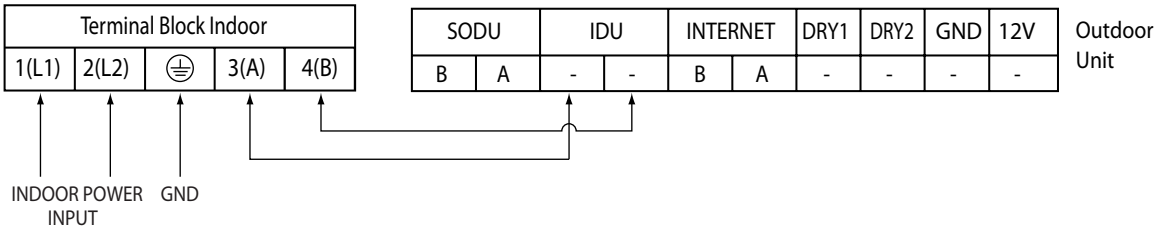


Figure 93: Wiring Connection



Wiring

- Always have separate power for the indoor unit.
- Follow the circuit diagram pasted of the inside of the control box cover.
- Confirm the specification of the power source.
- Confirm that the electrical capacity is sufficient.
- Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
- Confirm the cable thickness is as specified in the power sources specification.
- Always equip a leakage breaker where conditions are wet or moist.
- A way to disconnect from a power supply should be incorporated in the fixed wiring and have an air gap contact separation of at least 1/8 inch in each active (phase) conductor.

The following problems can be caused by voltage drop-down:

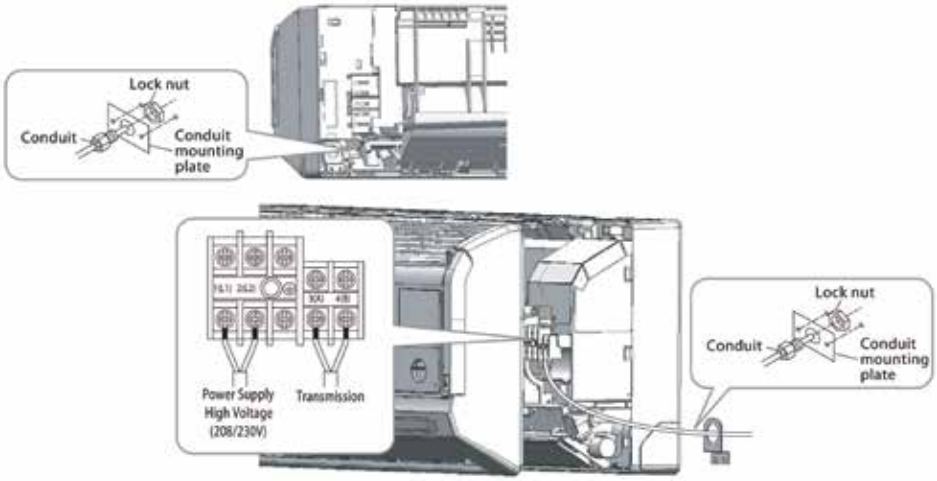
- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.*

Cable Connection Method

Figure 94: Cable Connection Method



⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Wired Remote Controller Installation

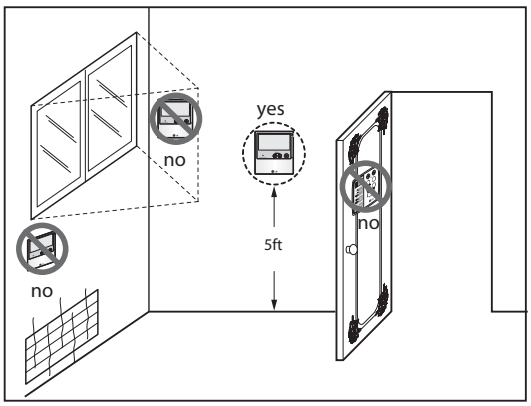
Since the room temperature sensor is inside the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

Figure 95: Wired Remote Controller Installation



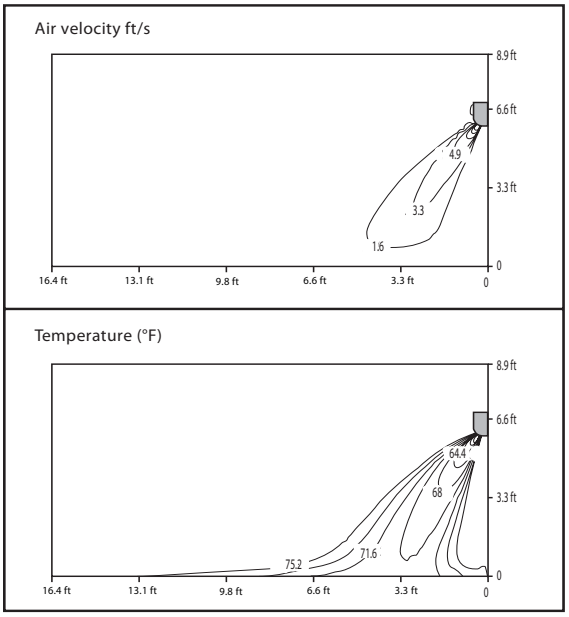
AIR VELOCITY & TEMP DISTRIBUTION

ARNU073SEL2, ARNU093SEL2

Figure 96: ARNU073SEL2

Cooling

Discharge angle: 45°



Heating

Discharge angle: 50°

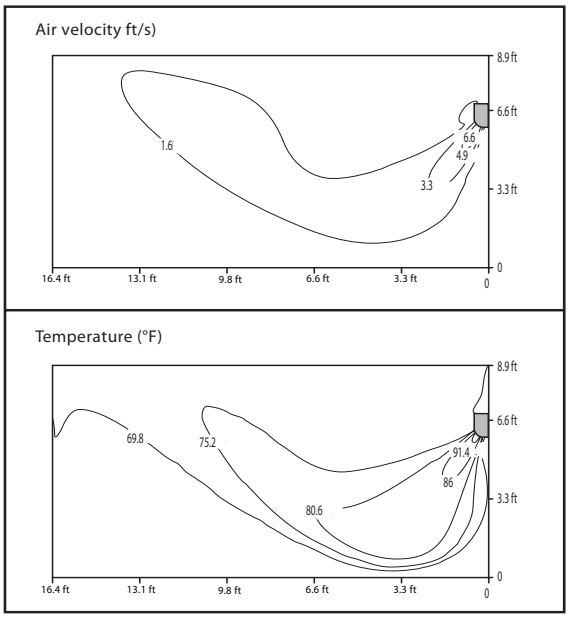
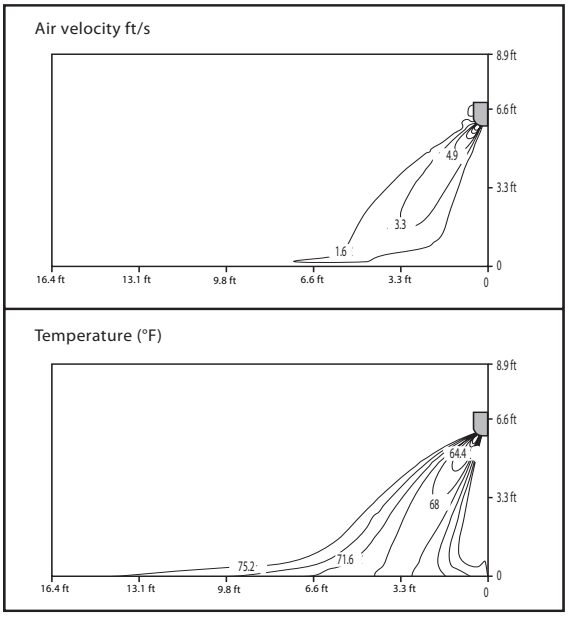


Figure 97: ARNU093SEL2

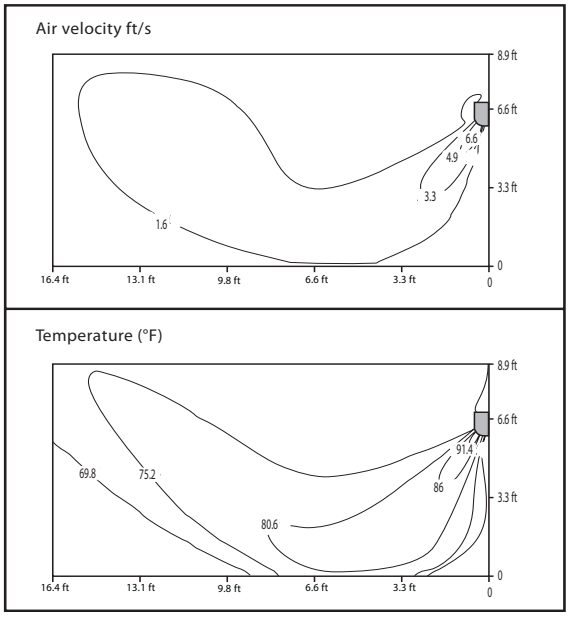
Cooling

Discharge angle: 45°



Heating

Discharge angle: 50°



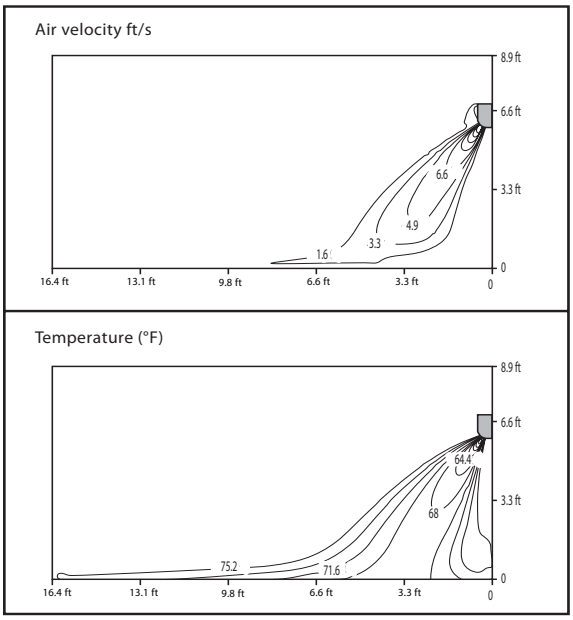
AIR VELOCITY & TEMP DISTRIBUTION

ARNU123SEL2, ARNU153SEL2

Figure 98: ARNU123SEL2

Cooling

Discharge angle: 45°



Heating

Discharge angle: 50°

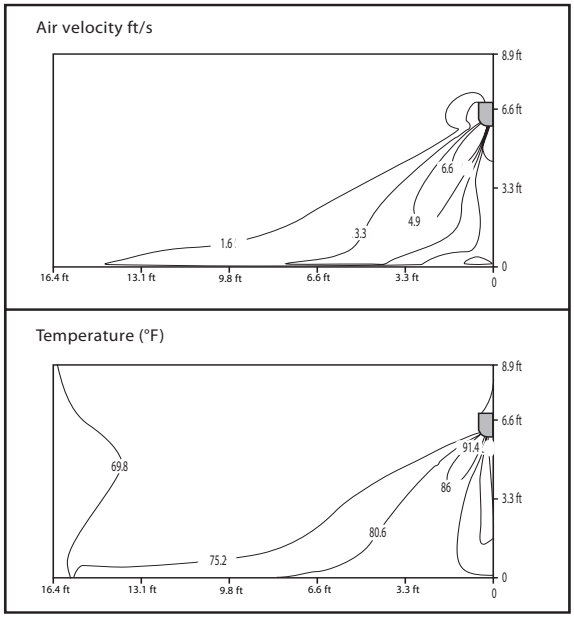
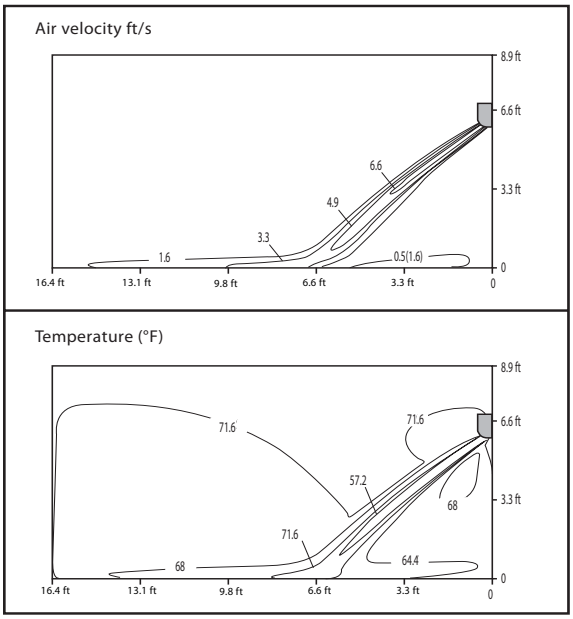


Figure 99: ARNU153SEL2

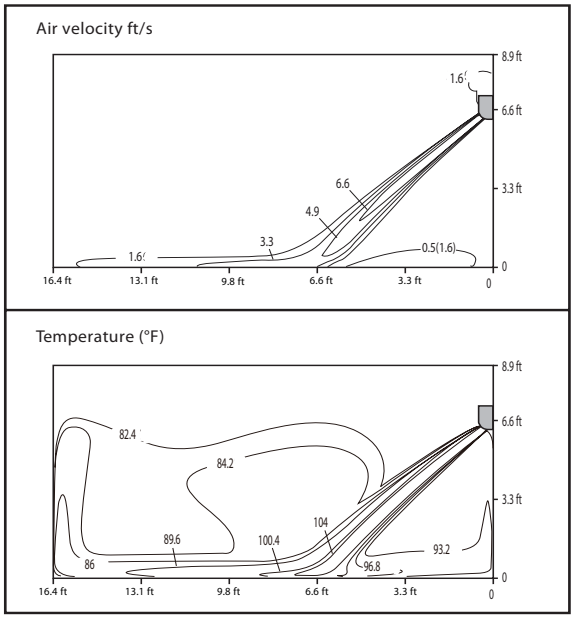
Cooling

Discharge angle: 45°



Heating

Discharge angle: 50°



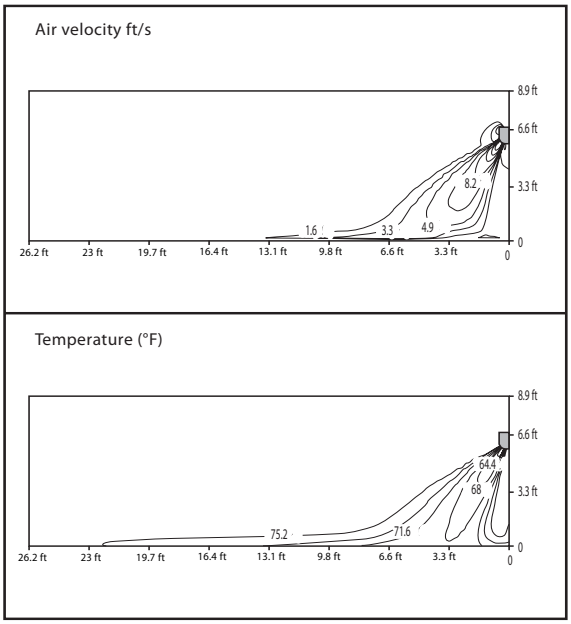
AIR VELOCITY & TEMP DISTRIBUTION

ARNU183S5L2, ARNU243S5L2

Figure 100: ARNU183S5L2

Cooling

Discharge angle: 45°



Heating

Discharge angle: 50°

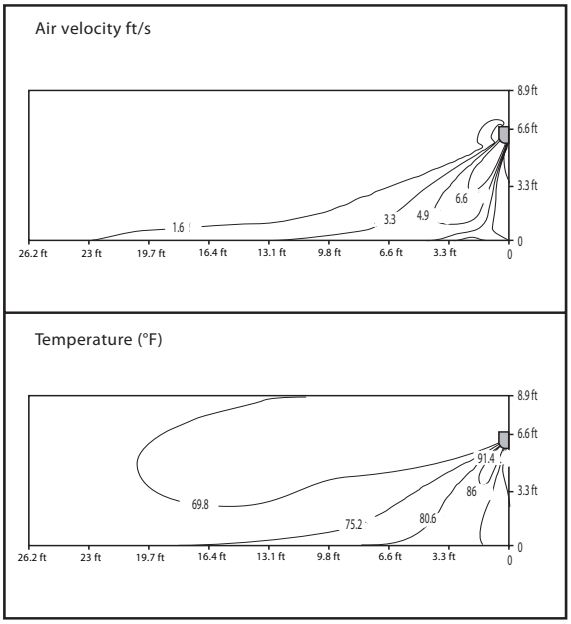
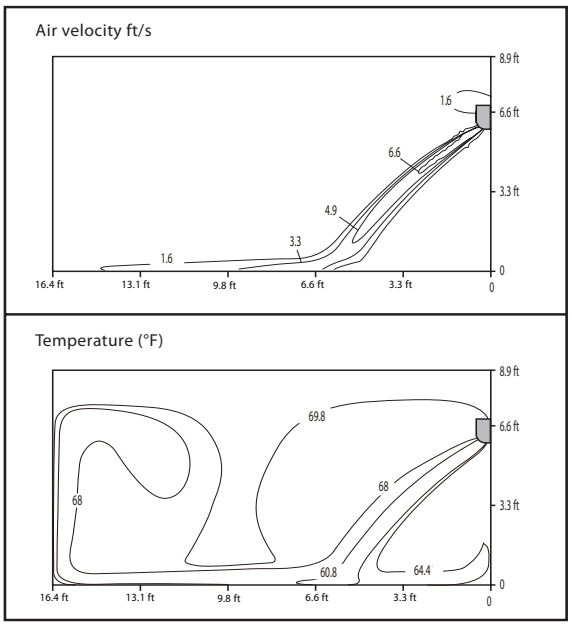


Figure 101: ARNU243S5L2

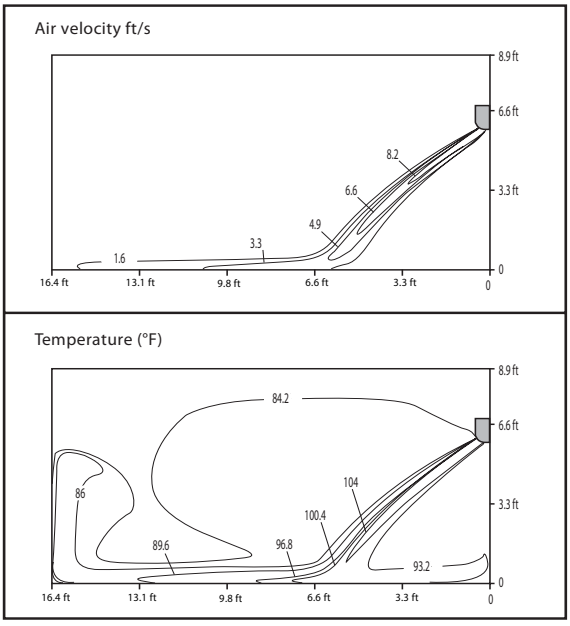
Cooling

Discharge angle: 45°



Heating

Discharge angle: 50°



CEILING CASSETTE

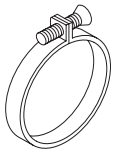
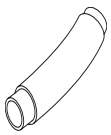
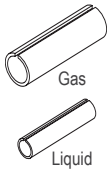
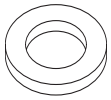
ACCESSORIES

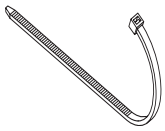
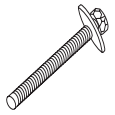
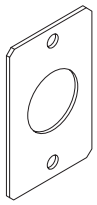
Accessory	Model Number
1-Way Ceiling Cassette Grille Kit (Required)	PT-HJC1
2-Way Ceiling Cassette Grille Kit (Required)	PT-HLC1
4-Way Ceiling Cassette Grille Kit (Required)	PT-UQC (5-18 MBh) PT-UMC (24-48 MBh)
Ventilation Kit[1]	PTVK410 + PTVK420
Ventilation Kit[2]	PTVK430
Auto Elevation Kit[1]	PTEGM0
Cassette Decorative Cover[3]	PTDCM (5-18 MBh) PTDCQ (24-48 MBh)
Plasma Filter[4]	PTPKM0

[1]For use with TP, TN and TM chassis 4-Way ceiling cassettes.
[2]For use with TR, TQ, TP, TN and TM chassis 4-Way ceiling cassettes.
[3]For use with 4-way ceiling cassettes.
[4]For use with 4-way ceiling cassettes (ARNU093TPAA, ARNU123TPAA, ARNU153TPAA, ARNU183TNAA and ARNU243TNAA.
All accessories are sold separately.

FACTORY SUPPLIED PARTS & MATERIALS

Factory Supplied Parts

Part	Quantity	Image
Metal Clamp	2	
Drain Hose	1	
Fitting Insulation	1 Set	
Hanging Bracket Washer	8	

Part	Quantity	Image
Clamp (Tie Wrap)	4	
Bolt	4	
Screw[1]	3	
Conduit Mounting Plate[2]	1	

[1]Supplied with 1-Way ceiling cassettes.
[2]Supplied with 1-Way and 4-Way ceiling cassettes.

For 1-Way ceiling cassettes, the screws for fixing panels are attached to the decorative panel.

Factory Supplied Materials

- Paper pattern (or cardboard, see packaging) for installation
- Owner's Manual
- Installation Manual

1-WAY CEILING CASSETTE

GENERAL DATA

1-Way Ceiling Cassette Unit Specifications

ARNU073TJC2, ARNU093TJC2, ARNU123TJC2

Table 47: 1-Way Ceiling Cassette Unit General Data

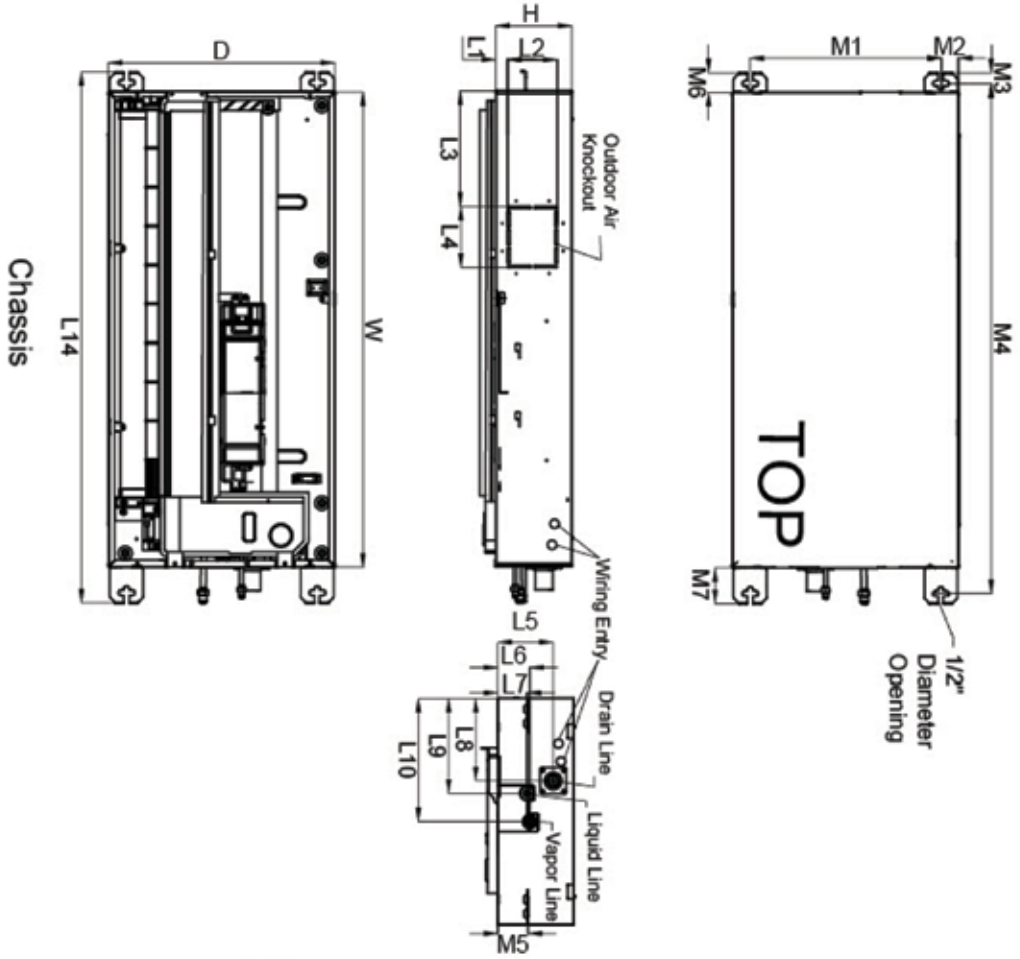
Type	1-Way Ceiling Cassette		
	ARNU073TJC2	ARNU093TJC2	ARNU123TJC2
Cooling Mode Performance			
Capacity (Btu/h)	7,500	9,600	12,300
Power Input[1] (W)	40	40	40
Heating Mode Performance			
Capacity (Btu/h)	8,500	10,900	13,600
Power Input[1] (W)	40	40	40
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	40/38/37	40/38/37	41/39/37
Net Unit Weight (lbs)	26	26	26
Shipping Weight (lbs)	34	34	34
Grille Weight (lbs)	8	8	8
Grille Shipping Weight (lbs)	10	10	10
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Cross Flow	Cross Flow	Cross Flow
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled/Direct	Brushless Digitally Controlled/Direct	Brushless Digitally Controlled/Direct
Airflow Rate H/M/L (CFM)	265/229/212	265/229/212	283/247/212
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	1/4 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	1/2 Flare
Condensate Line (in, ID)	1	1	1

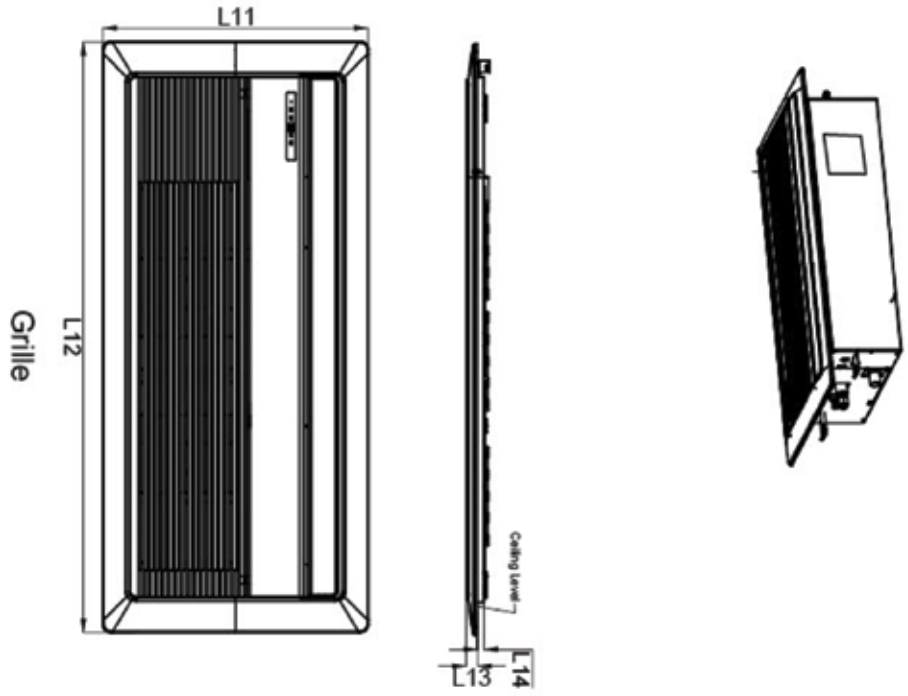
EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).

[1]Power Input is rated at high speed.
[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

TJ Chassis





PERFORMANCE DATA

Cooling Capacity

ARNU073TJC2, ARNU093TJC2

Table 48: ARNU073TJC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.7	5.6
25	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.7	5.6
30	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.7	5.6
35	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.7	5.6
40	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.7	5.6
45	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.7	5.6
50	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.7	5.6
55	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.7	5.6
60	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.6	5.5
65	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.5	5.5
70	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.3	5.4
75	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.9	5.6	9.1	5.3
80	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.4	5.6	8.7	5.6	8.9	5.2
85	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.3	5.6	8.4	5.3	8.6	5.0
90	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	8.2	5.5	8.3	5.2	8.4	5.0
95	5.0	4.0	6.0	4.6	6.8	4.9	**7.5**	**5.3**	8.0	5.5	8.2	5.2	8.3	4.9
100	5.0	4.0	6.0	4.6	6.8	4.9	7.5	5.3	7.9	5.4	8.0	5.2	8.2	4.9
105	5.0	4.0	5.7	4.4	6.5	4.7	7.2	5.0	7.4	5.0	7.7	5.0	7.9	4.8
110	4.8	3.9	5.4	4.2	6.0	4.4	6.8	4.7	6.9	4.7	7.4	4.7	7.7	4.6

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 49: ARNU093TJC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	12.4	7.1
25	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	12.4	7.1
30	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	12.4	7.1
35	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	12.4	7.1
40	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	12.4	7.1
45	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	12.4	7.1
50	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	12.4	7.1
55	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	12.4	7.2
60	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	12.3	7.1
65	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	12.1	7.0
70	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	11.9	6.9
75	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.4	7.2	11.6	6.7
80	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.8	7.2	11.1	7.1	11.3	6.7
85	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.7	7.2	10.8	6.8	10.9	6.4
90	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.5	7.0	10.6	6.7	10.8	6.3
95	6.3	5.2	7.7	5.9	8.6	6.3	**9.6**	**6.7**	10.3	7.0	10.5	6.7	10.7	6.3
100	6.3	5.2	7.7	5.9	8.6	6.3	9.6	6.7	10.1	6.9	10.3	6.6	10.5	6.2
105	6.3	5.2	7.3	5.6	8.3	6.1	9.2	6.5	9.4	6.4	9.9	6.4	10.1	6.1
110	6.1	5.0	6.9	5.3	7.7	5.6	8.6	6.0	8.8	6.1	9.4	6.1	9.8	5.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU123TJC2

Table 50: ARNU123TJC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.9	9.1
25	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.9	9.1
30	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.9	9.1
35	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.9	9.1
40	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.9	9.1
45	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.9	9.1
50	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.9	9.1
55	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.9	9.2
60	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.7	9.1
65	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.5	9.0
70	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	15.3	8.8
75	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.6	9.2	14.9	8.6
80	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.8	9.2	14.3	9.1	14.5	8.6
85	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.7	9.2	13.8	8.7	14.0	8.3
90	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	13.4	9.0	13.5	8.6	13.8	8.1
95	8.1	6.6	9.8	7.6	11.1	8.1	**12.3**	**8.6**	13.2	9.0	13.4	8.5	13.7	8.1
100	8.1	6.6	9.8	7.6	11.1	8.1	12.3	8.6	12.9	8.8	13.2	8.4	13.4	8.0
105	8.1	6.6	9.3	7.2	10.6	7.8	11.8	8.3	12.1	8.3	12.7	8.2	12.9	7.8
110	7.9	6.4	8.9	6.8	9.8	7.2	11.1	7.7	11.3	7.8	12.1	7.8	12.5	7.6

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU073TJC2, ARNU093TJC2, ARNU123TJC2

Table 51: ARNU073TJC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	5.7	5.7	5.7	5.7	5.6	5.6	5.6	5.6
0	-0.4	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8
5.0	4.5	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5
10.0	9.0	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8
15.0	14.0	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.1
20.0	19.0	7.7	7.7	7.7	7.7	7.5	7.5	7.4	7.3
25.0	23.0	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.7
30.0	28.0	8.2	8.2	8.2	8.2	8.2	8.1	7.8	7.6
35.0	32.0	8.5	8.5	8.5	8.5	8.4	8.2	7.8	7.4
40.0	36.0	8.8	8.8	8.8	8.8	8.5	8.2	7.8	7.4
45.0	41.0	9.2	9.2	9.2	8.9	8.5	8.2	7.8	7.4
47.0	43.0	9.5	9.4	9.4	8.9	**8.5**	8.2	7.8	7.4
50.0	46.0	10.2	9.8	9.4	8.9	8.5	8.2	7.8	7.4
55.0	51.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4
60.0	56.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4

TC: Total Capacity (MBh)

Table 52: ARNU093TJC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0	-0.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
5.0	4.5	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.3
10.0	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
15.0	14.0	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.2
20.0	19.0	9.9	9.9	9.9	9.9	9.7	9.7	9.5	9.4
25.0	23.0	10.4	10.4	10.4	10.4	10.4	10.1	10.0	9.9
30.0	28.0	10.6	10.6	10.6	10.6	10.6	10.4	10.0	9.7
35.0	32.0	10.9	10.9	10.9	10.9	10.8	10.6	10.0	9.5
40.0	36.0	11.3	11.3	11.3	11.3	10.9	10.6	10.0	9.5
45.0	41.0	11.8	11.8	11.8	11.4	10.9	10.6	10.0	9.5
47.0	43.0	12.2	12.1	12.0	11.4	**10.9**	10.6	10.0	9.5
50.0	46.0	13.1	12.5	12.0	11.4	10.9	10.6	10.0	9.5
55.0	51.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5
60.0	56.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5

TC: Total Capacity (MBh)

Table 53: ARNU123TJC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
0	-0.4	9.4	9.4	9.4	9.4	9.4	9.2	9.2	9.2
5.0	4.5	10.6	10.5	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9
15.0	14.0	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.4
20.0	19.0	12.4	12.4	12.4	12.4	12.1	12.1	11.9	11.7
25.0	23.0	12.9	12.9	12.9	12.9	12.9	12.6	12.5	12.4
30.0	28.0	13.2	13.2	13.2	13.2	13.2	12.9	12.5	12.1
35.0	32.0	13.6	13.6	13.6	13.6	13.5	13.2	12.5	11.9
40.0	36.0	14.1	14.1	14.1	14.1	13.6	13.2	12.5	11.9
45.0	41.0	14.7	14.7	14.7	14.3	13.6	13.2	12.5	11.9
47.0	43.0	15.2	15.1	15.0	14.3	**13.6**	13.2	12.5	11.9
50.0	46.0	16.4	15.6	15.0	14.3	13.6	13.2	12.5	11.9
55.0	51.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9
60.0	56.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9

TC: Total Capacity (MBh)

Electrical Data

Table 54: 1-Way Ceiling Cassette Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU073TJC2	187-253	0.29	15	0.18	60	208-230	1	40	40
ARNU093TJC2	187-253	0.29	15	0.18	60	208-230	1	40	40
ARNU123TJC2	187-253	0.29	15	0.18	60	208-230	1	40	40

MCA : Minimum Circuit Ampacity MOP : Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value.
- Instead of fuse, use the circuit breaker

ACOUSTIC DATA

TJ Chassis

Sound Pressure Data

Table 55: 1-Way Ceiling Cassette Unit Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU073TJC2	40	38	37
ARNU093TJC2	40	38	37
ARNU123TJC2	41	39	37

Figure 102: ARNU073TJC2

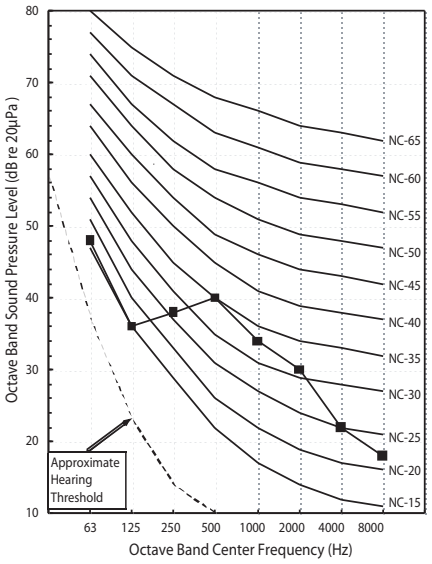


Figure 103: ARNU093TJC2

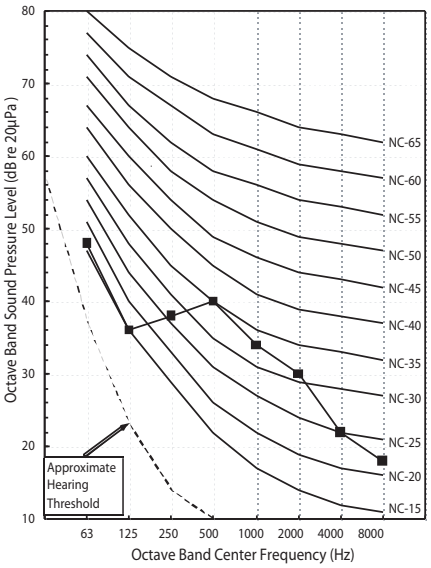
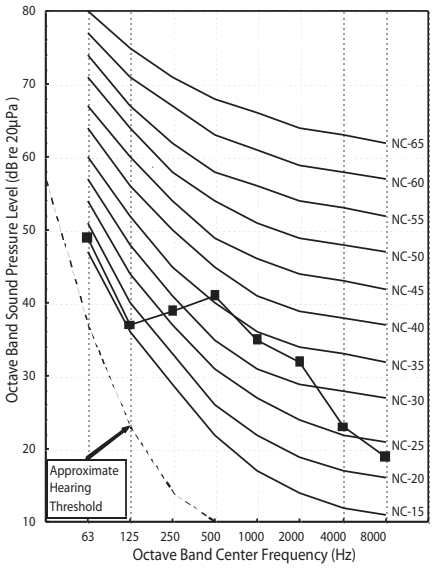


Figure 104: ARNU123TJC2



- Measurements are taken 4.9 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions:

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 105: Sound Levels

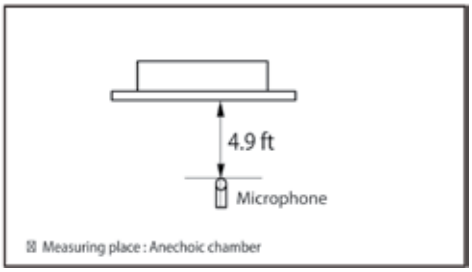


Figure 106: TJ Chassis Piping Diagram

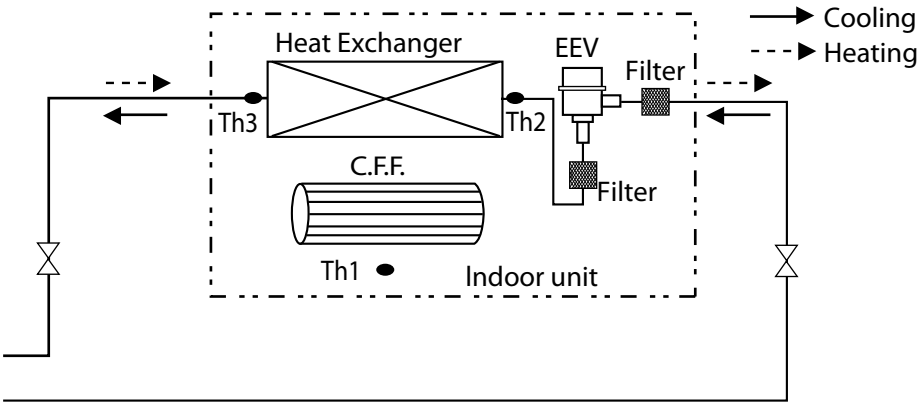


Table 56: TJ Chassis Refrigerant Pipe Connection Port Diameters

Model	Liquid (inch)	Gas (inch)
ARNU073TJC2	1/4	1/2
ARNU093TJC2		
ARNU123TJC2		

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

WIRING DIAGRAMS

TJ Chassis

Figure 107: TJ Chassis Wiring Diagram

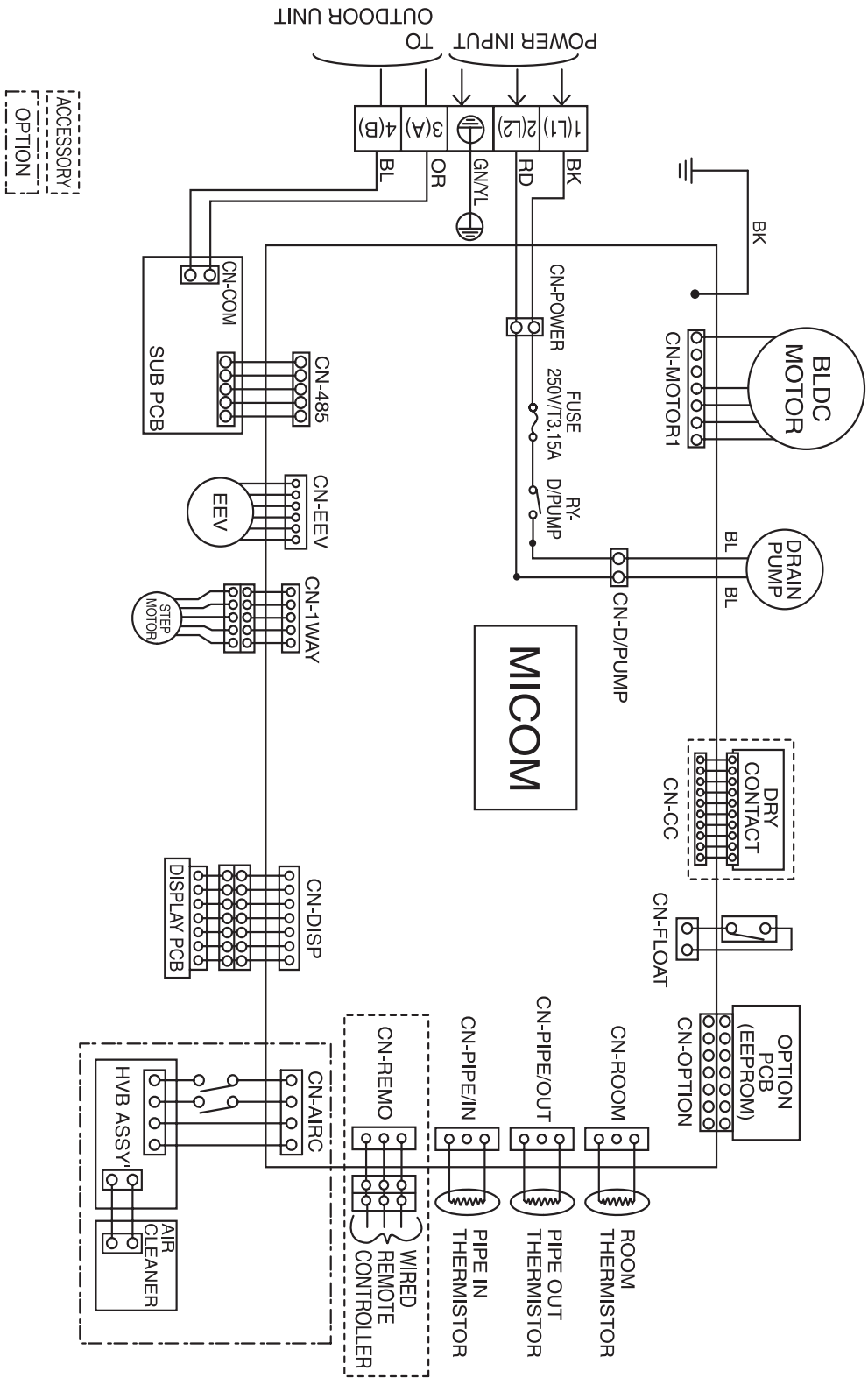


Table 57: TJ Chassis Wiring Diagram

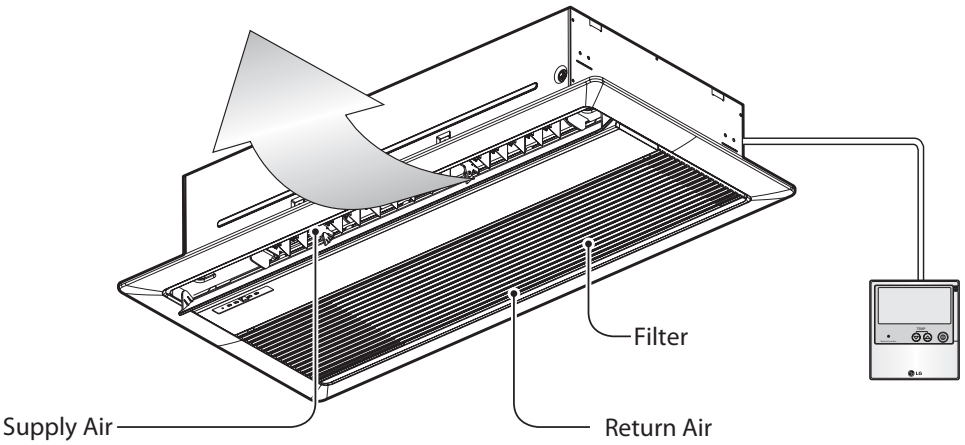
CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-485	Communication	Connection between indoor and outdoor
CN-DISP	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output
CN-VANE2	Step motor	Step motor output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-AIRC	Air clean	Air cleaner control

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	No Function

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for the other models.

INSTALLATION & BEST LAYOUT PRACTICES

Figure 108: TJ Chassis



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Torque wrenches
- Hexagonal wrench
- Gas-leak detector
- Thermometer

Required Parts

- Connecting cable
- Pipes - vapor line and liquid line (field provided)
- Hanger rod 3/8" or 1/2"
- Insulated drain hose
- Additional drain hose

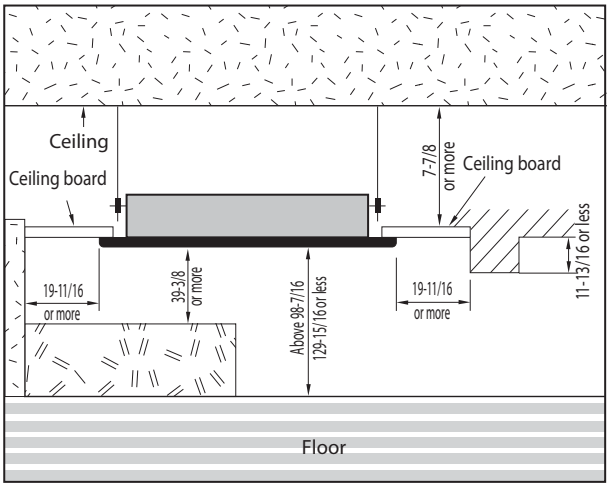
⚠WARNING

1. Please read all instructions before installing the product.

2. When the power cord is damaged, all replacement work must be performed by authorized personnel only.

3. Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.

Figure 109: Selecting the Best Location



Selecting the Best Location

Do's

- Place the unit where free air discharge can be obtained without obstruction.
- If possible, position the unit to minimize the length of the condensate drain pipe.
- Verify maintenance space requirements.

Don'ts

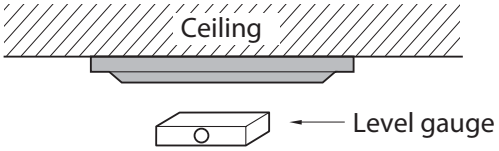
- The unit should not be near a heat source or steam.
- The air circulation should not be blocked by obstacles.
- Do not install the unit near a doorway.

⚠WARNING

If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

INSTALLATION & BEST LAYOUT PRACTICES

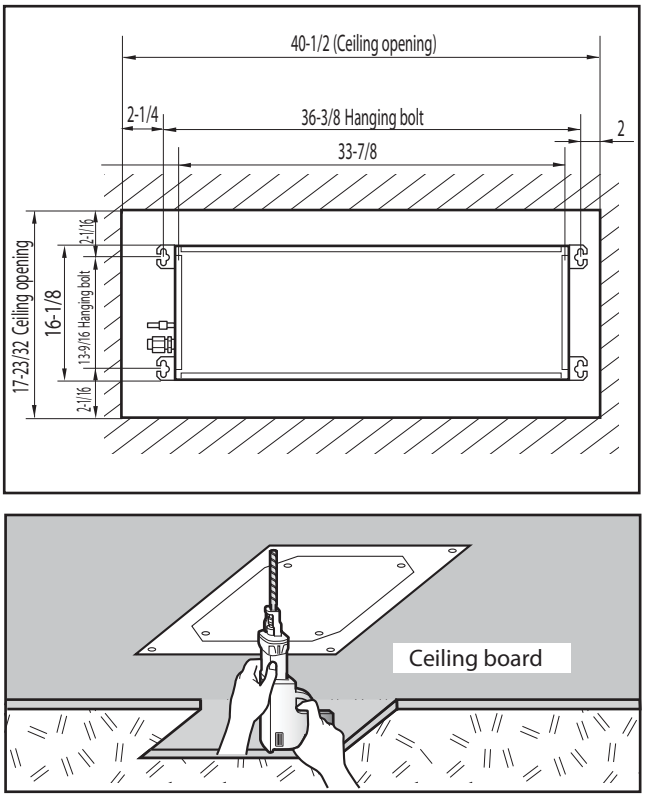
Figure 110: Ceiling Opening



1. Decide where the fixing bolts should be placed. The fixing bolts should be slightly tilted to the direction of the drain hose.
2. Select and mark the position for fixing bolts and the piping hole.
3. Drill a hole on the wall for the anchor bolt.
4. Install the unit horizontally using a level gauge.

⚠CAUTION
Do not damage electric wires during the installation.

Figure 111: Hanging Bolt Location



Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing unit in places where cooking oil or iron powder is generated.
- Avoid installing unit where flammable gas is generated, flows, stored or vented.
- Avoid installing where sulfurous acid gas or corrosive gas is generated.
- Avoid installing unit near high frequency generators.

Figure 112: Unit Clearance

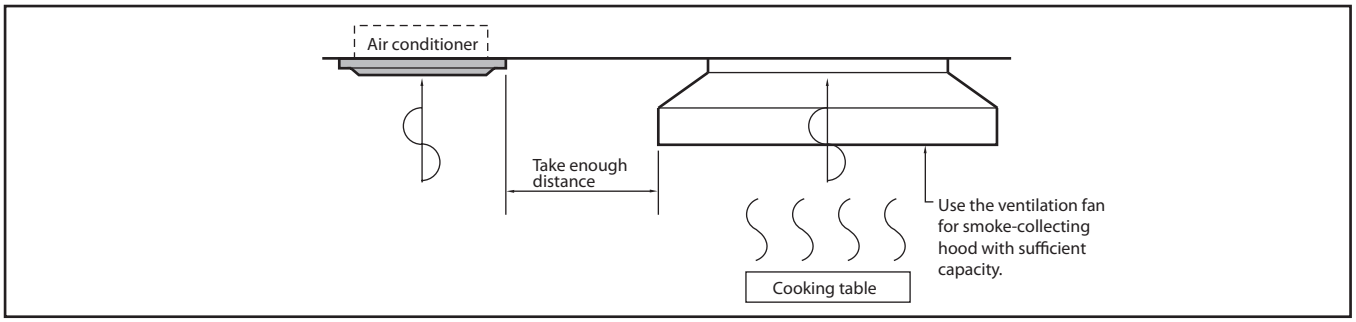
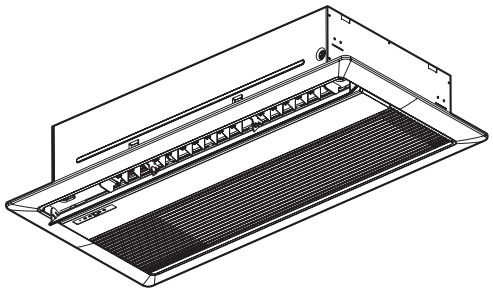


Figure 113: TJ Chassis



The following parts can be purchased locally:

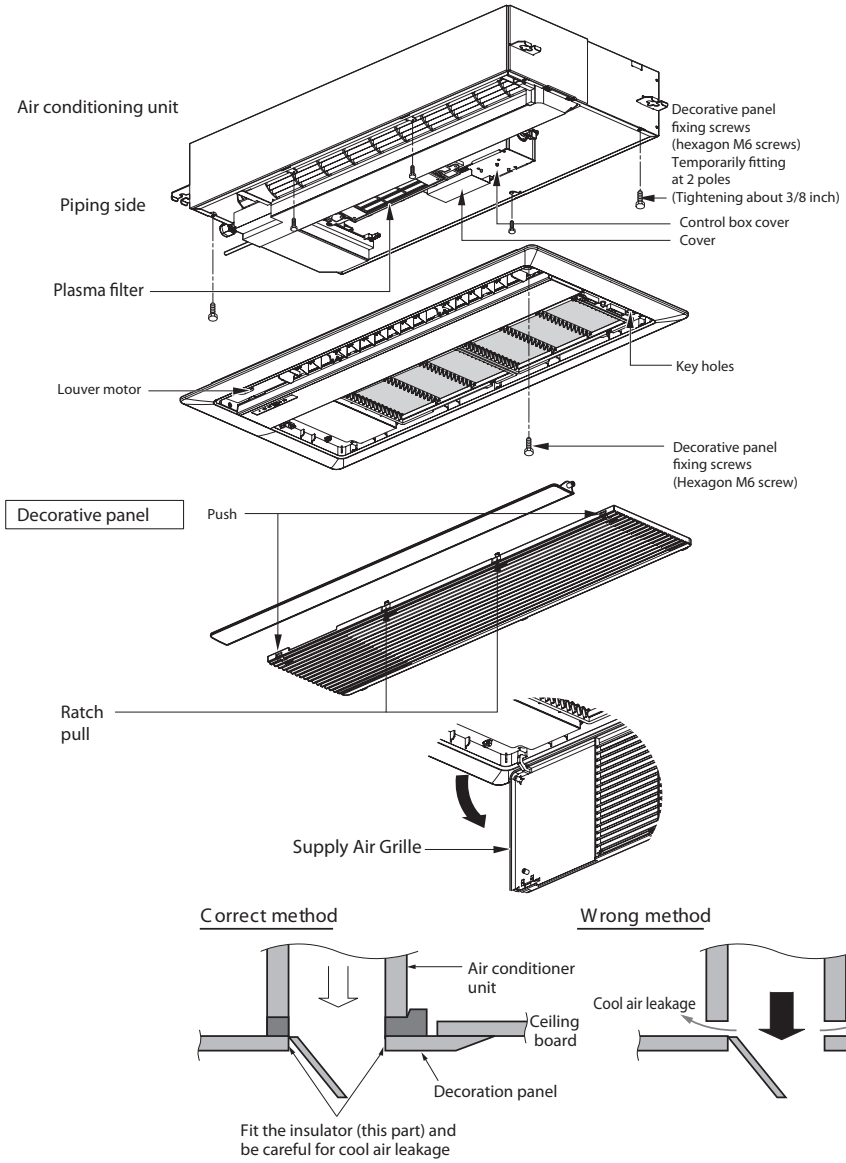
- Hanger rod 3/8" or 1/2"
- Nut - W-3/8" or M10
- Spring washer - M10
- Plate washer - M10

⚠CAUTION

Tighten the nut and bolt to prevent the unit from falling.

Installation of the Decorative Panel

Figure 114: Installing Decorative Panel



⚠CAUTION

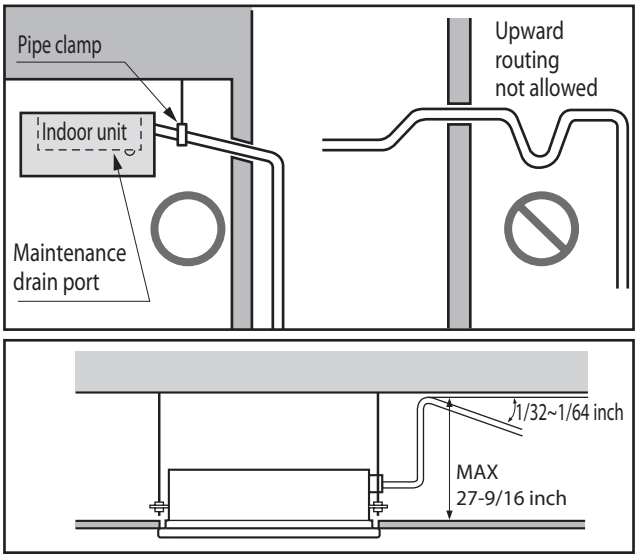
Before installing the decorative panel, remove the paper template.

1. Install the decorative panel using two hexagon M6 screws provided with the indoor unit. Partially tighten the screws.
2. Remove the supply air grille from the decorative panel (remove the hook for the inlet grille cord).
3. Place the decorative panel key hole on the screws partially tightened in step 1 above. Slide the panel so that the screws are in line with the key hole.
4. Completely tighten the two partially tightened screws and the other two screws.
5. Connect the louver motor connector, display connector and room temperature thermistor connector.
6. After tightening these screws, install the supply air grille (including the air filter) and push the middle point of supply air grille.
7. Assemble the cover display and the cover.
8. If the decorative panel is not installed properly, cool air leakage will cause condensation.

Indoor Unit Drain Piping

- Drain piping must have down slope (1/32 to 1/64 inch). To prevent reversal flow, do not provide up and down slope.
- During drain piping connection, do not exert extra force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 1-1/4 inch.
- The piping material is polyvinyl chloride pipe (1 inch)
- Install heat insulation on the drain piping
- The heat insulation material is polyethylene foam thicker than 5/16 inch.

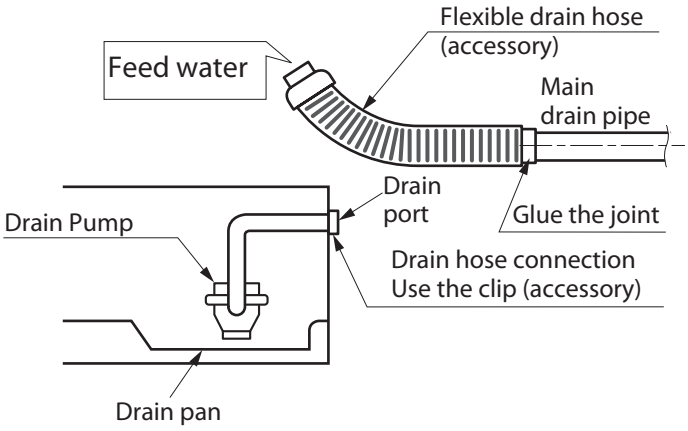
Figure 115: Drain Piping



Drain Test

The indoor unit uses a drain pump to drain water. Use the following procedure to test the drain pump operation.

Figure 116: Drain Test

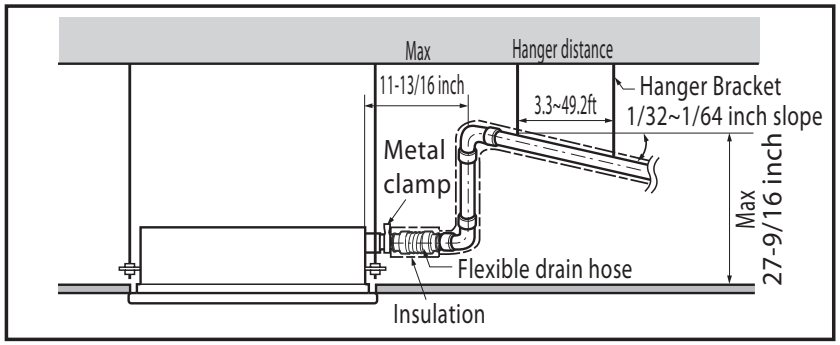


1. Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
2. Feed water to the flexible drain hose and check the piping for leakage.
3. Check the drain pump for normal operation and noise when electrical wiring is complete.
4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.

⚠CAUTION

The supplied flexible drain hose should not be strained. A strained hose may cause water to leak.

Figure 117: Placement Recommendation



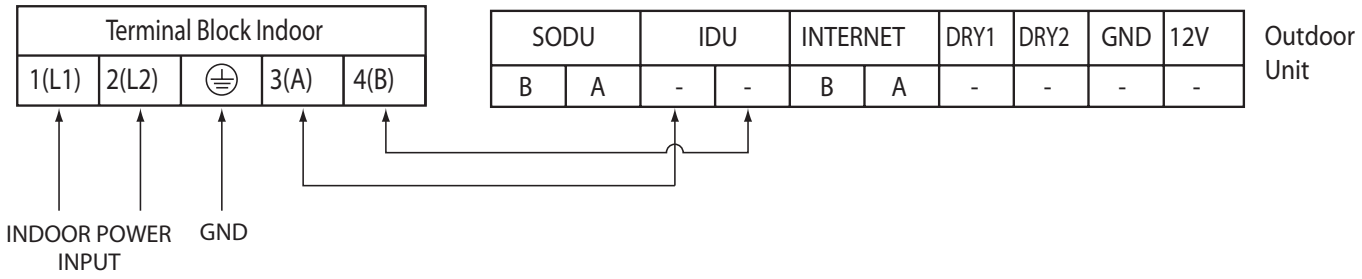
Hand Over

Using the operations manual, explain the proper operation and maintenance procedures (air filter cleaning, temperature control, etc.) to the customer.

Wiring Connection

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires on the outdoor unit and terminal number match those on the indoor unit.

Figure 118: Wiring Connection



⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Prepare the wiring as follows:

1. Always have separate power for the indoor unit.
2. Follow the circuit diagram pasted on the inside on the control box cover.
3. Provide a circuit breaker switch between the power source and indoor unit.
4. Confirm the specification of the power source.
5. Confirm that the electrical capacity is sufficient.
6. Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
7. Confirm the cable thickness is as specified in the power sources specification.
8. Always equip a leakage breaker where conditions are wet or moist.

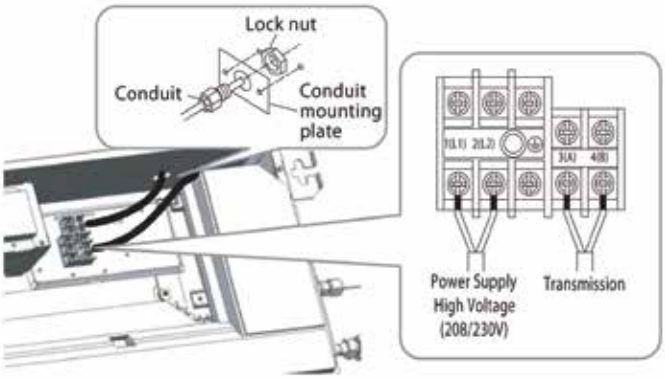
The following problems can be caused by voltage dropdown:

- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Figure 119: Connection Method



Wired Remote Controller Installation

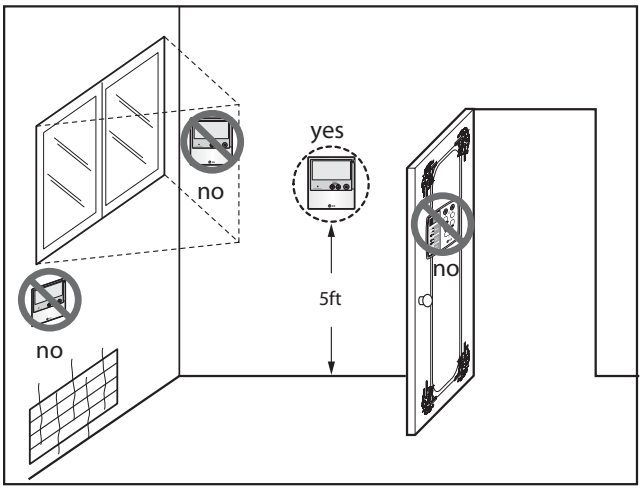
Since the room temperature sensor is inside the remote controller, the remote controller should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

Figure 120: Wired Remote Controller Installation



⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

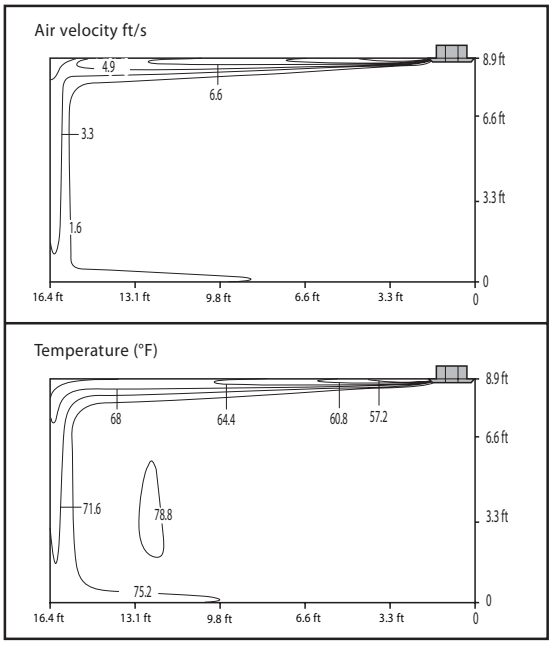
AIR VELOCITY & TEMP DISTRIBUTION

ARNU073TJC2

Figure 121: ARNU073TJC2

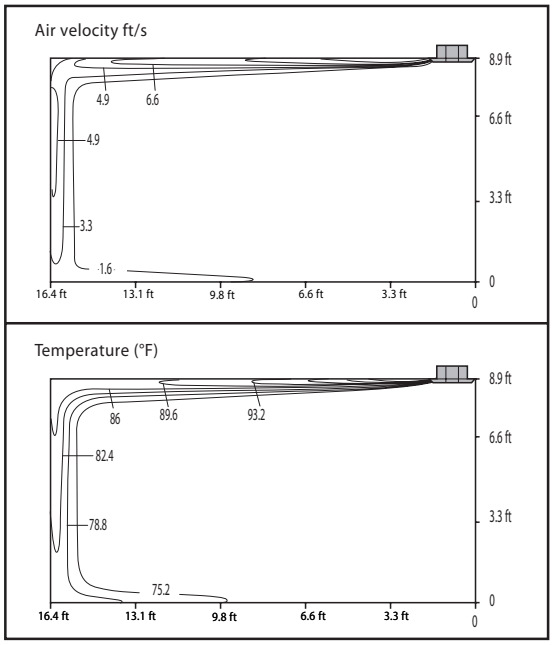
Cooling

Discharge angle: 20°



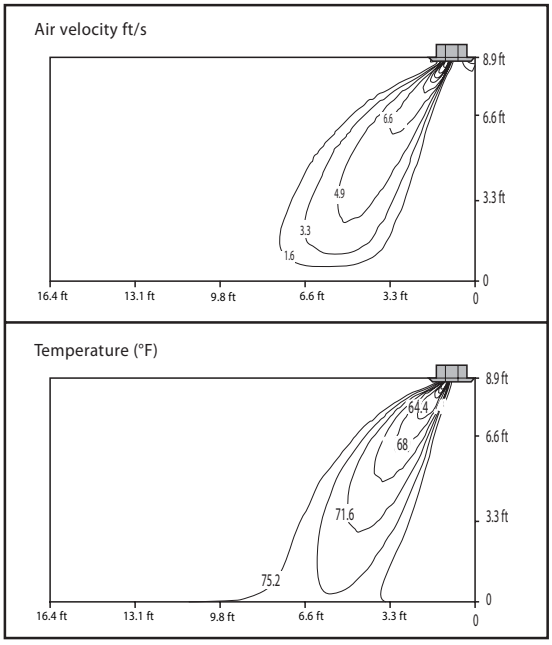
Heating

Discharge angle: 20°



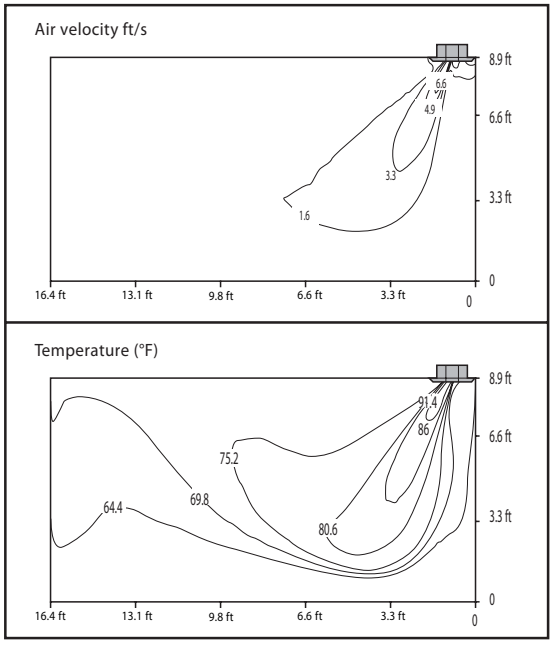
Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 121 ARNU073TJC2, continued

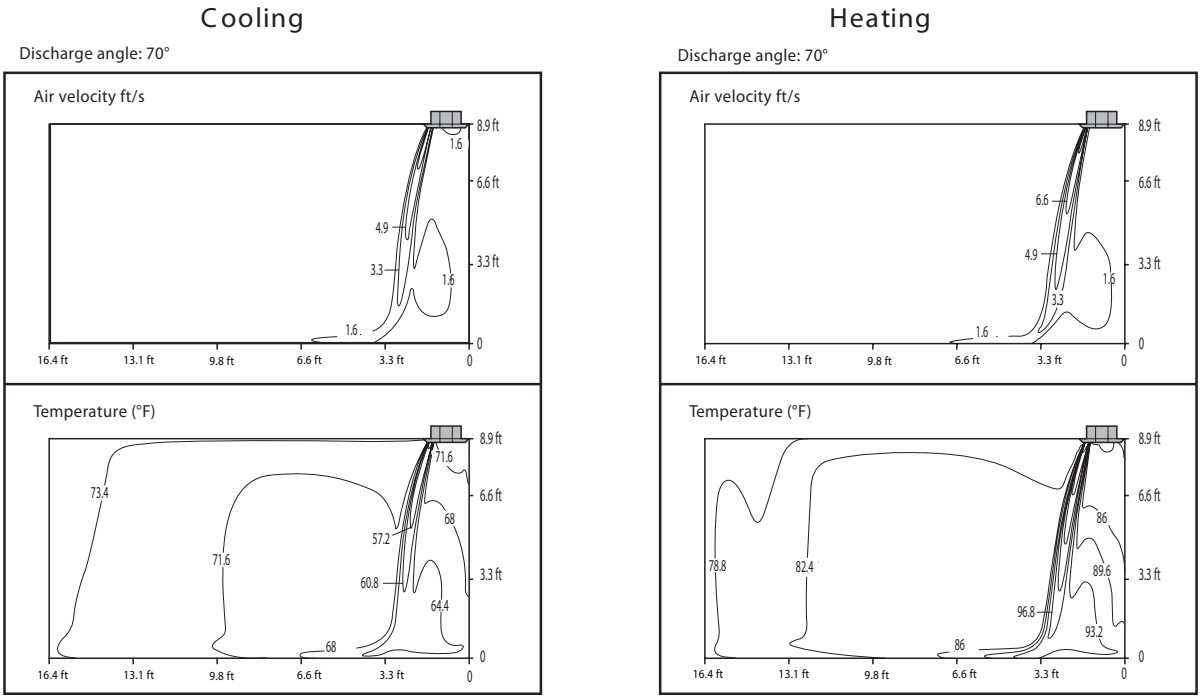
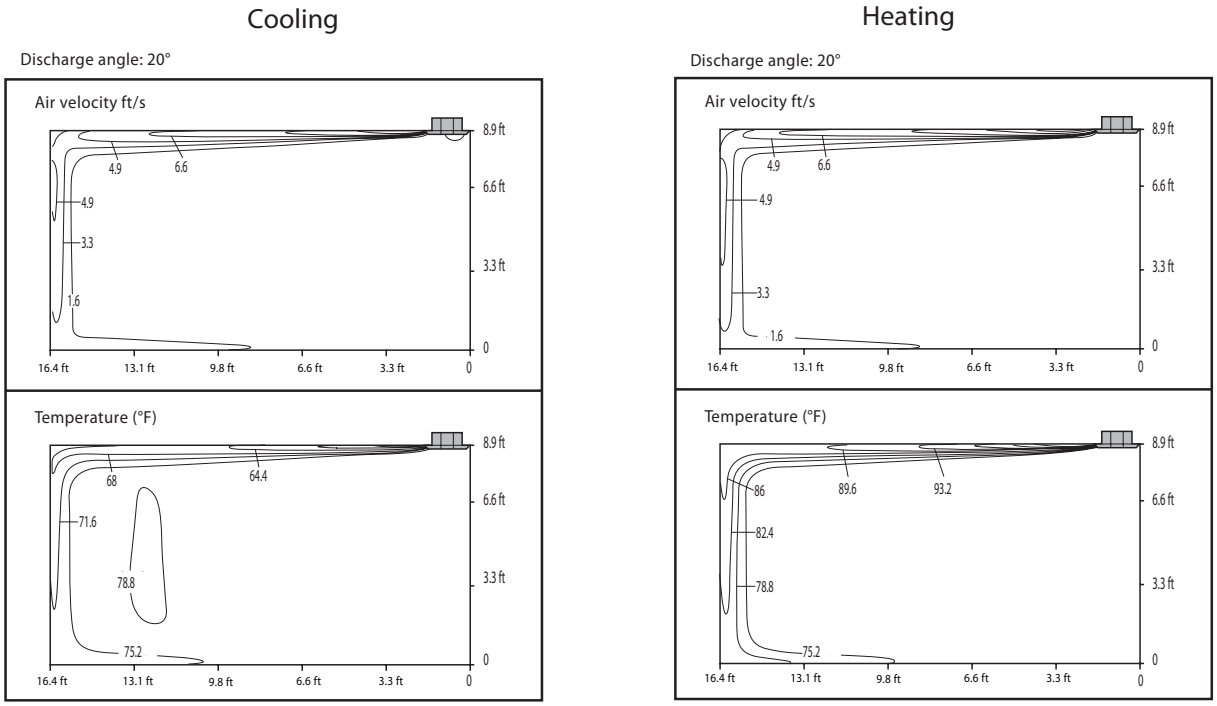


Figure 122: ARNU093TJC2



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

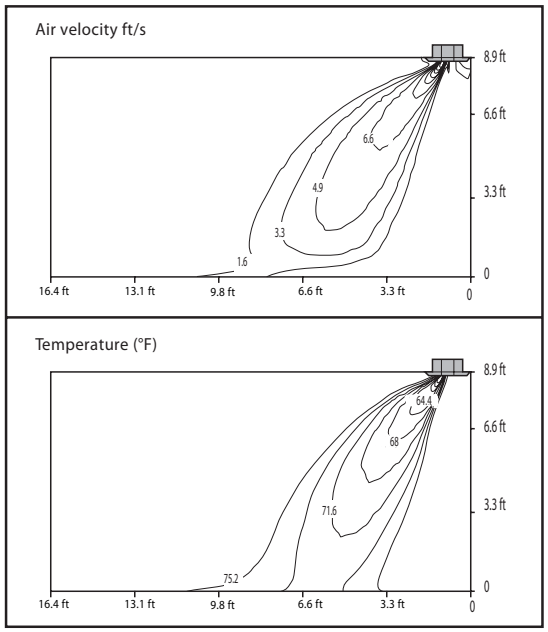
AIR VELOCITY & TEMP DISTRIBUTION

ARNU093TJC2

Figure 122 ARNU093TJC2, continued

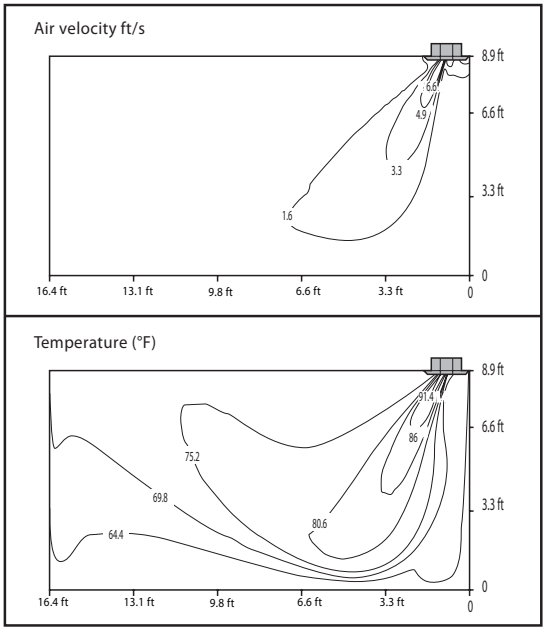
Cooling

Discharge angle: 45°



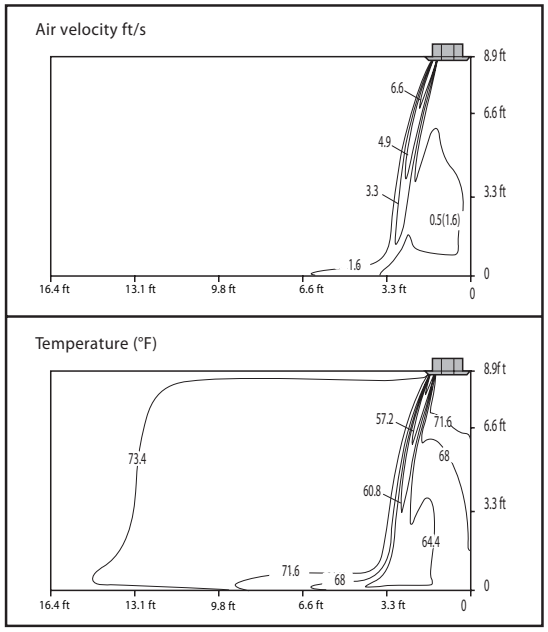
Heating

Discharge angle: 60°



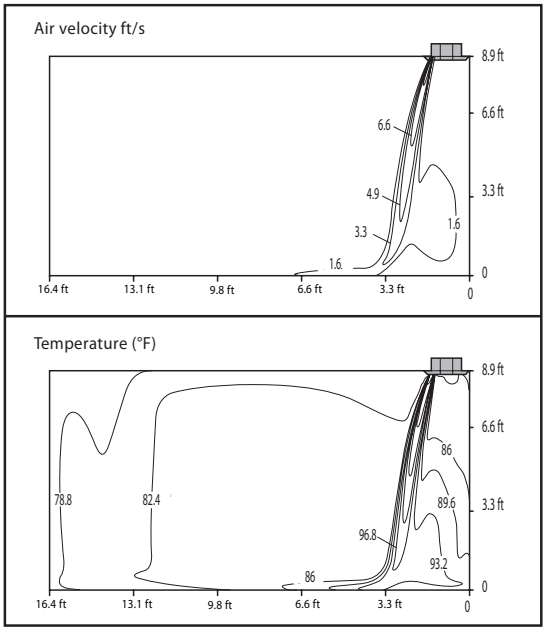
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°

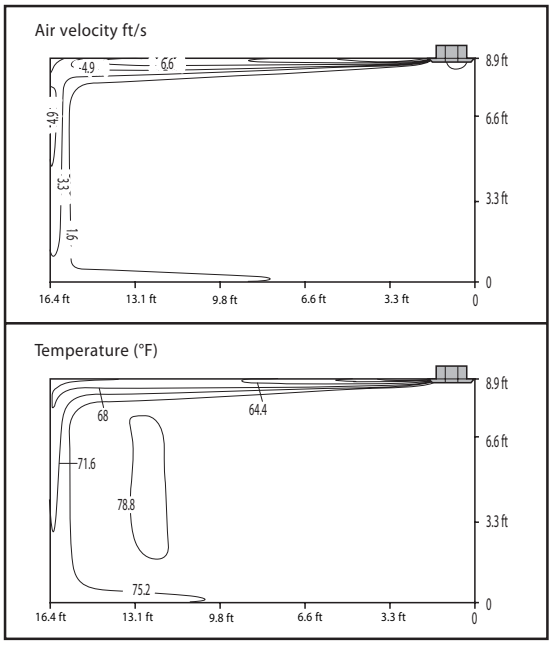


The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 123: ARNU123TJC2

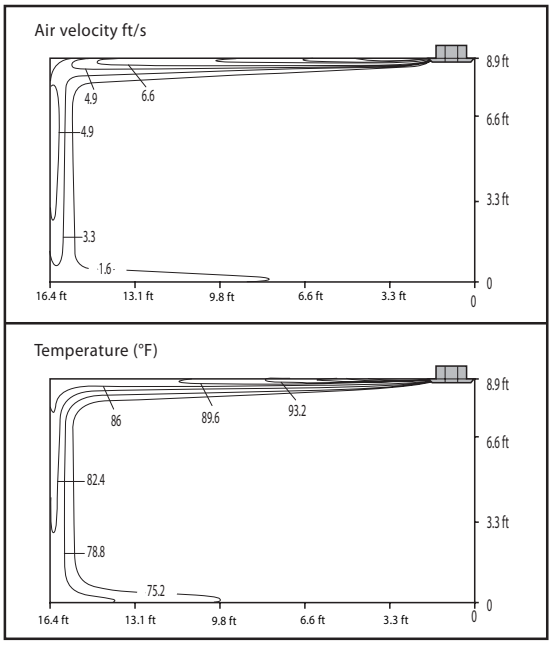
Cooling

Discharge angle: 20°



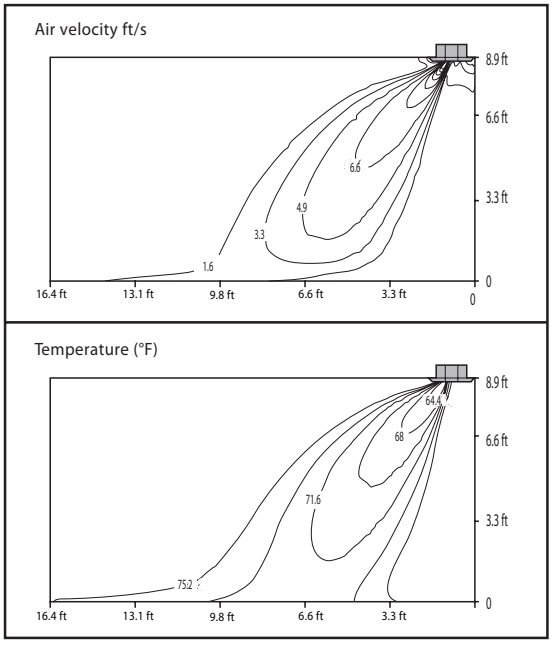
Heating

Discharge angle: 20°



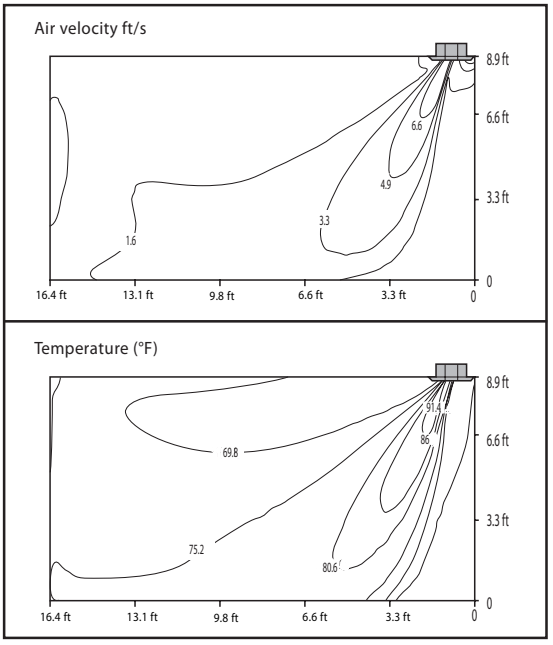
Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

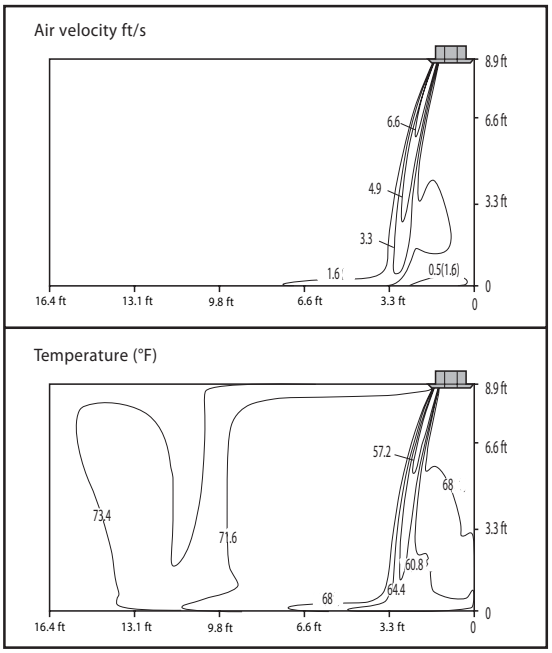
AIR VELOCITY & TEMP DISTRIBUTION

ARNU123TJC2

Figure 123 ARNU123TJC2, continued

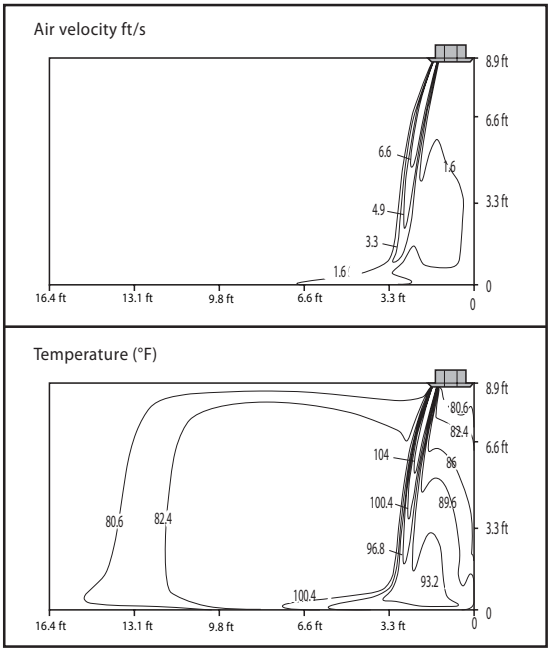
Cooling

Discharge angle: 70°



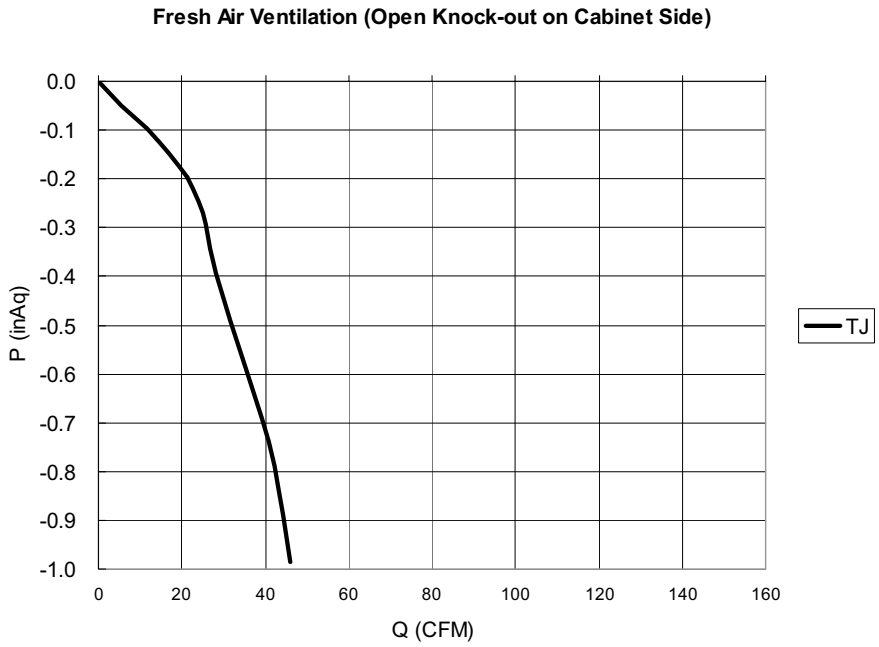
Heating

Discharge angle: 70°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 124: TJ Chassis Fresh Air Ventilation



2-WAY CEILING CASSETTE

GENERAL DATA

2-Way Ceiling Cassette Unit Specifications

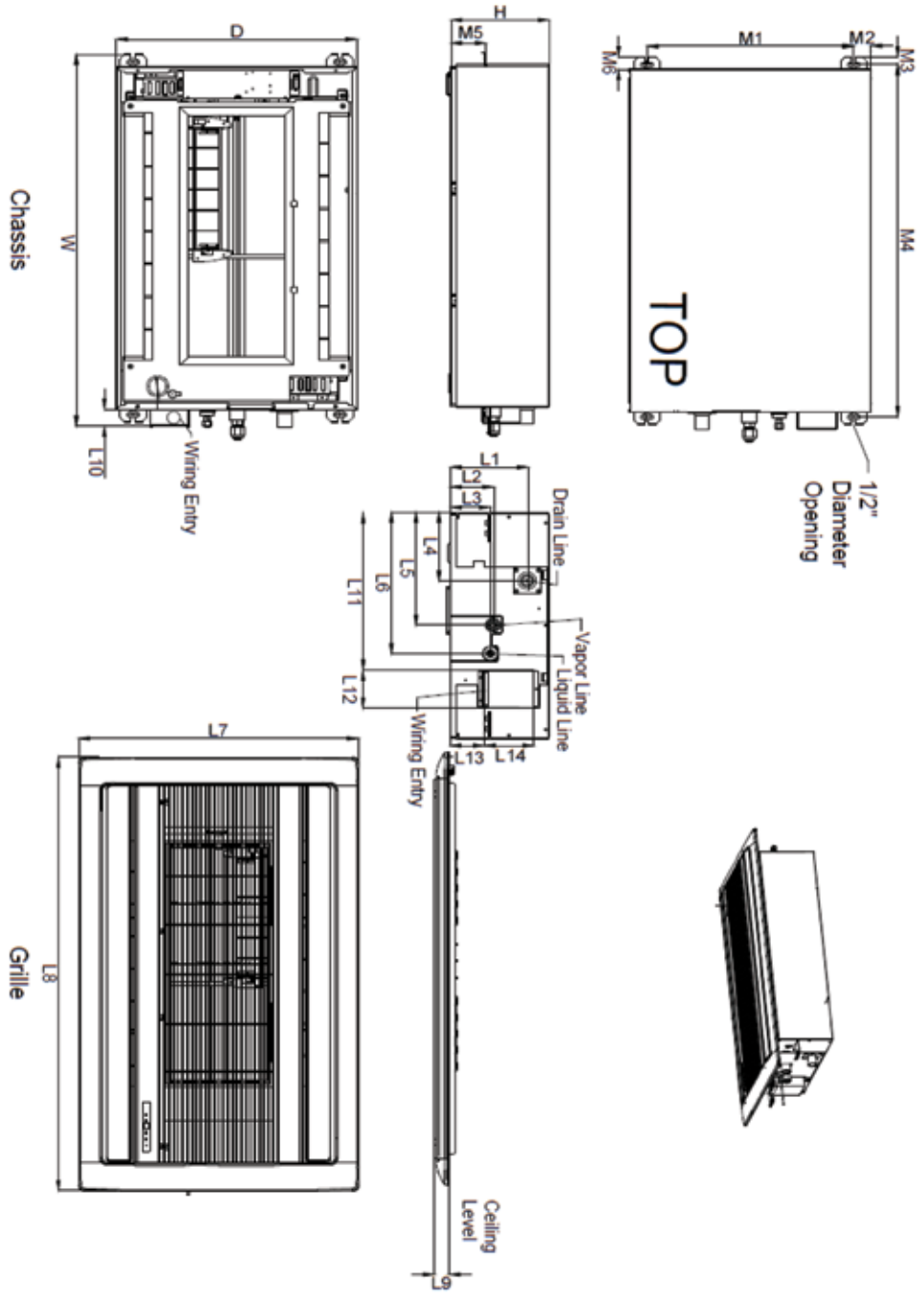
ARNU183TLC2, ARNU243TLC2

Table 58: 2-Way Ceiling Cassette Unit General Data

Type	2-Way Ceiling Cassette	
	ARNU183TLC2	ARNU243TLC2
Cooling Mode Performance		
Capacity (Btu/h)	19,100	24,200
Power Input[1] (W)	70	70
Heating Mode Performance		
Capacity (Btu/h)	21,500	27,300
Power Input[1] (W)	70	70
Entering Mixed Air		
Cooling Max (°F WB)	76	76
Heating Min (°F DB)	59	59
Unit Data		
Refrigerant Type[2]	R410A	R410A
Refrigerant Control	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	40/36/32	42/38/34
Net Unit Weight (lbs)	49	49
Shipping Weight (lbs)	56	56
Grille Weight (lbs)	11	11
Grille Shipping Weight (lbs)	13	13
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18
Fan		
Type	Cross Flow	Cross Flow
Quantity	1	1
Motor/Drive	Brushless Digitally Controlled/Direct	Brushless Digitally Controlled/Direct
Airflow Rate H/M/L (CFM)	459/424/353	601/530/459
Piping		
Liquid Line (in, OD)	1/4 Flare	3/8 Flare
Vapor Line (in, OD)	1/2 Flare	5/8 Flare
Condensate Line (in, ID)	1	1

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.
[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1



W	35-7/16"
H	8-7/8"
D	21-5/8"
L1	6-15/16"
L2	3-7/8"
L3	3-5/8"
L4	6-1/2"
L5	10-13/16"
L6	13-9/16"
L7	25-3-16"
L8	41-5/16"
L9	1-1/8"
L10	1-5/8"
L11	15"
L12	3-5/8"
L13	3-1/8"
L14	4-1/2"
M1	21-11/16"
M2	1-5/16"
M3	15-16"
M4	32-11/16"
M5	3-1/8"
M6	1-3/16"

Note - All dimensions have a tolerance of ± 0.25 in.

PERFORMANCE DATA

Cooling Capacity

ARNU183TLC2, ARNU243TLC2

Table 59: ARNU183TLC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	24.6	14.2
25	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	24.6	14.2
30	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	24.6	14.2
35	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	24.6	14.2
40	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	24.6	14.2
45	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	24.6	14.2
50	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	24.6	14.2
55	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	24.6	14.2
60	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	24.4	14.1
65	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	24.1	13.9
70	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	23.7	13.7
75	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.7	14.2	23.1	13.4
80	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.4	14.4	22.2	14.2	22.5	13.3
85	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	21.2	14.2	21.4	13.5	21.8	12.8
90	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	20.8	14.0	21.0	13.3	21.4	12.6
95	12.6	10.3	15.3	11.8	17.2	12.6	**19.1**	**13.4**	20.4	13.9	20.8	13.2	21.2	12.5
100	12.6	10.3	15.3	11.8	17.2	12.6	19.1	13.4	20.1	13.7	20.4	13.1	20.8	12.4
105	12.6	10.3	14.5	11.2	16.4	12.0	18.3	12.8	18.7	12.8	19.7	12.7	20.1	12.1
110	12.2	10.0	13.8	10.6	15.3	11.2	17.2	12.0	17.6	12.0	18.7	12.1	19.5	11.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 60: ARNU243TLC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	31.2	18.0
25	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	31.2	18.0
30	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	31.2	18.0
35	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	31.2	18.0
40	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	31.2	18.0
45	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	31.2	18.0
50	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	31.2	18.0
55	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	31.2	18.0
60	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	31.0	17.9
65	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	30.5	17.6
70	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	30.0	17.4
75	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.8	18.0	29.3	17.0
80	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	27.1	18.2	28.1	17.9	28.6	16.9
85	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	26.9	18.0	27.1	17.1	27.6	16.2
90	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	26.4	17.7	26.6	16.9	27.1	16.0
95	16.0	13.0	19.4	14.9	21.8	16.0	**24.2**	**16.9**	25.9	17.6	26.4	16.8	26.9	15.9
100	16.0	13.0	19.4	14.9	21.8	16.0	24.2	16.9	25.4	17.3	25.9	16.6	26.4	15.7
105	16.0	13.0	18.4	14.2	20.8	15.3	23.2	16.3	23.7	16.3	24.9	16.0	25.4	15.3
110	15.5	12.6	17.4	13.5	19.4	14.2	21.8	15.2	22.3	15.3	23.7	15.3	24.7	14.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 61: ARNU183TLC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

Table 62: ARNU243TLC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

ELECTRICAL & ACOUSTIC DATA

TL Chassis

Electrical Data

Table 63: 2-Way Ceiling Cassette Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU183TLC2	187-253	0.52	15	0.37	60	208-230	1	70	70
ARNU243TLC2	187-253	0.52	15	0.37	60	208-230	1	70	70

MCA : Minimum Circuit Ampacity MOP : Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value.
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 64: 2-Way Ceiling Cassette Unit Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU183TLC2	40	36	32
ARNU243TLC2	42	38	34

Figure 125: ARNU183TLC2

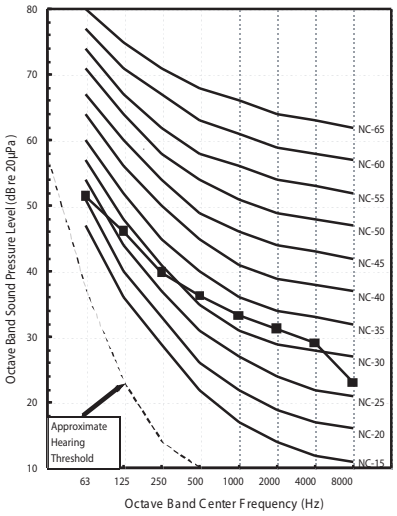
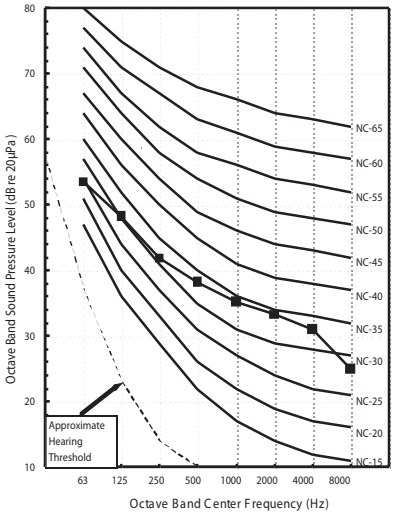


Figure 126: ARNU243TLC2



- Measurements are taken 4.9 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions :

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 127: Sound Levels

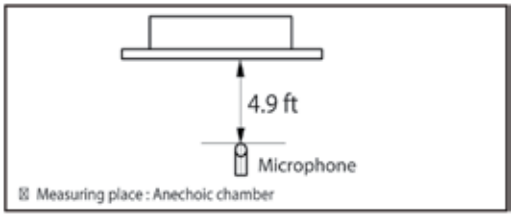


Figure 128: TL Chassis Piping Diagram

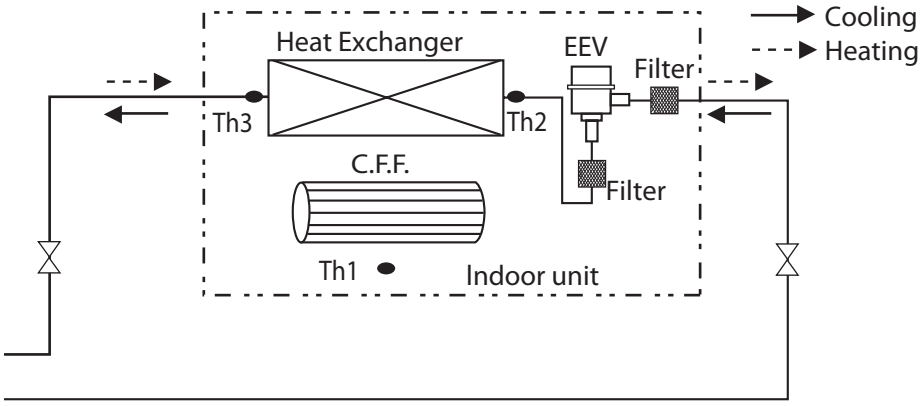


Table 65: TL Chassis Refrigerant Pipe Connection Port Diameters

Model	Liquid (inch)	Gas (inch)
ARNU183TLC2	1/4	1/2
ARNU243TLC2	3/8	5/8

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

WIRING DIAGRAMS

TL Chassis

Figure 129: TL Chassis Wiring Diagram

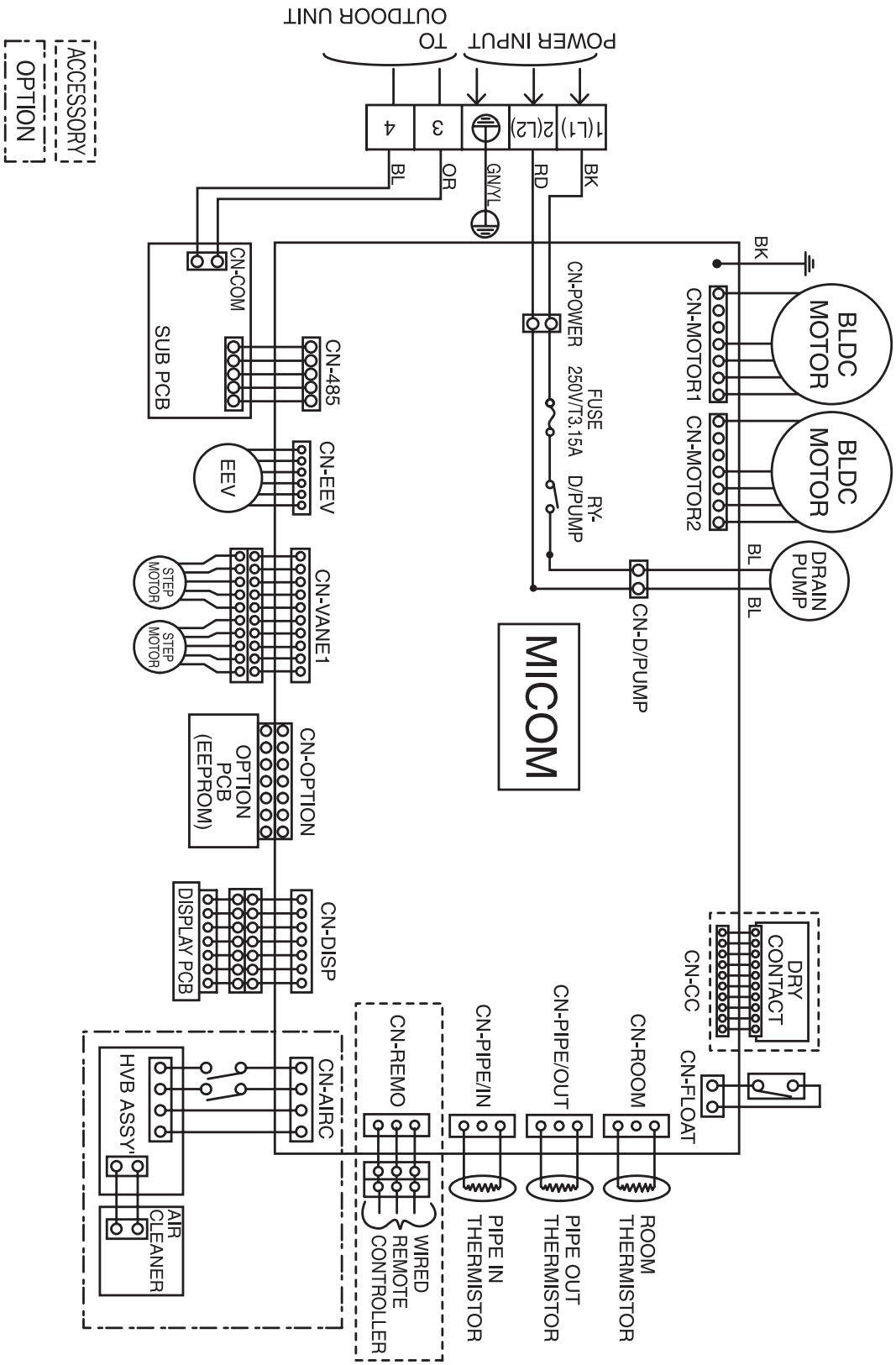


Table 66: TL Chassis Wiring Diagram

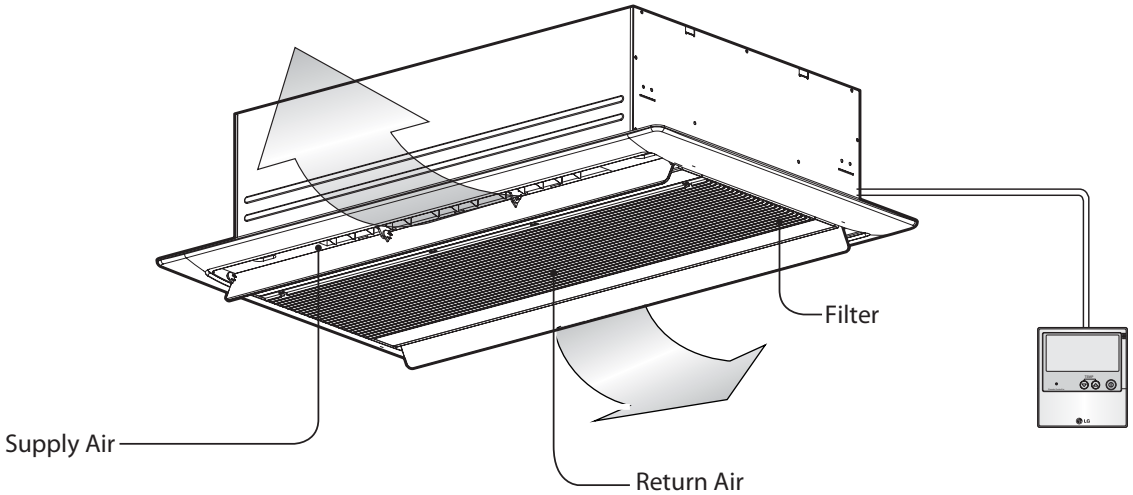
CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-485	Communication	Connection between indoor and outdoor
CN-DISP	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output
CN-VANE2	Step motor	Step motor output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	No Function

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for other models.

INSTALLATION & BEST LAYOUT PRACTICES

Figure 130: TL Chassis



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Torque wrenches
- Hexagonal wrench
- Gas-leak detector
- Thermometer

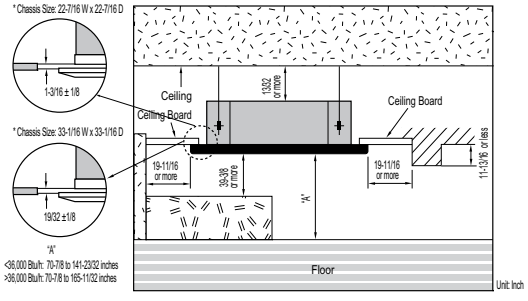
Required Parts

- Connecting cable
- Pipes - vapor line and liquid line (field provided)
- Hanger rod 3/8" or 1/2"
- Insulated drain hose
- Additional drain hose

⚠WARNING

- *Please read all instructions before installing the product.*
- *When the power cord is damaged, all replacement work must be performed by authorized personnel only.*
- *Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.*

Figure 131: Selecting the Best Location



Selecting the Best Location

Do's

- Place the unit where free air discharge can be obtained without obstruction.
- If possible, position the unit to minimize the length of the condensate drain pipe.
- Verify maintenance space requirements.

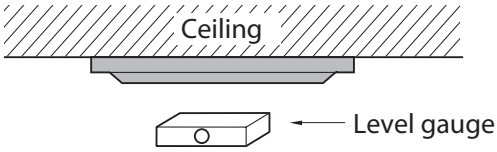
Don'ts

- The unit should not be near a heat source or steam.
- The air circulation should not be blocked by obstacles.
- Do not install the unit near a doorway.

⚠WARNING

If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

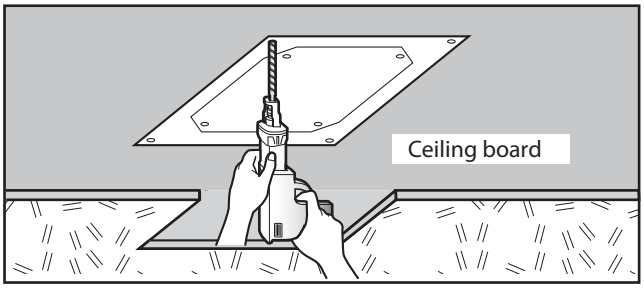
Figure 132: Ceiling Opening



1. Decide where the fixing bolts should be placed. The fixing bolts should be slightly tilted to the direction of the drain hose.
2. Select and mark the position for fixing bolts and the piping hole.
3. Drill a hole on the wall for the anchor bolt.
4. Install the unit horizontally using a level gauge.

⚠CAUTION
Do not damage electric wires during the installation.

Figure 133: Hanging Bolt Location



Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing unit in places where cooking oil or iron powder is generated.
- Avoid installing unit where flammable gas is generated, flows, stored or vented.
- Avoid installing where sulfurous acid gas or corrosive gas is generated.
- Avoid installing unit near high frequency generators.

Figure 134: Unit Clearance

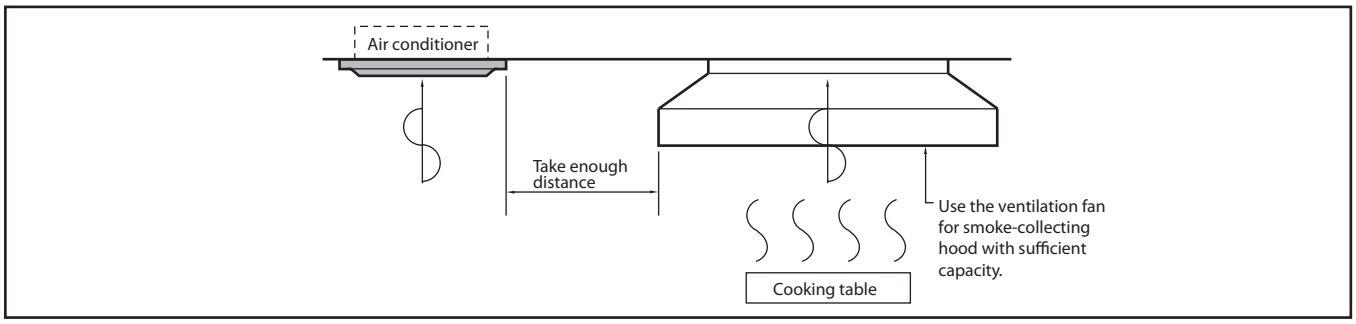
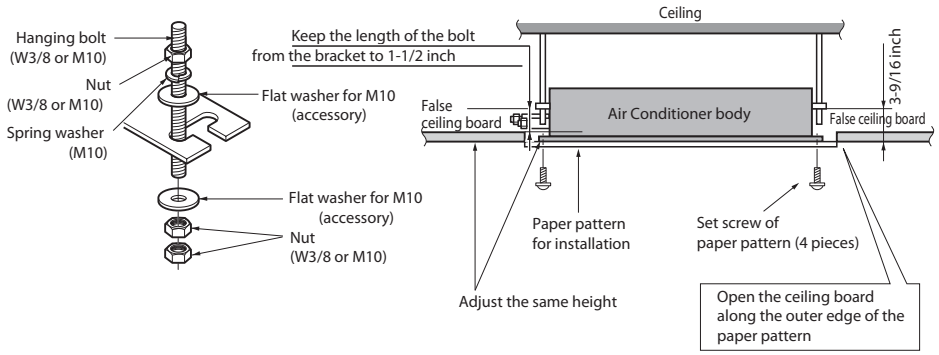


Figure 135: Bolt Locations



The following parts can be purchased locally:

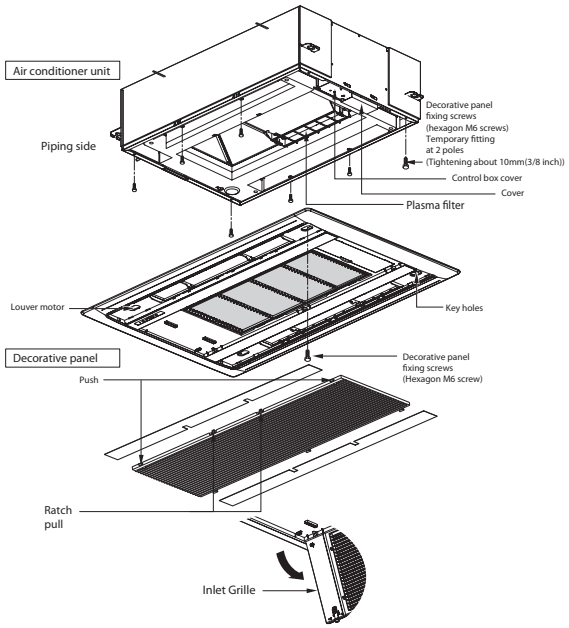
- Hanger rod 3/8" or 1/2"
- Nut - W-3/8" or M10
- Spring washer - M10
- Plate washer - M10

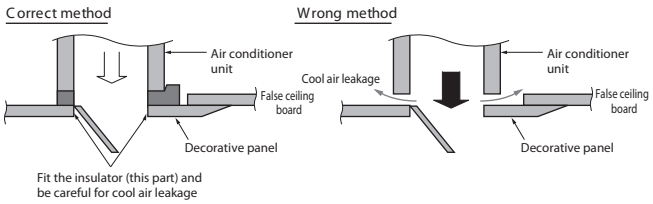
⚠CAUTION

Tighten the nut and bolt to prevent the unit from falling.

Installation of the Decorative Panel

Figure 136: Decorative Panel Installation





⚠CAUTION

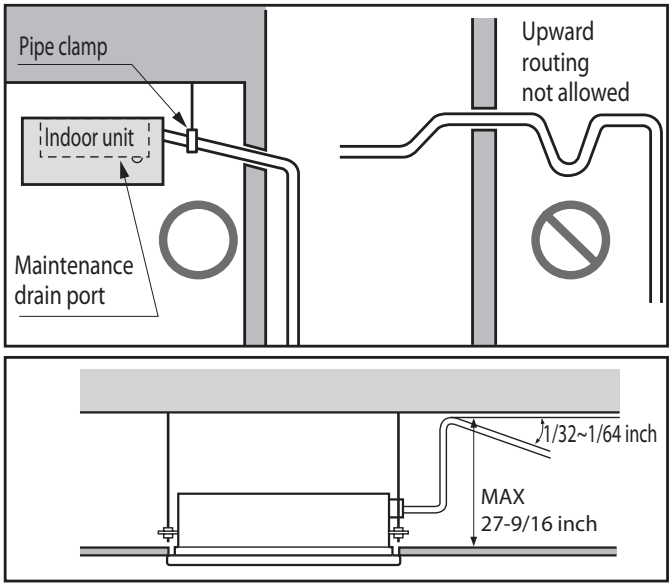
Install the decorative panel, otherwise cool air leakage will cause condensation.

1. Install the decorative panel using two hexagon M5 screws provided with the indoor unit. Partially tighten the screws.
2. Remove the supply air grille from the decorative panel (remove the hook for the inlet grille cord).
3. Place the decorative panel key hole on the screws partially tightened in step 1 above. Slide the panel so that the screws are in line with the key hole.
4. Completely tighten the two partially tightened screws and other two screws (total 4 screws).
5. Connect the louver motor connector and display connector.
6. After tightening these screws, install the supply air grille (including the air filter).

Indoor Unit Drain Piping

- Drain piping must have down slope (1/32 to 1/64 inch). To prevent reversal flow, do not provide up and down slope.
- During drain piping connection, do not exert extra force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 1-1/4 inch.
- The piping material is polyvinyl chloride pipe (1 inch)
- Install heat insulation on the drain piping
- The heat insulation material is polyethylene foam thicker than 5/16 inch.

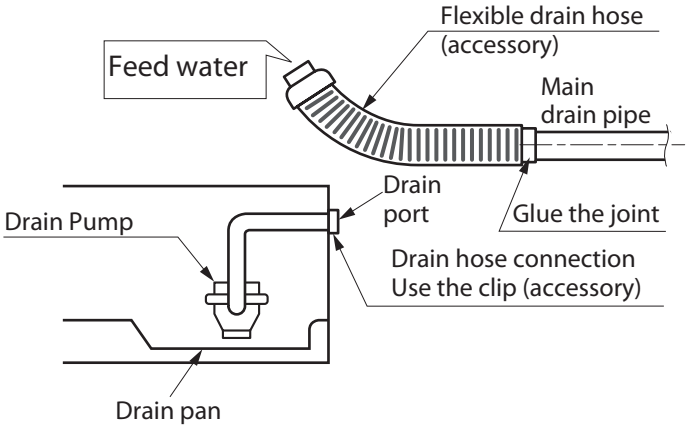
Figure 137: Drain Piping



Drain Test

The indoor unit uses a drain pump to drain water. Use the following procedure to test the drain pump operation.

Figure 138: Drain Test

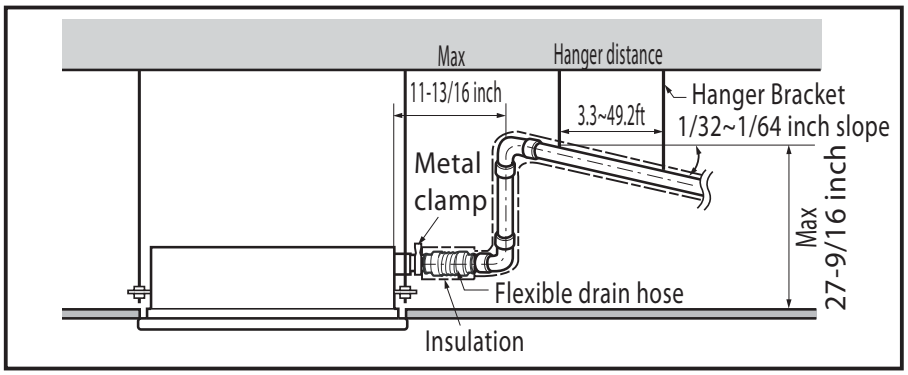


1. Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
2. Feed water to the flexible drain hose and check the piping for leakage.
3. Check the drain pump for normal operation and noise when electrical wiring is complete.
4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.

⚠CAUTION

The supplied flexible drain hose should not be strained. A strained hose may cause water to leak.

Figure 139: Placement Recommendation



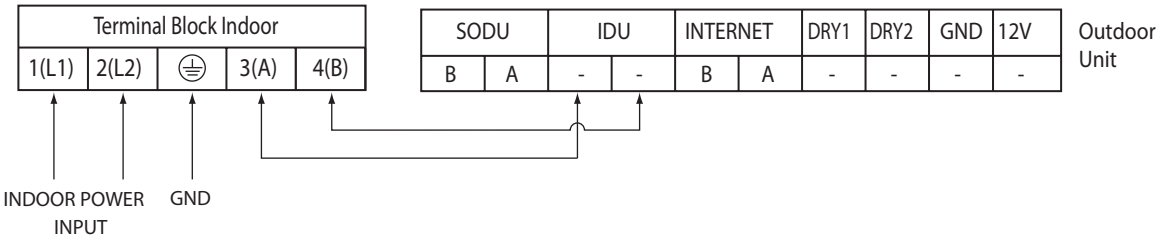
Hand Over

Using the operations manual, explain the proper operation and maintenance procedures (air filter cleaning, temperature control, etc.) to the customer.

Wiring Connection

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires on the outdoor unit and terminal No. are the same as those on the indoor unit.

Figure 140: Wiring Connection



⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Prepare the wiring as follows:

1. Always have separate power for the indoor unit.
2. Follow the circuit diagram pasted on the inside on the control box cover.
3. Provide a circuit breaker switch between the power source and indoor unit.
4. Confirm the specification of the power source.
5. Confirm that the electrical capacity is sufficient.
6. Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
7. Confirm the cable thickness is as specified in the power sources specification.
8. Always equip a leakage breaker where conditions are wet or moist.

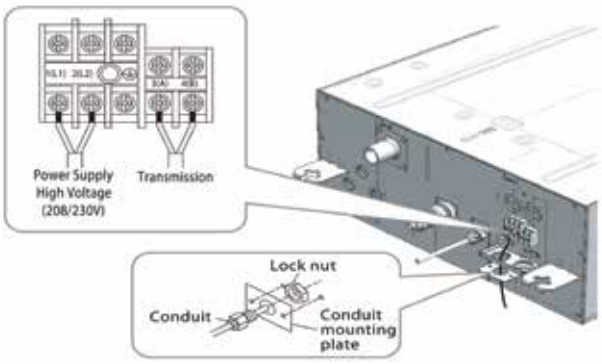
The following problems can be caused by voltage dropdown:

- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Figure 141: Cable Connection Method



Wired Remote Controller Installation

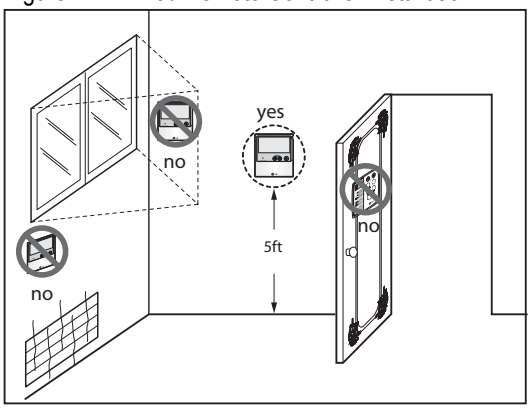
Since the room temperature sensor is inside the remote controller, the remote controller should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

Figure 142: Wired Remote Controller Installation



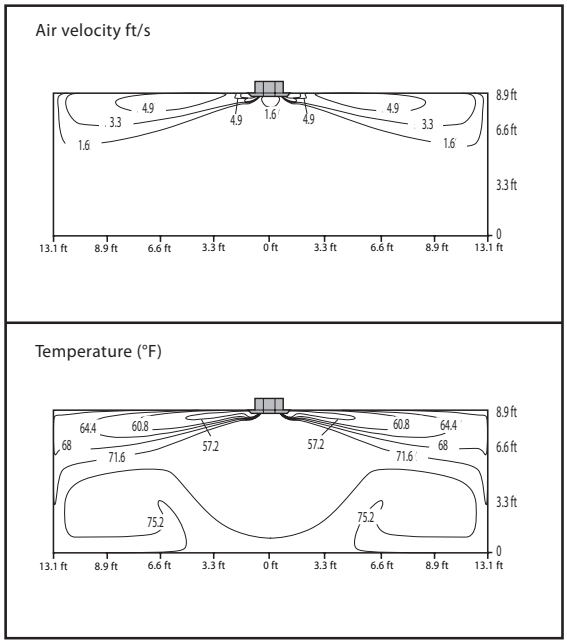
AIR VELOCITY & TEMP DISTRIBUTION

ARNU183TLC2

Figure 143: ARNU183TLC2

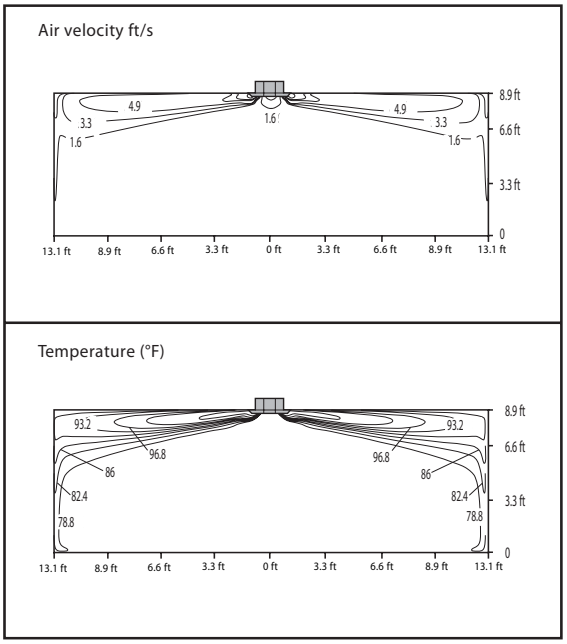
Cooling

Discharge angle: 20°



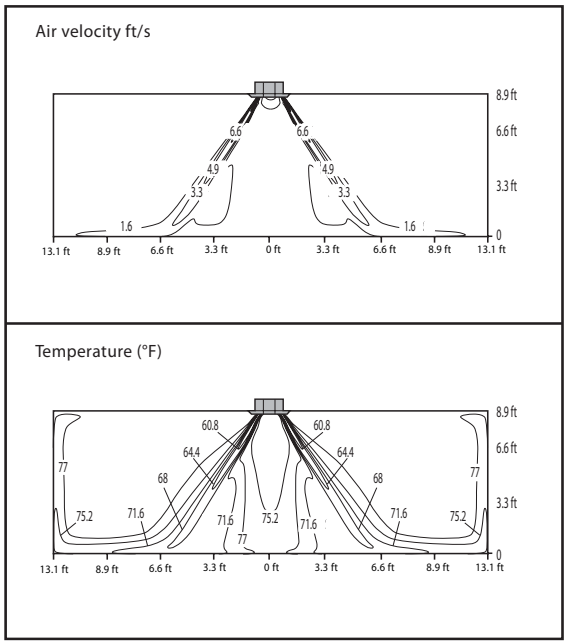
Heating

Discharge angle: 20°



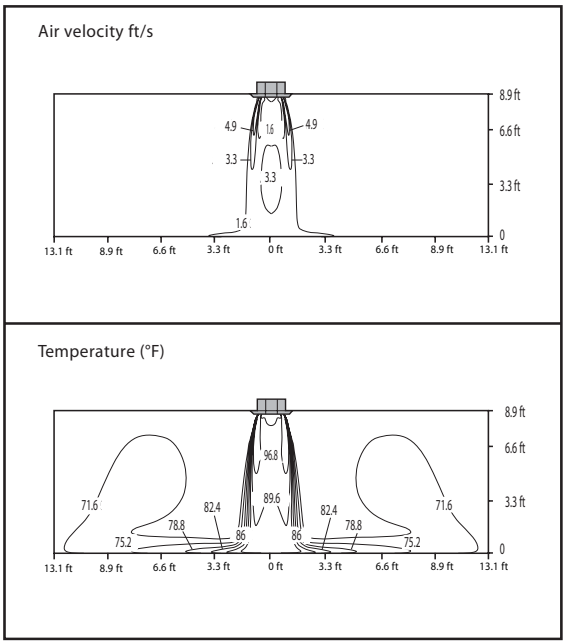
Cooling

Discharge angle: 40°



Heating

Discharge angle: 60°

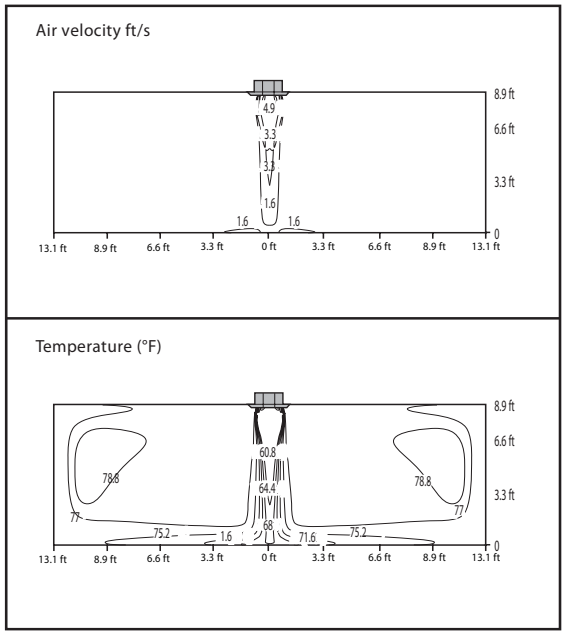


The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 143 ARNU183TLC2, continued

Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°

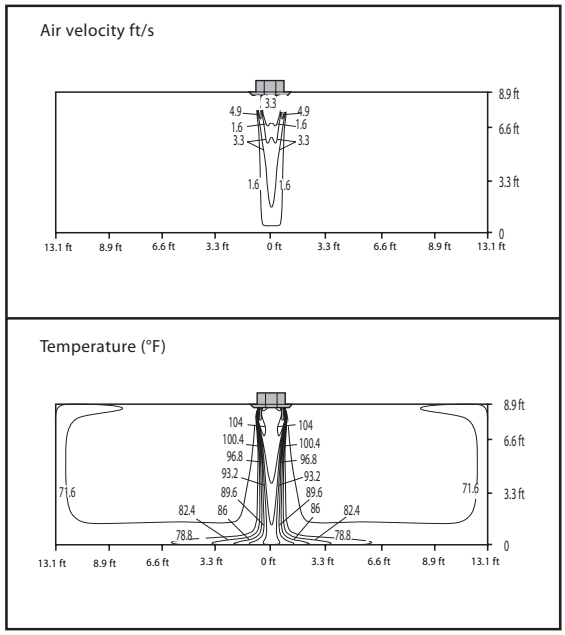
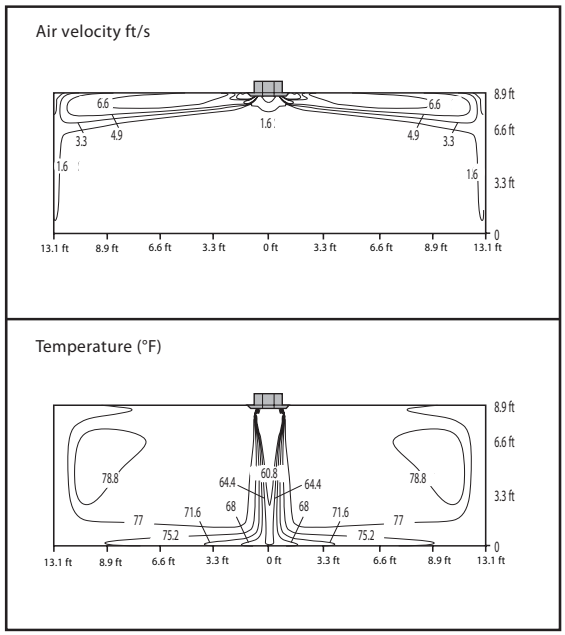


Figure 144: ARNU243TLC2

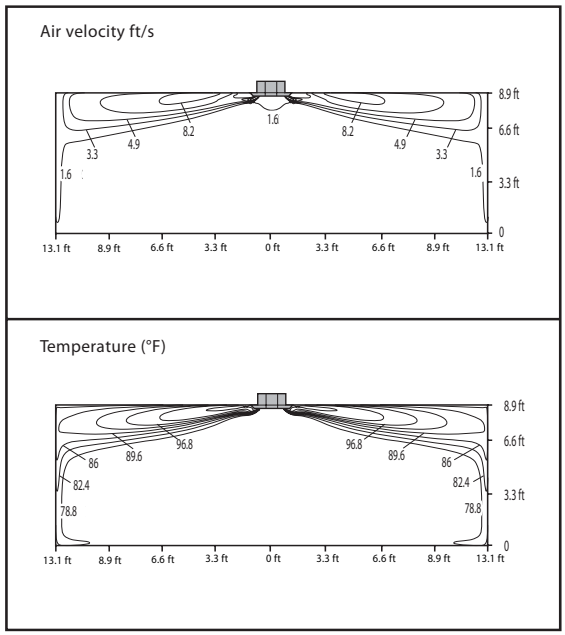
Cooling

Discharge angle: 20°



Heating

Discharge angle: 20°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

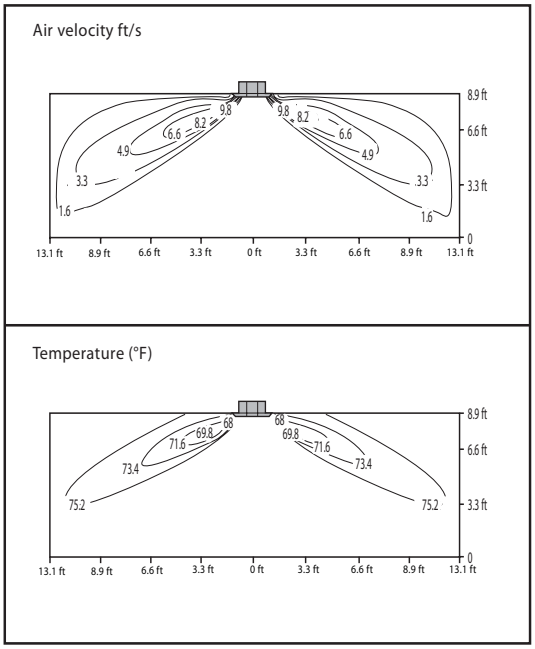
AIR VELOCITY & TEMP DISTRIBUTION

ARNU243TLC2

Figure 144 ARNU243TLC2, continued

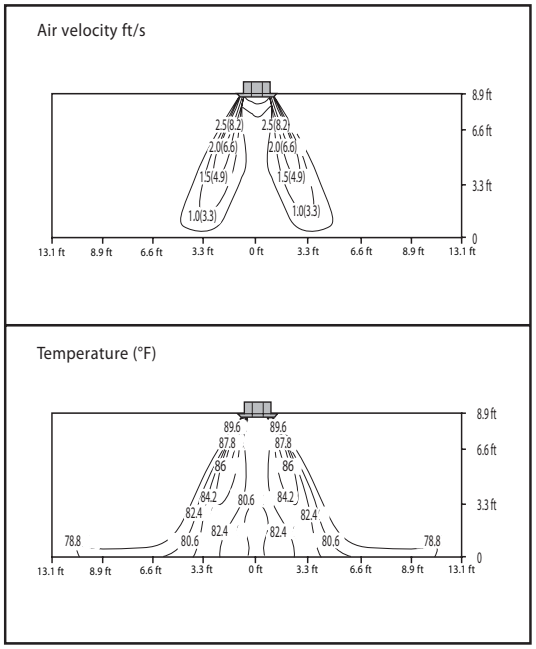
Cooling

Discharge angle: 40°



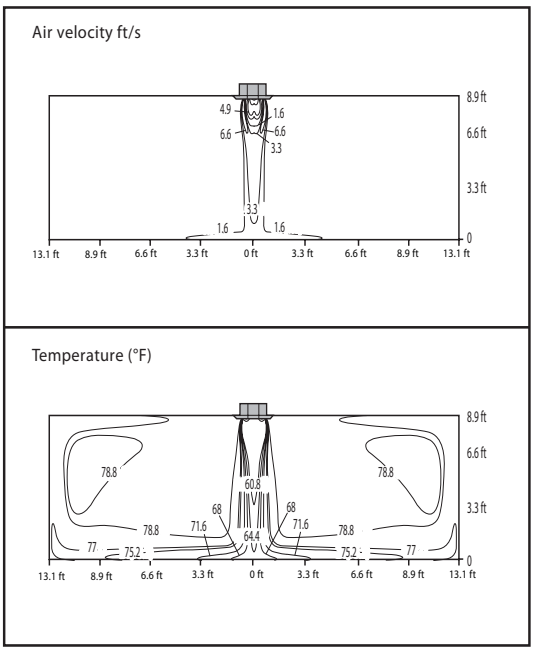
Heating

Discharge angle: 60°



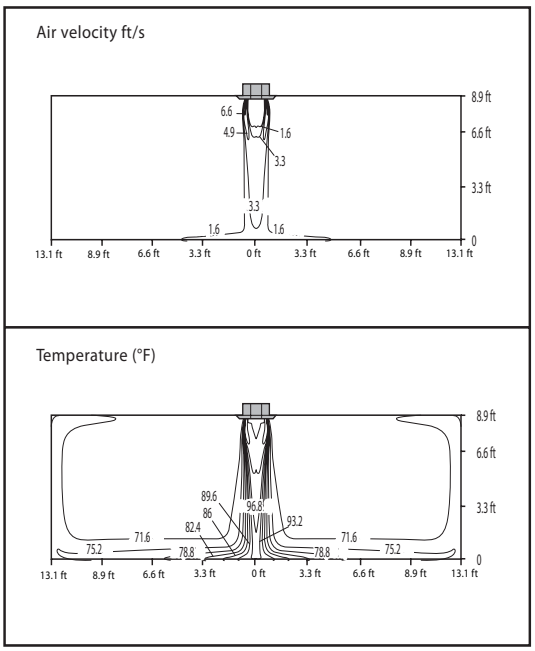
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

2’ x 2’ Chassis

3’ x 3’ Chassis

4-WAY CEILING CASSETTE

GENERAL DATA

4-Way Ceiling Cassette Unit Specifications

ARNU053TRC2, ARNU073TRC2, ARNU093TRC2

Table 67: 4-Way Ceiling Cassette Unit General Data

Type	4-Way Ceiling Cassette		
	ARNU053TRC2	ARNU073TRC2	ARNU093TRC2
Cooling Mode Performance			
Capacity (Btu/h)	5,500	7,500	9,600
Power Input[1] (W)	30	30	30
Heating Mode Performance			
Capacity (Btu/h)	6,100	8,500	10,900
Power Input[1] (W)	30	30	30
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	29/27/26	29/27/26	30/29/27
Net Unit Weight (lbs)	29	29	32
Shipping Weight (lbs)	36	36	36
Grille Weight (lbs)	7	7	7
Grille Shipping Weight (lbs)	11	11	11
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Turbo	Turbo	Turbo
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	265/247/212	265/247/212	283/265/251
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	1/4 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	1/2 Flare
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

4-Way Ceiling Cassette Unit Specifications

ARNU123TRC2, ARNU153TQC2, ARNU183TQC2

Table 68: 4-Way Ceiling Cassette Unit General Data

Type	4-Way Ceiling Cassette		
	ARNU123TRC2	ARNU153TQC2	ARNU183TQC2
Cooling Mode Performance			
Capacity (Btu/h)	12,300	15,400	19,100
Power Input[1] (W)	30	30	30
Heating Mode Performance			
Capacity (Btu/h)	13,600	17,100	21,500
Power Input[1] (W)	30	30	30
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	32/30/27	36/34/32	37/35/34
Net Unit Weight (lbs)	32	35	35
Shipping Weight (lbs)	36	42	42
Grille Weight (lbs)	7	7	7
Grille Shipping Weight (lbs)	11	11	11
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Turbo	Turbo	Turbo
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	307/283/247	388/353/328	396/388/353
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	1/4 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	1/2 Flare
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

4-Way Ceiling Cassette Unit Specifications

ARNU093TPAA, ARNU123TPAA, ARNU153TPAA

Table 69: 4-Way Ceiling Cassette Unit General Data

Type	4-Way Ceiling Cassette		
	ARNU093TPAA	ARNU123TPAA	ARNU153TPAA
Cooling Mode Performance			
Capacity (Btu/h)	9,600	12,300	15,400
Power Input[1] (W)	33	33	33
Heating Mode Performance			
Capacity (Btu/h)	10,900	13,600	17,100
Power Input[1] (W)	33	33	33
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	31/27/25	32/28/26	35/32/27
Net Unit Weight (lbs)	50	50	50
Shipping Weight (lbs)	60	60	60
Grille Weight (lbs)	13	13	13
Grille Shipping Weight (lbs)	20	20	20
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Turbo	Turbo	Turbo
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	424/388/353	459/424/388	565/530/424
Piping			
Liquid Line (in, OD)	3/8 Flare	3/8 Flare	3/8 Flare
Vapor Line (in, OD)	5/8 Flare	5/8 Flare	5/8 Flare
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

4-Way Ceiling Cassette Unit Specification

ARNU183TNAA, ARNU243TNAA, ARNU283TMAA, ARNU363TMAA

Table 70: 4-Way Ceiling Cassette Unit General Data

Type	4-Way Ceiling Cassette			
	ARNU183TNAA	ARNU243TNAA	ARNU283TMAA	ARNU363TMAA
Cooling Mode Performance				
Capacity (Btu/h)	19,100	24,200	28,000	36,200
Power Input[1] (W)	144	144	65	85
Heating Mode Performance				
Capacity (Btu/h)	21,500	27,300	31,500	40,600
Power Input[1] (W)	144	144	65	85
Entering Mixed Air				
Cooling Max (°F WB)	76	76	76	76
Heating Min (°F DB)	59	59	59	59
Unit Data				
Refrigerant Type[2]	R410A	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	34/30/26	40/38/35	39/36/32	41/38/34
Net Unit Weight (lbs)	56	56	61	61
Shipping Weight (lbs)	66	66	73	73
Grille Weight (lbs)	13	13	13	13
Grille Shipping Weight (lbs)	20	20	20	20
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18	2 x 18
Fan				
Type	Turbo	Turbo	Turbo	Turbo
Quantity	1	1	1	1
Motor/Drive	Brushless Digitally Controlled / Direct			
Airflow Rate H/M/L (CFM)	565/530/424	742/671/600	812/742/636	918/812/706
Piping				
Liquid Line (in, OD)	3/8 Flare	3/8 Flare	3/8 Flare	3/8 Flare
Vapor Line (in, OD)	5/8 Flare	5/8 Flare	5/8 Flare	5/8 Flare
Condensate Line (in, ID)	1	1	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

4-Way Ceiling Cassette Unit Specifications

ARNU243TPC2, ARNU283TPC2, ARNU363TNC2

Table 71: 4-Way Ceiling Cassette Unit General Data

Type	4-Way Ceiling Cassette		
	ARNU243TPC2	ARNU283TPC2	ARNU363TNC2
Cooling Mode Performance			
Capacity (Btu/h)	24,200	28,000	36,200
Power Input[1] (W)	33	33	144
Heating Mode Performance			
Capacity (Btu/h)	27,300	31,500	40,600
Power Input[1] (W)	33	33	144
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	36/34/31	39/35/33	43/40/37
Net Unit Weight (lbs)	46	46	52
Shipping Weight (lbs)	53	53	59
Grille Weight (lbs)	13	13	13
Grille Shipping Weight (lbs)	20	20	20
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Turbo	Turbo	Turbo
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled / Direct		
Airflow Rate H/M/L (CFM)	600/529/459	671/565/494	883/742/671
Piping			
Liquid Line (in, OD)	3/8 Flare	3/8 Flare	3/8 Flare
Vapor Line (in, OD)	5/8 Flare	5/8 Flare	5/8 Flare
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

4-Way Ceiling Cassette Unit Specifications

ARNU423TMC2, ARNU483TMC2

Table 72: 4-Way Ceiling Cassette Unit General Data

Type	4-Way Ceiling Cassette	
	ARNU423TMC2	ARNU483TMC2
Cooling Mode Performance		
Capacity (Btu/h)	42,000	48,100
Power Input[1] (W)	144	144
Heating Mode Performance		
Capacity (Btu/h)	43,800	51,200
Power Input[1] (W)	144	144
Entering Mixed Air		
Cooling Max (°F WB)	76	76
Heating Min (°F DB)	59	59
Unit Data		
Refrigerant Type[2]	R410A	R410A
Refrigerant Control	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	44/41/38	46/43/41
Net Unit Weight (lbs)	57	57
Shipping Weight (lbs)	64	64
Grille Weight (lbs)	13	13
Grille Shipping Weight (lbs)	20	20
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18
Fan		
Type	Turbo	Turbo
Quantity	1	1
Motor/Drive	Brushless Digitally Controlled/Direct	Brushless Digitally Controlled/Direct
Airflow Rate H/M/L (CFM)	1,059/954/848	1,095/1,024/954
Piping		
Liquid Line (in, OD)	3/8 Flare	3/8 Flare
Vapor Line (in, OD)	5/8 Flare	5/8 Flare
Condensate Line (in, ID)	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

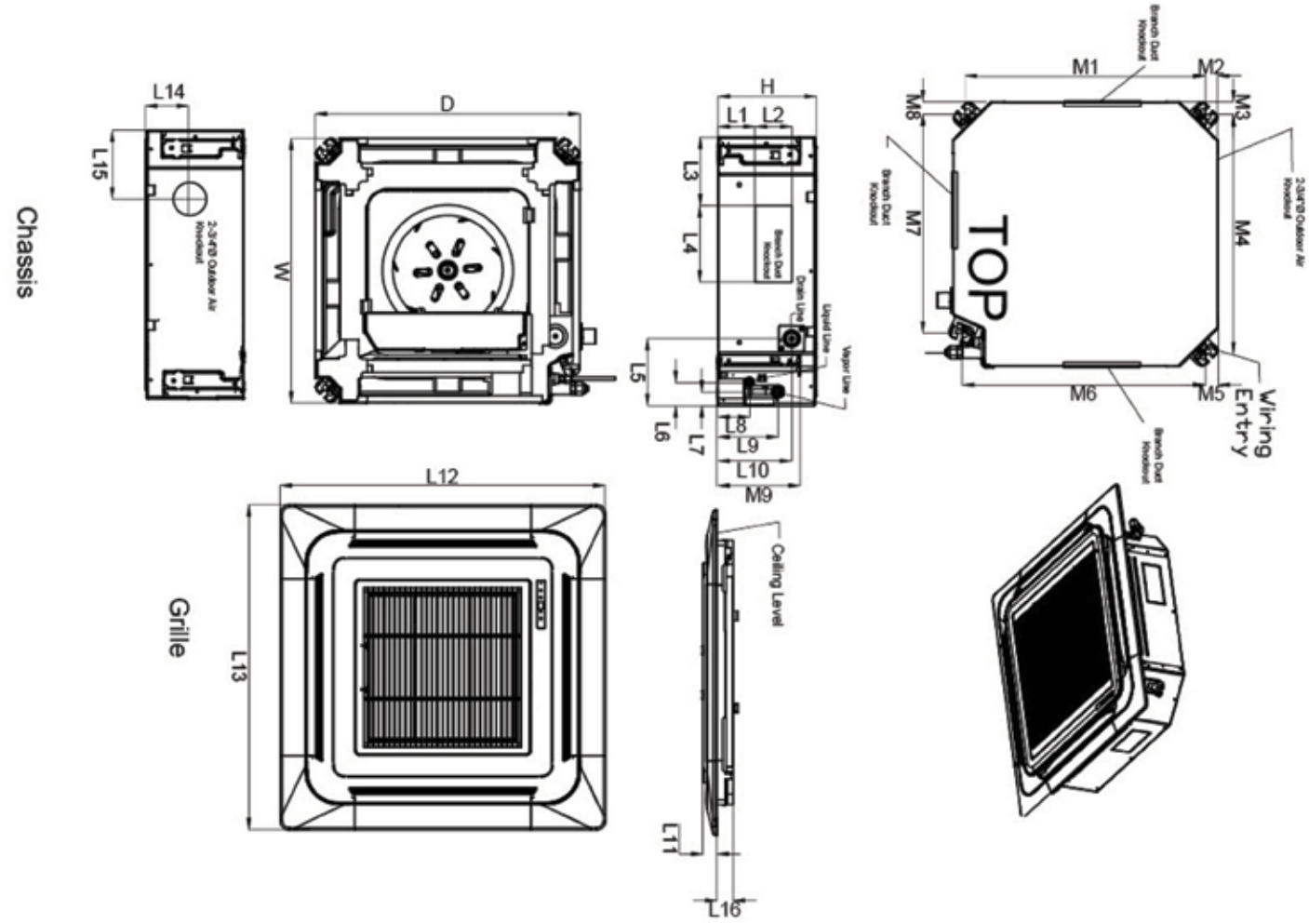
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

TR Chassis

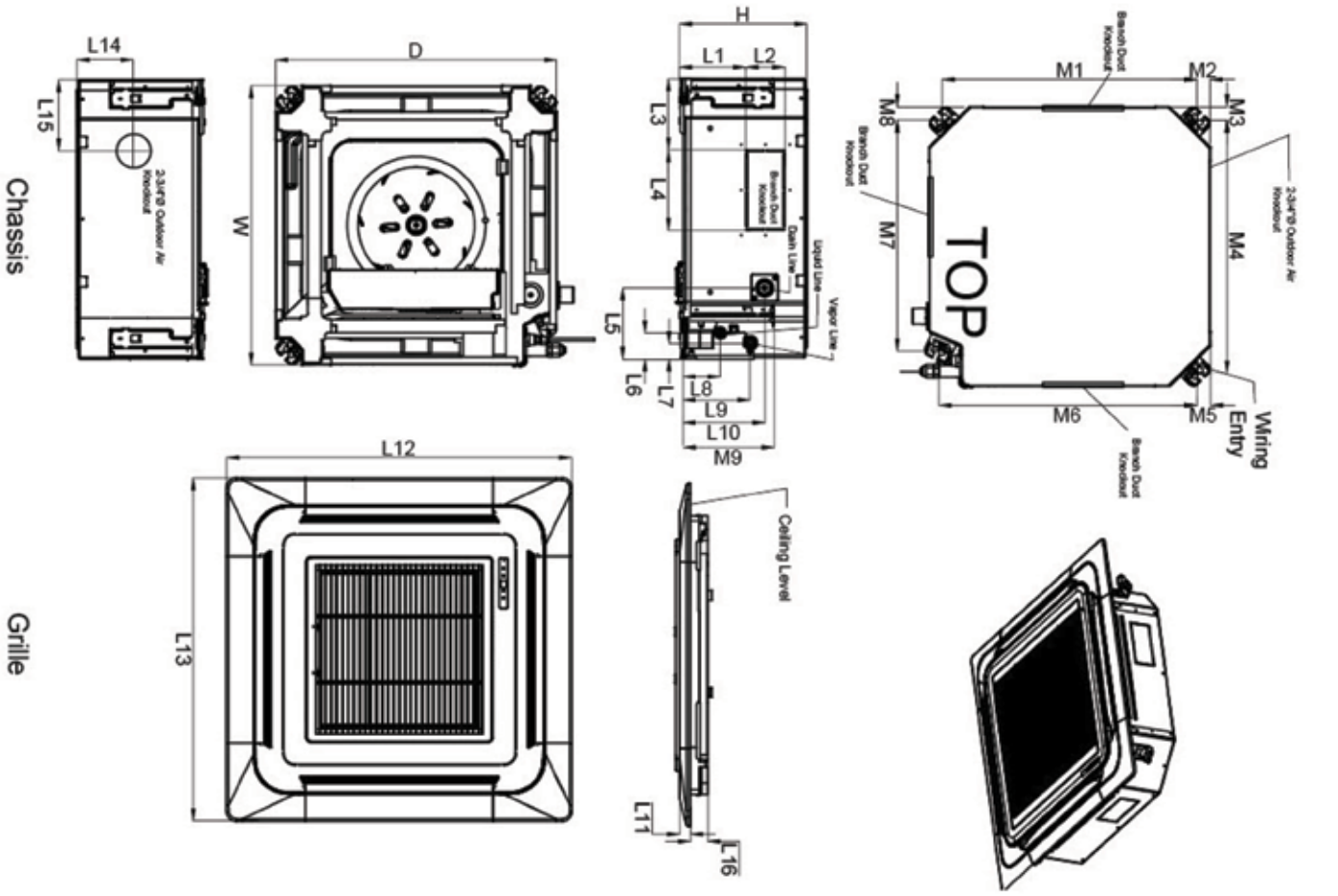


W	22-7/16"
H	8-7/16"
D	22-7/16"
L1	2-1/8"
L2	3-1/8"
L3	5-13/16"
L4	6-1/2"
L5	5-5/8"
L6	1-15/16"
L7	1-3/16"
L8	2-3/4"
L9	5-1/8"
L10	6-5/16"
L11	7/8"
L12	27-9/16
L13	27-9/16"
L14	3-7/16"
L15	5-7/8"
L16	1-3/16"
M1	20-3/8"
M2	1-1/16"
M3	1-1/16"
M4	20-3/8"
M5	1-1/16"
M6	20-5/8"
M7	18-3/16"
M8	1-1/16"
M9	6-15/16

Note - All dimensions have a tolerance of ± 0.25 in.

DIMENSIONS

TQ Chassis

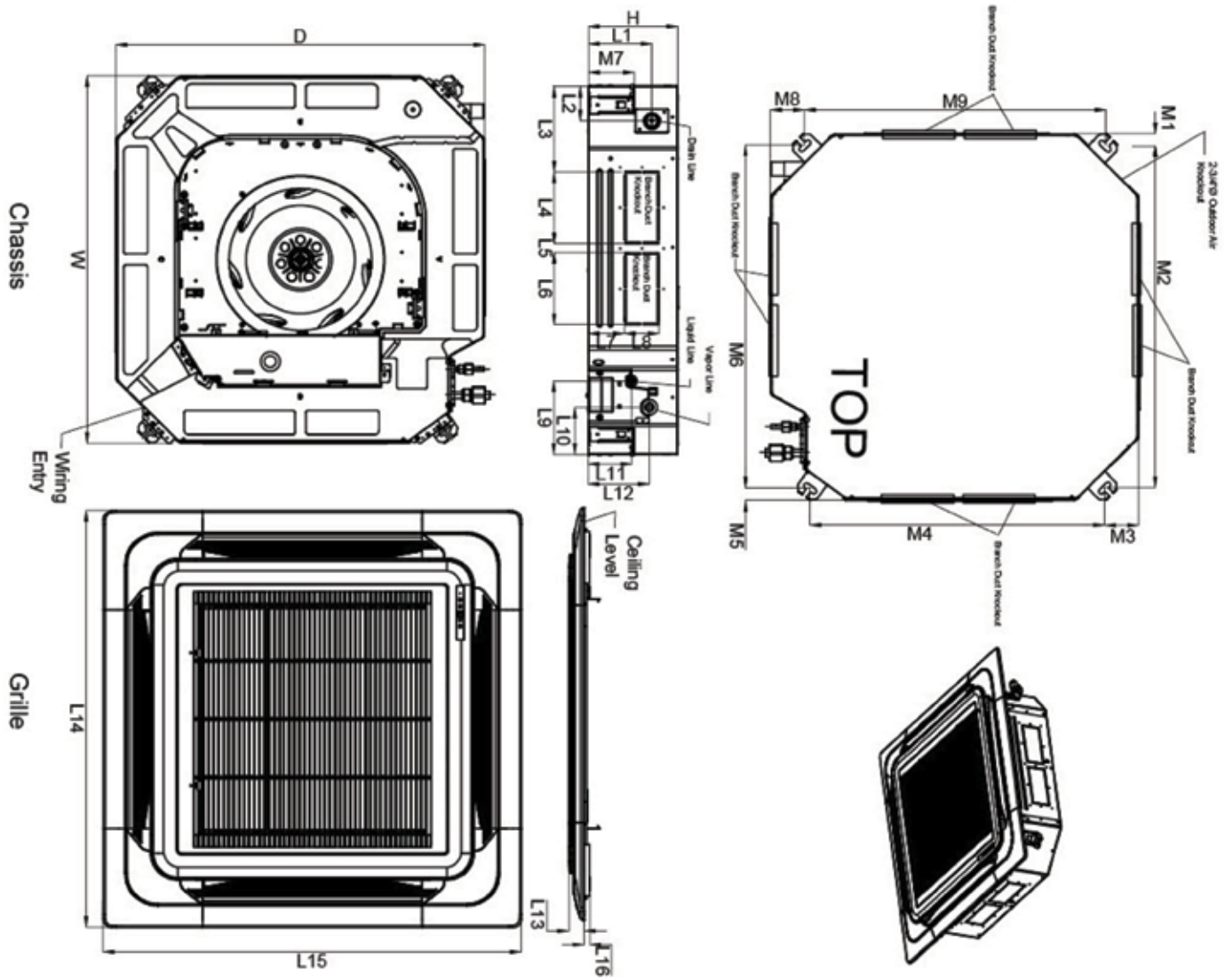


W	22-7/16"
H	10"
D	22-7/16"
L1	5"
L2	3-1/8"
L3	5-13/16"
L4	6-1/2"
L5	5-5/8"
L6	1-15/16"
L7	1-3/16"
L8	2-11/16"
L9	5-1/16"
L10	6-1/4"
L11	7/8"
L12	27-9/16
L13	27-9/16"
L14	3-1/8"
L15	5-5/8"
L16	1-3/16"
M1	20-3/8"
M2	1-1/16"
M3	1-1/16"
M4	20-3/8"
M5	1-1/16"
M6	20-5/8"
M7	18-3/16"
M8	1-1/16"
M9	6-5/16"

Note - All dimensions have a tolerance of ± 0.25 in.

DIMENSIONS

TP Chassis

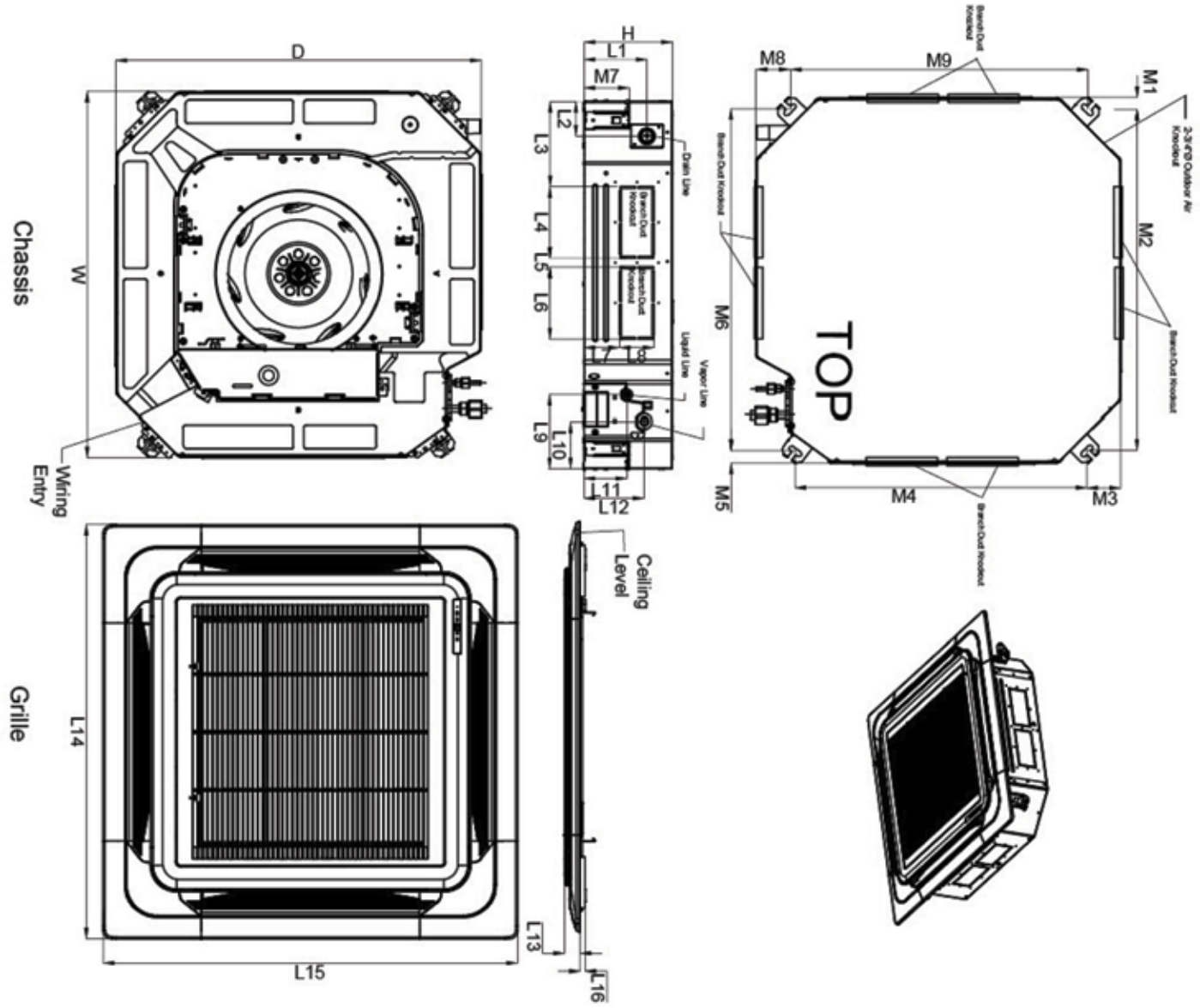


W	33-1/16"
H	8"
D	33-1/16"
L1	5-11/16
L2	3-1/8"
L3	7-11/16"
L4	6-1/2"
L5	3/4"
L6	6-1/2"
L7	3-1/4"
L8	3-1/8"
L9	6-1/2"
L10	4-3/16"
L11	3-15/16"
L12	5-7/16"
L13	1-7/16"
L14	37-3/8"
L15	37-3/8"
L16	1/2"
M1	1-1/16"
M2	30-15/16"
M3	3-1/16"
M4	26-7/16"
M5	1-1/16"
M6	30-15/16"
M7	4-1/8"
M8	3-1/16"
M9	26-15/16"

Note - All dimensions have a tolerance of ± 0.25 in.

DIMENSIONS

TN Chassis



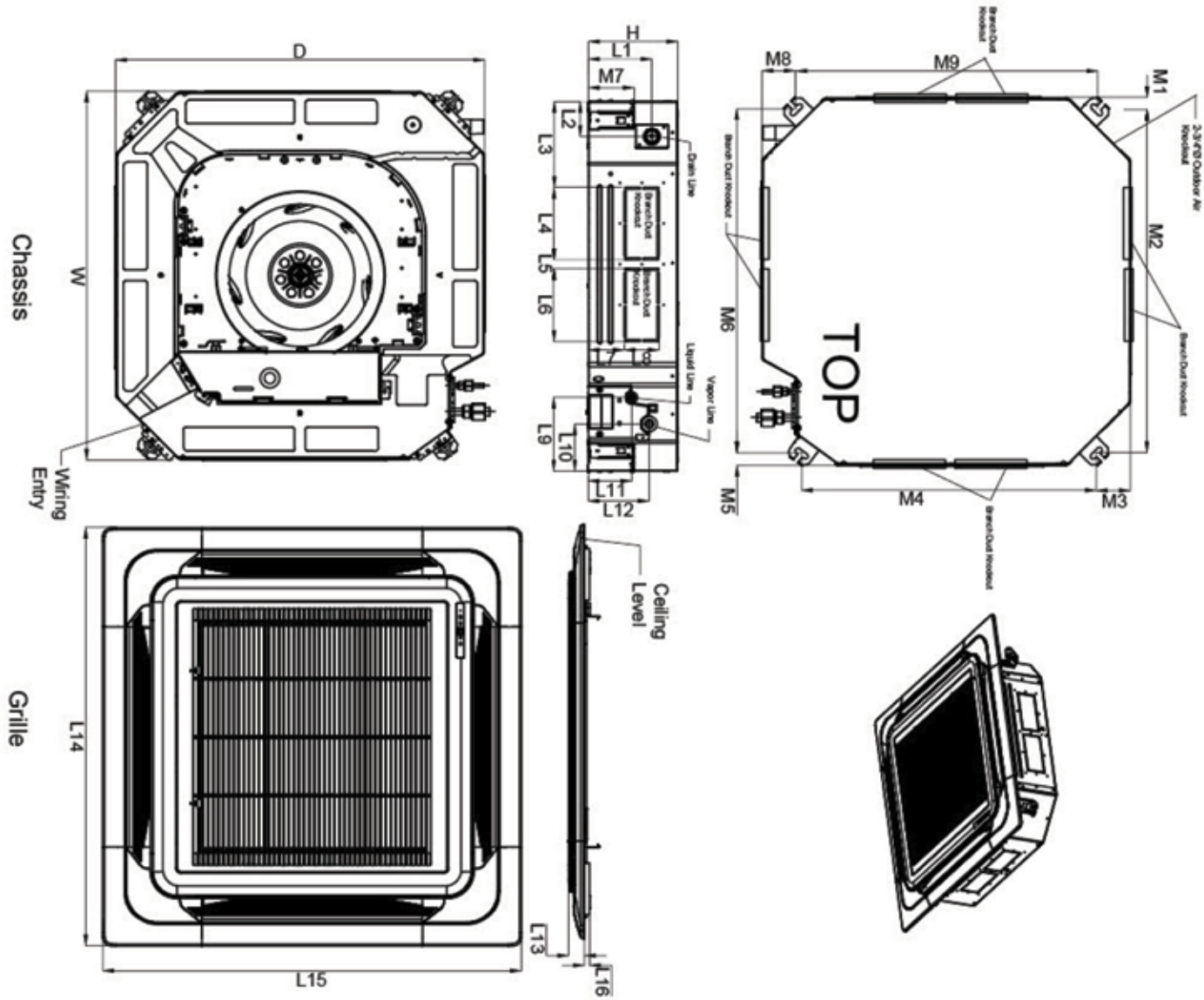
W	33-1/16"
H	9-11/16"
D	33-1/16"
L1	6-11/16"
L2	3-1/8"
L3	7-11/16"
L4	6-1/2"
L5	3/4"
L6	6-1/2"
L7	3-11/16"
L8	3-15/16"
L9	6-5/8"
L10	4-5/16"
L11	3-15/16"
L12	5-7/16"
L13	1-7/16"
L14	37-3/8"
L15	37-3/8"
L16	1/2"
M1	1-1/16"
M2	30-15/16"
M3	3-1/16"
M4	26-7/16"
M5	1-1/16"
M6	30-15/16"
M7	4-1/8"
M8	3-1/16"
M9	26-15/16

Note - All dimensions have a tolerance of ± 0.25 in.

DIMENSIONS

MULTI V

TMAA and TMC2 Chassis



W	33-1/16"
H	11-5/16"
D	33-1/16"
L1	8-9/16"
L2	3-1/8"
L3	7-11/16"
L4	6-1/2"
L5	3/4"
L6	6-1/2"
L7	4-1/16"
L8	3-15/16"
L9	6-5/8"
L10	4-5/16"
L11	4"
L12	5-1/2"
L13	1-7/16"
L14	37-3/8"
L15	37-3/8"
L16	1/2"
M1	1-1/16"
M2	30-15/16"
M3	3-1/16"
M4	26-7/16"
M5	1-1/16"
M6	30-15/16"
M7	4-1/8"
M8	3-1/16"
M9	26-15/16"

Note - All dimensions have a tolerance of ± 0.25 in.

LG

Table 73: ARNU053TRC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	7.1	4.1
25	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	7.1	4.1
30	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	7.1	4.1
35	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	7.1	4.1
40	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	7.1	4.1
45	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	7.1	4.1
50	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	7.1	4.1
55	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	7.1	4.1
60	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	7.0	4.1
65	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	6.9	4.0
70	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	6.8	3.9
75	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.5	4.1	6.7	3.9
80	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.2	4.1	6.4	4.1	6.5	3.8
85	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.1	4.1	6.2	3.9	6.3	3.7
90	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	6.0	4.0	6.1	3.8	6.2	3.6
95	3.6	3.0	4.4	3.4	5.0	3.6	**5.5**	**3.9**	5.9	4.0	6.0	3.8	6.1	3.6
100	3.6	3.0	4.4	3.4	5.0	3.6	5.5	3.9	5.8	3.9	5.9	3.8	6.0	3.6
105	3.6	3.0	4.2	3.2	4.7	3.5	5.3	3.7	5.4	3.7	5.7	3.6	5.8	3.5
110	3.5	2.9	4.0	3.1	4.4	3.2	5.0	3.5	5.1	3.5	5.4	3.5	5.6	3.4

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 74: ARNU073TRC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
25	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
30	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
35	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
40	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
45	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
50	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
55	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
60	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.6	5.7
65	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.5	5.6
70	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.3	5.5
75	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.1	5.4
80	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.7	5.7	8.9	5.4
85	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.3	5.7	8.4	5.5	8.6	5.2
90	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.2	5.6	8.3	5.4	8.4	5.1
95	5.0	4.1	6.0	4.8	6.8	5.1	**7.5**	**5.4**	8.0	5.6	8.2	5.3	8.3	5.1
100	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	7.9	5.5	8.0	5.3	8.2	5.0
105	5.0	4.1	5.7	4.5	6.5	4.9	7.2	5.2	7.4	5.2	7.7	5.1	7.9	4.9
110	4.8	4.0	5.4	4.3	6.0	4.5	6.8	4.9	6.9	4.9	7.4	4.9	7.7	4.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU093TRC2, ARNU123TRC2

Table 75: ARNU093TRC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
25	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
30	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
35	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
40	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
45	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
50	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
55	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.4
60	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.3	7.3
65	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.1	7.2
70	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	11.9	7.1
75	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	11.6	6.9
80	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.1	7.3	11.3	6.9
85	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.7	7.4	10.8	7.0	10.9	6.6
90	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.5	7.2	10.6	6.9	10.8	6.5
95	6.3	5.3	7.7	6.1	8.6	6.5	**9.6**	**6.9**	10.3	7.2	10.5	6.8	10.7	6.5
100	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.1	7.1	10.3	6.8	10.5	6.4
105	6.3	5.3	7.3	5.8	8.3	6.2	9.2	6.6	9.4	6.6	9.9	6.5	10.1	6.3
110	6.1	5.1	6.9	5.5	7.7	5.8	8.6	6.2	8.8	6.2	9.4	6.2	9.8	6.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 76: ARNU123TRC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
25	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
30	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
35	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
40	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
45	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
50	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
55	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
60	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.7	9.4
65	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.5	9.2
70	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.3	9.1
75	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	14.9	8.9
80	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.3	9.4	14.5	8.8
85	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.7	9.4	13.8	9.0	14.0	8.5
90	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.4	9.3	13.5	8.8	13.8	8.4
95	8.1	6.8	9.8	7.8	11.1	8.3	**12.3**	**8.9**	13.2	9.2	13.4	8.8	13.7	8.3
100	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	12.9	9.1	13.2	8.7	13.4	8.2
105	8.1	6.8	9.3	7.4	10.6	8.0	11.8	8.5	12.1	8.5	12.7	8.4	12.9	8.0
110	7.9	6.6	8.9	7.0	9.8	7.4	11.1	8.0	11.3	8.0	12.1	8.0	12.5	7.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU153TQC2, ARNU183TQC2

Table 77: ARNU153TQC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
25	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
30	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
35	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
40	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
45	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
50	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
55	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
60	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.7	11.7
65	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.4	11.5
70	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.1	11.4
75	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	18.6	11.1
80	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	17.9	11.7	18.2	11.1
85	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.1	11.8	17.2	11.2	17.6	10.6
90	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	16.8	11.6	16.9	11.0	17.2	10.5
95	10.2	8.5	12.3	9.8	13.9	10.4	**15.4**	**11.1**	16.5	11.5	16.8	11.0	17.1	10.4
100	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	16.2	11.4	16.5	10.9	16.8	10.3
105	10.2	8.5	11.7	9.3	13.2	10.0	14.8	10.6	15.1	10.6	15.9	10.5	16.2	10.0
110	9.9	8.3	11.1	8.8	12.3	9.3	13.9	10.0	14.2	10.0	15.1	10.0	15.7	9.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 78: ARNU183TQC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
25	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
30	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
35	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
40	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
45	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
50	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
55	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
60	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.4	14.5
65	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.1	14.3
70	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	23.7	14.1
75	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	23.1	13.8
80	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.2	14.6	22.5	13.7
85	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.2	14.6	21.4	13.9	21.8	13.2
90	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	20.8	14.4	21.0	13.7	21.4	13.0
95	12.6	10.6	15.3	12.1	17.2	13.0	**19.1**	**13.8**	20.4	14.3	20.8	13.6	21.2	12.9
100	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	20.1	14.1	20.4	13.5	20.8	12.8
105	12.6	10.6	14.5	11.5	16.4	12.4	18.3	13.2	18.7	13.2	19.7	13.0	20.1	12.5
110	12.2	10.2	13.8	10.9	15.3	11.5	17.2	12.4	17.6	12.4	18.7	12.4	19.5	12.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU093TPAA, ARNU123TPAA

Table 79: ARNU093TPAA Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	12.4	7.6
25	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	12.4	7.6
30	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	12.4	7.6
35	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	12.4	7.6
40	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	12.4	7.6
45	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	12.4	7.6
50	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	12.4	7.6
55	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	12.4	7.6
60	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	12.3	7.6
65	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	12.1	7.5
70	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	11.9	7.4
75	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.4	7.6	11.6	7.2
80	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.8	7.7	11.1	7.6	11.3	7.2
85	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.6	7.6	10.8	7.3	11.0	6.9
90	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.5	7.5	10.6	7.2	10.8	6.8
95	6.3	5.5	7.7	6.4	8.6	6.8	**9.6**	**7.2**	10.3	7.5	10.5	7.1	10.6	6.7
100	6.3	5.5	7.7	6.4	8.6	6.8	9.6	7.2	10.1	7.4	10.3	7.0	10.5	6.7
105	6.3	5.5	7.3	6.0	8.2	6.5	9.2	6.9	9.4	6.9	9.9	6.8	10.1	6.5
110	6.2	5.3	6.9	5.7	7.7	6.0	8.6	6.5	8.8	6.5	9.4	6.5	9.8	6.3

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 80: ARNU123TPAA Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.9	9.8
25	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.9	9.8
30	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.9	9.8
35	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.9	9.8
40	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.9	9.8
45	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.9	9.8
50	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.9	9.8
55	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.9	9.8
60	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.7	9.7
65	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.5	9.6
70	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	15.3	9.4
75	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.7	9.8	14.9	9.2
80	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.8	9.9	14.2	9.7	14.5	9.2
85	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.6	9.8	13.8	9.3	14.0	8.8
90	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	13.4	9.6	13.5	9.2	13.8	8.7
95	8.1	7.0	9.8	8.1	11.1	8.7	**12.3**	**9.2**	13.2	9.6	13.4	9.1	13.6	8.6
100	8.1	7.0	9.8	8.1	11.1	8.7	12.3	9.2	12.9	9.4	13.2	9.0	13.4	8.6
105	8.1	7.0	9.3	7.7	10.6	8.3	11.8	8.8	12.0	8.8	12.7	8.7	12.9	8.3
110	7.9	6.8	8.9	7.3	9.8	7.7	11.1	8.3	11.3	8.3	12.0	8.3	12.6	8.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU153TPAA, ARNU183TNAA

Table 81: ARNU153TPAA Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.9	12.8
25	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.9	12.8
30	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.9	12.8
35	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.9	12.8
40	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.9	12.8
45	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.9	12.8
50	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.9	12.8
55	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.9	12.8
60	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.7	12.7
65	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.4	12.5
70	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	19.1	12.3
75	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	18.4	12.8	18.6	12.0
80	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.3	12.9	17.8	12.7	18.2	11.9
85	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	17.1	12.8	17.3	12.1	17.6	11.5
90	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	16.8	12.6	16.9	11.9	17.3	11.3
95	10.1	9.2	12.3	10.6	13.9	11.3	**15.4**	**12.0**	16.5	12.5	16.8	11.9	17.1	11.2
100	10.1	9.2	12.3	10.6	13.9	11.3	15.4	12.0	16.2	12.3	16.5	11.7	16.8	11.1
105	10.1	9.2	11.7	10.1	13.2	10.8	14.8	11.5	15.1	11.5	15.8	11.3	16.2	10.9
110	9.9	8.9	11.1	9.5	12.3	10.1	13.9	10.8	14.2	10.8	15.1	10.8	15.7	10.5

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 82: ARNU183TNAA Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	24.7	16.8
25	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	24.7	16.8
30	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	24.7	16.8
35	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	24.7	16.8
40	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	24.7	16.8
45	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	24.7	16.8
50	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	24.7	16.8
55	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	24.7	16.8
60	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	24.4	16.7
65	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	24.0	16.5
70	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	23.7	16.2
75	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.8	16.8	23.1	15.9
80	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.4	17.0	22.1	16.7	22.5	15.8
85	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	21.2	16.8	21.4	16.0	21.8	15.1
90	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	20.9	16.6	21.0	15.8	21.4	15.0
95	12.6	12.1	15.3	14.0	17.2	14.9	**19.1**	**15.9**	20.5	16.5	20.9	15.7	21.2	14.8
100	12.6	12.1	15.3	14.0	17.2	14.9	19.1	15.9	20.1	16.2	20.5	15.5	20.9	14.7
105	12.6	12.1	14.5	13.3	16.4	14.2	18.3	15.1	18.7	15.1	19.7	15.0	20.1	14.3
110	12.3	11.8	13.8	12.6	15.3	13.3	17.2	14.2	17.6	14.2	18.7	14.2	19.5	13.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU243TNAA, ARNU283TMAA

Table 83: ARNU243TNAA Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	31.3	21.6
25	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	31.3	21.6
30	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	31.3	21.6
35	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	31.3	21.6
40	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	31.3	21.6
45	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	31.3	21.6
50	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	31.3	21.6
55	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	31.3	21.6
60	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	31.0	21.5
65	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	30.5	21.1
70	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	30.0	20.8
75	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.8	21.6	29.2	20.3
80	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	27.1	21.8	28.0	21.5	28.5	20.2
85	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	26.8	21.6	27.1	20.6	27.6	19.4
90	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	26.4	21.2	26.6	20.2	27.1	19.2
95	15.9	15.5	19.4	17.9	21.8	19.1	**24.2**	**20.3**	25.9	21.1	26.4	20.1	26.8	19.0
100	15.9	15.5	19.4	17.9	21.8	19.1	24.2	20.3	25.4	20.8	25.9	19.9	26.4	18.8
105	15.9	15.5	18.4	17.0	20.8	18.3	23.2	19.4	23.7	19.4	24.9	19.2	25.4	18.4
110	15.5	15.1	17.4	16.1	19.4	17.0	21.8	18.3	22.3	18.3	23.7	18.3	24.7	17.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 84: ARNU283TMAA Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	36.2	22.6
25	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	36.2	22.6
30	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	36.2	22.6
35	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	36.2	22.6
40	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	36.2	22.6
45	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	36.2	22.6
50	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	36.2	22.6
55	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	36.2	22.6
60	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	35.8	22.5
65	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	35.2	22.1
70	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	34.8	21.8
75	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	33.4	22.6	33.8	21.3
80	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.4	22.8	32.4	22.5	33.0	21.2
85	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	31.0	22.6	31.4	21.5	32.0	20.3
90	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	30.6	22.2	30.8	21.2	31.4	20.1
95	18.4	16.3	22.4	18.8	25.2	20.0	**28.0**	**21.3**	30.0	22.1	30.6	21.0	31.0	19.8
100	18.4	16.3	22.4	18.8	25.2	20.0	28.0	21.3	29.4	21.8	30.0	20.8	30.6	19.7
105	18.4	16.3	21.2	17.8	24.0	19.1	26.8	20.3	27.4	20.3	28.8	20.1	29.4	19.2
110	18.0	15.8	20.2	16.9	22.4	17.8	25.2	19.1	25.8	19.1	27.4	19.1	28.6	18.6

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 86: ARNU363TMAA Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	46.8	28.4
25	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	46.8	28.4
30	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	46.8	28.4
35	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	46.8	28.4
40	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	46.8	28.4
45	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	46.8	28.4
50	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	46.8	28.4
55	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	46.8	28.4
60	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	46.3	28.3
65	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	45.6	27.8
70	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	44.9	27.4
75	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	43.1	28.4	43.7	26.8
80	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.6	28.7	41.9	28.3	42.7	26.6
85	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	40.1	28.4	40.6	27.1	41.3	25.6
90	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	39.5	28.0	39.8	26.6	40.6	25.3
95	23.8	20.5	29.0	23.6	32.6	25.1	**36.2**	**26.8**	38.8	27.8	39.5	26.5	40.1	25.0
100	23.8	20.5	29.0	23.6	32.6	25.1	36.2	26.8	38.0	27.4	38.8	26.2	39.5	24.8
105	23.8	20.5	27.5	22.4	31.1	24.1	34.7	25.6	35.4	25.6	37.3	25.3	38.0	24.2
110	23.2	19.9	26.1	21.2	29.0	22.4	32.6	24.1	33.3	24.1	35.4	24.1	37.0	23.5

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 85: ARNU243TPC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
25	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
30	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
35	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
40	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
45	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
50	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
55	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
60	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.0	18.4
65	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	30.5	18.1
70	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	30.0	17.9
75	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	29.3	17.5
80	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.1	18.4	28.6	17.4
85	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	26.9	18.5	27.1	17.6	27.6	16.7
90	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	26.4	18.2	26.6	17.4	27.1	16.4
95	16.0	13.4	19.4	15.4	21.8	16.4	**24.2**	**17.4**	25.9	18.1	26.4	17.2	26.9	16.3
100	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	25.4	17.8	25.9	17.1	26.4	16.2
105	16.0	13.4	18.4	14.6	20.8	15.7	23.2	16.7	23.7	16.7	24.9	16.5	25.4	15.8
110	15.5	13.0	17.4	13.8	19.4	14.6	21.8	15.7	22.3	15.7	23.7	15.7	24.7	15.3

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU283TPC2, ARNU363TNC2

Table 87: ARNU283TPC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	36.1	21.4
25	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	36.1	21.4
30	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	36.1	21.4
35	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	36.1	21.4
40	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	36.1	21.4
45	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	36.1	21.4
50	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	36.1	21.4
55	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	36.1	21.5
60	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	35.8	21.3
65	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	35.3	21.0
70	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	34.7	20.7
75	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	33.3	21.5	33.9	20.2
80	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.4	21.6	32.5	21.3	33.0	20.1
85	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	31.1	21.5	31.4	20.4	31.9	19.3
90	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	30.5	21.1	30.8	20.1	31.4	19.0
95	18.5	15.5	22.4	17.8	25.2	19.0	**28.0**	**20.2**	30.0	21.0	30.5	20.0	31.1	18.9
100	18.5	15.5	22.4	17.8	25.2	19.0	28.0	20.2	29.4	20.6	30.0	19.8	30.5	18.7
105	18.5	15.5	21.3	16.9	24.1	18.2	26.9	19.4	27.4	19.3	28.8	19.1	29.4	18.3
110	17.9	15.0	20.2	16.0	22.4	16.9	25.2	18.1	25.8	18.2	27.4	18.2	28.6	17.7

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 88: ARNU363TNC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	46.7	27.7
25	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	46.7	27.7
30	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	46.7	27.7
35	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	46.7	27.7
40	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	46.7	27.7
45	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	46.7	27.7
50	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	46.7	27.7
55	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	46.7	27.7
60	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	46.3	27.5
65	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	45.6	27.1
70	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	44.9	26.7
75	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	43.1	27.8	43.8	26.1
80	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.5	28.0	42.0	27.6	42.7	26.0
85	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	40.2	27.7	40.5	26.4	41.3	25.0
90	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	39.5	27.2	39.8	26.0	40.5	24.6
95	23.9	20.0	29.0	23.0	32.6	24.6	**36.2**	**26.1**	38.7	27.1	39.5	25.8	40.2	24.4
100	23.9	20.0	29.0	23.0	32.6	24.6	36.2	26.1	38.0	26.7	38.7	25.6	39.5	24.2
105	23.9	20.0	27.5	21.8	31.1	23.5	34.8	25.0	35.5	25.0	37.3	24.7	38.0	23.6
110	23.2	19.4	26.1	20.7	29.0	21.8	32.6	23.5	33.3	23.5	35.5	23.5	36.9	22.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 89: ARNU423TMC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
25	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
30	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
35	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
40	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
45	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
50	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
55	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.2
60	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	53.8	32.0
65	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	52.9	31.5
70	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	52.1	31.0
75	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	50.8	30.3
80	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	48.7	32.0	49.6	30.2
85	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	46.6	32.2	47.0	30.6	47.9	29.0
90	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	45.8	31.6	46.2	30.1	47.0	28.5
95	27.7	23.2	33.6	26.7	37.8	28.5	**42.0**	**30.2**	44.9	31.4	45.8	29.9	46.6	28.3
100	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	44.1	31.0	44.9	29.7	45.8	28.1
105	27.7	23.2	31.9	25.3	36.1	27.2	40.3	29.0	41.2	29.0	43.3	28.6	44.1	27.4
110	26.9	22.5	30.2	24.0	33.6	25.3	37.8	27.2	38.6	27.2	41.2	27.3	42.8	26.6

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 90: ARNU483TMC2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	62.0	36.8
25	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	62.0	36.8
30	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	62.0	36.8
35	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	62.0	36.8
40	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	62.0	36.8
45	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	62.0	36.8
50	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	62.0	36.8
55	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	62.0	36.8
60	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	61.6	36.6
65	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	60.6	36.1
70	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	59.6	35.5
75	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	57.2	36.9	58.2	34.7
80	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.9	37.2	55.8	36.7	56.8	34.5
85	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	53.4	36.9	53.9	35.0	54.8	33.2
90	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	52.4	36.2	52.9	34.5	53.9	32.7
95	31.7	26.6	38.5	30.6	43.3	32.6	**48.1**	**34.6**	51.5	36.0	52.4	34.3	53.4	32.5
100	31.7	26.6	38.5	30.6	43.3	32.6	48.1	34.6	50.5	35.5	51.5	34.0	52.4	32.1
105	31.7	26.6	36.6	29.0	41.4	31.2	46.2	33.2	47.1	33.2	49.5	32.8	50.5	31.4
110	30.8	25.8	34.6	27.5	38.5	29.0	43.3	31.2	44.3	31.2	47.1	31.2	49.1	30.5

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU053TRC2, ARNU073TRC2, ARNU093TRC2

Table 91: ARNU053TRC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	4.1	4.1	4.1	4.1	4.0	4.0	4.0	4.0
0	-0.4	4.2	4.2	4.2	4.2	4.2	4.1	4.1	4.1
5.0	4.5	4.8	4.7	4.6	4.6	4.6	4.6	4.6	4.6
10.0	9.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
15.0	14.0	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.1
20.0	19.0	5.6	5.6	5.6	5.6	5.4	5.4	5.3	5.3
25.0	23.0	5.8	5.8	5.8	5.8	5.8	5.7	5.6	5.6
30.0	28.0	5.9	5.9	5.9	5.9	5.9	5.8	5.6	5.4
35.0	32.0	6.1	6.1	6.1	6.1	6.0	5.9	5.6	5.3
40.0	36.0	6.3	6.3	6.3	6.3	6.1	5.9	5.6	5.3
45.0	41.0	6.6	6.6	6.6	6.4	6.1	5.9	5.6	5.3
47.0	43.0	6.8	6.8	6.7	6.4	**6.1**	5.9	5.6	5.3
50.0	46.0	7.3	7.0	6.7	6.4	6.1	5.9	5.6	5.3
55.0	51.0	7.5	7.1	6.7	6.4	6.1	5.9	5.6	5.3
60.0	56.0	7.5	7.1	6.7	6.4	6.1	5.9	5.6	5.3

TC: Total Capacity (MBh)

Table 92: ARNU073TRC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	5.7	5.7	5.7	5.7	5.6	5.6	5.6	5.6
0	-0.4	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8
5.0	4.5	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5
10.0	9.0	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8
15.0	14.0	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.1
20.0	19.0	7.7	7.7	7.7	7.7	7.5	7.5	7.4	7.3
25.0	23.0	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.7
30.0	28.0	8.2	8.2	8.2	8.2	8.2	8.1	7.8	7.6
35.0	32.0	8.5	8.5	8.5	8.5	8.4	8.2	7.8	7.4
40.0	36.0	8.8	8.8	8.8	8.8	8.5	8.2	7.8	7.4
45.0	41.0	9.2	9.2	9.2	8.9	8.5	8.2	7.8	7.4
47.0	43.0	9.5	9.4	9.4	8.9	**8.5**	8.2	7.8	7.4
50.0	46.0	10.2	9.8	9.4	8.9	8.5	8.2	7.8	7.4
55.0	51.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4
60.0	56.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4

TC: Total Capacity (MBh)

Table 93: ARNU093TRC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0	-0.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
5.0	4.5	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.3
10.0	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
15.0	14.0	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.2
20.0	19.0	9.9	9.9	9.9	9.9	9.7	9.7	9.5	9.4
25.0	23.0	10.4	10.4	10.4	10.4	10.4	10.1	10.0	9.9
30.0	28.0	10.6	10.6	10.6	10.6	10.6	10.4	10.0	9.7
35.0	32.0	10.9	10.9	10.9	10.9	10.8	10.6	10.0	9.5
40.0	36.0	11.3	11.3	11.3	11.3	10.9	10.6	10.0	9.5
45.0	41.0	11.8	11.8	11.8	11.4	10.9	10.6	10.0	9.5
47.0	43.0	12.2	12.1	12.0	11.4	**10.9**	10.6	10.0	9.5
50.0	46.0	13.1	12.5	12.0	11.4	10.9	10.6	10.0	9.5
55.0	51.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5
60.0	56.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5

TC: Total Capacity (MBh)

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Heating Capacity

ARNU123TRC2, ARNU153TQC2, ARNU183TQC2

Table 94: ARNU123TRC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
0	-0.4	9.4	9.4	9.4	9.4	9.4	9.2	9.2	9.2
5.0	4.5	10.6	10.5	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9
15.0	14.0	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.4
20.0	19.0	12.4	12.4	12.4	12.4	12.1	12.1	11.9	11.7
25.0	23.0	12.9	12.9	12.9	12.9	12.9	12.6	12.5	12.4
30.0	28.0	13.2	13.2	13.2	13.2	13.2	12.9	12.5	12.1
35.0	32.0	13.6	13.6	13.6	13.6	13.5	13.2	12.5	11.9
40.0	36.0	14.1	14.1	14.1	14.1	13.6	13.2	12.5	11.9
45.0	41.0	14.7	14.7	14.7	14.3	13.6	13.2	12.5	11.9
47.0	43.0	15.2	15.1	15.0	14.3	**13.6**	13.2	12.5	11.9
50.0	46.0	16.4	15.6	15.0	14.3	13.6	13.2	12.5	11.9
55.0	51.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9
60.0	56.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9

TC: Total Capacity (MBh)

Table 95: ARNU153TQC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	11.5	11.5	11.5	11.5	11.3	11.3	11.3	11.3
0	-0.4	11.8	11.8	11.8	11.8	11.8	11.6	11.6	11.6
5.0	4.5	13.3	13.2	13.0	13.0	13.0	13.0	13.0	13.0
10.0	9.0	13.9	13.9	13.9	13.7	13.7	13.7	13.7	13.7
15.0	14.0	14.7	14.7	14.7	14.7	14.7	14.7	14.5	14.4
20.0	19.0	15.6	15.6	15.6	15.6	15.2	15.2	15.0	14.8
25.0	23.0	16.2	16.2	16.2	16.2	16.2	15.9	15.7	15.6
30.0	28.0	16.6	16.6	16.6	16.6	16.6	16.2	15.7	15.2
35.0	32.0	17.1	17.1	17.1	17.1	16.9	16.6	15.7	14.9
40.0	36.0	17.8	17.8	17.8	17.8	17.1	16.6	15.7	14.9
45.0	41.0	18.5	18.5	18.5	18.0	17.1	16.6	15.7	14.9
47.0	43.0	19.2	19.0	18.8	18.0	**17.1**	16.6	15.7	14.9
50.0	46.0	20.6	19.7	18.8	18.0	17.1	16.6	15.7	14.9
55.0	51.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9
60.0	56.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9

TC: Total Capacity (MBh)

Table 96: ARNU183TQC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU093TPAA, ARNU123TPAA, ARNU153TPAA

Table 97: ARNU093TPAA Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0	-0.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
5.0	4.5	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.3
10.0	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
15.0	14.0	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.2
20.0	19.0	9.9	9.9	9.9	9.9	9.7	9.7	9.5	9.4
25.0	23.0	10.4	10.4	10.4	10.4	10.4	10.1	10.0	9.9
30.0	28.0	10.6	10.6	10.6	10.6	10.6	10.4	10.0	9.7
35.0	32.0	10.9	10.9	10.9	10.9	10.8	10.6	10.0	9.5
40.0	36.0	11.3	11.3	11.3	11.3	10.9	10.6	10.0	9.5
45.0	41.0	11.8	11.8	11.8	11.4	10.9	10.6	10.0	9.5
47.0	43.0	12.2	12.1	12.0	11.4	**10.9**	10.6	10.0	9.5
50.0	46.0	13.1	12.5	12.0	11.4	10.9	10.6	10.0	9.5
55.0	51.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5
60.0	56.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5

TC: Total Capacity (MBh)

Table 98: ARNU123TPAA Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
0	-0.4	9.4	9.4	9.4	9.4	9.4	9.2	9.2	9.2
5.0	4.5	10.6	10.5	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9
15.0	14.0	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.4
20.0	19.0	12.4	12.4	12.4	12.4	12.1	12.1	11.9	11.7
25.0	23.0	12.9	12.9	12.9	12.9	12.9	12.6	12.5	12.4
30.0	28.0	13.2	13.2	13.2	13.2	13.2	12.9	12.5	12.1
35.0	32.0	13.6	13.6	13.6	13.6	13.5	13.2	12.5	11.9
40.0	36.0	14.1	14.1	14.1	14.1	13.6	13.2	12.5	11.9
45.0	41.0	14.7	14.7	14.7	14.3	13.6	13.2	12.5	11.9
47.0	43.0	15.2	15.1	15.0	14.3	**13.6**	13.2	12.5	11.9
50.0	46.0	16.4	15.6	15.0	14.3	13.6	13.2	12.5	11.9
55.0	51.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9
60.0	56.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9

TC: Total Capacity (MBh)

Table 99: ARNU153TPAA Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	11.5	11.5	11.5	11.5	11.3	11.3	11.3	11.3
0	-0.4	11.8	11.8	11.8	11.8	11.8	11.6	11.6	11.6
5.0	4.5	13.3	13.2	13.0	13.0	13.0	13.0	13.0	13.0
10.0	9.0	13.9	13.9	13.9	13.7	13.7	13.7	13.7	13.7
15.0	14.0	14.7	14.7	14.7	14.7	14.7	14.7	14.5	14.4
20.0	19.0	15.6	15.6	15.6	15.6	15.2	15.2	15.0	14.8
25.0	23.0	16.2	16.2	16.2	16.2	16.2	15.9	15.7	15.6
30.0	28.0	16.6	16.6	16.6	16.6	16.6	16.2	15.7	15.2
35.0	32.0	17.1	17.1	17.1	17.1	16.9	16.6	15.7	14.9
40.0	36.0	17.8	17.8	17.8	17.8	17.1	16.6	15.7	14.9
45.0	41.0	18.5	18.5	18.5	18.0	17.1	16.6	15.7	14.9
47.0	43.0	19.2	19.0	18.8	18.0	**17.1**	16.6	15.7	14.9
50.0	46.0	20.6	19.7	18.8	18.0	17.1	16.6	15.7	14.9
55.0	51.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9
60.0	56.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9

TC: Total Capacity (MBh)

Table 100: ARNU183TNAA Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

Table 101: ARNU243TNAA Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

Table 102: ARNU283TMAA Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	21.1	21.1	21.1	21.1	20.8	20.8	20.8	20.8
0	-0.4	21.7	21.7	21.7	21.7	21.7	21.4	21.4	21.4
5.0	4.5	24.6	24.3	23.9	23.9	23.9	23.9	23.9	23.9
10.0	9.0	25.5	25.5	25.5	25.2	25.2	25.2	25.2	25.2
15.0	14.0	27.1	27.1	27.1	27.1	27.1	27.1	26.8	26.5
20.0	19.0	28.7	28.7	28.7	28.7	28.0	28.0	27.6	27.2
25.0	23.0	29.9	29.9	29.9	29.9	29.9	29.3	29.0	28.7
30.0	28.0	30.6	30.6	30.6	30.6	30.6	29.9	29.0	28.1
35.0	32.0	31.5	31.5	31.5	31.5	31.2	30.6	29.0	27.5
40.0	36.0	32.8	32.8	32.8	32.8	31.5	30.6	29.0	27.5
45.0	41.0	34.0	34.0	34.0	33.1	31.5	30.6	29.0	27.5
47.0	43.0	35.3	35.0	34.7	33.1	**31.5**	30.6	29.0	27.5
50.0	46.0	37.9	36.2	34.7	33.1	31.5	30.6	29.0	27.5
55.0	51.0	38.5	36.5	34.7	33.1	31.5	30.6	29.0	27.5
60.0	56.0	38.5	36.5	34.7	33.1	31.5	30.6	29.0	27.5

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU363TMAA, ARNU243TPC2, ARNU283TPC2

Table 104: ARNU363TMAA Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	27.2	27.2	27.2	27.2	26.8	26.8	26.8	26.8
0	-0.4	28.0	28.0	28.0	28.0	28.0	27.6	27.6	27.6
5.0	4.5	31.7	31.3	30.9	30.9	30.9	30.9	30.9	30.9
10.0	9.0	32.9	32.9	32.9	32.5	32.5	32.5	32.5	32.5
15.0	14.0	34.9	34.9	34.9	34.9	34.9	34.9	34.5	34.1
20.0	19.0	36.9	36.9	36.9	36.9	36.0	36.0	35.5	35.0
25.0	23.0	38.6	38.6	38.6	38.6	38.6	37.8	37.4	37.0
30.0	28.0	39.4	39.4	39.4	39.4	39.4	38.6	37.4	36.2
35.0	32.0	40.6	40.6	40.6	40.6	40.2	39.4	37.4	35.4
40.0	36.0	42.2	42.2	42.2	42.2	40.6	39.4	37.4	35.4
45.0	41.0	43.8	43.8	43.8	42.6	40.6	39.4	37.4	35.4
47.0	43.0	45.5	45.1	44.7	42.6	**40.6**	39.4	37.4	35.4
50.0	46.0	48.8	46.7	44.7	42.6	40.6	39.4	37.4	35.4
55.0	51.0	49.7	47.1	44.7	42.6	40.6	39.4	37.4	35.4
60.0	56.0	49.7	47.1	44.7	42.6	40.6	39.4	37.4	35.4

TC: Total Capacity (MBh)

Table 103: ARNU243TPC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

Table 105: ARNU283TPC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	21.1	21.1	21.1	21.1	20.8	20.8	20.8	20.8
0	-0.4	21.7	21.7	21.7	21.7	21.7	21.4	21.4	21.4
5.0	4.5	24.6	24.3	23.9	23.9	23.9	23.9	23.9	23.9
10.0	9.0	25.5	25.5	25.5	25.2	25.2	25.2	25.2	25.2
15.0	14.0	27.1	27.1	27.1	27.1	27.1	27.1	26.8	26.5
20.0	19.0	28.7	28.7	28.7	28.7	28.0	28.0	27.6	27.2
25.0	23.0	29.9	29.9	29.9	29.9	29.9	29.3	29.0	28.7
30.0	28.0	30.6	30.6	30.6	30.6	30.6	29.9	29.0	28.1
35.0	32.0	31.5	31.5	31.5	31.5	31.2	30.6	29.0	27.5
40.0	36.0	32.8	32.8	32.8	32.8	31.5	30.6	29.0	27.5
45.0	41.0	34.0	34.0	34.0	33.1	31.5	30.6	29.0	27.5
47.0	43.0	35.3	35.0	34.7	33.1	**31.5**	30.6	29.0	27.5
50.0	46.0	37.9	36.2	34.7	33.1	31.5	30.6	29.0	27.5
55.0	51.0	38.5	36.5	34.7	33.1	31.5	30.6	29.0	27.5
60.0	56.0	38.5	36.5	34.7	33.1	31.5	30.6	29.0	27.5

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU363TNC2, ARNU423TMC2, ARNU483TMC2

Table 106: ARNU363TNC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	27.2	27.2	27.2	27.2	26.8	26.8	26.8	26.8
0	-0.4	28.0	28.0	28.0	28.0	28.0	27.6	27.6	27.6
5.0	4.5	31.7	31.3	30.9	30.9	30.9	30.9	30.9	30.9
10.0	9.0	32.9	32.9	32.9	32.5	32.5	32.5	32.5	32.5
15.0	14.0	34.9	34.9	34.9	34.9	34.9	34.9	34.5	34.1
20.0	19.0	36.9	36.9	36.9	36.9	36.0	36.0	35.5	35.0
25.0	23.0	38.6	38.6	38.6	38.6	38.6	37.8	37.4	37.0
30.0	28.0	39.4	39.4	39.4	39.4	39.4	38.6	37.4	36.2
35.0	32.0	40.6	40.6	40.6	40.6	40.2	39.4	37.4	35.4
40.0	36.0	42.2	42.2	42.2	42.2	40.6	39.4	37.4	35.4
45.0	41.0	43.8	43.8	43.8	42.6	40.6	39.4	37.4	35.4
47.0	43.0	45.5	45.1	44.7	42.6	**40.6**	39.4	37.4	35.4
50.0	46.0	48.8	46.7	44.7	42.6	40.6	39.4	37.4	35.4
55.0	51.0	49.7	47.1	44.7	42.6	40.6	39.4	37.4	35.4
60.0	56.0	49.7	47.1	44.7	42.6	40.6	39.4	37.4	35.4

TC: Total Capacity (MBh)

Table 107: ARNU423TMC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	29.3	29.3	29.3	29.3	28.9	28.9	28.9	28.9
0	-0.4	30.2	30.2	30.2	30.2	30.2	29.8	29.8	29.8
5.0	4.5	34.2	33.7	33.3	33.3	33.3	33.3	33.3	33.3
10.0	9.0	35.5	35.5	35.5	35.0	35.0	35.0	35.0	35.0
15.0	14.0	37.7	37.7	37.7	37.7	37.7	37.7	37.2	36.8
20.0	19.0	39.9	39.9	39.9	39.9	38.9	38.9	38.3	37.8
25.0	23.0	41.6	41.6	41.6	41.6	41.6	40.7	40.3	39.9
30.0	28.0	42.5	42.5	42.5	42.5	42.5	41.6	40.3	39.0
35.0	32.0	43.8	43.8	43.8	43.8	43.4	42.5	40.3	38.2
40.0	36.0	45.6	45.6	45.6	45.6	43.8	42.5	40.3	38.2
45.0	41.0	47.3	47.3	47.3	46.0	43.8	42.5	40.3	38.2
47.0	43.0	49.1	48.6	48.2	46.0	**43.8**	42.5	40.3	38.2
50.0	46.0	52.7	50.4	48.2	46.0	43.8	42.5	40.3	38.2
55.0	51.0	53.6	50.8	48.2	46.0	43.8	42.5	40.3	38.2
60.0	56.0	53.6	50.8	48.2	46.0	43.8	42.5	40.3	38.2

TC: Total Capacity (MBh)

Table 108: ARNU483TMC2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	34.3	34.3	34.3	34.3	33.8	33.8	33.8	33.8
0	-0.4	35.3	35.3	35.3	35.3	35.3	34.8	34.8	34.8
5.0	4.5	39.9	39.4	38.9	38.9	38.9	38.9	38.9	38.9
10.0	9.0	41.5	41.5	41.5	41.0	41.0	41.0	41.0	41.0
15.0	14.0	44.0	44.0	44.0	44.0	44.0	44.0	43.5	43.0
20.0	19.0	46.6	46.6	46.6	46.6	45.4	45.4	44.8	44.2
25.0	23.0	48.6	48.6	48.6	48.6	48.6	47.6	47.1	46.6
30.0	28.0	49.7	49.7	49.7	49.7	49.7	48.6	47.1	45.6
35.0	32.0	51.2	51.2	51.2	51.2	50.7	49.7	47.1	44.7
40.0	36.0	53.2	53.2	53.2	53.2	51.2	49.7	47.1	44.7
45.0	41.0	55.3	55.3	55.3	53.8	51.2	49.7	47.1	44.7
47.0	43.0	57.3	56.8	56.3	53.8	**51.2**	49.7	47.1	44.7
50.0	46.0	61.6	58.9	56.3	53.8	51.2	49.7	47.1	44.7
55.0	51.0	62.6	59.4	56.3	53.8	51.2	49.7	47.1	44.7
60.0	56.0	62.6	59.4	56.3	53.8	51.2	49.7	47.1	44.7

TC: Total Capacity (MBh)

ELECTRICAL & ACOUSTIC DATA

TR, TQ, TN, TM, TP Chassis

Electrical Data

Table 109: 4-Way Ceiling Cassette Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU053TRC2	187-253	0.25	15	0.2	60	208-230	1	30	30
ARNU073TRC2		0.25		0.2				30	30
ARNU093TRC2		0.25		0.2				30	30
ARNU123TRC2		0.25		0.2				30	30
ARNU153TQC2		0.25		0.2				30	30
ARNU183TQC2		0.25		0.2				30	30
ARNU093TPAA		0.22		0.15				33	33
ARNU123TPAA		0.22		0.15				33	33
ARNU153TPAA		0.22		0.15				33	33
ARNU183TNAA		0.81		0.56				144	144
ARNU243TNAA		0.81		0.56				144	144
ARNU283TMAA		0.70		0.56				65	65
ARNU363TMAA		0.70		0.56				85	85
ARNU243TPC2		0.22		0.15				33	33
ARNU283TPC2		0.22		0.15				33	33
ARNU363TNC2		0.81		0.56				144	144
ARNU423TMC2		0.81		1.3				144	144
ARNU483TMC2		0.81		1.3				144	144

MCA : Minimum Circuit Ampacity MOP : Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 110: 4-Way Ceiling Cassette Unit Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU053TRC2	29	27	26
ARNU073TRC2	29	27	26
ARNU093TRC2	30	29	27
ARNU123TRC2	32	30	27
ARNU153TQC2	36	34	32
ARNU183TQC2	37	35	34
ARNU093TPAA	31	27	25
ARNU123TPAA	32	28	26
ARNU153TPAA	35	32	27
ARNU183TNAA	34	30	26
ARNU243TNAA	40	38	35
ARNU283TMAA	39	36	32
ARNU363TMAA	41	38	34
ARNU243TPC2	36	34	31
ARNU283TPC2	39	35	33
ARNU363TNC2	43	40	37
ARNU423TMC2	44	41	38
ARNU483TMC2	46	43	41

Figure 145: ARNU053TRC2

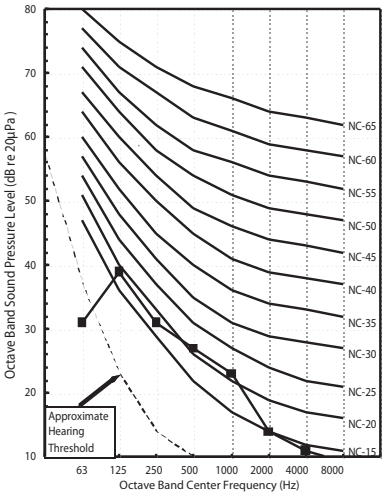


Figure 146: ARNU073TRC2

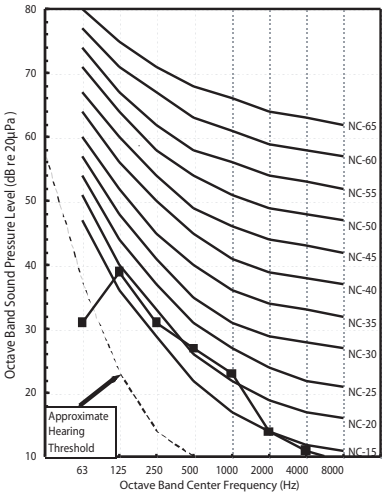


Figure 147: ARNU093TRC2

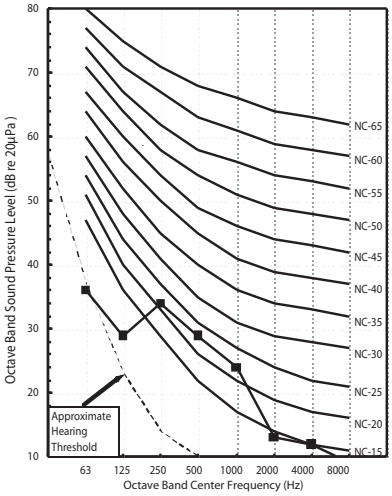


Figure 148: ARNU123TRC2

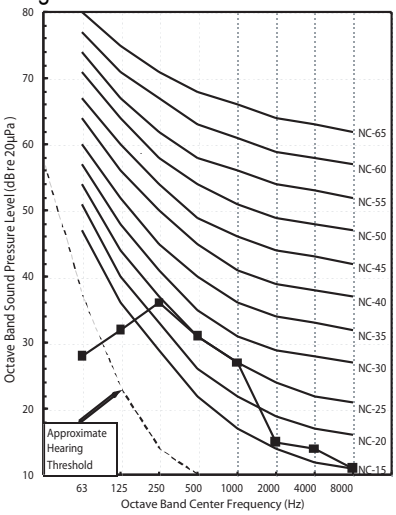


Figure 149: ARNU153TQC2

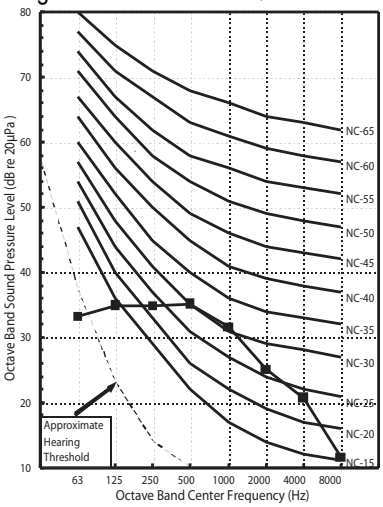


Figure 150: ARNU183TQC2

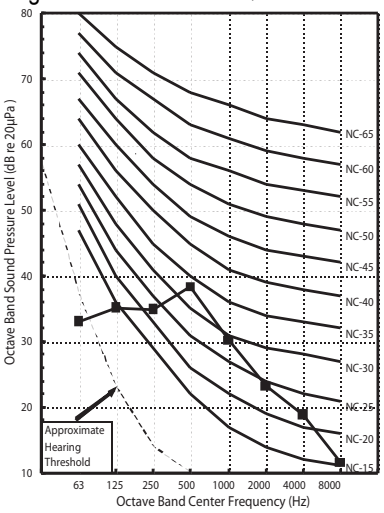


Figure 151: ARNU093TPAA

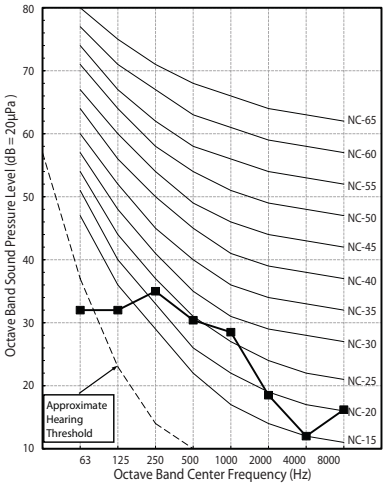


Figure 152: ARNU123TPAA

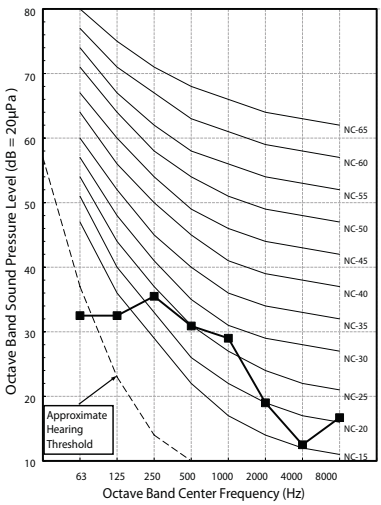
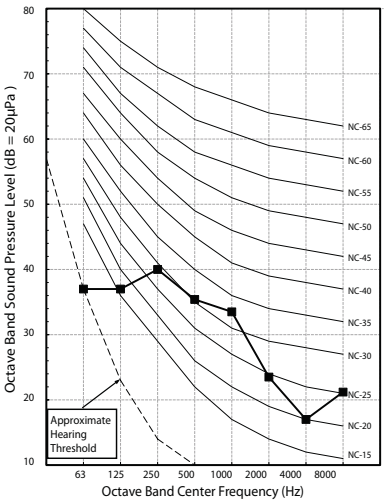


Figure 153: ARNU153TPAA



ACOUSTIC DATA

TNAA, TMAA, TPC2, TNC2, TMC2 Chassis

Figure 154: ARNU183TNAA

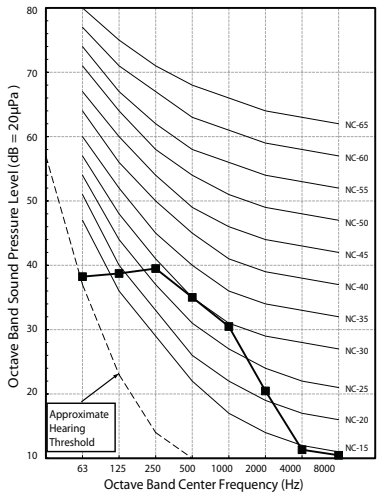


Figure 155: ARNU243TNAA

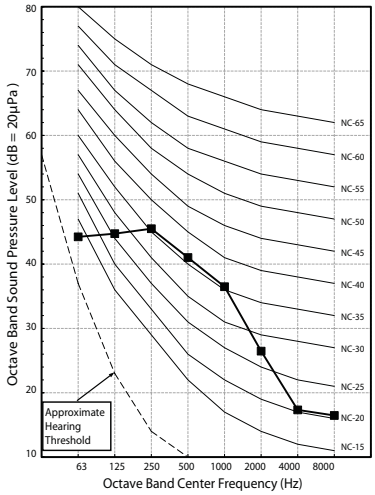


Figure 156: ARNU283TMAA

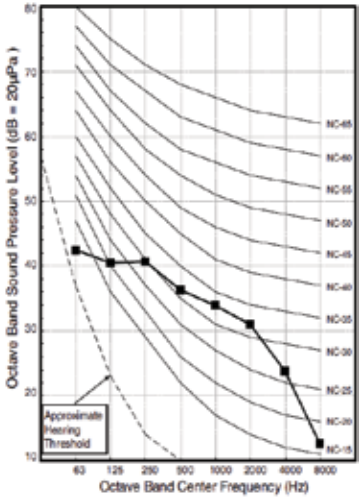


Figure 157: ARNU363TMAA

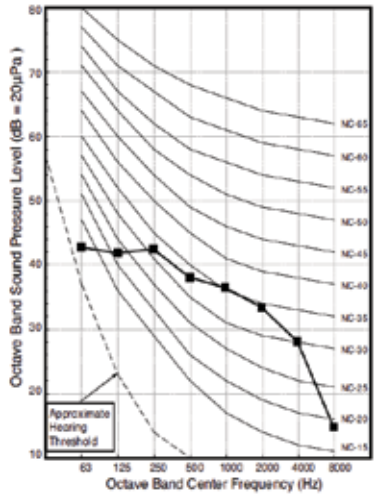


Figure 158: ARNU243TPC2

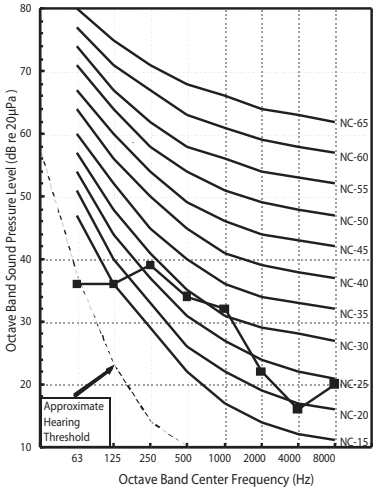


Figure 159: ARNU283TPC2

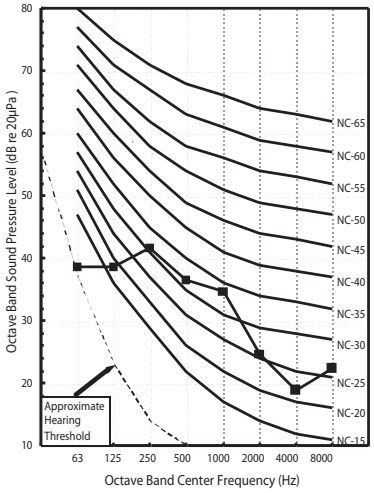


Figure 160: ARNU363TNC2

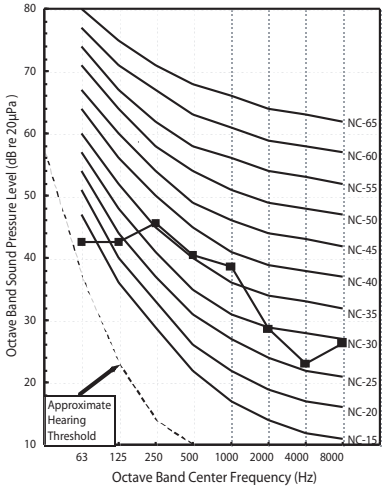


Figure 161: ARNU423TMC2

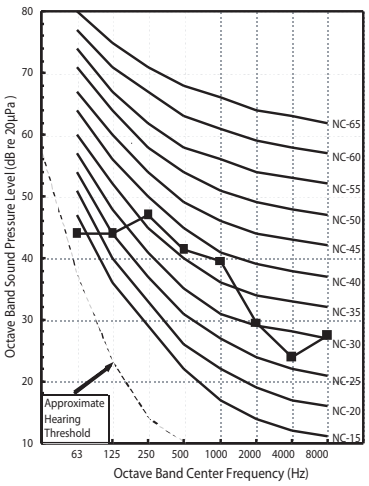
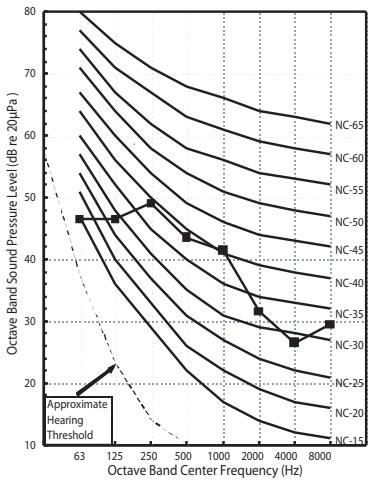


Figure 162: ARNU483TMC2



ACOUSTIC DATA

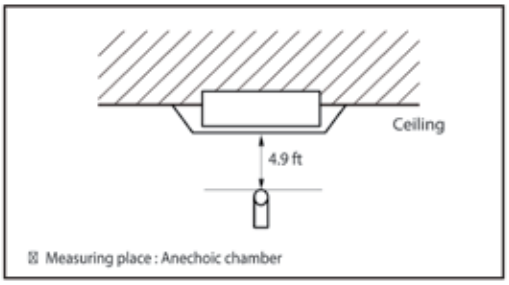
TR, TQ, TN, TM, TP Chassis

- Measurements are taken 4.9 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions :

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 163: Sound Levels



PIPING DIAGRAMS

TR, TQ, TP, TN, TM Chassis

Figure 164:TR, TQ, TP, TN, TM Chassis Piping Diagram

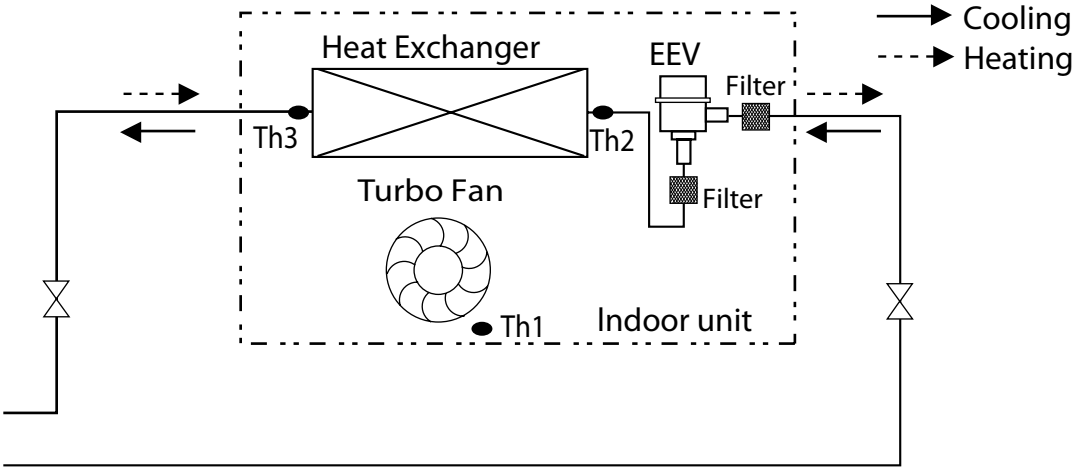
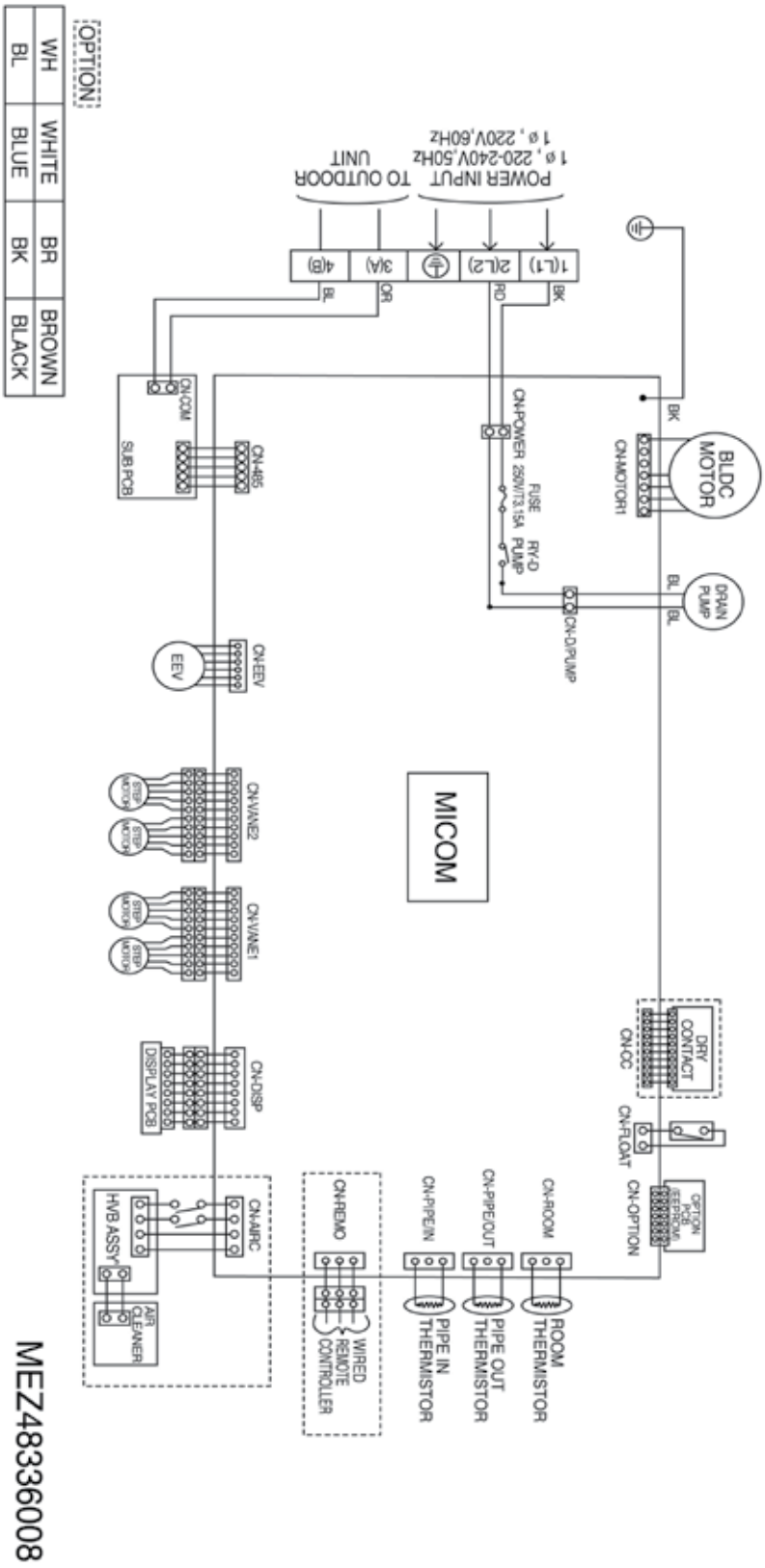


Table 111: TR, TQ, TP, TN, TM Chassis Refrigerant Pipe Connection Port Diameters

Model	Liquid (inch)	Gas (inch)
ARNU053TRC2	1/4	1/2
ARNU073TRC2	1/4	1/2
ARNU093TRC2	1/4	1/2
ARNU123TRC2	1/4	1/2
ARNU153TQC2	1/4	1/2
ARNU183TQC2	1/4	1/2
ARNU093TPAA	3/8	5/8
ARNU123TPAA	3/8	5/8
ARNU153TPAA	3/8	5/8
ARNU183TNAA	3/8	5/8
ARNU243TNAA	3/8	5/8
ARNU283TMAA	3/8	5/8
ARNU363TMAA	3/8	5/8
ARNU243TPC2	3/8	5/8
ARNU283TPC2	3/8	5/8
ARNU363TNC2	3/8	5/8
ARNU423TMC2	3/8	5/8
ARNU483TMC2	3/8	5/8

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

Figure 165: TR, TQ Chassis Wiring Diagram



PIPING DIAGRAMS

TR, TQ Chassis

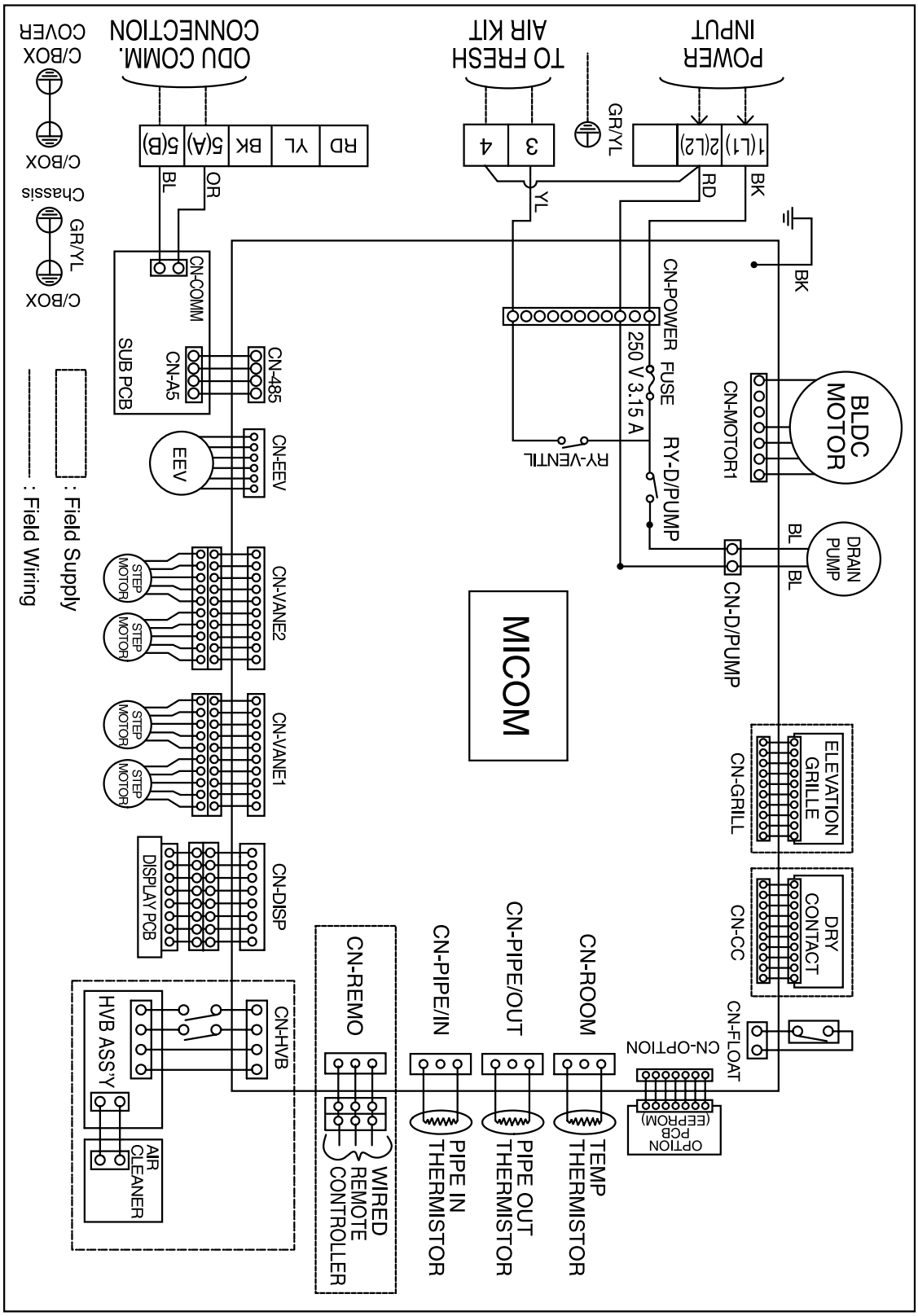
Table 112: TR, TQ Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-485	Communication	Connection between indoor and outdoor
CN-DISP	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output
CN-VANE2	Step motor	Step motor output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry Contact	Dry Contact line
CN-AIRC	Air Clean	Air cleaner control

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	No Function

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for other models.

Figure 166: TM, TN, TP Chassis Wiring Diagram



WIRING DIAGRAMS

TM, TN, TP Chassis

Table 113: TM, TN, TP Chassis Wiring Diagram

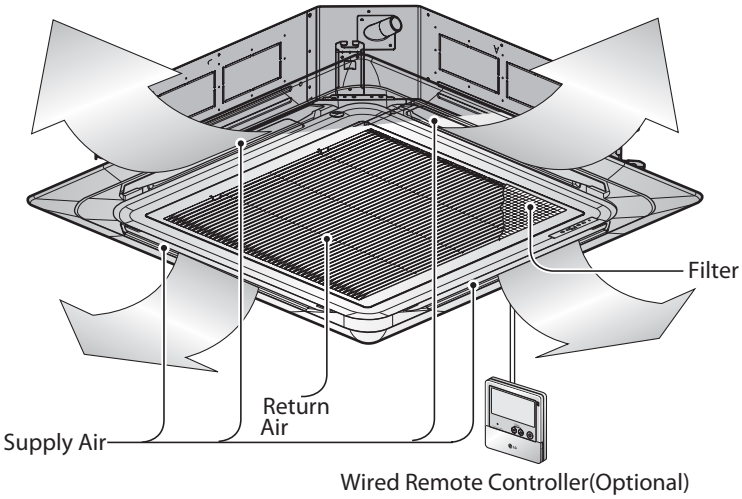
CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-485	Communication	Connection between indoor and outdoor
CN-DISP	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output
CN-VANE1/VANE2	Step motor	Step motor output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry Contact	Dry Contact line
CN-AIRC	Air Clean	Air cleaner control

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	No Function

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for other models.

INSTALLATION & BEST LAYOUT PRACTICES

Figure 167: TQ, TR, TM, TN, TP Chassis



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Torque wrenches
- Hexagonal wrench
- Gas-leak detector
- Thermometer

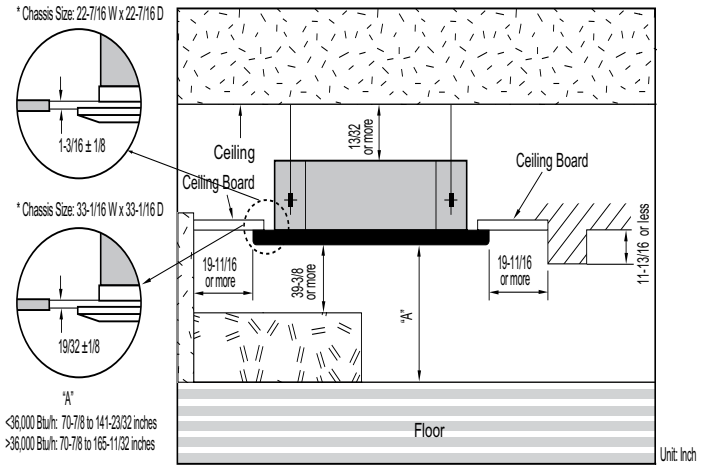
Required Parts

- Connecting cable
- Pipes - vapor line and liquid line (field provided)
- Hanger rod 3/8” or 1/2”
- Insulated drain hose
- Additional drain hose

⚠WARNING

- *Please read all instructions before installing the product.*
- *When the power cord is damaged, all replacement work must be performed by authorized personnel only.*
- *Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.*

Figure 168: Selecting the Best Location



Selecting the Best Location

Do’s

- Place the unit where free supply air can be obtained without obstruction.
- If possible, position the unit to minimize the length of the condensate drain pipe.
- Verify maintenance space requirements.

Don’ts

- The unit should not be near a heat source or steam.
- The air circulation should not be blocked by obstacles.
- Do not install the unit near a doorway.

⚠WARNING

If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

Figure 169: Ceiling Opening

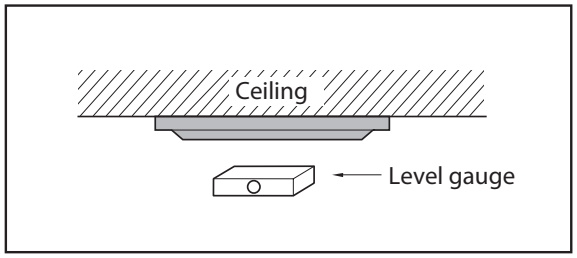
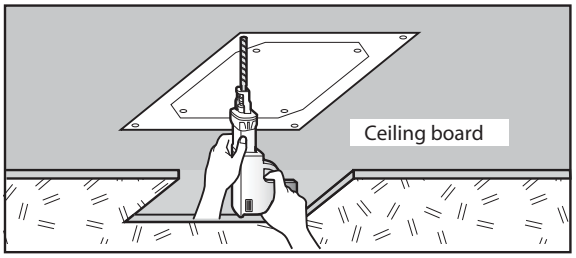
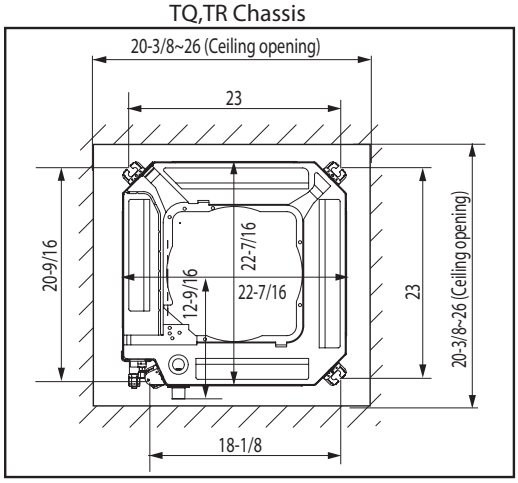


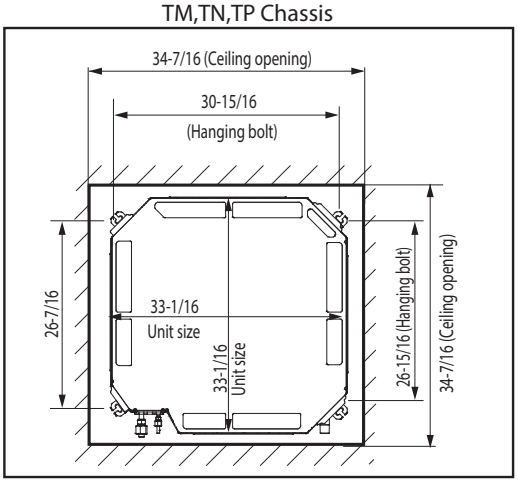
Figure 170: Hanging Bolt Locations



TQ,TR Chassis



TM,TN,TP Chassis



1. Determine where the fixing bolts should be placed. The fixing bolts should be slightly tilted in the direction of the drain hose.
2. Select and mark the position for fixing bolts and the piping opening. Drill a hole in the ceiling for the anchor bolt.
3. Install the unit horizontally using a level gauge.

⚠CAUTION
Do not damage electric wires during the installation.

Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing unit in places where cooking oil or iron powder is generated.
- Avoid installing unit where flammable gas is generated, flows, stored or vented.
- Avoid installing where sulfurous acid gas or corrosive gas is generated.
- Avoid installing unit near high frequency generators.

Figure 171: Unit Clearance

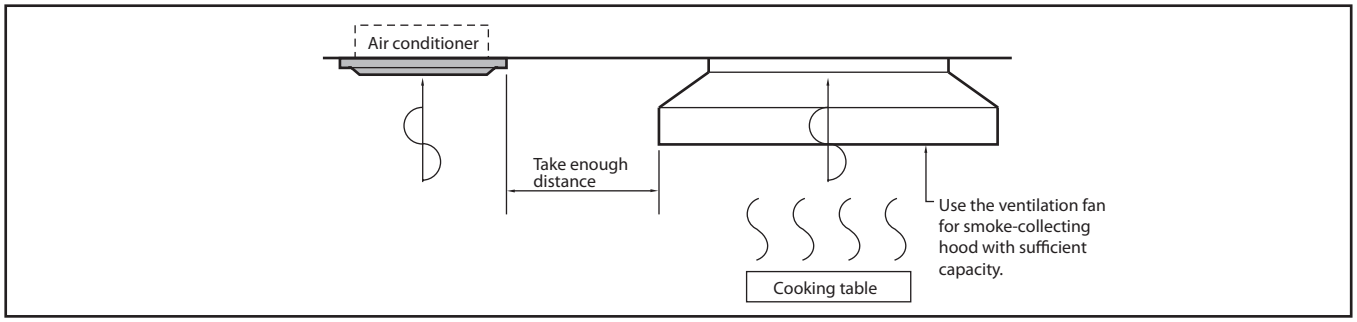
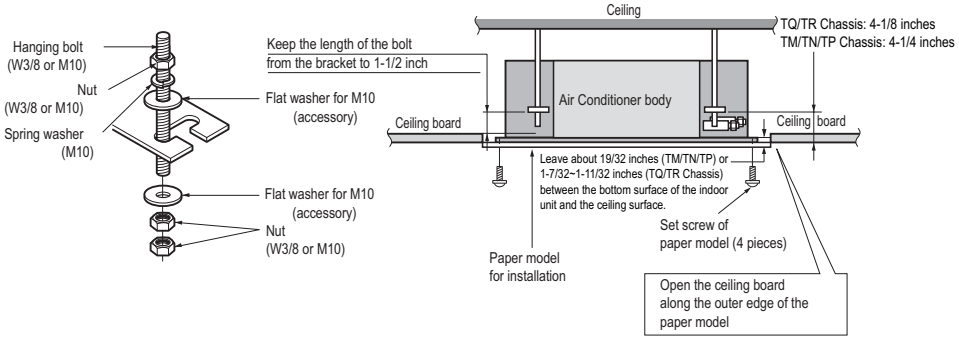


Figure 172: Bolt Locations



The following parts can be purchased locally:

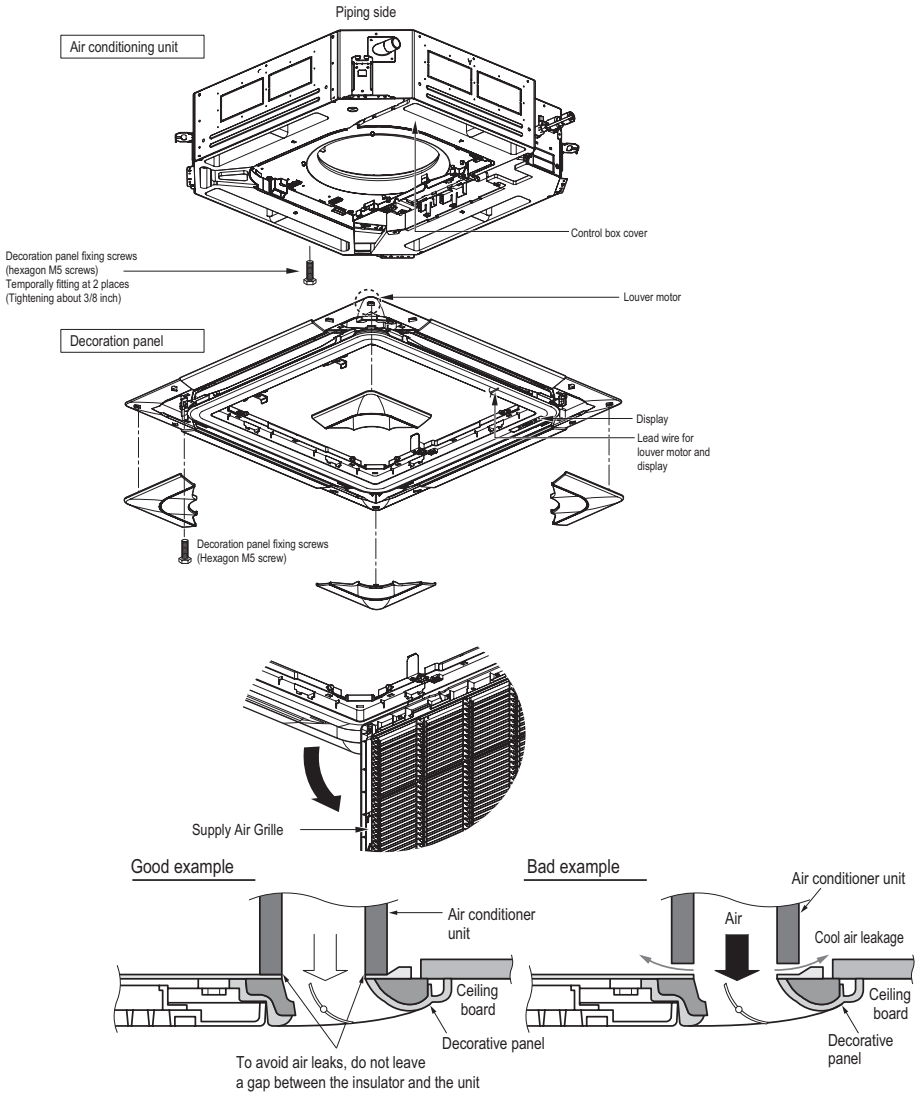
- Hanger rod 3/8" or 1/2"
- Nut - W-3/8" or M10
- Spring washer - M10
- Plate washer - M10

⚠CAUTION

Tighten the nut and bolt to prevent the unit from falling.

Installation of the Decorative Panel

Figure 173: Decorative Panel Installation



⚠CAUTION

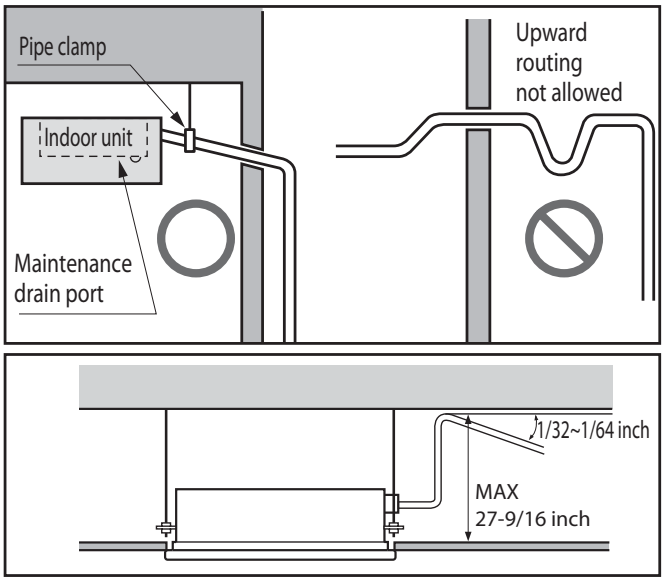
The decorative panel must be installed correctly; any air leaks will cause condensation.

1. Remove the paper template before installing the decorative panel.
2. Install the decorative panel using two hexagon M5 screws provided with the indoor unit. Partially tighten the screws.
3. Remove the supply air grille from the decorative panel (remove the hook for the supply air grille cord).
4. Place the decorative panel key hole on the screws partially tightened in step 1 above. Slide the panel so that the screws are in line with the key hole.
5. Completely tighten the two partially tightened screws and other two screws (total 4 screws).
6. Connect the louver motor connector and display connector.
7. After tightening these screws, install the supply air grille (including the air filter).

Indoor Unit Drain Piping

- Drain piping must have down slope (1/32 to 1/64 inch). To prevent reversal flow, do not provide up and down slope.
- During drain piping connection, do not exert extra force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 1-1/4 inch.
- The piping material is polyvinyl chloride pipe (1 inch)
- Install heat insulation on the drain piping
- The heat insulation material is polyethylene foam thicker than 5/16 inch.

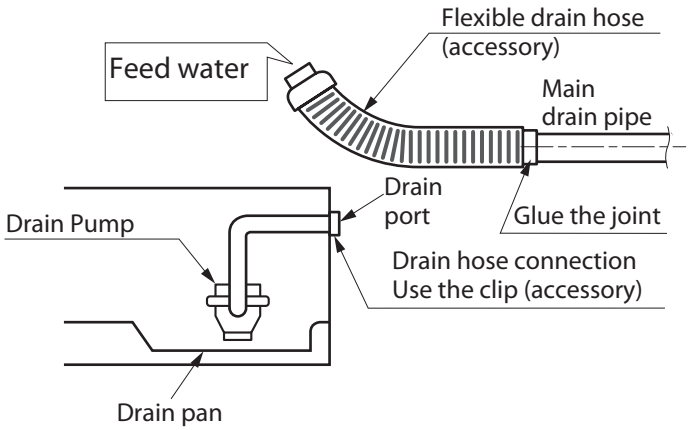
Figure 174: Drain Piping



Drain Test

The indoor unit uses a drain pump to drain water. Use the following procedure to test the drain pump operation.

Figure 175: Drain Test

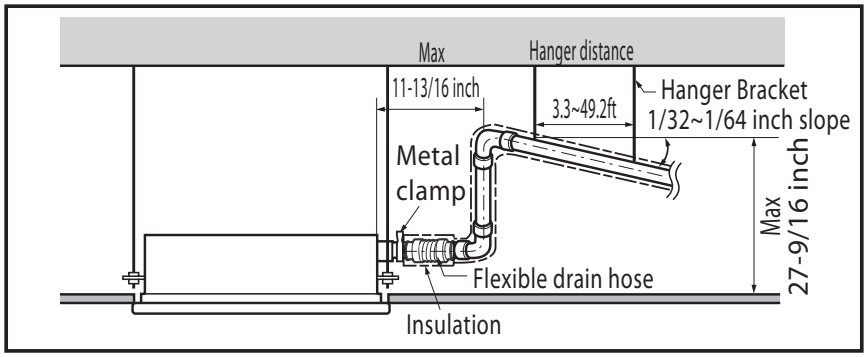


1. Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
2. Feed water to the flexible drain hose and check the piping for leakage.
3. Check the drain pump for normal operation and noise when electrical wiring is complete.
4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.

⚠CAUTION

The supplied flexible drain hose should not be strained. A strained hose may cause water to leak.

Figure 176: Placement Recommendation



Hand Over

Using the operations manual, explain the proper operation and maintenance procedures (air filter cleaning, temperature control, etc.) to the customer.

Wiring Connection

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires on the outdoor unit and terminal No. are the same as those on the indoor unit.

Figure 177: Wiring Connection

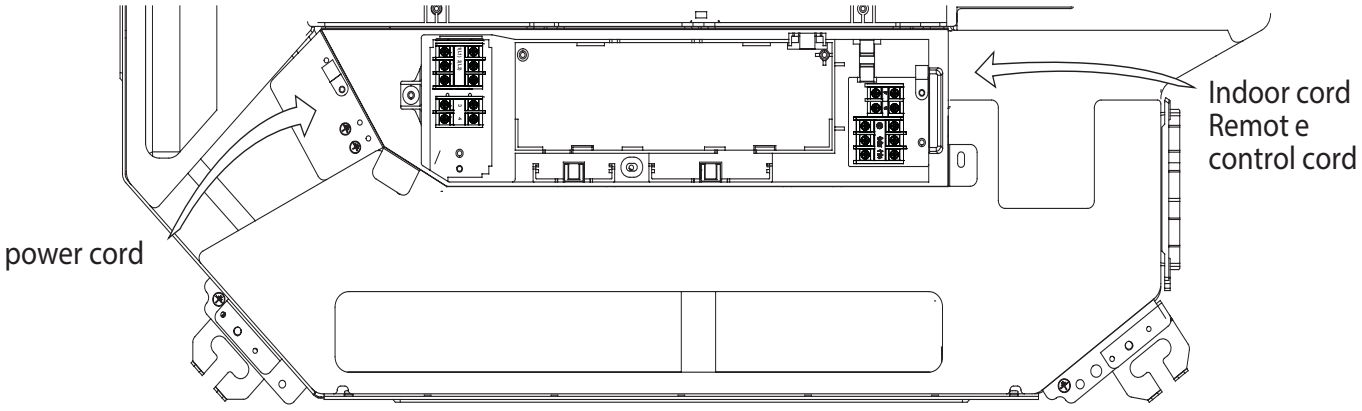
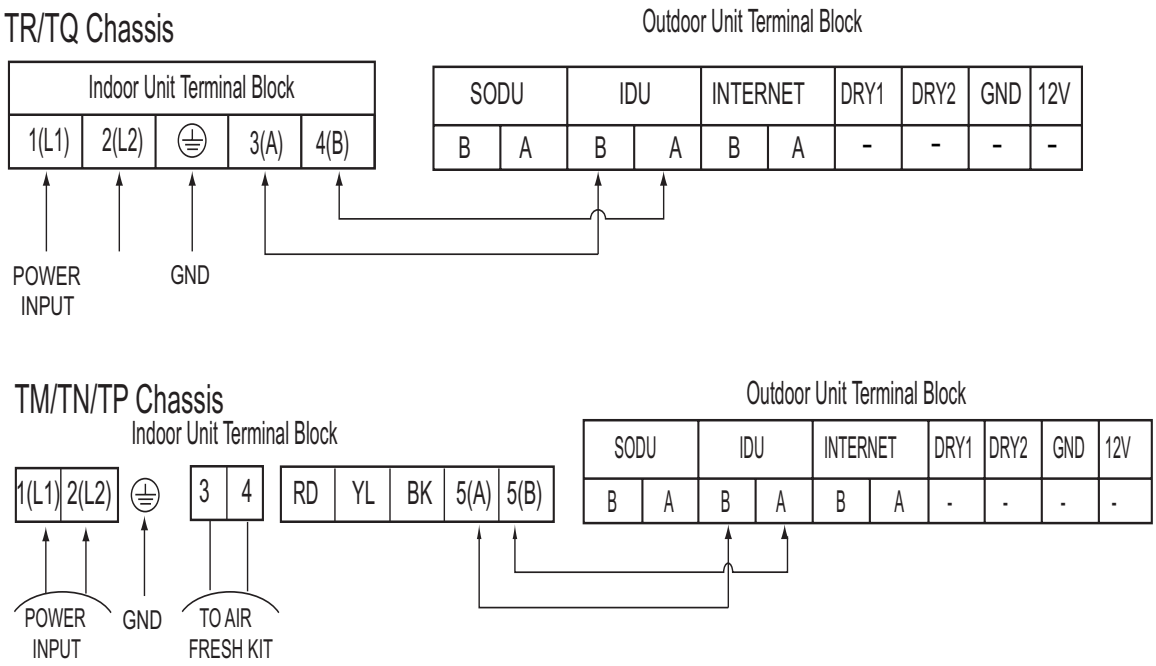


Figure 178: Wiring Connection



⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Prepare the wiring as follows:

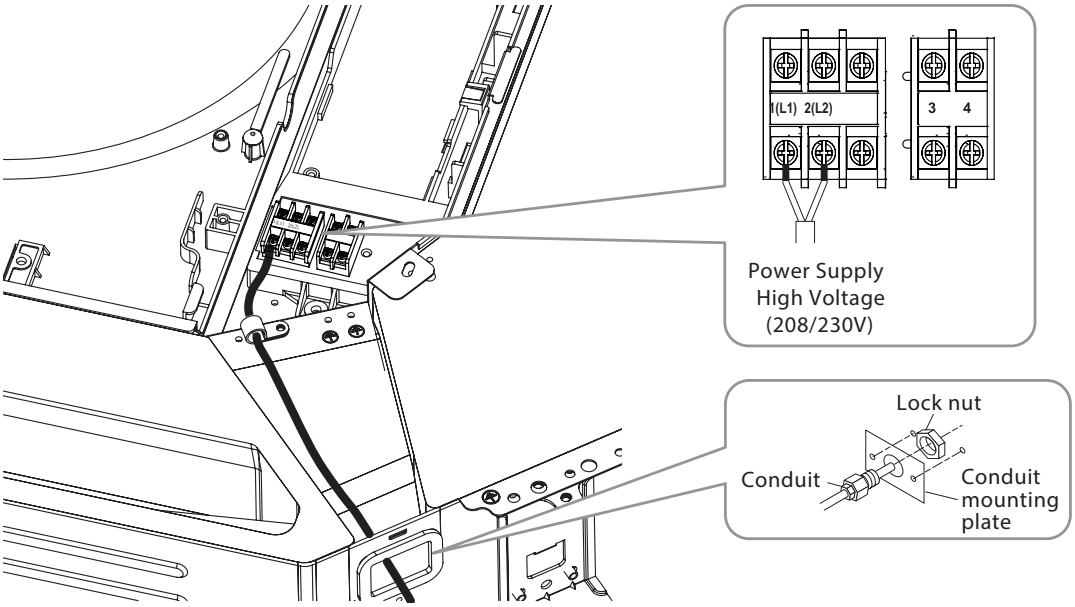
1. Always have separate power for the indoor unit.
2. Follow the circuit diagram pasted on the inside on the control box cover.
3. Provide a circuit breaker switch between the power source and indoor unit.
4. Confirm the specification of the power source.
5. Confirm that the electrical capacity is sufficient.
6. Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
7. Confirm the cable thickness is as specified in the power sources specification.
8. Always equip a leakage breaker where conditions are wet or moist.

The following problems can be caused by voltage dropdown:

- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

Cable Connection Method

Figure 179: Cable Connection Method



⚠WARNING

1. Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.

2. Make sure that terminal screws are tightened properly.

Wired Remote Controller Installation

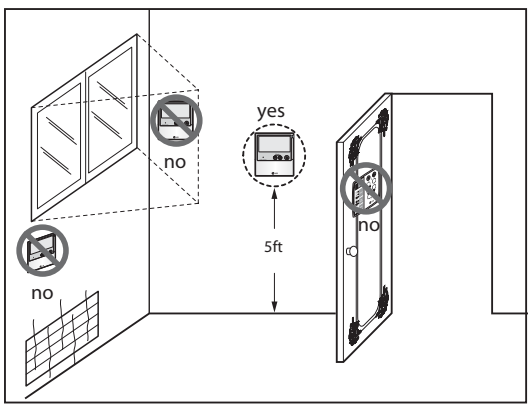
Since the room temperature sensor is inside the remote controller, the remote controller should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

Figure 180: Wired Remote Controller Installation



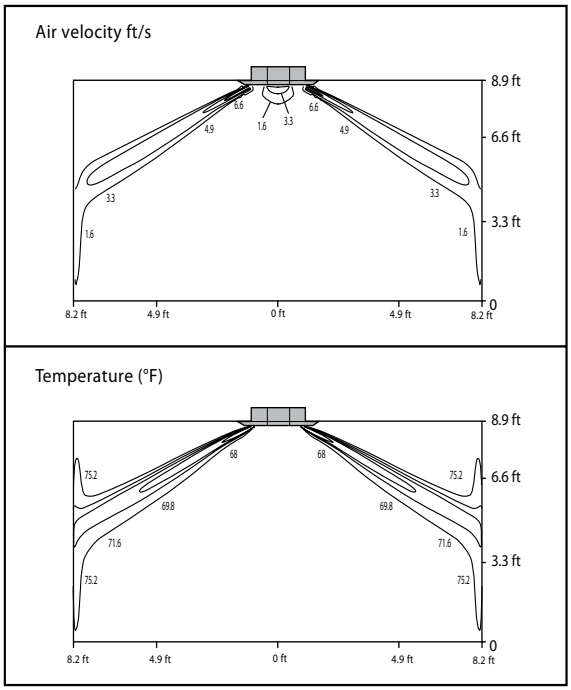
AIR VELOCITY & TEMP DISTRIBUTION

ARNU053TRC2

Figure 181: ARNU053TRC2

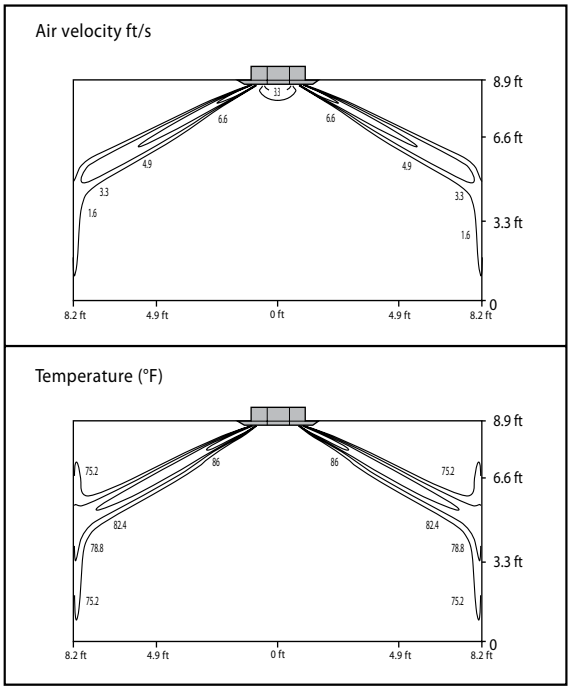
Cooling

Discharge angle: 20°



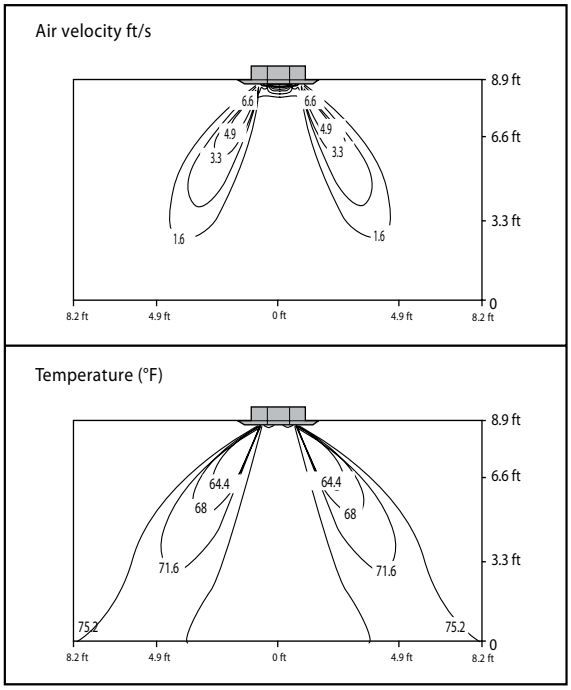
Heating

Discharge angle: 20°



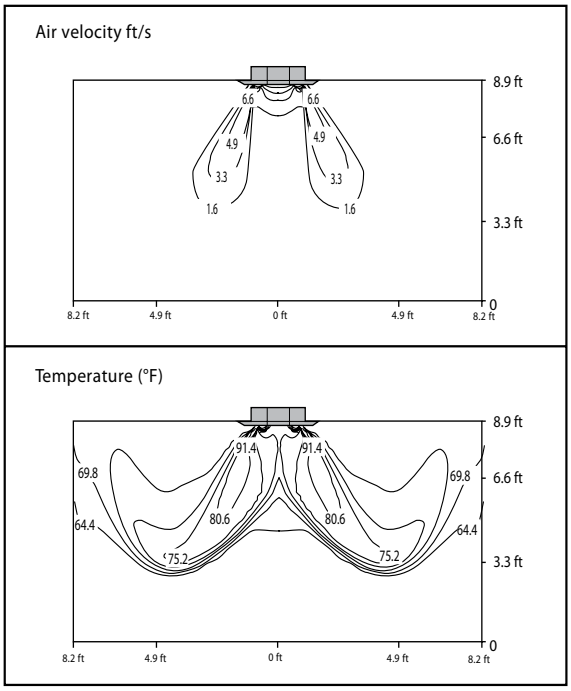
Cooling

Discharge angle: 40°



Heating

Discharge angle: 50°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 182: ARNU053TRC2, continued

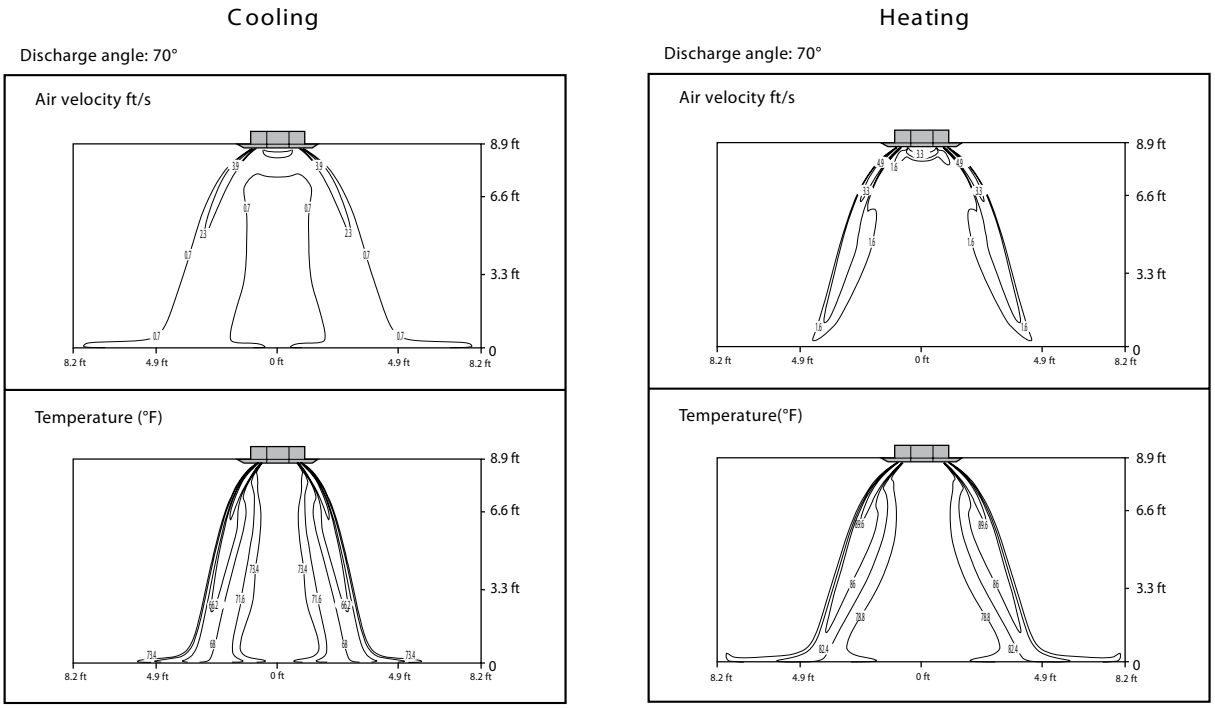
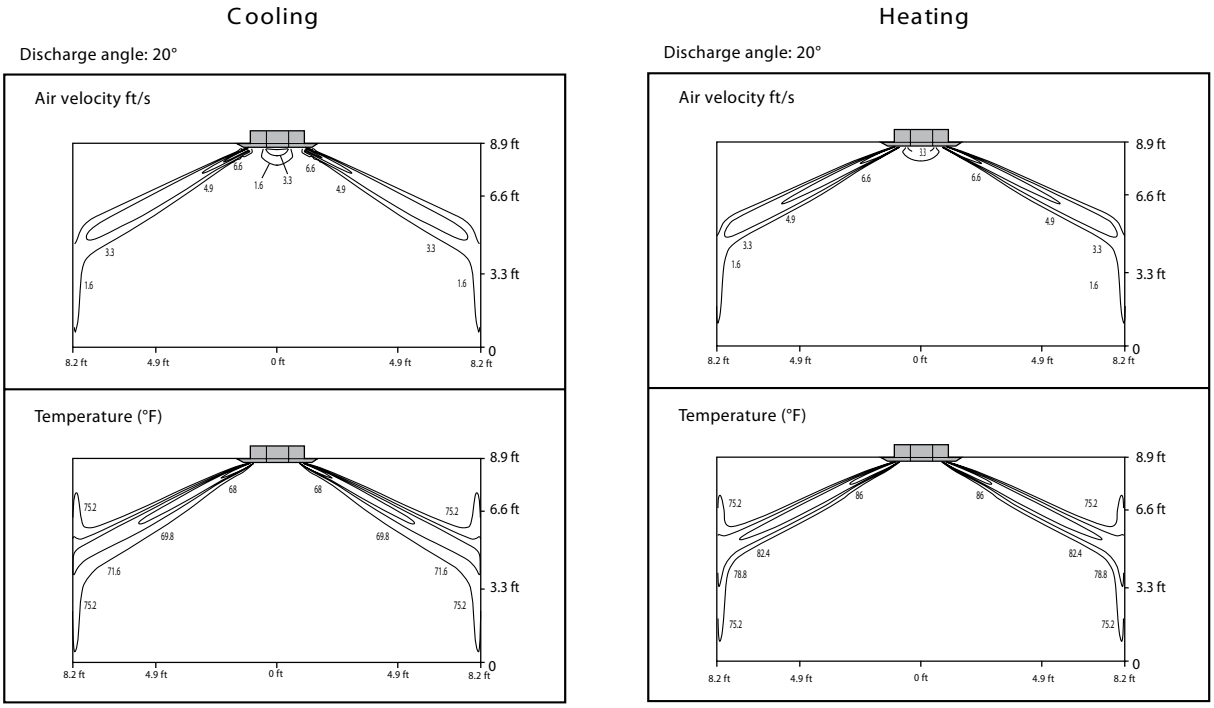


Figure 183: ARNU073TRC2



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

AIR VELOCITY & TEMP DISTRIBUTION

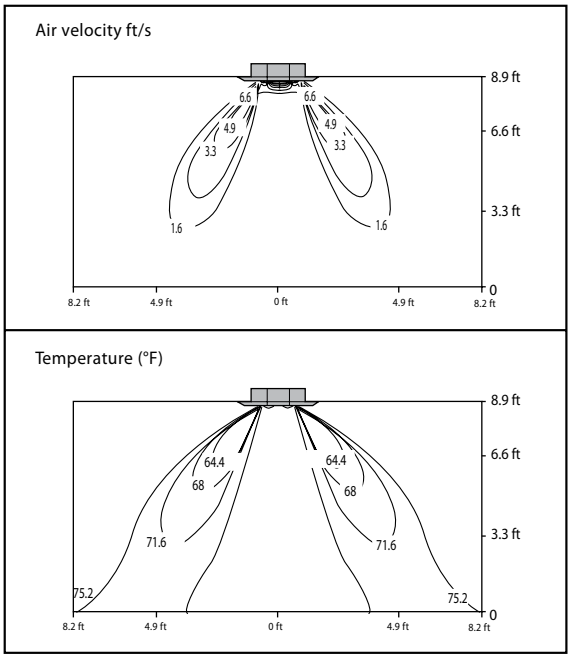
MULTI V

ARNU073TRC2

Figure 184: ARNU073TRC2, continued

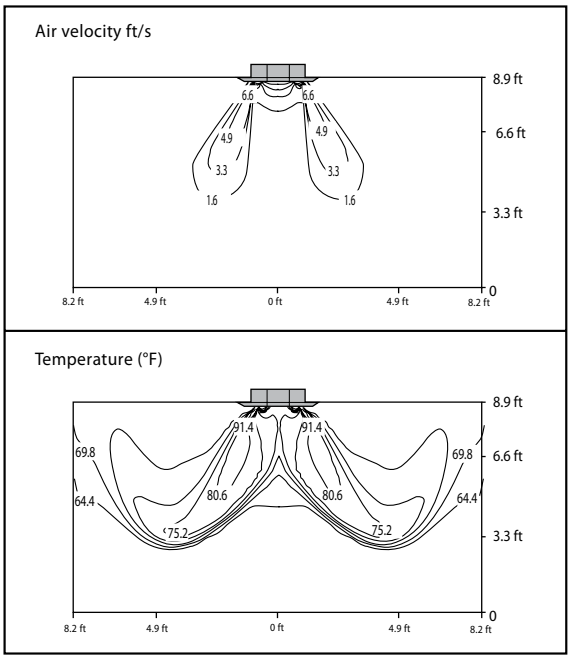
Cooling

Discharge angle: 40°



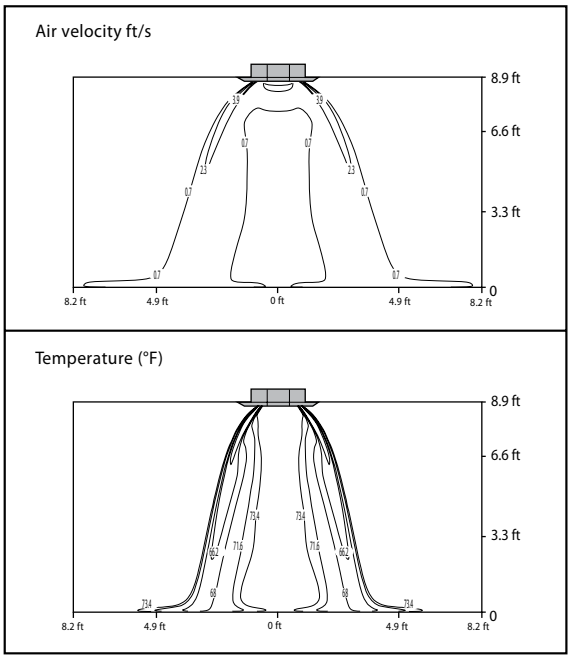
Heating

Discharge angle: 50°



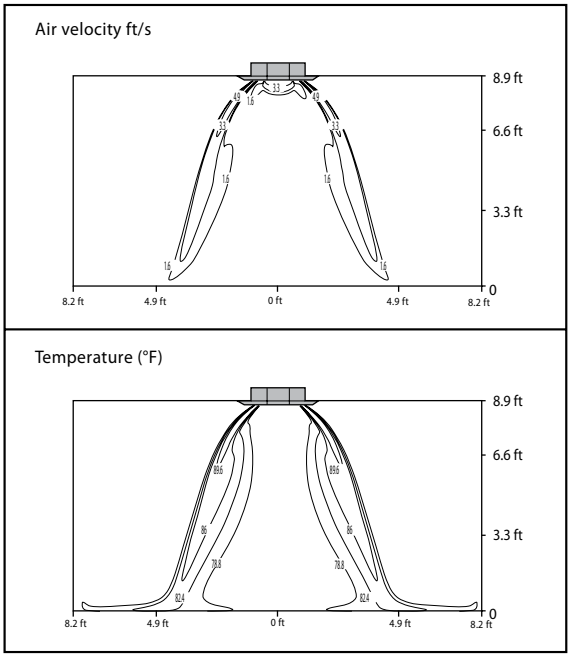
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

LG

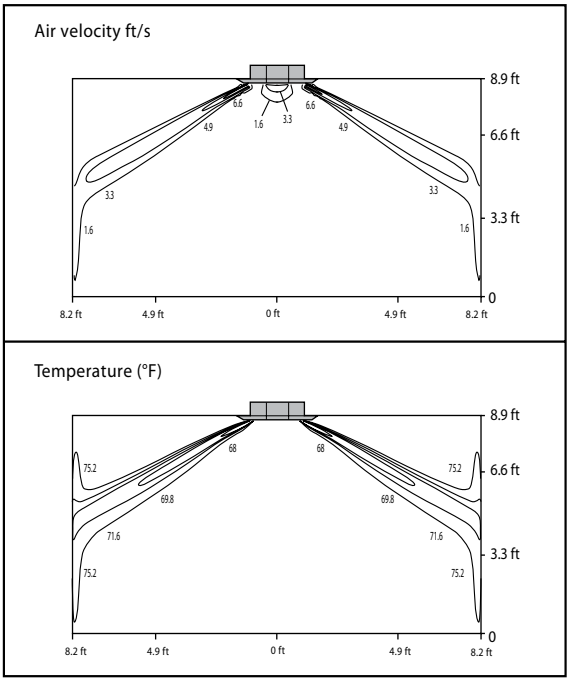
AIR VELOCITY & TEMP DISTRIBUTION

ARNU093TRC2

Figure 185: ARNU093TRC2

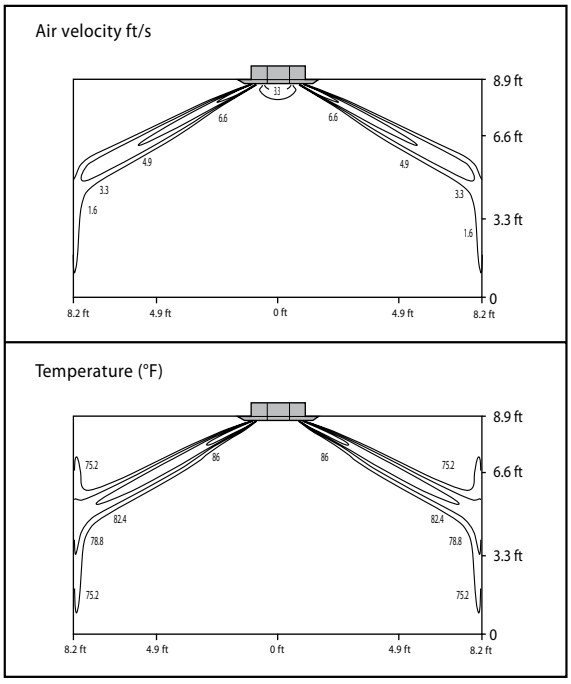
Cooling

Discharge angle: 20°



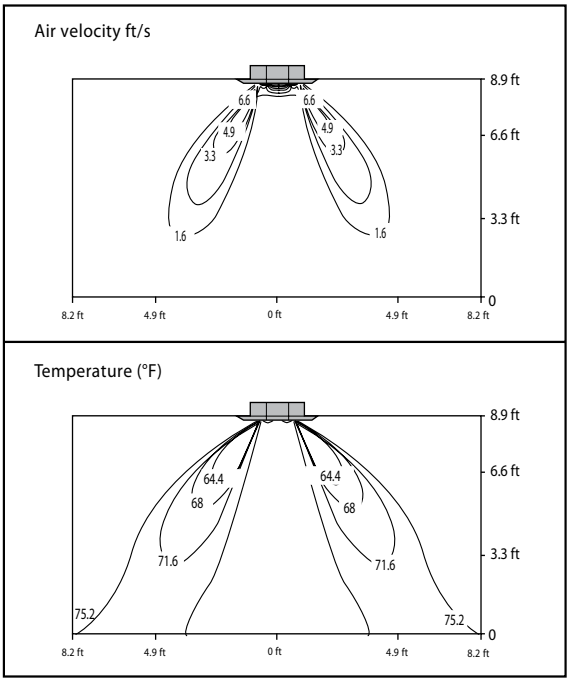
Heating

Discharge angle: 20°



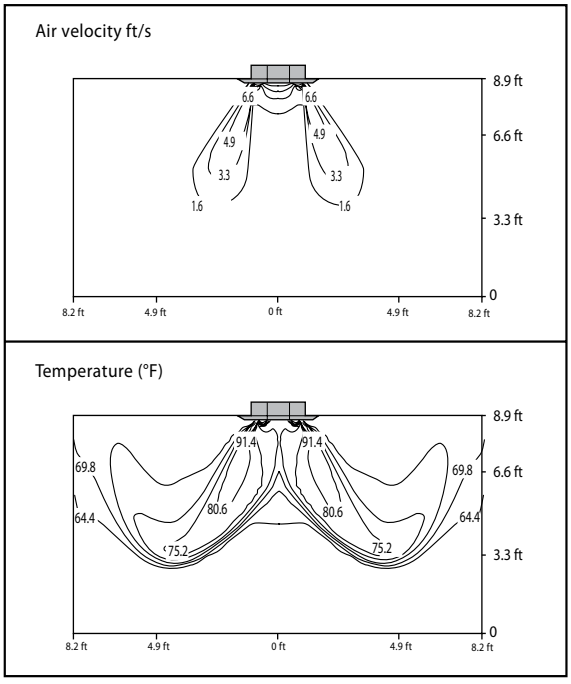
Cooling

Discharge angle: 40°



Heating

Discharge angle: 50°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

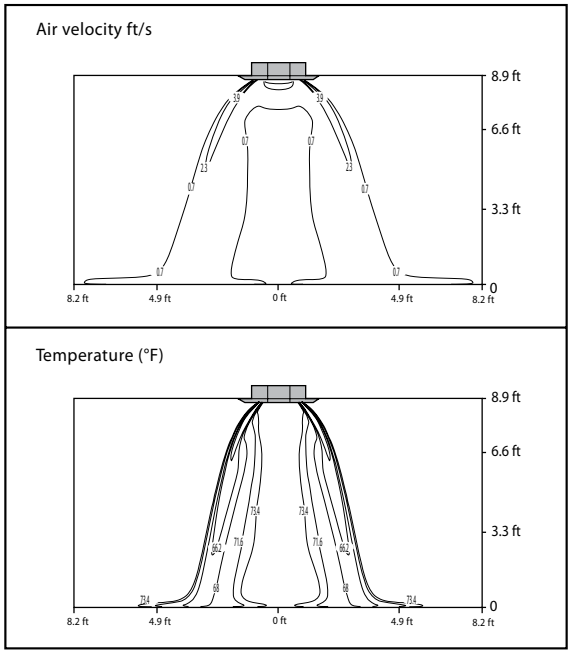
AIR VELOCITY & TEMP DISTRIBUTION

ARNU093TRC2, ARNU123TRC2

Figure 186: ARNU093TRC2, continued

Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°

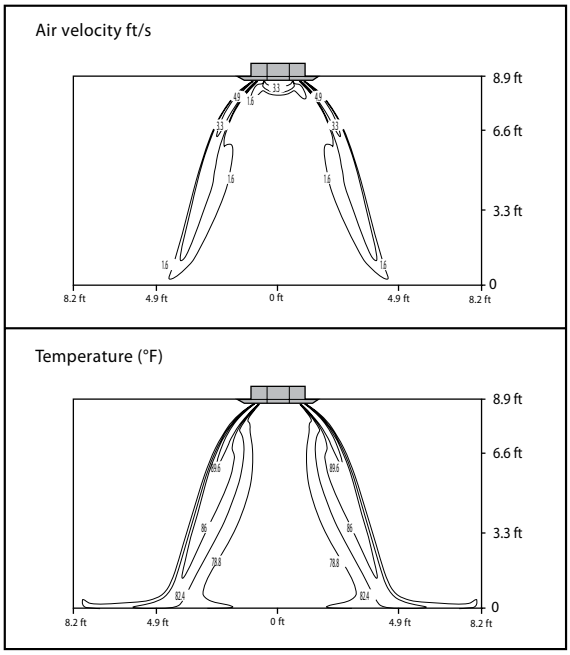
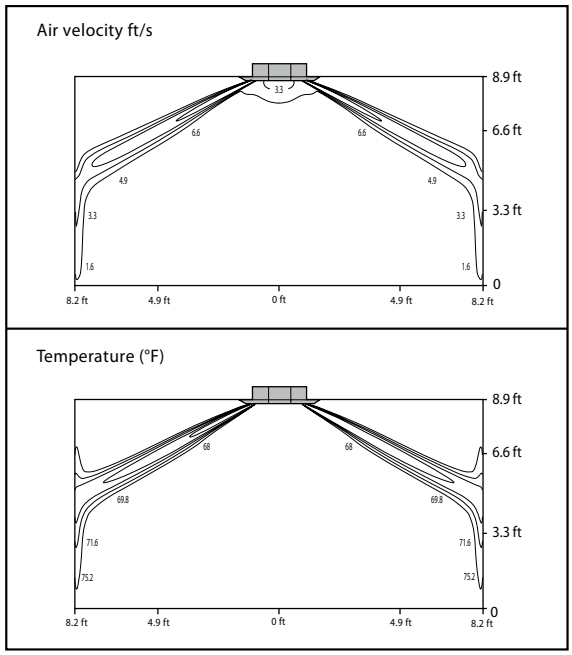


Figure 187: ARNU123TRC2

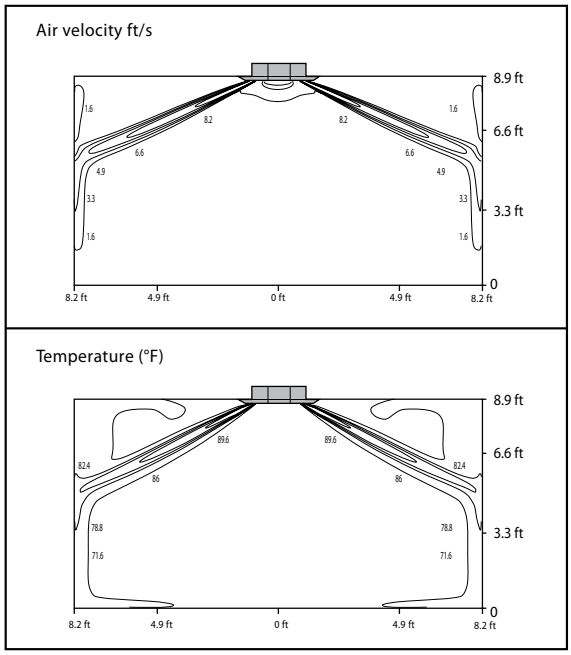
Cooling

Discharge angle: 20°



Heating

Discharge angle: 20°

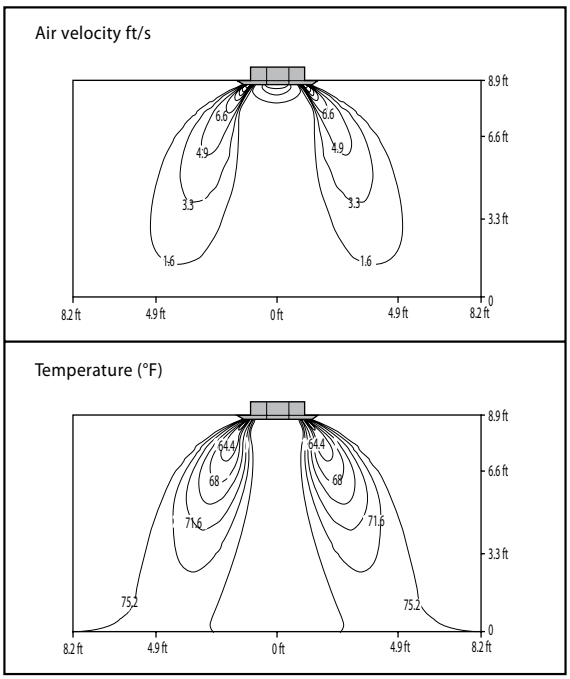


The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 188: ARNU123TRC2, continued

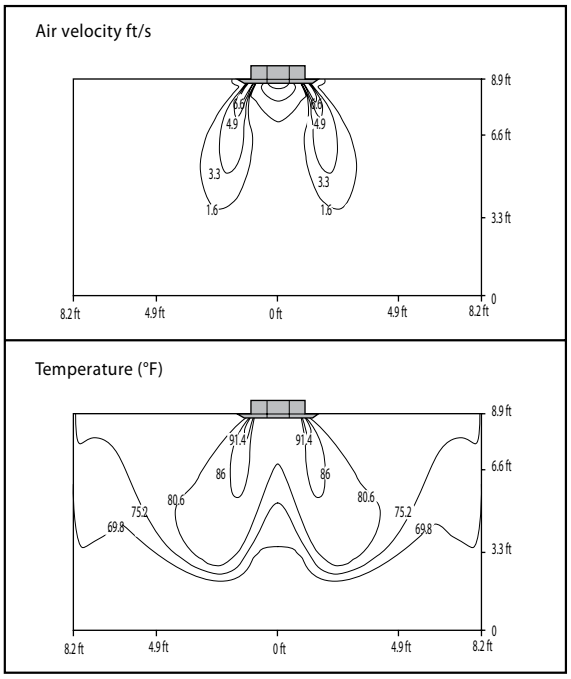
Cooling

Discharge angle: 40°



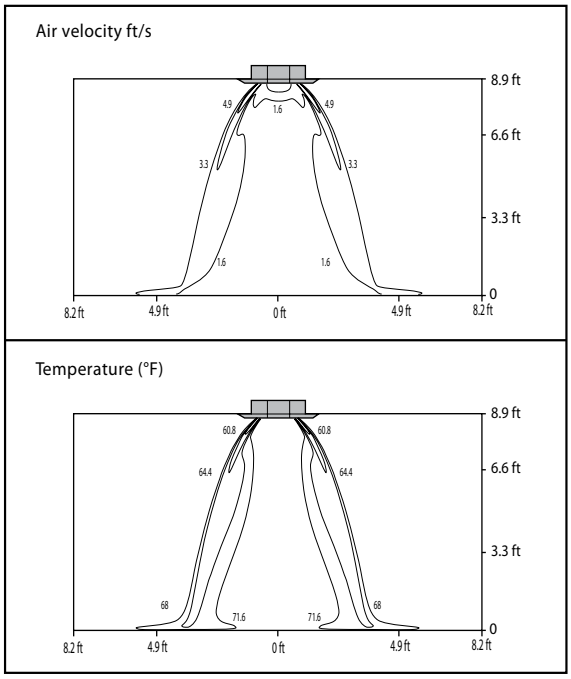
Heating

Discharge angle: 50°



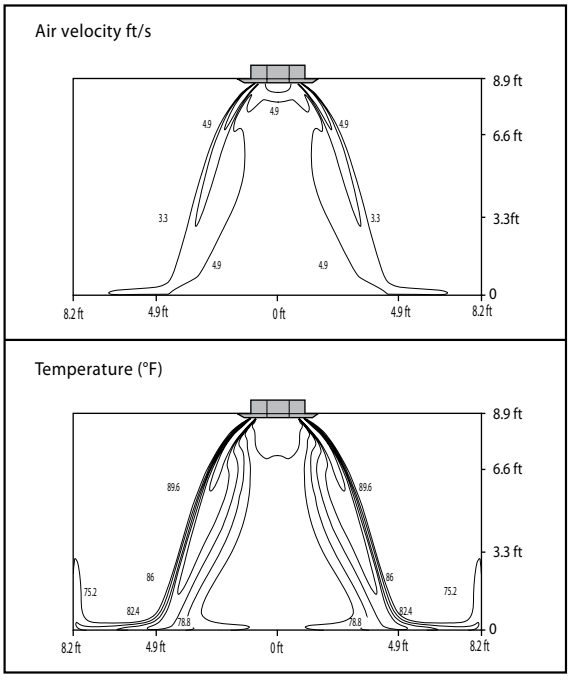
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

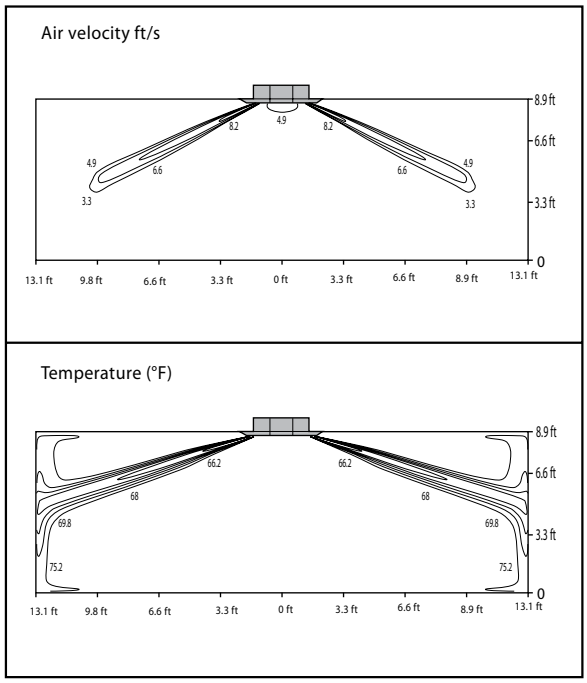
AIR VELOCITY & TEMP DISTRIBUTION

ARNU153TQC2

Figure 189: ARNU153TQC2

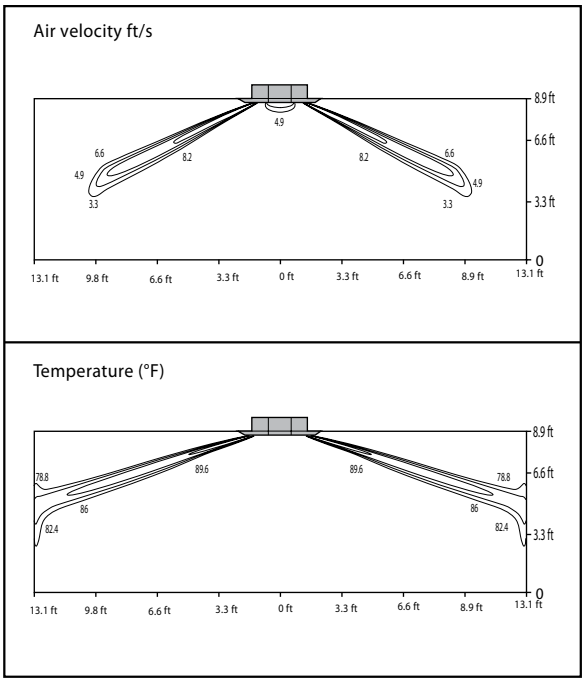
Cooling

Discharge angle: 20°



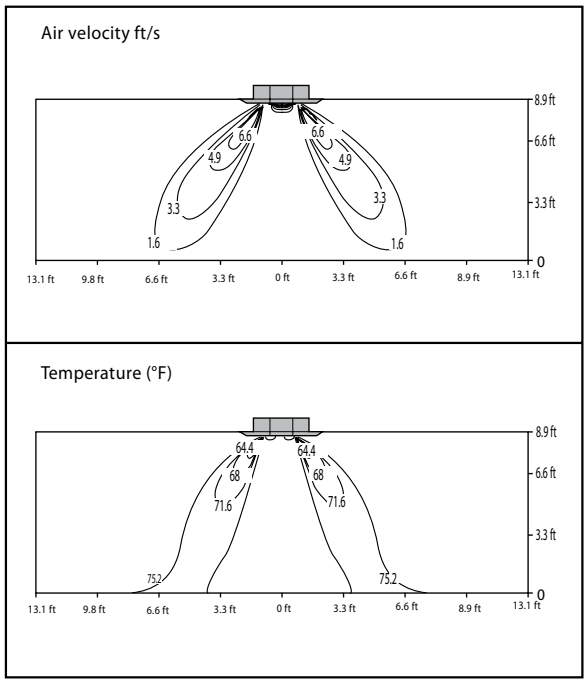
Heating

Discharge angle: 20°



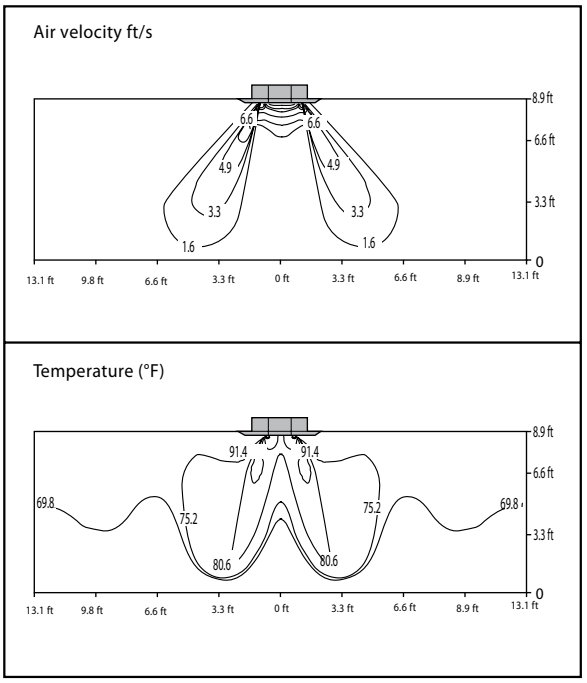
Cooling

Discharge angle: 40°



Heating

Discharge angle: 50°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 190: ARNU153TQC2, continued

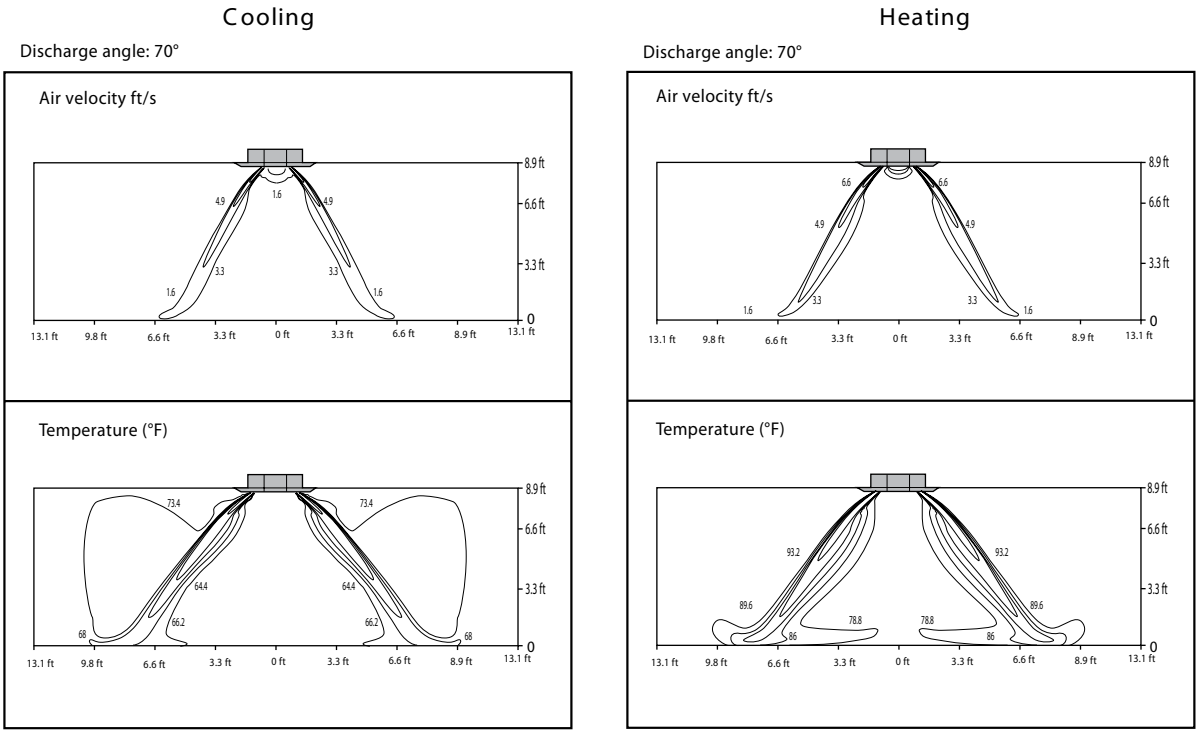
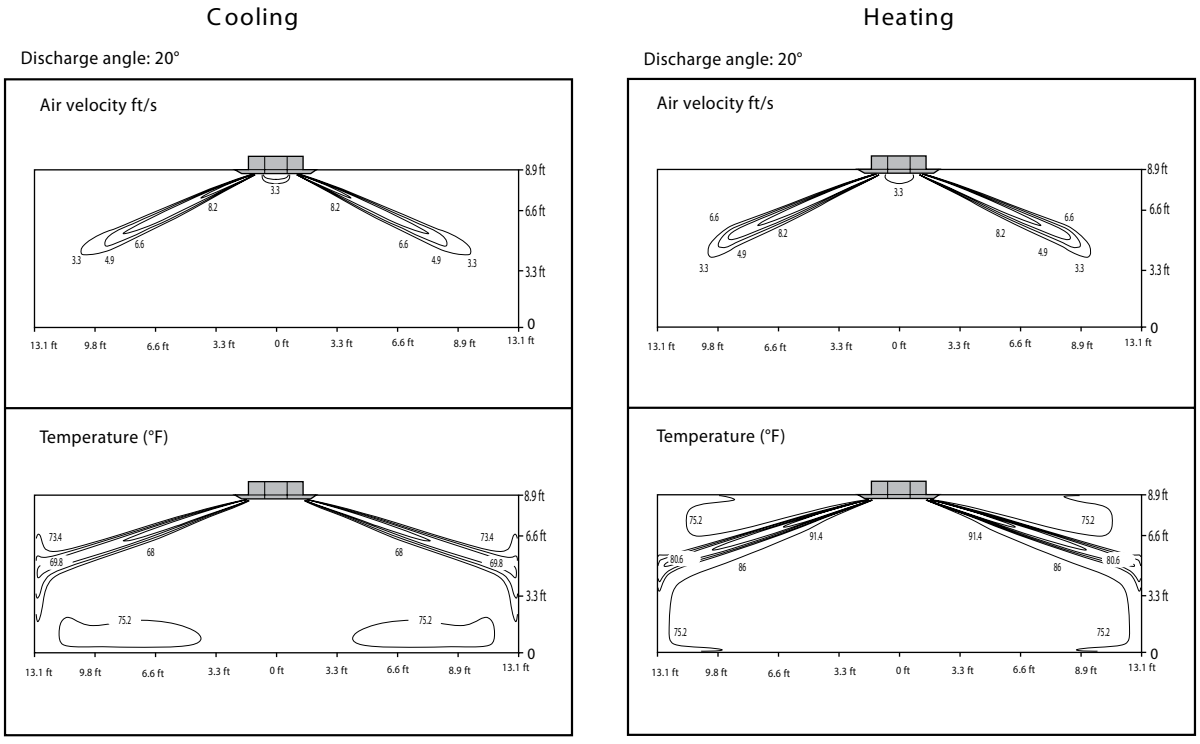


Figure 191: ARNU183TQC2



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

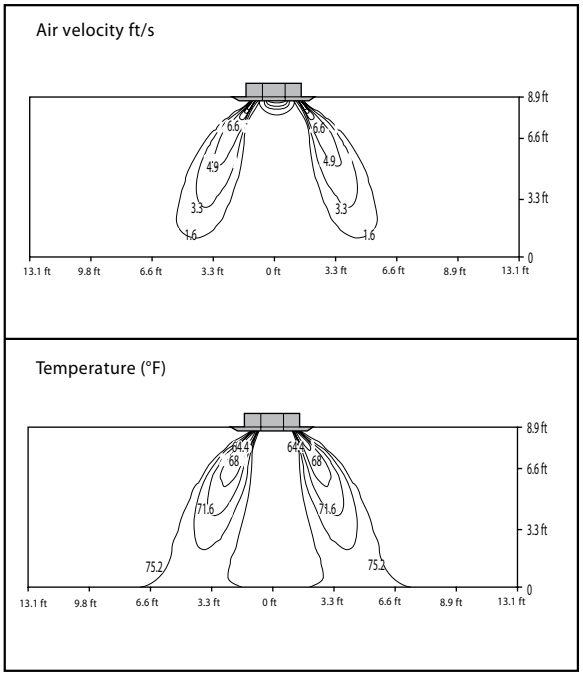
AIR VELOCITY & TEMP DISTRIBUTION

ARNU183TQC2

Figure 192: ARNU183TQC2, continued

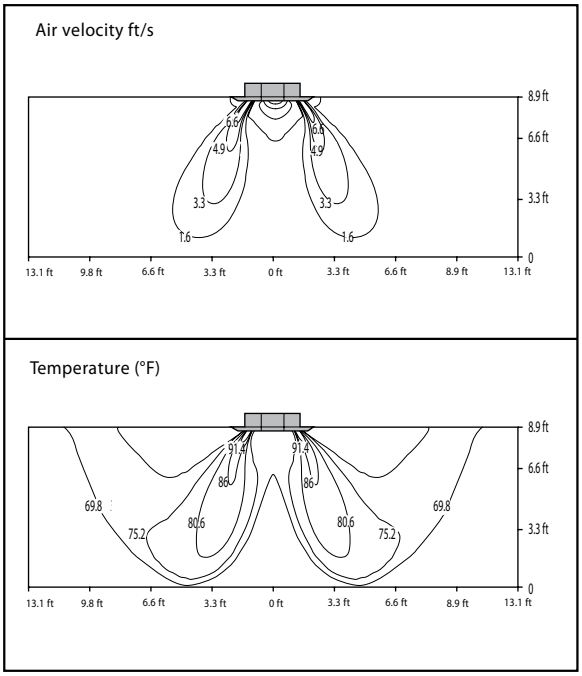
Cooling

Discharge angle: 40°



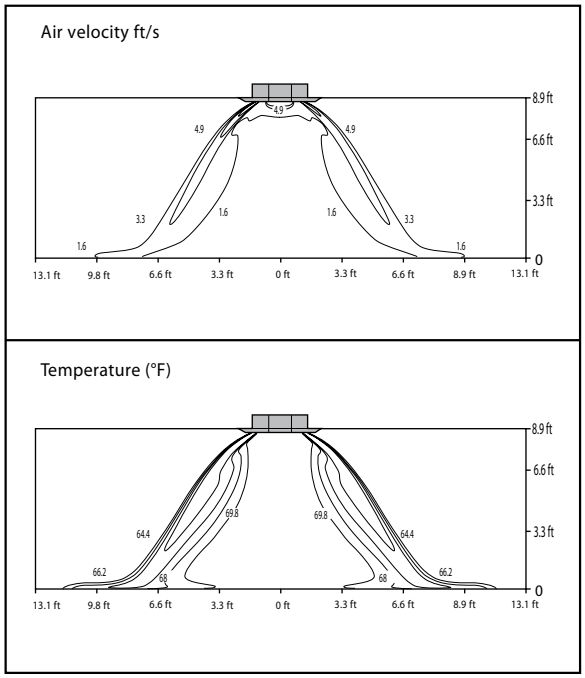
Heating

Discharge angle: 50°



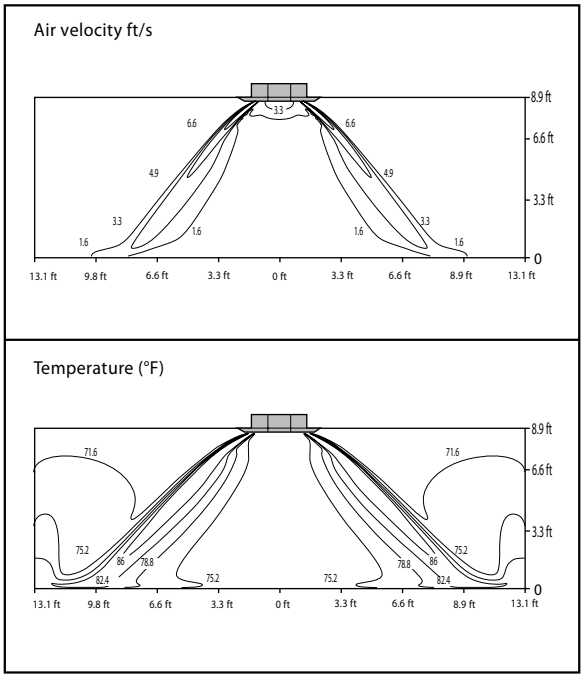
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°

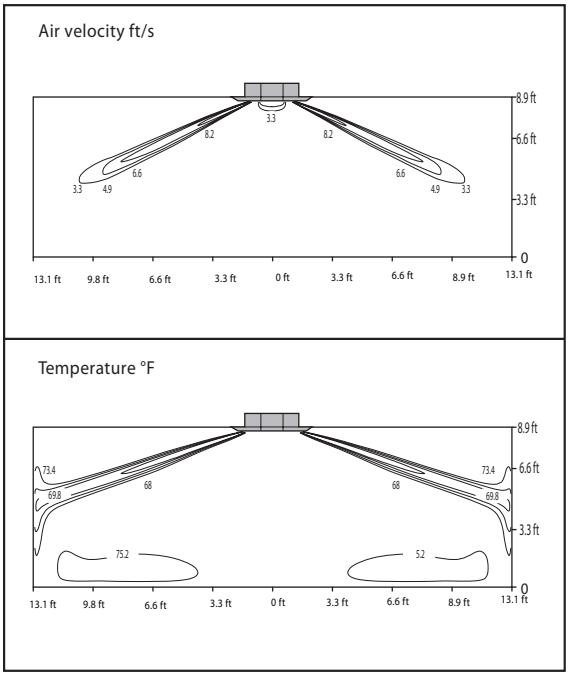


The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 193: ARNU093TPAA

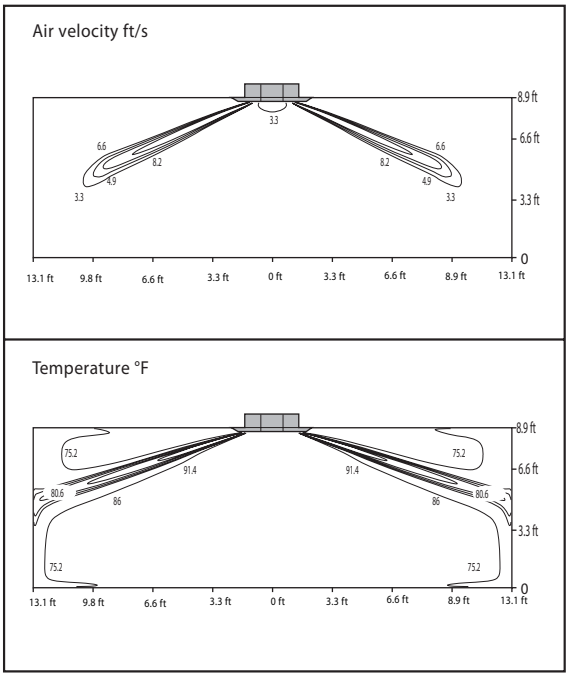
Cooling

Discharge angle: 20°



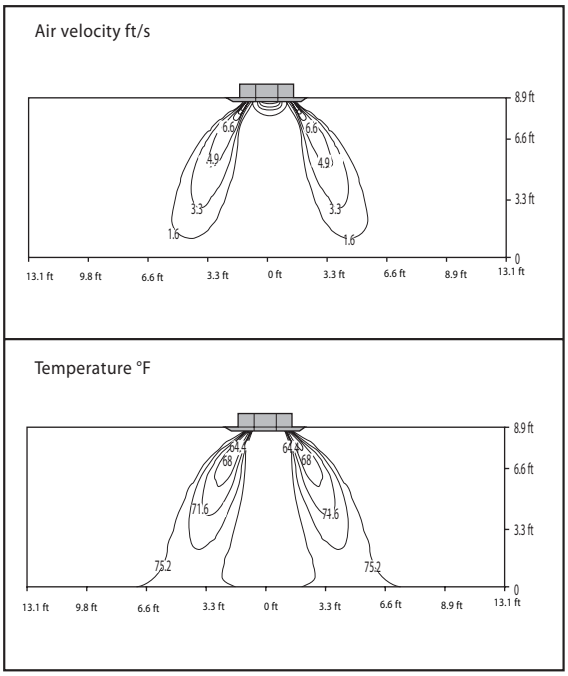
Heating

Discharge angle: 20°



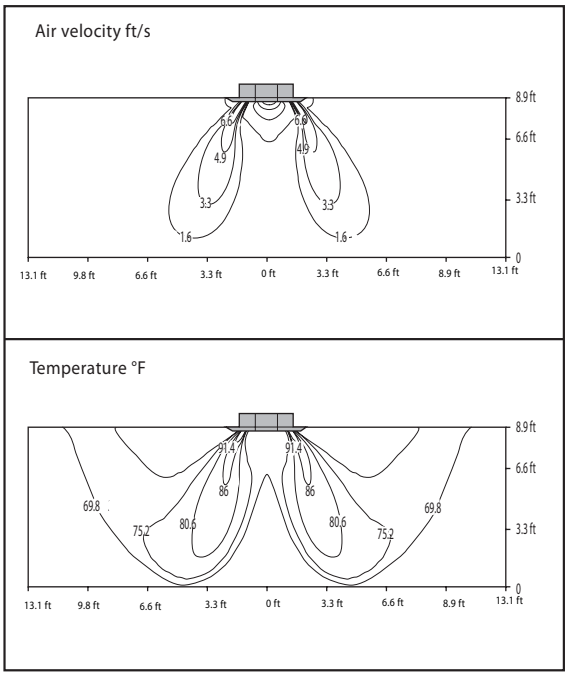
Cooling

Discharge angle: 40°



Heating

Discharge angle: 50°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

AIR VELOCITY & TEMP DISTRIBUTION

ARNU093TPAA, ARNU123TPAA

Figure 195: ARNU093TPAA, continued

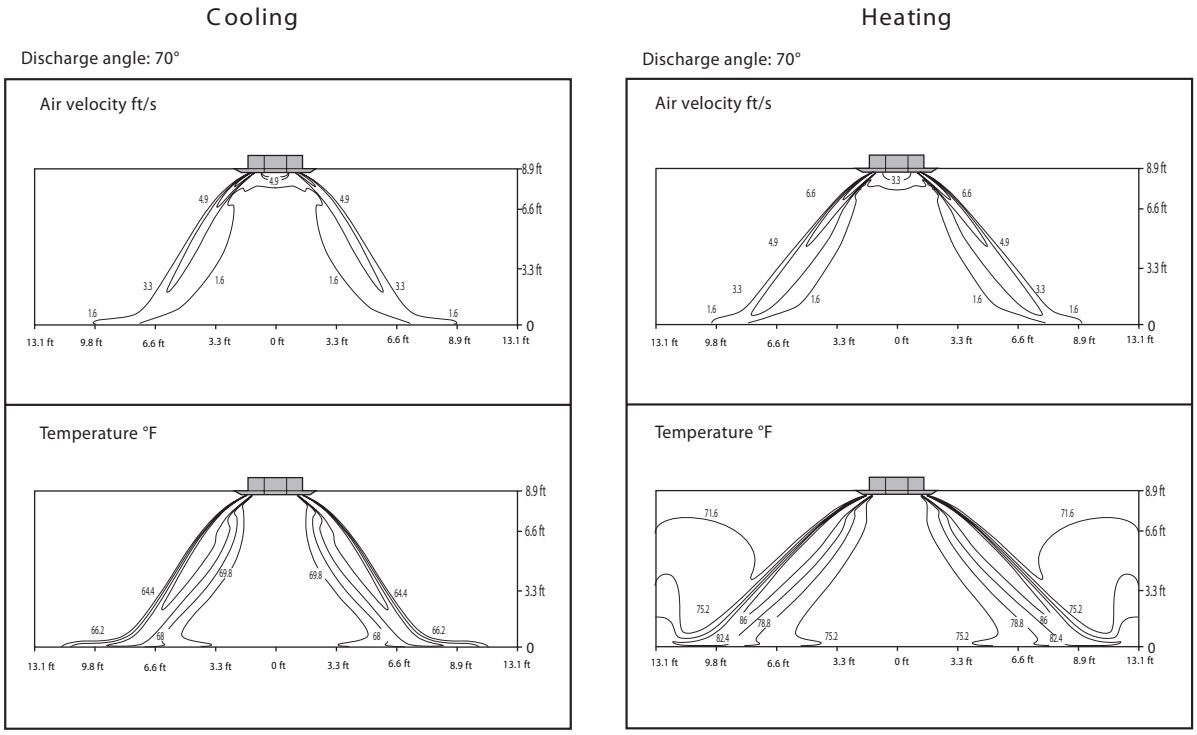
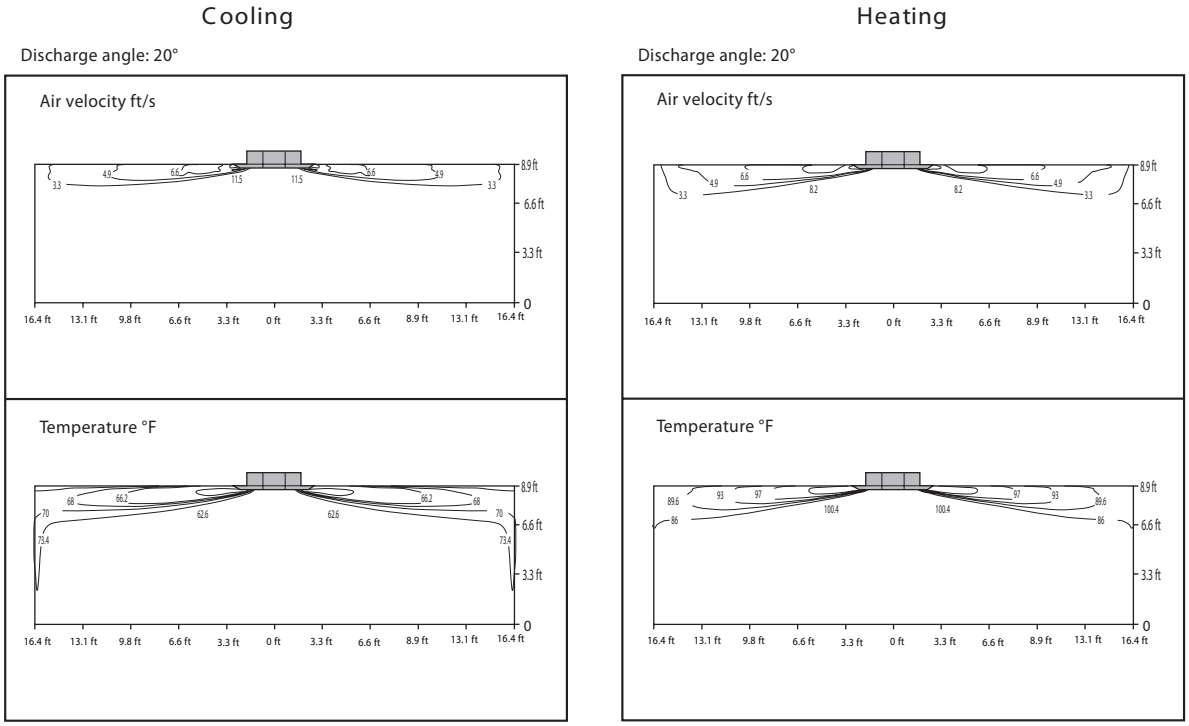


Figure 194: ARNU123TPAA

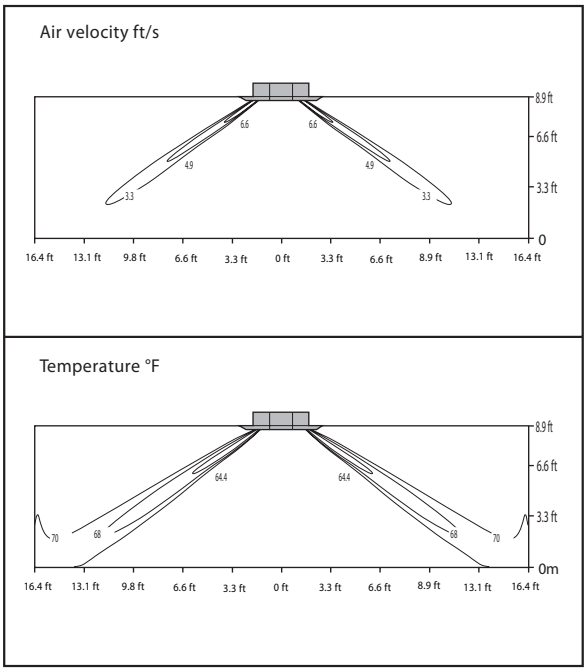


The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 196: ARNU123TPAA, continued

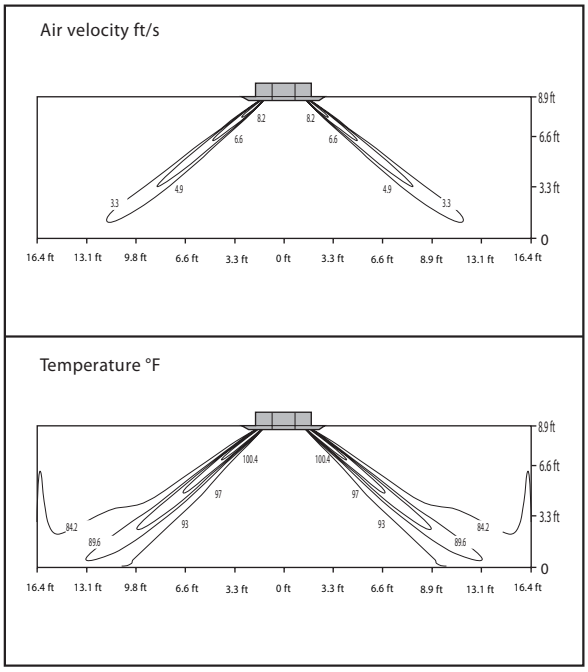
Cooling

Discharge angle: 40°



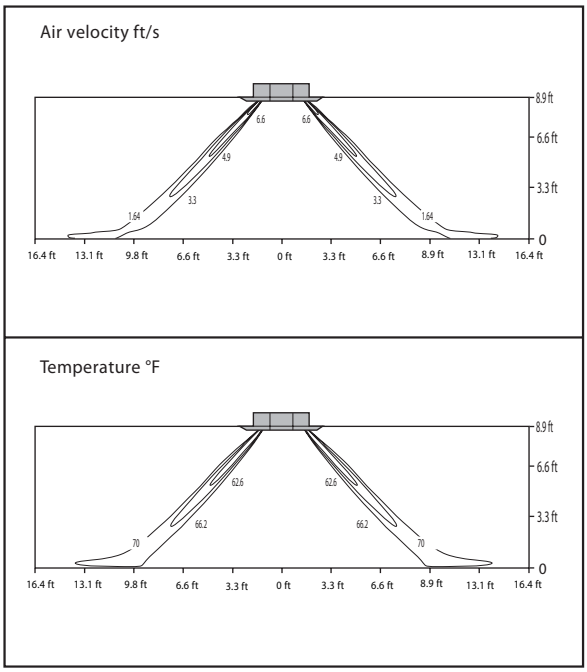
Heating

Discharge angle: 50°



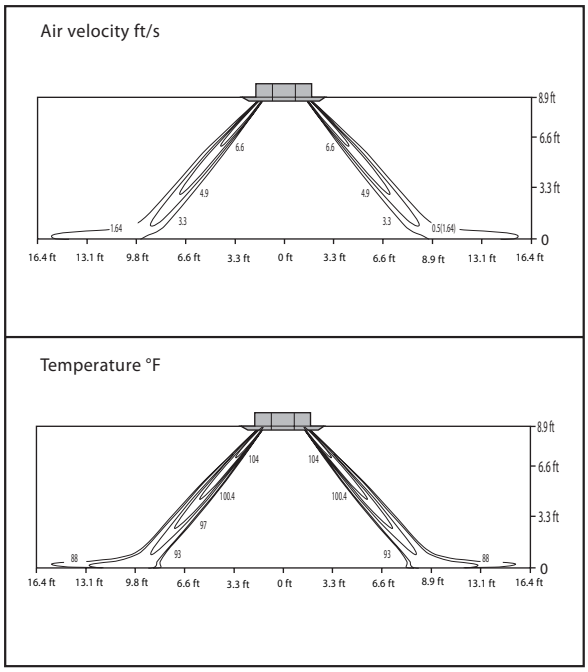
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

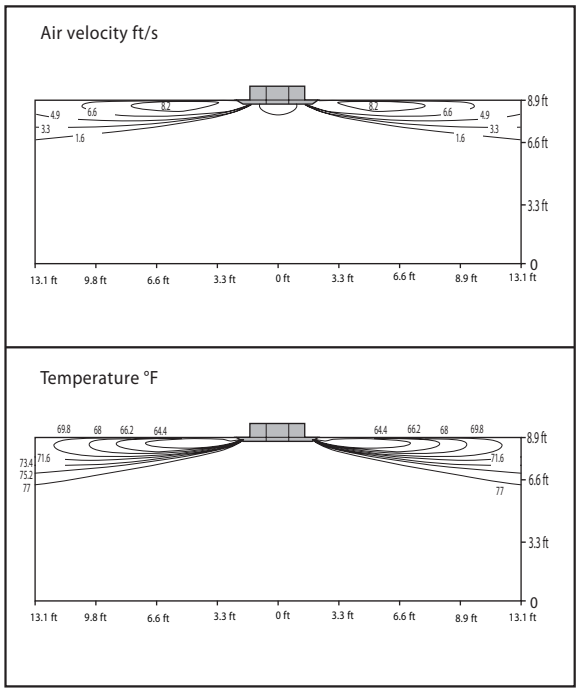
AIR VELOCITY & TEMP DISTRIBUTION

ARNU153TPAA

Figure 197: ARNU153TPAA

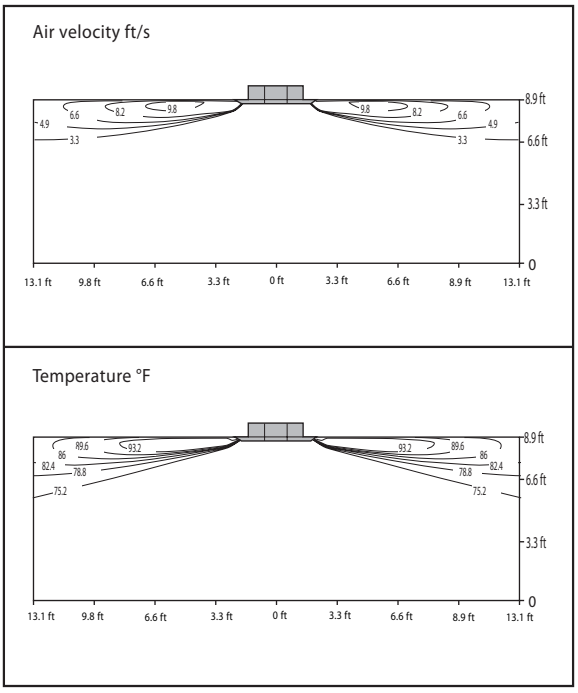
Cooling

Discharge angle: 20°



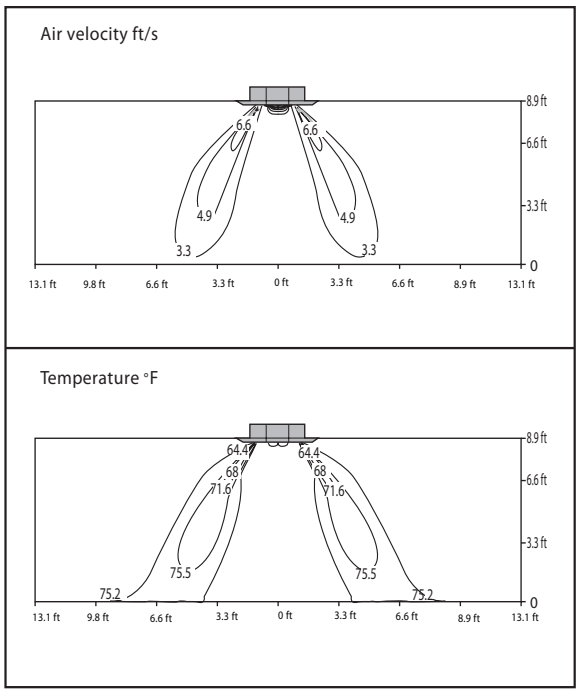
Heating

Discharge angle: 20°



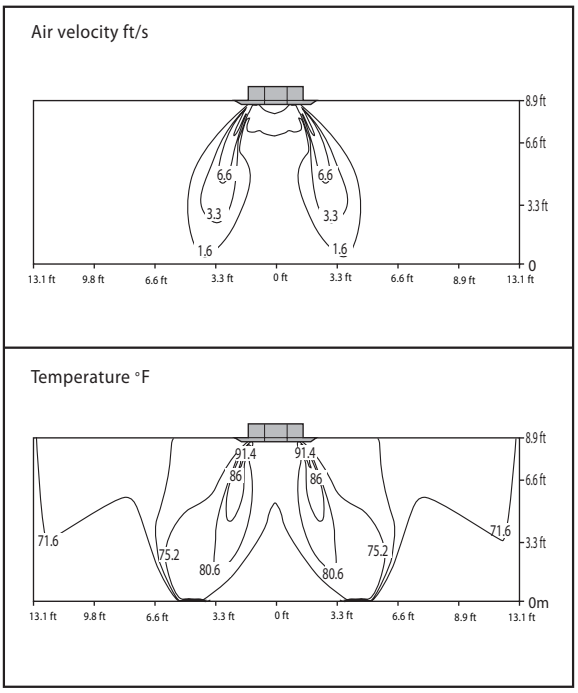
Cooling

Discharge angle: 40°



Heating

Discharge angle: 50°

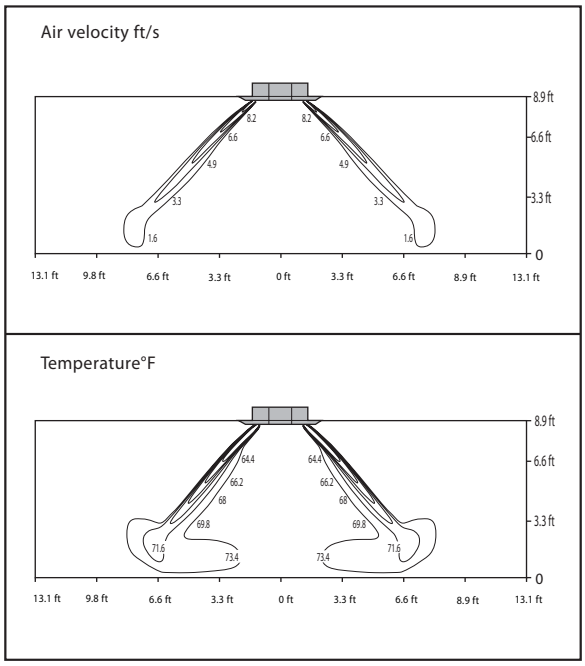


The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 198: ARNU153TPAA, continued

Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°

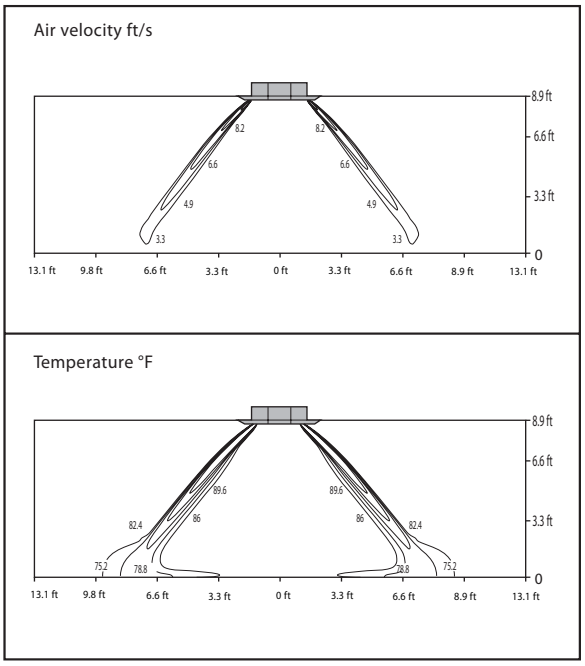
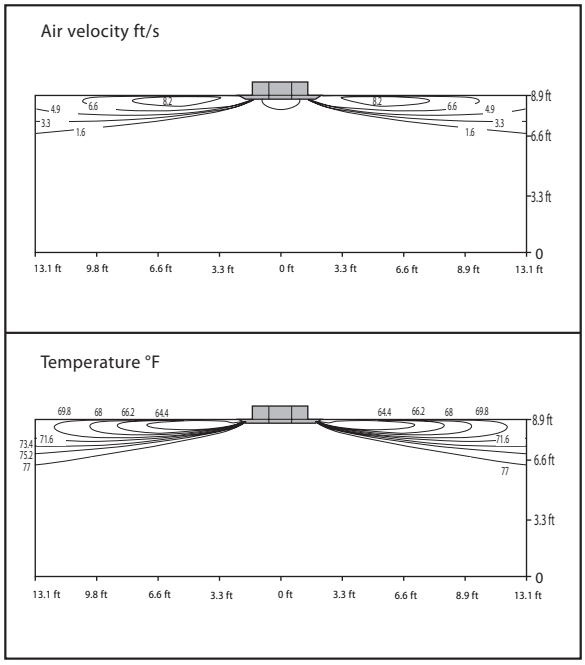


Figure 199: ARNU183TNAA

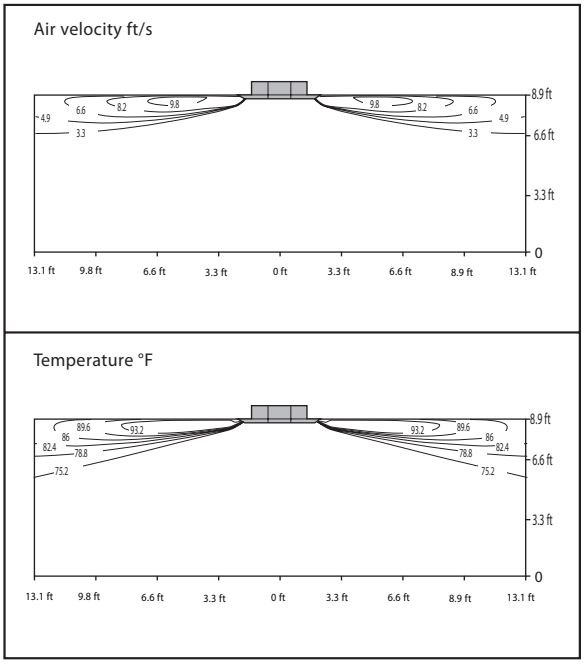
Cooling

Discharge angle: 20°



Heating

Discharge angle: 20°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

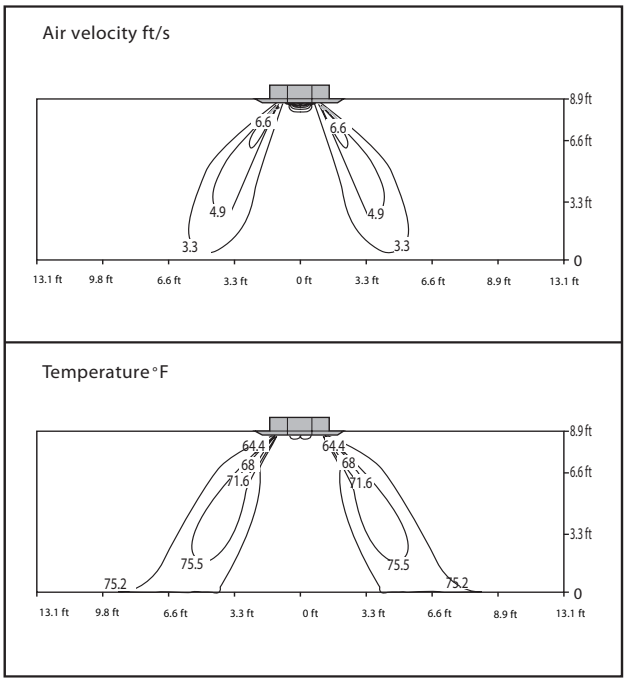
AIR VELOCITY & TEMP DISTRIBUTION

ARNU183TNAA

Figure 200: ARNU183TNAA, continued

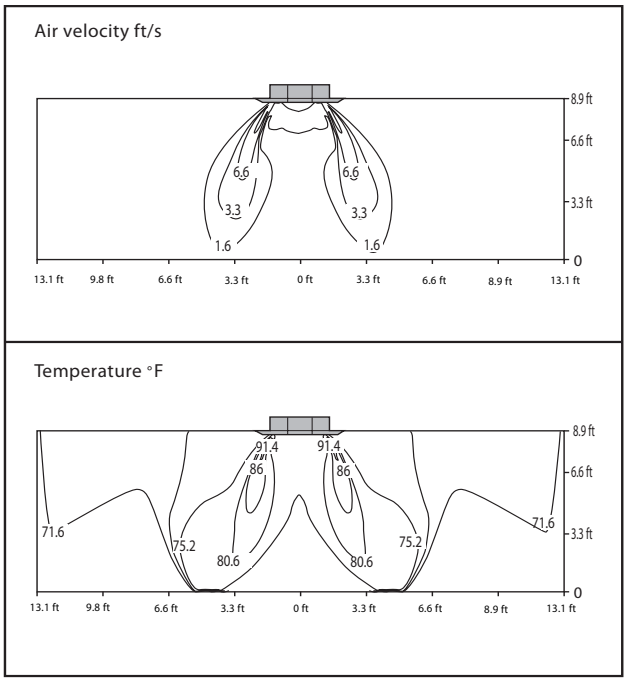
Cooling

Discharge angle: 40°



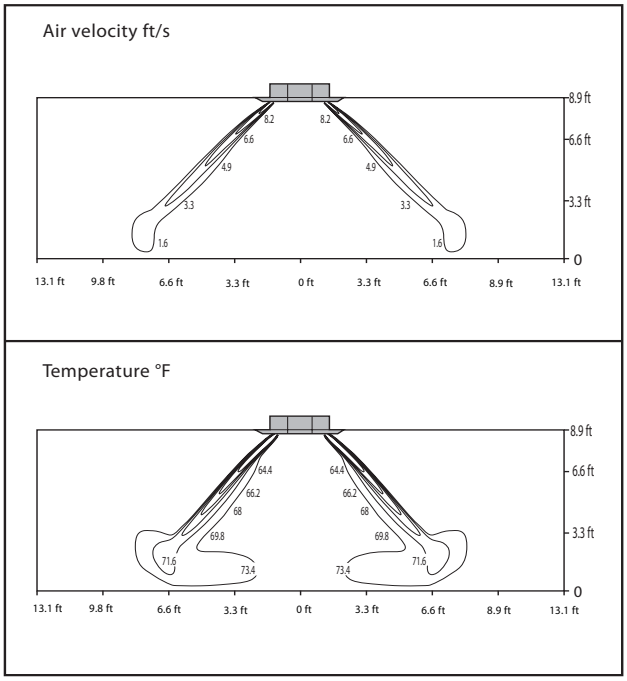
Heating

Discharge angle: 50°



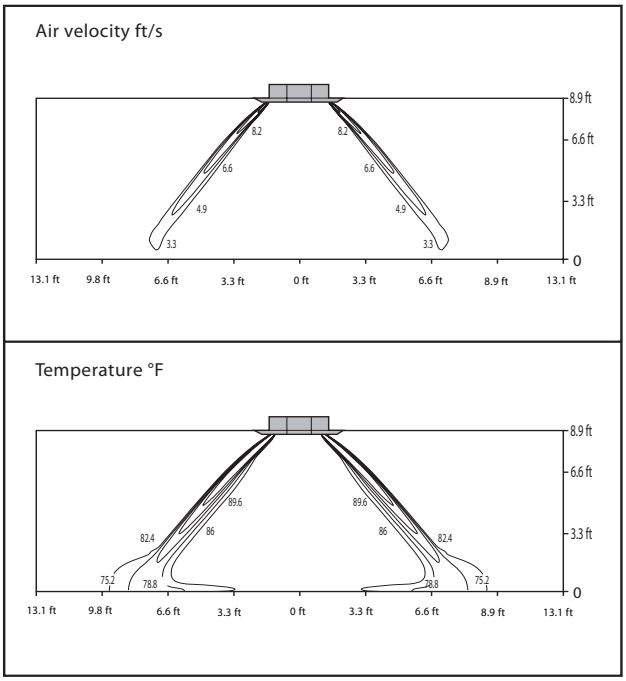
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

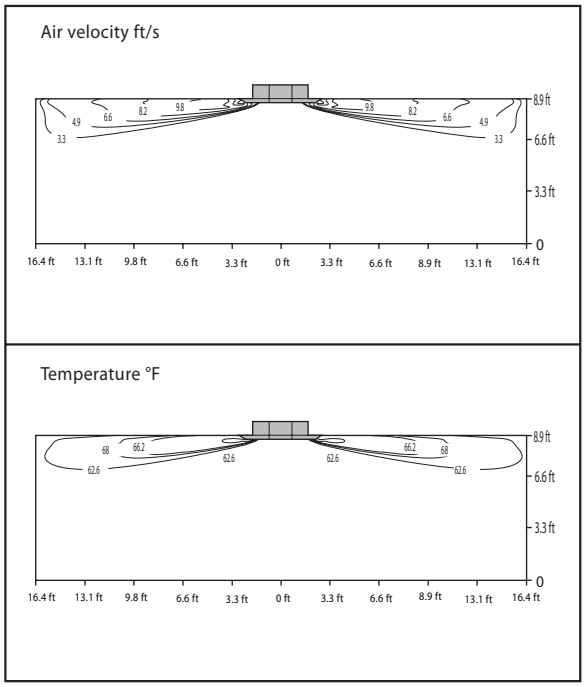
AIR VELOCITY & TEMP DISTRIBUTION

ARNU243TNAA

Figure 201: ARNU243TNAA

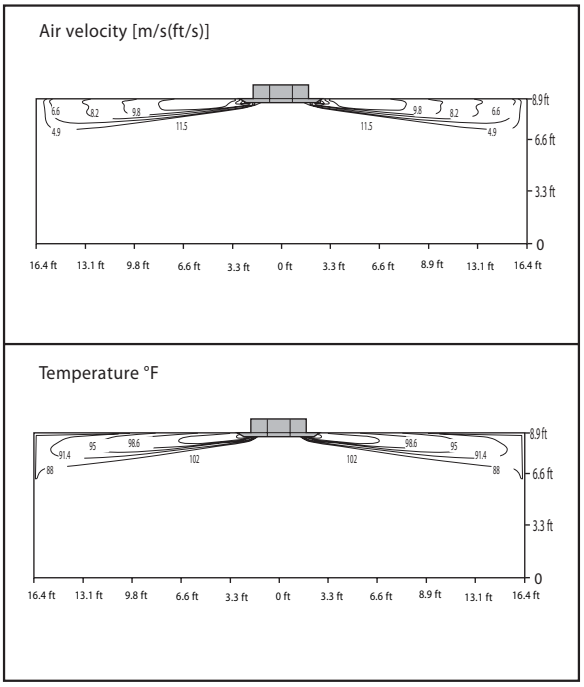
Cooling

Discharge angle: 20°



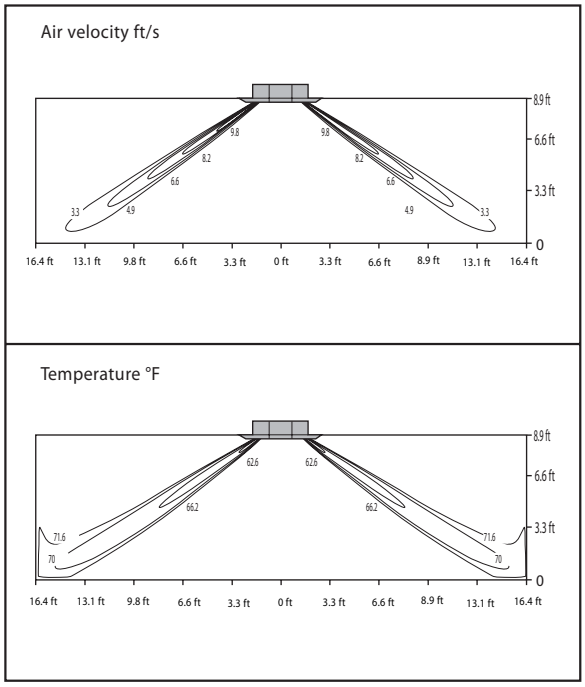
Heating

Discharge angle: 20°



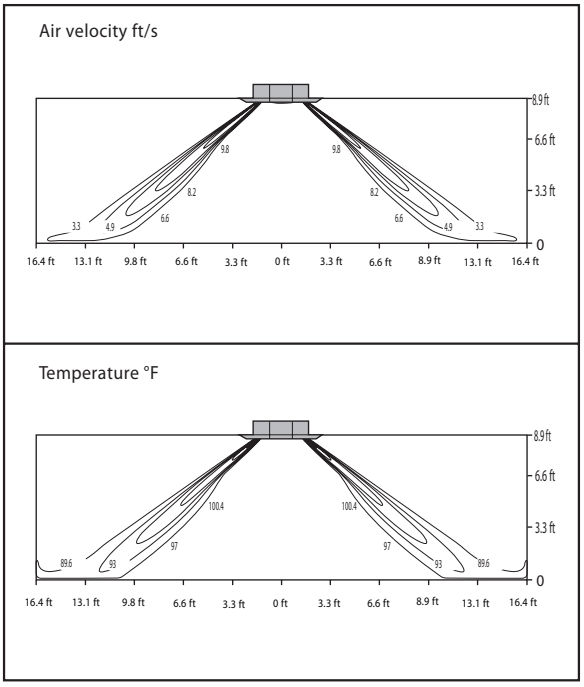
Cooling

Discharge angle: 40°



Heating

Discharge angle: 50°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

AIR VELOCITY & TEMP DISTRIBUTION

ARNU243TNAA, ARNU283TMAA

Figure 202: ARNU243TNAA, continued

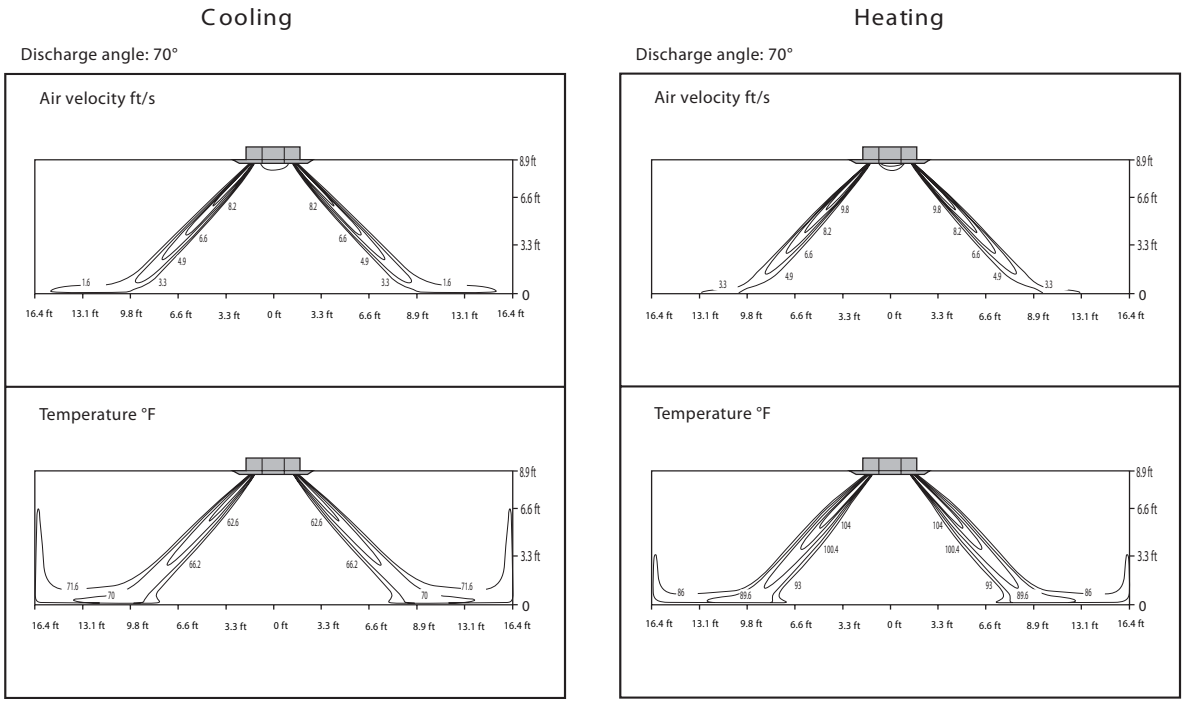
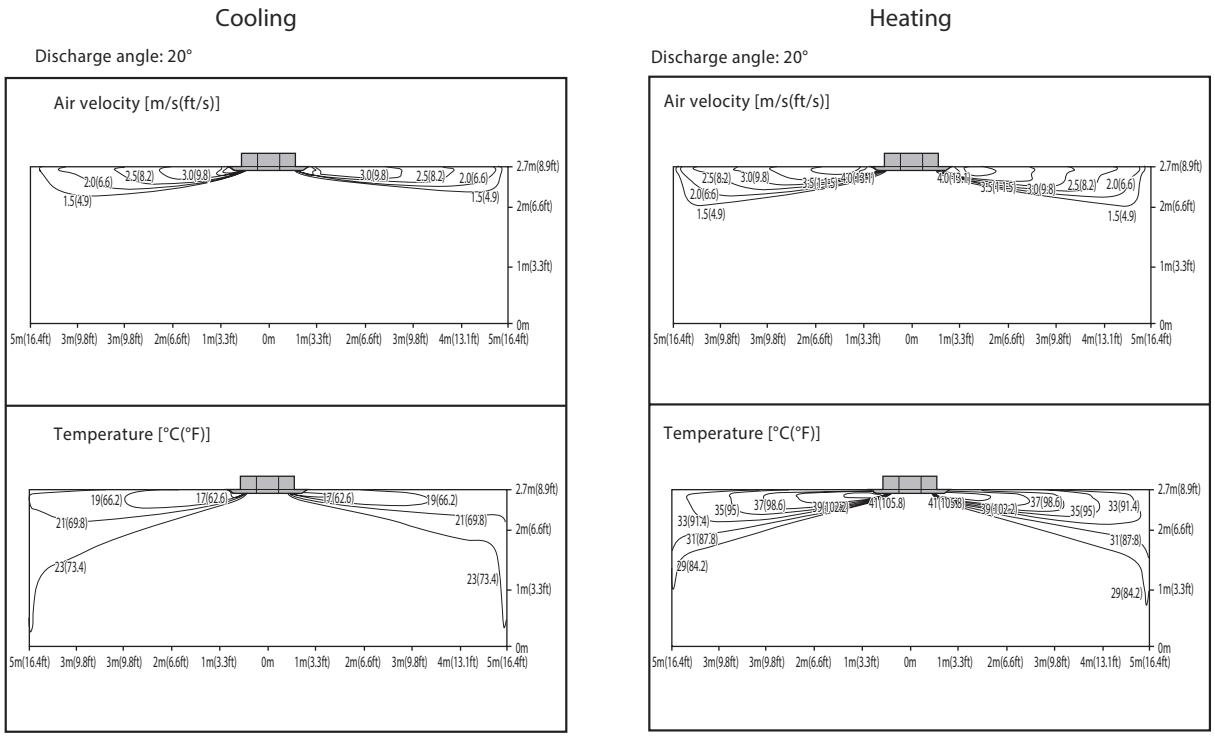


Figure 203: ARNU283TMAA

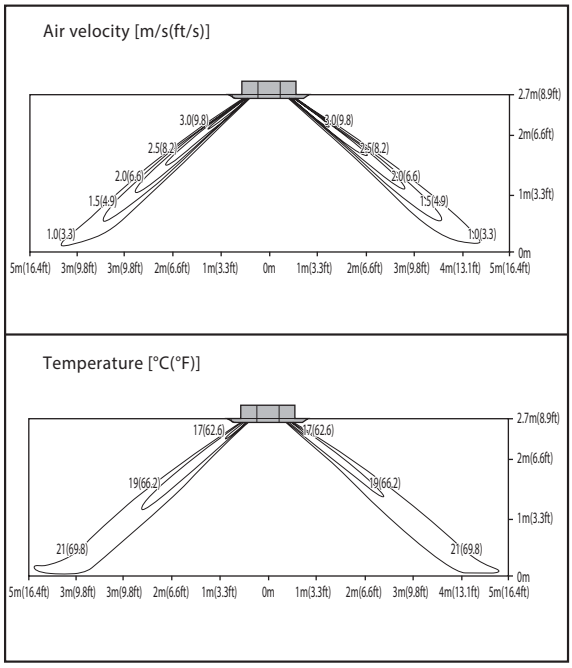


The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 204: ARNU283TMAA, continued

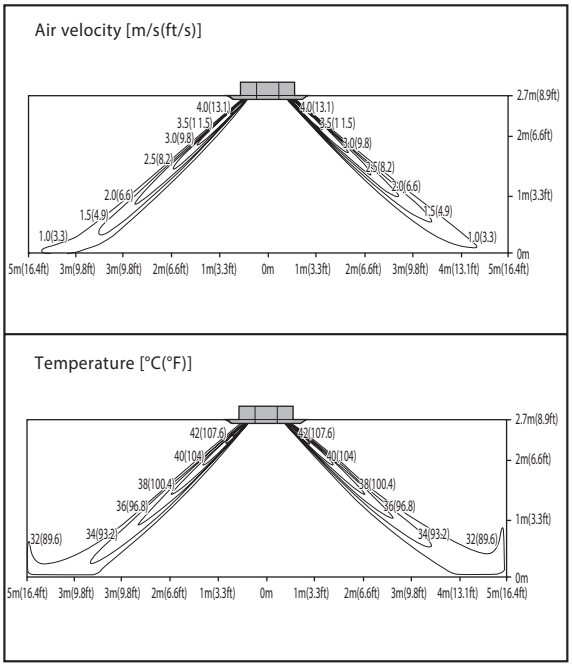
Cooling

Discharge angle: 40°



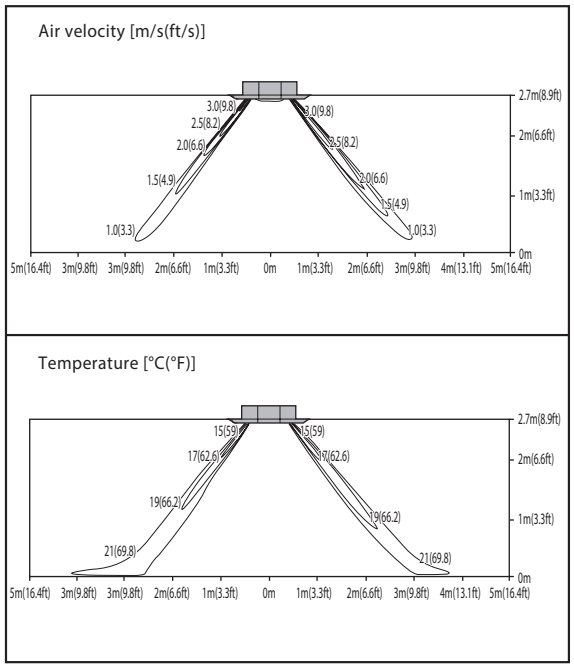
Heating

Discharge angle: 50°



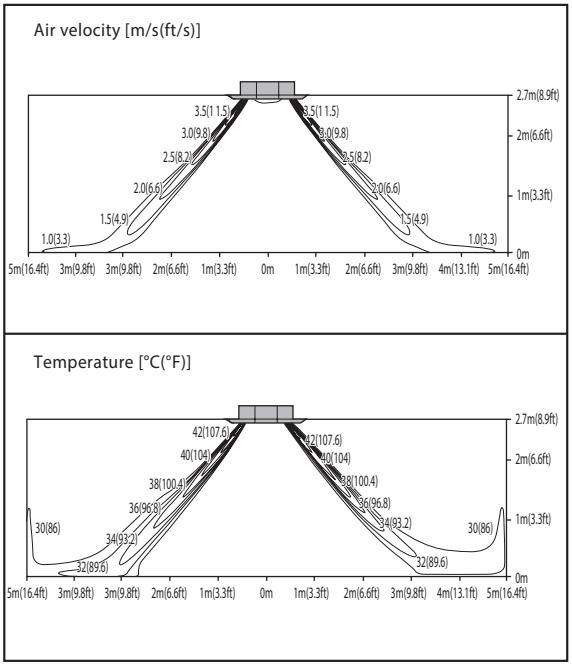
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

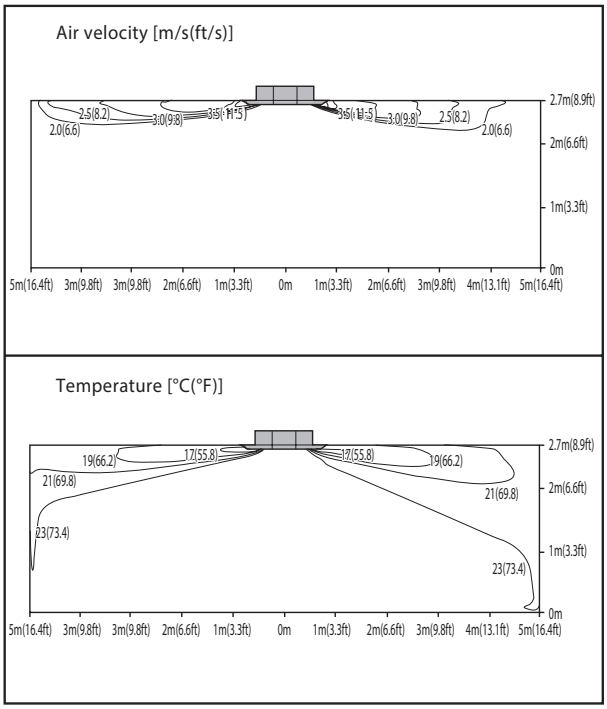
AIR VELOCITY & TEMP DISTRIBUTION

ARNU363TMAA

Figure 205: ARNU363TMAA

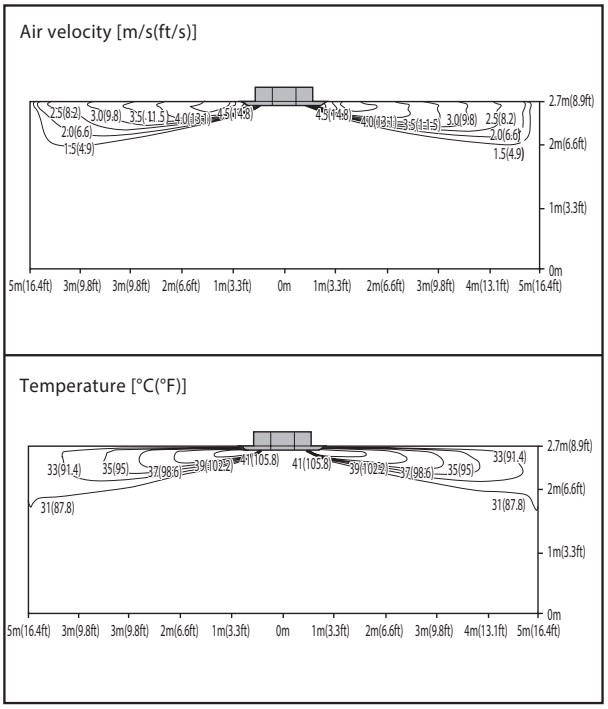
Cooling

Discharge angle: 20°



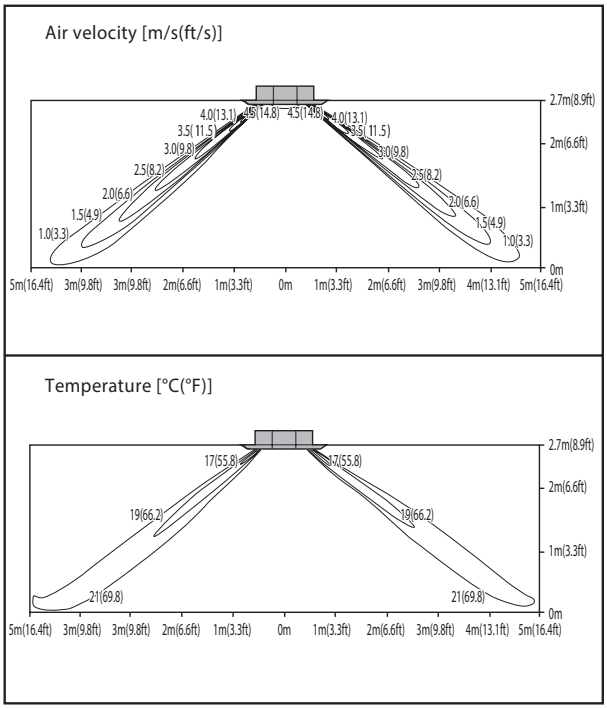
Heating

Discharge angle: 20°



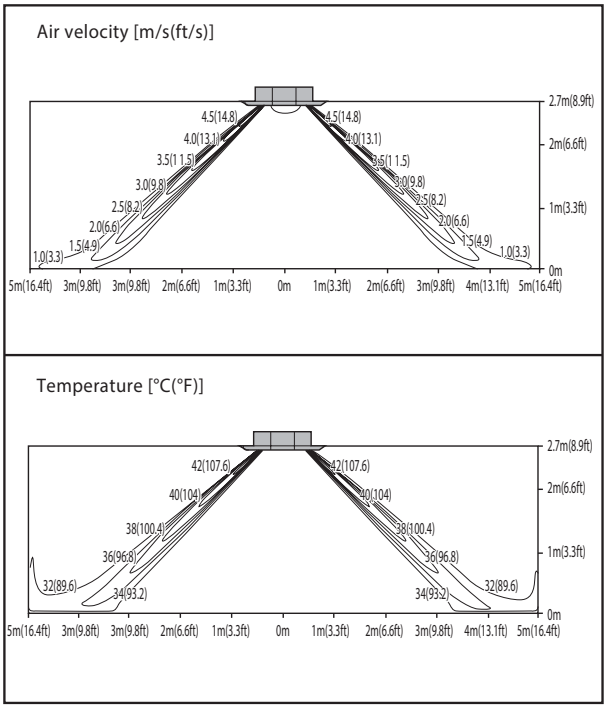
Cooling

Discharge angle: 40°



Heating

Discharge angle: 50°

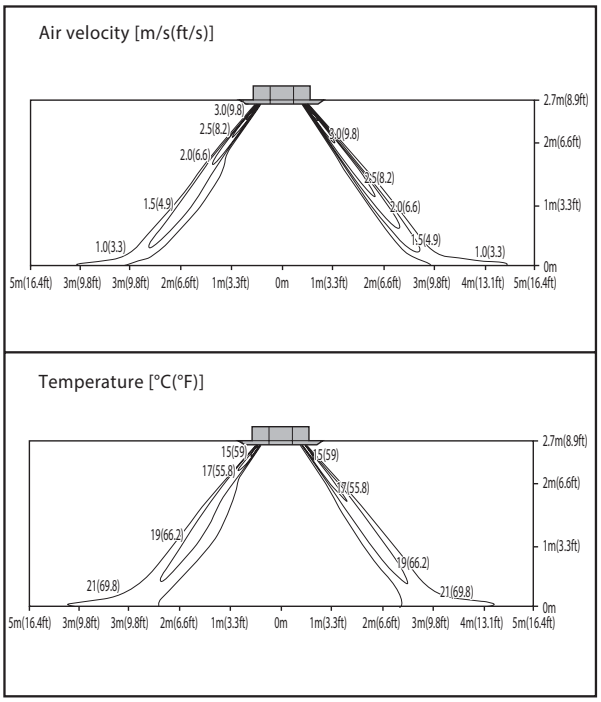


The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 207: ARNU363TMAA, continued

Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°

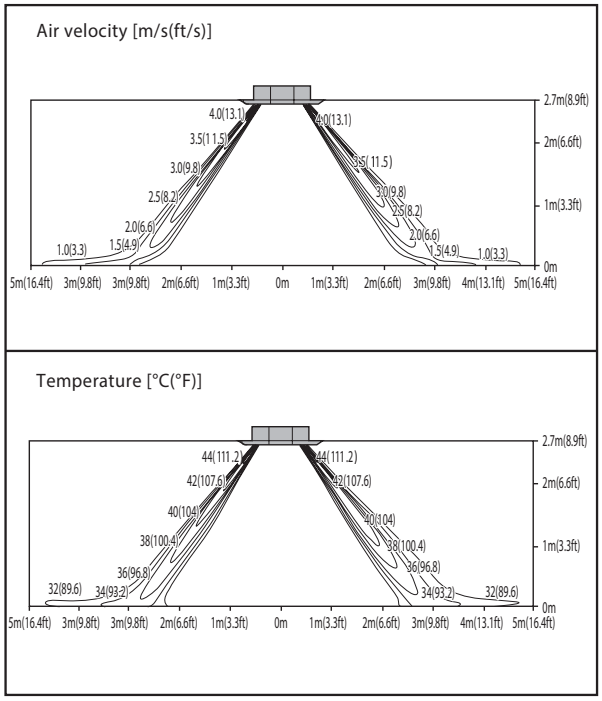
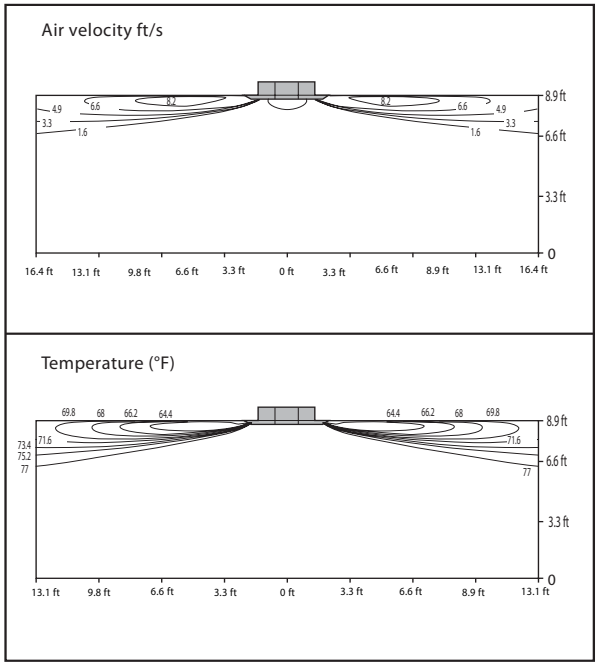


Figure 206: ARNU243TPC2

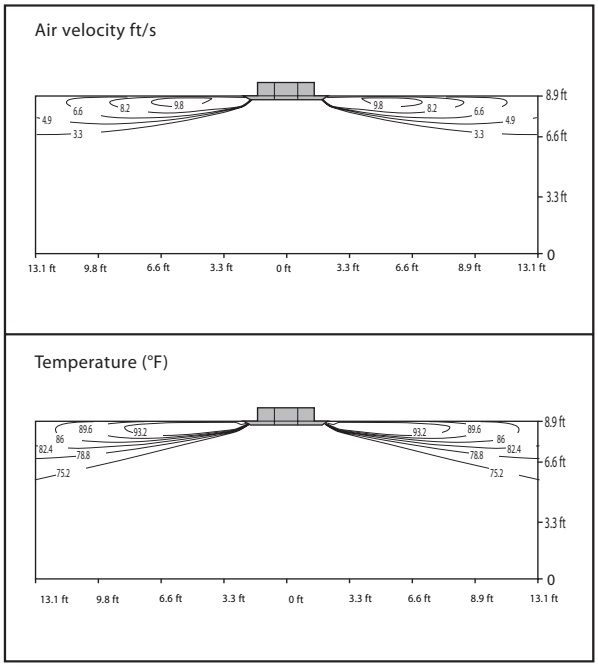
Cooling

Discharge angle: 20°



Heating

Discharge angle: 20°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

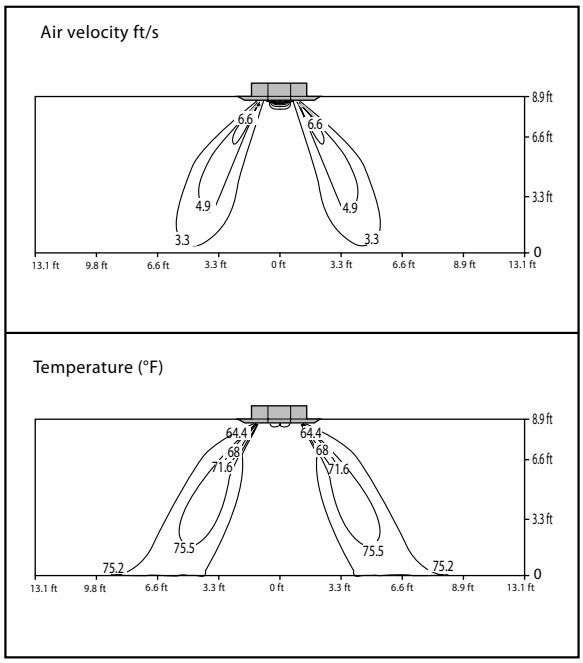
AIR VELOCITY & TEMP DISTRIBUTION

ARNU243TPC2

Figure 208: ARNU243TPC2, continued

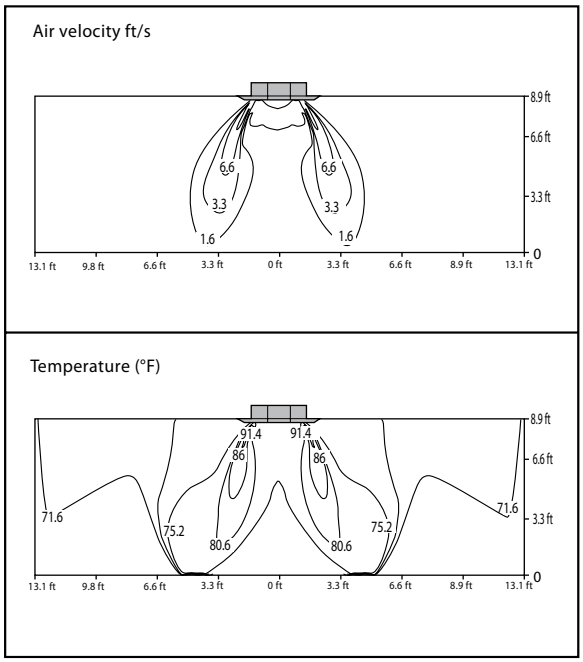
Cooling

Discharge angle: 40°



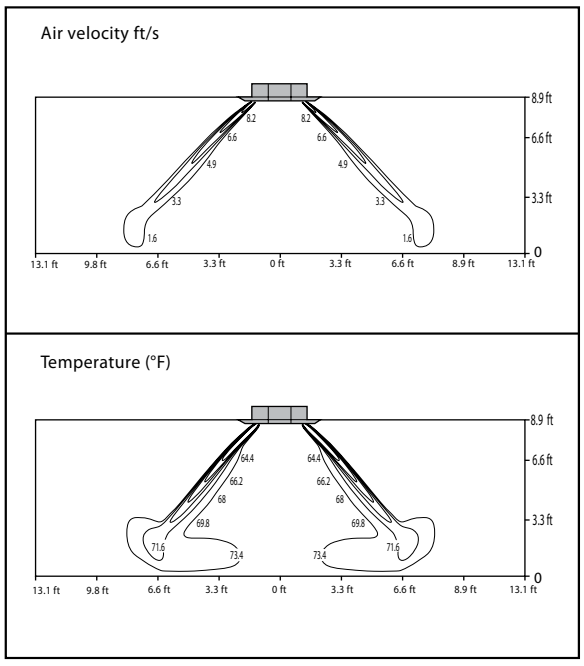
Heating

Discharge angle: 50°



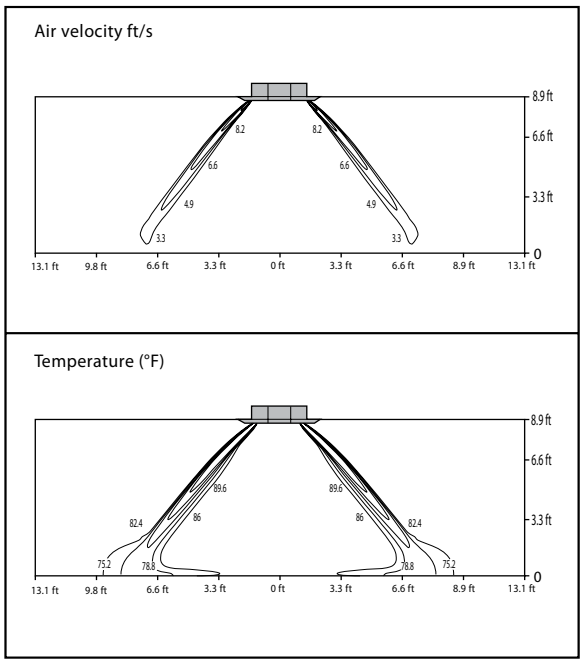
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

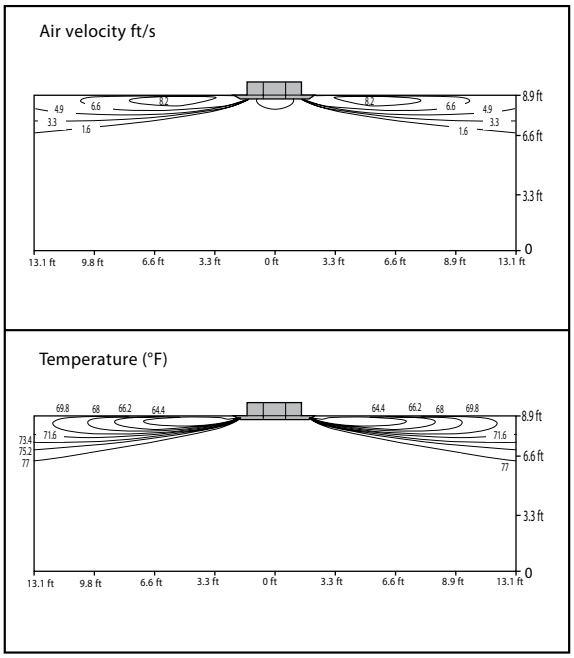
AIR VELOCITY & TEMP DISTRIBUTION

ARNU283TPC2

Figure 209: ARNU283TPC2

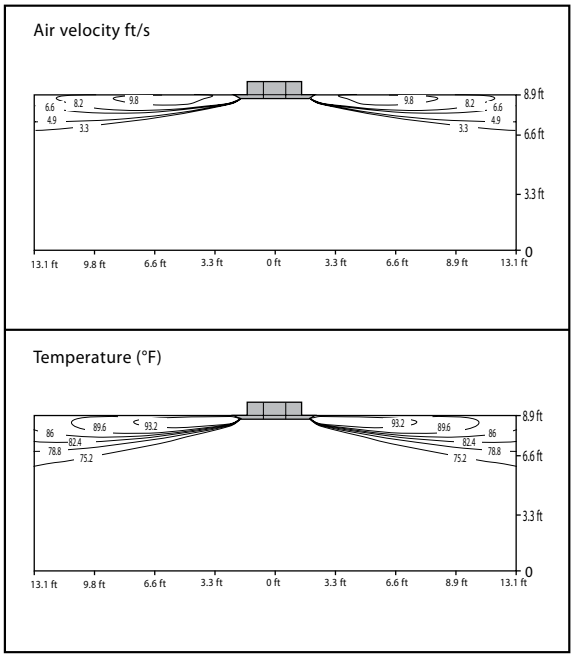
Cooling

Discharge angle: 20°



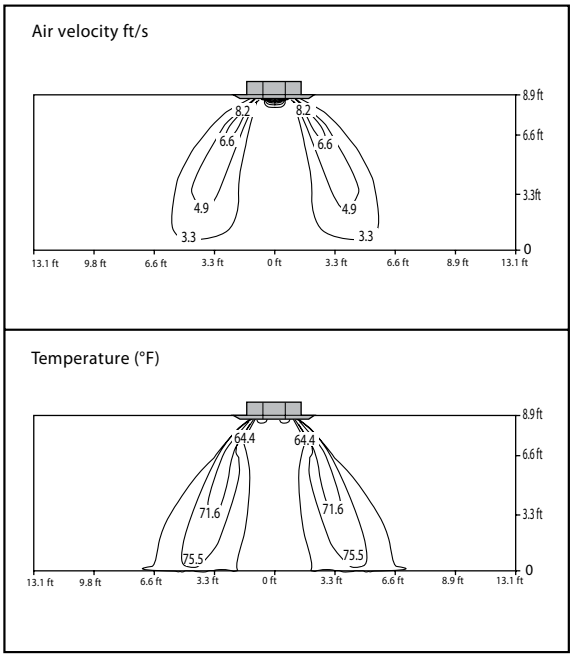
Heating

Discharge angle: 20°



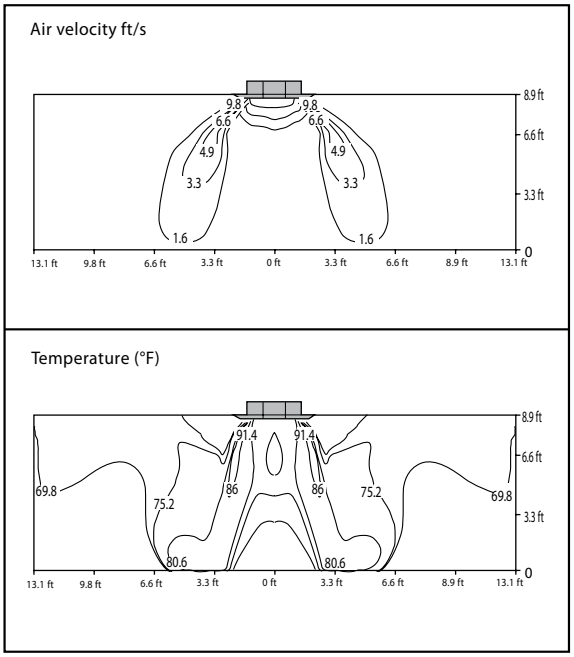
Cooling

Discharge angle: 40°



Heating

Discharge angle: 50°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

AIR VELOCITY & TEMP DISTRIBUTION

ARNU283TPC2, ARNU363TNC2

Figure 210: ARNU283TPC2, continued

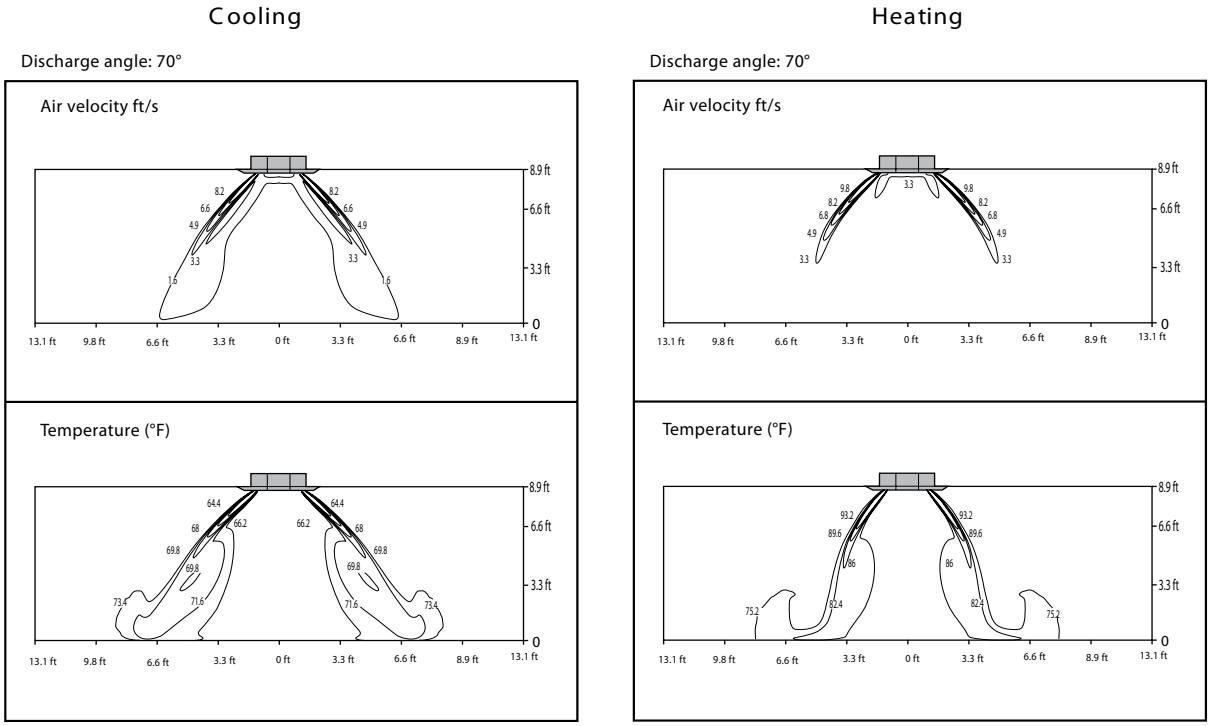
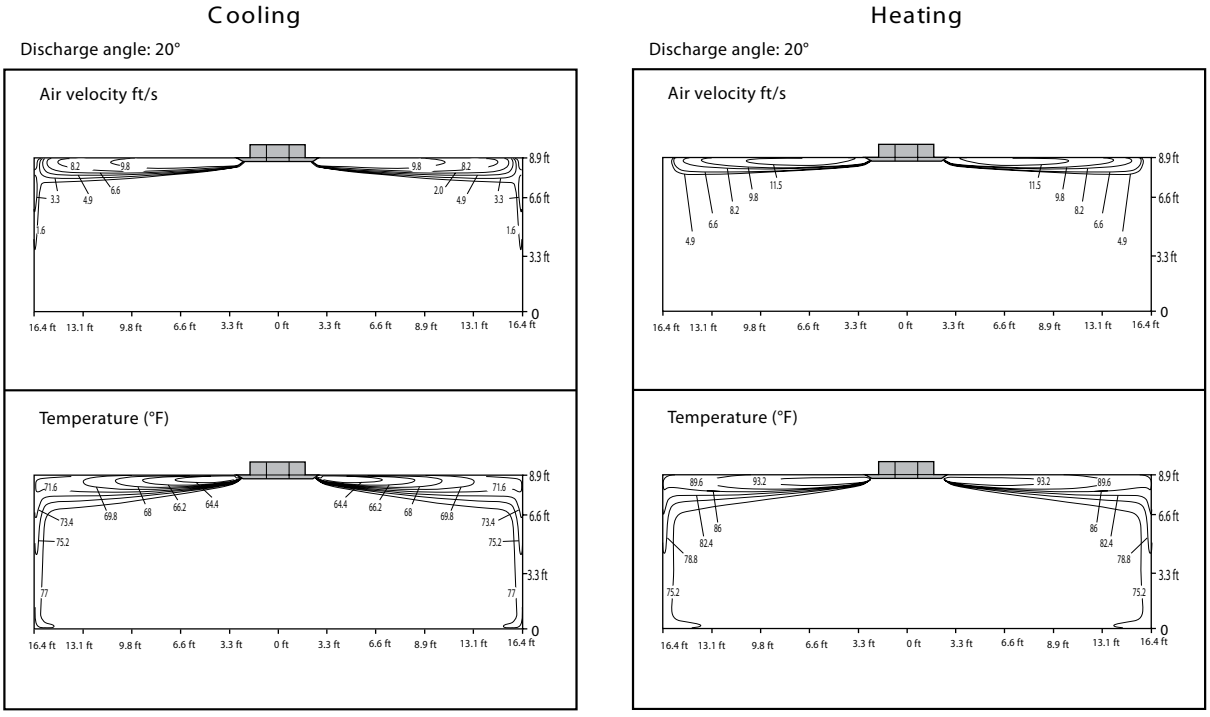


Figure 211: ARNU363TNC2

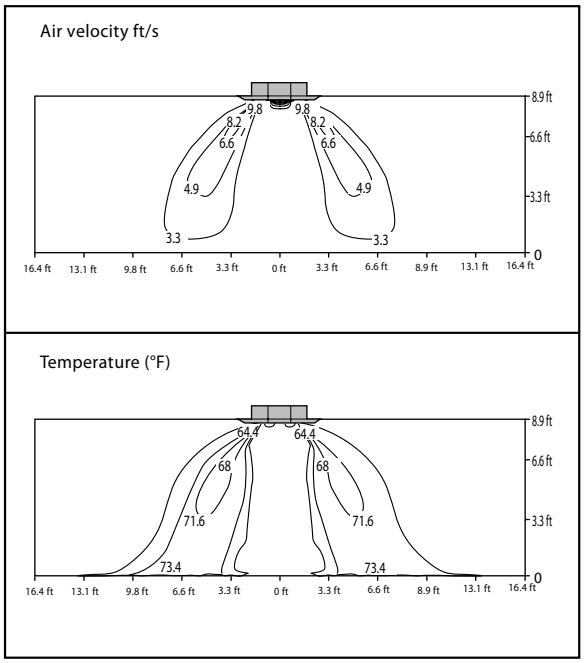


The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 212: ARNU363TNC2, continued

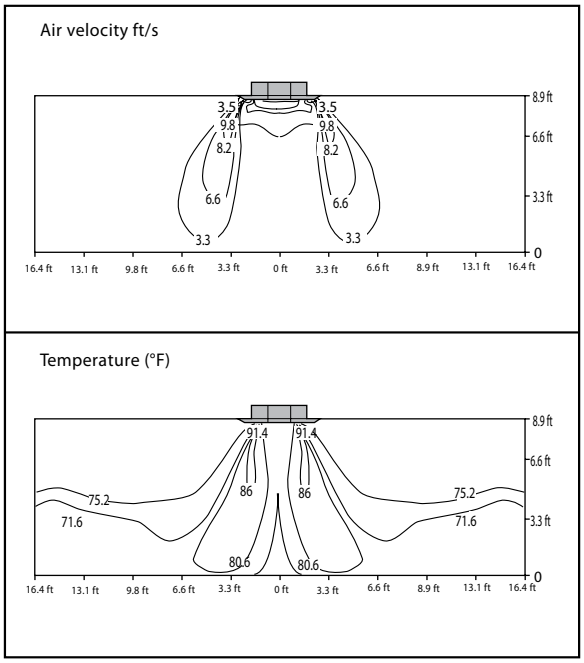
Cooling

Discharge angle: 40°



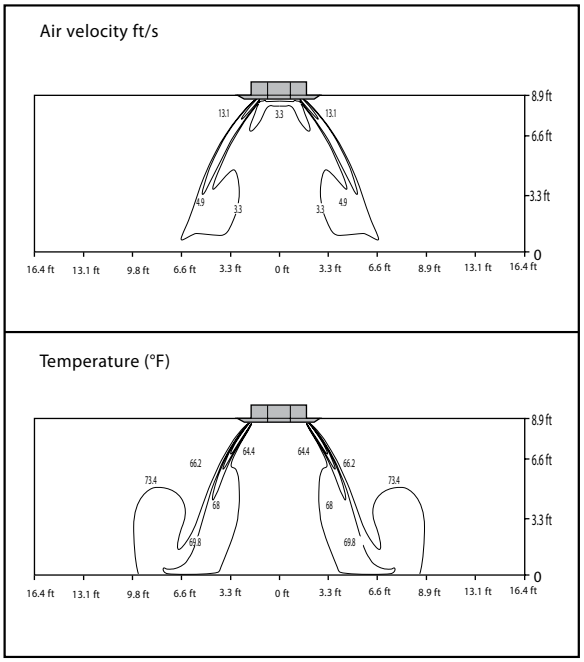
Heating

Discharge angle: 50°



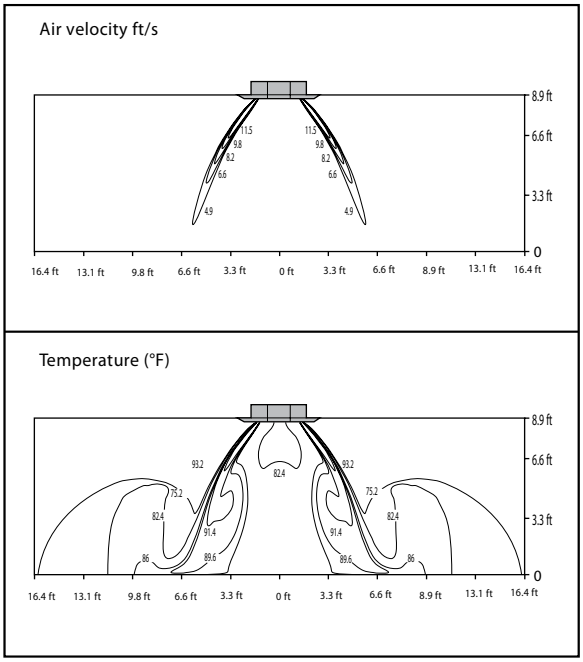
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

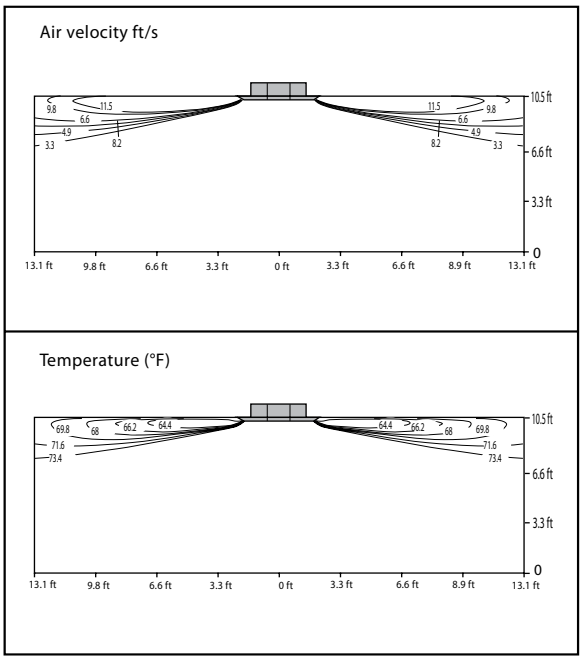
AIR VELOCITY & TEMP DISTRIBUTION

ARNU423TMC2

Figure 213: ARNU423TMC2

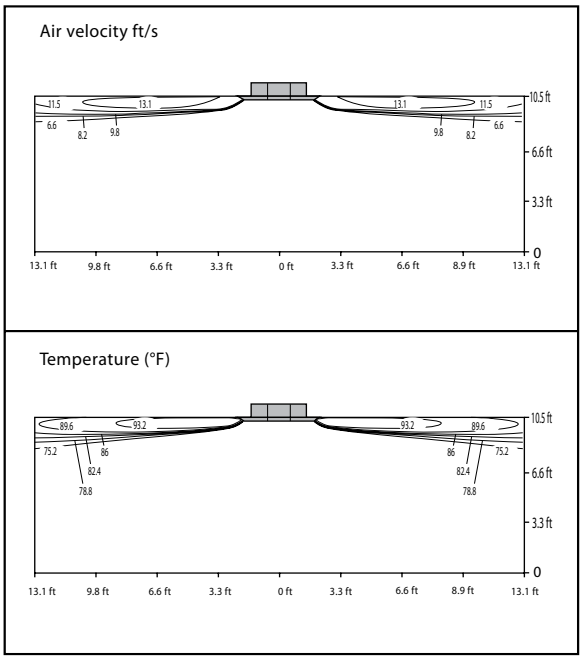
Cooling

Discharge angle: 20°



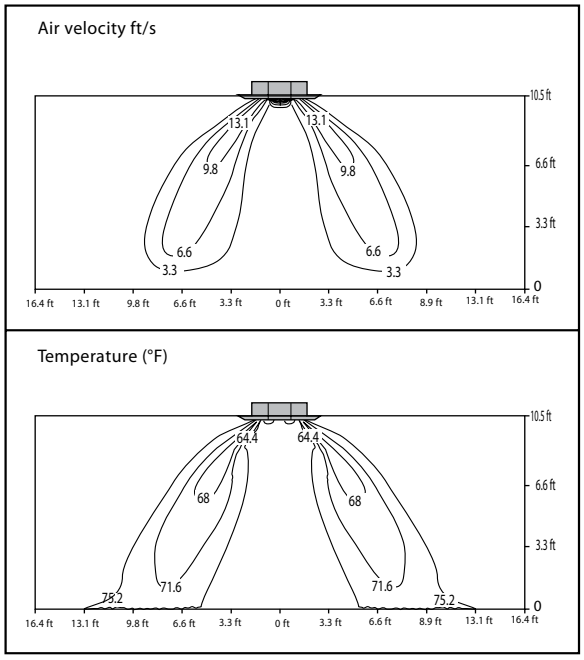
Heating

Discharge angle: 20°



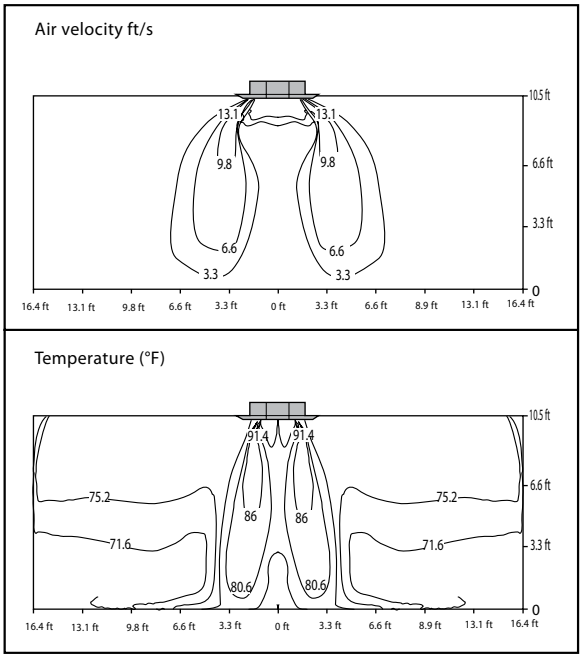
Cooling

Discharge angle: 40



Heating

Discharge angle: 50°°

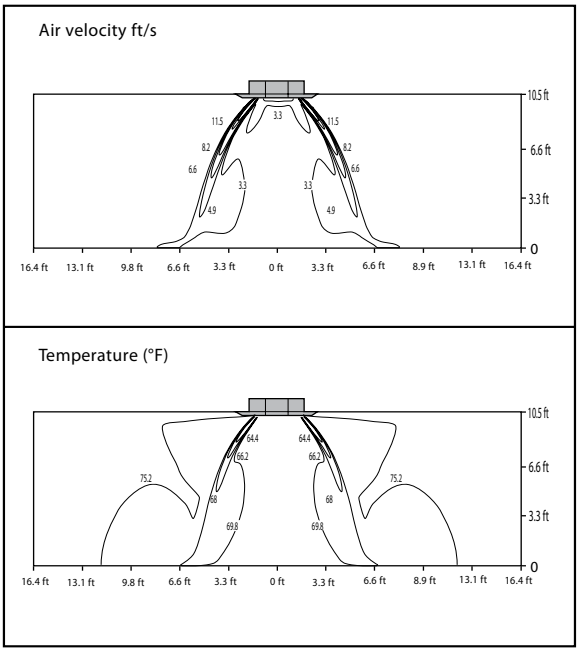


The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 215:ARNU423TMC2, continued

Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°

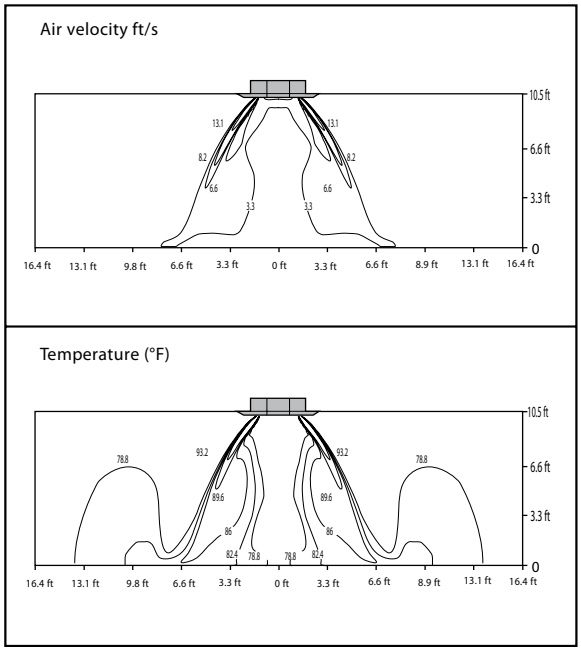
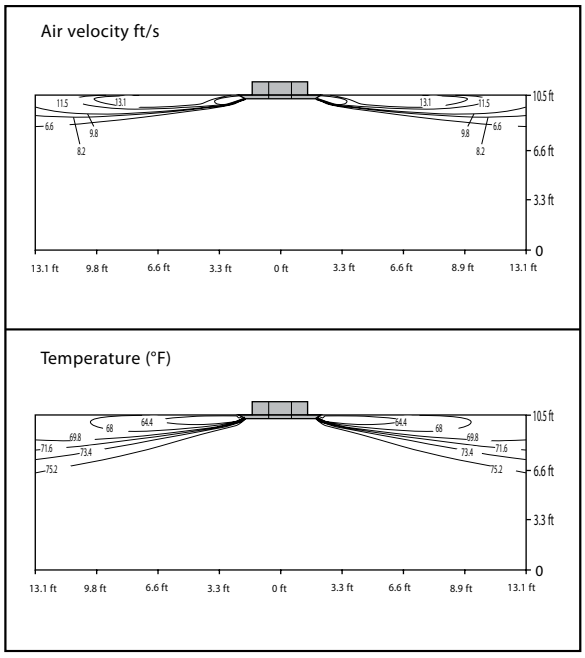


Figure 214: ARNU483TMC2

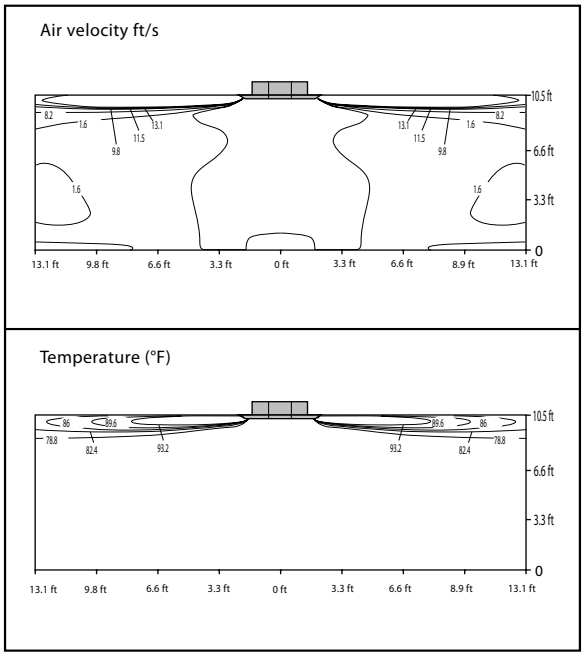
Cooling

Discharge angle: 20°



Heating

Discharge angle: 20°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

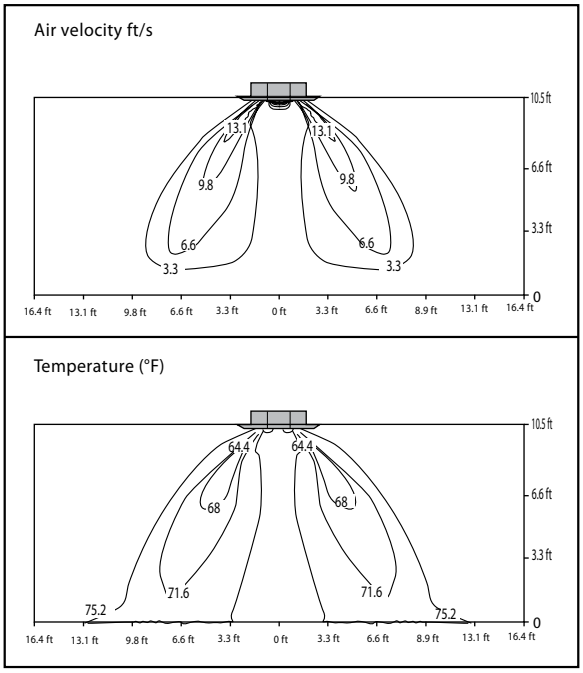
AIR VELOCITY & TEMP DISTRIBUTION

ARNU483TMC2

Figure 216: ARNU483TMC2, continued

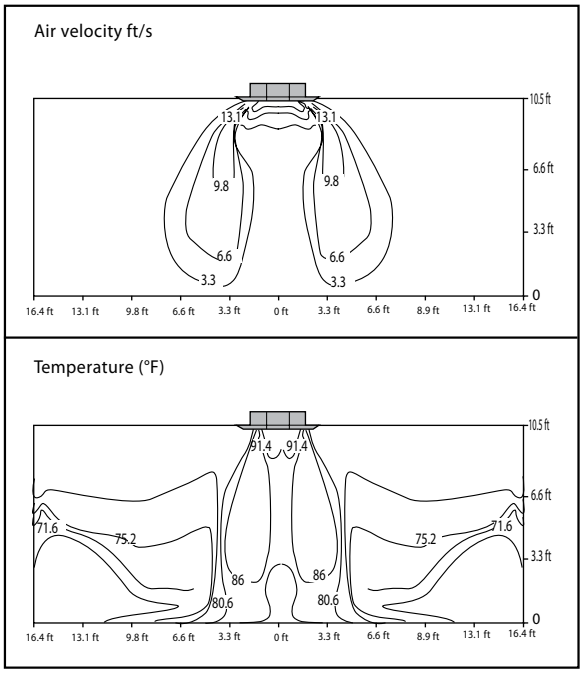
Cooling

Discharge angle: 40°



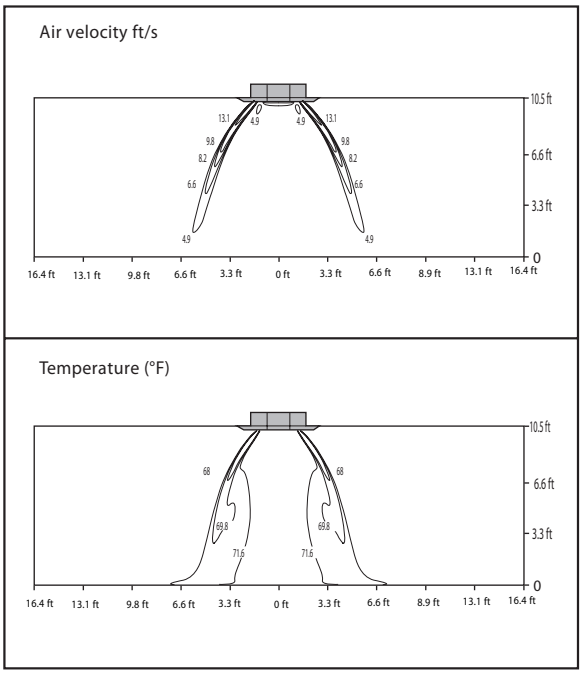
Heating

Discharge angle: 50°



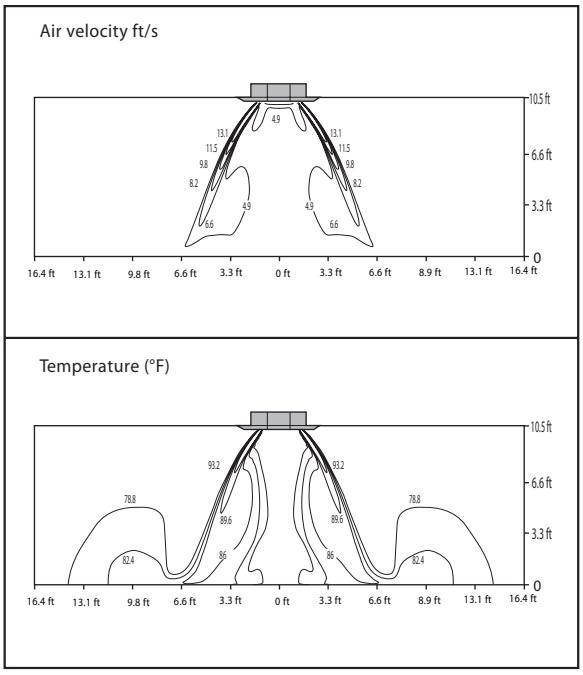
Cooling

Discharge angle: 70°



Heating

Discharge angle: 70°



The standard setup height is 8.9 ft. The charts above show the measurement distribution at the ceiling height of 8.9 ft with a high fan operating mode.

Figure 217: TR Chassis Fresh Air Ventilation

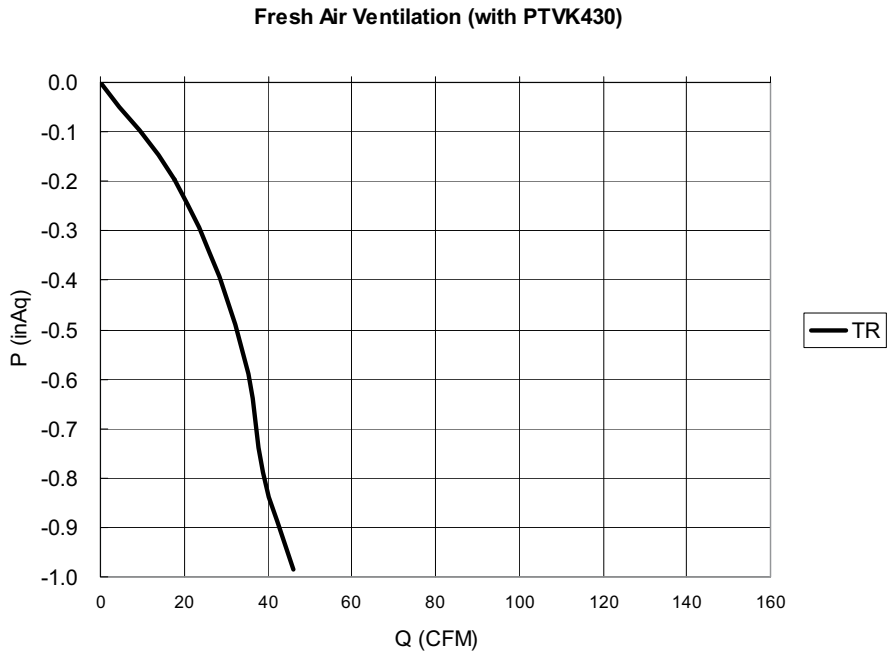
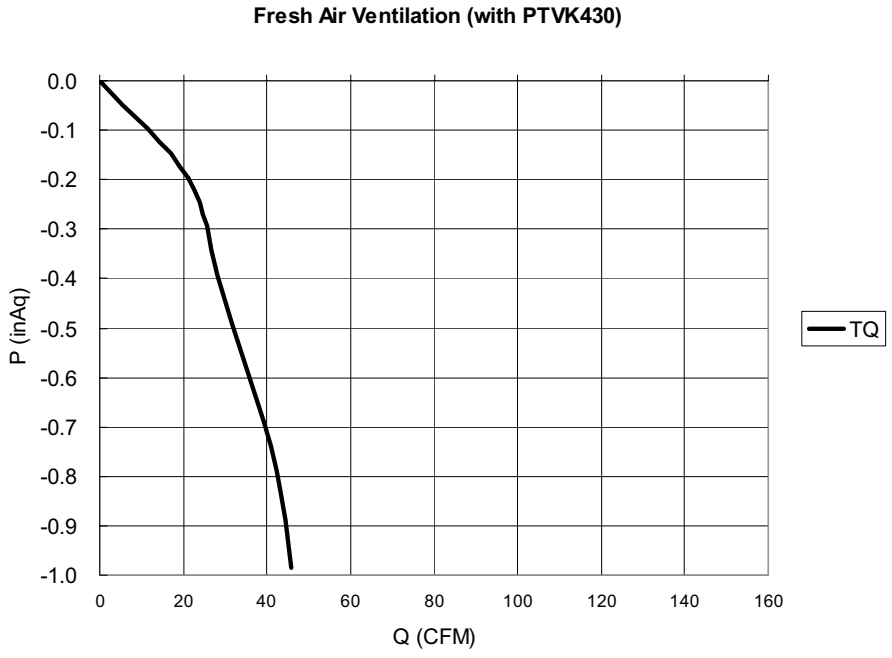


Figure 218: TQ Chassis Fresh Air Ventilation



FRESH AIR VENTILATION

TP, TN, TM Chassis

Figure 219: TP, TN and TM Chassis Fresh Air Ventilation with PTVK430 Accessory

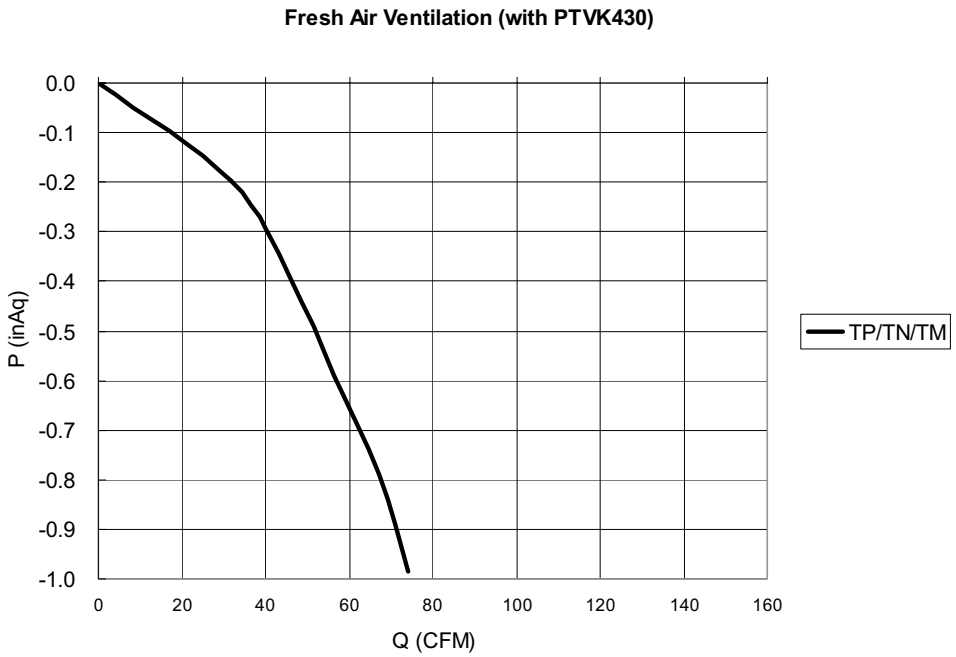
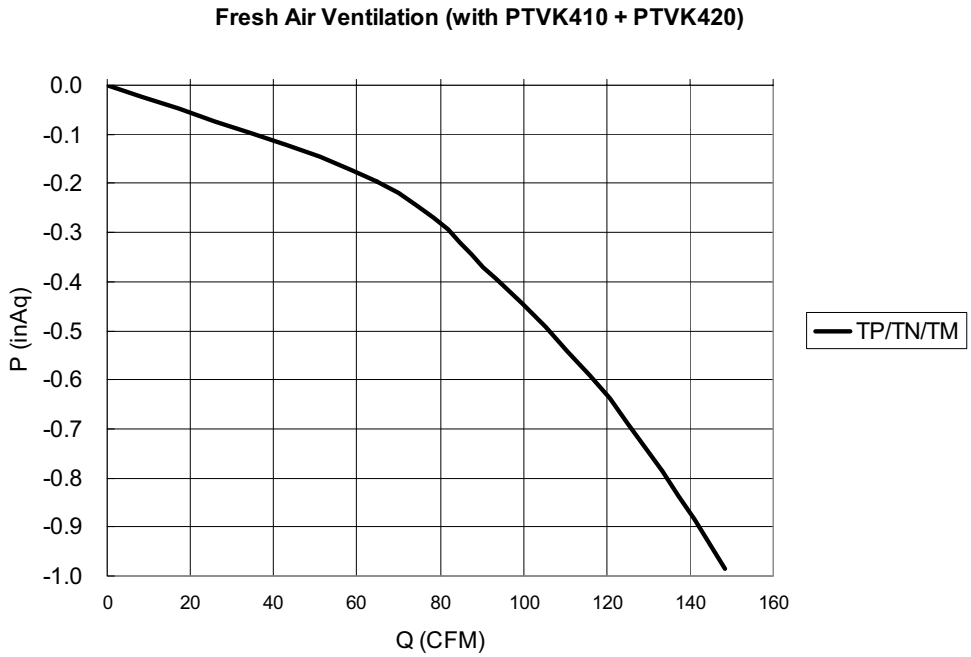


Figure 220: TP, TN and TM Chassis Fresh Air Ventilation with PTVK410 + PTVK420 Accessories



DUCTED

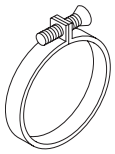
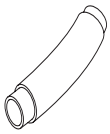
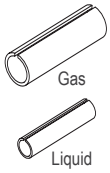
ACCESSORIES

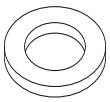
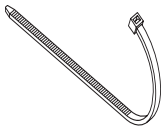
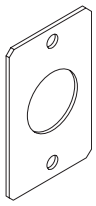
Accessory	Model Number
Return Air Grille[1]	PBSGB30 (B3 Chassis) PBSGB40 (B4 Chassis)
Return Air Canvas[1]	PBSC30 (B3 Chassis) PBSC40 (B4 Chassis)
Dynamic V8 Low Profile Air Cleaner[2]	ZPLMV201A (2VL) ZPLMV402A (4VL)
Dynamic V8 VL Replacement Filter Pads[2]	ZFLT1301A (4-Pack) ZFLT1302A (24-Pack)
Return Air Grille[2]	ZGRLRA01A (Louvered) ZGRLRA02A (Egg Crate)
Return Air Plenum[2]	ZPLMV201A (2VL) ZPLMV402A (4VL)

[1]For use with Ducted (Low Static Bottom Return) units.
[2]For use with High Static Ducted units.
All accessories are sold separately.

FACTORY SUPPLIED PARTS & MATERIALS

Factory Supplied Parts

Part	Quantity	Image
Clamp Metal	1	
Drain Hose	1	
Fitting Insulation	1 Set	

Part	Quantity	Image
Hanging Bracket Washer	8	
Clamp (Tie Wrap)	4	
Conduit Mounting Plate[1]	1	

[1]Not included with Ducted (Low Static Bottom Return) units.
No factory supplied parts provided for Vertical/Horizontal Air Handling Units.

Factory Supplied Materials

- Owner's Manual
- Installation Manual

DUCTED (HIGH STATIC)

GENERAL DATA

Ducted (High Static) Unit Specifications

ARNU073BHA2, ARNU093BHA2, ARNU123BHA2

Table 114: Ducted (High Static) Unit General Data.

Type	Ducted (High Static)		
	ARNU073BHA2	ARNU093BHA2	ARNU123BHA2
Cooling Mode Performance			
Capacity (Btu/h)	7,500	9,600	12,300
Power Input[1] (W)	150	150	150
Heating Mode Performance			
Capacity (Btu/h)	8,500	10,900	13,600
Power Input[1] (W)	150	150	150
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	34/33/32	35/34/33	37/35/34
Net Unit Weight (lbs)	58	58	58
Shipping Weight (lbs)	68	68	68
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	1	1	1
Housing	2	2	2
Motor/Drive	Brushless Digitally Controlled / Direct		
Airflow Rate H/M/L (CFM) High Mode (factory set)	300/265/212	353/300/265	424/353/300
External Static Pressure (in wg) High Mode (factory set)	0.31	0.31	0.31
Airflow Rate H/M/L (CFM) Standard Mode	300/282/265	300/282/265	388/300/265
External Static Pressure (in wg) Standard Mode	0.23	0.23	0.23
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	1/4 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	1/2 Flare
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Ducted (High Static) Unit Specifications

ARNU153BHA2, ARNU183BHA2, ARNU243BHA2

Table 115: Ducted (High Static) Unit General Data.

Type	Ducted (High Static)		
	ARNU153BHA2	ARNU183BHA2	ARNU243BHA2
Cooling Mode Performance			
Capacity (Btu/h)	15,400	19,100	24,200
Power Input[1] (W)	150	150	150
Heating Mode Performance			
Capacity (Btu/h)	17,100	21,500	27,300
Power Input[1] (W)	150	150	150
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	39/37/34	40/38/37	42/40/39
Net Unit Weight (lbs)	58	59	59
Shipping Weight (lbs)	64	64	64
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	1	1	1
Housing	2	2	2
Motor/Drive	Brushless Digitally Controlled / Direct		
Airflow Rate H/M/L (CFM) High Mode (factory set)	477/424/300	547/477/438	646/597/547
External Static Pressure (in wg) High Mode (factory set)	0.31	0.31	0.31
Airflow Rate H/M/L (CFM) Standard Mode	477/424/388	540/480/364	671/579/512
External Static Pressure (in wg) Standard Mode	0.23	0.23	0.23
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	3/8 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	5/8 Flare
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Ducted (High Static) Unit Specifications

ARNU153BGA2, ARNU183BGA2, ARNU243BGA2

Table 116: Ducted (High Static) Unit General Data

Type	Ducted (High Static)		
	ARNU153BGA2	ARNU183BGA2	ARNU243BGA2
Cooling Mode Performance			
Capacity (Btu/h)	15,400	19,100	24,200
Power Input[1] (W)	450	450	450
Heating Mode Performance			
Capacity (Btu/h)	17,100	21,500	27,300
Power Input[1] (W)	450	450	450
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	37/36/33	41/39/37	42/39/37
Net Unit Weight (lbs)	84	84	84
Shipping Weight (lbs)	95	95	95
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	2	2	2
Housing	2	2	2
Motor/Drive	Brushless Digitally Controlled / Direct		
Airflow Rate H/M/L (CFM) High Mode (factory set)	487/417/293	537/487/417	671/537/487
External Static Pressure (in wg) High Mode (factory set)	0.31	0.31	0.31
Airflow Rate H/M/L (CFM) Standard Mode	477/427/318	547/470/427	671/576/547
External Static Pressure (in wg) Standard Mode	0.23	0.23	0.23
Piping			
Liquid Line (in, OD)	3/8 Flare	3/8 Flare	3/8 Flare
Vapor Line (in, OD)	5/8 Flare	5/8 Flare	5/8 Flare
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Ducted (High Static) Unit Specifications

ARNU283BGA2, ARNU363BGA2, ARNU423BGA2

Table 117: Ducted (High Static) Unit General Data

Type	Ducted (High Static)		
	ARNU283BGA2	ARNU363BGA2	ARNU423BGA2
Cooling Mode Performance			
Capacity (Btu/h)	28,000	36,200	42,000
Power Input[1] (W)	450	450	450
Heating Mode Performance			
Capacity (Btu/h)	31,500	40,600	43,800
Power Input[1] (W)	450	450	450
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	42/41/40	44/43/42	45/44/44
Net Unit Weight (lbs)	84	84	84
Shipping Weight (lbs)	95	95	95
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	2	2	2
Housing	2	2	2
Motor/Drive	Brushless Digitally Controlled/Direct		
Airflow Rate H/M/L (CFM) High Mode (factory set)	915/851/770	1,141/1,024/894	1,218/1,141/1,084
External Static Pressure (in wg) High Mode (factory set)	0.39	0.39	0.39
Airflow Rate H/M/L (CFM) Standard Mode	893/770/622	1,003/894/770	1,130/1,003/961
External Static Pressure (in wg) Standard Mode	0.31	0.31	0.31
Piping			
Liquid Line (in, OD)	3/8 Flare	3/8 Flare	3/8 Flare
Vapor Line (in, OD)	5/8 Flare	5/8 Flare	5/8 Flare
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Ducted (High Static) Unit Specifications

ARNU283BRA2, 363BRA2, 483BRA2, 543B8A2, 763B8A2, 963B8A2

Table 118: Ducted (High Static) Unit General Data.

Type	Ducted (High Static)					
	ARNU283BRA2	ARNU363BRA2	ARNU483BRA2	ARNU543BRA2	ARNU763B8A2	ARNU963B8A2
Cooling Mode Performance						
Capacity (Btu/h)	28,000	36,200	48,100	54,000	76,400	95,900
Power Input[1] (W)	450	450	450	450	800	800
Heating Mode Performance						
Capacity (Btu/h)	31,500	40,600	51,200	61,400	86,000	107,500
Power Input[1] (W)	450	450	450	450	800	800
Entering Mixed Air						
Cooling Max (°F WB)	76	76	76	76	76	76
Heating Min (°F DB)	59	59	59	59	59	59
Unit Data						
Refrigerant Type[2]	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	41/40/39	42/41/40	44/42/41	47/46/45	50/48/48	52/50/50
Net Unit Weight (lbs)	117	117	117	117	192	192
Shipping Weight (lbs)	132	132	128	128	212	212
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18	2 x 18	2 x 18	2 x 18
Fan						
Type	Sirocco	Sirocco	Sirocco	Sirocco	Sirocco	Sirocco
Motor	2	2	2	2	2	2
Housing	2	2	2	2	2	2
Motor/Drive	Brushless Digitally Controlled / Direct					
Airflow Rate H/M/L (CFM) High Mode (factory set)	1,278/1,134/1,007	1,381/1,176/1,049	1,582/1,434/1,176	1,801/1,582/1,434	2,119/1,766/1,766	2,542/2,260/2,260
External Static Pressure (in wg) High Mode (factory set)	0.55	0.55	0.55	0.55	0.86	0.86
Airflow Rate H/M/L (CFM) Standard Mode	1,151/1,105/1,074	1,430/1,151/1,105	1,568/1,395/1,183	1,819/1,678/1,395	2,260/1,766/1,766	2,684/2,260/2,260
External Static Pressure (in wg) Standard Mode	0.39	0.39	0.39	0.39	0.59	0.59
Piping						
Liquid Line (in, OD)	3/8 Flare	3/8 Flare	3/8 Flare	3/8 Flare	3/8 Flare	3/8 Flare
Vapor Line (in, OD)	5/8 Flare	5/8 Flare	5/8 Flare	5/8 Flare	3/4 Flare	7/8 Flare
Condensate Line (in, ID)	1	1	1	1	1	1

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

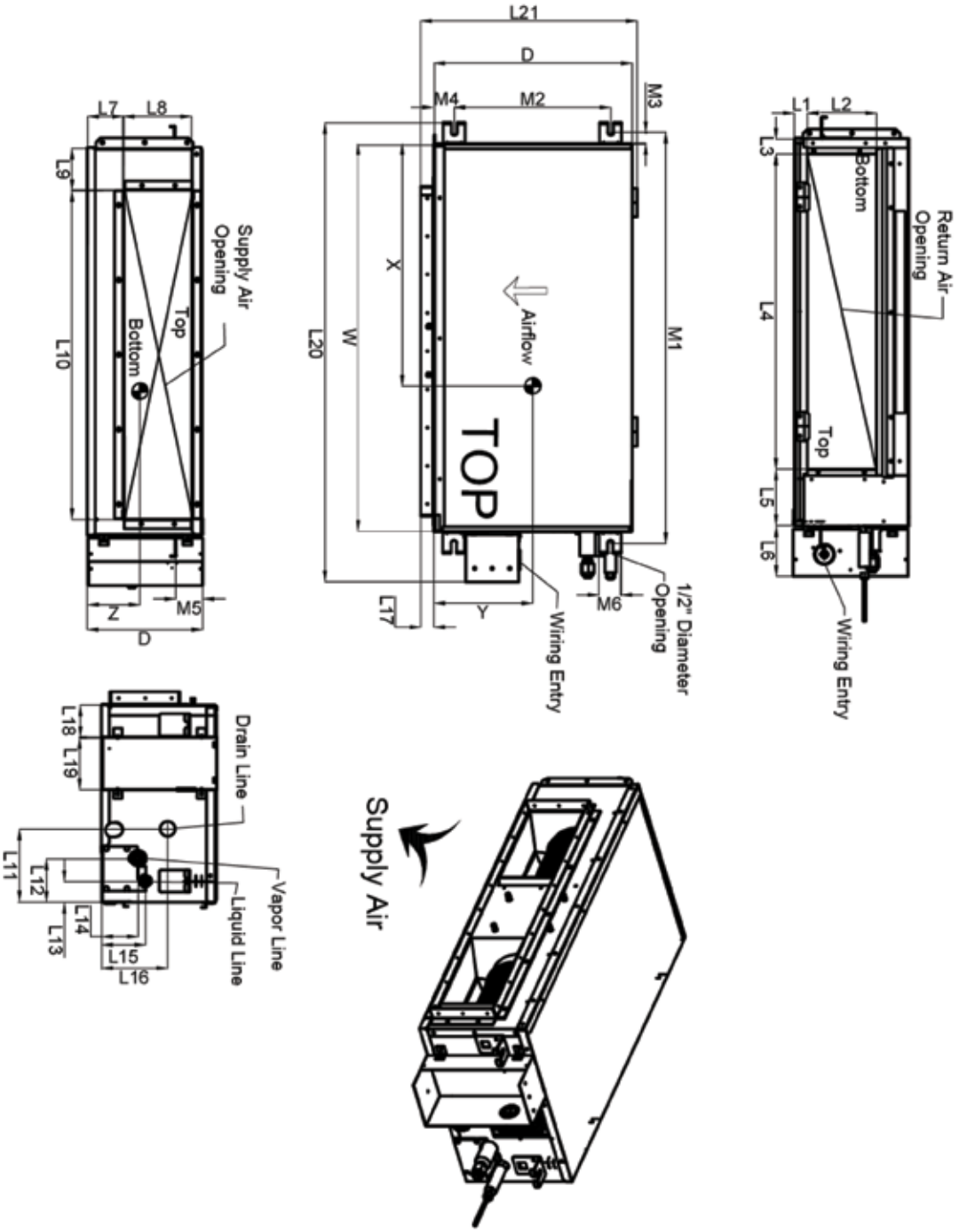
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

BH Chassis



W	D	H	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18	L19	L20	M1	M2	M3	M4	M5	M6
34 3/4"	17 3/4"	10 1/4"	13/16"	6 3/8"	7/8"	29 3/8"	4 1/2"	4 1/4"	2 7/8"	6 1/4"	1 5/8"	29 1/2"	6 9/16"	3 15/16"	1 7/8"	3 1/4"	3 15/16"	6 3/4"	1 3/16"	2 15/16"	4 13/16"	41 1/8"	36 11/16"	14"	1"	1 7/8"	2 1/2"	2"

Center of Gravity

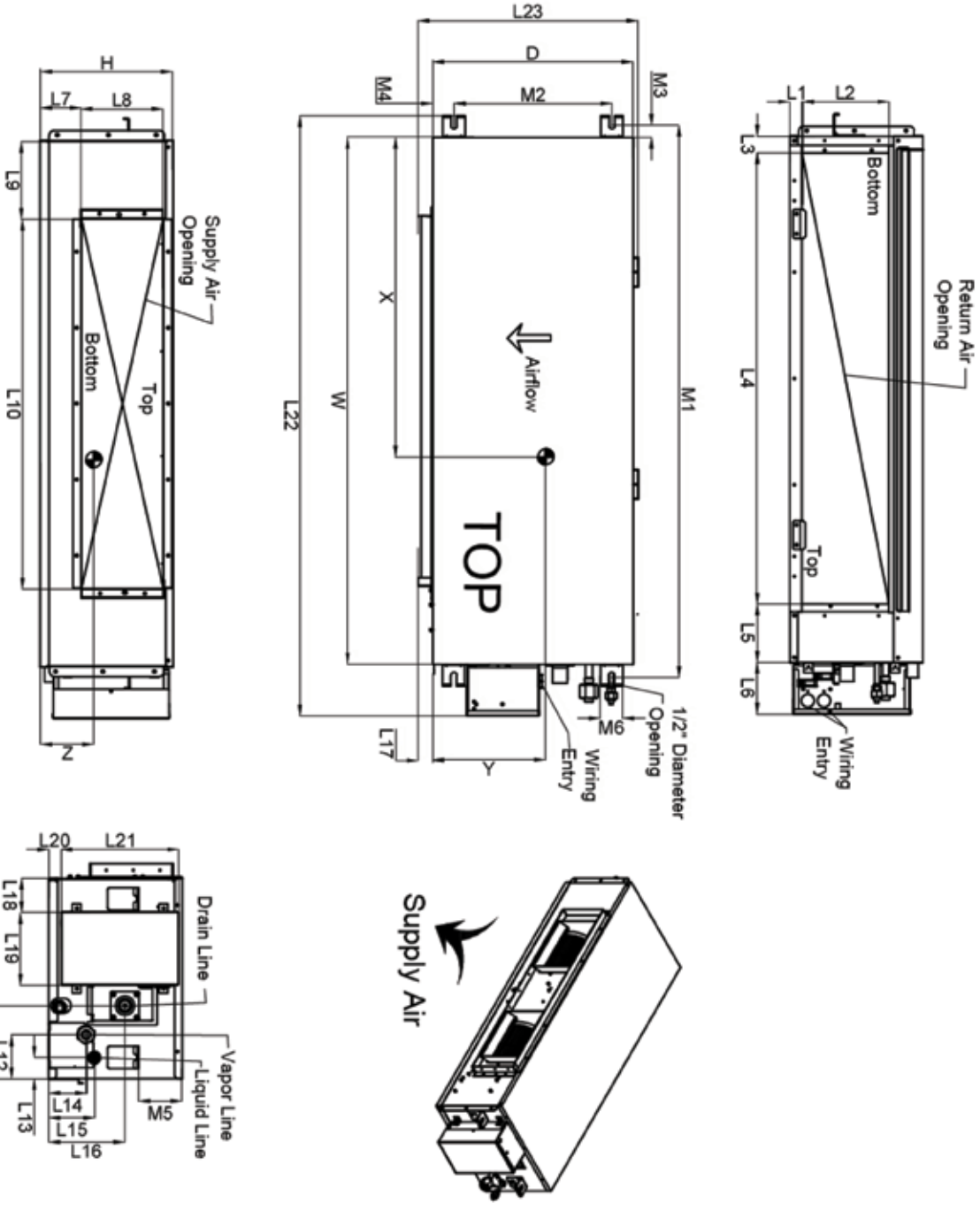
X	Y	Z
15 7/8"	8 5/8"	4 11/16"

Note - All dimensions have a tolerance of ± 0.25 in.

= Center of gravity

DIMENSIONS

BG Chassis



W	49 9/16"
D	17 3/4"
H	11 3/4"
L1	13/16"
L2	8"
L3	15/16"
L4	41 1/8"
L5	4 1/2"
L6	4 1/4"
L7	3 3/8"
L8	7 3/8"
L9	6 15/16"
L10	32 5/8"
L11	6 3/8"
L12	3 15/16"
L13	1 7/8"
L14	3 1/4"
L15	4"
L16	6 3/4"
L17	1 3/8"
L18	3"
L19	4 13/16"
L20	1 1/8"
L21	10 1/4"
L22	53"
L23	19 5/16"
M1	48 7/16"
M2	14"
M3	1"
M4	2 15/16"
M5	2 1/2"
M6	2"

Center of Gravity

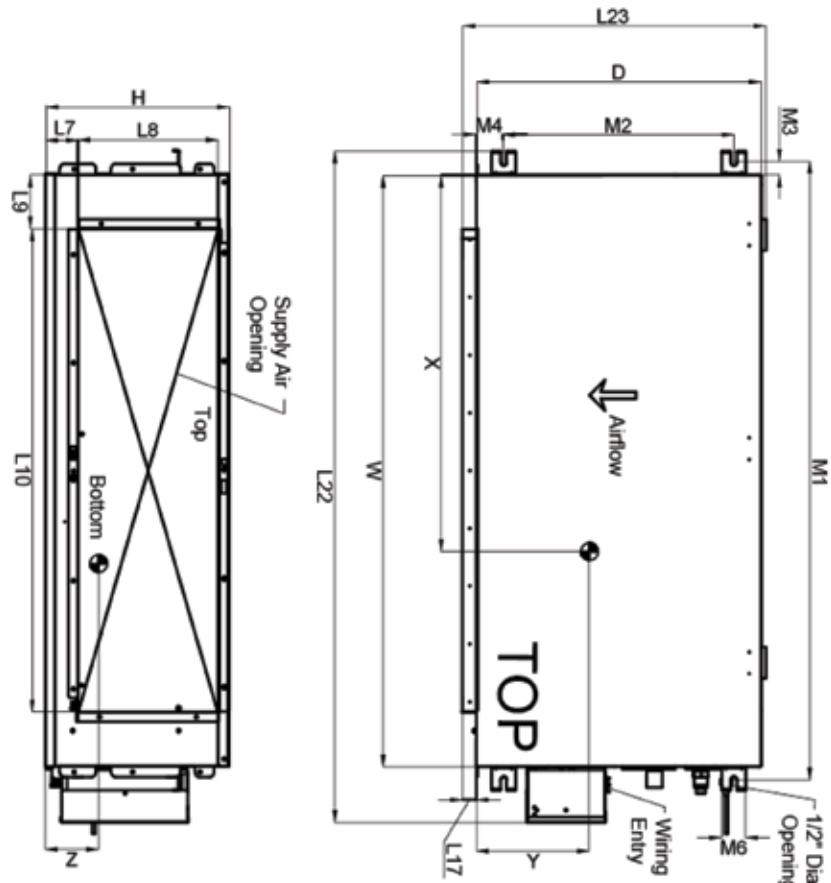
X	21 1/4"
Y	8 5/8"
Z	5 3/8"

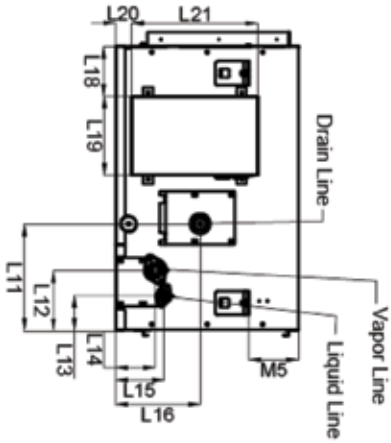
Note - All dimensions have a tolerance of ± 0.25 in.

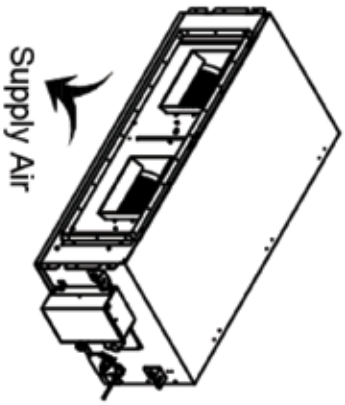
= Center of gravity

DIMENSIONS

BR Chassis







W	48 7/16"
D	23 1/4"
H	15"
L1	1"
L2	11 1/8"
L3	11/16"
L4	43"
L5	4 3/4"
L6	4 7/16"
L7	2 9/16"
L8	11 9/16"
L9	4 1/2"
L10	39 9/16"
L11	8 3/4"
L12	4 13/16"
L13	2 13/16"
L14	3 1/4"
L15	3 15/16"
L16	6 3/4"
L17	1 3/8"
L18	4 1/8"
L19	4 13/16"
L20	1 5/16"
L21	10 1/4"
L22	55"
L23	24 13/16"
M1	50 9/16"
M2	18 3/4"
M3	1 1/16"
M4	2 3/16"
M5	4 1/8"
M6	2"

Center of Gravity

X	23 3/8"
Y	14 1/8"
Z	6 7/8"

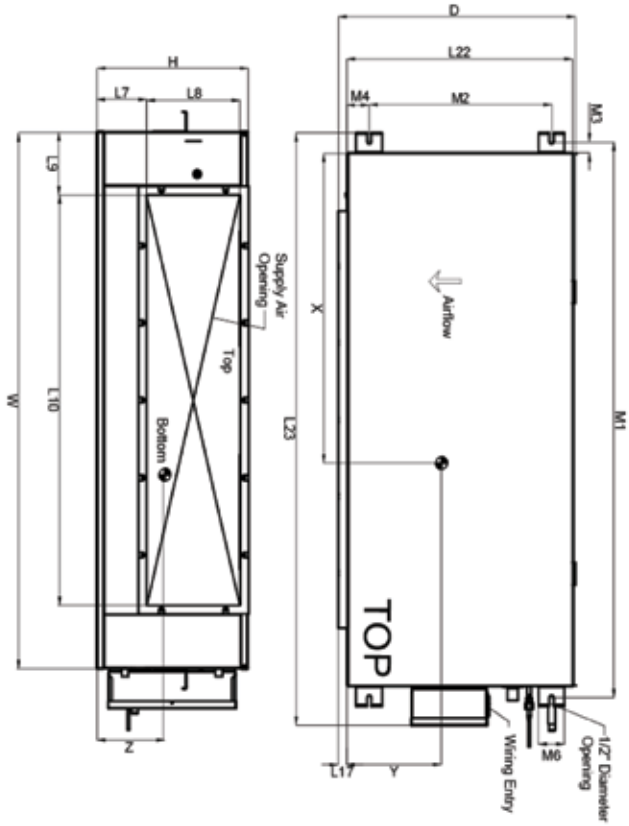
Note - All dimensions have a tolerance of ± 0.25 in.

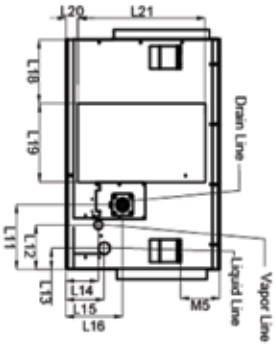
= Center of gravity

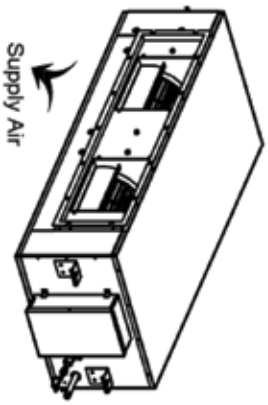
Ducted (High Static)

DIMENSIONS

B8 Chassis







W	D	H	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18	L19	L20	L21	L22	L23	M1	M2	M3	M4	M5	M6
61 1/2"	27 1/8"	18 1/8"	2 3/8"	15 7/16"	2"	55"	4 9/16"	4 1/2"	6 3/8"	12 7/16"	6 3/4"	44 1/4"	7 5/8"	5 1/4"	2 1/2"	4 3/4"	5 1/2"	6 7/8"	1 3/16"	7 13/16"	9 3/16"	1 5/16"	15 3/8"	28 5/8"	68 1/4"	63 13/16"	22"	1 3/16"	2 1/2"	4 1/8"	3 3/16"

Center of Gravity

X	31 1/16"
Y	18 1/8"
Z	8 3/4"

Note - All dimensions have a tolerance of ± 0.25 in.

⊕ = Center of gravity

Table 119: ARNU073BHA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
25	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
30	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
35	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
40	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
45	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
50	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
55	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
60	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.6	5.8
65	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.5	5.7
70	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.3	5.6
75	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.1	5.5
80	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.7	5.8	8.9	5.5
85	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.3	5.8	8.4	5.5	8.6	5.2
90	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.2	5.7	8.3	5.5	8.4	5.2
95	5.0	4.2	6.0	4.8	6.8	5.2	**7.5**	**5.5**	8.0	5.7	8.2	5.4	8.3	5.1
100	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	7.9	5.6	8.0	5.4	8.2	5.1
105	5.0	4.2	5.7	4.6	6.5	4.9	7.2	5.3	7.4	5.3	7.7	5.2	7.9	5.0
110	4.8	4.1	5.4	4.3	6.0	4.6	6.8	4.9	6.9	4.9	7.4	4.9	7.7	4.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 120: ARNU093BHA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
25	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
30	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
35	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
40	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
45	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
50	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
55	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.5
60	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.3	7.4
65	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.1	7.3
70	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	11.9	7.2
75	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	11.6	7.0
80	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.1	7.4	11.3	7.0
85	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.7	7.5	10.8	7.1	10.9	6.7
90	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.5	7.3	10.6	7.0	10.8	6.6
95	6.3	5.4	7.7	6.2	8.6	6.6	**9.6**	**7.0**	10.3	7.3	10.5	6.9	10.7	6.6
100	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.1	7.2	10.3	6.9	10.5	6.5
105	6.3	5.4	7.3	5.9	8.3	6.3	9.2	6.7	9.4	6.7	9.9	6.6	10.1	6.3
110	6.1	5.2	6.9	5.6	7.7	5.9	8.6	6.3	8.8	6.3	9.4	6.3	9.8	6.2

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU123BHA2, ARNU153BHA2

Table 121: ARNU123BHA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
25	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
30	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
35	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
40	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
45	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
50	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
55	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.6
60	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.7	9.5
65	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.5	9.4
70	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.3	9.2
75	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	14.9	9.0
80	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.3	9.5	14.5	9.0
85	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.7	9.6	13.8	9.1	14.0	8.6
90	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.4	9.4	13.5	8.9	13.8	8.5
95	8.1	6.9	9.8	7.9	11.1	8.5	**12.3**	**9.0**	13.2	9.3	13.4	8.9	13.7	8.4
100	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	12.9	9.2	13.2	8.8	13.4	8.3
105	8.1	6.9	9.3	7.5	10.6	8.1	11.8	8.6	12.1	8.6	12.7	8.5	12.9	8.1
110	7.9	6.7	8.9	7.1	9.8	7.5	11.1	8.1	11.3	8.1	12.1	8.1	12.5	7.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 122: ARNU153BHA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
25	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
30	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
35	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
40	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
45	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
50	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
55	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	12.0
60	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.7	11.9
65	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.4	11.7
70	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.1	11.5
75	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	18.6	11.3
80	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	17.9	11.9	18.2	11.2
85	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.1	12.0	17.2	11.4	17.6	10.8
90	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	16.8	11.7	16.9	11.2	17.2	10.6
95	10.2	8.6	12.3	9.9	13.9	10.6	**15.4**	**11.2**	16.5	11.7	16.8	11.1	17.1	10.5
100	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	16.2	11.5	16.5	11.0	16.8	10.4
105	10.2	8.6	11.7	9.4	13.2	10.1	14.8	10.8	15.1	10.8	15.9	10.7	16.2	10.2
110	9.9	8.4	11.1	8.9	12.3	9.4	13.9	10.1	14.2	10.1	15.1	10.1	15.7	9.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 123: ARNU183BHA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	24.6	14.8
25	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	24.6	14.8
30	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	24.6	14.8
35	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	24.6	14.8
40	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	24.6	14.8
45	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	24.6	14.8
50	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	24.6	14.8
55	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	24.6	14.8
60	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	24.4	14.7
65	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	24.1	14.5
70	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	23.7	14.3
75	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.7	14.9	23.1	14.0
80	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.4	15.0	22.2	14.8	22.5	13.9
85	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	21.2	14.8	21.4	14.1	21.8	13.4
90	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	20.8	14.6	21.0	13.9	21.4	13.2
95	12.6	10.7	15.3	12.3	17.2	13.1	**19.1**	**13.9**	20.4	14.5	20.8	13.8	21.2	13.1
100	12.6	10.7	15.3	12.3	17.2	13.1	19.1	13.9	20.1	14.3	20.4	13.7	20.8	12.9
105	12.6	10.7	14.5	11.7	16.4	12.6	18.3	13.4	18.7	13.4	19.7	13.2	20.1	12.6
110	12.2	10.4	13.8	11.1	15.3	11.7	17.2	12.5	17.6	12.6	18.7	12.6	19.5	12.3

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 124: ARNU243BHA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	31.2	18.8
25	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	31.2	18.8
30	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	31.2	18.8
35	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	31.2	18.8
40	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	31.2	18.8
45	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	31.2	18.8
50	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	31.2	18.8
55	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	31.2	18.8
60	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	31.0	18.7
65	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	30.5	18.4
70	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	30.0	18.1
75	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.8	18.8	29.3	17.7
80	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	27.1	19.0	28.1	18.7	28.6	17.6
85	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	26.9	18.8	27.1	17.9	27.6	16.9
90	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	26.4	18.5	26.6	17.6	27.1	16.7
95	16.0	13.6	19.4	15.6	21.8	16.6	**24.2**	**17.7**	25.9	18.4	26.4	17.5	26.9	16.6
100	16.0	13.6	19.4	15.6	21.8	16.6	24.2	17.7	25.4	18.1	25.9	17.3	26.4	16.4
105	16.0	13.6	18.4	14.8	20.8	15.9	23.2	17.0	23.7	16.9	24.9	16.7	25.4	16.0
110	15.5	13.2	17.4	14.0	19.4	14.8	21.8	15.9	22.3	15.9	23.7	15.9	24.7	15.5

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU153BGA2, ARNU183BGA2

Table 125: ARNU153BGA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.9	13.6
25	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.9	13.6
30	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.9	13.6
35	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.9	13.6
40	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.9	13.6
45	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.9	13.6
50	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.9	13.6
55	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.9	13.6
60	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.7	13.5
65	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.4	13.3
70	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	19.1	13.1
75	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	18.4	13.6	18.6	12.8
80	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.3	13.7	17.8	13.5	18.2	12.7
85	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	17.1	13.6	17.3	12.9	17.6	12.2
90	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	16.8	13.4	16.9	12.7	17.3	12.1
95	10.1	9.8	12.3	11.3	13.9	12.0	**15.4**	**12.8**	16.5	13.3	16.8	12.6	17.1	11.9
100	10.1	9.8	12.3	11.3	13.9	12.0	15.4	12.8	16.2	13.1	16.5	12.5	16.8	11.8
105	10.1	9.8	11.7	10.7	13.2	11.5	14.8	12.2	15.1	12.2	15.8	12.1	16.2	11.6
110	9.9	9.5	11.1	10.1	12.3	10.7	13.9	11.5	14.2	11.5	15.1	11.5	15.7	11.2

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 126: ARNU183BGA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	24.7	15.8
25	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	24.7	15.8
30	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	24.7	15.8
35	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	24.7	15.8
40	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	24.7	15.8
45	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	24.7	15.8
50	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	24.7	15.8
55	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	24.7	15.8
60	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	24.4	15.7
65	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	24.0	15.5
70	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	23.7	15.2
75	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.8	15.8	23.1	14.9
80	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.4	16.0	22.1	15.7	22.5	14.8
85	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	21.2	15.8	21.4	15.1	21.8	14.2
90	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	20.9	15.6	21.0	14.8	21.4	14.1
95	12.6	11.4	15.3	13.1	17.2	14.0	**19.1**	**14.9**	20.5	15.5	20.9	14.7	21.2	13.9
100	12.6	11.4	15.3	13.1	17.2	14.0	19.1	14.9	20.1	15.2	20.5	14.6	20.9	13.8
105	12.6	11.4	14.5	12.5	16.4	13.4	18.3	14.2	18.7	14.2	19.7	14.1	20.1	13.5
110	12.3	11.0	13.8	11.8	15.3	12.5	17.2	13.4	17.6	13.4	18.7	13.4	19.5	13.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 127: ARNU243BGA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	31.3	20.0
25	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	31.3	20.0
30	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	31.3	20.0
35	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	31.3	20.0
40	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	31.3	20.0
45	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	31.3	20.0
50	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	31.3	20.0
55	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	31.3	20.0
60	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	31.0	19.9
65	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	30.5	19.6
70	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	30.0	19.3
75	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.8	20.0	29.2	18.9
80	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	27.1	20.3	28.0	19.9	28.5	18.8
85	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	26.8	20.0	27.1	19.1	27.6	18.0
90	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	26.4	19.7	26.6	18.8	27.1	17.8
95	15.9	14.4	19.4	16.6	21.8	17.7	**24.2**	**18.9**	25.9	19.6	26.4	18.7	26.8	17.6
100	15.9	14.4	19.4	16.6	21.8	17.7	24.2	18.9	25.4	19.3	25.9	18.5	26.4	17.5
105	15.9	14.4	18.4	15.8	20.8	17.0	23.2	18.0	23.7	18.0	24.9	17.8	25.4	17.1
110	15.5	14.0	17.4	15.0	19.4	15.8	21.8	17.0	22.3	17.0	23.7	17.0	24.7	16.5

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 128: ARNU283BGA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	36.1	22.0
25	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	36.1	22.0
30	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	36.1	22.0
35	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	36.1	22.0
40	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	36.1	22.0
45	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	36.1	22.0
50	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	36.1	22.0
55	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	36.1	22.0
60	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	35.8	21.9
65	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	35.3	21.6
70	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	34.7	21.2
75	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	33.3	22.1	33.9	20.8
80	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.4	22.2	32.5	21.9	33.0	20.7
85	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	31.1	22.1	31.4	21.0	31.9	19.9
90	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	30.5	21.7	30.8	20.6	31.4	19.6
95	18.5	15.9	22.4	18.3	25.2	19.5	**28.0**	**20.7**	30.0	21.5	30.5	20.5	31.1	19.4
100	18.5	15.9	22.4	18.3	25.2	19.5	28.0	20.7	29.4	21.2	30.0	20.3	30.5	19.2
105	18.5	15.9	21.3	17.4	24.1	18.7	26.9	19.9	27.4	19.9	28.8	19.6	29.4	18.8
110	17.9	15.4	20.2	16.5	22.4	17.4	25.2	18.6	25.8	18.7	27.4	18.7	28.6	18.2

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU363BGA2, ARNU423BGA2

Table 129: ARNU363BGA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	46.7	28.5
25	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	46.7	28.5
30	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	46.7	28.5
35	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	46.7	28.5
40	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	46.7	28.5
45	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	46.7	28.5
50	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	46.7	28.5
55	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	46.7	28.5
60	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	46.3	28.3
65	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	45.6	27.9
70	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	44.9	27.5
75	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	43.1	28.5	43.8	26.8
80	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.5	28.8	42.0	28.4	42.7	26.7
85	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	40.2	28.5	40.5	27.1	41.3	25.7
90	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	39.5	28.0	39.8	26.7	40.5	25.3
95	23.9	20.6	29.0	23.6	32.6	25.2	**36.2**	**26.8**	38.7	27.9	39.5	26.5	40.2	25.1
100	23.9	20.6	29.0	23.6	32.6	25.2	36.2	26.8	38.0	27.4	38.7	26.3	39.5	24.9
105	23.9	20.6	27.5	22.5	31.1	24.1	34.8	25.7	35.5	25.7	37.3	25.4	38.0	24.3
110	23.2	19.9	26.1	21.3	29.0	22.4	32.6	24.1	33.3	24.1	35.5	24.1	36.9	23.6

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 130: ARNU423BGA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	54.2	33.0
25	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	54.2	33.0
30	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	54.2	33.0
35	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	54.2	33.0
40	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	54.2	33.0
45	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	54.2	33.0
50	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	54.2	33.0
55	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	54.2	33.1
60	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	53.8	32.9
65	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	52.9	32.4
70	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	52.1	31.9
75	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	50.0	33.1	50.8	31.1
80	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	47.0	33.4	48.7	32.9	49.6	31.0
85	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	46.6	33.1	47.0	31.4	47.9	29.8
90	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	45.8	32.5	46.2	31.0	47.0	29.3
95	27.7	23.9	33.6	27.4	37.8	29.3	**42.0**	**31.1**	44.9	32.3	45.8	30.8	46.6	29.1
100	27.7	23.9	33.6	27.4	37.8	29.3	42.0	31.1	44.1	31.8	44.9	30.5	45.8	28.8
105	27.7	23.9	31.9	26.0	36.1	28.0	40.3	29.8	41.2	29.8	43.3	29.4	44.1	28.2
110	26.9	23.1	30.2	24.7	33.6	26.0	37.8	28.0	38.6	28.0	41.2	28.0	42.8	27.4

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 131: ARNU283BRA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	36.2	23.5
25	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	36.2	23.5
30	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	36.2	23.5
35	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	36.2	23.5
40	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	36.2	23.5
45	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	36.2	23.5
50	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	36.2	23.5
55	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	36.2	23.5
60	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	35.8	23.4
65	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	35.2	23.0
70	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	34.8	22.6
75	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	33.4	23.5	33.8	22.1
80	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.4	23.8	32.4	23.4	33.0	22.0
85	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	31.0	23.5	31.4	22.4	32.0	21.2
90	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	30.6	23.1	30.8	22.0	31.4	20.9
95	18.4	16.9	22.4	19.5	25.2	20.8	**28.0**	**22.1**	30.0	23.0	30.6	21.9	31.0	20.7
100	18.4	16.9	22.4	19.5	25.2	20.8	28.0	22.1	29.4	22.6	30.0	21.7	30.6	20.5
105	18.4	16.9	21.2	18.5	24.0	19.9	26.8	21.2	27.4	21.2	28.8	20.9	29.4	20.0
110	18.0	16.4	20.2	17.5	22.4	18.5	25.2	19.9	25.8	19.9	27.4	19.9	28.6	19.4

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 132: ARNU363BRA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	46.8	30.4
25	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	46.8	30.4
30	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	46.8	30.4
35	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	46.8	30.4
40	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	46.8	30.4
45	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	46.8	30.4
50	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	46.8	30.4
55	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	46.8	30.4
60	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	46.3	30.3
65	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	45.6	29.8
70	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	44.9	29.3
75	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	43.1	30.4	43.7	28.7
80	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.6	30.8	41.9	30.3	42.7	28.5
85	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	40.1	30.4	40.6	29.0	41.3	27.4
90	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	39.5	30.0	39.8	28.5	40.6	27.1
95	23.8	21.9	29.0	25.3	32.6	26.9	**36.2**	**28.7**	38.8	29.8	39.5	28.4	40.1	26.7
100	23.8	21.9	29.0	25.3	32.6	26.9	36.2	28.7	38.0	29.3	38.8	28.0	39.5	26.6
105	23.8	21.9	27.5	24.0	31.1	25.8	34.7	27.4	35.4	27.4	37.3	27.1	38.0	25.9
110	23.2	21.3	26.1	22.7	29.0	24.0	32.6	25.8	33.3	25.8	35.4	25.8	37.0	25.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU483BRA2, ARNU543BRA2

Table 133: ARNU483BRA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	62.0	38.3
25	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	62.0	38.3
30	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	62.0	38.3
35	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	62.0	38.3
40	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	62.0	38.3
45	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	62.0	38.3
50	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	62.0	38.3
55	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	62.0	38.4
60	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	61.6	38.1
65	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	60.6	37.6
70	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	59.6	37.0
75	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	57.2	38.4	58.2	36.1
80	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.9	38.7	55.8	38.2	56.8	36.0
85	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	53.4	38.4	53.9	36.5	54.8	34.6
90	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	52.4	37.7	52.9	35.9	53.9	34.0
95	31.7	27.7	38.5	31.8	43.3	34.0	**48.1**	**36.1**	51.5	37.5	52.4	35.7	53.4	33.8
100	31.7	27.7	38.5	31.8	43.3	34.0	48.1	36.1	50.5	36.9	51.5	35.4	52.4	33.5
105	31.7	27.7	36.6	30.2	41.4	32.5	46.2	34.6	47.1	34.6	49.5	34.2	50.5	32.7
110	30.8	26.9	34.6	28.6	38.5	30.2	43.3	32.5	44.3	32.5	47.1	32.5	49.1	31.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 134: ARNU543BRA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	69.8	44.7
25	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	69.8	44.7
30	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	69.8	44.7
35	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	69.8	44.7
40	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	69.8	44.7
45	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	69.8	44.7
50	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	69.8	44.7
55	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	69.8	44.7
60	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	69.1	44.5
65	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	68.0	43.8
70	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	67.1	43.1
75	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	64.4	44.7	65.3	42.1
80	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	60.5	45.2	62.6	44.5	63.7	41.9
85	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	59.9	44.7	60.5	42.6	61.7	40.2
90	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	59.0	44.0	59.4	41.9	60.5	39.8
95	35.6	32.2	43.2	37.2	48.6	39.5	**54.0**	**42.1**	57.8	43.8	59.0	41.6	59.9	39.3
100	35.6	32.2	43.2	37.2	48.6	39.5	54.0	42.1	56.7	43.1	57.8	41.2	59.0	39.0
105	35.6	32.2	41.0	35.3	46.4	37.9	51.8	40.2	52.9	40.2	55.6	39.8	56.7	38.1
110	34.7	31.2	38.9	33.4	43.2	35.3	48.6	37.9	49.7	37.9	52.9	37.9	55.1	36.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 135: ARNU763B8A2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	98.6	56.8
25	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	98.6	56.8
30	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	98.6	56.8
35	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	98.6	56.8
40	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	98.6	56.8
45	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	98.6	56.8
50	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	98.6	56.8
55	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	98.6	56.9
60	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	97.8	56.5
65	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	96.3	55.7
70	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	94.7	54.8
75	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	90.9	57.0	92.4	53.6
80	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	85.6	57.4	88.6	56.6	90.2	53.3
85	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	84.8	56.9	85.6	54.1	87.1	51.3
90	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	83.3	55.9	84.0	53.3	85.6	50.5
95	50.4	41.1	61.1	47.2	68.8	50.4	**76.4**	**53.5**	81.7	55.6	83.3	52.9	84.8	50.1
100	50.4	41.1	61.1	47.2	68.8	50.4	76.4	53.5	80.2	54.8	81.7	52.5	83.3	49.6
105	50.4	41.1	58.1	44.8	65.7	48.1	73.3	51.3	74.9	51.3	78.7	50.7	80.2	48.5
110	48.9	39.8	55.0	42.5	61.1	44.8	68.8	48.1	70.3	48.2	74.9	48.2	77.9	47.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 136: ARNU963B8A2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	123.7	71.3
25	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	123.7	71.3
30	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	123.7	71.3
35	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	123.7	71.3
40	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	123.7	71.3
45	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	123.7	71.3
50	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	123.7	71.3
55	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	123.7	71.4
60	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	122.8	71.0
65	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	120.8	69.9
70	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	118.9	68.8
75	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	114.1	71.5	116.0	67.2
80	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	107.4	72.1	111.2	71.1	113.2	67.0
85	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	106.4	71.4	107.4	67.9	109.3	64.4
90	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	104.5	70.2	105.5	66.9	107.4	63.3
95	63.3	51.5	76.7	59.2	86.3	63.3	**95.9**	**67.1**	102.6	69.8	104.5	66.5	106.4	62.9
100	63.3	51.5	76.7	59.2	86.3	63.3	95.9	67.1	100.7	68.8	102.6	65.9	104.5	62.3
105	63.3	51.5	72.9	56.3	82.5	60.4	92.1	64.4	94.0	64.4	98.8	63.6	100.7	60.8
110	61.4	50.0	69.0	53.3	76.7	56.2	86.3	60.4	88.2	60.5	94.0	60.5	97.8	59.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU073BHA2, ARNU093BHA2, ARNU123BHA2

Table 137: ARNU073BHA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	5.7	5.7	5.7	5.7	5.6	5.6	5.6	5.6
0	-0.4	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8
5.0	4.5	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5
10.0	9.0	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8
15.0	14.0	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.1
20.0	19.0	7.7	7.7	7.7	7.7	7.5	7.5	7.4	7.3
25.0	23.0	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.7
30.0	28.0	8.2	8.2	8.2	8.2	8.2	8.1	7.8	7.6
35.0	32.0	8.5	8.5	8.5	8.5	8.4	8.2	7.8	7.4
40.0	36.0	8.8	8.8	8.8	8.8	8.5	8.2	7.8	7.4
45.0	41.0	9.2	9.2	9.2	8.9	8.5	8.2	7.8	7.4
47.0	43.0	9.5	9.4	9.4	8.9	**8.5**	8.2	7.8	7.4
50.0	46.0	10.2	9.8	9.4	8.9	8.5	8.2	7.8	7.4
55.0	51.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4
60.0	56.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4

TC: Total Capacity (MBh)

Table 138: ARNU093BHA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0	-0.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
5.0	4.5	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.3
10.0	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
15.0	14.0	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.2
20.0	19.0	9.9	9.9	9.9	9.9	9.7	9.7	9.5	9.4
25.0	23.0	10.4	10.4	10.4	10.4	10.4	10.1	10.0	9.9
30.0	28.0	10.6	10.6	10.6	10.6	10.6	10.4	10.0	9.7
35.0	32.0	10.9	10.9	10.9	10.9	10.8	10.6	10.0	9.5
40.0	36.0	11.3	11.3	11.3	11.3	10.9	10.6	10.0	9.5
45.0	41.0	11.8	11.8	11.8	11.4	10.9	10.6	10.0	9.5
47.0	43.0	12.2	12.1	12.0	11.4	**10.9**	10.6	10.0	9.5
50.0	46.0	13.1	12.5	12.0	11.4	10.9	10.6	10.0	9.5
55.0	51.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5
60.0	56.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5

TC: Total Capacity (MBh)

Table 139: ARNU123BHA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
0	-0.4	9.4	9.4	9.4	9.4	9.4	9.2	9.2	9.2
5.0	4.5	10.6	10.5	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9
15.0	14.0	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.4
20.0	19.0	12.4	12.4	12.4	12.4	12.1	12.1	11.9	11.7
25.0	23.0	12.9	12.9	12.9	12.9	12.9	12.6	12.5	12.4
30.0	28.0	13.2	13.2	13.2	13.2	13.2	12.9	12.5	12.1
35.0	32.0	13.6	13.6	13.6	13.6	13.5	13.2	12.5	11.9
40.0	36.0	14.1	14.1	14.1	14.1	13.6	13.2	12.5	11.9
45.0	41.0	14.7	14.7	14.7	14.3	13.6	13.2	12.5	11.9
47.0	43.0	15.2	15.1	15.0	14.3	**13.6**	13.2	12.5	11.9
50.0	46.0	16.4	15.6	15.0	14.3	13.6	13.2	12.5	11.9
55.0	51.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9
60.0	56.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9

TC: Total Capacity (MBh)

Table 140: ARNU153BHA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	11.5	11.5	11.5	11.5	11.3	11.3	11.3	11.3
0	-0.4	11.8	11.8	11.8	11.8	11.8	11.6	11.6	11.6
5.0	4.5	13.3	13.2	13.0	13.0	13.0	13.0	13.0	13.0
10.0	9.0	13.9	13.9	13.9	13.7	13.7	13.7	13.7	13.7
15.0	14.0	14.7	14.7	14.7	14.7	14.7	14.7	14.5	14.4
20.0	19.0	15.6	15.6	15.6	15.6	15.2	15.2	15.0	14.8
25.0	23.0	16.2	16.2	16.2	16.2	16.2	15.9	15.7	15.6
30.0	28.0	16.6	16.6	16.6	16.6	16.6	16.2	15.7	15.2
35.0	32.0	17.1	17.1	17.1	17.1	16.9	16.6	15.7	14.9
40.0	36.0	17.8	17.8	17.8	17.8	17.1	16.6	15.7	14.9
45.0	41.0	18.5	18.5	18.5	18.0	17.1	16.6	15.7	14.9
47.0	43.0	19.2	19.0	18.8	18.0	**17.1**	16.6	15.7	14.9
50.0	46.0	20.6	19.7	18.8	18.0	17.1	16.6	15.7	14.9
55.0	51.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9
60.0	56.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9

TC: Total Capacity (MBh)

Table 141: ARNU183BHA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

Table 142: ARNU243BHA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU153BGA2. ARNU183BGA2, ARNU243BGA2

Table 143: ARNU153BGA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	11.5	11.5	11.5	11.5	11.3	11.3	11.3	11.3
0	-0.4	11.8	11.8	11.8	11.8	11.8	11.6	11.6	11.6
5.0	4.5	13.3	13.2	13.0	13.0	13.0	13.0	13.0	13.0
10.0	9.0	13.9	13.9	13.9	13.7	13.7	13.7	13.7	13.7
15.0	14.0	14.7	14.7	14.7	14.7	14.7	14.7	14.5	14.4
20.0	19.0	15.6	15.6	15.6	15.6	15.2	15.2	15.0	14.8
25.0	23.0	16.2	16.2	16.2	16.2	16.2	15.9	15.7	15.6
30.0	28.0	16.6	16.6	16.6	16.6	16.6	16.2	15.7	15.2
35.0	32.0	17.1	17.1	17.1	17.1	16.9	16.6	15.7	14.9
40.0	36.0	17.8	17.8	17.8	17.8	17.1	16.6	15.7	14.9
45.0	41.0	18.5	18.5	18.5	18.0	17.1	16.6	15.7	14.9
47.0	43.0	19.2	19.0	18.8	18.0	**17.1**	16.6	15.7	14.9
50.0	46.0	20.6	19.7	18.8	18.0	17.1	16.6	15.7	14.9
55.0	51.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9
60.0	56.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9

TC: Total Capacity (MBh)

Table 144: ARNU183BGA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

Table 145: ARNU243BGA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

Table 146: ARNU283BGA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	21.1	21.1	21.1	21.1	20.8	20.8	20.8	20.8
0	-0.4	21.7	21.7	21.7	21.7	21.7	21.4	21.4	21.4
5.0	4.5	24.6	24.3	23.9	23.9	23.9	23.9	23.9	23.9
10.0	9.0	25.5	25.5	25.5	25.2	25.2	25.2	25.2	25.2
15.0	14.0	27.1	27.1	27.1	27.1	27.1	27.1	26.8	26.5
20.0	19.0	28.7	28.7	28.7	28.7	28.0	28.0	27.6	27.2
25.0	23.0	29.9	29.9	29.9	29.9	29.9	29.3	29.0	28.7
30.0	28.0	30.6	30.6	30.6	30.6	30.6	29.9	29.0	28.1
35.0	32.0	31.5	31.5	31.5	31.5	31.2	30.6	29.0	27.5
40.0	36.0	32.8	32.8	32.8	32.8	31.5	30.6	29.0	27.5
45.0	41.0	34.0	34.0	34.0	33.1	31.5	30.6	29.0	27.5
47.0	43.0	35.3	35.0	34.7	33.1	**31.5**	30.6	29.0	27.5
50.0	46.0	37.9	36.2	34.7	33.1	31.5	30.6	29.0	27.5
55.0	51.0	38.5	36.5	34.7	33.1	31.5	30.6	29.0	27.5
60.0	56.0	38.5	36.5	34.7	33.1	31.5	30.6	29.0	27.5

TC: Total Capacity (MBh)

Table 147: ARNU363BGA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	27.2	27.2	27.2	27.2	26.8	26.8	26.8	26.8
0	-0.4	28.0	28.0	28.0	28.0	28.0	27.6	27.6	27.6
5.0	4.5	31.7	31.3	30.9	30.9	30.9	30.9	30.9	30.9
10.0	9.0	32.9	32.9	32.9	32.5	32.5	32.5	32.5	32.5
15.0	14.0	34.9	34.9	34.9	34.9	34.9	34.9	34.5	34.1
20.0	19.0	36.9	36.9	36.9	36.9	36.0	36.0	35.5	35.0
25.0	23.0	38.6	38.6	38.6	38.6	38.6	37.8	37.4	37.0
30.0	28.0	39.4	39.4	39.4	39.4	39.4	38.6	37.4	36.2
35.0	32.0	40.6	40.6	40.6	40.6	40.2	39.4	37.4	35.4
40.0	36.0	42.2	42.2	42.2	42.2	40.6	39.4	37.4	35.4
45.0	41.0	43.8	43.8	43.8	42.6	40.6	39.4	37.4	35.4
47.0	43.0	45.5	45.1	44.7	42.6	**40.6**	39.4	37.4	35.4
50.0	46.0	48.8	46.7	44.7	42.6	40.6	39.4	37.4	35.4
55.0	51.0	49.7	47.1	44.7	42.6	40.6	39.4	37.4	35.4
60.0	56.0	49.7	47.1	44.7	42.6	40.6	39.4	37.4	35.4

TC: Total Capacity (MBh)

Table 148: ARNU423BGA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	29.3	29.3	29.3	29.3	28.9	28.9	28.9	28.9
0	-0.4	30.2	30.2	30.2	30.2	30.2	29.8	29.8	29.8
5.0	4.5	34.2	33.7	33.3	33.3	33.3	33.3	33.3	33.3
10.0	9.0	35.5	35.5	35.5	35.0	35.0	35.0	35.0	35.0
15.0	14.0	37.7	37.7	37.7	37.7	37.7	37.7	37.2	36.8
20.0	19.0	39.9	39.9	39.9	39.9	38.9	38.9	38.3	37.8
25.0	23.0	41.6	41.6	41.6	41.6	41.6	40.7	40.3	39.9
30.0	28.0	42.5	42.5	42.5	42.5	42.5	41.6	40.3	39.0
35.0	32.0	43.8	43.8	43.8	43.8	43.4	42.5	40.3	38.2
40.0	36.0	45.6	45.6	45.6	45.6	43.8	42.5	40.3	38.2
45.0	41.0	47.3	47.3	47.3	46.0	43.8	42.5	40.3	38.2
47.0	43.0	49.1	48.6	48.2	46.0	**43.8**	42.5	40.3	38.2
50.0	46.0	52.7	50.4	48.2	46.0	43.8	42.5	40.3	38.2
55.0	51.0	53.6	50.8	48.2	46.0	43.8	42.5	40.3	38.2
60.0	56.0	53.6	50.8	48.2	46.0	43.8	42.5	40.3	38.2

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU283BRA2, ARNU363BRA2

Table 149: ARNU283BRA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	21.1	21.1	21.1	21.1	20.8	20.8	20.8	20.8
0	-0.4	21.7	21.7	21.7	21.7	21.7	21.4	21.4	21.4
5.0	4.5	24.6	24.3	23.9	23.9	23.9	23.9	23.9	23.9
10.0	9.0	25.5	25.5	25.5	25.2	25.2	25.2	25.2	25.2
15.0	14.0	27.1	27.1	27.1	27.1	27.1	27.1	26.8	26.5
20.0	19.0	28.7	28.7	28.7	28.7	28.0	28.0	27.6	27.2
25.0	23.0	29.9	29.9	29.9	29.9	29.9	29.3	29.0	28.7
30.0	28.0	30.6	30.6	30.6	30.6	30.6	29.9	29.0	28.0
35.0	32.0	31.5	31.5	31.5	31.5	31.2	30.6	29.0	27.6
40.0	36.0	32.8	32.8	32.8	32.8	31.5	30.6	29.0	27.6
45.0	41.0	34.0	34.0	34.0	33.1	31.5	30.6	29.0	27.6
47.0	43.0	35.3	35.0	34.7	33.1	**31.5**	30.6	29.0	27.6
50.0	46.0	37.8	36.2	34.7	33.1	31.5	30.6	29.0	27.6
55.0	51.0	38.6	36.5	34.7	33.1	31.5	30.6	29.0	27.6
60.0	56.0	38.6	36.5	34.7	33.1	31.5	30.6	29.0	27.6

TC: Total Capacity (MBh)

Table 150: ARNU363BRA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	27.2	27.2	27.2	27.2	26.8	26.8	26.8	26.8
0	-0.4	28.0	28.0	28.0	28.0	28.0	27.6	27.6	27.6
5.0	4.5	31.7	31.3	30.9	30.9	30.9	30.9	30.9	30.9
10.0	9.0	32.9	32.9	32.9	32.5	32.5	32.5	32.5	32.5
15.0	14.0	34.9	34.9	34.9	34.9	34.9	34.9	34.5	34.1
20.0	19.0	36.9	36.9	36.9	36.9	36.1	36.1	35.5	35.1
25.0	23.0	38.6	38.6	38.6	38.6	38.6	37.8	37.4	36.9
30.0	28.0	39.4	39.4	39.4	39.4	39.4	38.6	37.4	36.1
35.0	32.0	40.6	40.6	40.6	40.6	40.2	39.4	37.4	35.5
40.0	36.0	42.2	42.2	42.2	42.2	40.6	39.4	37.4	35.5
45.0	41.0	43.8	43.8	43.8	42.6	40.6	39.4	37.4	35.5
47.0	43.0	45.5	45.1	44.7	42.6	**40.6**	39.4	37.4	35.5
50.0	46.0	48.7	46.7	44.7	42.6	40.6	39.4	37.4	35.5
55.0	51.0	49.7	47.1	44.7	42.6	40.6	39.4	37.4	35.5
60.0	56.0	49.7	47.1	44.7	42.6	40.6	39.4	37.4	35.5

TC: Total Capacity (MBh)

Table 151: ARNU483BRA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	34.3	34.3	34.3	34.3	33.8	33.8	33.8	33.8
0	-0.4	35.3	35.3	35.3	35.3	35.3	34.8	34.8	34.8
5.0	4.5	39.9	39.4	38.9	38.9	38.9	38.9	38.9	38.9
10.0	9.0	41.5	41.5	41.5	41.0	41.0	41.0	41.0	41.0
15.0	14.0	44.0	44.0	44.0	44.0	44.0	44.0	43.5	43.0
20.0	19.0	46.6	46.6	46.6	46.6	45.4	45.4	44.8	44.2
25.0	23.0	48.6	48.6	48.6	48.6	48.6	47.6	47.1	46.6
30.0	28.0	49.7	49.7	49.7	49.7	49.7	48.6	47.1	45.6
35.0	32.0	51.2	51.2	51.2	51.2	50.7	49.7	47.1	44.7
40.0	36.0	53.2	53.2	53.2	53.2	51.2	49.7	47.1	44.7
45.0	41.0	55.3	55.3	55.3	53.8	51.2	49.7	47.1	44.7
47.0	43.0	57.3	56.8	56.3	53.8	**51.2**	49.7	47.1	44.7
50.0	46.0	61.6	58.9	56.3	53.8	51.2	49.7	47.1	44.7
55.0	51.0	62.6	59.4	56.3	53.8	51.2	49.7	47.1	44.7
60.0	56.0	62.6	59.4	56.3	53.8	51.2	49.7	47.1	44.7

TC: Total Capacity (MBh)

Table 152: ARNU543BRA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	41.1	41.1	41.1	41.1	40.5	40.5	40.5	40.5
0	-0.4	42.4	42.4	42.4	42.4	42.4	41.8	41.8	41.8
5.0	4.5	47.9	47.3	46.7	46.7	46.7	46.7	46.7	46.7
10.0	9.0	49.7	49.7	49.7	49.1	49.1	49.1	49.1	49.1
15.0	14.0	52.8	52.8	52.8	52.8	52.8	52.8	52.2	51.6
20.0	19.0	55.9	55.9	55.9	55.9	54.6	54.6	53.7	53.1
25.0	23.0	58.3	58.3	58.3	58.3	58.3	57.1	56.5	55.9
30.0	28.0	59.6	59.6	59.6	59.6	59.6	58.3	56.5	54.6
35.0	32.0	61.4	61.4	61.4	61.4	60.8	59.6	56.5	53.7
40.0	36.0	63.9	63.9	63.9	63.9	61.4	59.6	56.5	53.7
45.0	41.0	66.3	66.3	66.3	64.5	61.4	59.6	56.5	53.7
47.0	43.0	68.8	68.2	67.5	64.5	**61.4**	59.6	56.5	53.7
50.0	46.0	73.7	70.6	67.5	64.5	61.4	59.6	56.5	53.7
55.0	51.0	75.2	71.2	67.5	64.5	61.4	59.6	56.5	53.7
60.0	56.0	75.2	71.2	67.5	64.5	61.4	59.6	56.5	53.7

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU763B8A2, ARNU963B8A2

Table 153: ARNU763B8A2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	57.6	57.6	57.6	57.6	56.8	56.8	56.8	56.8
0	-0.4	59.3	59.3	59.3	59.3	59.3	58.5	58.5	58.5
5.0	4.5	67.1	66.2	65.4	65.4	65.4	65.4	65.4	65.4
10.0	9.0	69.7	69.7	69.7	68.8	68.8	68.8	68.8	68.8
15.0	14.0	74.0	74.0	74.0	74.0	74.0	74.0	73.1	72.3
20.0	19.0	78.3	78.3	78.3	78.3	76.3	76.3	75.3	74.2
25.0	23.0	81.7	81.7	81.7	81.7	81.7	80.0	79.1	78.3
30.0	28.0	83.4	83.4	83.4	83.4	83.4	81.7	79.1	76.6
35.0	32.0	86.0	86.0	86.0	86.0	85.1	83.4	79.1	75.0
40.0	36.0	89.4	89.4	89.4	89.4	86.0	83.4	79.1	75.0
45.0	41.0	92.9	92.9	92.9	90.3	86.0	83.4	79.1	75.0
47.0	43.0	96.3	95.5	94.6	90.3	**86.0**	83.4	79.1	75.0
50.0	46.0	103.4	98.9	94.6	90.3	86.0	83.4	79.1	75.0
55.0	51.0	105.2	99.8	94.6	90.3	86.0	83.4	79.1	75.0
60.0	56.0	105.2	99.8	94.6	90.3	86.0	83.4	79.1	75.0

TC: Total Capacity (MBh)

Table 154: ARNU963B8A2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	72.0	72.0	72.0	72.0	71.0	71.0	71.0	71.0
0	-0.4	74.2	74.2	74.2	74.2	74.2	73.1	73.1	73.1
5.0	4.5	83.9	82.8	81.7	81.7	81.7	81.7	81.7	81.7
10.0	9.0	87.1	87.1	87.1	86.0	86.0	86.0	86.0	86.0
15.0	14.0	92.5	92.5	92.5	92.5	92.5	92.5	91.4	90.3
20.0	19.0	97.8	97.8	97.8	97.8	95.4	95.4	94.1	92.7
25.0	23.0	102.1	102.1	102.1	102.1	102.1	100.0	98.9	97.8
30.0	28.0	104.3	104.3	104.3	104.3	104.3	102.1	98.9	95.8
35.0	32.0	107.5	107.5	107.5	107.5	106.4	104.3	98.9	93.8
40.0	36.0	111.8	111.8	111.8	111.8	107.5	104.3	98.9	93.8
45.0	41.0	116.1	116.1	116.1	112.9	107.5	104.3	98.9	93.8
47.0	43.0	120.4	119.3	118.3	112.9	**107.5**	104.3	98.9	93.8
50.0	46.0	129.2	123.6	118.3	112.9	107.5	104.3	98.9	93.8
55.0	51.0	131.5	124.7	118.3	112.9	107.5	104.3	98.9	93.8
60.0	56.0	131.5	124.7	118.3	112.9	107.5	104.3	98.9	93.8

TC: Total Capacity (MBh)

EXTERNAL STATIC PRESSURE & AIR FLOW

BH, BG, BR, B8 Chassis

Table 155: BH Chassis External Static Pressure & Air Flow

Setting Value	Static Pressure (in wg)								
	0.12	0.15	0.19	0.23	0.27	0.31	0.35	0.39	0.47
70	144	-	-	-	-	-	-	-	-
80	268	-	-	-	-	-	-	-	-
90	377	286	222	173	-	-	-	-	-
100	473	395	339	264	141	-	-	-	-
110	561	466	444	363	271	194	-	-	-
120	656	572	536	452	392	321	236	187	-
130	699	663	635	540	501	437	367	310	201
140	787	745	716	625	603	547	483	444	342
145	819	784	755	674	649	596	540	487	416
150	858	815	787	745	699	646	593	536	459

Table 156: BG Chassis External Static Pressure & Air Flow

Setting Value	Static Pressure (in wg)								
	0.19	0.23	0.27	0.31	0.35	0.39	0.47	0.55	0.62
70	-	-	-	-	-	-	-	-	-
80	141	-	-	-	-	-	-	-	-
90	427	243	145	-	-	-	-	-	-
100	600	547	388	218	148	-	-	-	-
110	755	692	619	494	409	233	-	-	-
120	911	847	769	699	632	515	427	-	-
130	1059	1006	951	893	826	769	639	515	399
140	1271	1133	1073	1024	697	914	762	628	512
143	1324	1197	1133	1084	1017	960	812	709	593
150	1447	1342	1271	1218	1133	1063	928	791	642
160	1497	1469	1349	1274	1236	1221	1098	946	822

Table 157: BR Chassis External Static Pressure & Air Flow

Setting Value	Static Pressure (in wg)										
	0.19	0.23	0.31	0.39	0.47	0.55	0.59	0.62	0.66	0.70	0.78
91	1642	1543	1349	1105	819	494	317	130	-	-	-
96	1762	1628	1518	1183	1098	649	483	317	91	-	-
101	1839	1772	1691	1395	1320	964	889	628	314	215	-
106	1815	1808	1779	1568	1522	1176	1133	1020	741	632	293
111	1892	1896	1868	1762	1705	1433	1419	1158	1112	960	618
116	-	-	-	1967	1794	1582	1504	1416	1327	1147	974
121	-	-	-	-	1843	1794	1776	1613	1575	1370	1137
126	-	-	-	-	-	-	1921	1808	1779	1624	1536

Table 158: B8 Chassis External Static Pressure & Air Flow

Setting Value	Static Pressure (in wg)								
	0.23	0.35	0.47	0.59	0.71	0.79	0.86	0.90	0.98
60	1430	-	-	-	-	-	-	-	-
65	1861	-	-	-	-	-	-	-	-
70	2249	1663	-	-	-	-	-	-	-
75	2511	2009	1578	-	-	-	-	-	-
80	2694	2461	1949	-	-	--	-	-	-
85	2941	2775	2380	1974	-	-	-	-	-
91	3167	3076	2786	2387	1914	-	-	-	-
95	3298	3227	3040	2719	2345	1787	1059	-	-
100	3298	3227	3118	2998	2680	2454	2147	1522	-
105	3291	3224	3118	2998	2864	2733	2443	2398	1811

1. All static pressure air flow rates are listed in CFM.
2. The tables above show the correlation between air flow rates and external static pressure.
3. The tables above show the available external static pressure range.

⚠CAUTION

If the external static pressure of the installed indoor unit is less than the lowest value (as mentioned in the table), the indoor unit components can fail.

EXTERNAL STATIC PRESSURE RANGE

BH, BG Chassis

Table 159: BH Chassis External Static Pressure & Air Flow

Capacity (MBh)		Mode		Setting Value	Standard ESP (in wg)	CFM	Lower Limit of ESP (in wg)	Upper Limit of ESP (in wg)
ARNU073BHA2	7.5	High (factory set)	High	120	0.31	300	0.23	0.47
			Mid	117		265		
			Low	115		212		
		Standard	High	110	0.23	300	0.15	0.31
			Mid	107		283		
			Low	105		265		
ARNU093BHA2	9.6	High (factory set)	High	125	0.31	353	0.23	0.47
			Mid	120		300		
			Low	117		265		
		Standard	High	110	0.23	300	0.15	0.31
			Mid	107		283		
			Low	105		265		
ARNU123BHA2	12.3	High (factory set)	High	130	0.31	423	0.23	0.47
			Mid	125		353		
			Low	120		300		
		Standard	High	115	0.23	388	0.15	0.31
			Mid	110		300		
			Low	105		265		
ARNU153BHA2	15.4	High (factory set)	High	135	0.31	477	0.23	0.47
			Mid	130		424		
			Low	120		300		
		Standard	High	123	0.23	477	0.15	0.31
			Mid	120		424		
			Low	115		388		
ARNU183BHA2	19.1	High (factory set)	High	140	0.31	547	0.23	0.47
			Mid	135		477		
			Low	130		438		
		Standard	High	130	0.23	540	0.15	0.31
			Mid	125		480		
			Low	110		364		
ARNU243BHA2	24.2	High (factory set)	High	150	0.31	646	0.23	0.47
			Mid	145		597		
			Low	140		547		
		Standard	High	145	0.23	671	0.15	0.31
			Mid	135		579		
			Low	128		512		

Table 160: BG Chassis External Static Pressure & Air Flow

Capacity (MBh)		Mode		Setting Value	Standard ESP (in wg)	CFM	Lower Limit of ESP (in wg)	Upper Limit of ESP (in wg)
ARNU153BGA2	15.4	High (factory set)	High	112	0.31	487	0.31	0.62
			Mid	105		417		
			Low	98		293		
		Standard	High	103	0.23	477	0.23	0.39
			Mid	96		427		
			Low	89		318		
ARNU183BGA2	19.1	High (factory set)	High	113	0.31	537	0.31	0.62
			Mid	110		487		
			Low	105		417		
		Standard	High	107	0.23	547	0.23	0.39
			Mid	100		470		
			Low	93		427		
ARNU243BGA2	24.2	High (factory set)	High	120	0.31	671	0.31	0.62
			Mid	113		537		
			Low	106		487		
		Standard	High	112	0.23	671	0.23	0.39
			Mid	105		576		
			Low	97		547		

The tables above show the available E.S.P. range.

EXTERNAL STATIC PRESSURE RANGE

BG, BR, B8 Chassis

Table 161: BG Chassis External Static Pressure & Air Flow

Capacity (MBh)		Mode		Setting Value	Standard ESP (in wg)	CFM	Lower Limit of ESP (in wg)	Upper Limit of ESP (in wg)
ARNU283BGA2	28.0	High (factory set)	High	140	0.39	915	0.31	0.62
			Mid	136		851		
			Low	130		770		
		Standard	High	130	0.31	893	0.23	0.39
			Mid	124		770		
			Low	116		622		
ARNU363BGA2	36.2	High (factory set)	High	151	0.39	1,141	0.31	0.62
			Mid	145		1,024		
			Low	139		894		
		Standard	High	138	0.31	1,003	0.23	0.39
			Mid	130		894		
			Low	124		770		
ARNU423BGA2	42.0	High (factory set)	High	157	0.39	1,218	0.31	0.62
			Mid	154		1,141		
			Low	151		1,084		
		Standard	High	145	0.31	1,130	0.23	0.39
			Mid	138		1,003		
			Low	134		961		

Table 162: BR Chassis External Static Pressure & Air Flow

Capacity (MBh)		Mode		Setting Value	Standard ESP (in wg)	CFM	Lower Limit of ESP (in wg)	Upper Limit of ESP (in wg)
ARNU283BRA2	28.0	High (factory set)	High	108	0.55	1278	0.39	0.78
			Mid	105		1134		
			Low	102		1007		
		Standard	High	94	0.39	1151	0.27	0.55
			Mid	91		1105		
			Low	89		1074		
ARNU363BRA2	36.2	High (factory set)	High	110	0.55	1381	0.39	0.78
			Mid	106		1176		
			Low	103		1049		
		Standard	High	102	0.39	1430	0.27	0.55
			Mid	94		1151		
			Low	91		1105		
ARNU483BRA2	48.1	High (factory set)	High	116	0.55	1,582	0.39	0.78
			Mid	111		1,434		
			Low	106		1,176		
		Standard	High	106	0.39	1,568	0.27	0.55
			Mid	102		1,395		
			Low	95		1,183		
ARNU543BRA2	54.0	High (factory set)	High	121	0.55	1,801	0.39	0.78
			Mid	116		1,582		
			Low	111		1,434		
		Standard	High	112	0.39	1,819	0.27	0.55
			Mid	108		1,678		
			Low	102		1,395		

Table 163: B8 Chassis External Static Pressure & Air Flow

Capacity (MBh)		Mode		Setting Value	Standard ESP (in wg)	CFM	Lower Limit of ESP (in wg)	Upper Limit of ESP (in wg)
ARNU763B8A2	76.4	High (factory set)	High	102	0.86	2,119	0.47	0.98
			Mid	98		1,766		
			Low	98		1,766		
		Standard	High	86	0.59	2,260	0.47	0.98
			Mid	83		1,766		
			Low	83		1,766		
ARNU963B8A2	95.5	High (factory set)	High	105	0.86	2,542	0.47	0.98
			Mid	102		2,260		
			Low	102		2,260		
		Standard	High	94	0.59	2,684	0.47	0.98
			Mid	89		2,260		
			Low	89		2,260		

The tables above show the available E.S.P. range.

ELECTRICAL & ACOUSTIC DATA

BH, BG, BR, B8 Chassis

Electrical Data

Table 164: Ducted (High Static) Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU073BHA2	187-253	1.32	15	0.92	60	208-230	1	150	150
ARNU093BHA2		1.32		0.92				150	150
ARNU123BHA2		1.32		0.92				150	150
ARNU153BHA2		1.32		0.92				150	150
ARNU183BHA2		1.32		0.92				150	150
ARNU243BHA2		1.32		0.92				150	150
ARNU153BGA2		3.31		2.3				450	450
ARNU183BGA2		3.31		2.3				450	450
ARNU243BGA2		3.31		2.3				450	450
ARNU283BGA2		3.31		2.3				450	450
ARNU363BGA2		3.31		2.3				450	450
ARNU423BGA2		3.31		2.3				450	450
ARNU283BRA2		3.45		2.3				450	450
ARNU363BRA2		3.45		2.3				450	450
ARNU483BRA2		3.45		2.3				450	450
ARNU543BRA2		3.45		3.0				450	450
ARNU763B8A2		6.47		4.5				800	800
ARNU963B8A2		6.47		4.5				800	800

MCA : Minimum Circuit Ampacity MOP : Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 165: Ducted (High Static) Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU073BHA2	34	33	32
ARNU093BHA2	35	34	33
ARNU123BHA2	37	35	34
ARNU153BHA2	39	37	34
ARNU183BHA2	40	38	37
ARNU243BHA2	42	40	39
ARNU153BGA2	37	36	33
ARNU183BGA2	41	39	37
ARNU243BGA2	42	39	37
ARNU283BGA2	42	41	40
ARNU363BGA2	44	43	42
ARNU423BGA2	45	44	44
ARNU283BRA2	41	40	39
ARNU363BRA2	42	41	40
ARNU483BRA2	44	42	41
ARNU543BRA2	47	46	45
ARNU763B8A2	50	48	48
ARNU963B8A2	52	50	50

Figure 221: ARNU073BHA2

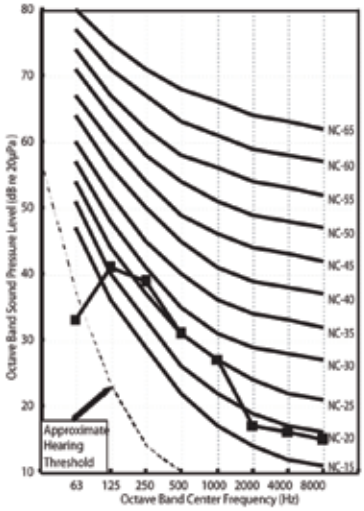


Figure 222: ARNU093BHA2

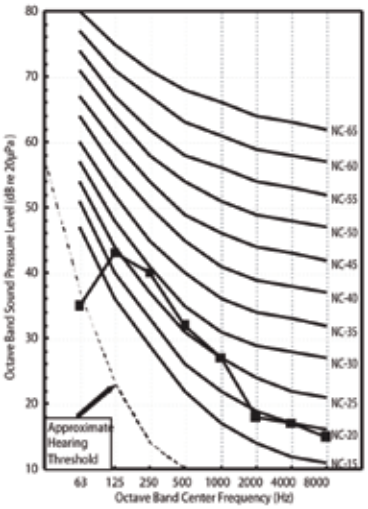


Figure 223: ARNU123BHA2

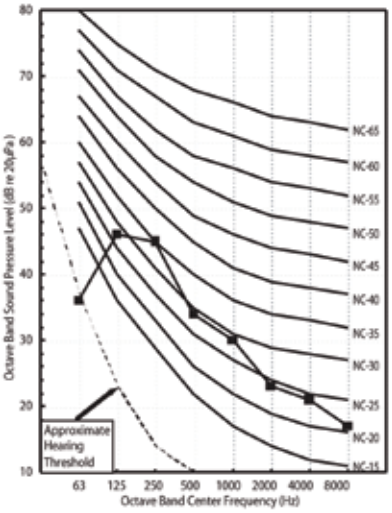


Figure 224: ARNU153BHA2

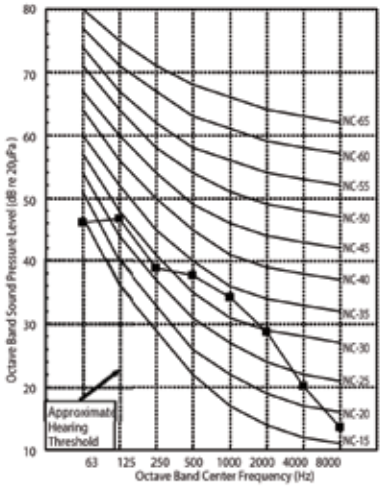


Figure 225: ARNU183BHA2

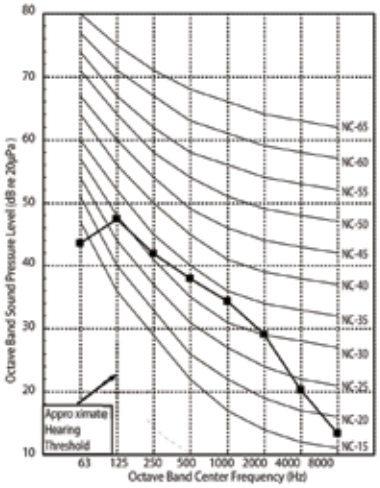


Figure 226: ARNU243BHA2

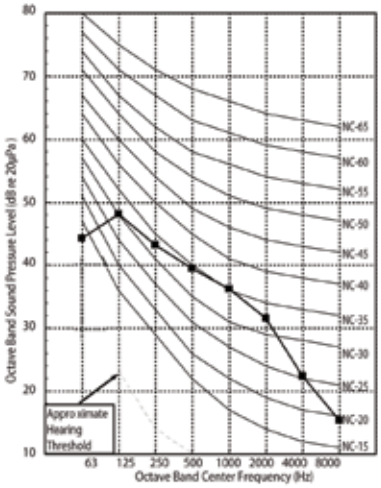


Figure 227: ARNU153BGA2

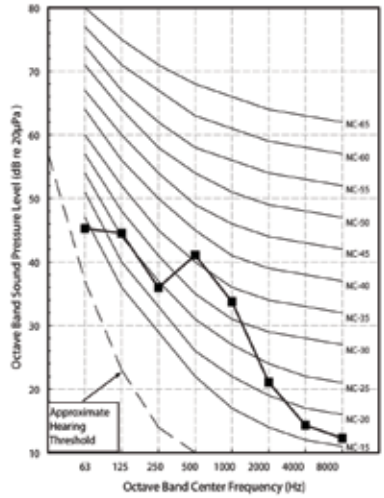


Figure 228: ARNU183BGA2

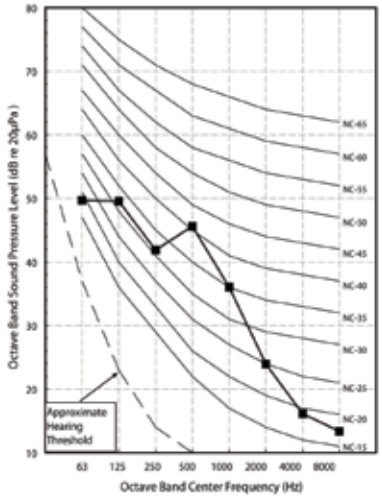
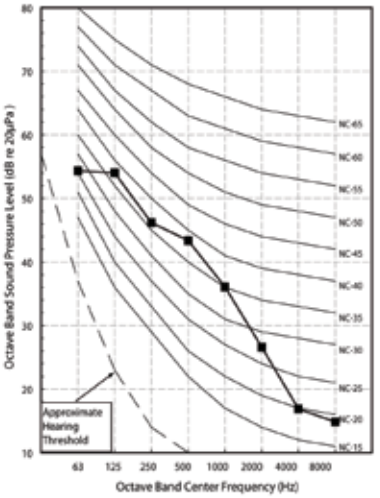


Figure 229: ARNU243BGA2



ACOUSTIC DATA

BG, BR, B8 Chassis

Figure 230: ARNU283BGA2

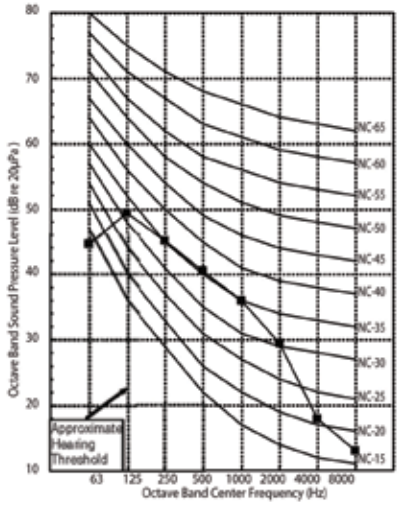


Figure 231: ARNU363BGA2

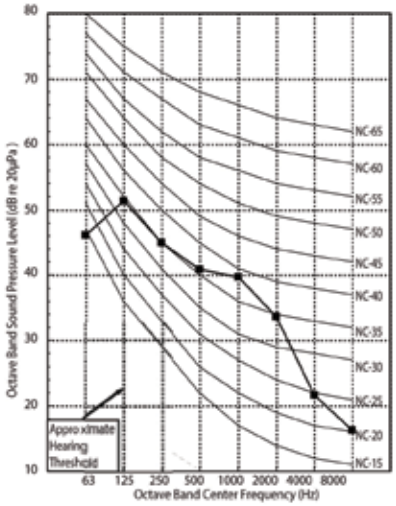


Figure 232: ARNU423BGA2

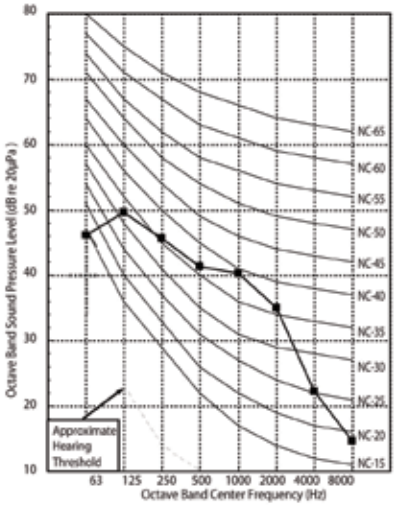


Figure 233: ARNU283BRA2

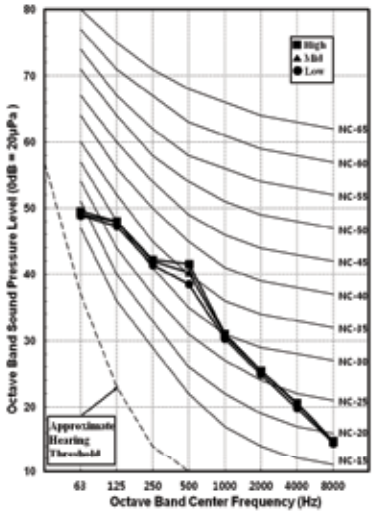


Figure 234: ARNU363BRA2

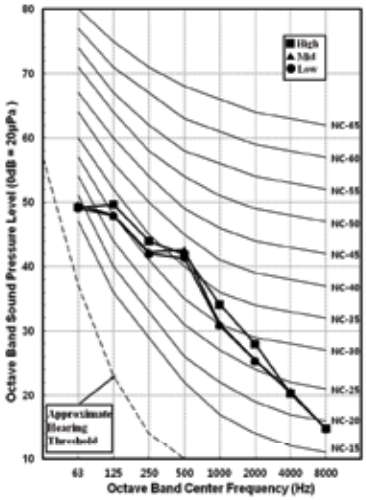


Figure 235: ARNU483BRA2

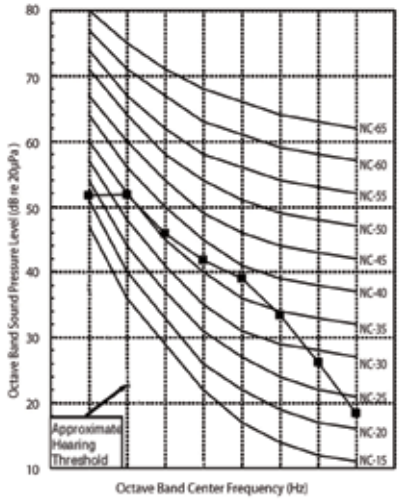


Figure 236: ARNU543BRA2

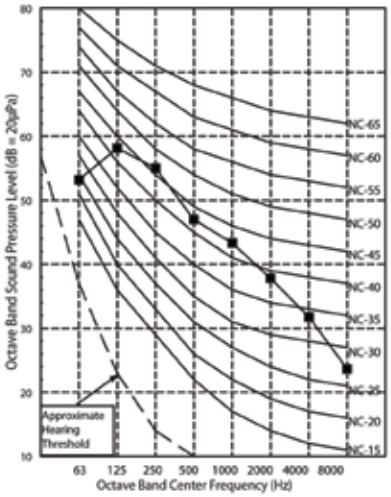


Figure 237: ARNU763B8A2

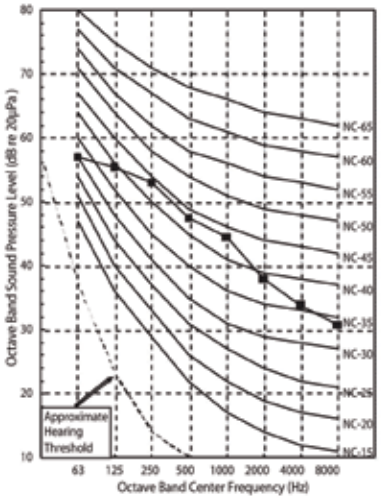
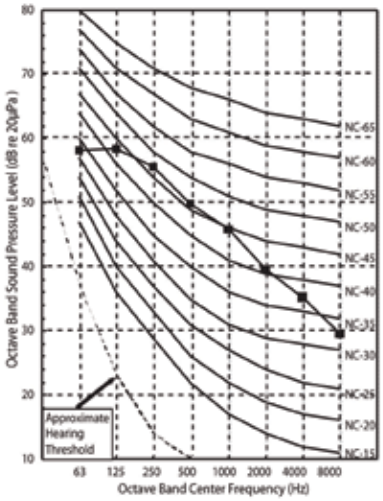


Figure 238:ARNU963B8A2



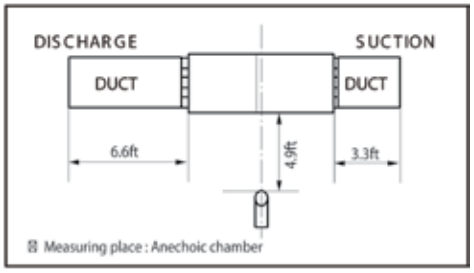
- Measurements are taken 4.9 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions:

- Power source: 220V/60 Hz

- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 239: Sound Levels



PIPING DIAGRAMS

BH, BG, BR Chassis

Figure 240: BH, BG, BR Chassis Piping Diagram

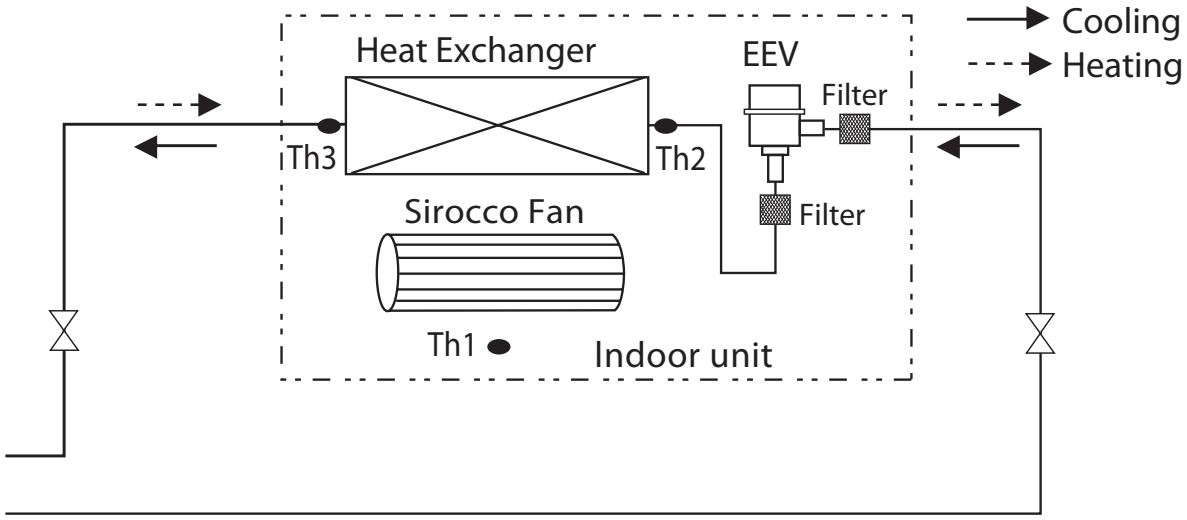


Table 166: BH, BG, BR Chassis Refrigerant Piping Connection Port Diameters

Model	Liquid (inch)	Gas (inch)
ARNU073BHA2	1/4	1/2
ARNU093BHA2	1/4	1/2
ARNU123BHA2	1/4	1/2
ARNU153BHA2	1/4	1/2
ARNU183BHA2	1/4	1/2
ARNU243BHA2	3/8	5/8
ARNU153BGA2	3/8	5/8
ARNU183BGA2	3/8	5/8
ARNU243BGA2	3/8	5/8
ARNU283BGA2	3/8	5/8
ARNU363BGA2	3/8	5/8
ARNU423BGA2	3/8	5/8
ARNU283BRA2	3/8	5/8
ARNU363BRA2	3/8	5/8
ARNU483BRA2	3/8	5/8
ARNU543BRA2	3/8	5/8

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

Figure 241: B8 Chassis Piping Diagram

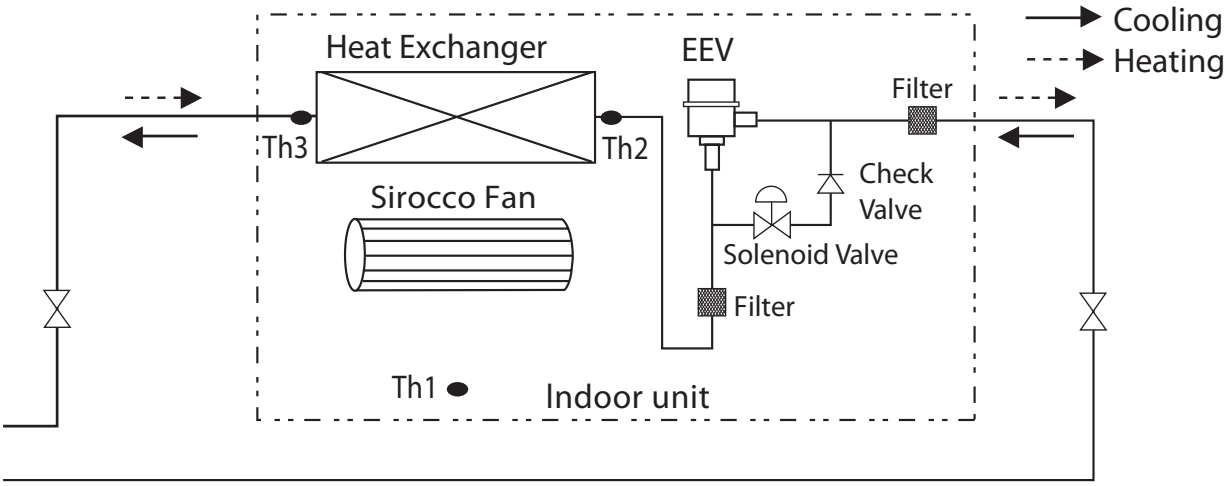


Table 167: B8 Chassis Refrigerant Piping Connection Port Diameters

Model	Liquid (inch)	Gas (inch)
ARNU763B8A2	3/8	3/4
ARNU963B8A2	3/8	7/8

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

WIRING DIAGRAMS

BH Chassis

Figure 242: BH Chassis Wiring Diagram

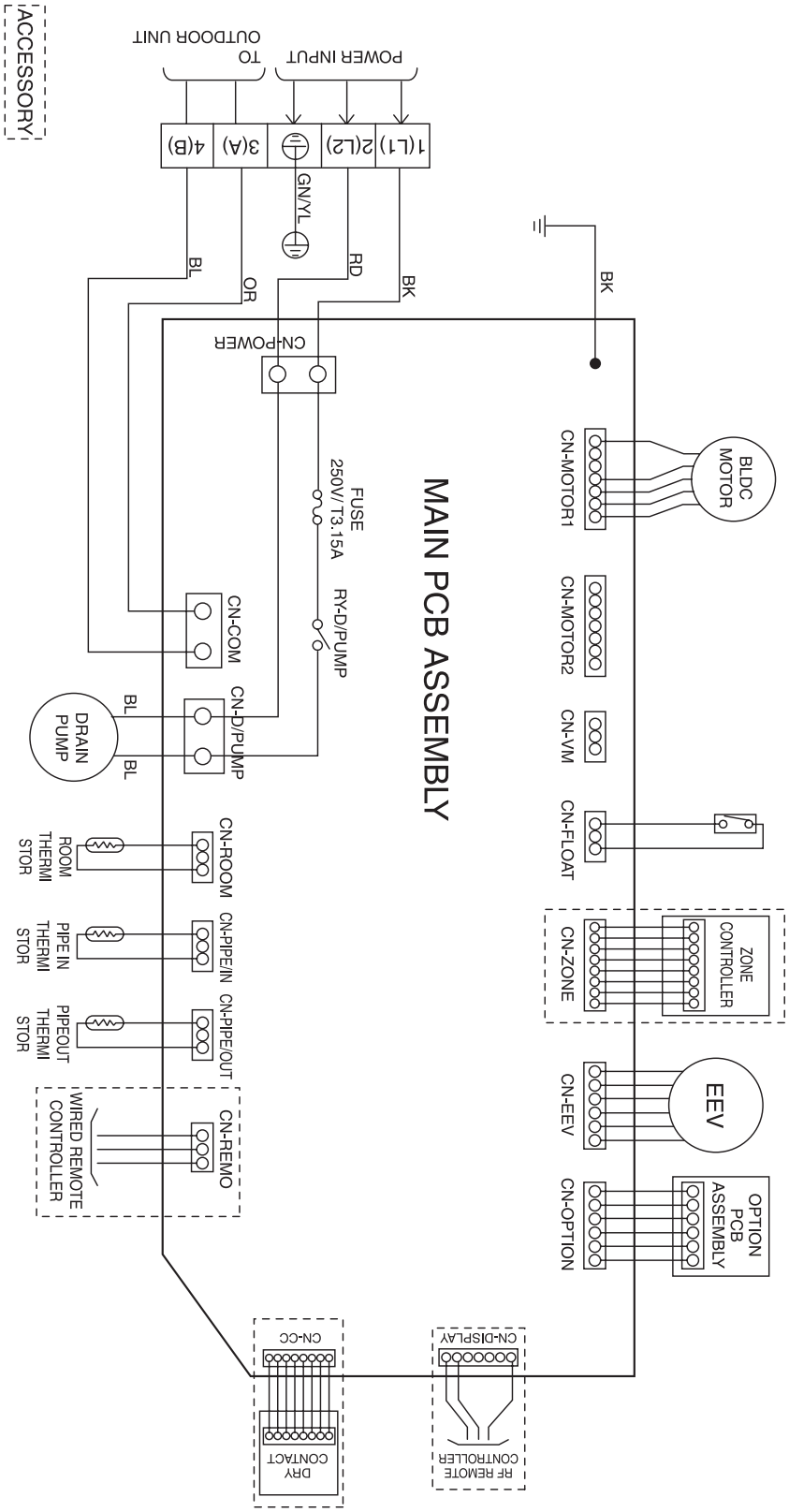


Table 168: BH Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV control output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-ZON	Zone Controller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	-OFF: Default (does not operate continuously) -ON: Fan operates continuously

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for other models.

WIRING DIAGRAMS

BG Chassis

Figure 243: BG Chassis Wiring Diagram

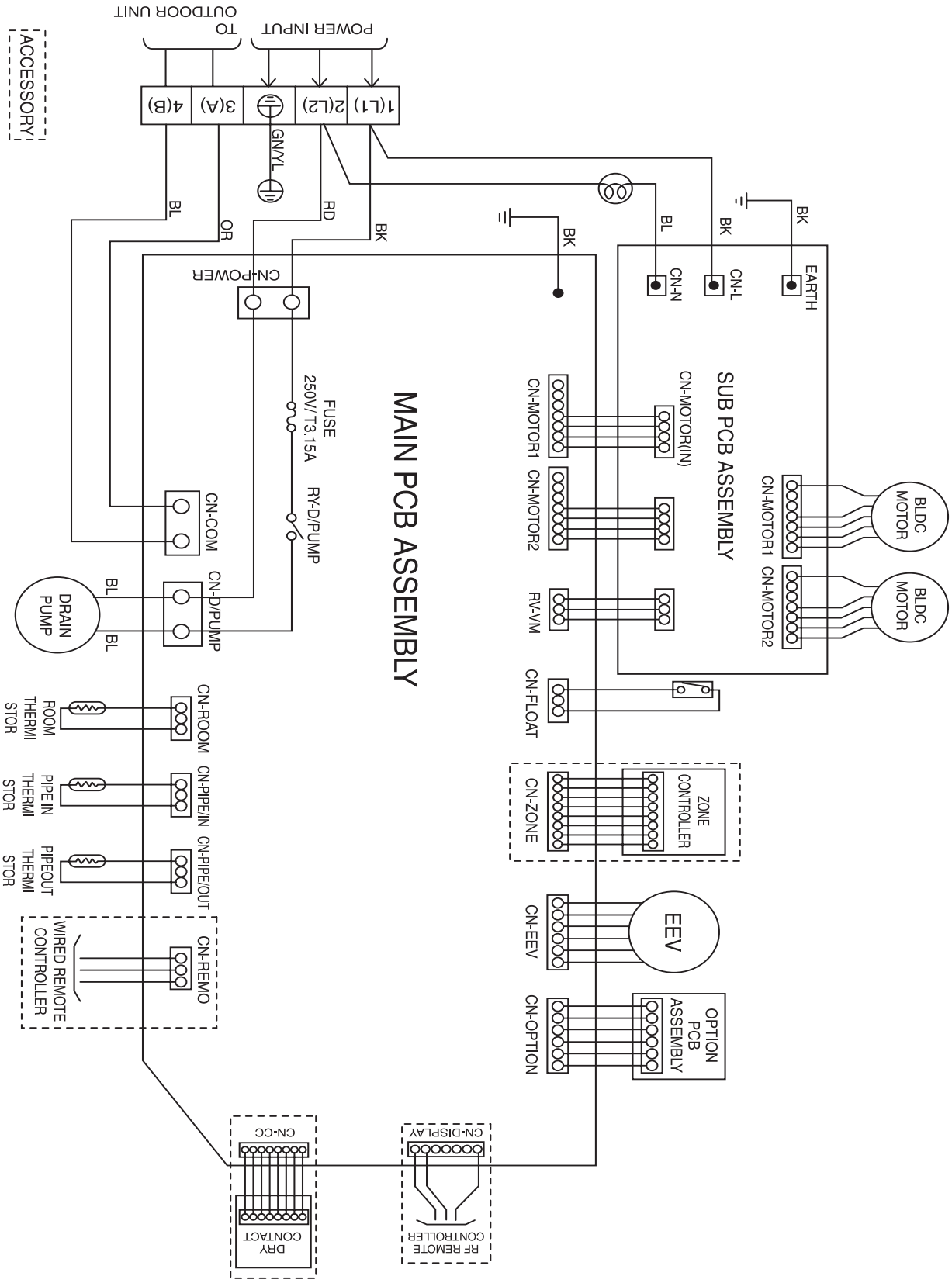


Table 169: BG Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV control output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-ZON	Zone Controller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	-OFF: Default (does not operate continuously) -ON: Fan operates continuously

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for other models.

WIRING DIAGRAMS

BR Chassis

Figure 244: BR Chassis Wiring Diagram

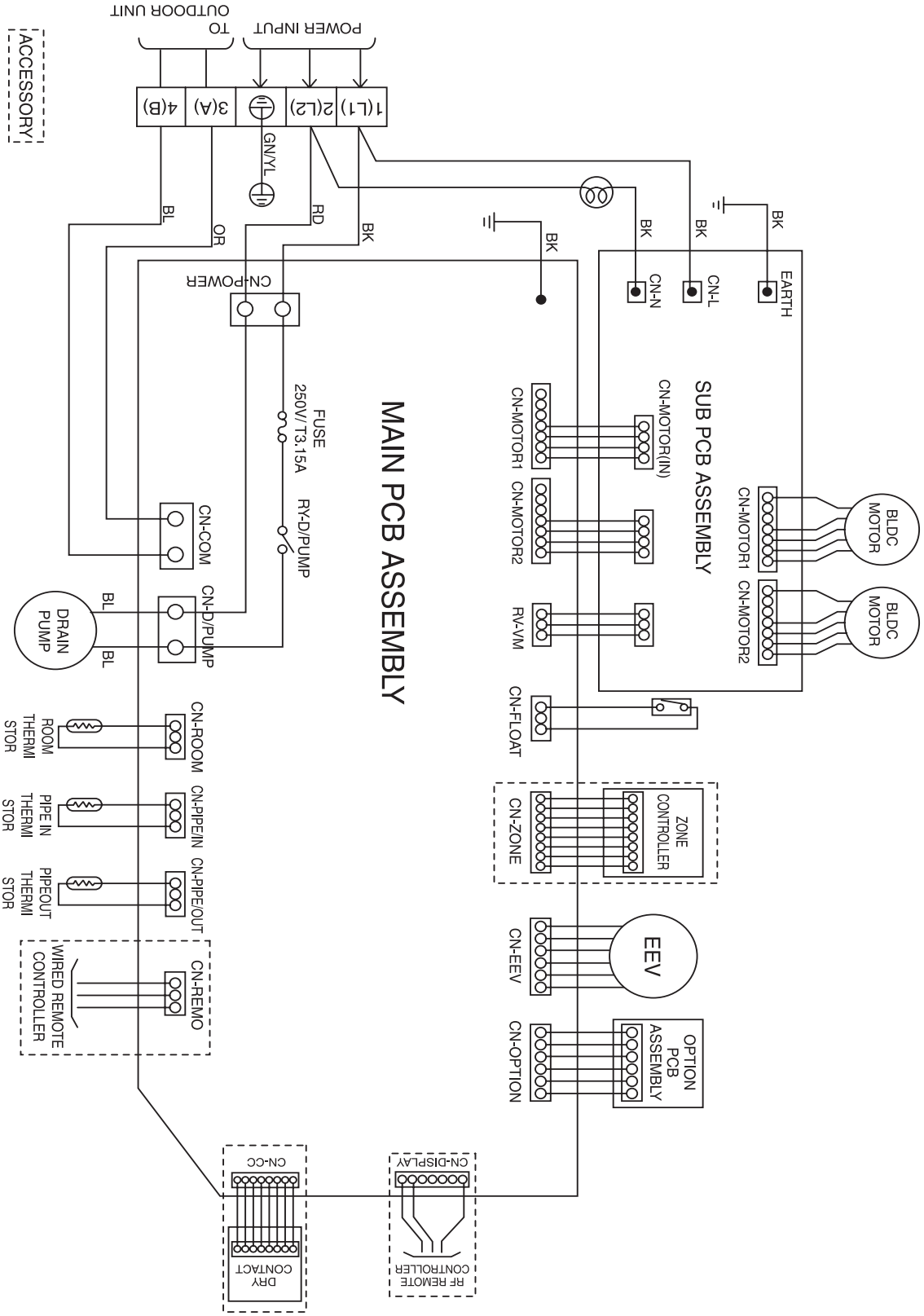


Table 170: BR Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV control output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-ZON	Zone Controller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	-OFF: Default (does not operate continuously) -ON: Fan operates continuously

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for other models.

WIRING DIAGRAMS

B8 Chassis

Figure 245: B8 Chassis Wiring Diagram

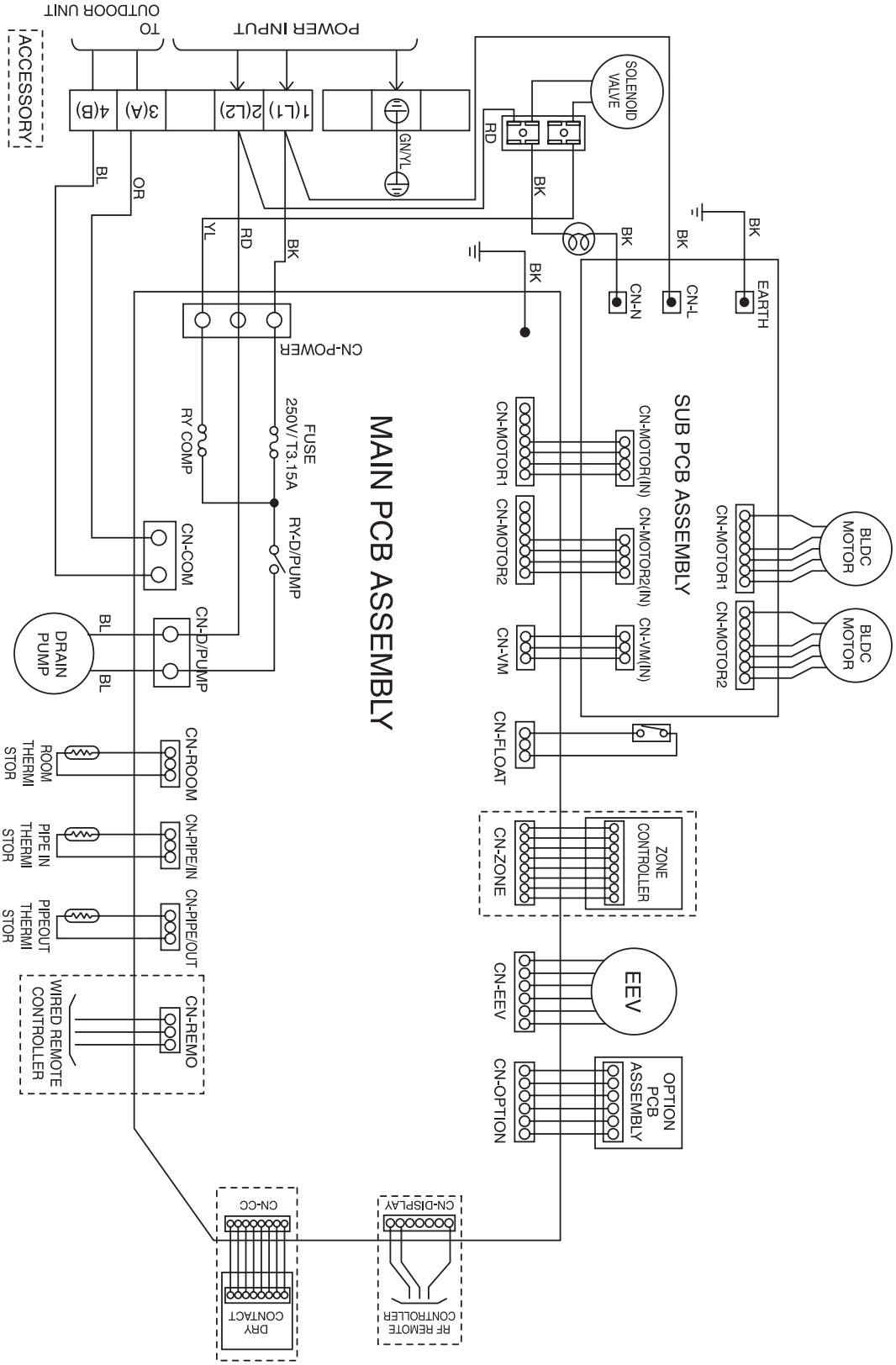


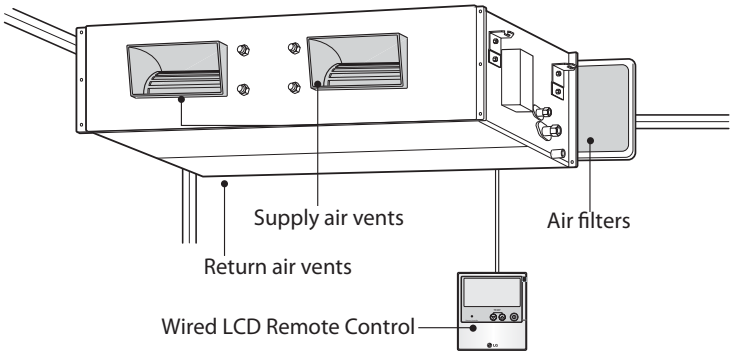
Table 171: B8 Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1, CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV control output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-DISPLAY	RF Remocon	RF Remocon receiver
CN-OPTION	Option PCB	Option PCB connector
CN-ZONE	Zone controller	Zone controller line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	-OFF: Default (does not operate continuously) -ON: Fan operates continuously

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for other models.

Figure 246: Unit Parts



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Torque wrenches
- Hexagonal wrench
- Gas-leak detector
- Thermometer

Required Parts

- Clamp metal
- Drain hose
- Fitting insulation
- Hanging bracket washers
- Tie wrap clamps

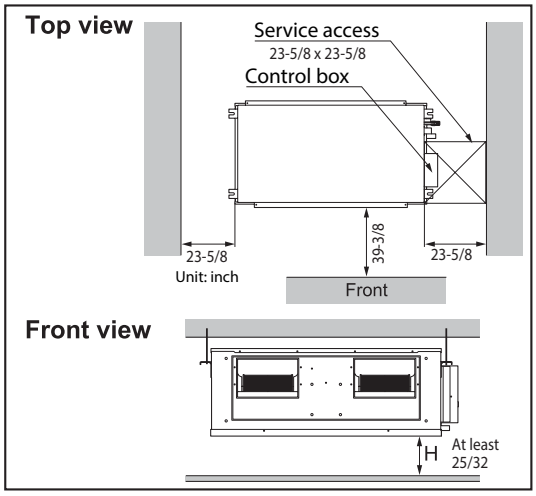
⚠WARNING

1. Please read all instructions before installing the product.

2. When the power cord is damaged, all replacement work must be performed by authorized personnel only.

3. Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.

Figure 247: Selecting the Best Location



Selecting the Best Location

Do's

- Select a place that can support a load four times the indoor unit weight.
- Select a place where the indoor unit will be level.
- Select a place that will allow easy water drainage.
- Select a place where the indoor unit can easily connect with the outdoor unit.
- Select a place where the indoor unit will not be affected by EMF from high voltage cables.
- Select a location where air circulation will not be blocked.
- The service access in the ceiling should be as wide as the indoor unit.
- The location of the service access should be approved by the customer.

Don'ts

- The unit should not be near a heat source or steam.
- The air circulation should not be blocked by obstacles.

⚠WARNING

If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

Suspension Bolt Position

- Refer to dimensions table below.
- Apply a joint-canvas between the unit and duct to absorb unnecessary vibration.
- Apply a filter accessory at the air return opening.
- Install the unit sloping towards the drainage point (as shown below) to ensure the water drains easily.

Table 172: BH, BG, BR Chassis Suspension Bolt Positions

Chassis	Dimensions (inch)								
	A	B	C	D	E	F	G	H	I
BH	36-11/16	34-11/16	13-5/8	1-3/4	17-3/4	1-3/16	3-5/8	29-1/2	6-1/4
BG	48-9/16	46-9/16	13-5/8	1-3/4	17-3/4	1-3/16	3-5/8	32-11/16	7-5/16
BR	50-7/16	48-7/16	18-13/16	2-1/4	23-1/4	1-3/16	4-11/16	39-5/8	11-9/16

Table 173: B8 Chassis Suspension Bolt Positions

Chassis	Dimensions (inch)											
	A	B	C	D	E	F	G	H	I	J	K	L
B8	63-27/32	61-5/8	22-27/32	11-1/2	27-3/8	55-1/8	18-1/8	44-3/16	66-5/32	15-3/8	17-9/16	5/8

Suspension Bolt Position

- Place where the unit will be level and can support the weight of the unit.
- Place where the unit can withstand vibration.
- Place where service can be easily performed.

Figure 248: BH, BG, BR Chassis Suspension Bolt Position

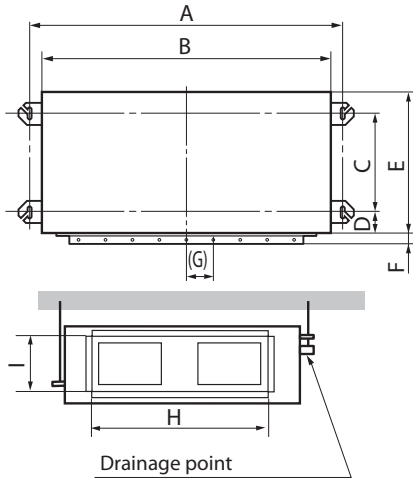


Figure 249: B8 Chassis Suspension Bolt Position

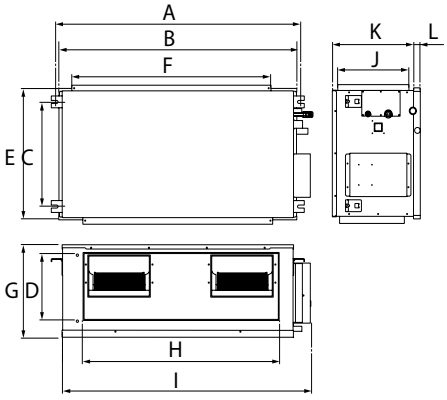
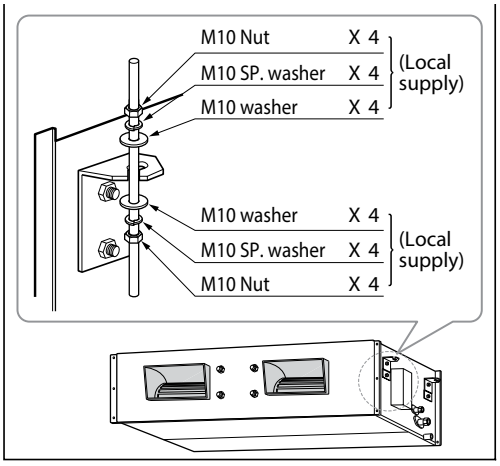


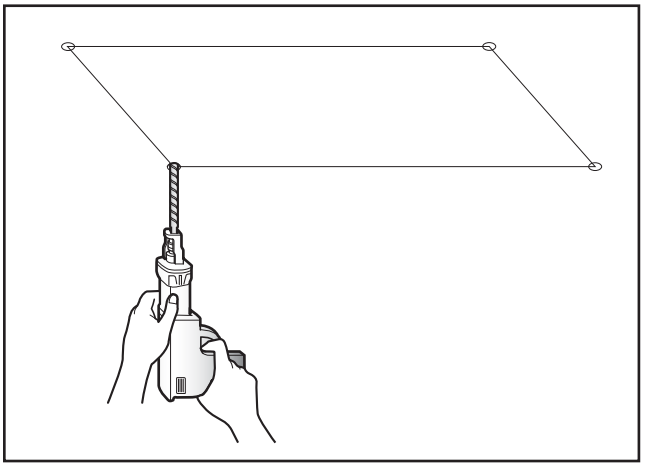
Figure 250: Suspension Bolt Position



Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing the unit where flammable gas is generated, flows, stored or vented.
- Avoid installing the unit where sulfurous acid gas or corrosive gas is generated.
- Avoid installing the unit near high frequency generators.

Figure 251: Fixing Bolt Position

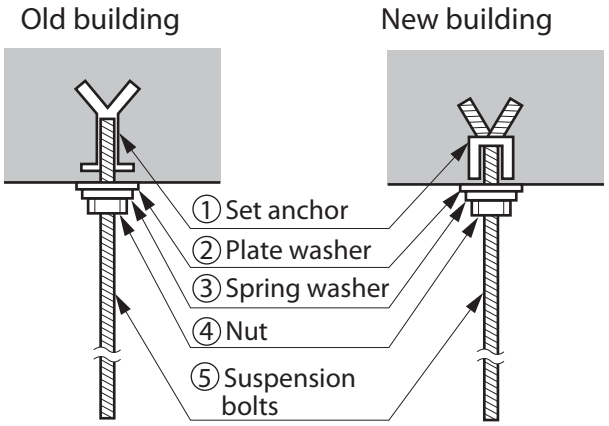


1. Insert the set anchor and washer into the suspension bolts on the ceiling.
2. Mount the suspension bolts to set the anchor firmly.
3. Secure the installation plates into the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
4. Select and mark the position for fixing bolts.
5. Drill the hole for set anchor on the face of the ceiling

⚠CAUTION

Tighten the nut and bolt to prevent the unit from falling.

Figure 252: Securing Suspension Rods



Clamping Cables

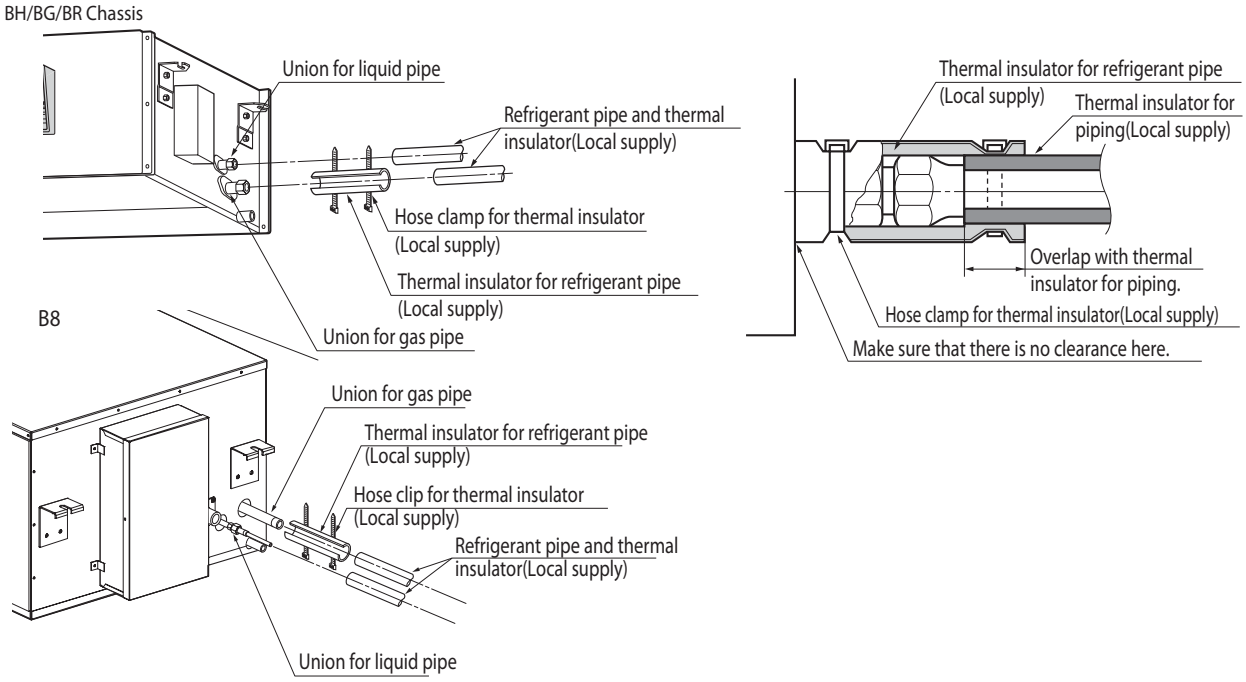
1. Arrange the power cables on the control panel.
2. Using a screw, fasten the steel clamp to the inner surface of the control panel.
3. For the heat pump model, use the 0.75 mm cable on the clamp to tighten it with a plastic clamp to the other surface of the control panel.

Thermal Insulation

All thermal insulation must comply with applicable local codes.

Figure 253: Thermal Insulation

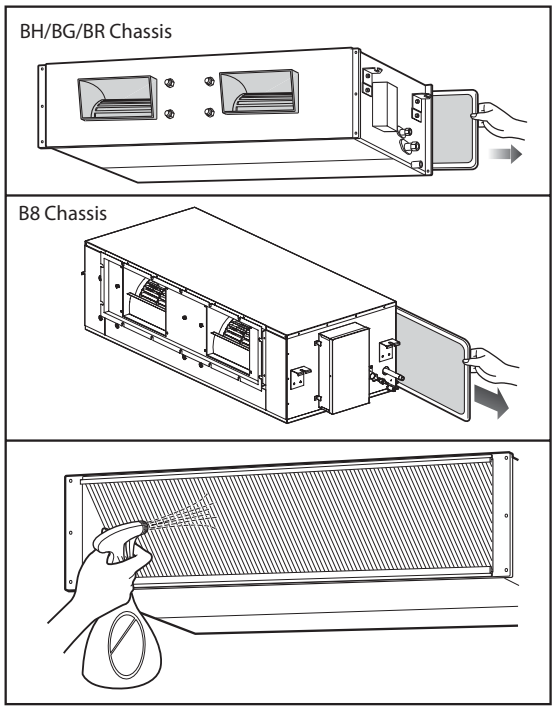
INDOOR UNIT



Checking for Drainage

1. Spray one or two glasses of water on the evaporator.
2. Ensure that water flows through the drain hose of the indoor unit without any leaks.

Figure 254: Checking Drainage



Indoor Unit Drain Piping

- Drain piping must slope down 1/32 to 1/64 inches. To prevent reverse flow, do not slope the drain piping up.
- When connecting drain piping, do not exert extra force on the drain port of the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 1-1/4 inches.
- Piping material - Polyvinyl chloride pipe inner diameter 1 inch and pipe fittings.
- Heat insulation material - Polyethylene foam with thickness more than 5/16 inch.

Figure 255: Indoor Unit Drain Piping

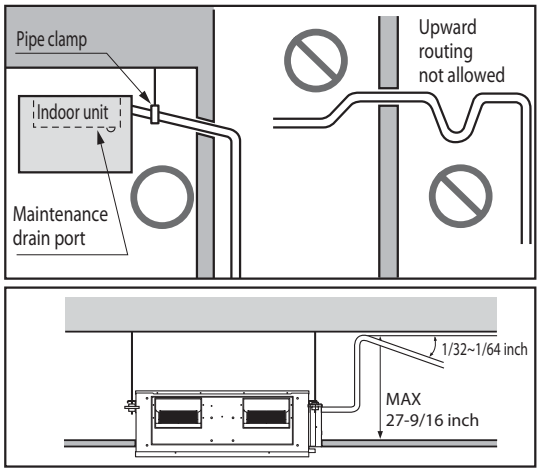
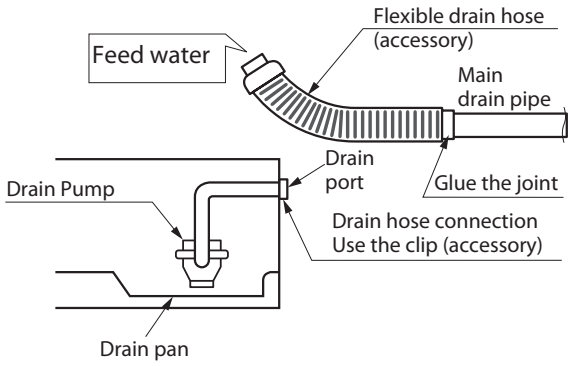


Figure 256: Drain Test



Drain Test

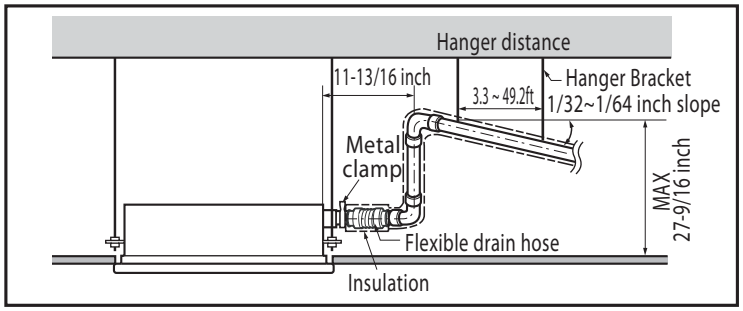
The unit uses a drain pump to drain water. Follow these instructions to test the drain pump operation.

- Connect the main drain pipe to the exterior.
- Feed water to the flexible drain hose and check the piping for leakage.
- Check the drain pump for normal operation and noise when electrical wiring is complete.
- When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.

⚠WARNING

The drain hose should not be strained. A strained hose may cause water to leak.

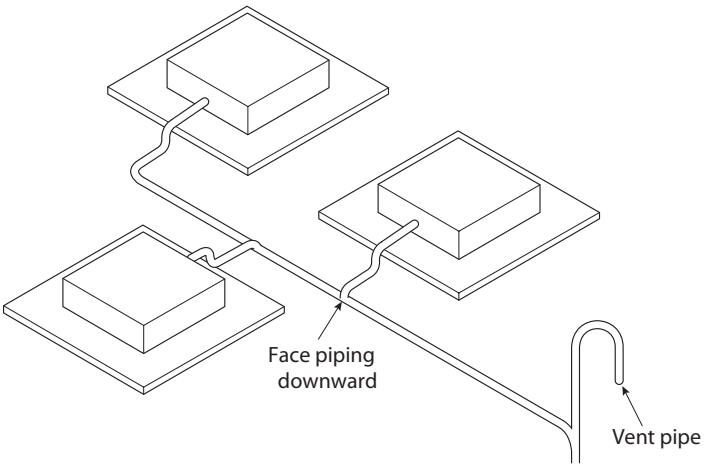
Figure 257: Placement Recommendation



Ground Drain Piping

It is standard to connect to the main pipe above the unit. The drain pipe from the indoor unit should be large enough to drain the condensate from indoor combination.

Figure 258: Ground Drain Piping



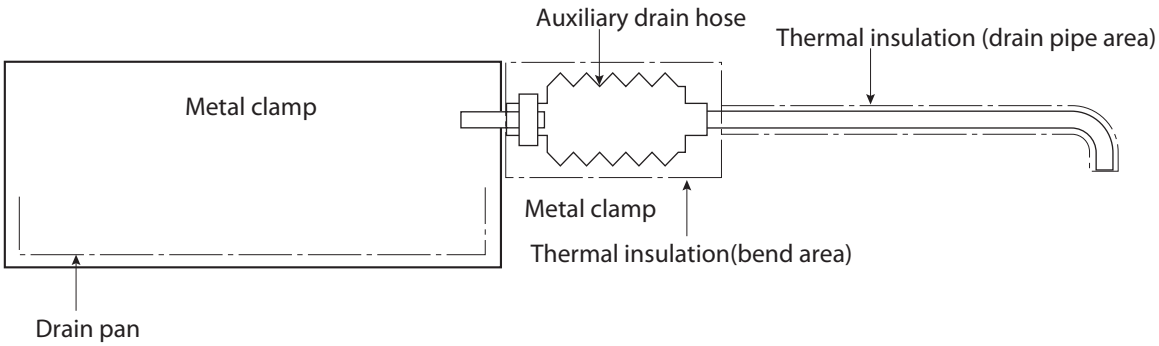
- Face the vent pipe opening downward to keep foreign matter from penetrating the system.
- The pipe work should be kept as short as possible.
- The number of indoor units per group should be kept to a minimum.

Use of Auxiliary Drain Hose

An auxiliary flexible drain hose should be used to connect a drain pipe to the drain socket on the indoor unit. A flexible auxiliary drain hose allows the drain pipe to be connected to the socket without breaking it due to excessive strain.

- The drain pipe length should be at least the same size as the indoor unit.
- The drain pipe is thermally insulated to prevent the formation of condensation inside the pipe.
- The drain up mechanism should be fitted before the indoor unit is installed and after the electricity has been connected. Water should be added to the drain pan and the drain pump to ensure it is functioning correctly.
- All connections should be secure.
- Insulate the auxiliary drain hose with a thermal insulation board.

Figure 259: Auxiliary Drain Hose



Wiring Connection

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires on the outdoor unit and the terminal number match to those on the indoor unit.

Figure 260: BH, BG, BR Wiring

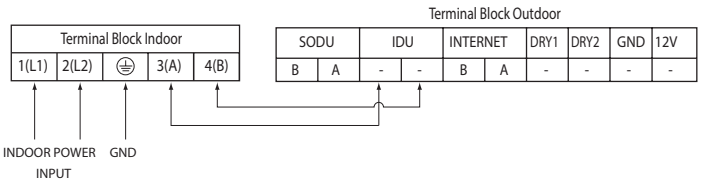
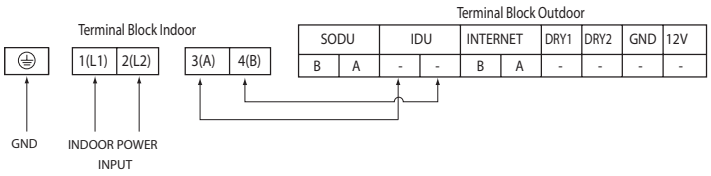


Figure 262: B8 Wiring



⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Prepare the wiring as follows:

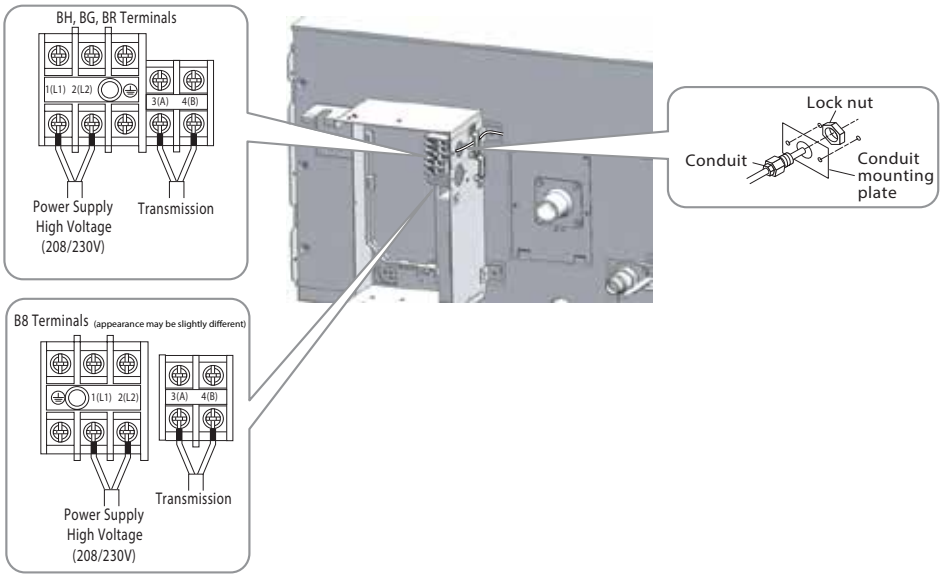
1. Always have separate power for the indoor unit.
2. Follow the circuit diagram pasted on the inside on the control box cover.
3. Provide a circuit breaker switch between the power source and indoor unit.
4. Confirm the specification of the power source.
5. Confirm that the electrical capacity is sufficient.
6. Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
7. Confirm the cable thickness is as specified in the power sources specification.
8. Always equip a leakage breaker where conditions are wet or moist.
9. Any openings where the field wiring enters the cabinet must be completely sealed.

The following problems can be caused by voltage drop down:

- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

Cable Connection Method

Figure 261: Cable Connection Method



⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Wired Remote Controller Installation

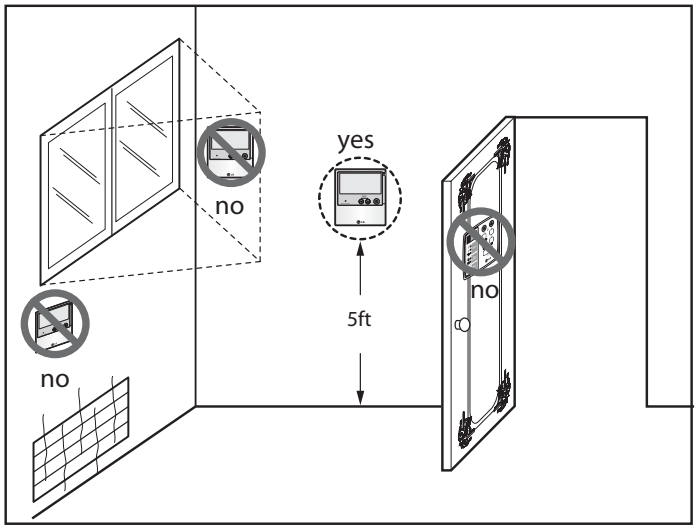
Since the room temperature sensor is inside the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

Figure 263: Wired Remote Controller Installation



DUCTED (LOW STATIC CONVERTIBLE)

GENERAL DATA

Ducted (Low Static Convertible) Unit Specifications

ARNU073B1G2, ARNU093B1G2, ARNU123B1G2

Table 174: Ducted (Low Static Convertible) Unit General Data

Type	Ducted (Low Static Convertible)		
	ARNU073B1G2	ARNU093B1G2	ARNU123B1G2
Cooling Mode Performance			
Capacity (Btu/h)	7,500	9,600	12,300
Power Input[1] (W)	30	30	30
Heating Mode Performance			
Capacity (Btu/h)	8,500	10,900	13,600
Power Input[1] (W)	30	30	30
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	29/26/24	31/29/26	33/30/29
Net Unit Weight (lbs)	47	47	47
Shipping Weight (lbs)	51	51	51
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	2	2	2
Housing	3	3	3
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM) High Mode (factory set)	300/265/229	335/300/265	371/335/300
External Static Pressure (in wg) High Mode (factory set)	0.08	0.08	0.08
Airflow Rate H/M/L (CFM) Standard Mode	300/265/229	335/300/265	371/335/300
External Static Pressure (in wg) Standard Mode	0	0	0
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	1/4 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	1/2 Flare
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).
1Power Input is rated at high speed.
2Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
3Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

Ducted (Low Static Convertible) Unit Specifications

ARNU153B1G2, ARNU183B2G2, ARNU243B2G2

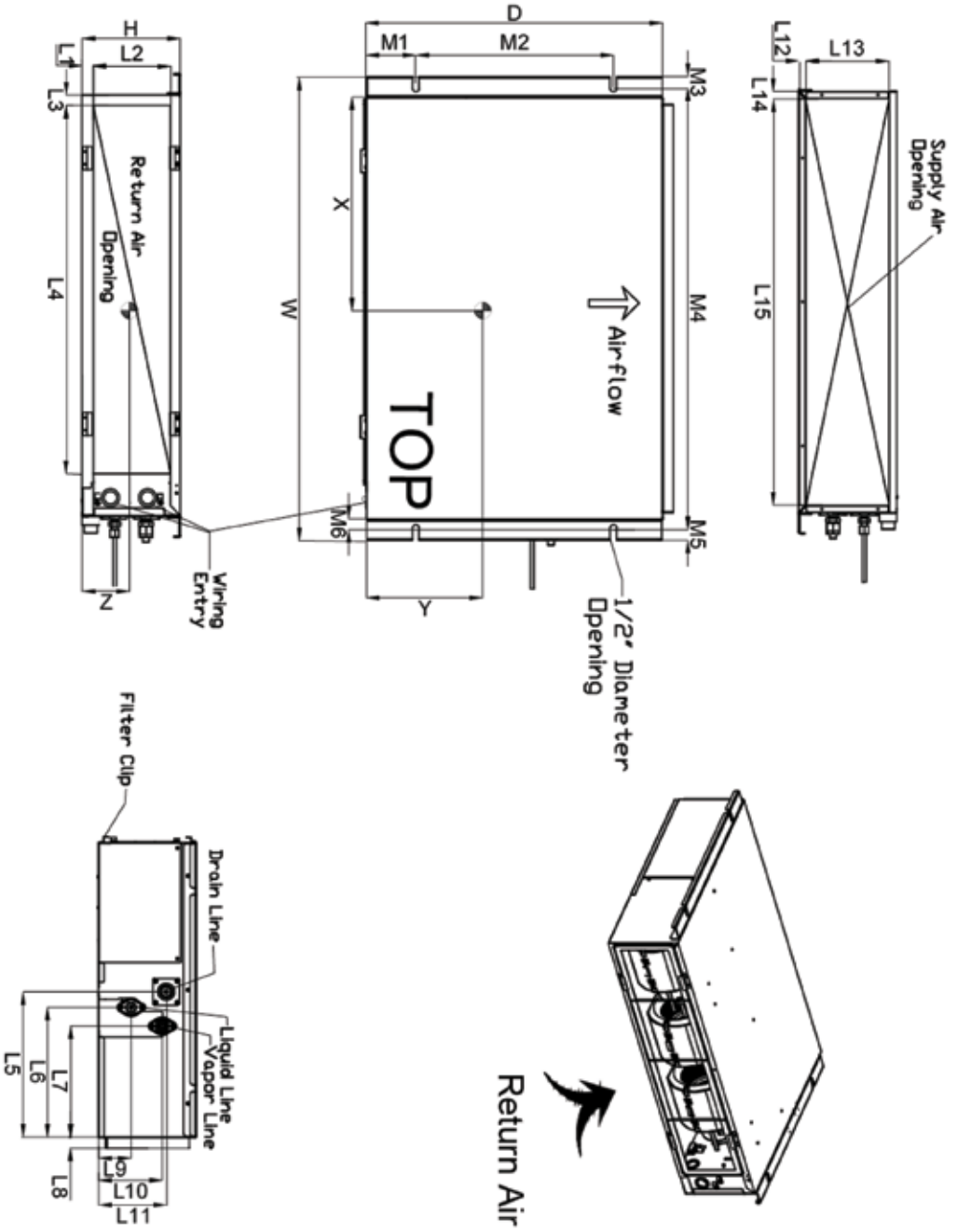
Table 175: Ducted (Low Static Convertible) Unit General Data

Type	Ducted (Low Static Convertible)		
	ARNU153B1G2	ARNU183B2G2	ARNU243B2G2
Cooling Mode Performance			
Capacity (Btu/h)	15,400	19,100	24,200
Power Input [1](W)	30	80	80
Heating Mode Performance			
Capacity (Btu/h)	17,100	21,500	27,300
Power Input[1] (W)	30	80	80
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	34/33/31	40/37/34	43/40/37
Net Unit Weight (lbs)	47	58	58
Shipping Weight (lbs)	51	65	65
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	2	2	2
Housing	3	4	4
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM) High Mode (factory set)	406/371/335	565/494/424	671/600/530
External Static Pressure (in wg) High Mode (factory set)	0.08	0.08	0.08
Airflow Rate H/M/L (CFM) Standard Mode	406/371/335	565/494/424	671/600/530
External Static Pressure (in wg) Standard Mode	0	0	0
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	3/8 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	5/8 Flare
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
1Power Input is rated at high speed.
2Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
3Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

B1 Chassis



W	32-5/8"
H	7-1/2"
D	21-3/4"
L1	11/16"
L2	6"
L3	3/4"
L4	28-11/16"
L5	10-7/8"
L6	9-7/16"
L7	8-1/2"
L8	7/8"
L9	2-9/16"
L10	4-15/16"
L11	5-1/16"
L12	1/2"
L13	6-5/16"
L14	1/2"
L15	31-5/16"
M1	3-5/16"
M2	15-1/16"
M3	13/16"
M4	33-11/16"
M5	13/16"
M6	1-5/8"

Center of Gravity

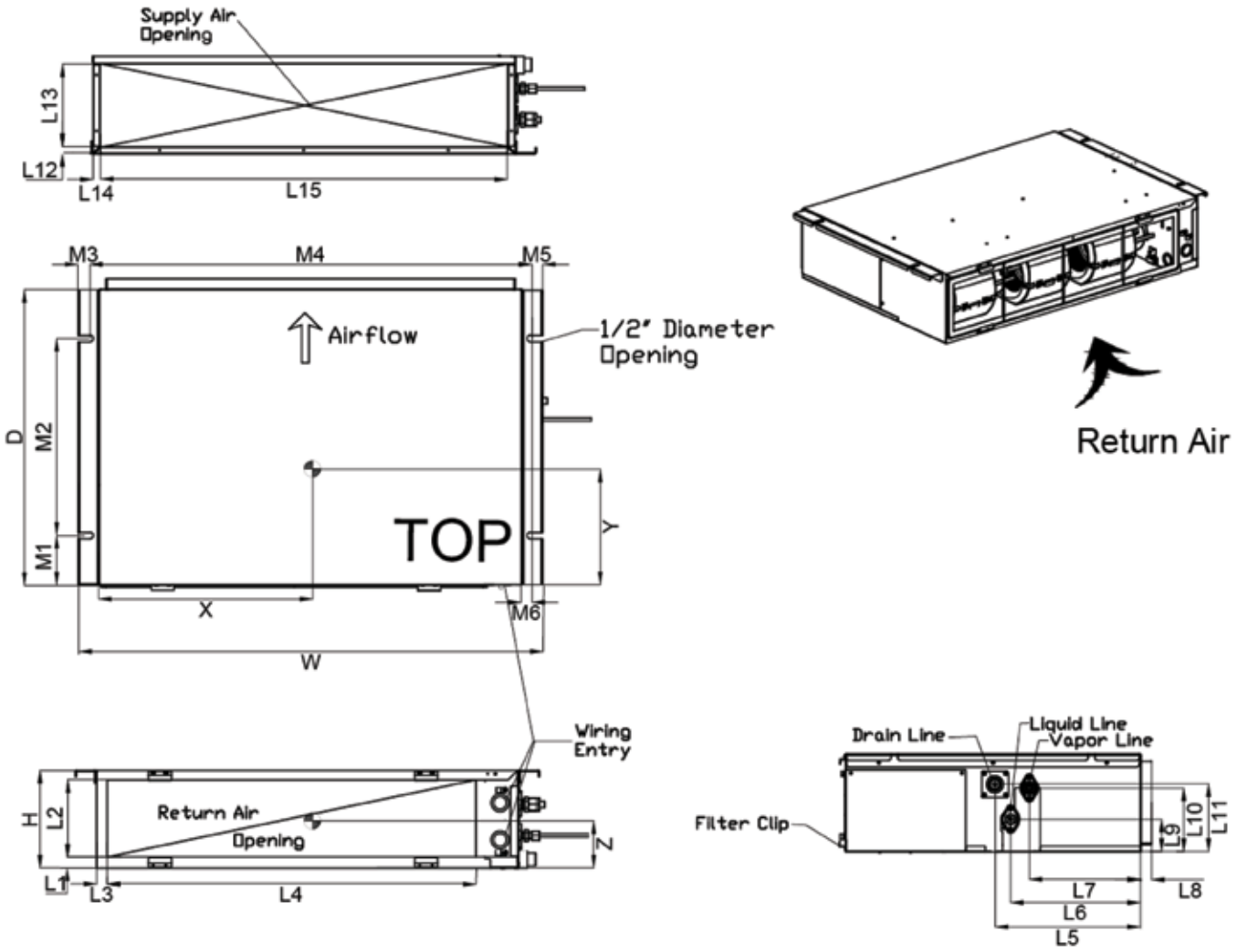
X	16-7/8"
Y	7-5/16"
Z	2-7/8"

Note - All dimensions have a tolerance of ± 0.25 in.

◒ = Center of gravity

DIMENSIONS

B2 CHASSIS



W	43-5/16"
H	7-1/2"
D	21-3/4"
L1	11/16"
L2	6"
L3	3/4"
L4	39-11/16"
L5	10-7/8"
L6	9-7/16"
L7	8-1/2"
L8	7/8"
L9	2-9/16"
L10	4-15/16"
L11	5-1/16"
L12	1/2"
L13	6-5/16"
L14	1/2"
L15	42-3/16"
M1	3-5/16"
M2	15-1/16"
M3	13/16"
M4	44-9/16"
M5	13/16"
M6	1-5/8"

Center of Gravity

X	21-7/8"
Y	6-7/8"
Z	3-3/16"

Note - All dimensions have a tolerance of ± 0.25 in.

= Center of gravity

PERFORMANCE DATA

Cooling Capacity

ARNU073B1G2, ARNU093B1G2

Table 176: ARNU073B1G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
25	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
30	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
35	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
40	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
45	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
50	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
55	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
60	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.6	5.8
65	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.5	5.7
70	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.3	5.6
75	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.1	5.5
80	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.7	5.8	8.9	5.5
85	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.3	5.8	8.4	5.5	8.6	5.2
90	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.2	5.7	8.3	5.5	8.4	5.2
95	5.0	4.2	6.0	4.8	6.8	5.2	**7.5**	**5.5**	8.0	5.7	8.2	5.4	8.3	5.1
100	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	7.9	5.6	8.0	5.4	8.2	5.1
105	5.0	4.2	5.7	4.6	6.5	4.9	7.2	5.3	7.4	5.3	7.7	5.2	7.9	5.0
110	4.8	4.1	5.4	4.3	6.0	4.6	6.8	4.9	6.9	4.9	7.4	4.9	7.7	4.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 177: ARNU093B1G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
25	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
30	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
35	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
40	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
45	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
50	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
55	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.5
60	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.3	7.4
65	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.1	7.3
70	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	11.9	7.2
75	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	11.6	7.0
80	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.1	7.4	11.3	7.0
85	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.7	7.5	10.8	7.1	10.9	6.7
90	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.5	7.3	10.6	7.0	10.8	6.6
95	6.3	5.4	7.7	6.2	8.6	6.6	**9.6**	**7.0**	10.3	7.3	10.5	6.9	10.7	6.6
100	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.1	7.2	10.3	6.9	10.5	6.5
105	6.3	5.4	7.3	5.9	8.3	6.3	9.2	6.7	9.4	6.7	9.9	6.6	10.1	6.3
110	6.1	5.2	6.9	5.6	7.7	5.9	8.6	6.3	8.8	6.3	9.4	6.3	9.8	6.2

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 178: ARNU123B1G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
25	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
30	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
35	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
40	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
45	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
50	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
55	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.6
60	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.7	9.5
65	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.5	9.4
70	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.3	9.2
75	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	14.9	9.0
80	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.3	9.5	14.5	9.0
85	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.7	9.6	13.8	9.1	14.0	8.6
90	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.4	9.4	13.5	8.9	13.8	8.5
95	8.1	6.9	9.8	7.9	11.1	8.5	**12.3**	**9.0**	13.2	9.3	13.4	8.9	13.7	8.4
100	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	12.9	9.2	13.2	8.8	13.4	8.3
105	8.1	6.9	9.3	7.5	10.6	8.1	11.8	8.6	12.1	8.6	12.7	8.5	12.9	8.1
110	7.9	6.7	8.9	7.1	9.8	7.5	11.1	8.1	11.3	8.1	12.1	8.1	12.5	7.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 179: ARNU153B1G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
25	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
30	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
35	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
40	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
45	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
50	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
55	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	12.0
60	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.7	11.9
65	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.4	11.7
70	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.1	11.5
75	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	18.6	11.3
80	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	17.9	11.9	18.2	11.2
85	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.1	12.0	17.2	11.4	17.6	10.8
90	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	16.8	11.7	16.9	11.2	17.2	10.6
95	10.2	8.6	12.3	9.9	13.9	10.6	**15.4**	**11.2**	16.5	11.7	16.8	11.1	17.1	10.5
100	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	16.2	11.5	16.5	11.0	16.8	10.4
105	10.2	8.6	11.7	9.4	13.2	10.1	14.8	10.8	15.1	10.8	15.9	10.7	16.2	10.2
110	9.9	8.4	11.1	8.9	12.3	9.4	13.9	10.1	14.2	10.1	15.1	10.1	15.7	9.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU183B2G2, ARNU243B2G2

Table 180: ARNU183B2G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
23	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
25	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
30	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
35	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
40	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
45	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
50	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
55	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
60	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.4	14.3
65	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.1	14.1
70	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	23.7	13.9
75	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	23.1	13.6
80	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.2	14.4	22.5	13.5
85	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.2	14.4	21.4	13.7	21.8	13.0
90	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	20.8	14.2	21.0	13.5	21.4	12.8
95	12.6	10.4	15.3	12.0	17.2	12.8	**19.1**	**13.6**	20.4	14.1	20.8	13.4	21.2	12.7
100	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	20.1	13.9	20.4	13.3	20.8	12.6
105	12.6	10.4	14.5	11.4	16.4	12.2	18.3	13.0	18.7	13.0	19.7	12.8	20.1	12.3
110	12.2	10.1	13.8	10.8	15.3	11.4	17.2	12.2	17.6	12.2	18.7	12.2	19.5	11.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 181: ARNU243B2G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
23	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
25	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
30	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
35	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
40	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
45	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
50	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
55	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
60	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.0	18.2
65	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	30.5	17.9
70	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	30.0	17.6
75	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	29.3	17.2
80	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.1	18.2	28.6	17.1
85	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	26.9	18.3	27.1	17.4	27.6	16.5
90	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	26.4	18.0	26.6	17.1	27.1	16.2
95	16.0	13.2	19.4	15.2	21.8	16.2	**24.2**	**17.2**	25.9	17.9	26.4	17.0	26.9	16.1
100	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	25.4	17.6	25.9	16.9	26.4	15.9
105	16.0	13.2	18.4	14.4	20.8	15.5	23.2	16.5	23.7	16.5	24.9	16.3	25.4	15.6
110	15.5	12.8	17.4	13.6	19.4	14.4	21.8	15.5	22.3	15.5	23.7	15.5	24.7	15.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 182: ARNU073B1G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	5.7	5.7	5.7	5.7	5.6	5.6	5.6	5.6
0	-0.4	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8
5.0	4.5	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5
10.0	9.0	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8
15.0	14.0	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.1
20.0	19.0	7.7	7.7	7.7	7.7	7.5	7.5	7.4	7.3
25.0	23.0	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.7
30.0	28.0	8.2	8.2	8.2	8.2	8.2	8.1	7.8	7.6
35.0	32.0	8.5	8.5	8.5	8.5	8.4	8.2	7.8	7.4
40.0	36.0	8.8	8.8	8.8	8.8	8.5	8.2	7.8	7.4
45.0	41.0	9.2	9.2	9.2	8.9	8.5	8.2	7.8	7.4
47.0	43.0	9.5	9.4	9.4	8.9	**8.5**	8.2	7.8	7.4
50.0	46.0	10.2	9.8	9.4	8.9	8.5	8.2	7.8	7.4
55.0	51.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4
60.0	56.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4

TC: Total Capacity (MBh)

Table 183: ARNU093B1G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0	-0.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
5.0	4.5	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.3
10.0	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
15.0	14.0	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.2
20.0	19.0	9.9	9.9	9.9	9.9	9.7	9.7	9.5	9.4
25.0	23.0	10.4	10.4	10.4	10.4	10.4	10.1	10.0	9.9
30.0	28.0	10.6	10.6	10.6	10.6	10.6	10.4	10.0	9.7
35.0	32.0	10.9	10.9	10.9	10.9	10.8	10.6	10.0	9.5
40.0	36.0	11.3	11.3	11.3	11.3	10.9	10.6	10.0	9.5
45.0	41.0	11.8	11.8	11.8	11.4	10.9	10.6	10.0	9.5
47.0	43.0	12.2	12.1	12.0	11.4	**10.9**	10.6	10.0	9.5
50.0	46.0	13.1	12.5	12.0	11.4	10.9	10.6	10.0	9.5
55.0	51.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5
60.0	56.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5

TC: Total Capacity (MBh)

Table 184: ARNU123B1G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
0	-0.4	9.4	9.4	9.4	9.4	9.4	9.2	9.2	9.2
5.0	4.5	10.6	10.5	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9
15.0	14.0	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.4
20.0	19.0	12.4	12.4	12.4	12.4	12.1	12.1	11.9	11.7
25.0	23.0	12.9	12.9	12.9	12.9	12.9	12.6	12.5	12.4
30.0	28.0	13.2	13.2	13.2	13.2	13.2	12.9	12.5	12.1
35.0	32.0	13.6	13.6	13.6	13.6	13.5	13.2	12.5	11.9
40.0	36.0	14.1	14.1	14.1	14.1	13.6	13.2	12.5	11.9
45.0	41.0	14.7	14.7	14.7	14.3	13.6	13.2	12.5	11.9
47.0	43.0	15.2	15.1	15.0	14.3	**13.6**	13.2	12.5	11.9
50.0	46.0	16.4	15.6	15.0	14.3	13.6	13.2	12.5	11.9
55.0	51.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9
60.0	56.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU153B1G2, ARNU183B2G2, ARNU243B2G2

Table 185: ARNU153B1G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	11.5	11.5	11.5	11.5	11.3	11.3	11.3	11.3
0	-0.4	11.8	11.8	11.8	11.8	11.8	11.6	11.6	11.6
5.0	4.5	13.3	13.2	13.0	13.0	13.0	13.0	13.0	13.0
10.0	9.0	13.9	13.9	13.9	13.7	13.7	13.7	13.7	13.7
15.0	14.0	14.7	14.7	14.7	14.7	14.7	14.7	14.5	14.4
20.0	19.0	15.6	15.6	15.6	15.6	15.2	15.2	15.0	14.8
25.0	23.0	16.2	16.2	16.2	16.2	16.2	15.9	15.7	15.6
30.0	28.0	16.6	16.6	16.6	16.6	16.6	16.2	15.7	15.2
35.0	32.0	17.1	17.1	17.1	17.1	16.9	16.6	15.7	14.9
40.0	36.0	17.8	17.8	17.8	17.8	17.1	16.6	15.7	14.9
45.0	41.0	18.5	18.5	18.5	18.0	17.1	16.6	15.7	14.9
47.0	43.0	19.2	19.0	18.8	18.0	**17.1**	16.6	15.7	14.9
50.0	46.0	20.6	19.7	18.8	18.0	17.1	16.6	15.7	14.9
55.0	51.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9
60.0	56.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9

TC: Total Capacity (MBh)

Table 186: ARNU183B2G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

Table 187: ARNU243B2G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

EXTERNAL STATIC PRESSURE & AIR FLOW

B1, B2 Chassis

Table 188: B1 Chassis External Static Pressure & Air Flow

Setting Value	Static Pressure (in wg)				
	0	0.04	0.08	0.11	0.15
60	212	79	21	-	-
65	245	117	25	19	16
70	271	182	42	22	19
75	298	244	85	27	22
80	335	260	120	30	25
85	365	307	188	48	31
90	381	341	238	111	34
95	408	364	302	167	36
100	444	396	344	263	81
105	470	433	384	305	176
110	501	467	429	370	271
115	523	491	446	394	334

Table 189: B2 Chassis External Static Pressure & Air Flow

Setting Value	Static Pressure (in wg)				
	0	0.04	0.08	0.11	0.15
65	355	243	28	-	-
70	402	299	77	-	-
75	424	345	148	-	-
80	466	389	209	32	-
85	502	436	332	74	-
90	531	471	381	186	35
95	565	516	441	268	47
100	604	549	482	407	188
105	635	583	535	436	270
110	672	625	572	502	369
115	698	657	603	537	467
120	739	703	655	599	517
125	775	726	679	624	567
130	806	776	732	682	626

1. All static pressure air flow rates are listed in CFM.
2. The tables above show the correlation between air flow rates and external static pressure.
3. The tables above show the available external static pressure range.

⚠CAUTION

If the external static pressure of the installed indoor unit is less than the lowest value (as mentioned in the table), the indoor unit components can fail.

EXTERNAL STATIC PRESSURE RANGE

B1, B2 Chassis

Table 190: B1 Chassis External Static Pressure & Air Flow

Model	Capacity (MBh)	Mode		Setting Value	Standard ESP (in wg)	CFM	Lower Limit of ESP (in wg)	Upper Limit of ESP (in wg)
ARNU073B1G2	7.5	High (factory set)	High	94	0.08	300	-	0.15
			Mid	92		265		
			Low	86		229		
		Standard	High	75	0	300	-	0.15
			Mid	69		265		
			Low	62		229		
ARNU093B1G2	9.6	High (factory set)	High	99	0.08	335	-	0.15
			Mid	94		300		
			Low	92		265		
		Standard	High	82	0	335	-	0.15
			Mid	75		300		
			Low	69		265		
ARNU123B1G2	12.3	High (factory set)	High	103	0.08	371	-	0.15
			Mid	99		335		
			Low	94		300		
		Standard	High	89	0	371	-	0.15
			Mid	80		335		
			Low	75		300		
ARNU153B1G2	15.4	High (factory set)	High	107	0.08	406	-	0.15
			Mid	105		371		
			Low	99		335		
		Standard	High	95	0	406	-	0.15
			Mid	89		371		
			Low	82		335		

Table 191: B2 Chassis External Static Pressure & Air Flow

Model	Capacity (MBh)	Mode		Setting Value	Standard ESP (in wg)	CFM	Lower Limit of ESP (in wg)	Upper Limit of ESP (in wg)
ARNU183B2G2	19.1	High (factory set)	High	110	0.08	300	-	0.15
			Mid	101		265		
			Low	93		229		
		Standard	High	95	0	300	-	0.15
			Mid	84		265		
			Low	75		229		
ARNU243B2G2	24.2	High (factory set)	High	125	0.08	335	-	0.15
			Mid	115		300		
			Low	105		265		
		Standard	High	110	0	335	-	0.15
			Mid	100		300		
			Low	90		265		

The tables above show the available E.S.P. range.

Table 192: Ducted (Low Static Convertible) Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU073B1G2	187-253	0.22	15	0.1	60	208-230	1	30	30
ARNU093B1G2		0.22		0.1				30	30
ARNU123B1G2		0.22		0.1				30	30
ARNU153B1G2		0.22		0.1				30	30
ARNU183B2G2		0.55		0.25				80	80
ARNU243B2G2		0.55		0.25				80	80

MCA : Minimum Circuit Ampacity MOP : Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 193: Ducted (Low Static Convertible) Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU073B1G2	29	26	24
ARNU093B1G2	31	29	26
ARNU123B1G2	33	30	29
ARNU153B1G2	34	33	31
ARNU183B2G2	40	37	34
ARNU243B2G2	43	40	37

Figure 264: ARNU073B1G2

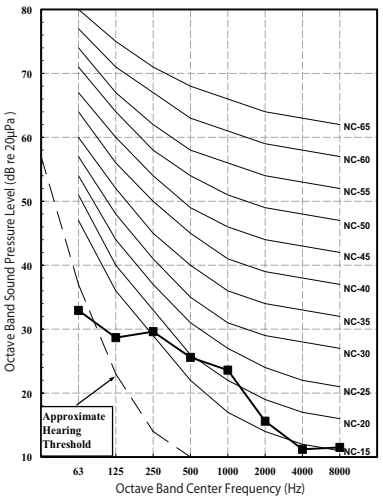


Figure 265: ARNU093B1G2

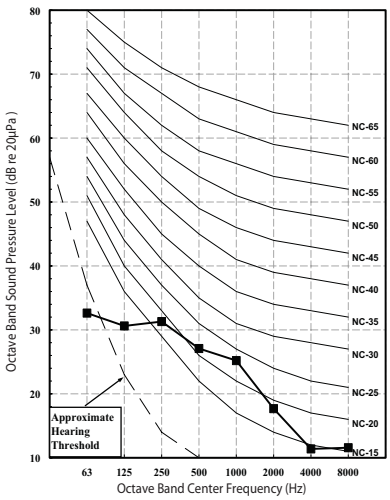
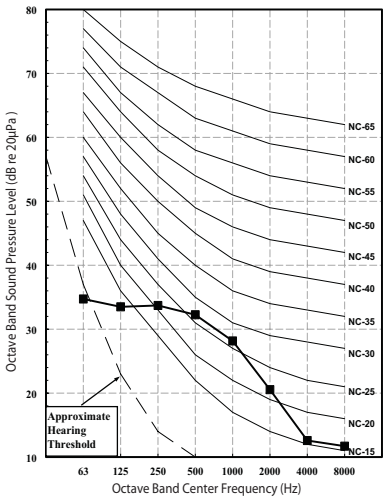


Figure 266: ARNU123B1G2



ACOUSTIC DATA

B1, B2 Chassis

Figure 267: ARNU153B1G2

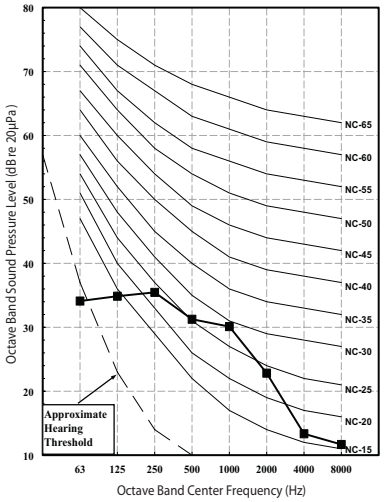


Figure 268: ARNU183B2G2

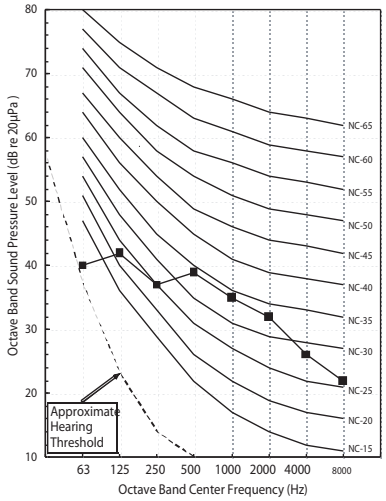
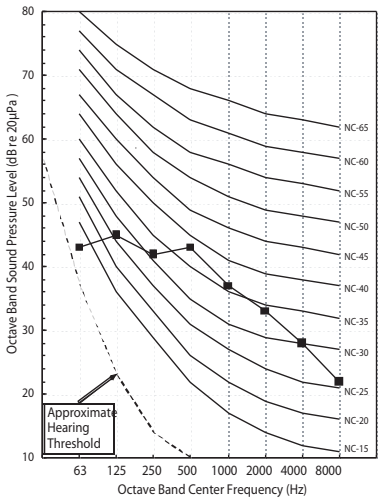


Figure 269: ARNU243B2G2



- Measurements are taken 4.9 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions:

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 270: Sound Levels

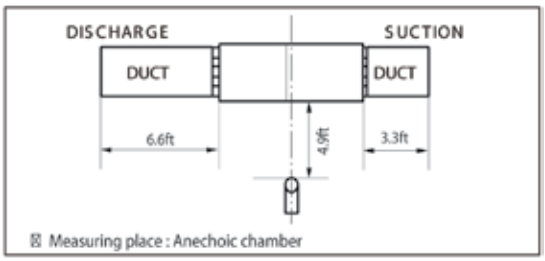


Figure 271: B1, B2 Chassis Piping Diagram

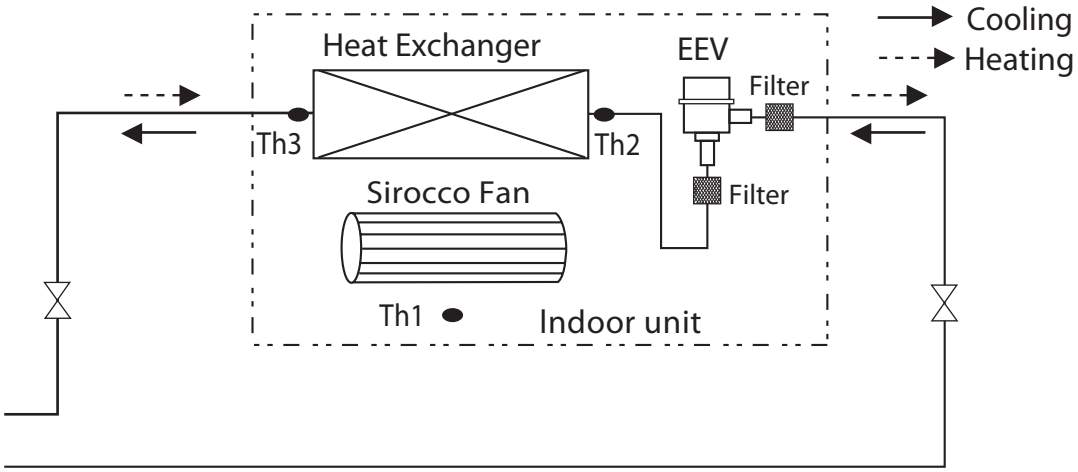


Table 194: B1, B2 Chassis Refrigerant Pipe Connection Port Diameter

Model	Liquid (inch)	Gas (inch)
ARNU073B1G2	1/4	1/2
ARNU093B1G2	1/4	1/2
ARNU123B1G2	1/4	1/2
ARNU153B1G2	1/4	1/2
ARNU183B2G2	1/4	1/2
ARNU243B2G2	3/8	5/8

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

WIRING DIAGRAMS

B1, B2 Chassis

Figure 272: B1, B2 Chassis Wiring Diagram

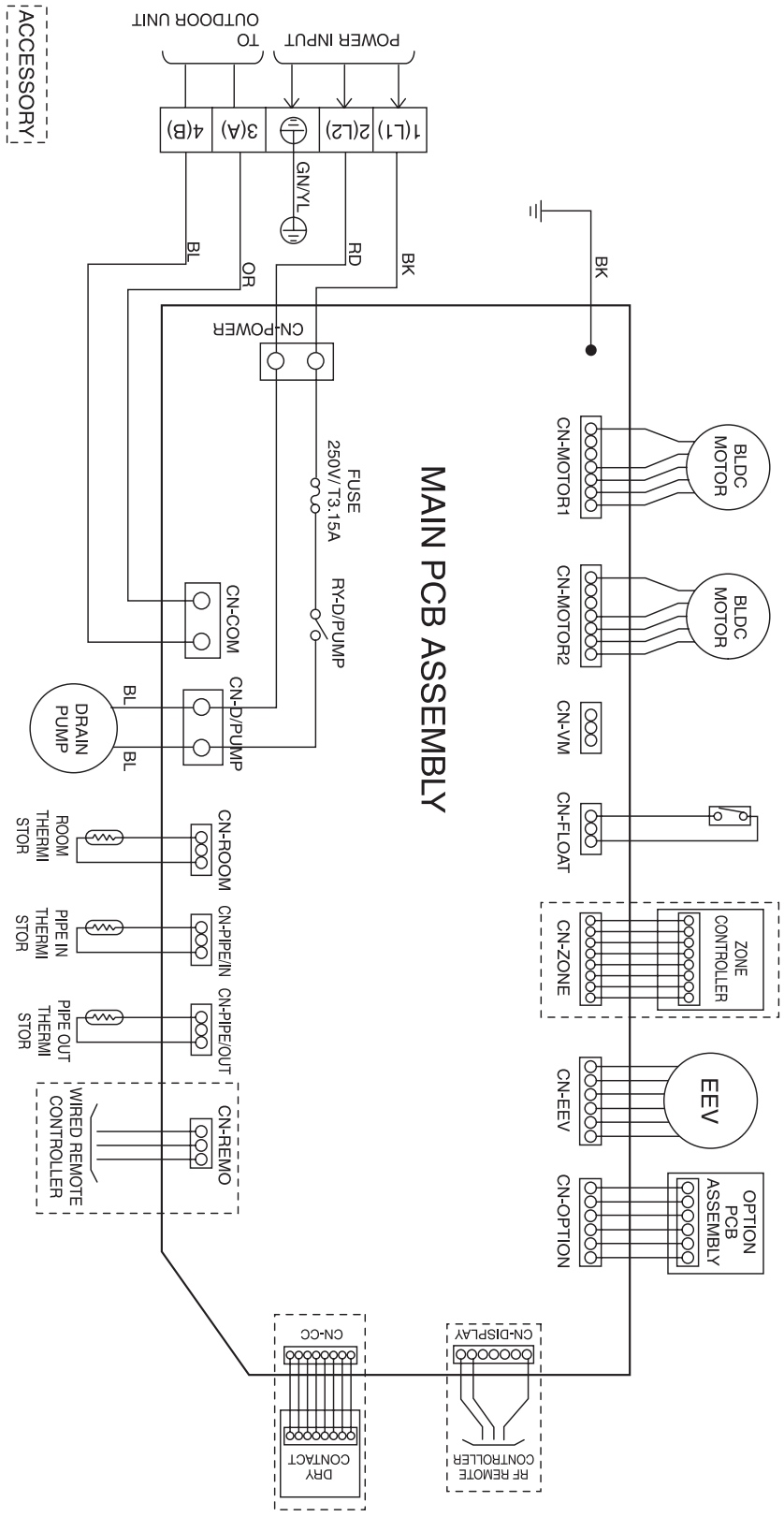


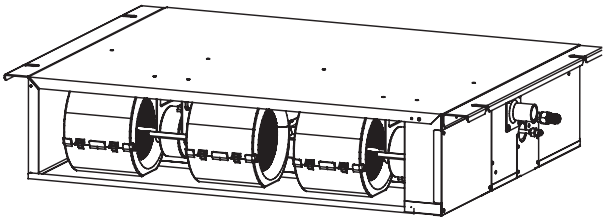
Table 195: B1, B2 Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-FLOAT	Float switch input	Float switch sensing
CN-EEV	EEV output	EEV control output
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-OPTION	Option PWB	Communication between main and option
CN-COM	Communication	Communication between indoor and outdoor
CN-POWER	AC power supply	AC power line input for indoor controller
CN-ZONE	Zone controller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	-OFF: Default (does not operate continuously) -ON: Fan operates continuously

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for other models.

Figure 273: Unit Parts



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Torque wrenches
- Hexagonal wrench
- Gas-leak detector
- Thermometer

Required Parts

- Clamp metal
- Drain hose
- Fitting insulation
- Hanging bracket washers
- Tie wrap clamps

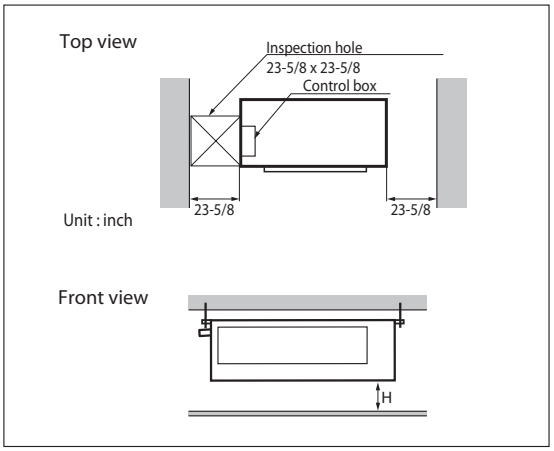
⚠WARNING

1. *Please read all instructions before installing the product.*
2. *When the power cord is damaged, all replacement work must be performed by authorized personnel only.*
3. *Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.*

Service Access Standards

Number of Service Access Points	Distance Between False Ceiling & Actual Ceiling (inch)	Remarks
1	More than 39-3/8	Sufficient space in the ceiling for servicing
2	7-7/8 to 39-3/8	Insufficient space Difficult for servicing
Service access point should be more than the size of IDU	Less than 7-7/8	Minimum height for motor replacement

Figure 274: Selecting the Best Location



Selecting the Best Location

Do's

- Select a place that can support a load four times the indoor unit weight.
- Select a place where the indoor unit will be level.
- Select a place that will allow easy water drainage.
- Select a place where the indoor unit can easily connect with the outdoor unit.
- Select a place where the indoor unit will not be affected by EMF from high voltage cables.
- Select a location where air circulation will not be blocked.
- The service access in the ceiling should be as wide as the indoor unit.
- The location of the service access should be approved by the customer.

Don'ts

- The unit should not be near a heat source or steam.
- The air circulation should not be blocked by obstacles.

⚠WARNING

If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing the unit where inflammable gas is generated, flows, stored or vented.
- Avoid installing the unit where sulfurous acid gas or corrosive gas is generated.
- Avoid installing the unit near high frequency generators.

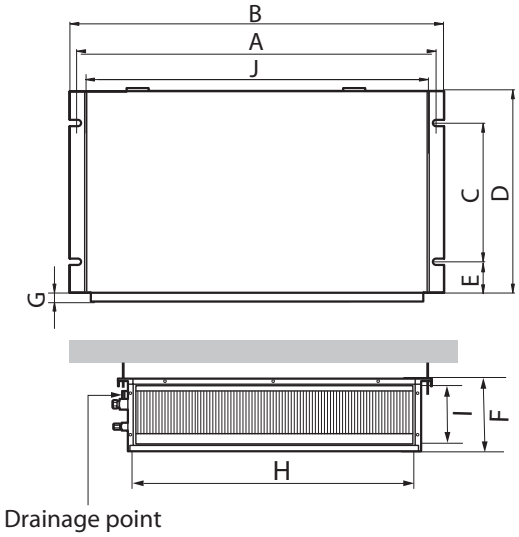
Suspension Bolt Position

- Apply a joint canvas between the unit and duct to absorb unnecessary vibration.
- Install the unit sloping towards the drainage point to ensure the water drains easily.

Table 196: B1, B2 Suspension Bolt Positions

Chassis	Dimension (inch)									
	A	B	C	D	E	F	G	H	I	J
B3	33-7/16	35-7/16	15	22-5/8	3-11/16	7-1/2	7/8	31-5/16	6-7/16	32-1/3
B4	44-7/16	46-1/2	15	22-5/8	3-11/16	7-1/2	7/8	41-15/16	6-7/16	43-5/16

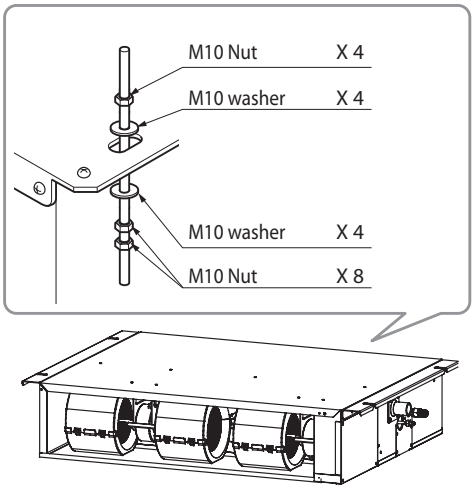
Figure 275: Suspension Bolt Position



Console Bolt Position

- Place where the unit will be level and can support the weight of the unit.
- Place where the unit can withstand vibration.
- Place where service can be easily performed.

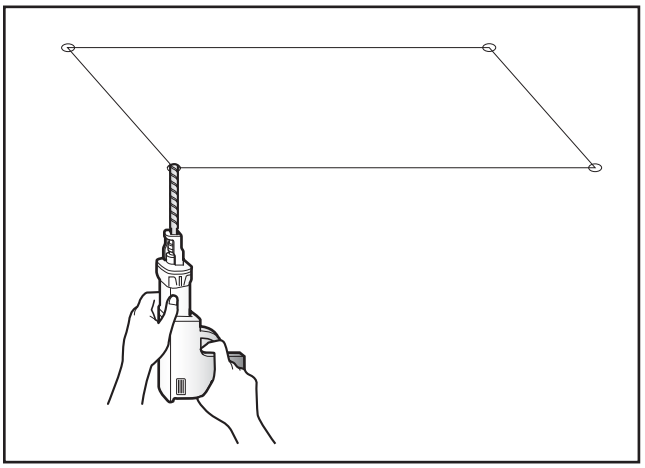
Figure 276: Ceiling Dimension and Hanging Bolt Location



Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing the unit where flammable gas is generated, flows, stored or vented.
- Avoid installing the unit where sulfurous acid gas or corrosive gas is generated.
- Avoid installing the unit near high frequency generators.

Figure 277: Fixing Bolt Position

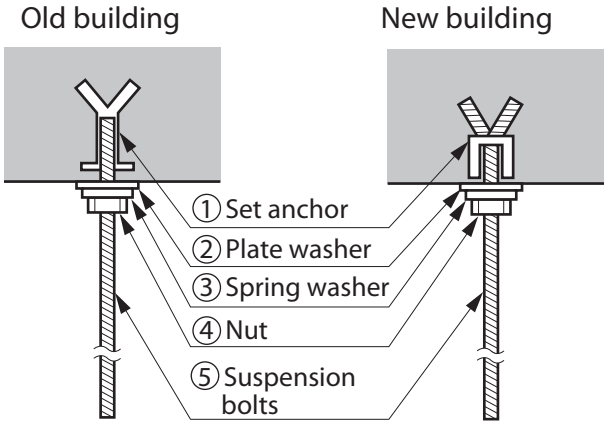


1. Insert the set anchor and washer into the suspension bolts on the ceiling.
2. Mount the suspension bolts to set the anchor firmly.
3. Secure the installation plates into the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
4. Select and mark the position for fixing bolts.
5. Drill the hole for set anchor on the face of the ceiling

⚠CAUTION

Tighten the nut and bolt to prevent the unit from falling.

Figure 278: Securing Suspension Rods



Clamping Cables

1. Arrange the power cables on the control panel.
2. Using a screw, fasten the steel clamp to the inner surface of the control panel.
3. For the heat pump model, use the 0.75 mm cable on the clamp to tighten it with a plastic clamp to the other surface of the control panel.

Checking the Drainage

- Spray one or two glasses of water on the evaporator.
- Ensure the water flows through the unit drain hose without leaking.

Indoor Unit Drain Piping

- Drain piping must slope down 1/32 to 1/64 inches. To prevent reverse flow, do not slope the drain piping up.
- When connecting drain piping, do not exert extra force on the drain port of the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 1-1/4 inch.
- Piping material - Polyvinyl chloride pipe inner diameter 1 inch and pipe fittings,.
- Heat insulation material - Polyethylene foam with thickness more than 5/16 inch.

Figure 279: Indoor Unit Drain Piping

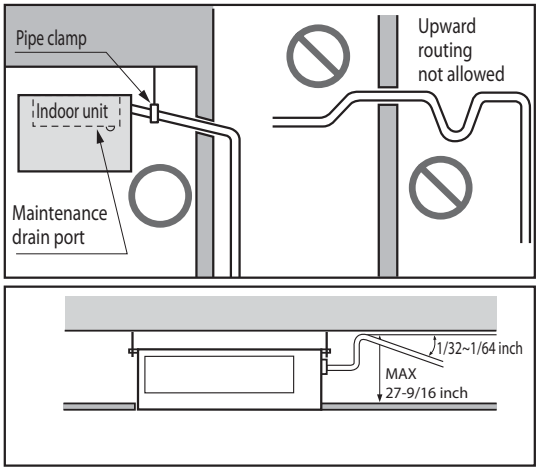
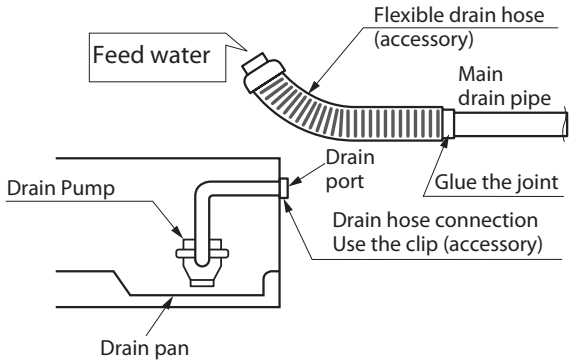


Figure 280: Drain Test



Drain Test

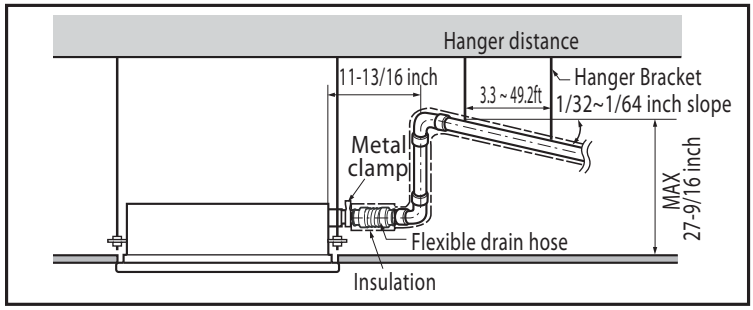
The unit uses a drain pump to drain water. Follow these instructions to test the drain pump operation.

- Connect the main drain pipe to the exterior and leave it until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- Check the drain pump for normal operation and noise when electrical wiring is complete.
- When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.

⚠WARNING

The drain hose should not be strained. A strained hose may cause water to leak.

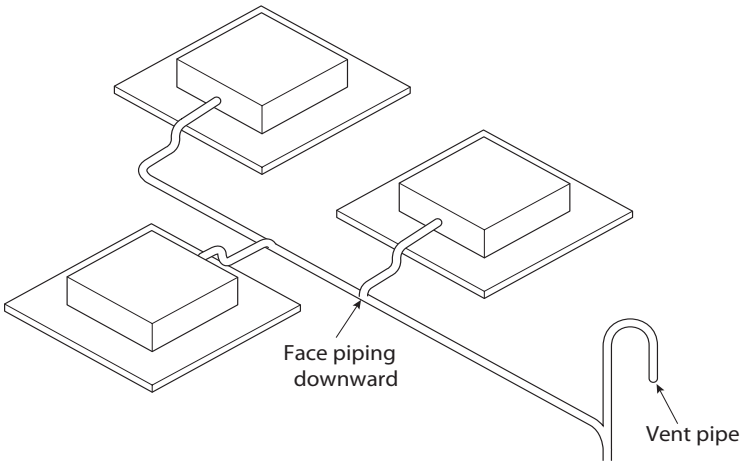
Figure 281: Placement Recommendation



Ground Drain Piping

It is standard to connect to the main pipe above the unit. The pipe down from the combination should be as large as possible.

Figure 282: Ground Drain Piping



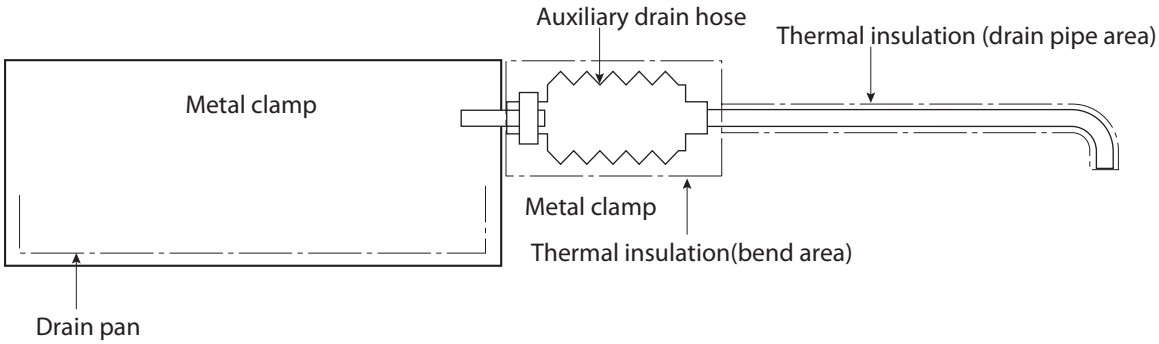
- Face the vent pipe opening downward to keep foreign matter from penetrating the system.
- The pipe work should be kept as short as possible.
- The number of indoor units per group should be kept to a minimum.

Use of Auxiliary Drain Hose

To connect a drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used. A flexible auxiliary drain hose allows the drain pipe to be connected to the socket without breaking it due to excessive strain.

- The drain pipe length should be at least the same size as the indoor unit.
- The drain pipe is thermally insulated to prevent the formation of condensation inside the pipe.
- The drain up mechanism should be fitted before the indoor unit is installed and when the electricity has been connected. Some water should be added to the drain pan and the drain pump to ensure it is functioning correctly.
- All connections should be secure.
- Insulate the auxiliary drain hose with a thermal insulation board.

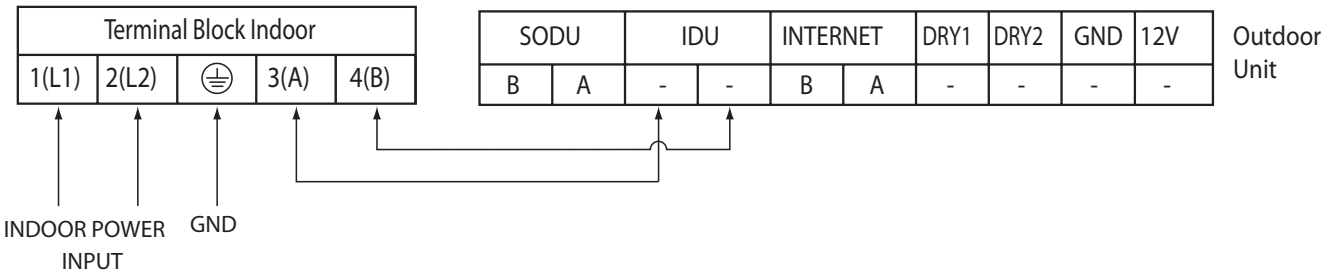
Figure 283: Auxiliary Drain Hose



Wiring Connection

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires on the outdoor unit and the terminal match those on the indoor unit.

Figure 284: Wiring Connection



⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Prepare the wiring as follows:

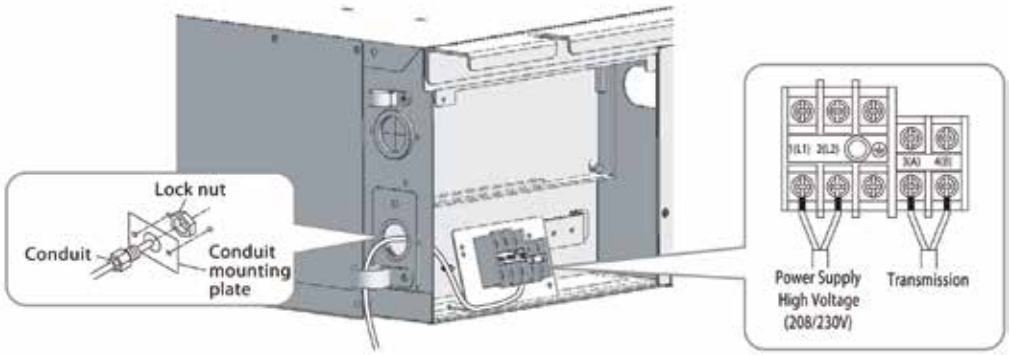
1. Always have separate power for the indoor unit.
2. Follow the circuit diagram pasted on the inside on the control box cover.
3. Provide a circuit breaker switch between the power source and indoor unit.
4. Confirm the specification of the power source.
5. Confirm that the electrical capacity is sufficient.
6. Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
7. Confirm the cable thickness is as specified in the power sources specification.
8. Always equip a leakage breaker where conditions are wet or moist.
9. Any openings where the field wiring enters the cabinet must be completely sealed.

The following problems can be caused by voltage drop down:

- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

Cable Connection Method

Figure 285: Cable Connection Method



⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Wired Remote Controller Installation

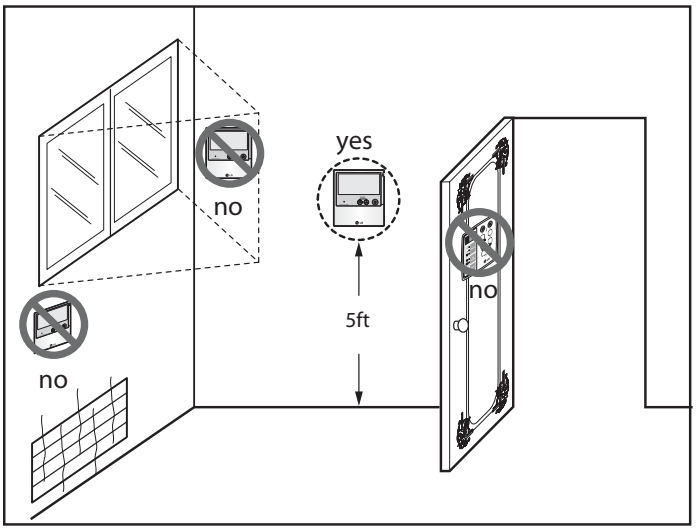
Since the room temperature sensor is inside the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

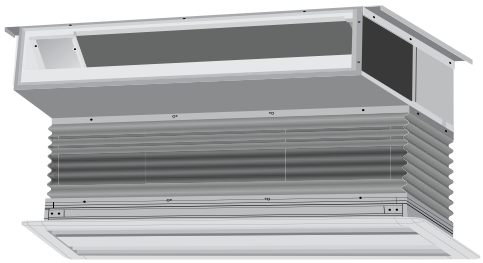
Do not install the remote controller where it can be affected by the following :

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

Figure 286: Wired Remote Controller Installation





DUCTED (LOW STATIC BOTTOM RETURN)

GENERAL DATA

Ducted (Low Static Bottom Return) Unit Specifications

ARNU073B3G2, ARNU093B3G2, ARNU123B3G2

Table 197: Ducted (Low Static Bottom Return) Unit General Data

Type	Ducted (Low Static Bottom Return)		
	ARNU073B3G2	ARNU093B3G2	ARNU123B3G2
Cooling Mode Performance			
Capacity (Btu/h)	7,500	9,600	12,300
Power Input[1] (W)	30	30	30
Heating Mode Performance			
Capacity (Btu/h)	8,500	10,900	13,600
Power Input[1] (W)	30	30	30
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	33/32/29	34/33/32	35/34/33
Net Unit Weight (lbs)	47	47	47
Shipping Weight (lbs)	51	51	51
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	2	2	2
Housing	3	3	3
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM) High Mode (factory set)	283/229/194	318/247/212	353/283/229
External Static Pressure (in wg) High Mode (factory set)	0.08	0.08	0.08
Airflow Rate H/M/L (CFM) Standard Mode	283/229/194	318/247/212	353/283/229
External Static Pressure (in wg) Standard Mode	0	0	0
Piping			
Liquid Line (in, OD)	1/4	1/4	1/4
Vapor Line (in, OD)	1/2	1/2	1/2
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
1Power Input is rated at high speed.
2Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
3Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Ducted (Low Static Bottom Return) Unit Specifications

ARNU153B3G2, ARNU183B4G2, ARNU243B4G2

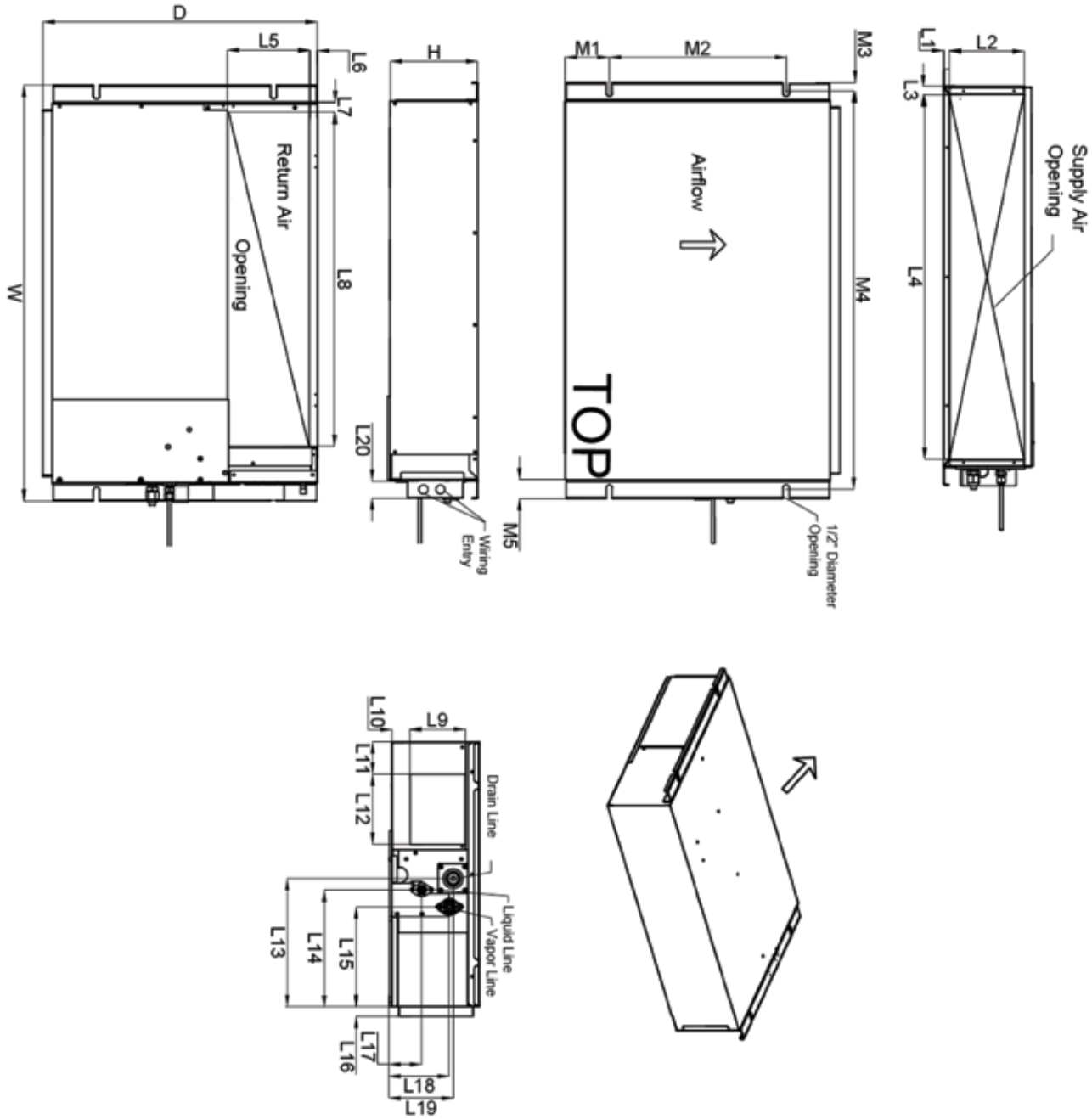
Table 198: Ducted (Low Static Bottom Return) Unit General Data

Type	Ducted (Low Static Bottom Return)		
	ARNU153B3G2	ARNU183B4G2	ARNU243B4G2
Cooling Mode Performance			
Capacity (Btu/h)	15,400	19,100	24,200
Power Input[1] (W)	30	80	80
Heating Mode Performance			
Capacity (Btu/h)	17,100	21,500	27,300
Power Input[1] (W)	30	80	80
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	41/40/37	43/40/37	46/43/37
Net Unit Weight (lbs)	47	58	58
Shipping Weight (lbs)	51	65	65
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	2	2	2
Housing	3	4	4
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM) High Mode (factory set)	388/353/283	494/424/353	600/530/353
External Static Pressure (in wg) High Mode (factory set)	0.08	0.08	0.08
Airflow Rate H/M/L (CFM) Standard Mode	388/353/283	494/424/353	600/530/535
External Static Pressure (in wg) Standard Mode	0	0	0
Piping			
Liquid Line (in, OD)	1/4	1/4	3/8
Vapor Line (in, OD)	1/2	1/2	5/8
Condensate Line (in, ID)	1	1	1

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
1Power Input is rated at high speed.
2Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
3Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

B3 Chassis

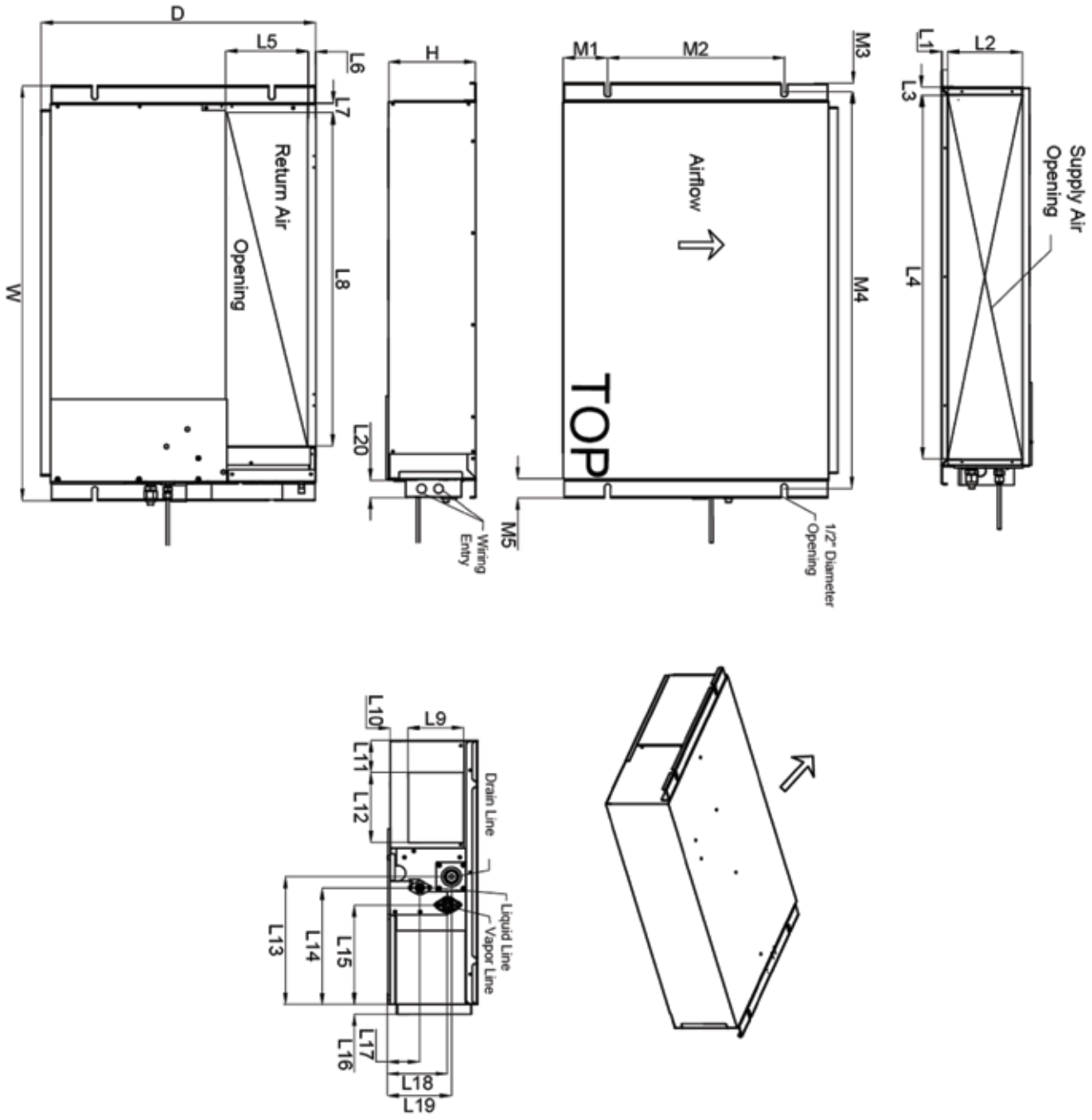


W	35-1/2"
H	7-1/2"
D	23-3/8"
L1	1/2"
L2	6-7/16"
L3	1/2"
L4	31-5/16"
L5	7"
L6	11/16"
L7	3/4"
L8	28-9/16"
L9	4-11/16"
L10	1-9/16"
L11	2-3/4"
L12	5-15/16"
L13	10-7/8"
L14	9-7/16"
L15	8-1/2"
L16	7/8"
L17	2-9/16"
L18	4-15/16"
L19	5-1/16"
L20	1-7/16"
M1	3-11/16"
M2	15"
M3	15/16"
M4	33-7/16"
M5	1-9/16"

Note - All dimensions have a tolerance of ± 0.25 in.

DIMENSIONS

B4 Chassis



W	46-7/16"
H	7-1/2"
D	22-5/8"
L1	1/2"
L2	6-7/16"
L3	1/2"
L4	41-5/16"
L5	7"
L6	11/16"
L7	3/4"
L8	39-9/16"
L9	4-11/16"
L10	1-9/16"
L11	2-3/4"
L12	5-15/16"
L13	10-7/8"
L14	9-7/16"
L15	8-1/2"
L16	7/8"
L17	2-9/16"
L18	4-15/16"
L19	5-1/16"
L20	1-7/16"
M1	3-11/16"
M2	15"
M3	15/16"
M4	44-7/16"
M5	1-9/16"

Note - All dimensions have a tolerance of ± 0.25 in.

PERFORMANCE DATA

Cooling Capacity

ARNU073B3G2, ARNU093B3G2

Table 199: ARNU073B3G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
25	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
30	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
35	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
40	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
45	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
50	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
55	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.7	5.8
60	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.6	5.8
65	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.5	5.7
70	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.3	5.6
75	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.9	5.8	9.1	5.5
80	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.4	5.9	8.7	5.8	8.9	5.5
85	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.3	5.8	8.4	5.5	8.6	5.2
90	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	8.2	5.7	8.3	5.5	8.4	5.2
95	5.0	4.2	6.0	4.8	6.8	5.2	**7.5**	**5.5**	8.0	5.7	8.2	5.4	8.3	5.1
100	5.0	4.2	6.0	4.8	6.8	5.2	7.5	5.5	7.9	5.6	8.0	5.4	8.2	5.1
105	5.0	4.2	5.7	4.6	6.5	4.9	7.2	5.3	7.4	5.3	7.7	5.2	7.9	5.0
110	4.8	4.1	5.4	4.3	6.0	4.6	6.8	4.9	6.9	4.9	7.4	4.9	7.7	4.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 200: ARNU093B3G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
25	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
30	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
35	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
40	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
45	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
50	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.4
55	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.4	7.5
60	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.3	7.4
65	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	12.1	7.3
70	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	11.9	7.2
75	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.4	7.5	11.6	7.0
80	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.8	7.5	11.1	7.4	11.3	7.0
85	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.7	7.5	10.8	7.1	10.9	6.7
90	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.5	7.3	10.6	7.0	10.8	6.6
95	6.3	5.4	7.7	6.2	8.6	6.6	**9.6**	**7.0**	10.3	7.3	10.5	6.9	10.7	6.6
100	6.3	5.4	7.7	6.2	8.6	6.6	9.6	7.0	10.1	7.2	10.3	6.9	10.5	6.5
105	6.3	5.4	7.3	5.9	8.3	6.3	9.2	6.7	9.4	6.7	9.9	6.6	10.1	6.3
110	6.1	5.2	6.9	5.6	7.7	5.9	8.6	6.3	8.8	6.3	9.4	6.3	9.8	6.2

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 201: ARNU123B3G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
25	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
30	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
35	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
40	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
45	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
50	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.5
55	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.9	9.6
60	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.7	9.5
65	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.5	9.4
70	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	15.3	9.2
75	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.6	9.6	14.9	9.0
80	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.8	9.6	14.3	9.5	14.5	9.0
85	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.7	9.6	13.8	9.1	14.0	8.6
90	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	13.4	9.4	13.5	8.9	13.8	8.5
95	8.1	6.9	9.8	7.9	11.1	8.5	**12.3**	**9.0**	13.2	9.3	13.4	8.9	13.7	8.4
100	8.1	6.9	9.8	7.9	11.1	8.5	12.3	9.0	12.9	9.2	13.2	8.8	13.4	8.3
105	8.1	6.9	9.3	7.5	10.6	8.1	11.8	8.6	12.1	8.6	12.7	8.5	12.9	8.1
110	7.9	6.7	8.9	7.1	9.8	7.5	11.1	8.1	11.3	8.1	12.1	8.1	12.5	7.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 202: ARNU153B3G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
25	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
30	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
35	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
40	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
45	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
50	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	11.9
55	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.9	12.0
60	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.7	11.9
65	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.4	11.7
70	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	19.1	11.5
75	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	18.3	12.0	18.6	11.3
80	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.2	12.1	17.9	11.9	18.2	11.2
85	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	17.1	12.0	17.2	11.4	17.6	10.8
90	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	16.8	11.7	16.9	11.2	17.2	10.6
95	10.2	8.6	12.3	9.9	13.9	10.6	**15.4**	**11.2**	16.5	11.7	16.8	11.1	17.1	10.5
100	10.2	8.6	12.3	9.9	13.9	10.6	15.4	11.2	16.2	11.5	16.5	11.0	16.8	10.4
105	10.2	8.6	11.7	9.4	13.2	10.1	14.8	10.8	15.1	10.8	15.9	10.7	16.2	10.2
110	9.9	8.4	11.1	8.9	12.3	9.4	13.9	10.1	14.2	10.1	15.1	10.1	15.7	9.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU183B4G2, ARNU243B4G2

Table 203: ARNU183B4G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
25	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
30	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
35	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
40	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
45	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
50	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
55	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
60	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.4	14.3
65	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.1	14.1
70	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	23.7	13.9
75	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	23.1	13.6
80	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.2	14.4	22.5	13.5
85	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.2	14.4	21.4	13.7	21.8	13.0
90	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	20.8	14.2	21.0	13.5	21.4	12.8
95	12.6	10.4	15.3	12.0	17.2	12.8	**19.1**	**13.6**	20.4	14.1	20.8	13.4	21.2	12.7
100	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	20.1	13.9	20.4	13.3	20.8	12.6
105	12.6	10.4	14.5	11.4	16.4	12.2	18.3	13.0	18.7	13.0	19.7	12.8	20.1	12.3
110	12.2	10.1	13.8	10.8	15.3	11.4	17.2	12.2	17.6	12.2	18.7	12.2	19.5	11.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 204: ARNU243B4G2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
25	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
30	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
35	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
40	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
45	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
50	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
55	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
60	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.0	18.2
65	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	30.5	17.9
70	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	30.0	17.6
75	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	29.3	17.2
80	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.1	18.2	28.6	17.1
85	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	26.9	18.3	27.1	17.4	27.6	16.5
90	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	26.4	18.0	26.6	17.1	27.1	16.2
95	16.0	13.2	19.4	15.2	21.8	16.2	**24.2**	**17.2**	25.9	17.9	26.4	17.0	26.9	16.1
100	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	25.4	17.6	25.9	16.9	26.4	15.9
105	16.0	13.2	18.4	14.4	20.8	15.5	23.2	16.5	23.7	16.5	24.9	16.3	25.4	15.6
110	15.5	12.8	17.4	13.6	19.4	14.4	21.8	15.5	22.3	15.5	23.7	15.5	24.7	15.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 205: ARNU073B3G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	5.7	5.7	5.7	5.7	5.6	5.6	5.6	5.6
0	-0.4	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8
5.0	4.5	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5
10.0	9.0	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8
15.0	14.0	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.1
20.0	19.0	7.7	7.7	7.7	7.7	7.5	7.5	7.4	7.3
25.0	23.0	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.7
30.0	28.0	8.2	8.2	8.2	8.2	8.2	8.1	7.8	7.6
35.0	32.0	8.5	8.5	8.5	8.5	8.4	8.2	7.8	7.4
40.0	36.0	8.8	8.8	8.8	8.8	8.5	8.2	7.8	7.4
45.0	41.0	9.2	9.2	9.2	8.9	8.5	8.2	7.8	7.4
47.0	43.0	9.5	9.4	9.4	8.9	**8.5**	8.2	7.8	7.4
50.0	46.0	10.2	9.8	9.4	8.9	8.5	8.2	7.8	7.4
55.0	51.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4
60.0	56.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4

TC: Total Capacity (MBh)

Table 206: ARNU093B3G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0	-0.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
5.0	4.5	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.3
10.0	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
15.0	14.0	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.2
20.0	19.0	9.9	9.9	9.9	9.9	9.7	9.7	9.5	9.4
25.0	23.0	10.4	10.4	10.4	10.4	10.4	10.1	10.0	9.9
30.0	28.0	10.6	10.6	10.6	10.6	10.6	10.4	10.0	9.7
35.0	32.0	10.9	10.9	10.9	10.9	10.8	10.6	10.0	9.5
40.0	36.0	11.3	11.3	11.3	11.3	10.9	10.6	10.0	9.5
45.0	41.0	11.8	11.8	11.8	11.4	10.9	10.6	10.0	9.5
47.0	43.0	12.2	12.1	12.0	11.4	**10.9**	10.6	10.0	9.5
50.0	46.0	13.1	12.5	12.0	11.4	10.9	10.6	10.0	9.5
55.0	51.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5
60.0	56.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5

TC: Total Capacity (MBh)

Table 207: ARNU123B3G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
0	-0.4	9.4	9.4	9.4	9.4	9.4	9.2	9.2	9.2
5.0	4.5	10.6	10.5	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9
15.0	14.0	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.4
20.0	19.0	12.4	12.4	12.4	12.4	12.1	12.1	11.9	11.7
25.0	23.0	12.9	12.9	12.9	12.9	12.9	12.6	12.5	12.4
30.0	28.0	13.2	13.2	13.2	13.2	13.2	12.9	12.5	12.1
35.0	32.0	13.6	13.6	13.6	13.6	13.5	13.2	12.5	11.9
40.0	36.0	14.1	14.1	14.1	14.1	13.6	13.2	12.5	11.9
45.0	41.0	14.7	14.7	14.7	14.3	13.6	13.2	12.5	11.9
47.0	43.0	15.2	15.1	15.0	14.3	**13.6**	13.2	12.5	11.9
50.0	46.0	16.4	15.6	15.0	14.3	13.6	13.2	12.5	11.9
55.0	51.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9
60.0	56.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU153B3G2, ARNU183B4G2, ARNU243B4G2

Table 208: ARNU153B3G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	11.5	11.5	11.5	11.5	11.3	11.3	11.3	11.3
0	-0.4	11.8	11.8	11.8	11.8	11.8	11.6	11.6	11.6
5.0	4.5	13.3	13.2	13.0	13.0	13.0	13.0	13.0	13.0
10.0	9.0	13.9	13.9	13.9	13.7	13.7	13.7	13.7	13.7
15.0	14.0	14.7	14.7	14.7	14.7	14.7	14.7	14.5	14.4
20.0	19.0	15.6	15.6	15.6	15.6	15.2	15.2	15.0	14.8
25.0	23.0	16.2	16.2	16.2	16.2	16.2	15.9	15.7	15.6
30.0	28.0	16.6	16.6	16.6	16.6	16.6	16.2	15.7	15.2
35.0	32.0	17.1	17.1	17.1	17.1	16.9	16.6	15.7	14.9
40.0	36.0	17.8	17.8	17.8	17.8	17.1	16.6	15.7	14.9
45.0	41.0	18.5	18.5	18.5	18.0	17.1	16.6	15.7	14.9
47.0	43.0	19.2	19.0	18.8	18.0	**17.1**	16.6	15.7	14.9
50.0	46.0	20.6	19.7	18.8	18.0	17.1	16.6	15.7	14.9
55.0	51.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9
60.0	56.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9

TC: Total Capacity (MBh)

Table 209: ARNU183B4G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

Table 210: ARNU243B4G2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

EXTERNAL STATIC PRESSURE & AIR FLOW

B3, B4 Chassis

Table 211: B3 Chassis External Static Pressure & Air Flow

Setting Value	Static Pressure (in wg)				
	0	0.04	0.08	0.11	0.15
60	222	107	32	-	-
65	233	170	53	-	-
70	271	199	76	27	-
75	289	221	99	30	-
80	314	262	175	55	-
85	335	287	208	97	33
90	360	309	239	120	48
95	382	339	286	193	92
100	399	372	318	216	116
105	418	395	352	292	187
110	447	419	366	323	244
115	465	431	407	360	290

Table 212: B4 Chassis Models External Static Pressure & Air Flow

Setting Value	Static Pressure (in wg)				
	0	0.04	0.08	0.11	0.15
60	364	271	125	-	-
65	390	309	166	48	-
70	418	353	245	76	-
75	449	379	291	167	44
80	475	428	350	238	96
85	500	467	371	297	128
90	539	498	434	347	219
95	568	521	476	366	239
100	597	560	511	450	350
105	628	596	535	493	383
110	655	630	569	534	458
115	671	655	612	574	515

1. All static pressure air flow rates are listed in CFM.
2. The tables above show the correlation between air flow rates and external static pressure.
3. The tables above show the available external static pressure range.

⚠CAUTION

If the external static pressure of the installed indoor unit is less than the lowest value (as mentioned in the table), the indoor unit components can fail.

EXTERNAL STATIC PRESSURE RANGE

B3, B4 Chassis

Table 213: B3 Chassis External Static Pressure & Air Flow

Model	Capacity (MBh)	Mode		Setting Value	Standard ESP (in wg)	CFM	Lower Limit of ESP (in wg)	Upper Limit of ESP (in wg)
ARNU073B3G2	7.5	High (factory set)	High	94	0.08	283	-	0.15
			Mid	88		229		
			Low	83		194		
		Standard	High	74	0	283	-	0.15
			Mid	62		229		
			Low	56		194		
ARNU093B3G2	9.6	High (factory set)	High	99	0.08	318	-	0.15
			Mid	89		247		
			Low	85		212		
		Standard	High	82	0	318	-	0.15
			Mid	66		247		
			Low	58		212		
ARNU123B3G2	12.3	High (factory set)	High	105	0.08	353	-	0.15
			Mid	94		282		
			Low	88		229		
		Standard	High	90	0	353	-	0.15
			Mid	74		282		
			Low	62		229		
ARNU153B3G2	15.4	High (factory set)	High	110	0.08	388	-	0.15
			Mid	105		353		
			Low	94		283		
		Standard	High	96	0	388	-	0.15
			Mid	90		353		
			Low	74		283		

Table 214: B4 Chassis External Static Pressure & Air Flow

Model	Capacity (MBh)	Mode		Setting Value	Standard ESP (in wg)	CFM	Lower Limit of ESP (in wg)	Upper Limit of ESP (in wg)
ARNU183B4G2	19.1	High (factory set)	High	115	0.08	494	-	0.15
			Mid	103		424		
			Low	93		353		
		Standard	High	100	0	494	-	0.15
			Mid	86		424		
			Low	74		353		
ARNU243B4G2	24.2	High (factory set)	High	128	0.08	600	-	0.15
			Mid	118		530		
			Low	93		353		
		Standard	High	116	0	600	-	0.15
			Mid	104		530		
			Low	74		353		

The tables above show the available E.S.P. range.

Table 215: Ducted (Low Static Bottom Return) Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU073B3G2	187-253	0.22	15	0.1	60	208-230	1	30	30
ARNU093B3G2		0.22		0.1				30	30
ARNU123B3G2		0.22		0.1				30	30
ARNU153B3G2		0.22		0.1				30	30
ARNU183B4G2		0.55		0.25				80	80
ARNU243B4G2		0.55		0.25				80	80

MCA = Minimum Circuit Ampacity MOP = Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 216: Ducted (Low Static Bottom Return) Unit Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU073B3G2	33	32	29
ARNU093B3G2	34	33	32
ARNU123B3G2	35	34	33
ARNU153B3G2	41	40	37
ARNU183B4G2	43	40	37
ARNU243B4G2	46	43	37

Figure 287: ARNU073B3G2 + PBSGB30 (Accessory), PBSC30 (Accessory)

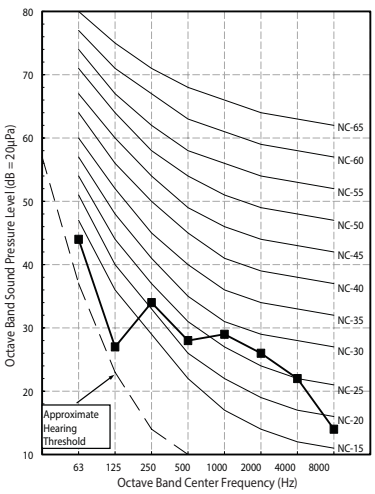


Figure 288: ARNU093B3G2 + PBSGB30 (Accessory), PBSC30 (Accessory)

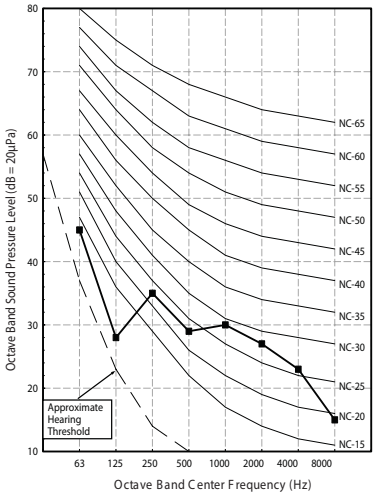
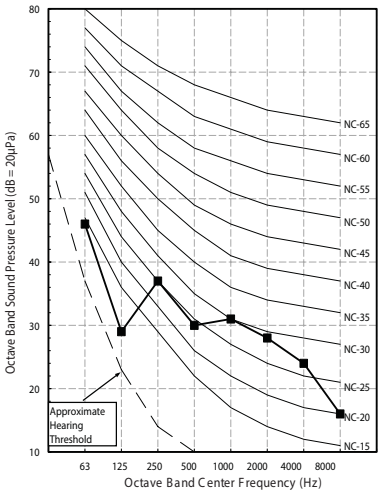


Figure 289: ARNU123B3G2 + PBSGB30 (Accessory), PBSC30 (Accessory)



ACOUSTIC DATA

B3, B4 Chassis

Figure 290: ARNU153B3G2 + PBSGB30 (Accessory), PBSC30 (Accessory)

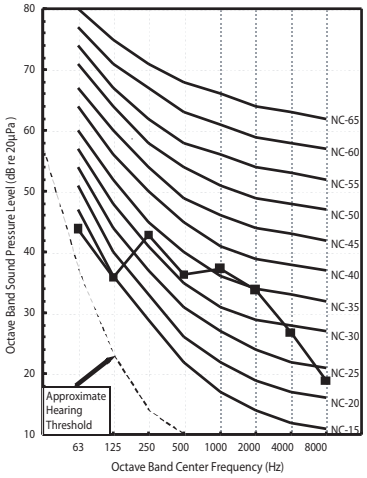


Figure 291: ARNU183B4G2 + PBSGB40 (Accessory), PBSC40 (Accessory)

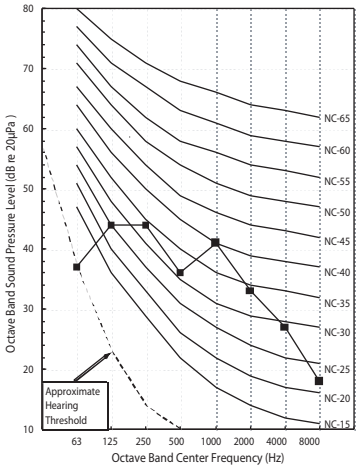
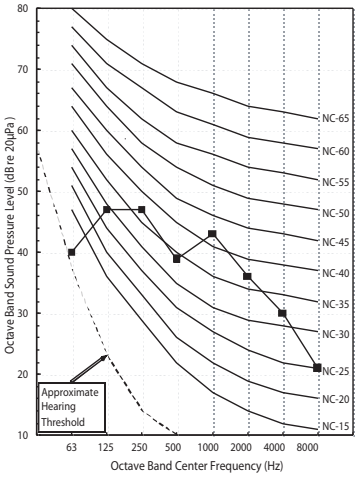


Figure 292: ARNU243B4G2 + PBSGB40 (Accessory), PBSC40 (Accessory)



- Measurements are taken 4.9 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions:

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 293: Sound Levels

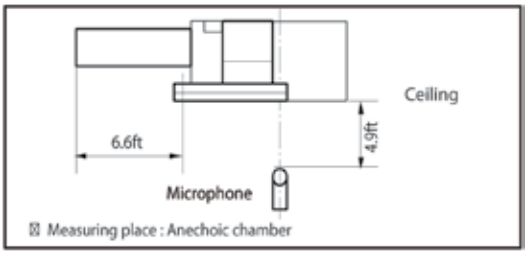


Figure 294: B3, B4 Chassis Piping Diagram

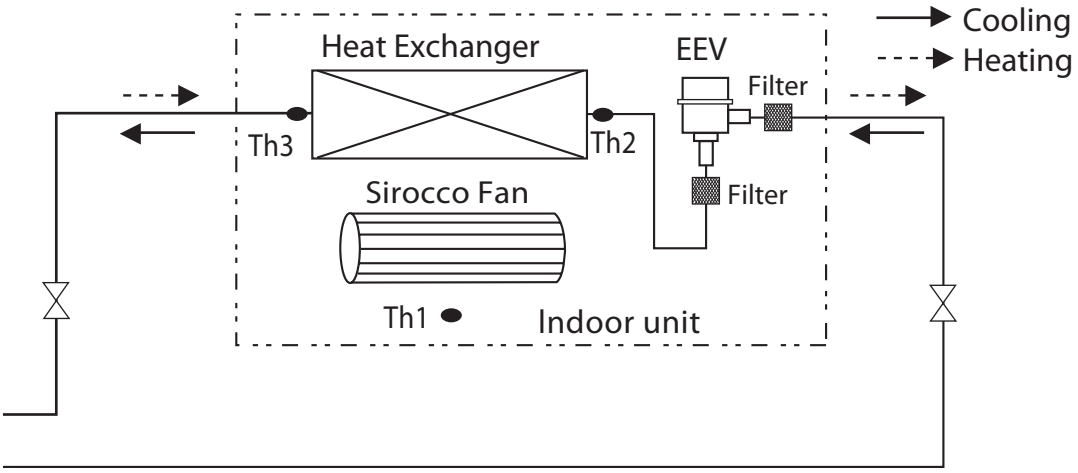


Table 217: B3, B4 Chassis Refrigerant Pipe Connection Port Diameters

Model	Liquid (inch)	Gas (inch)
ARNU073B3G2	1/4	1/2
ARNU093B3G2	1/4	1/2
ARNU123B3G2	1/4	1/2
ARNU153B3G2	1/4	1/2
ARNU183B4G2	1/4	1/2
ARNU243B4G2	3/8	5/8

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

WIRING DIAGRAMS

B3, B4 Chassis

Figure 295: B3, B4 Chassis Wiring Diagram

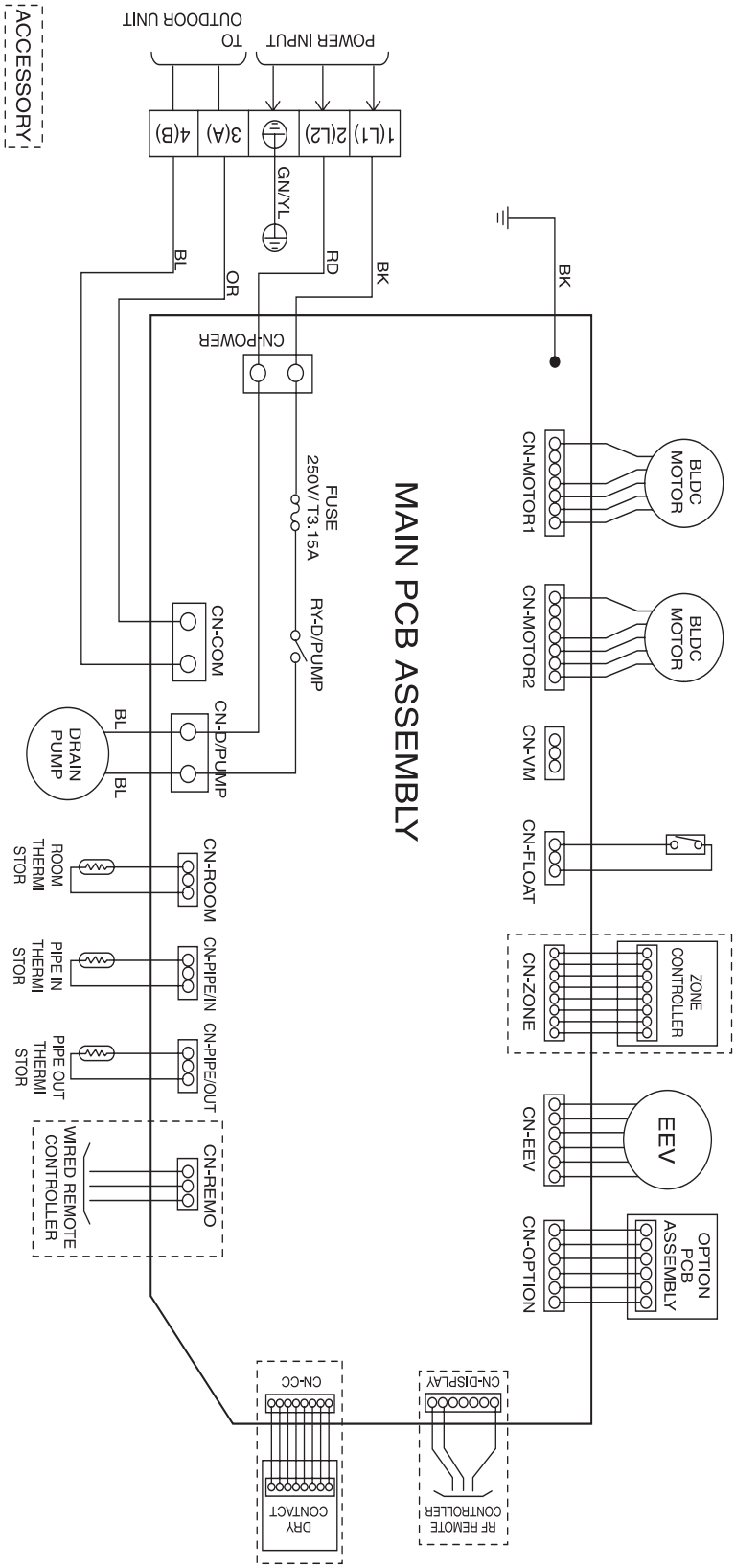


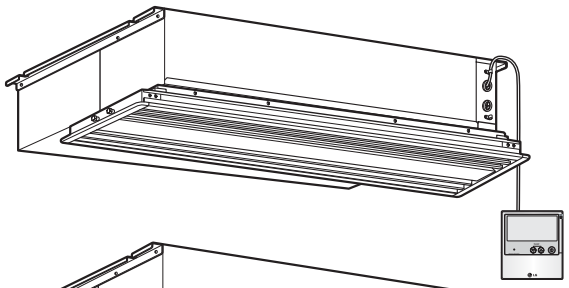
Table 218: B3, B4 Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-FLOAT	Float switch input	Float switch sensing
CN-EEV	EEV output	EEV control output
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-OPTION	Option PWB	Communication between main and option
CN-COM	Communication	Communication between indoor and outdoor
CN-POWER	AC power supply	AC power line input for indoor controller
CN-ZONE	Zone controller	Zone control line
CN-DISPLAY	RF remote controller	RF remote control line
CN-CC	Dry contact	Dry contact line

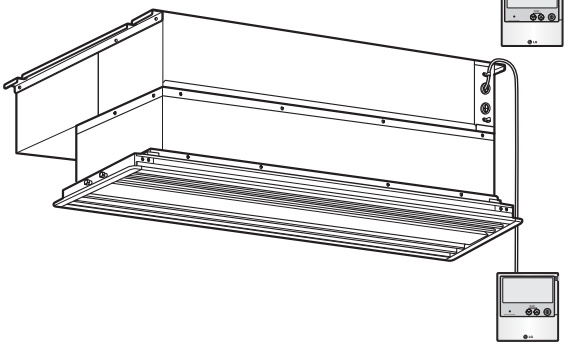
Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	-OFF: Default (does not operate continuously) -ON: Fan operates continuously

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for other models.

Figure 296: Unit Parts



Return Air Grille



Return Air Grille +
Accordion-style Canvas Duct Kit

Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Torque wrenches
- Hexagonal wrench
- Gas-leak detector
- Thermometer

Required Parts

- Clamp metal
- Drain hose
- Fitting insulation
- Hanging bracket washers
- Tie wrap clamps

⚠WARNING

1. *Please read all instructions before installing the product.*
2. *When the power cord is damaged, all replacement work must be performed by authorized personnel only.*
3. *Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.*

Selecting the Best Location

Do's

- Select a place that can support a load four times the indoor unit weight.
- Select a place where the indoor unit will be level.
- Select a place that will allow easy water drainage.
- Select a place where the indoor unit can easily connect with the outdoor unit.
- Select a place where the indoor unit will not be affected by electrical noise.
- Select a location where air circulation will not be blocked.
- The service access point in the ceiling should be as wide as the indoor unit.
- The location of the inspection hole should be approved by the customer.

Don'ts

- The unit should not be near a heat source or steam.
- The air circulation should not be blocked by obstacles.

⚠WARNING

If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

Table 219: Service Clearance

Chassis	Dimension (inch)	
	A	B
B3	23-5/8	35-7/16
B4	23-5/8	43-5/16

Figure 298: Service Clearance

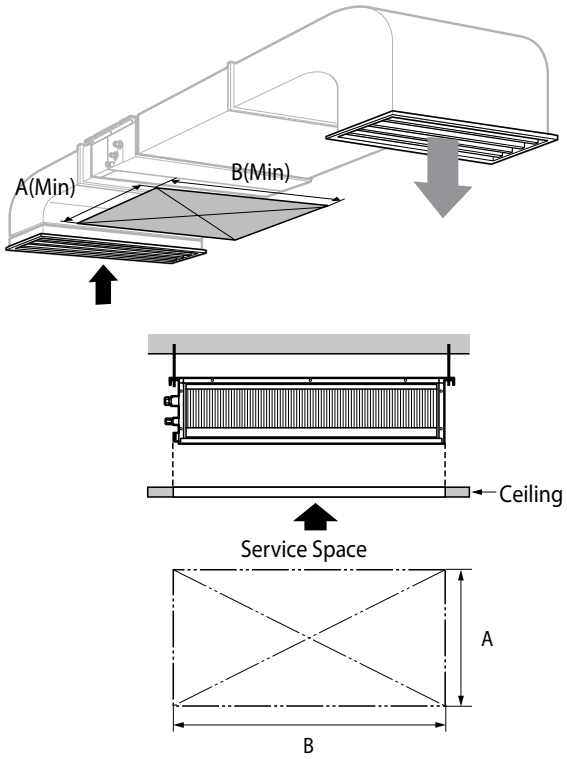
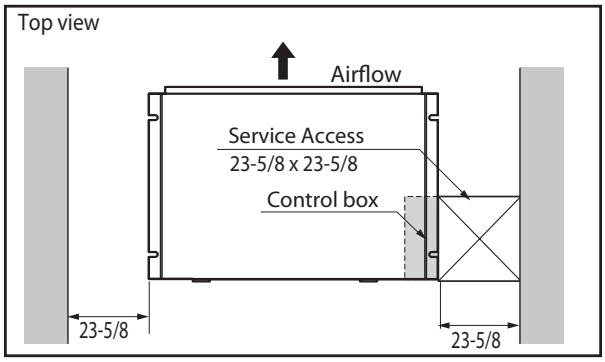
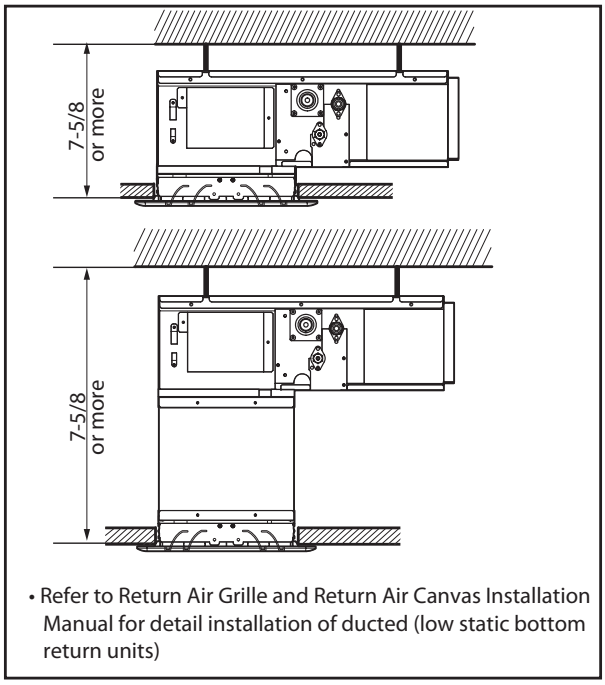


Figure 297: Selecting the Best Location

Unit: inch





- Refer to Return Air Grille and Return Air Canvas Installation Manual for detail installation of ducted (low static bottom return units)

Suspension Bolt Position

- Refer to dimensions table below.
- Apply a joint-canvas between the unit and duct to absorb unnecessary vibration.
- Apply a filter accessory at the air return opening.
- Install the unit sloping towards the drainage point (as shown) to ensure the water drains easily.

Figure 299: Suspension Bolt Position

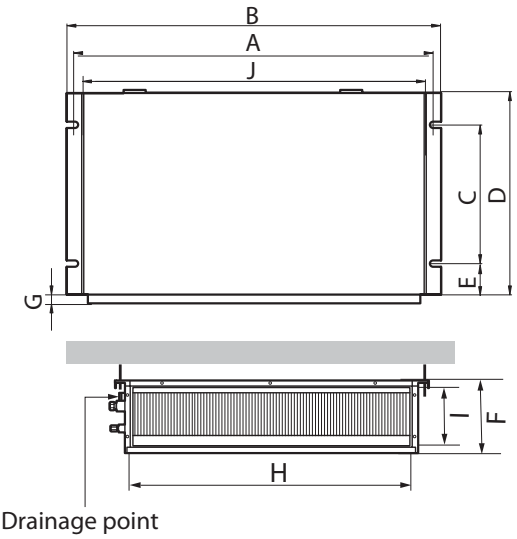
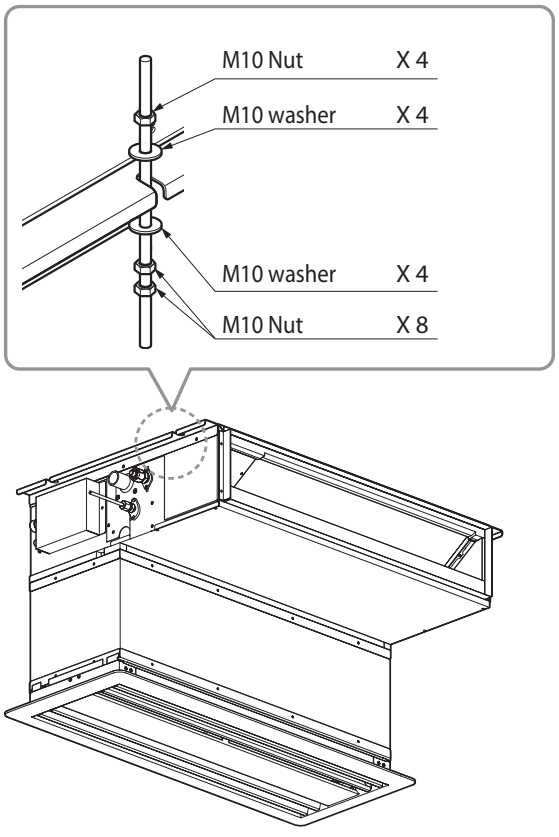


Table 220: B3, B4 Suspension Bolt Positions

Chassis	Dimension (inch)									
	A	B	C	D	E	F	G	H	I	J
B3	33-7/16	35-7/16	15	22-5/8	3-11/16	7-1/2	7/8	31-5/16	6-7/16	32-1/3
B4	44-7/16	46-1/2	15	22-5/8	3-11/16	7-1/2	7/8	41-15/16	6-7/16	43-5/16

Figure 300: Console Bolt Position



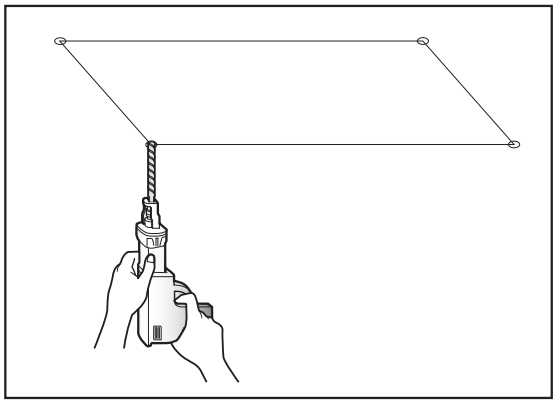
Console Bolt Position

- Place where the unit will be level and can support the weight of the unit.
- Place where the unit can withstand vibration.
- Place where service can be easily performed.

Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing the unit where inflammable gas is generated, flows, stored or vented.
- Avoid installing the unit where sulfurous acid gas or corrosive gas is generated.
- Avoid installing the unit near high frequency generators.

Figure 301: Fixing Bolts

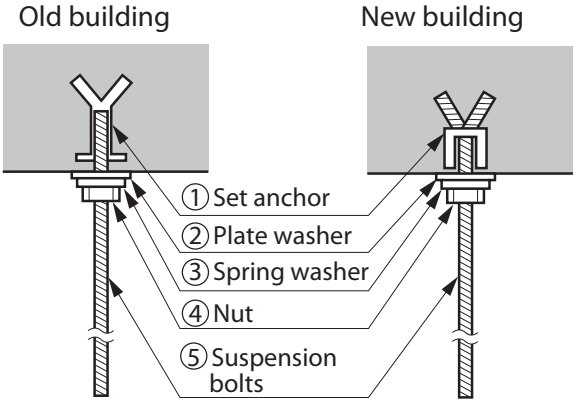


1. Insert the set anchor and washer into the suspension bolts on the ceiling.
2. Mount the suspension bolts to set the anchor firmly.
3. Secure the installation plates into the suspension bolts (adjust level roughly) using nuts, washers and spring washers.

1. Select and mark the position for fixing bolts.
2. Drill the hole for set anchor on the face of the ceiling

⚠CAUTION
Tighten the nut and bolt to prevent the unit from falling.

Figure 302: Securing Suspension Rods

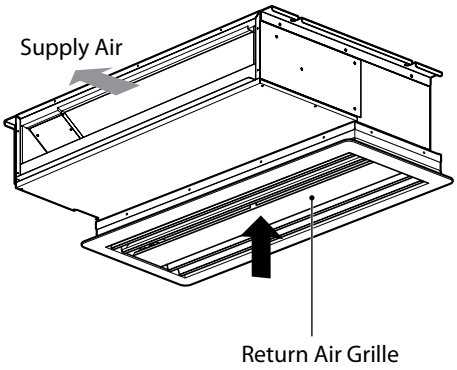


Clamping Cables

1. Arrange the power cables on the control panel.
2. Using a screw, fasten the steel clamp to the inner surface of the control panel.
3. For the heat pump model, use the 0.75 mm cable on the clamp to tighten it with a plastic clamp to the other boss of the control panel.

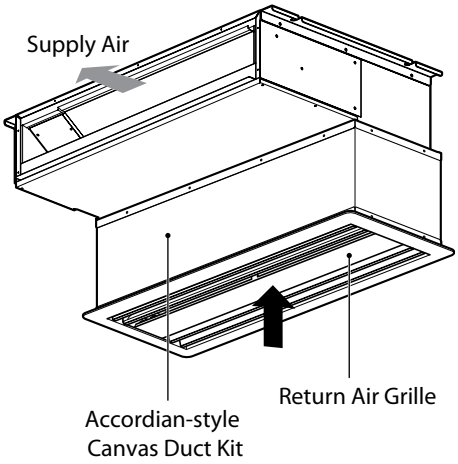
Part Names and Functions

Figure 303: Return Air Grille



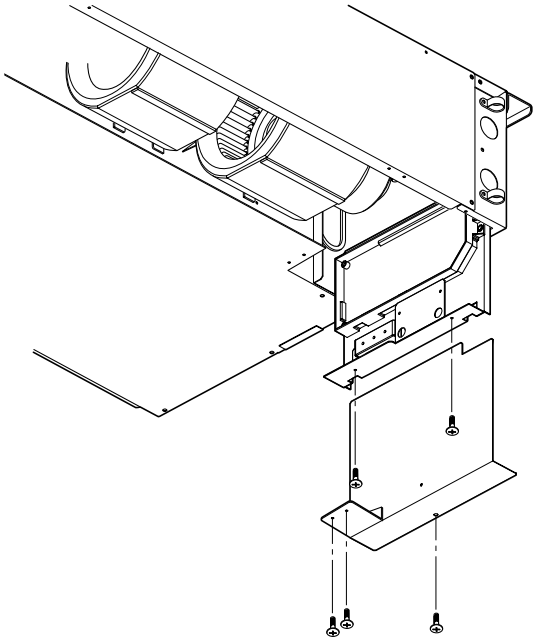
- Low Static (Bottom Return) unit with Return Air Grille

Figure 304: Return Air Grille and Canvas Duct Kit



- Buit-in duct type with Return Air Grille and Accordian-style Canvas Duct Kit

Figure 305: Control Box Service

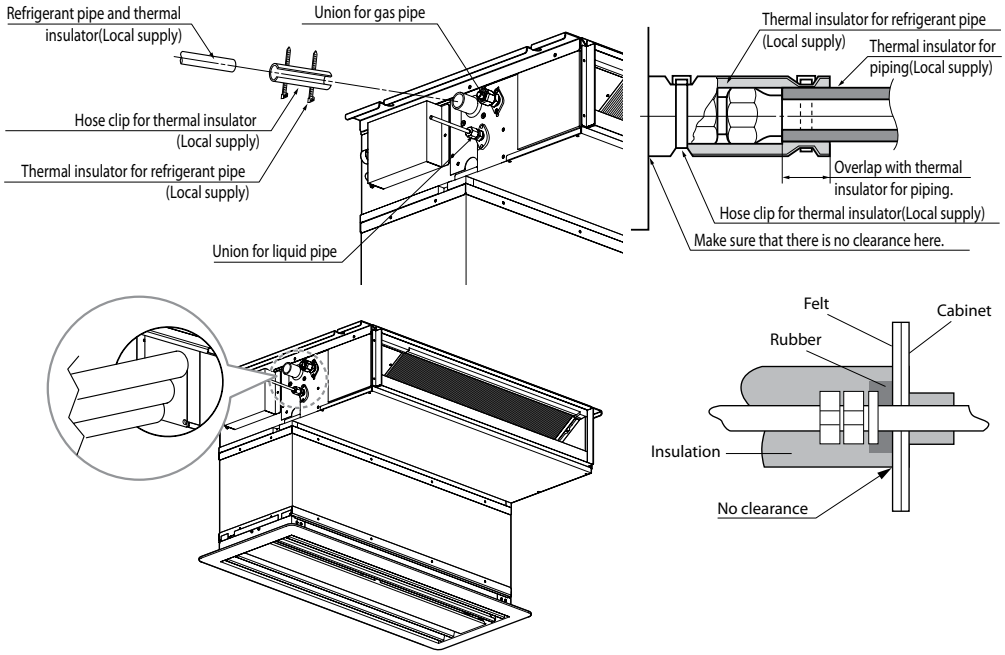


Thermal Insulation

- Completely insulate the joint and tubes.
- All thermal insulation must comply with all applicable local codes.

Figure 306: Thermal Insulation

INDOOR UNIT



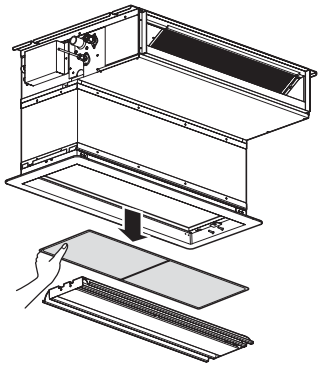
Installation Check

- Is the air circulation working properly?
- Is the drainage flowing smoothly without condensation?
- Are the pipes connected properly?
- Is the wiring connected properly?
- Has the compressor lock-bolt been loosened?
- Is the unit fully insulated?
- Is the unit safely grounded?

Drainage Check

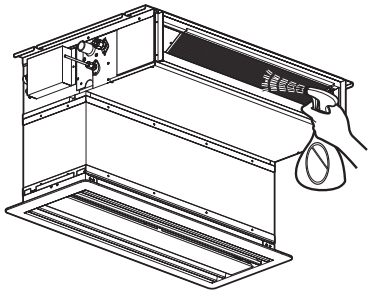
1. Remove the air filter.

Figure 307: Removing the Air Filter



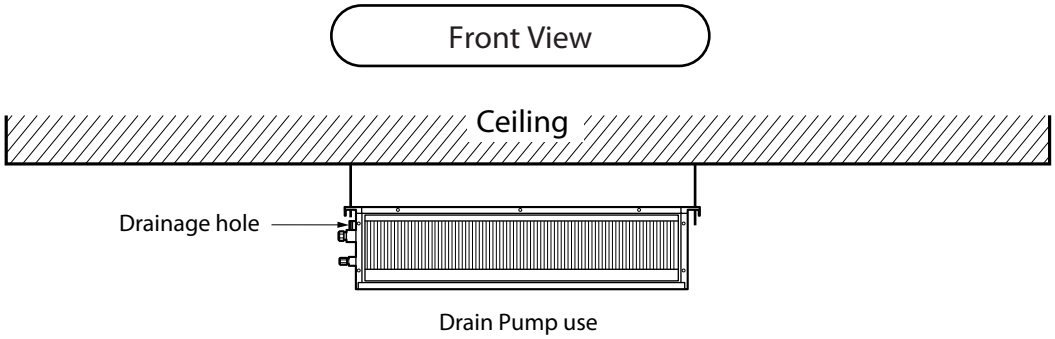
2. Spray one or two glasses of water on the evaporator.
3. Ensure that the water flows through the drain hose of the unit without any leaks.

Figure 308: Checking Drainage



- Installing the unit with a decline is essential for the drain to work properly.
- The connecting pipe insulation should be a minimum thickness of 3/4 inch.

Figure 309: Front View



Indoor Unit Drain Piping

- Drain piping must slope down 1/32 to 1/64 inches. To prevent reverse flow, do not slope the drain piping up.
- When connecting drain piping, do not exert extra force on the drain port of the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 1-1/4 inch.
- Piping material - Polyvinyl chloride pipe inner diameter 1 inch and pipe fittings,.
- Heat insulation material - Polyethylene foam with thickness more than 5/16 inch.

Figure 310: Indoor unit Drain Piping

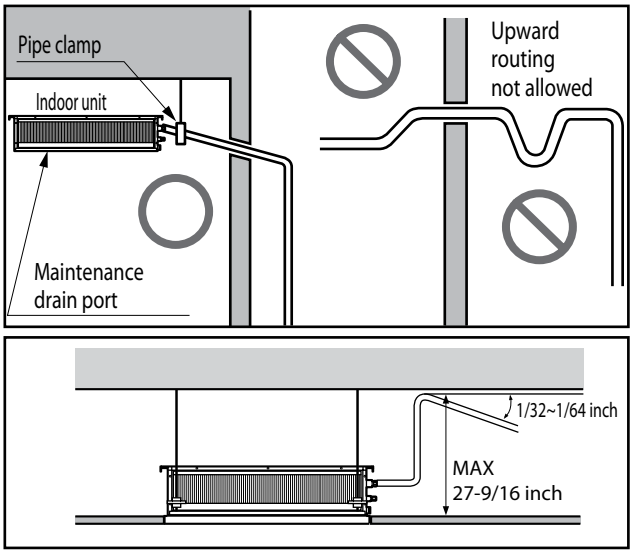
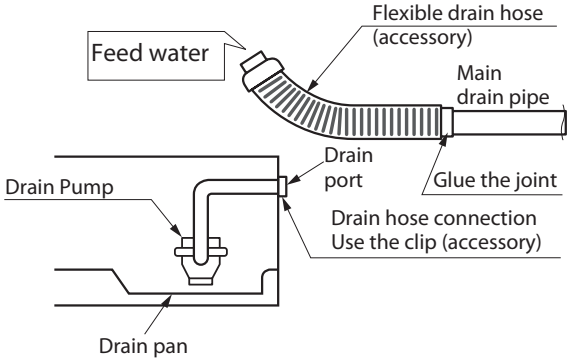


Figure 311: Drain Test

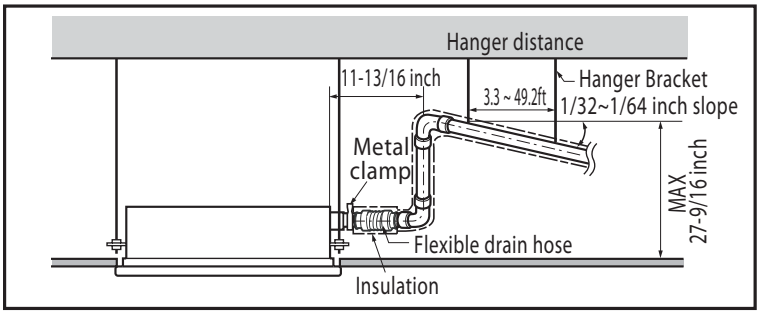


Drain Test

The unit uses a drain pump to drain water. Follow these instructions to test the drain pump operation.

- Connect the main drain pipe to the exterior.
- Feed water to the flexible drain hose and check the piping for leakage.
- Check the drain pump for normal operation and noise when electrical wiring is complete.
- When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.

Figure 312: Placement Recommendation



⚠WARNING

The drain hose should not be strained. A strained hose may cause water to leak.

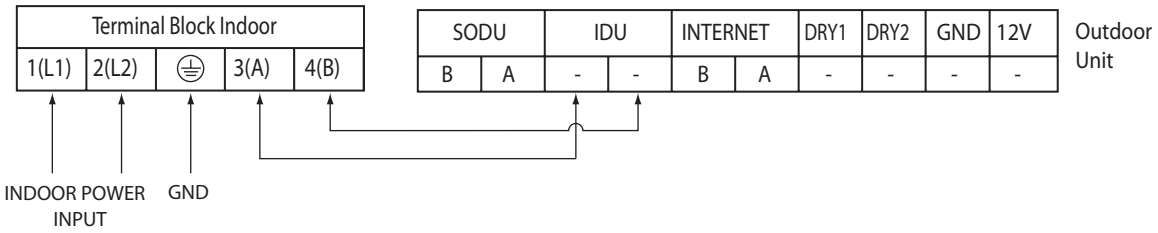
Hand Over

Using the operations manual, explain the proper operation and maintenance procedures (air filter cleaning, temperature control, etc.) to the customer.

Wiring Connection

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires on the outdoor unit and the terminal box are the same as those on the indoor unit.

Figure 313: Wiring Connection



⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Wiring

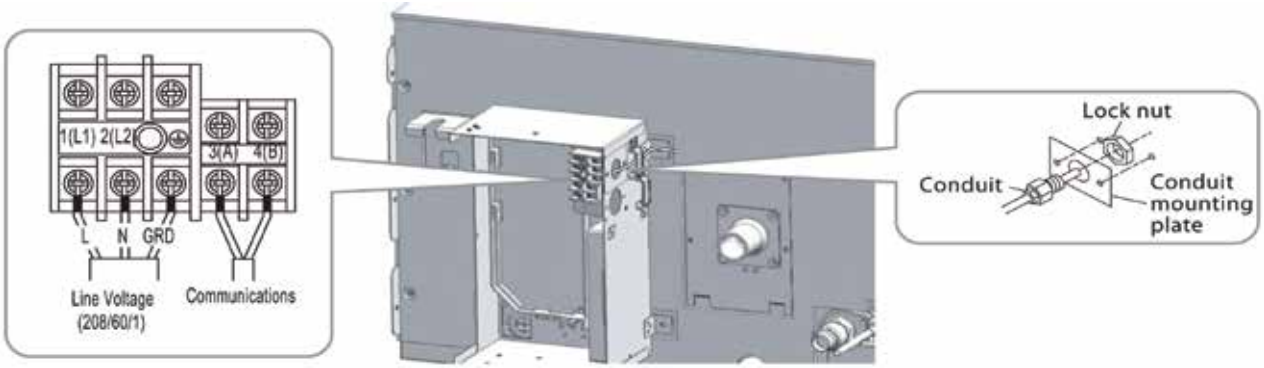
- Always have separate power for the indoor unit.
- Follow the circuit diagram provided on the inside on the control box cover.
- Provide a circuit breaker switch between the power source and indoor unit.
- Confirm the specification of the power source.
- Confirm that the electrical capacity is sufficient.
- Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
- Confirm the cable thickness is as specified in the power sources specification.
- Always equip a leakage breaker where conditions are wet or moist.

The following problems can be caused by voltage drop down:

- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

Cable Connection Method

Figure 314: Cable Connection Method



⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Wired Remote Controller Installation

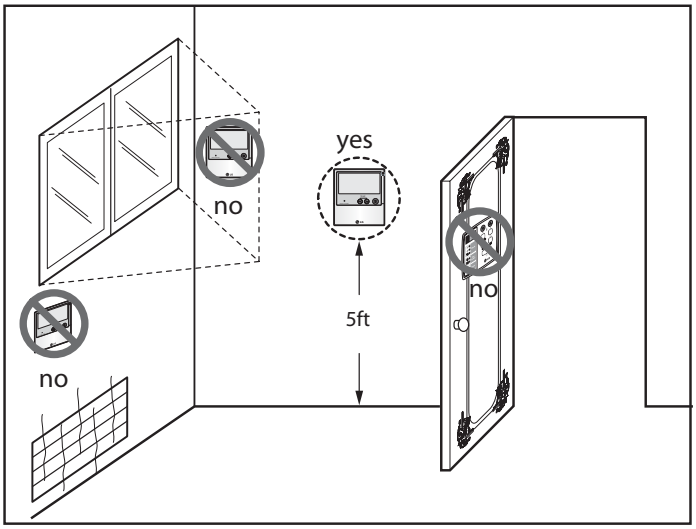
Since the room temperature sensor is inside the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

Figure 315: Wired Remote Controller Installation



VERTICAL/ HORIZONTAL AIR HANDLING UNIT

GENERAL DATA

Vertical/Horizontal Air Handling Unit Specifications

ARNU123NJA2 , ARNU183NJA2, ARNU243NJA2

Table 221: Vertical/Horizontal Air Handling Unit General Data

Type	Vertical/Horizontal Air Handling Unit		
	ARNU123NJA2	ARNU183NJA2	ARNU243NJA2
Cooling Mode Performance			
Capacity (Btu/h)	12,000	18,000	24,000
Power Input[1] (W)	80	80	120
Heating Mode Performance			
Capacity (Btu/h)	13,500	20,000	27,000
Power Input[1] (W)	80	80	120
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	41/39/39	42/41/39	43/42/41
Net Unit Weight (lbs)	117	117	117
Shipping Weight (lbs)	140	140	140
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM) High Mode (factory set)	480/380/380	530/480/380	710/640/480
External Static Pressure (in wg) High Mode (factory set)	0.5	0.5	0.5
Airflow Rate H/M/L (CFM) Standard Mode	480/380/380	530/480/380	710/640/480
External Static Pressure (in wg) Standard Mode	0.3	0.3	0.3
Piping			
Liquid Line (in, OD)	1/4	1/4	3/8
Vapor Line (in, OD)	1/2	1/2	5/8
Condensate Line (in, ID)	3/4 FPT	3/4 FPT	3/4 FPT

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes. This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
1Power Input is rated at high speed.
2Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
3Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Vertical/Horizontal Air Handling Unit Specifications

ARNU303NJA2, ARNU363NJA2

Table 222: Vertical/Horizontal Air Handling Unit General Data

Type	Vertical/Horizontal Air Handling Unit	
	ARNU303NJA2	ARNU363NJA2
Cooling Mode Performance		
Capacity (Btu/h)	30,000	36,000
Power Input[1] (W)	178	228
Heating Mode Performance		
Capacity (Btu/h)	34,000	40,000
Power Input[1] (W)	178	228
Entering Mixed Air		
Cooling Max (°F WB)	76	76
Heating Min (°F DB)	59	59
Unit Data		
Refrigerant Type[2]	R410A	R410A
Refrigerant Control	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	44/43/42	45/44/43
Net Unit Weight (lbs)	117	121
Shipping Weight (lbs)	140	140
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18
Fan		
Type	Sirocco	Sirocco
Quantity	1	1
Motor/Drive	Brushless Digitally Controlled/Direct	Brushless Digitally Controlled/Direct
Airflow Rate H/M/L (CFM) High Mode (factory set)	880/800/630	990/880/800
External Static Pressure (in wg) High Mode (factory set)	0.5	0.5
Airflow Rate H/M/L (CFM) Standard Mode	880/800/630	990/880/800
External Static Pressure (in wg) Standard Mode	0.3	0.3
Piping		
Liquid Line (in, OD)	3/8	3/8
Vapor Line (in, OD)	5/8	5/8
Condensate Line (in, ID)	3/4 FPT	3/4 FPT

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
1Power Input is rated at high speed.
2Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
3Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Vertical/Horizontal Air Handling Unit Specifications

ARNU423NKA2, ARNU483NKA2, ARNU543NKA2

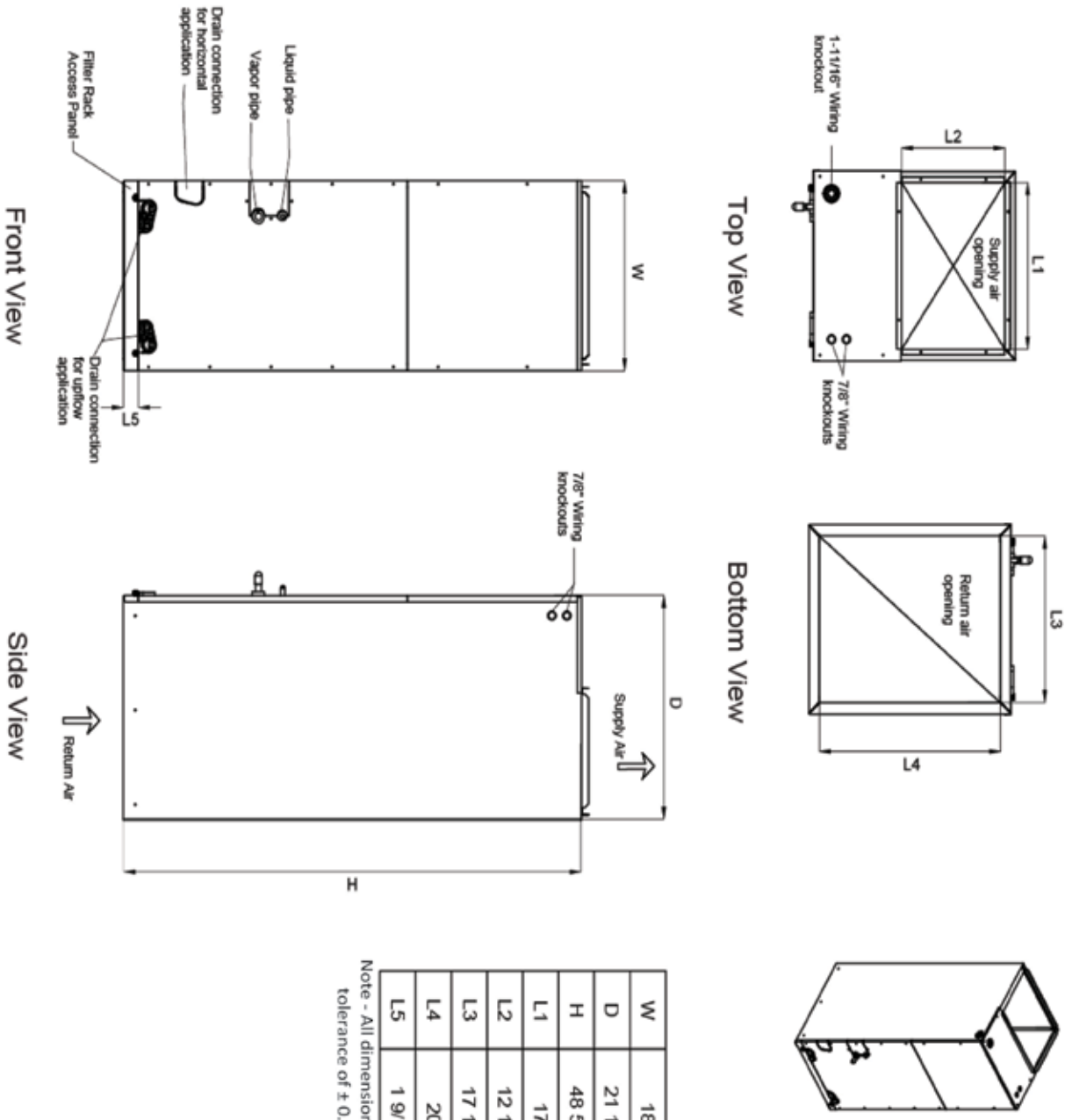
Table 223: Vertical/Horizontal Air Handling Unit General Data

Type	Vertical /Horizontal Air Handling Unit		
	ARNU423NKA2	ARNU483NKA2	ARNU543NKA2
Cooling Mode Performance			
Capacity (Btu/h)	42,000	48,000	54,000
Power Input[1] (W)	260	330	366
Heating Mode Performance			
Capacity (Btu/h)	46,000	54,000	60,000
Power Input[1] (W)	260	330	366
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	46/44/41	49/47/41	50/49/47
Net Unit Weight (lbs)	165	165	165
Shipping Weight (lbs)	181	181	181
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Quantity	1	1	1
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM) High Mode (factory set)	1,250/1,100/1,000	1,400/1,260/1,000	1,475/1,400/1,260
External Static Pressure (in wg) High Mode (factory set)	0.5	0.5	0.5
Airflow Rate H/M/L (CFM) Standard Mode	1,250/1,100/1,000	1,400/1,260/1,000	1,475/1,400/1,260
External Static Pressure (in wg) Standard Mode	0.3	0.3	0.3
Piping			
Liquid Line (in, OD)	3/8	3/8	3/8
Vapor Line (in, OD)	5/8	5/8	5/8
Condensate Line (in, ID)	3/4 FPT	3/4 FPT	3/4 FPT

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes. This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
1Power Input is rated at high speed.
2Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
3Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
4All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

NJ Chassis

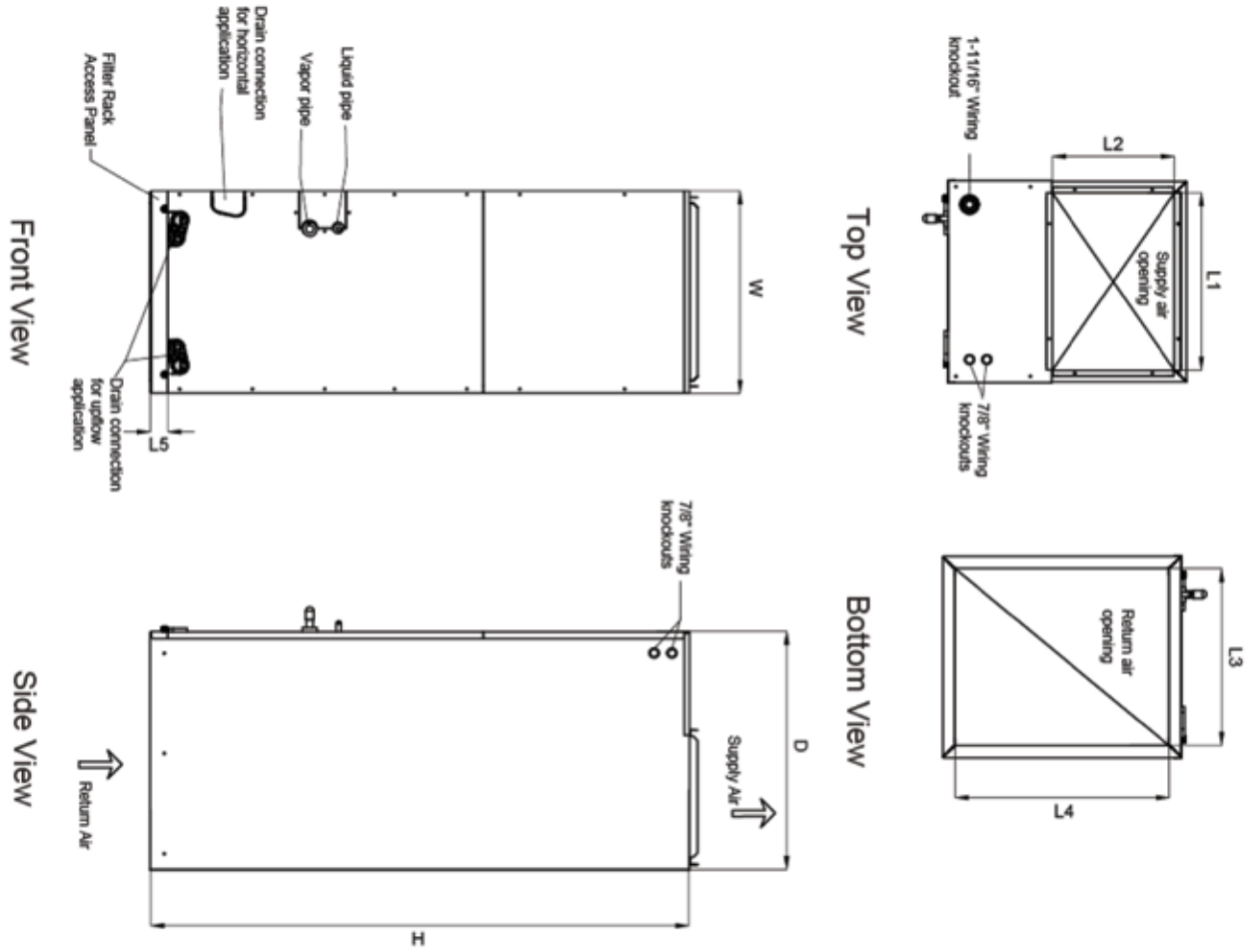


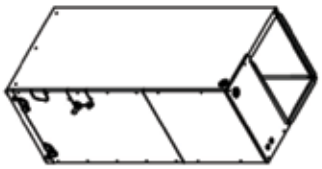
W	18"
D	21 1/4"
H	48 5/8"
L1	17"
L2	12 1/8"
L3	17 1/2"
L4	20"
L5	1 9/16"

Note - All dimensions have a tolerance of ± 0.25 in.

DIMENSIONS

NK Chassis





W	25"
D	21 1/4"
H	55 1/8"
L1	24"
L2	12 1/8"
L3	24 1/2"
L4	20"
L5	1 9/16"

Note - All dimensions have a tolerance of ± 0.25 in.

Table 224: ARNU123NJA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	15.5	10.9
25	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	15.5	10.9
30	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	15.5	10.9
35	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	15.5	10.9
40	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	15.5	10.9
45	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	15.5	10.9
50	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	15.5	10.9
55	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	15.5	10.9
60	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	15.4	10.8
65	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	15.1	10.6
70	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	14.9	10.5
75	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	14.3	10.9	14.5	10.2
80	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.5	11.0	13.9	10.8	14.2	10.2
85	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.3	10.9	13.5	10.4	13.7	9.8
90	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	13.1	10.7	13.2	10.2	13.5	9.7
95	7.9	7.8	9.6	9.0	10.8	9.6	**12.0**	**10.2**	12.9	10.6	13.1	10.1	13.3	9.6
100	7.9	7.8	9.6	9.0	10.8	9.6	12.0	10.2	12.6	10.5	12.9	10.0	13.1	9.5
105	7.9	7.8	9.1	8.6	10.3	9.2	11.5	9.8	11.8	9.8	12.4	9.7	12.6	9.3
110	7.7	7.6	8.7	8.1	9.6	8.6	10.8	9.2	11.1	9.2	11.8	9.2	12.3	9.0

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 225: ARNU183NJA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	23.2	13.6
25	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	23.2	13.6
30	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	23.2	13.6
35	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	23.2	13.6
40	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	23.2	13.6
45	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	23.2	13.6
50	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	23.2	13.6
55	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	23.2	13.6
60	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	23.0	13.5
65	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	22.7	13.3
70	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	22.3	13.1
75	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	21.4	13.6	21.8	12.8
80	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.2	13.7	20.9	13.5	21.2	12.7
85	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	20.0	13.6	20.2	12.9	20.5	12.3
90	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	19.6	13.4	19.8	12.7	20.2	12.1
95	11.9	9.8	14.4	11.3	16.2	12.0	**18.0**	**12.8**	19.3	13.3	19.6	12.7	20.0	12.0
100	11.9	9.8	14.4	11.3	16.2	12.0	18.0	12.8	18.9	13.1	19.3	12.5	19.6	11.9
105	11.9	9.8	13.7	10.7	15.5	11.5	17.3	12.3	17.6	12.3	18.5	12.1	18.9	11.6
110	11.5	9.5	13.0	10.1	14.4	10.7	16.2	11.5	16.6	11.5	17.6	11.5	18.4	11.2

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU243NJA2, ARNU303NJA2

Table 226: ARNU243NJA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	31.0	18.9
25	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	31.0	18.9
30	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	31.0	18.9
35	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	31.0	18.9
40	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	31.0	18.9
45	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	31.0	18.9
50	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	31.0	18.9
55	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	31.0	18.9
60	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	30.7	18.8
65	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	30.2	18.5
70	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	29.8	18.2
75	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	28.6	18.9	29.0	17.8
80	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.9	19.1	27.8	18.8	28.3	17.7
85	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.6	18.9	26.9	18.0	27.4	17.0
90	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	26.2	18.6	26.4	17.7	26.9	16.8
95	15.8	13.6	19.2	15.7	21.6	16.7	**24.0**	**17.8**	25.7	18.5	26.2	17.6	26.6	16.6
100	15.8	13.6	19.2	15.7	21.6	16.7	24.0	17.8	25.2	18.2	25.7	17.4	26.2	16.5
105	15.8	13.6	18.2	14.9	20.6	16.0	23.0	17.0	23.5	17.0	24.7	16.8	25.2	16.1
110	15.4	13.2	17.3	14.1	19.2	14.9	21.6	16.0	22.1	16.0	23.5	16.0	24.5	15.6

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 227: ARNU303NJA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	38.8	22.9
25	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	38.8	22.9
30	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	38.8	22.9
35	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	38.8	22.9
40	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	38.8	22.9
45	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	38.8	22.9
50	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	38.8	22.9
55	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	38.8	22.9
60	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	38.4	22.8
65	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	37.8	22.4
70	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	37.3	22.1
75	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	35.8	22.9	36.3	21.6
80	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.6	23.2	34.8	22.8	35.4	21.5
85	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	33.3	22.9	33.6	21.8	34.3	20.6
90	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	32.8	22.6	33.0	21.5	33.6	20.4
95	19.8	16.5	24.0	19.0	27.0	20.2	**30.0**	**21.6**	32.1	22.4	32.8	21.3	33.3	20.1
100	19.8	16.5	24.0	19.0	27.0	20.2	30.0	21.6	31.5	22.1	32.1	21.1	32.8	20.0
105	19.8	16.5	22.8	18.1	25.8	19.4	28.8	20.6	29.4	20.6	30.9	20.4	31.5	19.5
110	19.3	16.0	21.6	17.1	24.0	18.1	27.0	19.4	27.6	19.4	29.4	19.4	30.6	18.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 228: ARNU363NJA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	46.4	27.5
25	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	46.4	27.5
30	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	46.4	27.5
35	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	46.4	27.5
40	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	46.4	27.5
45	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	46.4	27.5
50	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	46.4	27.5
55	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	46.4	27.6
60	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	46.1	27.4
65	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	45.4	27.0
70	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	44.6	26.6
75	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	42.8	27.6	43.6	26.0
80	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.3	27.8	41.8	27.4	42.5	25.9
85	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	40.0	27.6	40.3	26.2	41.0	24.8
90	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	39.2	27.1	39.6	25.8	40.3	24.5
95	23.8	19.9	28.8	22.9	32.4	24.4	**36.0**	**25.9**	38.5	27.0	39.2	25.7	40.0	24.3
100	23.8	19.9	28.8	22.9	32.4	24.4	36.0	25.9	37.8	26.5	38.5	25.4	39.2	24.1
105	23.8	19.9	27.4	21.7	31.0	23.3	34.6	24.9	35.3	24.9	37.1	24.6	37.8	23.5
110	23.0	19.3	25.9	20.6	28.8	21.7	32.4	23.3	33.1	23.3	35.3	23.4	36.7	22.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 229: ARNU423NKA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
25	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
30	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
35	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
40	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
45	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
50	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.1
55	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	54.2	32.2
60	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	53.8	32.0
65	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	52.9	31.5
70	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	52.1	31.0
75	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	50.0	32.2	50.8	30.3
80	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	47.0	32.5	48.7	32.0	49.6	30.2
85	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	46.6	32.2	47.0	30.6	47.9	29.0
90	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	45.8	31.6	46.2	30.1	47.0	28.5
95	27.7	23.2	33.6	26.7	37.8	28.5	**42.0**	**30.2**	44.9	31.4	45.8	29.9	46.6	28.3
100	27.7	23.2	33.6	26.7	37.8	28.5	42.0	30.2	44.1	31.0	44.9	29.7	45.8	28.1
105	27.7	23.2	31.9	25.3	36.1	27.2	40.3	29.0	41.2	29.0	43.3	28.6	44.1	27.4
110	26.9	22.5	30.2	24.0	33.6	25.3	37.8	27.2	38.6	27.2	41.2	27.3	42.8	26.6

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU483NKA2, ARNU543NKA2

Table 230: ARNU483NKA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	61.9	35.2
25	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	61.9	35.2
30	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	61.9	35.2
35	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	61.9	35.2
40	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	61.9	35.2
45	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	61.9	35.2
50	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	61.9	35.2
55	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	61.9	35.2
60	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	61.4	35.0
65	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	60.5	34.5
70	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	59.5	34.0
75	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	57.1	35.3	58.1	33.2
80	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.8	35.6	55.7	35.1	56.6	33.0
85	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	53.3	35.2	53.8	33.5	54.7	31.7
90	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	52.3	34.6	52.8	33.0	53.8	31.3
95	31.7	25.4	38.4	29.2	43.2	31.2	**48.0**	**33.1**	51.4	34.4	52.3	32.8	53.3	31.0
100	31.7	25.4	38.4	29.2	43.2	31.2	48.0	33.1	50.4	33.9	51.4	32.5	52.3	30.7
105	31.7	25.4	36.5	27.8	41.3	29.8	46.1	31.8	47.0	31.8	49.4	31.4	50.4	30.0
110	30.7	24.7	34.6	26.3	38.4	27.7	43.2	29.8	44.2	29.8	47.0	29.9	49.0	29.2

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 231: ARNU543NKA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	69.7	39.6
25	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	69.7	39.6
30	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	69.7	39.6
35	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	69.7	39.6
40	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	69.7	39.6
45	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	69.7	39.6
50	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	69.7	39.6
55	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	69.7	39.6
60	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	69.1	39.4
65	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	68.0	38.8
70	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	67.0	38.2
75	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	64.3	39.7	65.3	37.3
80	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	60.5	40.0	62.6	39.4	63.7	37.2
85	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	59.9	39.7	60.5	37.7	61.6	35.7
90	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	58.9	38.9	59.4	37.1	60.5	35.2
95	35.6	28.6	43.2	32.9	48.6	35.1	**54.0**	**37.3**	57.8	38.7	58.9	36.9	59.9	34.9
100	35.6	28.6	43.2	32.9	48.6	35.1	54.0	37.3	56.7	38.2	57.8	36.6	58.9	34.6
105	35.6	28.6	41.0	31.2	46.4	33.5	51.8	35.8	52.9	35.7	55.6	35.3	56.7	33.8
110	34.6	27.7	38.9	29.6	43.2	31.2	48.6	33.5	49.7	33.6	52.9	33.6	55.1	32.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 232: ARNU123NJA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.0	9.0	9.0	9.0	8.9	8.9	8.9	8.9
0	-0.4	9.3	9.3	9.3	9.3	9.3	9.2	9.2	9.2
5.0	4.5	10.5	10.4	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	10.9	10.9	10.9	10.8	10.8	10.8	10.8	10.8
15.0	14.0	11.6	11.6	11.6	11.6	11.6	11.6	11.5	11.3
20.0	19.0	12.3	12.3	12.3	12.3	12.0	12.0	11.8	11.7
25.0	23.0	12.8	12.8	12.8	12.8	12.8	12.6	12.4	12.3
30.0	28.0	13.1	13.1	13.1	13.1	13.1	12.8	12.4	12.0
35.0	32.0	13.5	13.5	13.5	13.5	13.4	13.1	12.4	11.8
40.0	36.0	14.0	14.0	14.0	14.0	13.5	13.1	12.4	11.8
45.0	41.0	14.6	14.6	14.6	14.2	13.5	13.1	12.4	11.8
47.0	43.0	15.1	15.0	14.9	14.2	**13.5**	13.1	12.4	11.8
50.0	46.0	16.2	15.5	14.9	14.2	13.5	13.1	12.4	11.8
55.0	51.0	16.5	15.7	14.9	14.2	13.5	13.1	12.4	11.8
60.0	56.0	16.5	15.7	14.9	14.2	13.5	13.1	12.4	11.8

TC: Total Capacity (MBh)

Table 233: ARNU183NJA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	13.4	13.4	13.4	13.4	13.2	13.2	13.2	13.2
0	-0.4	13.8	13.8	13.8	13.8	13.8	13.6	13.6	13.6
5.0	4.5	15.6	15.4	15.2	15.2	15.2	15.2	15.2	15.2
10.0	9.0	16.2	16.2	16.2	16.0	16.0	16.0	16.0	16.0
15.0	14.0	17.2	17.2	17.2	17.2	17.2	17.2	17.0	16.8
20.0	19.0	18.2	18.2	18.2	18.2	17.8	17.8	17.5	17.3
25.0	23.0	19.0	19.0	19.0	19.0	19.0	18.6	18.4	18.2
30.0	28.0	19.4	19.4	19.4	19.4	19.4	19.0	18.4	17.8
35.0	32.0	20.0	20.0	20.0	20.0	19.8	19.4	18.4	17.5
40.0	36.0	20.8	20.8	20.8	20.8	20.0	19.4	18.4	17.5
45.0	41.0	21.6	21.6	21.6	21.0	20.0	19.4	18.4	17.5
47.0	43.0	22.4	22.2	22.0	21.0	**20.0**	19.4	18.4	17.5
50.0	46.0	24.0	23.0	22.0	21.0	20.0	19.4	18.4	17.5
55.0	51.0	24.5	23.2	22.0	21.0	20.0	19.4	18.4	17.5
60.0	56.0	24.5	23.2	22.0	21.0	20.0	19.4	18.4	17.5

TC: Total Capacity (MBh)

Table 234: ARNU243NJA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.1	18.1	18.1	18.1	17.8	17.8	17.8	17.8
0	-0.4	18.6	18.6	18.6	18.6	18.6	18.4	18.4	18.4
5.0	4.5	21.1	20.8	20.5	20.5	20.5	20.5	20.5	20.5
10.0	9.0	21.9	21.9	21.9	21.6	21.6	21.6	21.6	21.6
15.0	14.0	23.2	23.2	23.2	23.2	23.2	23.2	23.0	22.7
20.0	19.0	24.6	24.6	24.6	24.6	24.0	24.0	23.6	23.3
25.0	23.0	25.7	25.7	25.7	25.7	25.7	25.1	24.8	24.6
30.0	28.0	26.2	26.2	26.2	26.2	26.2	25.7	24.8	24.1
35.0	32.0	27.0	27.0	27.0	27.0	26.7	26.2	24.8	23.6
40.0	36.0	28.1	28.1	28.1	28.1	27.0	26.2	24.8	23.6
45.0	41.0	29.2	29.2	29.2	28.4	27.0	26.2	24.8	23.6
47.0	43.0	30.2	30.0	29.7	28.4	**27.0**	26.2	24.8	23.6
50.0	46.0	32.5	31.1	29.7	28.4	27.0	26.2	24.8	23.6
55.0	51.0	33.0	31.3	29.7	28.4	27.0	26.2	24.8	23.6
60.0	56.0	33.0	31.3	29.7	28.4	27.0	26.2	24.8	23.6

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU303NJA2, ARNU363NJA2, ARNU423NKA2

Table 235: ARNU303NJA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	22.8	22.8	22.8	22.8	22.4	22.4	22.4	22.4
0	-0.4	23.5	23.5	23.5	23.5	23.5	23.1	23.1	23.1
5.0	4.5	26.5	26.2	25.8	25.8	25.8	25.8	25.8	25.8
10.0	9.0	27.5	27.5	27.5	27.2	27.2	27.2	27.2	27.2
15.0	14.0	29.2	29.2	29.2	29.2	29.2	29.2	28.9	28.6
20.0	19.0	30.9	30.9	30.9	30.9	30.2	30.2	29.8	29.3
25.0	23.0	32.3	32.3	32.3	32.3	32.3	31.6	31.3	30.9
30.0	28.0	33.0	33.0	33.0	33.0	33.0	32.3	31.3	30.3
35.0	32.0	34.0	34.0	34.0	34.0	33.7	33.0	31.3	29.7
40.0	36.0	35.4	35.4	35.4	35.4	34.0	33.0	31.3	29.7
45.0	41.0	36.7	36.7	36.7	35.7	34.0	33.0	31.3	29.7
47.0	43.0	38.1	37.7	37.4	35.7	**34.0**	33.0	31.3	29.7
50.0	46.0	40.9	39.1	37.4	35.7	34.0	33.0	31.3	29.7
55.0	51.0	41.6	39.4	37.4	35.7	34.0	33.0	31.3	29.7
60.0	56.0	41.6	39.4	37.4	35.7	34.0	33.0	31.3	29.7

TC: Total Capacity (MBh)

Table 236: ARNU363NJA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	26.8	26.8	26.8	26.8	26.4	26.4	26.4	26.4
0	-0.4	27.6	27.6	27.6	27.6	27.6	27.2	27.2	27.2
5.0	4.5	31.2	30.8	30.4	30.4	30.4	30.4	30.4	30.4
10.0	9.0	32.4	32.4	32.4	32.0	32.0	32.0	32.0	32.0
15.0	14.0	34.4	34.4	34.4	34.4	34.4	34.4	34.0	33.6
20.0	19.0	36.4	36.4	36.4	36.4	35.5	35.5	35.0	34.5
25.0	23.0	38.0	38.0	38.0	38.0	38.0	37.2	36.8	36.4
30.0	28.0	38.8	38.8	38.8	38.8	38.8	38.0	36.8	35.6
35.0	32.0	40.0	40.0	40.0	40.0	39.6	38.8	36.8	34.9
40.0	36.0	41.6	41.6	41.6	41.6	40.0	38.8	36.8	34.9
45.0	41.0	43.2	43.2	43.2	42.0	40.0	38.8	36.8	34.9
47.0	43.0	44.8	44.4	44.0	42.0	**40.0**	38.8	36.8	34.9
50.0	46.0	48.1	46.0	44.0	42.0	40.0	38.8	36.8	34.9
55.0	51.0	48.9	46.4	44.0	42.0	40.0	38.8	36.8	34.9
60.0	56.0	48.9	46.4	44.0	42.0	40.0	38.8	36.8	34.9

TC: Total Capacity (MBh)

Table 237: ARNU423NKA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	30.8	30.8	30.8	30.8	30.4	30.4	30.4	30.4
0	-0.4	31.7	31.7	31.7	31.7	31.7	31.3	31.3	31.3
5.0	4.5	35.9	35.4	35.0	35.0	35.0	35.0	35.0	35.0
10.0	9.0	37.3	37.3	37.3	36.8	36.8	36.8	36.8	36.8
15.0	14.0	39.6	39.6	39.6	39.6	39.6	39.6	39.1	38.6
20.0	19.0	41.9	41.9	41.9	41.9	40.8	40.8	40.3	39.7
25.0	23.0	43.7	43.7	43.7	43.7	43.7	42.8	42.3	41.9
30.0	28.0	44.6	44.6	44.6	44.6	44.6	43.7	42.3	41.0
35.0	32.0	46.0	46.0	46.0	46.0	45.5	44.6	42.3	40.1
40.0	36.0	47.8	47.8	47.8	47.8	46.0	44.6	42.3	40.1
45.0	41.0	49.7	49.7	49.7	48.3	46.0	44.6	42.3	40.1
47.0	43.0	51.5	51.1	50.6	48.3	**46.0**	44.6	42.3	40.1
50.0	46.0	55.3	52.9	50.6	48.3	46.0	44.6	42.3	40.1
55.0	51.0	56.3	53.4	50.6	48.3	46.0	44.6	42.3	40.1
60.0	56.0	56.3	53.4	50.6	48.3	46.0	44.6	42.3	40.1

TC: Total Capacity (MBh)

Table 238: ARNU483NKA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	36.2	36.2	36.2	36.2	35.6	35.6	35.6	35.6
0	-0.4	37.3	37.3	37.3	37.3	37.3	36.7	36.7	36.7
5.0	4.5	42.1	41.6	41.0	41.0	41.0	41.0	41.0	41.0
10.0	9.0	43.7	43.7	43.7	43.2	43.2	43.2	43.2	43.2
15.0	14.0	46.4	46.4	46.4	46.4	46.4	46.4	45.9	45.4
20.0	19.0	49.1	49.1	49.1	49.1	47.9	47.9	47.3	46.6
25.0	23.0	51.3	51.3	51.3	51.3	51.3	50.2	49.7	49.1
30.0	28.0	52.4	52.4	52.4	52.4	52.4	51.3	49.7	48.1
35.0	32.0	54.0	54.0	54.0	54.0	53.5	52.4	49.7	47.1
40.0	36.0	56.2	56.2	56.2	56.2	54.0	52.4	49.7	47.1
45.0	41.0	58.3	58.3	58.3	56.7	54.0	52.4	49.7	47.1
47.0	43.0	60.5	59.9	59.4	56.7	**54.0**	52.4	49.7	47.1
50.0	46.0	64.9	62.1	59.4	56.7	54.0	52.4	49.7	47.1
55.0	51.0	66.1	62.6	59.4	56.7	54.0	52.4	49.7	47.1
60.0	56.0	66.1	62.6	59.4	56.7	54.0	52.4	49.7	47.1

TC: Total Capacity (MBh)

Table 239: ARNU543NKA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
-4	-4.4	40.2	40.2	40.2	40.2	39.6	39.6	39.6	39.6
0	-0.4	41.4	41.4	41.4	41.4	41.4	40.8	40.8	40.8
5.0	4.5	46.8	46.2	45.6	45.6	45.6	45.6	45.6	45.6
10.0	9.0	48.6	48.6	48.6	48.0	48.0	48.0	48.0	48.0
15.0	14.0	51.6	51.6	51.6	51.6	51.6	51.6	51.0	50.4
20.0	19.0	54.6	54.6	54.6	54.6	53.3	53.3	52.5	51.8
25.0	23.0	57.0	57.0	57.0	57.0	57.0	55.8	55.2	54.6
30.0	28.0	58.2	58.2	58.2	58.2	58.2	57.0	55.2	53.5
35.0	32.0	60.0	60.0	60.0	60.0	59.4	58.2	55.2	52.4
40.0	36.0	62.4	62.4	62.4	62.4	60.0	58.2	55.2	52.4
45.0	41.0	64.8	64.8	64.8	63.0	60.0	58.2	55.2	52.4
47.0	43.0	67.2	66.6	66.0	63.0	**60.0**	58.2	55.2	52.4
50.0	46.0	72.1	69.0	66.0	63.0	60.0	58.2	55.2	52.4
55.0	51.0	73.4	69.6	66.0	63.0	60.0	58.2	55.2	52.4
60.0	56.0	73.4	69.6	66.0	63.0	60.0	58.2	55.2	52.4

TC: Total Capacity (MBh)

EXTERNAL STATIC PRESSURE & AIR FLOW

NJ, NK Chassis

Table 240: NJ & NK Chassis External Static Pressure & Air Flow Setting Values

Capacity (MBh(tons))	Flow Rate (CFM)	External Static Pressure (in wg)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	***0.8***	***0.9***	***1.0***
12 (1.0)	High (480)	53	55	64	70	79	84	92	****92***	****92***	****92***
	Middle (380)	53	54	62	69	77	83	92	****92***	****92***	****92***
	Low (380)	53	54	62	69	77	83	92	****92***	****92***	****92***
18 (1.5)	High (530)	53	58	66	72	82	85	95	****95***	****95***	****95***
	Middle (480)	53	55	64	70	79	84	92	****92***	****92***	****92***
	Low (380)	53	54	62	69	77	83	92	****92***	****92***	****92***
24 (2.0)	High (710)	56	67	74	78	87	94	98	****98***	****98***	****98***
	Middle (640)	53	65	70	75	85	91	96	****96***	****96***	****96***
	Low (480)	53	55	64	70	79	84	92	****92***	****92***	****92***
30 (2.5)	High (880)	65	72	80	85	92	98	103	****103***	****103***	****103***
	Middle (800)	62	69	77	82	90	96	101	****101***	****101***	****101***
	Low (630)	53	65	70	75	85	91	96	****96***	****96***	****96***
36 (3.0)	High (990)	80	85	90	95	100	103	*103	****103***	****103***	****103***
	Middle (880)	65	72	80	85	92	98	103	****103***	****103***	****103***
	Low (800)	65	69	77	82	90	96	101	****101***	****101***	****101***
42 (3.5)	High (1250)	67	75	80	87	90	98	102	***110***	****115***	****115***
	Middle (1100)	61	67	75	80	87	92	100	***108***	***110***	***115***
	Low (1000)	56	65	72	77	84	90	98	***105***	***108***	***115***
48 (4.0)	High (1400)	74	79	84	91	96	102	110	***115***	****115***	****115***
	Middle (1260)	67	75	80	87	90	98	102	***110***	***115***	****115***
	Low (1000)	56	65	72	77	84	90	98	***105***	***108***	***115***
54 (4.5)	High (1475)	77	82	87	93	98	102	110	***115***	****115***	****115***
	Middle (1400)	74	79	84	91	96	102	110	***115***	****115***	****115***
	Low (1260)	67	75	80	87	90	98	102	***110***	***115***	****115***

in wg = inch water gauge
*Air flow rate (CFM) is decreased by 3% per 0.1 in wg.
Minimum airflow rates are listed in CFM.
If the flow rate (CFM) is increased by 400 CFM/ton from 1.5 tons to 2.5 tons of capacity, then ESP value should be increased by 4.
If the flow rate (CFM) is increased by 400 CFM/ton from 3.0 tons to 4.5 tons of capacity, then The ESP value should be increased by 5.

Factory Default is high static pressure.
High static pressure is 0.5 in wg.
Low static pressure is 0.3 in wg.
Vertical Air Handling Units are UL Listed up to 0.5 in wg external static pressure, including air filter, set coil, and largest kW size heater, unless otherwise noted.

⚠WARNING
If the ESP is set incorrectly, the air conditioning may malfunction.

Table 241: Minimum Airflow by Heater Capacity

Capacity (MBh (tons))	Heater Capacity (kW)			
	5	10	15	20
12 (1.0)	380	Not available	Not available	Not available
18 (1.5)	380	Not available	Not available	Not available
24 (2.0)	480	480	Not available	Not available
30 (2.5)	630	630	Not available	Not available
36 (3.0)	780	780	Not available	Not available
42 (3.5)	1,000	1,000	1,000	1,000
48 (4.0)	1,000	1,000	1,000	1,000
54 (4.5)	1,300	1,300	1,300	1,300

Airflow rates in the table above are listed in CFM.
Vertical Air Handling Units are UL Listed up to 0.5 in wg external static pressure, including air filter, set coil, and largest kW size heater, unless otherwise noted.
Flow rate (CFM) is decreased by 3% per 0.1 in wg from 0.8 in wg to 1.0 in wg.

⚠WARNING
Do not operate with less than the minimum airflow. If an airflow is used below the minimum, there is a risk of fire or damage to the product.

EXTERNAL STATIC PRESSURE & AIR FLOW

NJ, NK Chassis

Table 242: Electric Heater Static Pressure Drop Factors

Heater Capacity (kW)	Static Pressure Drop (in wg)
0	0
5	-0.01
10	-0.02
15	-0.04
20	-0.06

in wg = inch water gauge

If the electric heater has been installed, then the ESP value has to be set.

For every increase in static pressure by 0.01 in wg, the ESP value should be increased by 1.

If the ESP setting value is inappropriate, the provided safety device will turn the heater off according to the airflow.

Table 243: Air Filter Static Pressure Drop Factors

Capacity (MBh(tons))	Flow Rate (CFM)	Static Pressure Drop (in wg)
12 (1.0)	High (480)	-0.02
	Middle (380)	-0.01
	Low (380)	-0.01
18 (1.5)	High(530)	-0.02
	Middle(480)	-0.02
	Low(380)	-0.01
24 (2.0)	High(710)	-0.04
	Middle(640)	-0.03
	Low(480)	-0.02
30 (2.5)	High(880)	-0.05
	Middle(800)	-0.05
	Low(630)	-0.03
36 (3.0)	High(990)	-0.07
	Middle(880)	-0.05
	Low(800)	-0.05
42 (3.5)	High(1250)	-0.11
	Middle(1100)	-0.09
	Low(1000)	-0.07
48 (4.0)	High(1400)	-0.14
	Middle(1260)	-0.11
	Low(1000)	-0.07
54 (4.5)	High(1475)	-0.18
	Middle(1400)	-0.16
	Low(1260)	-0.12

If the air filter has been installed, the ESP value has to be set.

For every increase in static pressure by 0.01 in wg, the ESP value should be increased by 1.

ELECTRICAL DATA

NJ, NK Chassis

Table 244: Vertical/Horizontal Air Handling Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU123NJA2	187-253	0.49	15	0.39	60	208-230	1	80	80
ARNU183NJA2		0.49		0.39				80	80
ARNU243NJA2		0.74		0.59				120	120
ARNU303NJA2		1.09		0.87				178	178
ARNU363NJA2		1.40		1.12				228	228
ARNU423NKA2		1.60		1.28				260	260
ARNU483NKA2		2.03		1.62				330	330
ARNU543NKA2		2.25		1.80				366	366

MCA = Minimum Circuit Ampacity MOP = Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 245: Vertical/Horizontal Air Handling Unit Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU123NJA2	41	39	39
ARNU183NJA2	42	41	39
ARNU243NJA2	43	42	41
ARNU303NJA2	44	43	42
ARNU363NJA2	45	44	43
ARNU423NKA2	46	44	41
ARNU483NKA2	49	47	41
ARNU543NKA2	50	49	47

Figure 316: ARNU123NJA2

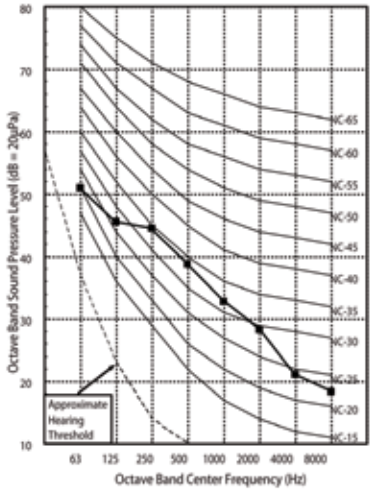


Figure 317: ARNU183NJA2

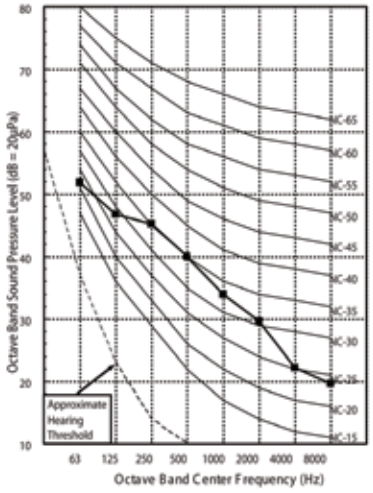


Figure 318: ARNU243NJA2

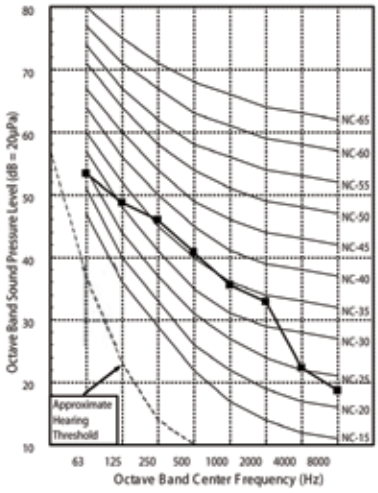


Figure 319: ARNU303NJA2

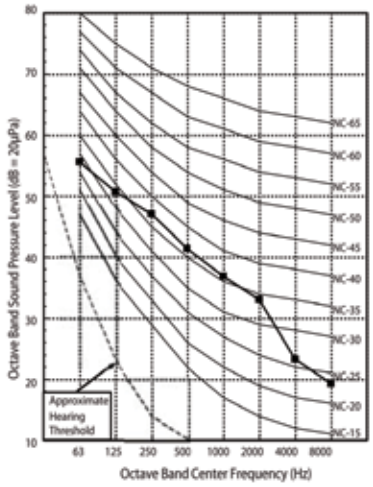


Figure 320: ARNU363NJA2

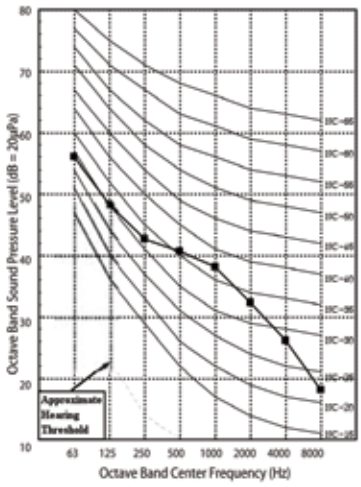


Figure 321: ARNU423NKA2

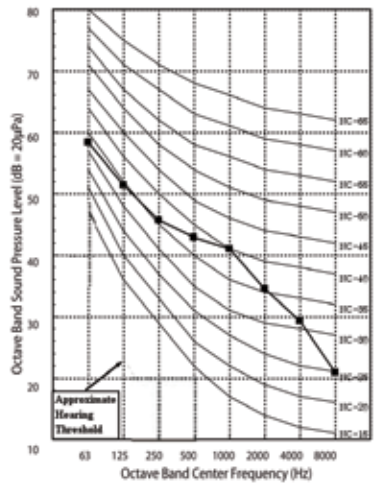


Figure 322: ARNU483NKA2

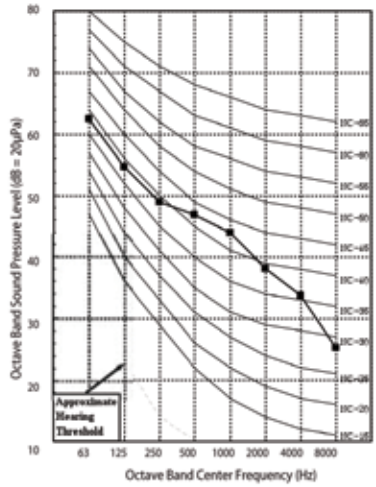
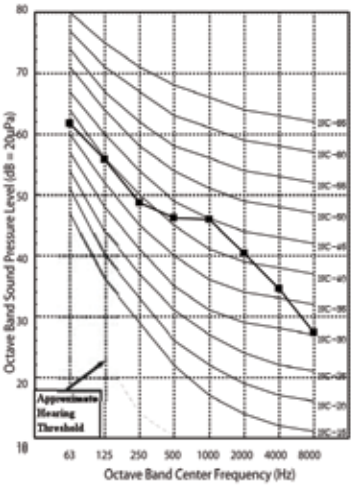


Figure 323: ARNU543NKA2



ACOUSTIC DATA

NJ, NK Chassis

- Measurements are taken 3.3 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions:

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 324: Sound Levels

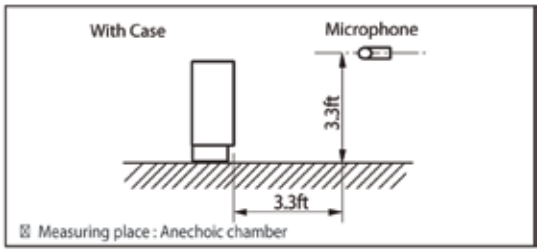


Figure 325: NJ, NK Chassis Piping Diagram

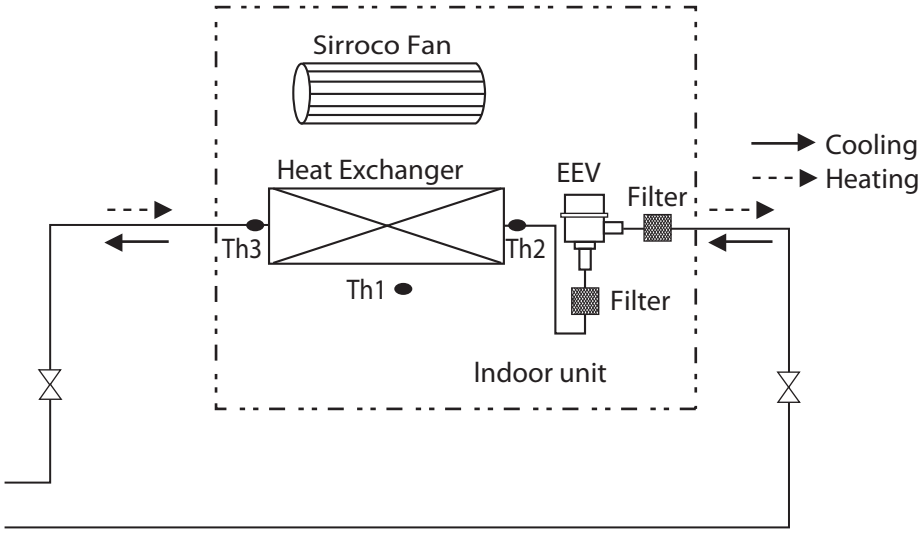


Table 246: NJ, NK Chassis Refrigerant Pipe Connection Port Diameters

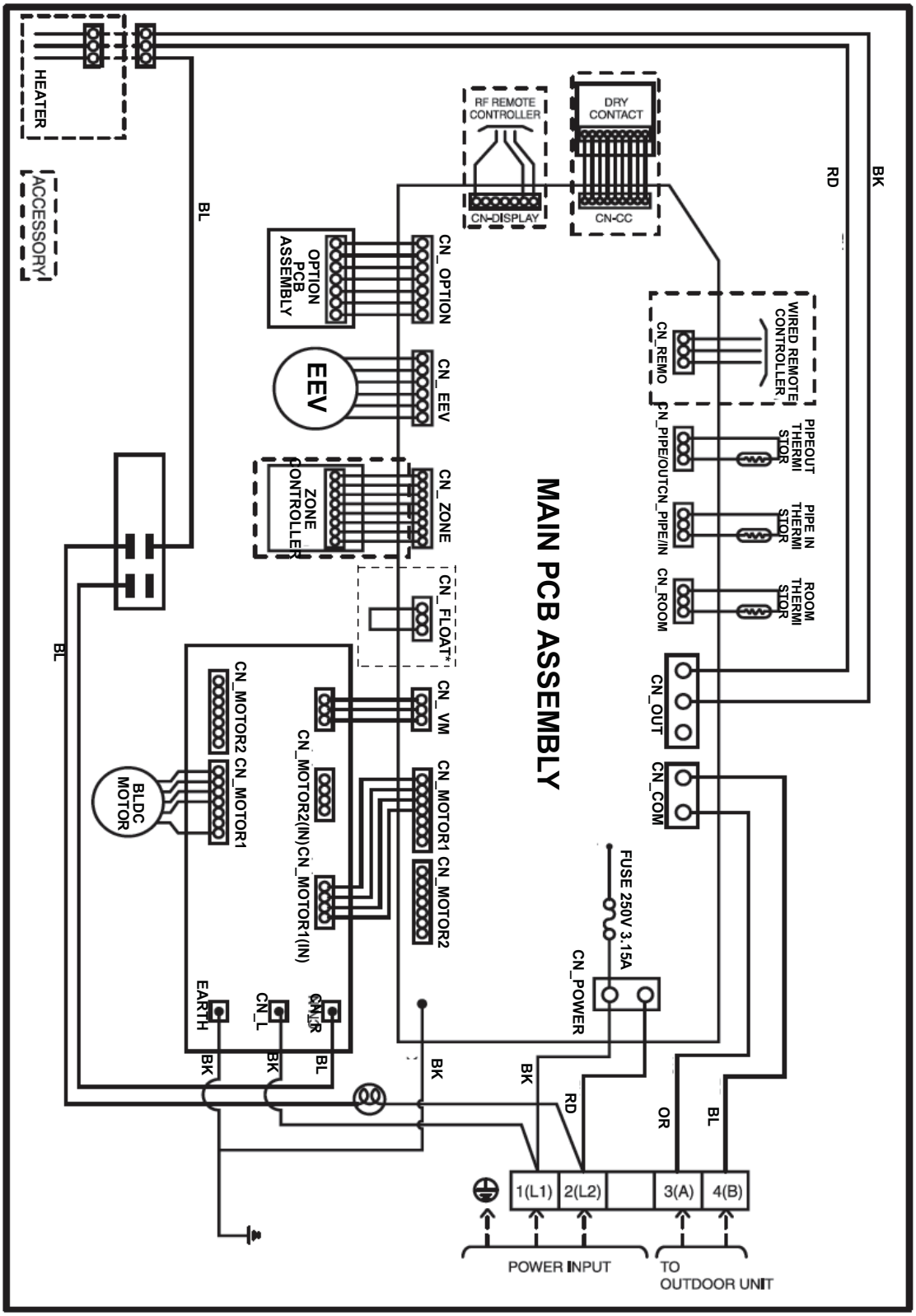
Model	Liquid (inch)	Gas (inch)
ARNU123NJA2	1/4	1/2
ARNU183NJA2	1/4	1/2
ARNU243NJA2	3/8	5/8
ARNU303NJA2	3/8	5/8
ARNU363NJA2	3/8	5/8
ARNU423NKA2	3/8	5/8
ARNU483NKA2	3/8	5/8
ARNU543NKA2	3/8	5/8

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

WIRING DIAGRAMS

NJ Chassis

Figure 326: NJ Chassis Wiring Diagram



*Float switch is field supplied. CN_FLOAT has factory installed jumper.

Table 247: NJ Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-COMM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV control output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-OPTION	Option PCB	Communication between main and option
CN-ZONE	Zone controller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	-OFF: Default (does not operate continuously) -ON: Fan operates continuously
SW6	Heater	Off	On	-ON: Automatic heater operation -OFF: Default (heater manual operation)

For Multi V systems without an electric heater, dip switches 1, 2, 6, and 8 must be set to OFF.

For Multi V systems with an electric heater, dip switches 5 and 6 must be set to ON.

- SW 5 ON: Fan operates continuously. During defrosting or oil return operation, uninterrupted heating can be attained as a result of continuous heater and fan operation.
- SW 5 OFF: Fan noncontinuous operation. There will be a reduction in heating capacity while defrosting or during oil return operation.
- SW 6 ON: Automatic heater operation. The heater operates automatically according to the heater logic without the owner intervening.
- SW 6 OFF: Heater manual operation. The owner's involvement is required for on/off operation, but the heater operation will be per the heater logic.

WIRING DIAGRAMS

NK Chassis

Figure 327: NK Chassis Wiring Diagram

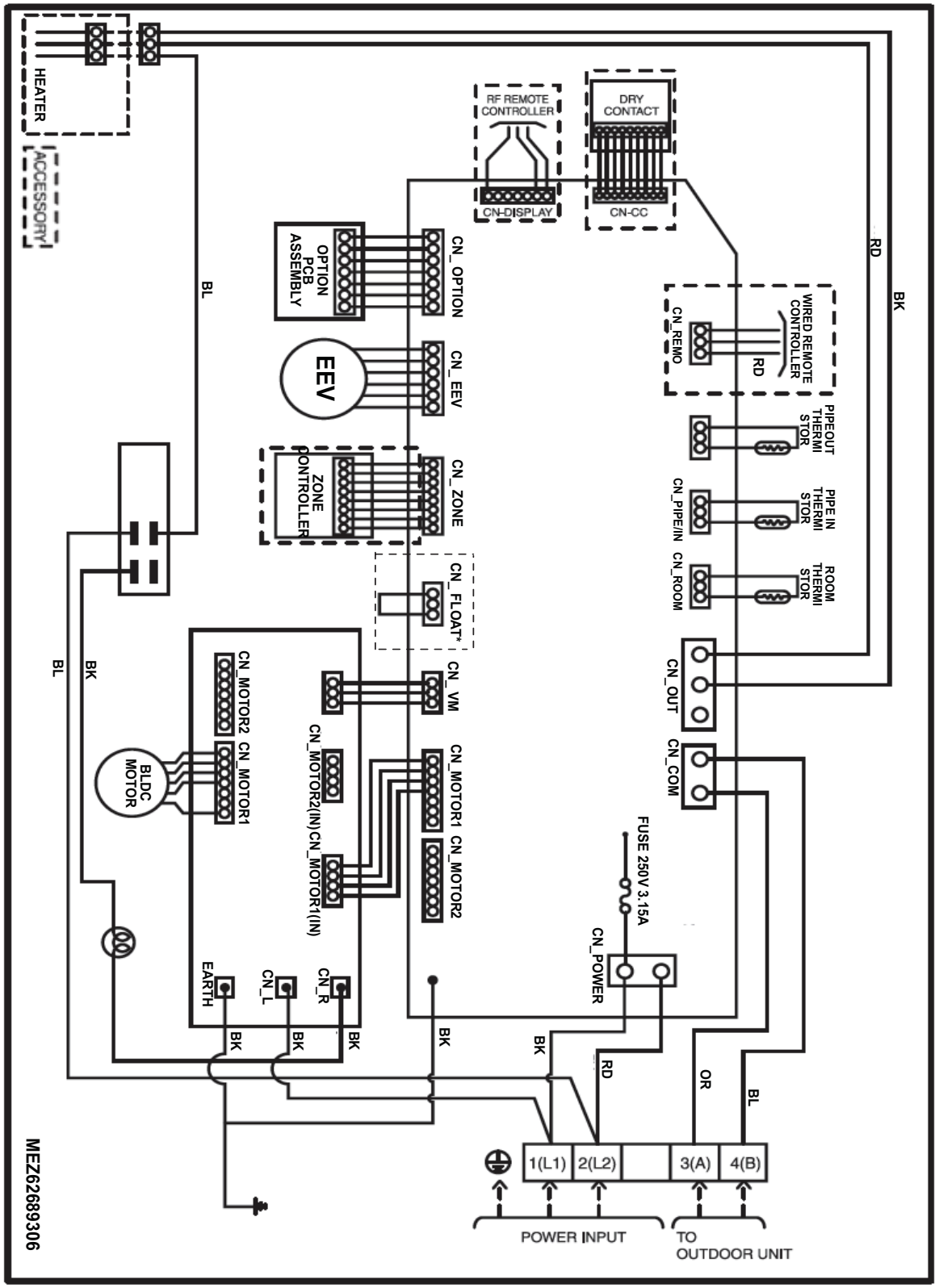


Table 248: NK Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-COMM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV control output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-OPTION	Option PCB	Communication between main and option
CN-ZONE	Zone controller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	-OFF: Default (does not operate continuously) -ON: Fan operates continuously
SW6	Heater	Off	On	-ON: Automatic heater operation -OFF: Default (heater manual operation)

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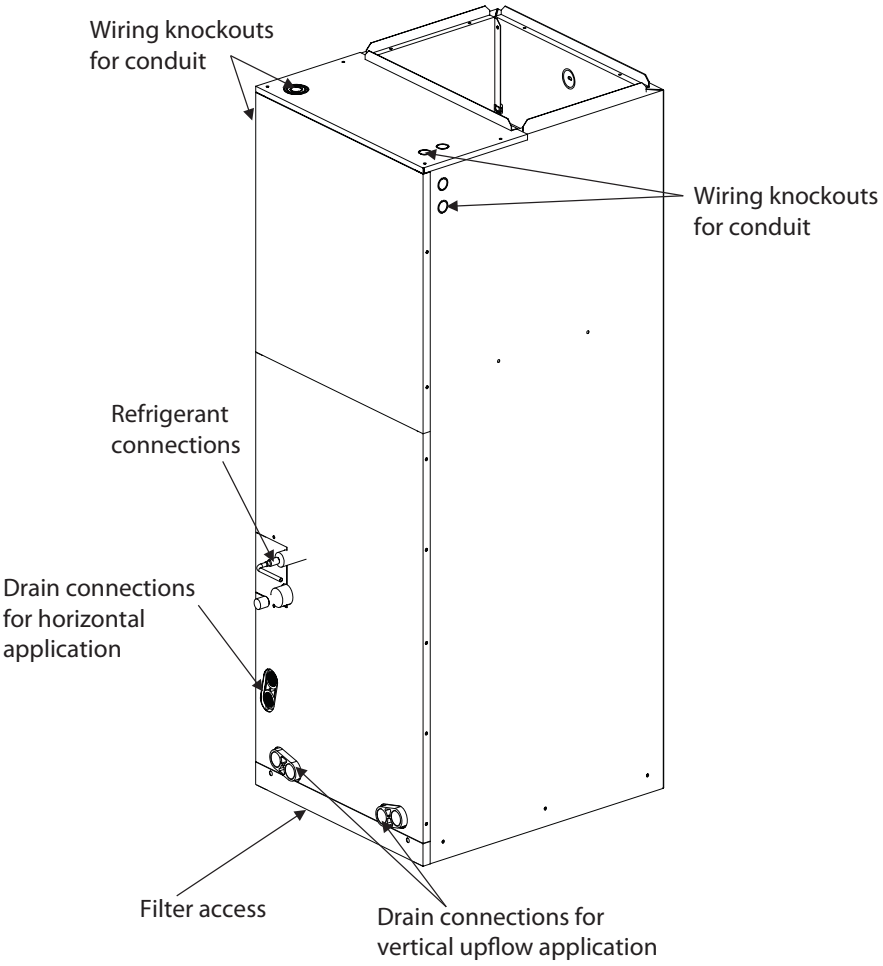
- SW 5 OFF: Fan noncontinuous operation. There will be a reduction in heating capacity while defrosting or during oil return operation.
- SW 6 ON: Automatic heater operation. The heater operates automatically according to the heater logic without the owner intervening.
- SW 6 OFF: Heater manual operation. The owner's involvement is required for on/off operation, but the heater operation will be per the heater logic.

Figure 328: Unit Parts



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Torque wrenches
- Hexagonal wrench
- Gas-leak detector
- Thermometer

Required Parts

- Clamp metal
- Drain hose
- Fitting insulation
- Hanging bracket washers
- Tie wrap clamps

⚠WARNING

1. *Please read all instructions before installing the product.*
2. *When the power cord is damaged, all replacement work must be performed by authorized personnel only.*
3. *Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.*

Figure 329: Duct Connection Dimensions

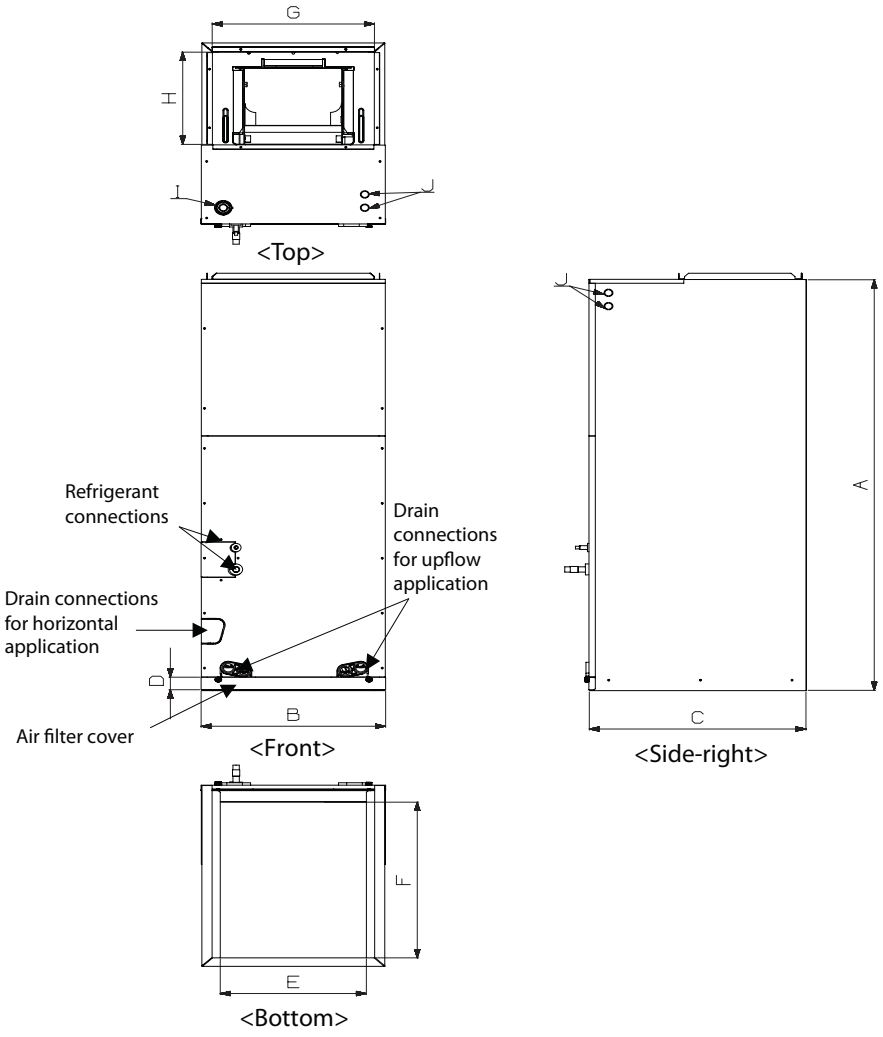


Table 249: NJ, NK Duct Connection Dimensions

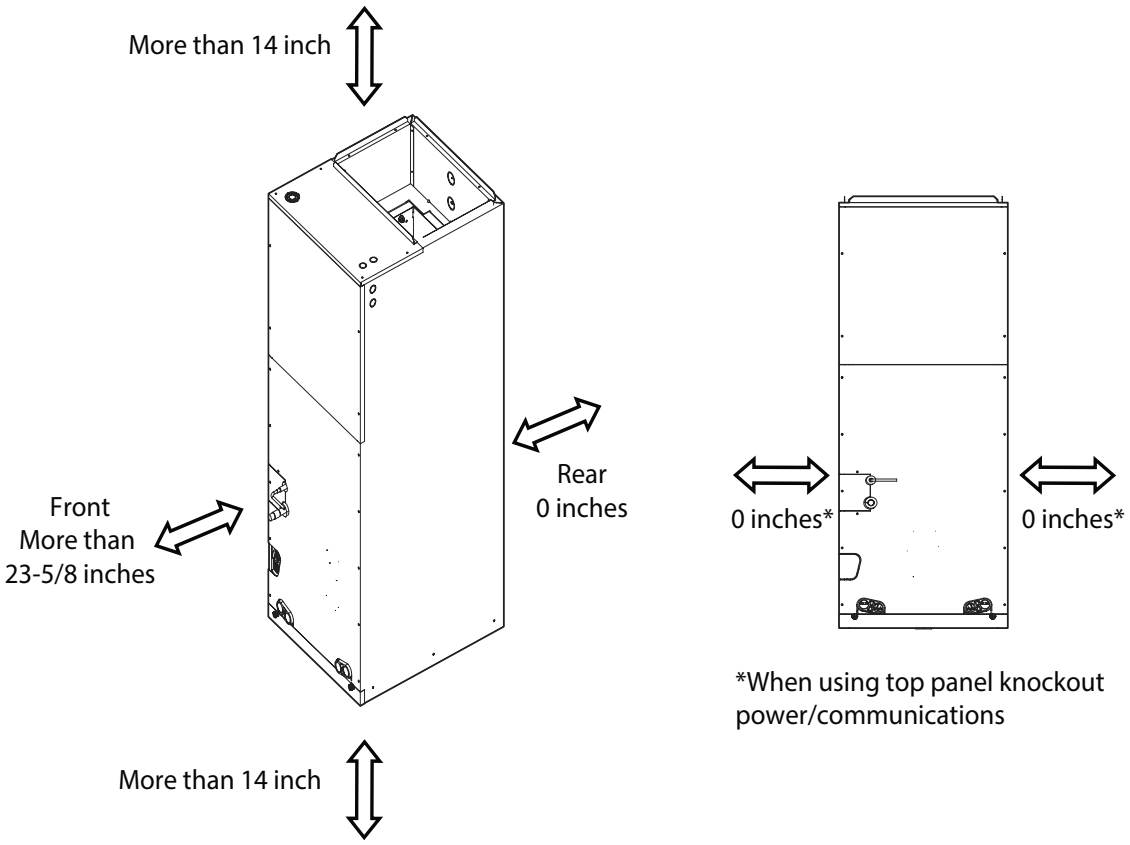
Capacity (kBtu/h (RT))	Dimensions (inch)								Wiring Knock Out		Refrigerant Connections Pipe Size	
	A	B	C	D	E	F	G	H	I	J		
	Height	Width	Depth						Power	Communi-cation	Liquid	Gas
12 (1.0) 18 (1.5)	48-5/8	18	21-1/4	1-9/16	17-1/2	20	17	12-1/8	1-11/16	7/8	1/4	1/2
24 (2.0) 30 (2.5) 36 (3.0)	48-5/8	18	21-1/4	1-9/16	17-1/2	20	17	12-1/8	1-11/16	7/8	3/8	5/8
42 (3.5) 48 (4.0) 54 (4.5)	48-5/8	25	21-1/4	1-9/16	24-1/2	20	24	12-1/8	1-11/16	7/8	3/8	5/8

Selecting the Best Location

Do's

- Select a place with optimum air distribution.
- Select a place where the air passage will not be blocked.
- Select a place where condensate can be drained properly.
- Select a place where the ceiling is strong enough to bear the weight of the indoor unit.
- Select a place where the ceiling is not noticeably on an incline.
- Select a place with sufficient clearance to allow maintenance and service to be performed easily.
- Select a place where piping between indoor and outdoor units are within the allowable limit. Refer to the installation manual of the outdoor unit for additional information.
- Select a place where the unit can be installed for upflow or horizontal-left positions.

Figure 330: Selecting the Best Location



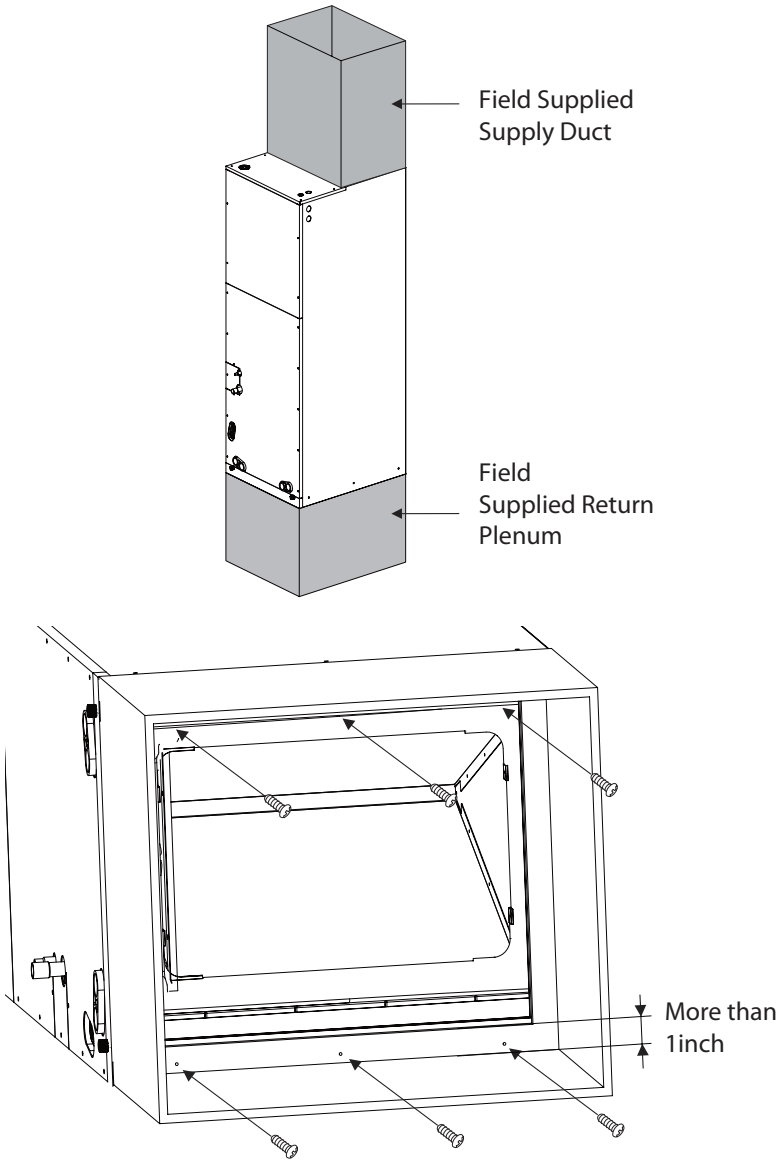
⚠WARNING

If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

Upflow Installation

- Position the unit for plenum installation.
- The plenum should be secured in order to support the installation of adapter callers and accommodate the installation of any duct work.
- Seal all duct work according to local codes to prevent air leakage.
- Ensure that filter access is unobstructed.
- The air handler support platform should be sturdy enough to support the cabinet plus any accessory components including the filter box.
- The minimum height clearance is 14 inches to maintain proper air flow.
- Vibration isolators (purchased locally) must be placed between the unit and the pedestal.
- Do not connect the screws on the front and rear side because it will prevent the ability to mount the filter.

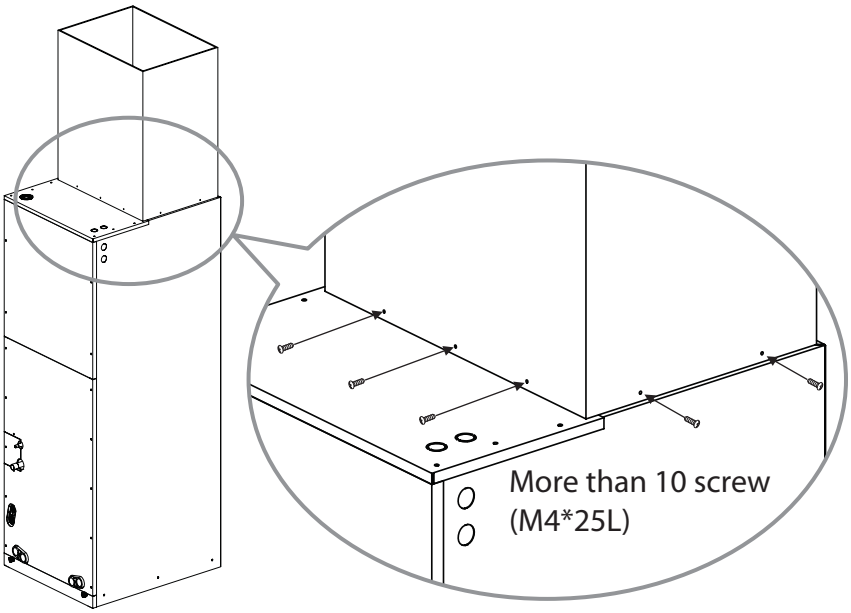
Figure 331: Upflow Installation



Duct Work

- At least 10 screws should be used for joining the supply duct with the unit.
- To prevent vibration transmission, install flexible connectors between the duct and the unit. It is mandatory that the flexible connector between the unit and duct at the supply air connection should be made from heat resistant material when the electric heater is installed.
- Duct work must be insulated and covered with vapor barriers when routed through unconditioned space.
- Internal acoustical insulation lining may be necessary for the metal duct system if it does not have a 90° elbow and 10 ft of main duct to the first branch takeoff.
- Fibrous duct work could be used as a substitute if built and installed in accordance with the most recent edition of the SMACNA construction standard on fibrous glass ducts.
- Fibrous duct work and an acoustical lining must follow all National Fire Protection Association standards 90A or B as tested by UL standard 181 for class 1 air ducts.
- Seal around the delivery duct to prevent air leakage.

Figure 332: Duct Work



Horizontal-left Installation

- Units should not be installed in a manner where the access panels face up or down.
- The installation should be in accordance with all relevant building codes that may necessitate installation of external condensate pans. Set up a support for the unit by locating it in or above the external condensate pan.
- If the unit is suspended, use angle steel support brackets with threaded rods to support the unit (shown below).
- Units that are not suspended should be supported the same way as suspended units. Ensure the unit is isolated to avoid sound transmission. The size of the support should be bigger than the unit and the unit must be placed at the center of the support.
- Vibration isolators (purchased locally) must be placed between the unit and the support.
- The same installation method (up flow) has to be used in the case of a return plenum and supply duct.
- To ensure proper drainage for horizontal installations, the unit must be installed so it is within 1/8" level of the length and width of the unit.

Figure 333: Horizontal-left Installation

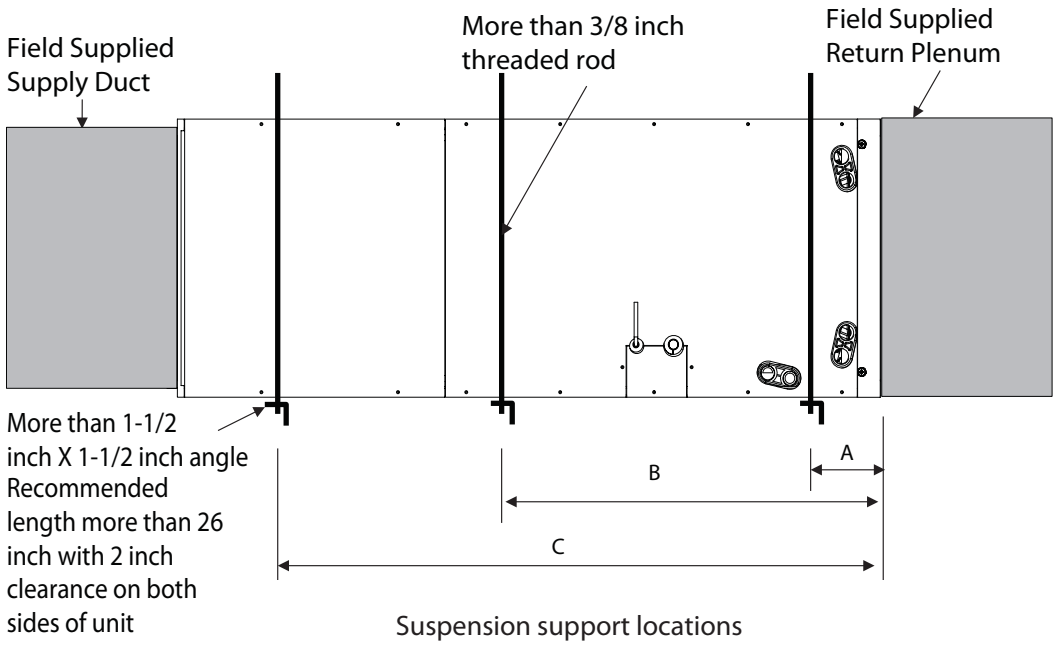


Table 250: Horizontal-left Installation Dimensions

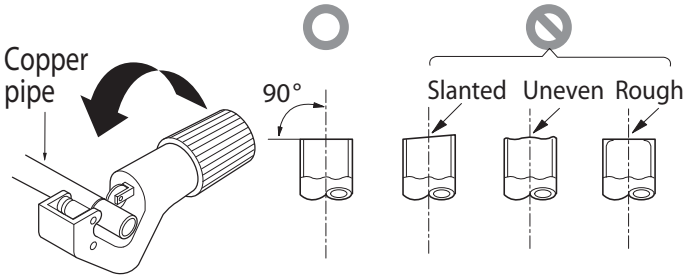
Capacity (MBh (tons))	Dimensions (inch)		
	A	B	C
12 (1.0) 18 (1.5) 24 (2.0) 20 (2.5) 36 (3.0)	4	23	41-3/8
42 (3.5) 48 (4.0) 54 (4.5)	4	29	48

Piping Preparation

Cutting the pipes

1. Use pipes purchased locally.
2. Measure the distance between the indoor and outdoor unit.
3. Cut the pipes a little longer than the measured distance.

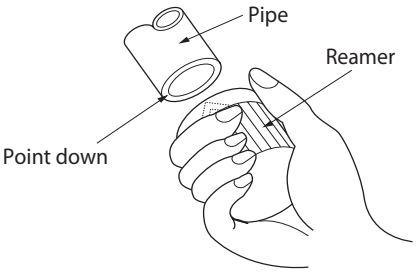
Figure 334: Cutting Pipes



Burrs Removal

1. Completely remove all burrs from the cut cross section of pipe/tube.
2. While removing burrs, put the end of the copper tube/pipe in a downward direction in order to avoid dropping burrs into the tubing.

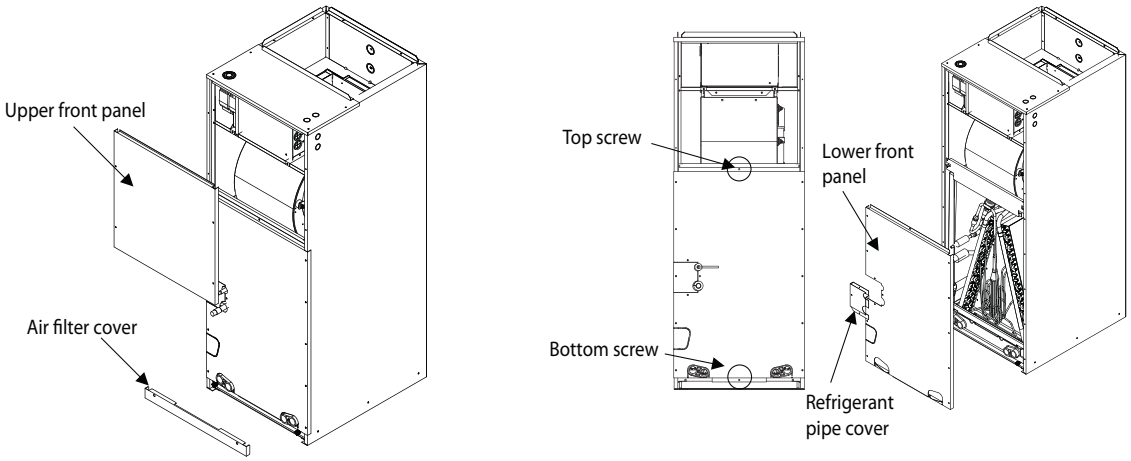
Figure 335: Burrs Removal



Connecting Pipes to the Indoor Unit

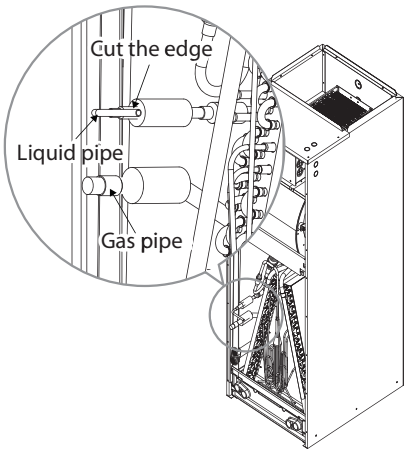
1. First detach the upper front panel followed by the air filter from the body.
2. Detach the lower front panel and refrigerant pipe cover from the body. While detaching the lower front panel, remember to remove the top and bottom screws.

Figure 336: Connecting Pipes



3. Cut the refrigerant pipe (liquid pipe edge) and make sure the factory charged refrigerant is emerging out. This confirms there was no leakage.

Figure 337: Cutting Refrigerant Pipe

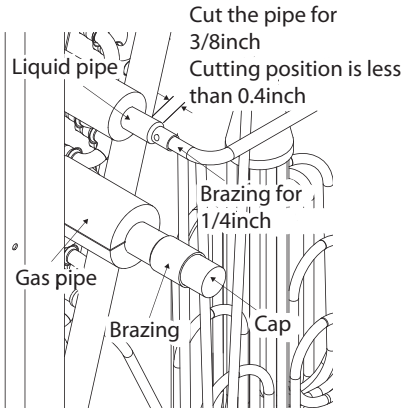


4. Detach the liquid and gas pipe.
• Gas Pipe: Remove the cap by brazing
• Liquid Pipe - There are two kinds of liquid pipe.

Liquid Pipe	Detach Pipe
1/4	Brazing
3/8	Cutting

If you do not use the proper cutter size when cutting the liquid pipe, it may damage the gas pipe.

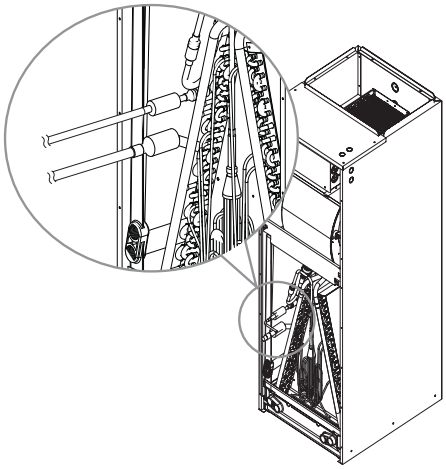
Figure 338: Detaching Liquid and Gas Pipes



5. Connect the field piping by brazing.

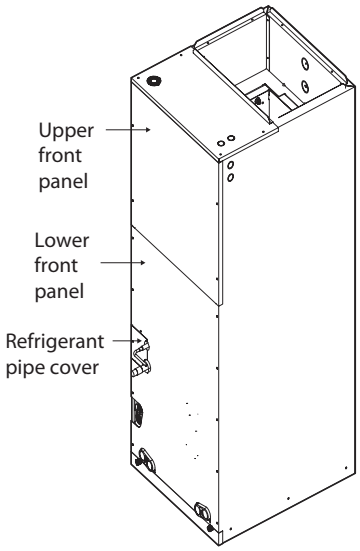
⚠WARNING
Wrap the gas and liquid pipe with a wet towel. If not wrapped with a wet towel, there may be damage to the drain pipe or pipe insulations.

Figure 339: Brazing Field Pipes



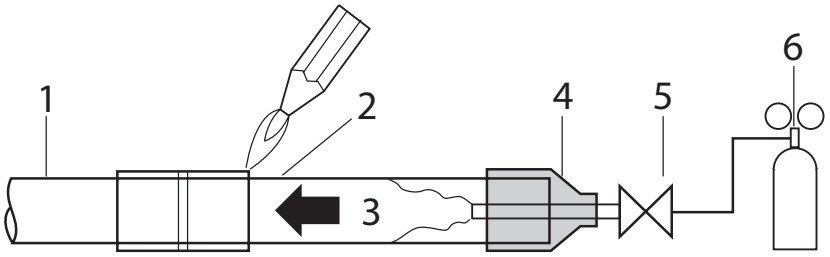
6. Attach the two panels to the body.

Figure 340: Attaching Panels



⚠CAUTION
Completely remove the refrigerant before brazing. Otherwise, there is a risk of high pressure which can cause an explosion.

Figure 341: Brazing Recommendation



1	Refrigerant Piping	4	Taping
2	Pipe to be brazed	5	Valve
3	Nitrogen	6	Pressure-reducing valve

- The torch tip should be positioned to apply heat on the pipe coupling.
- Always blow nitrogen into pipe which is brazed.
- Always use a non-oxidizing brazing material for brazing the parts and do not use flux.

⚠WARNING

Using oxidized film can cause clogging or damage to the compressor unit, flux, copper piping or refrigerant oil.

Insulation

- Insulate the joint and tubes completely.
- All thermal insulation must comply with local requirements.

Figure 342: Joint and Tube Insulation

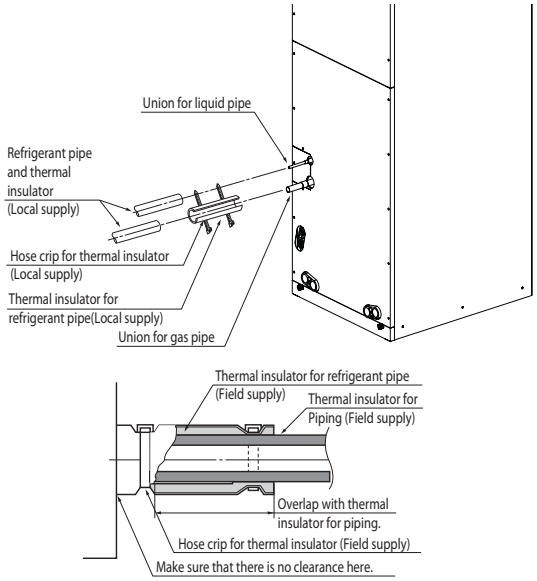


Table 251: Insulation Classification

Classification (inch)		Air Conditioned Location (inch)		Non-Air Conditioned Location (inch)	
		General Location[1]	Special Location[2]	General Location[3]	Negative Condition[4]
Liquid Pipe	1/4	3/8 or more	3/8 or more	3/8 or more	3/8 or more
	3/8				
	Above 1/2	1/2 or more	1/2 or more	1/2 or more	1/2 or more
Gas Pipe	3/8	1/2 or more	3/4 or more	3/4 or more	1 or more
	1/2				
	5/8				
	3/4				
	7/8				
	1				
	1-1/8	3/4 or more	1 or more	1 or more	
	1-1/4				
	1-3/8				
	1-1/2				
	1-3/4				

[1]General Location - When the pipe passes through inside where an indoor unit is operated. Locations such as an apartment, classroom, office, mall, hospital, etc.
[2]Special Location - When the location is air conditioned but has severe temperature/humidity differences due to a high ceiling. Locations such as a church, auditorium, theater, lobby, etc.
When the location is air conditioned but the internal temperature/humidity of the ceiling finishing is high. Locations such as bathroom, swimming pool locker room, etc.
[3]General Location - When the pipe passes inside where the indoor unit is not operated. Locations such as a hallway in a dormitory, school, office,etc.

[4]Negative Condition - When conditions 1 and 2 (below) are met.
1. When the pipe passes inside where the indoor unit is not operated.
2. When the humidity is high, regionally, and no air flow in the pipe passing area. When installing the outside unit within the outside pipe tray or at a
location with freezing temperatures, apply 13t. If you are not sure of the heat insulation material, coordinate with supervision or headquarters. The
thickness of the above heat insulation material is based on the heat conductivity of 0.088 W/m C.

Condensate Drain

- The drainage performance has to be optimized by installing both primary and secondary drain lines along with properly sized condensate traps in order to prevent property damage.
- Avoid blocking filter access panel while connecting the condensate drain lines. The primary and secondary condensate traps have to be primed after connecting to the drain pan.

⚠WARNING

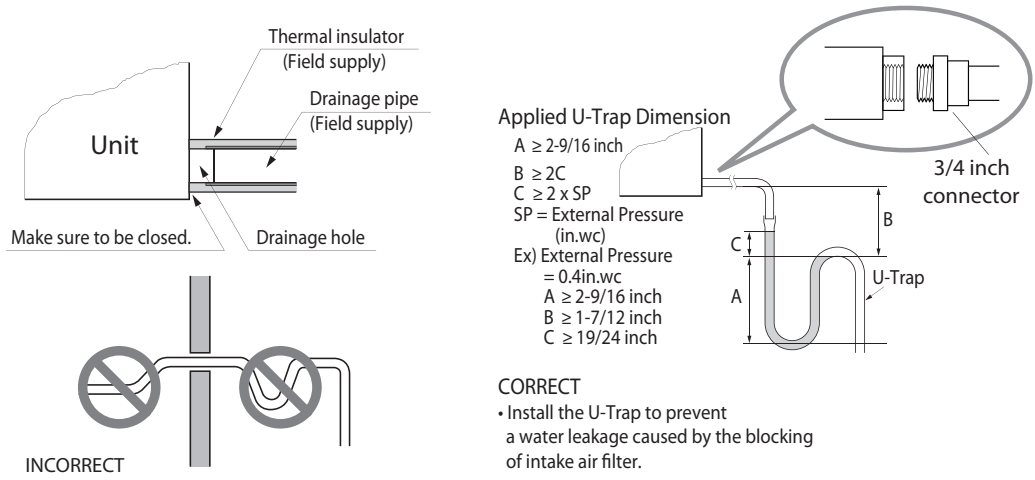
A field supplied external condensate pan has to be installed underneath the entire unit if the unit is above the living space. If not, damage may result due to condensate overflow.

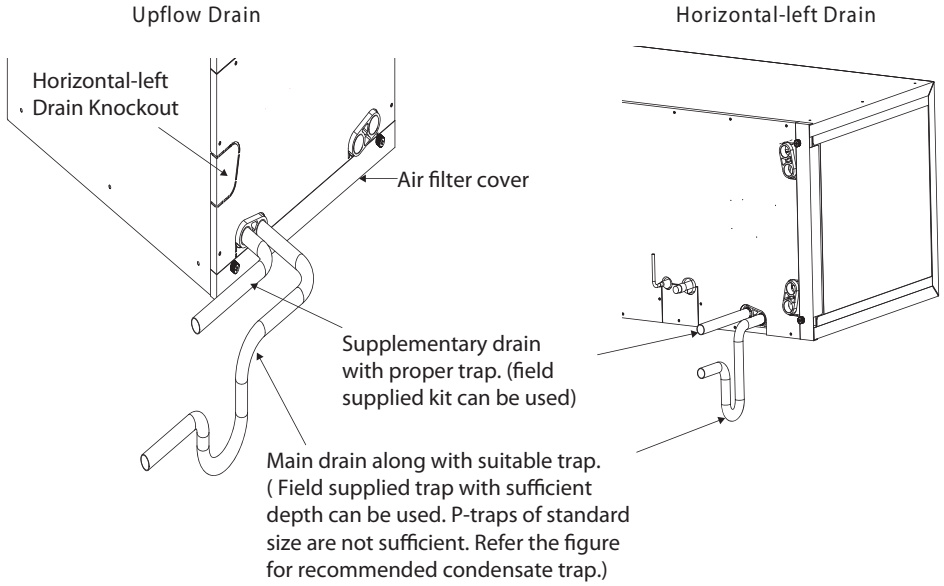
- An additional external condensate line should run from the unit into the pan.
- The entire condensate line should be drained from the external condensate pan.
- Install traps in condensate lines as near to the coil as possible. The outlet of each trap should be below its connection to the condensate pan to avert condensate from overflowing the drain pan.
- If located above a living area, then all traps should be primed, insulated and tested for leakage.
- Use PVC 3/4" male pipe thread fitting for condensate pan.
- Point the drain hose downward for easy drain flow.
- Do not use pipe joint connection or PVC/CPVC for the unit drain line connection. Use Teflon tape.
- Take into account drainage to prevent condensate lines from freezing in the winter.

Gradient of Unit and Drain Piping

- Always lay the drain with a downward inclination (1/32 - 1/64 inch)
- Prevent any upward flow or reverse flow
- Always use 5/24" or thicker formed thermal insulation for the drain pipe.

Figure 343: Unit Gradient and Drain Piping





⚠WARNING

Do not strain the flexible drain hose. A strained hose may cause water to leak.

Electric Heater

Figure 344: Electric Heater

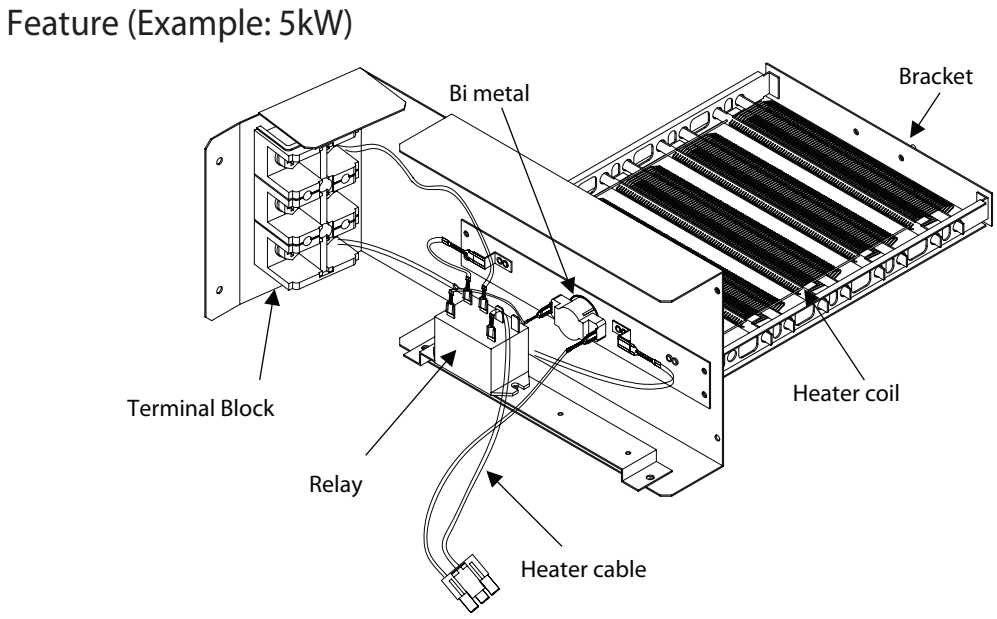


Image shown above may vary depending on model capacity.

Table 252: Electric Heater Capacities

Capacity (MBh(tons))	Heater Capacity (kW)			
	5	10	15	20
12 (1.0)	X	Not available	Not available	Not available
18 (1.5)	X	Not available	Not available	Not available
24 (2.0)	X	X	Not available	Not available
30 (2.5)	X	X	Not available	Not available
36 (3.0)	X	X	Not available	Not available
42 (3.5)	X	X	X	X
48 (4.0)	X	X	X	X
54 (4.5)	X	X	X	X

Models

- 5kW - ANEH053B1
- 10kW - ANEH103B2
- 15kW - ANEH153B2
- 20kW - ANEH203B2

For additional information on electric heaters, please refer to the Electric Heater Manual.

Hand Over

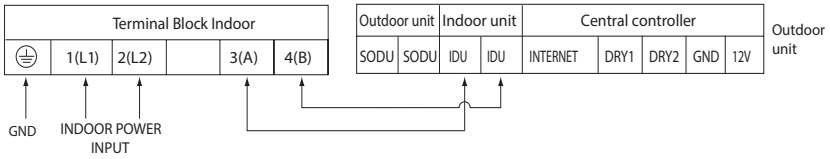
Using the operations manual, explain the proper operation and maintenance procedures (air filter cleaning, temperature control, etc.) to the customer.

Wiring Connection

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires on the outdoor unit and the terminal number match those on the indoor unit.

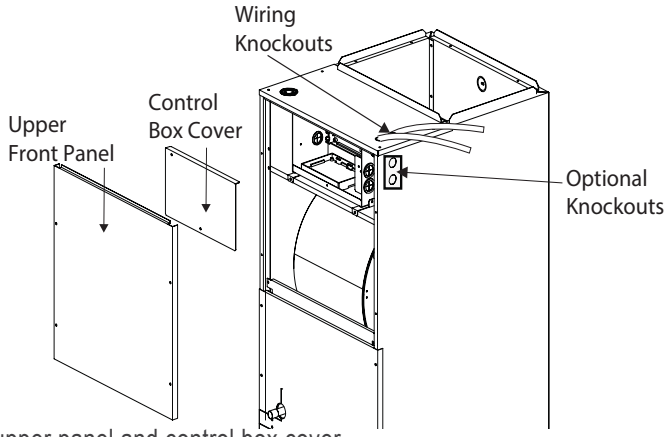
Figure 345: Wiring Connection

208/230V 1Φ 60Hz



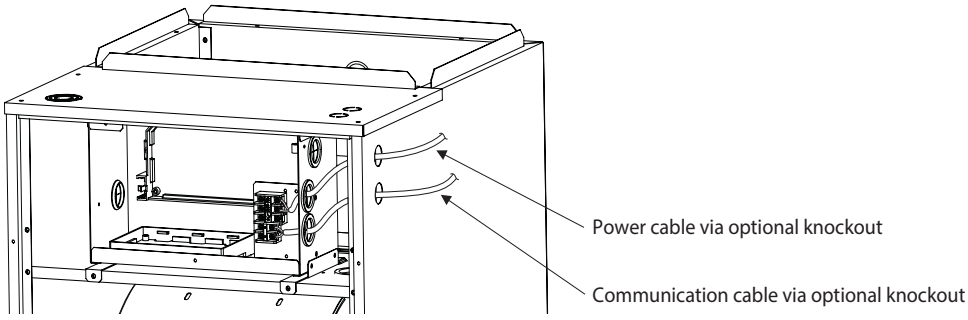
	Min wire size (AWG)	Size of conduit inch	Knockout diameter inch
Power cable	22	1/2	7/8
Communication cable	22	1/2	7/8

* Copper wire should be used.



1. Detach the upper panel and control box cover.
2. Remove two wiring knockouts.

Figure 346: Wiring Knockouts



3. Install conduit to the wiring knockouts.
4. Connect the power/communication cable to the terminal block through the wiring knockouts.

Separately wire power supply cord and connecting cable.

Use heat proof electrical wiring capable of withstanding temperatures up to 167°F. Use an outdoor and waterproof connection cable (NRTL (UL, ETL, CSA)) listed and rated more than 300V for connection between indoor and outdoor unit. This cable should be enclosed in conduit.

Prepare the wiring as follows:

1. Always have separate power for the indoor unit.
2. Follow the circuit diagram pasted on the inside on the control box cover.
3. Provide a circuit breaker switch between the power source and indoor unit.
4. Confirm the specification of the power source.
5. Confirm that the electrical capacity is sufficient.
6. Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
7. Confirm the cable thickness is as specified in the power sources specification.
8. Always equip a leakage breaker where conditions are wet or moist.
9. Any openings where the field wiring enters the cabinet must be completely sealed.

The following problems can be caused by voltage drop down:

- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Wired Remote Controller Installation

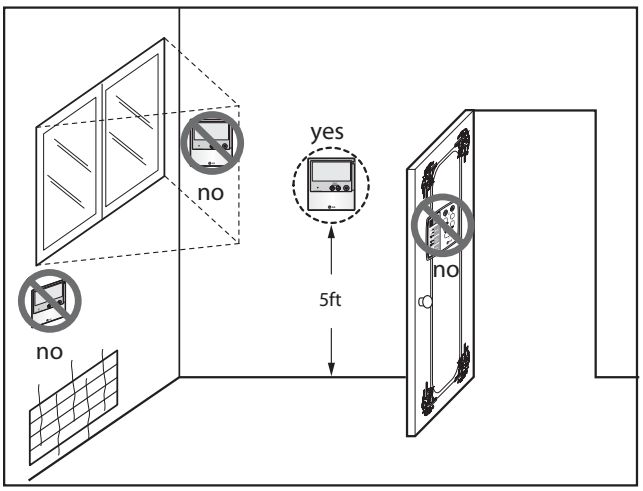
Since the room temperature sensor is inside the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

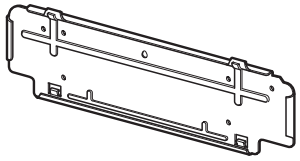
Figure 347: Controller Installation



CEILING & FLOOR

FACTORY SUPPLIED PARTS & MATERIALS

Factory Supplied Parts

Part	Quantity	Image
Installation Plate	1	
Type “A” Screw	4	
Plastic Anchor	4	

Factory Supplied Materials

- Owner’s Manual
- Installation Manual

CEILING SUSPENDED

GENERAL DATA

Ceiling Suspended Unit Specifications

ARNU183VJA2, ARNU243VJA2

Table 253: Ceiling Suspended Unit General Data

Type	Ceiling Suspended	
	ARNU183VJA2	ARNU243VJA2
Cooling Mode Performance		
Capacity (Btu/h)	19,100	24,200
Power Input[1] (W)	63	63
Heating Mode Performance		
Capacity (Btu/h)	21,500	27,300
Power Input[1] (W)	63	63
Entering Mixed Air		
Cooling Max (°F WB)	76	76
Heating Min (°F DB)	59	59
Unit Data		
Refrigerant Type[2]	R410A	R410A
Refrigerant Control	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	42/40/37	43/41/39
Net Unit Weight (lbs)	55	55
Shipping Weight (lbs)	66	66
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18
Fan		
Type	Sirocco	Sirocco
Quantity	1	1
Motor/Drive	Brushless Digitally Controlled/Direct	Brushless Digitally Controlled/Direct
Airflow Rate H/M/L (CFM)	565/495/424	636/565/495
Piping		
Liquid Line (in, OD)	1/4 Flare	3/8 Flare
Vapor Line (in, OD)	1/2 Flare	5/8 Flare
Condensate Line (in, ID)	5/8	5/8

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes. This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

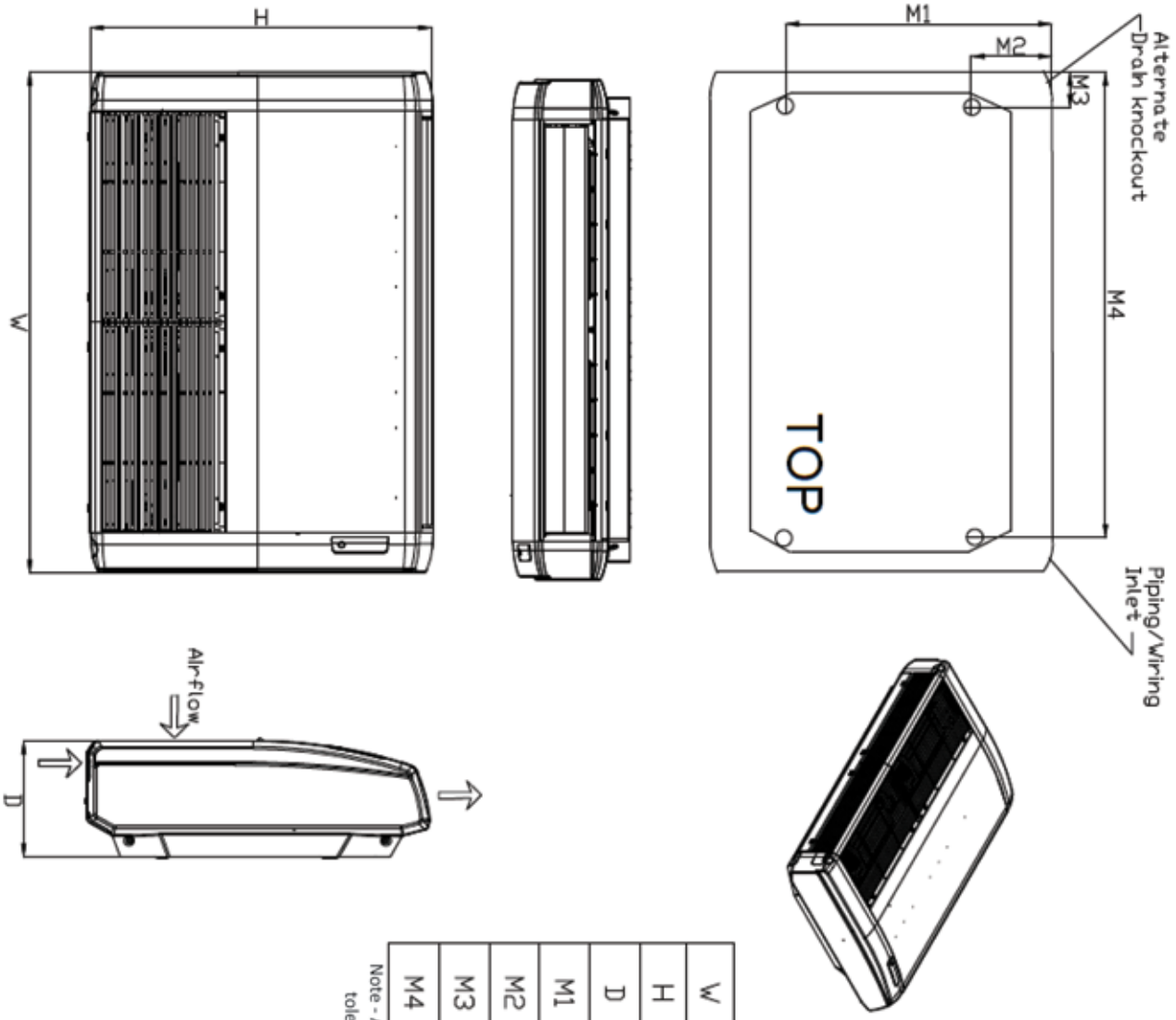
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

VJ Chassis



W	37-3/8"
H	25-5/8"
D	8-11/16"
M1	18-5/8"
M2	6"
M3	1-7/8"
M4	35-1/2"

Note - All dimensions have a tolerance of ± 0.25 in.

PERFORMANCE DATA

Cooling Capacity

ARNU183VJA2, ARNU243VJA2

Table 254: ARNU183VJA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
25	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
30	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
35	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
40	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
45	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
50	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
55	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.6	14.6
60	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.4	14.5
65	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	24.1	14.3
70	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	23.7	14.1
75	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.7	14.6	23.1	13.8
80	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.4	14.8	22.2	14.6	22.5	13.7
85	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	21.2	14.6	21.4	13.9	21.8	13.2
90	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	20.8	14.4	21.0	13.7	21.4	13.0
95	12.6	10.6	15.3	12.1	17.2	13.0	**19.1**	**13.8**	20.4	14.3	20.8	13.6	21.2	12.9
100	12.6	10.6	15.3	12.1	17.2	13.0	19.1	13.8	20.1	14.1	20.4	13.5	20.8	12.8
105	12.6	10.6	14.5	11.5	16.4	12.4	18.3	13.2	18.7	13.2	19.7	13.0	20.1	12.5
110	12.2	10.2	13.8	10.9	15.3	11.5	17.2	12.4	17.6	12.4	18.7	12.4	19.5	12.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 255: ARNU243VJA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
25	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
30	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
35	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
40	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
45	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
50	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
55	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.2	18.5
60	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	31.0	18.4
65	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	30.5	18.1
70	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	30.0	17.9
75	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.8	18.6	29.3	17.5
80	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	27.1	18.7	28.1	18.4	28.6	17.4
85	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	26.9	18.5	27.1	17.6	27.6	16.7
90	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	26.4	18.2	26.6	17.4	27.1	16.4
95	16.0	13.4	19.4	15.4	21.8	16.4	**24.2**	**17.4**	25.9	18.1	26.4	17.2	26.9	16.3
100	16.0	13.4	19.4	15.4	21.8	16.4	24.2	17.4	25.4	17.8	25.9	17.1	26.4	16.2
105	16.0	13.4	18.4	14.6	20.8	15.7	23.2	16.7	23.7	16.7	24.9	16.5	25.4	15.8
110	15.5	13.0	17.4	13.8	19.4	14.6	21.8	15.7	22.3	15.7	23.7	15.7	24.7	15.3

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 256: ARNU183VJA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

Table 257: ARNU243VJA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

ELECTRICAL & ACOUSTIC DATA

VJ Chassis

Electrical Data

Table 258: Ceiling Suspended Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU183VJA2	187-253	0.43	15	0.6	60	208-230V	1	63	63
ARNU243VJA2		0.43	15	0.6				63	63

MCA = Minimum Circuit Ampacity MOP = Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within listed range limits
- Select wire size based on the larger MCA value
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 259: Ceiling Suspended Unit Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU183VJA2	42	40	37
ARNU243VJA2	43	41	39

Figure 348: ARNU183VJA2

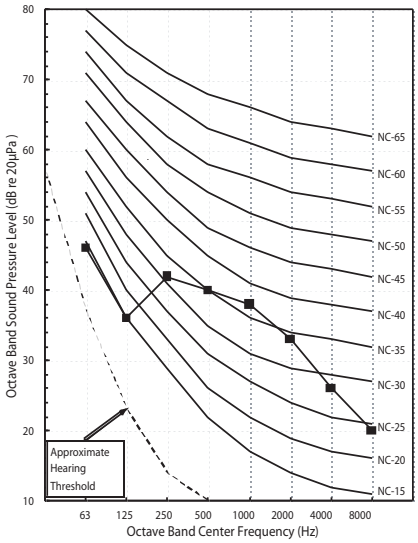
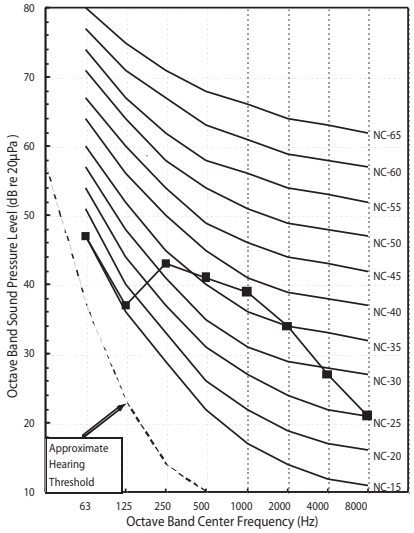


Figure 349: ARNU243VJA2



- Measurements are taken 3.3 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions :

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 350: Sound Levels

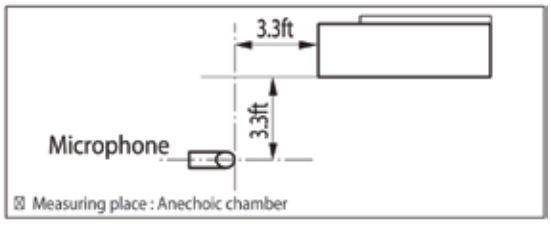


Figure 351: VJ Chassis Piping Diagram

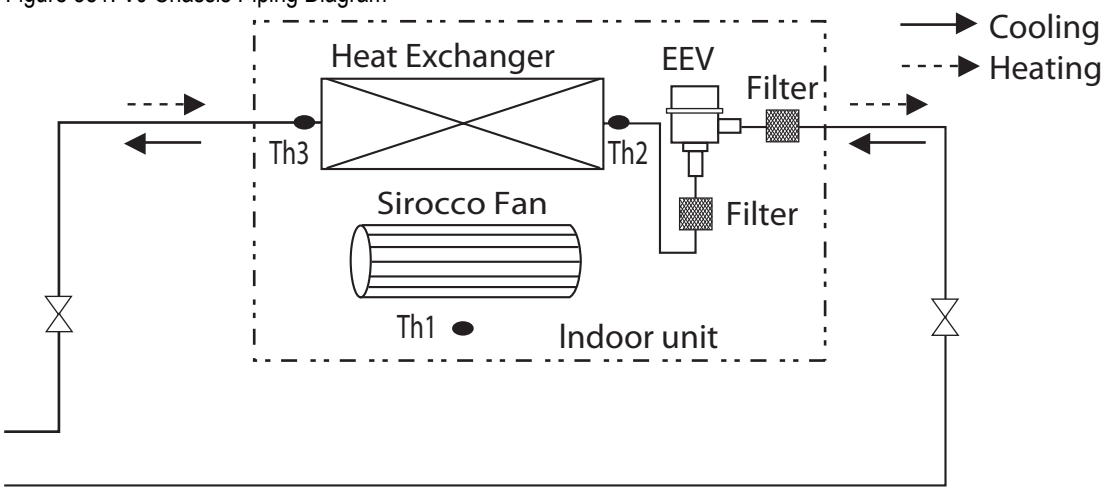


Table 260: VJ Chassis Refrigerant Pipe Connection Port Diameters

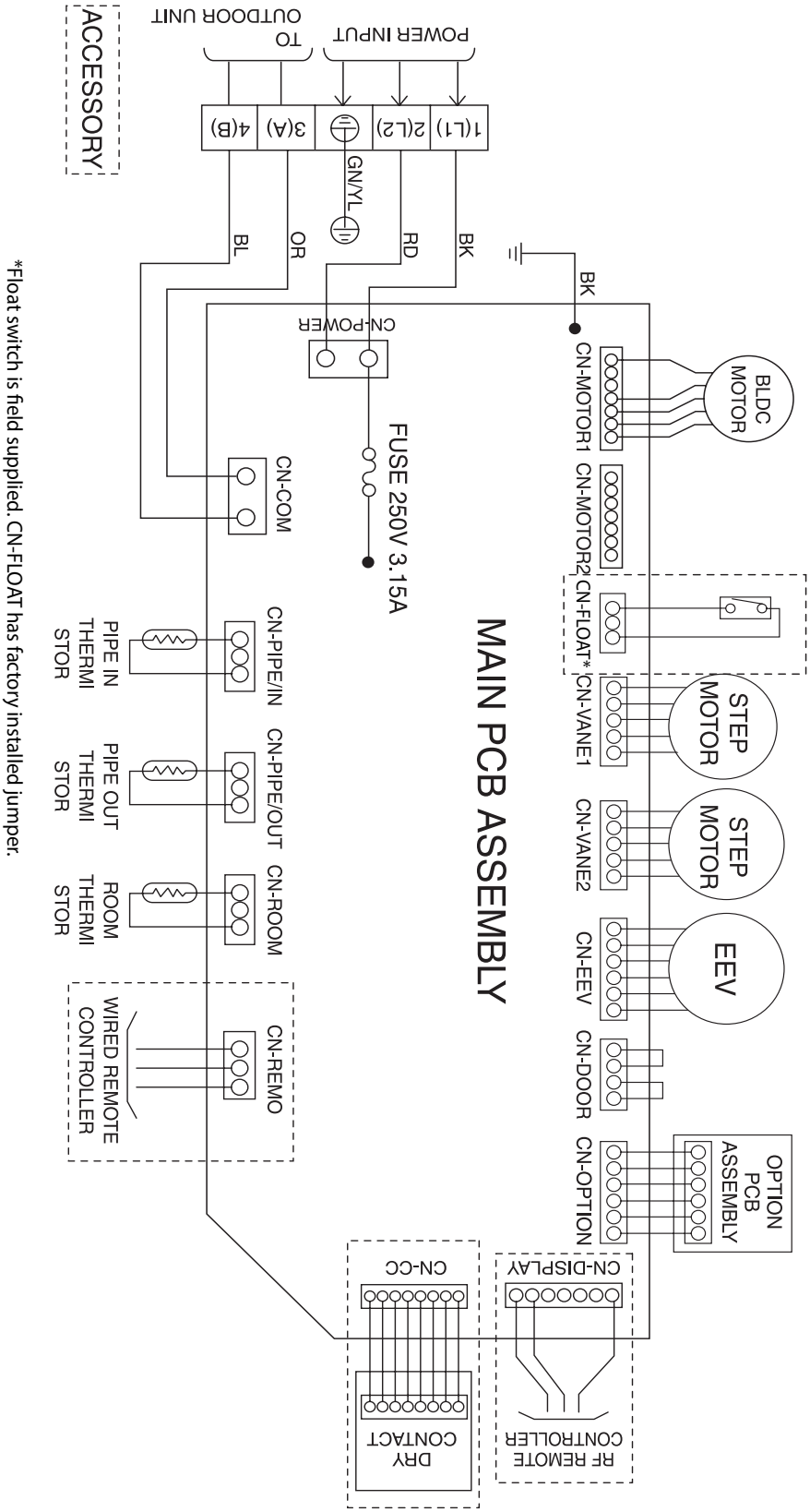
Model	Liquid (inch)	Gas (inch)
ARNU183VJA2	1/4	1/2
ARNU243VJA2	3/8	5/8

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

WIRING DIAGRAMS

VJ Chassis

Figure 352: VJ Chassis Wiring Diagram



WIRING DIAGRAM

VJ Chassis

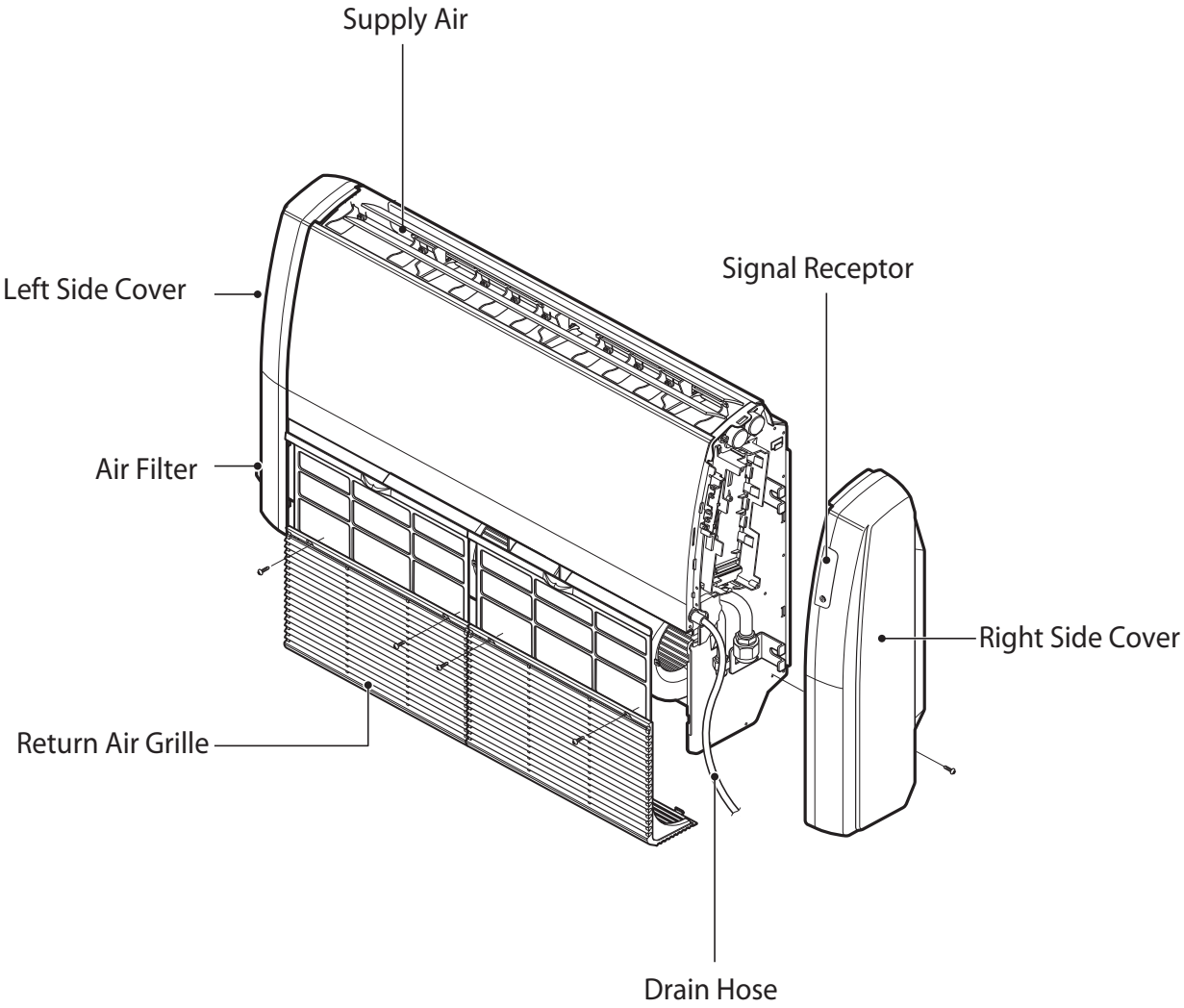
Table 261: VJ Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-POWER	AC power supply	AC power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-FLOAT	Float switch input	Float switch sensing
CN-EEV	EEV output	EEV control output
CN-OPTION	Option pwb.	Communication between main and option
CN-COM	Communication	Communication between indoor and outdoor
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-POWER	AC power supply	AC power line input for indoor controller
CN-DISPLAY	Display wire	Display wire line
CN-DOOR	Door lock switch	Door lock switch line
CN-CC	Dry contact	Dry contact line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	ON: Floor OFF: Ceiling (default)

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for the other models.

Figure 353: VJ Chassis



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Spanner (Half union)
- Thermometer

Required Parts

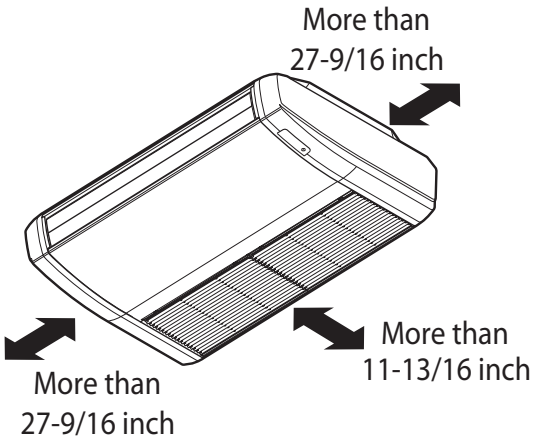
- Installation plate
- Type “A” screws
- Plastic anchors

⚠WARNING

- *Please read all instructions before installing the product.*
- *When the power cord is damaged, all replacement work must be performed by authorized personnel only.*
- *Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.*

Selecting the Best Location

Figure 354: Selecting the Best Location



Do's

- Place the unit in a location where condensation drainage can be conveniently routed away.
- Ensure that the clearance between the wall and the unit is more than 27-9/16 inches.
- Use a stud finder to locate studs in order to prevent unnecessary damage to the wall.

Don'ts

- Do not block the front of the unit.
- Do not place the unit near a heat source or steam.
- Do not install the unit near a doorway.

⚠WARNING

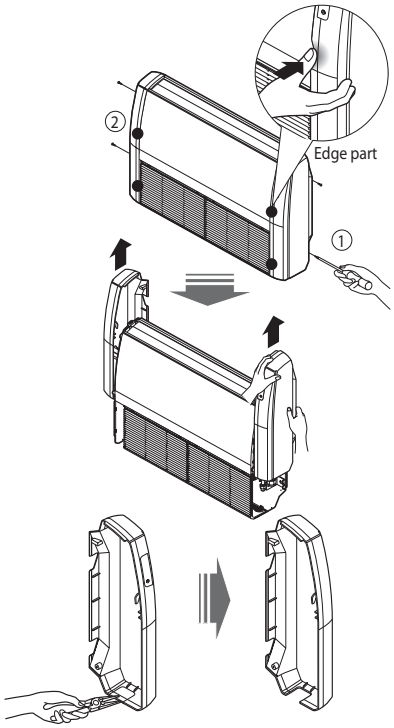
If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing unit in places where cooking oil or iron powder is generated.
- Avoid installing unit where flammable gas is generated, flows, stored or vented.
- Avoid installing where sulfurous acid gas or corrosive gas is generated.
- Avoid installing unit near high frequency generators.

Preparing for Installation

Figure 355: Installation Preparation



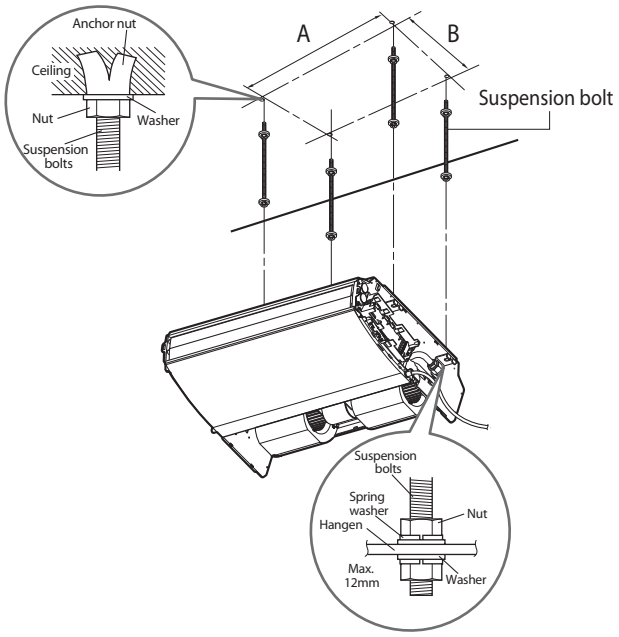
1. Remove two screws from the side cover (as shown in image).
2. Unlock the side cover from the side panel by slightly pulling the edge of the side cover.
3. Tap the side cover with the palm of your hand on the back side (inlet grill side).
4. Hold the side cover with your other hand while tapping to prevent it from falling.
5. Remove the rubber stopper from the desired drain.
6. Remove the knock out from the side cover that will be used for condensate drainage.

Mounting Anchor Nut and Bolt

1. Prepare 4 suspension bolts (each bolt length should be the same length).
2. Measure and mark the position for the suspension bolts and the piping hole.
3. Drill the hole for the anchor nut on the ceiling.
4. Insert the nuts and washer onto the suspension bolts to lock the suspension bolts to the ceiling.
5. Firmly mount the suspension bolts to the anchor nuts.
6. Secure the hangers onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
7. Adjust the level left and right with a level gauge, back and forth by adjusting suspension bolts.
8. Adjust the level top to bottom by adjusting suspension bolts. This will allow the unit to be at a slight incline on the bottom so it will drain easily.

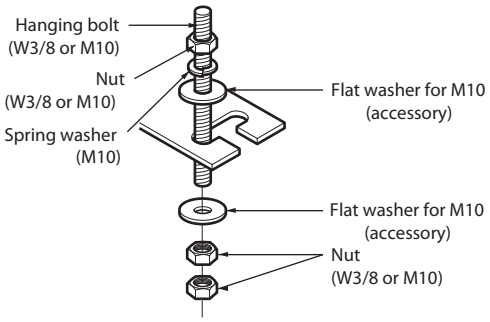
A (inch)	B (inch)
33-11/16	12-5/8

Figure 356: Mounting Anchor Nut and Bolt



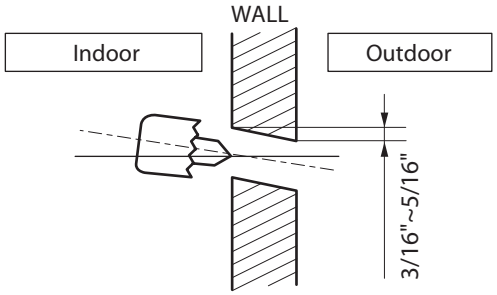
⚠WARNING
Tighten the nuts and bolts firmly to prevent the unit from falling.

Figure 357: Tightening Nuts and Bolts



9. Drill a piping hole with a 2-3/4 inch hole core drill. Drill the piping hole right or left with the hole slightly slanted towards the outdoor side.

Figure 358: Drilling a Piping Hole



Indoor Unit Installation

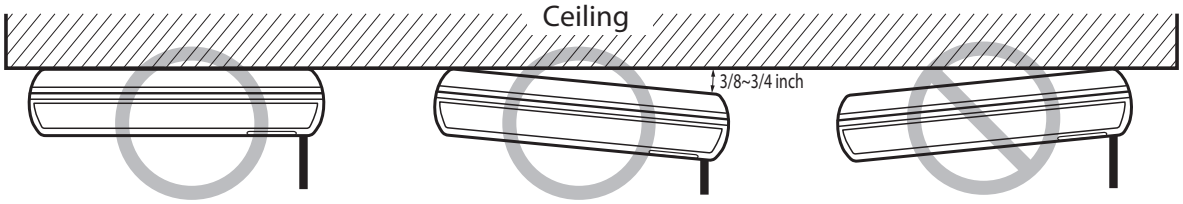
1. Lift the indoor unit to a sufficient height.
2. One by one, insert the suspended part of the four suspension bolts in the four hangers provided on the side of the main body.
3. Lower the indoor until the hangers rest on their respective washers.
4. Adjust the level towards the top of the unit by adjusting the suspension bolts.
5. Incline the unit as shown in the image below.

Inclining the indoor unit is important for proper drainage.
Insulation must be a minimum thickness of 3/8 inch.
If the installation plates are fixed to a horizontal line, the indoor unit will decline to the bottom side after installation.

Front View

The unit must be horizontal or inclined at an angle.
The incline should be less than or equal to 1° or in between 3/8 - 3/4 inch incline in drain direction (as shown in image).

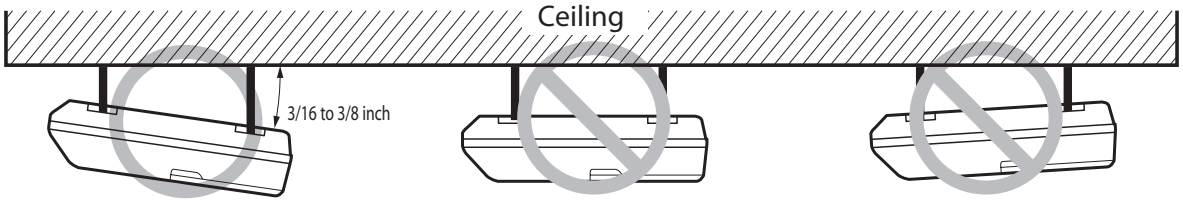
Figure 359: Front View



Side View

The unit must be inclined to the bottom side of the unit when installation is finished.

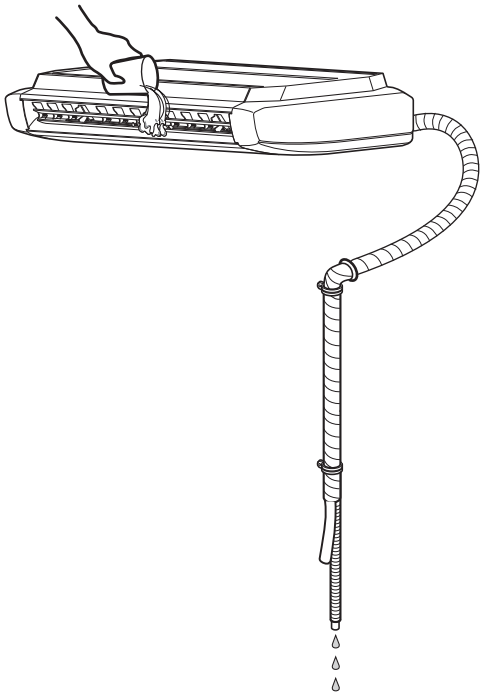
Figure 360: Side View



Checking Drainage

1. By hand, set the air direction louvers to a vertical position.
2. Pour a glass of water on the evaporator.
3. Ensure the water flows through the drain hose of the indoor unit without any leaks and goes out the drain exit.

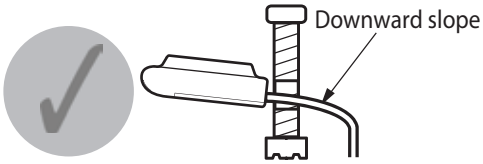
Figure 361: Checking Drainage



Drain Piping

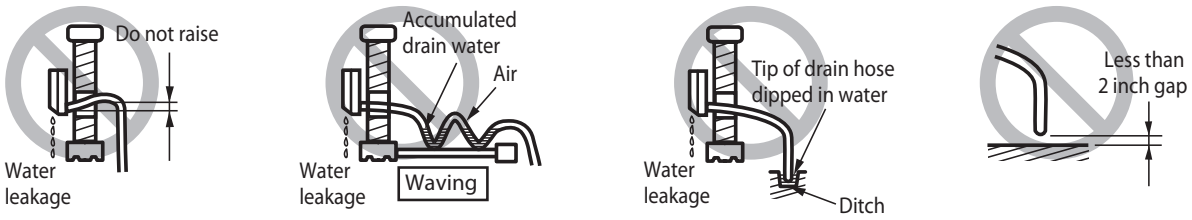
• The drain hose should point downward for easy drain flow.

Figure 362: Downward Slope



• See image below for examples of bad drain piping:

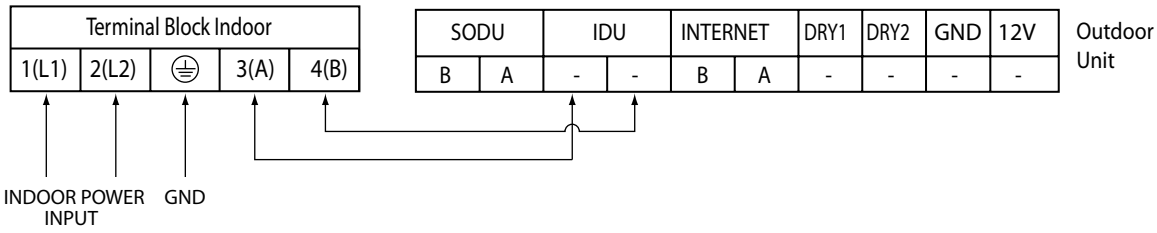
Figure 363: Bad Piping Example



Wiring Connection

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires on the outdoor unit and the terminal No. are the same as those on the indoor unit. Make sure to tighten the terminal screws firmly.

Figure 364: Wiring Connection

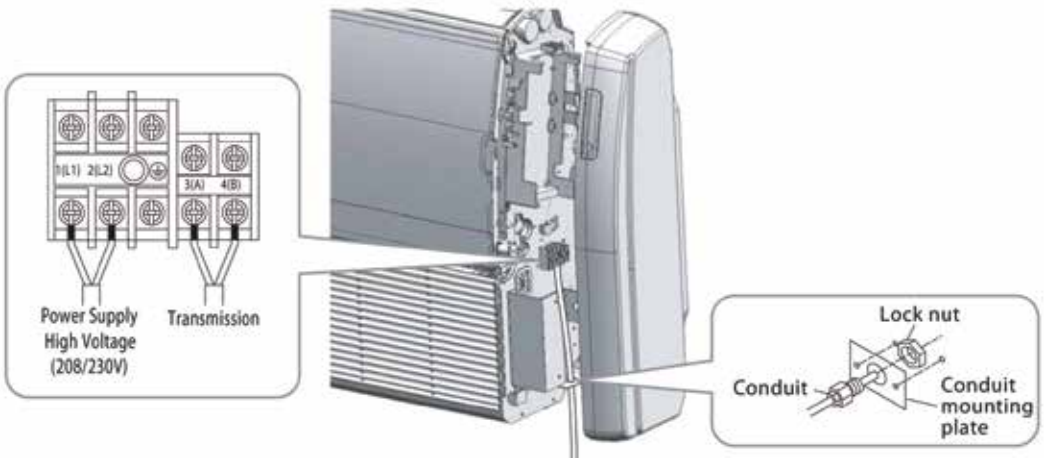


⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Cable Connection Method

Figure 365: Cable Connection Method



⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Wiring

- Always have separate power for the indoor unit.
- Follow the circuit diagram pasted on the inside of the control box cover.
- Confirm the specification of the power source.
- Confirm that the electrical capacity is sufficient.
- Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
- Confirm the cable thickness is as specified in the power sources specification.
- Always equip a leakage breaker where conditions are wet or moist.
- A way to disconnect from a power supply should be incorporated in the fixed wiring and have an air gap contact separation of at least 1/8 inch in each active (phase) conductor.

The following problems can be caused by voltage drop-down:

- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Wired Remote Controller Installation

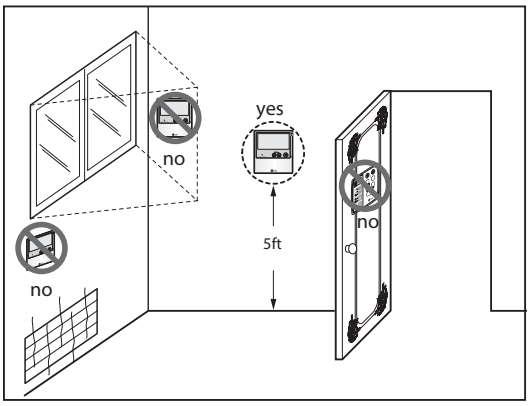
Since the room temperature sensor is inside the remote controller, the remote controller should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

Figure 366: Wired Remote Controller Installation



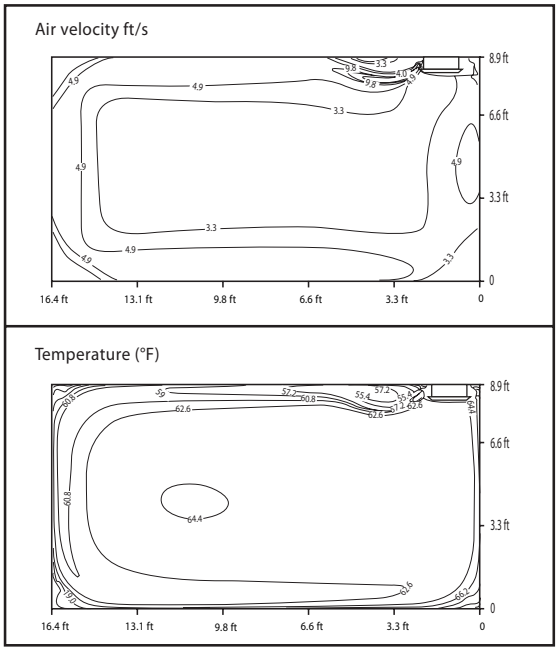
AIR VELOCITY & TEMP DISTRIBUTION

ARNU183VJA2, ARNU243VJA2

Figure 367: ARNU183VJA2

Cooling

Discharge angle: 50°



Heating

Discharge angle: 60°

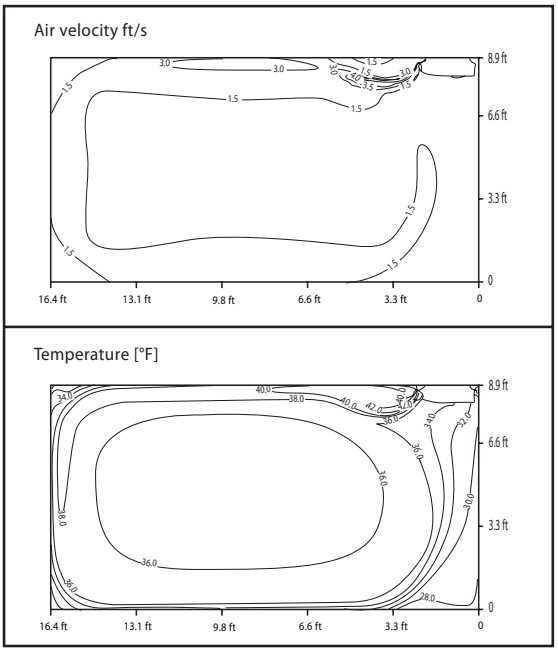
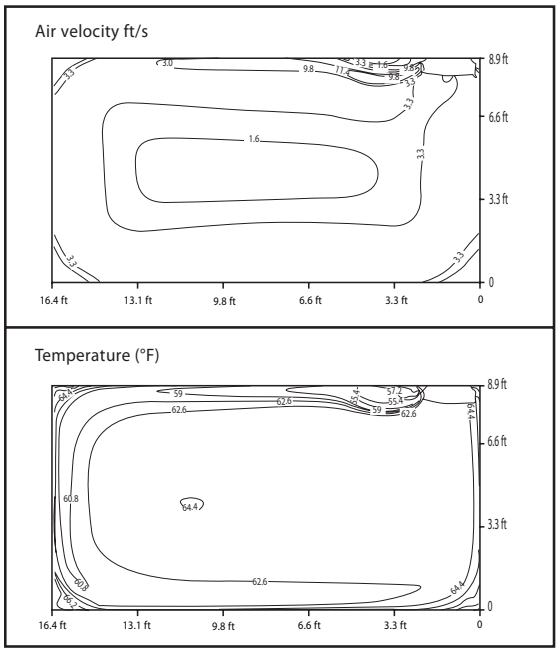


Figure 368: ARNU243VJA2

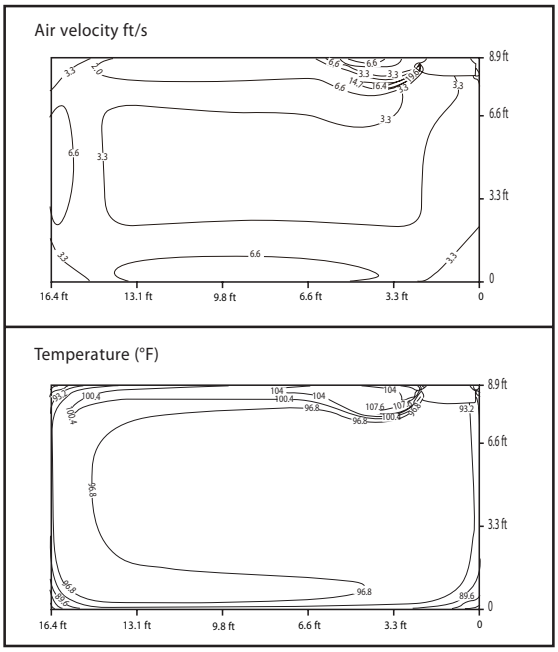
Cooling

Discharge angle: 50°



Heating

Discharge angle: 60°



CONVERTIBLE SURFACE MOUNTED

GENERAL DATA

Convertible Surface Mounted Unit Specifications

ARNU093VEA2, ARNU123VEA2

Table 262: Convertible Surface Mounted Unit General Data

Type	Convertible Surface Mounted	
	ARNU093VEA2	ARNU123VEA2
Cooling Mode Performance		
Capacity (Btu/h)	9,600	12,300
Power Input[1] (W)	30	30
Heating Mode Performance		
Capacity (Btu/h)	10,900	13,600
Power Input[1] (W)	30	30
Entering Mixed Air		
Cooling Max (°F WB)	76	76
Heating Min (°F DB)	59	59
Unit Data		
Refrigerant Type[2]	R410A	R410A
Refrigerant Control	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	36/32/28	38/36/30
Net Unit Weight (lbs)	31	31
Shipping Weight (lbs)	42	42
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18
Fan		
Type	Cross Flow	Cross Flow
Quantity	1	1
Motor/Drive	Brushless Digitally Controlled/Direct	Brushless Digitally Controlled/Direct
Airflow Rate H/M/L (CFM)	268/243/219	325/268/244
Piping		
Liquid Line (in, OD)	1/4 Flare	1/4 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare
Condensate Line (in, ID)	5/8	5/8

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes. This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

VE Chassis

W	35-7/16"
H	19-5/16"
D	7-7/8"
M1	6-3/16"
M2	23-1/8"
M3	3/8"
M4	10-3/8"

Note - All dimensions have a tolerance of ± 0.25 in.

PERFORMANCE DATA

Cooling Capacity

ARNU093VEA2, ARNU123VEA2

Table 263: ARNU093VEA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
23	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
25	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
30	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
35	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
40	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
45	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
50	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.2
55	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.4	7.3
60	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.3	7.2
65	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	12.1	7.1
70	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	11.9	7.0
75	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.4	7.3	11.6	6.8
80	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.8	7.3	11.1	7.2	11.3	6.8
85	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.7	7.3	10.8	6.9	10.9	6.5
90	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.5	7.1	10.6	6.8	10.8	6.4
95	6.3	5.2	7.7	6.0	8.6	6.4	**9.6**	**6.8**	10.3	7.1	10.5	6.7	10.7	6.4
100	6.3	5.2	7.7	6.0	8.6	6.4	9.6	6.8	10.1	7.0	10.3	6.7	10.5	6.3
105	6.3	5.2	7.3	5.7	8.3	6.1	9.2	6.5	9.4	6.5	9.9	6.5	10.1	6.2
110	6.1	5.1	6.9	5.4	7.7	5.7	8.6	6.1	8.8	6.1	9.4	6.1	9.8	6.0

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 264: ARNU123VEA2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
23	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
25	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
30	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
35	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
40	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
45	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
50	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
55	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.9	9.3
60	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.7	9.2
65	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.5	9.1
70	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	15.3	9.0
75	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.6	9.3	14.9	8.7
80	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.8	9.4	14.3	9.2	14.5	8.7
85	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.7	9.3	13.8	8.8	14.0	8.4
90	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	13.4	9.1	13.5	8.7	13.8	8.2
95	8.1	6.7	9.8	7.7	11.1	8.2	**12.3**	**8.7**	13.2	9.1	13.4	8.6	13.7	8.2
100	8.1	6.7	9.8	7.7	11.1	8.2	12.3	8.7	12.9	8.9	13.2	8.6	13.4	8.1
105	8.1	6.7	9.3	7.3	10.6	7.9	11.8	8.4	12.1	8.4	12.7	8.3	12.9	7.9
110	7.9	6.5	8.9	6.9	9.8	7.3	11.1	7.9	11.3	7.9	12.1	7.9	12.5	7.7

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 265: ARNU093VEA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0	-0.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
5.0	4.5	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.3
10.0	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
15.0	14.0	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.2
20.0	19.0	9.9	9.9	9.9	9.9	9.7	9.7	9.5	9.4
25.0	23.0	10.4	10.4	10.4	10.4	10.4	10.1	10.0	9.9
30.0	28.0	10.6	10.6	10.6	10.6	10.6	10.4	10.0	9.7
35.0	32.0	10.9	10.9	10.9	10.9	10.8	10.6	10.0	9.5
40.0	36.0	11.3	11.3	11.3	11.3	10.9	10.6	10.0	9.5
45.0	41.0	11.8	11.8	11.8	11.4	10.9	10.6	10.0	9.5
47.0	43.0	12.2	12.1	12.0	11.4	**10.9**	10.6	10.0	9.5
50.0	46.0	13.1	12.5	12.0	11.4	10.9	10.6	10.0	9.5
55.0	51.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5
60.0	56.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5

TC: Total Capacity (MBh)

Table 266: ARNU123VEA2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
0	-0.4	9.4	9.4	9.4	9.4	9.4	9.2	9.2	9.2
5.0	4.5	10.6	10.5	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9
15.0	14.0	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.4
20.0	19.0	12.4	12.4	12.4	12.4	12.1	12.1	11.9	11.7
25.0	23.0	12.9	12.9	12.9	12.9	12.9	12.6	12.5	12.4
30.0	28.0	13.2	13.2	13.2	13.2	13.2	12.9	12.5	12.1
35.0	32.0	13.6	13.6	13.6	13.6	13.5	13.2	12.5	11.9
40.0	36.0	14.1	14.1	14.1	14.1	13.6	13.2	12.5	11.9
45.0	41.0	14.7	14.7	14.7	14.3	13.6	13.2	12.5	11.9
47.0	43.0	15.2	15.1	15.0	14.3	**13.6**	13.2	12.5	11.9
50.0	46.0	16.4	15.6	15.0	14.3	13.6	13.2	12.5	11.9
55.0	51.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9
60.0	56.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9

TC: Total Capacity (MBh)

ELECTRICAL & ACOUSTIC DATA

VE Chassis

Electrical Data

Table 267: Convertible Surface Mounted Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU093VEA2	187-253	0.22	15	0.15	60	208-230V	1	30	30
ARNU123VEA2		0.22	15	0.15				30	30

MCA = Minimum Circuit Ampacity MOP = Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 268: Convertible Surface Mounted Unit Sound Pressure Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU093VEA2	36	32	28
ARNU123VEA2	38	36	30

Figure 369: ARNU093VEA2

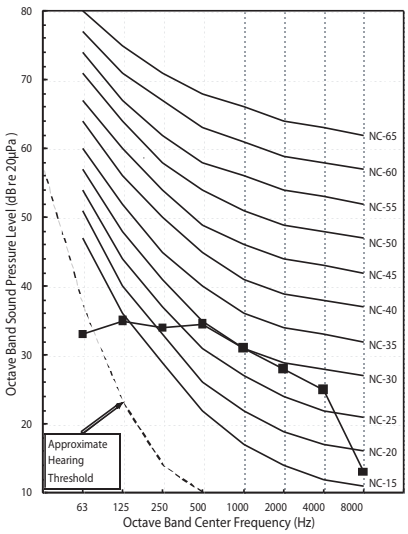
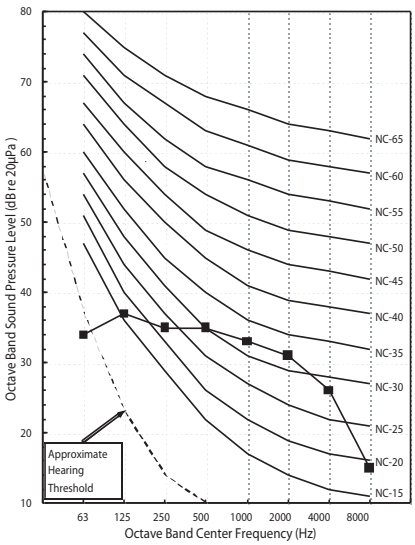


Figure 370: ARNU123VEA2



- Measurements are taken 3.3 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions:

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 371: Sound Levels

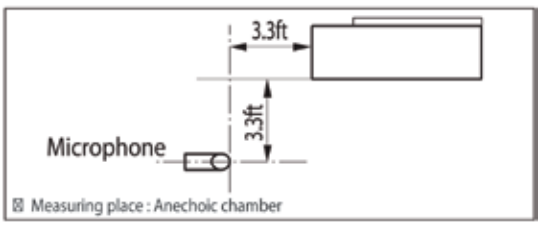


Figure 372: VE Chassis Piping Diagram

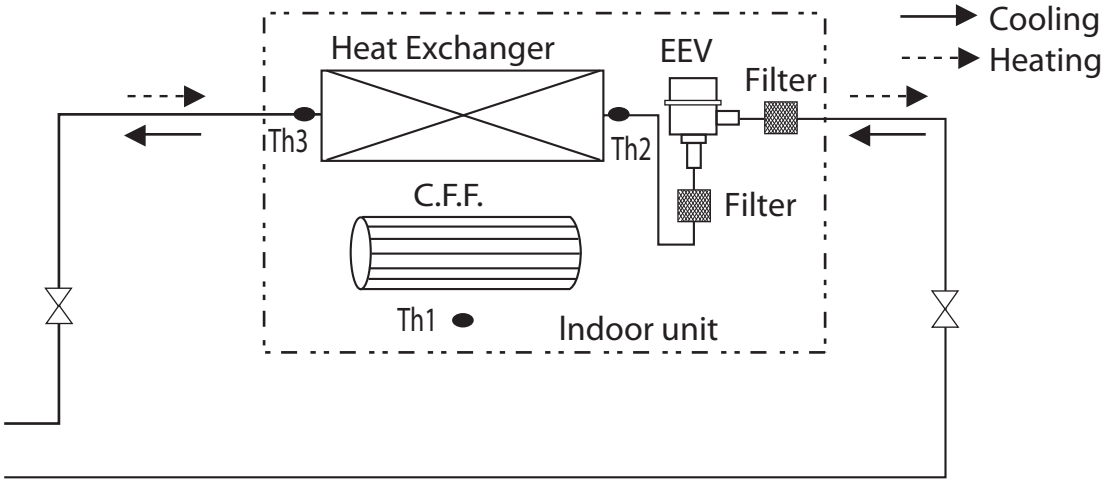


Table 269: VE Chassis Refrigerant Pipe Connection Port Diameters

Model	Liquid (inch)	Gas (inch)
ARNU093VEA2	1/4	1/2
ARNU123VEA2	1/4	1/2

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

WIRING DIAGRAMS

VE Chassis

Figure 373: VE Chassis Wiring Diagram

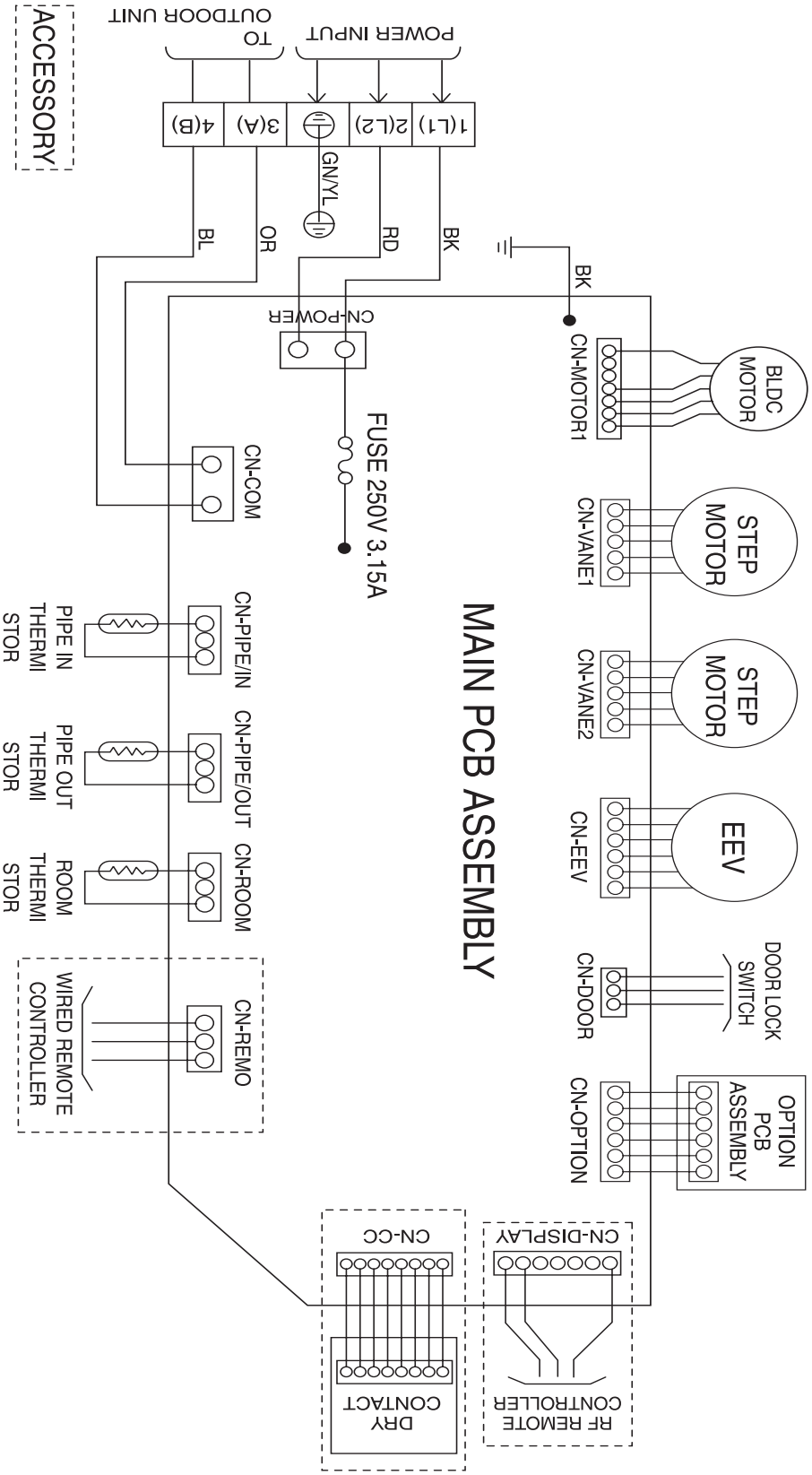


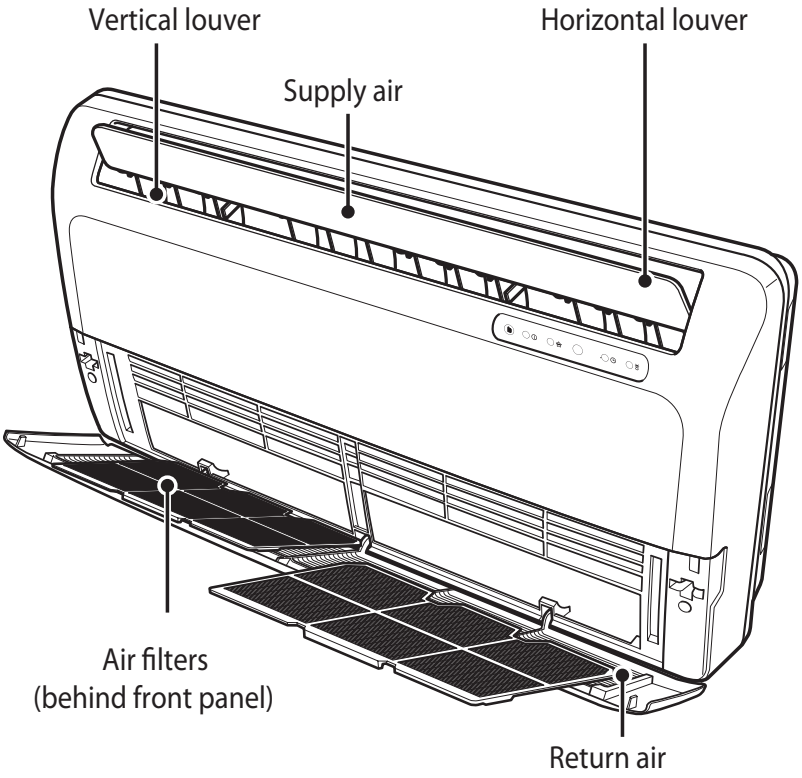
Table 270: VE Chassis Wiring Diagram

CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-POWER	AC power supply	AC power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-FLOAT	Float switch input	Float switch sensing
CN-EEV	EEV output	EEV control output
CN-OPTION	Option pwb.	Communication between main and option
CN-COM	Communication	Communication between indoor and outdoor
CN-D/PUMP	Drain pump output	AC output for drain pump
CN-POWER	AC power supply	AC power line input for indoor controller
CN-DISPLAY	Display wire	Display wire line
CN-DOOR	Door lock switch	Door lock switch line
CN-CC	Dry contact	Dry contact line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	ON: Floor OFF: Ceiling (default)

For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for the other models.

Figure 374: VE Chassis



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Spanner (Half union)
- Thermometer

Required Parts

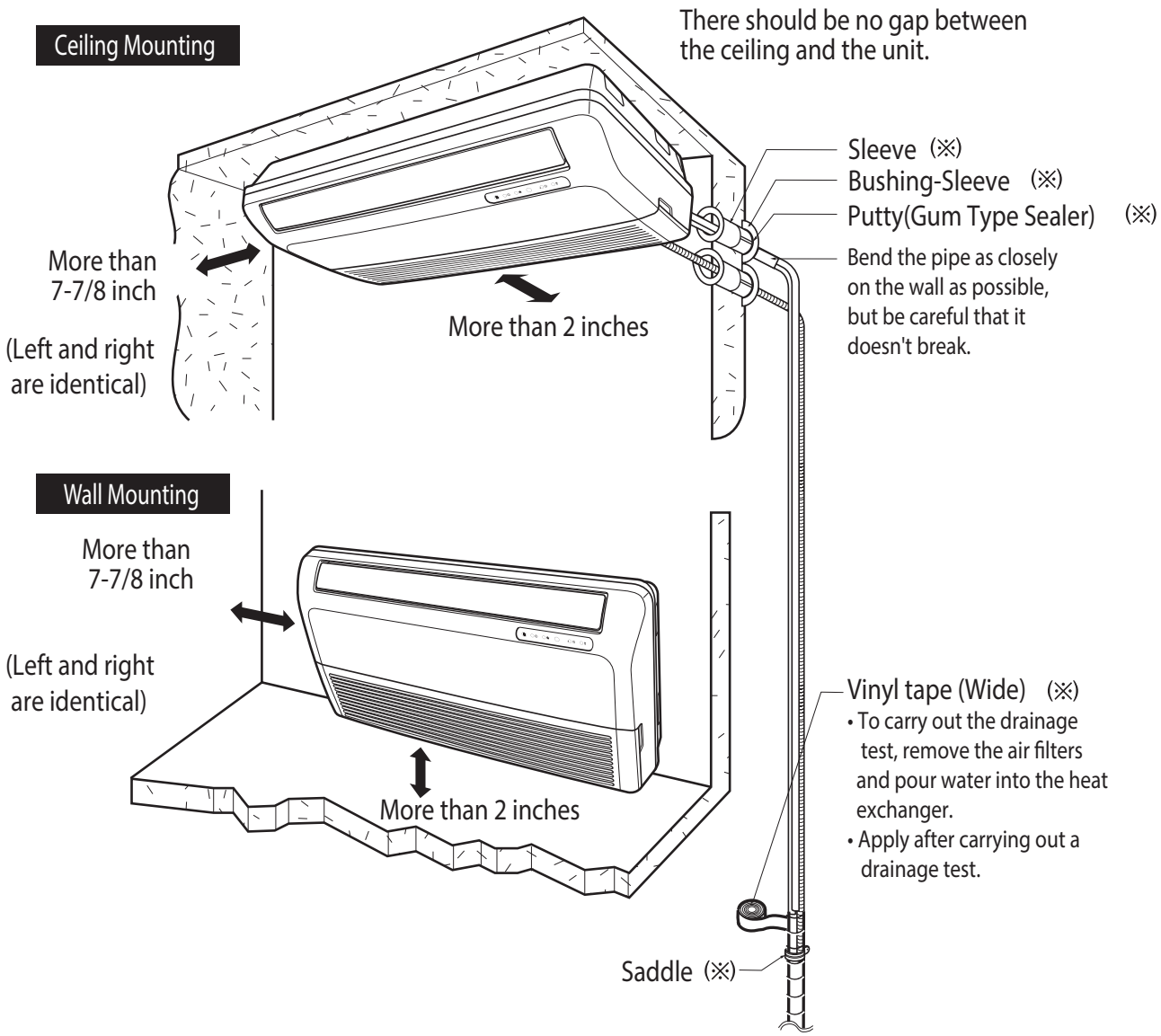
- Installation plate
- Type “A” screws
- Plastic anchors

⚠WARNING

- *Please read all instructions before installing the product.*
- *When the power cord is damaged, all replacement work must be performed by authorized personnel only.*
- *Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.*

Installation Diagram

Figure 375: Installation Diagram



Selecting the Best Location

Do's

- Place the unit in a location where condensation drainage can be conveniently routed away.
- Ensure that the clearance between the wall and the unit is more than 7-7/8 inches.
- Install the unit as low as possible on the wall, allowing a minimum of 1-12/13 inches from the floor.
- Use a stud finder to locate studs to prevent unnecessary damage to the wall.

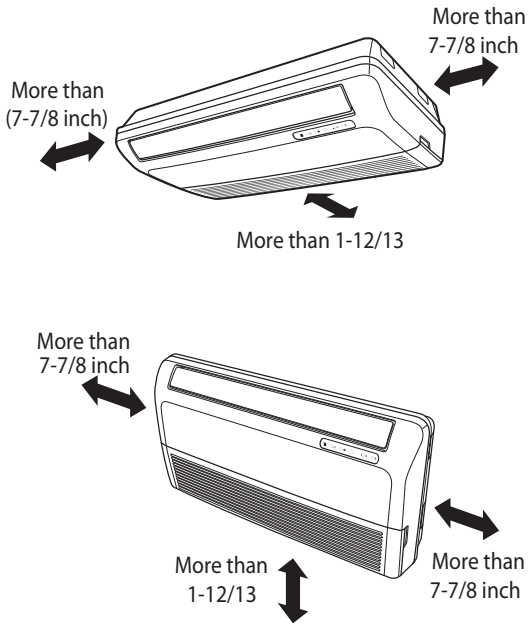
Don'ts

- Do not block the front of the unit.
- Do not place the unit near a heat source or steam.
- Do not install the unit near a doorway.

⚠WARNING

If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

Figure 376: Selecting the Best Location



Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing unit in places where cooking oil or iron powder is generated.
- Avoid installing unit where flammable gas is generated, flows, stored or vented.
- Avoid installing where sulfurous acid gas or corrosive gas is generated.
- Avoid installing unit near high frequency generators.

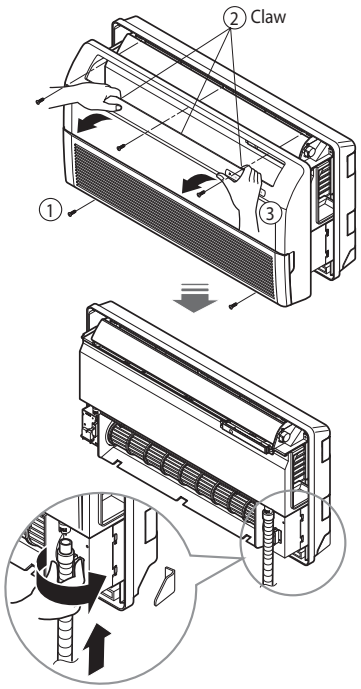
Preparing for Installation

1. Remove the five screws.
2. Release the claws in the 3 places indicated (see image).
3. Pull up the front panel.
4. Pull up the side cover of the desired connecting side. The side cover will separate.
5. Remove the pipe knock-out from the side cover.

⚠WARNING
After removing the knock out, cut the burr for safety.

6. Remove the rubber stopper from the desired drain side.
7. Insert the drain hose into the handle of the drain pan.
8. Join the drain hose and the connecting hose as shown in the image.

Figure 379: Installation Preparation



Mounting the Installation Plate (Wall Mounting)

The wall you select should be strong and solid enough to prevent vibration.

1. Mount the installation plate on the wall with type “A” screws. If mounting the unit on a concrete wall, use anchor bolts.
2. Using a level mount the installation plate horizontally by aligning the center line.
3. Measure the wall and mark the center line. It is important to use caution when determining the location of the installation plate. Use caution when drilling the hole through the wall for piping since it is typical for electrical wiring to be located within walls.

Figure 377: Installation Plate

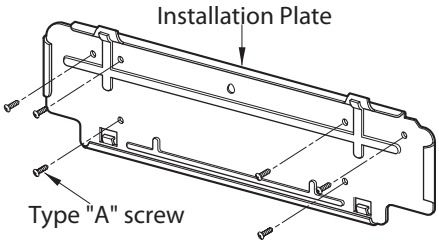
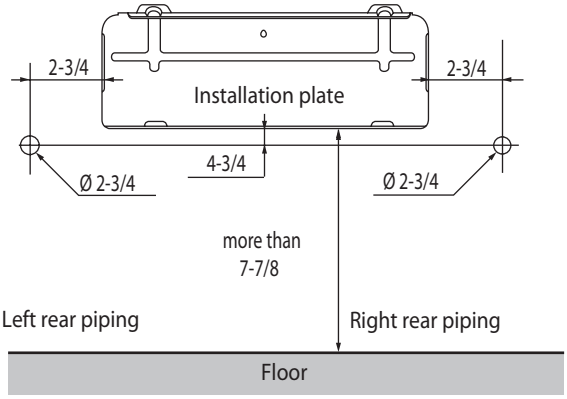


Figure 378: Wall Mounting

Unit: inch

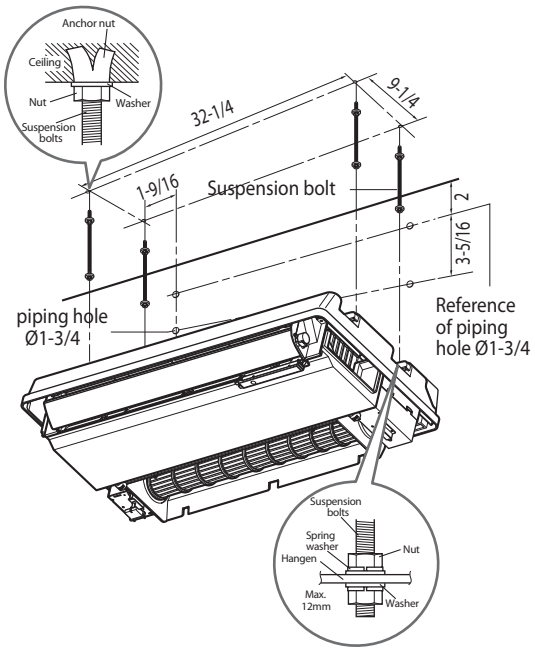


Mounting the Installation Plate (Ceiling Mounting)

1. Prepare 4 suspension bolts (each bolt should be the same length).
2. Measure and mark the position for the suspension bolts and the piping hole.
3. Drill a hole for the anchor nut on the ceiling.
4. Insert the nuts and the washer onto the suspension bolts to lock the suspension bolts on the ceiling.
5. Mount the suspension bolts to the anchor nuts firmly.
6. Secure the hangers onto the suspension bolts (adjust the level roughly) using nuts, washers and spring washers.
7. Adjust the level left and right with a level gauge, back and forth by adjusting suspension bolts.
8. Adjust the level top to bottom by adjusting suspension bolts. This will allow the unit to be at a slight incline on the bottom so it will drain easily.

Figure 380: Ceiling Mounting

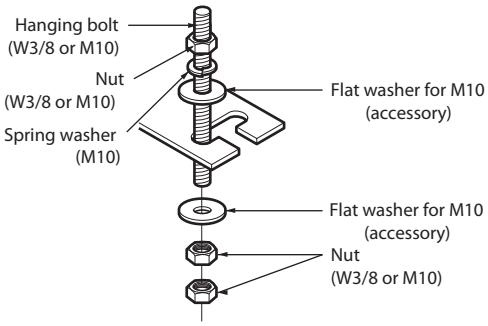
Unit: inch



⚠WARNING

Tighten the nuts and bolts firmly to prevent the unit from falling.

Figure 381: Tightening Nuts and Bolts



Left Piping Installation

Follow the instructions below to properly route piping.

1. Press on the upper side of the clamp (A).
2. Slowly unfold the tubing downward (B).
3. Bend the tubing to the left side of the chassis.

Below is an example of bad piping. Bending the piping right to left can cause pipe damage.

Figure 382: Left Piping Installation

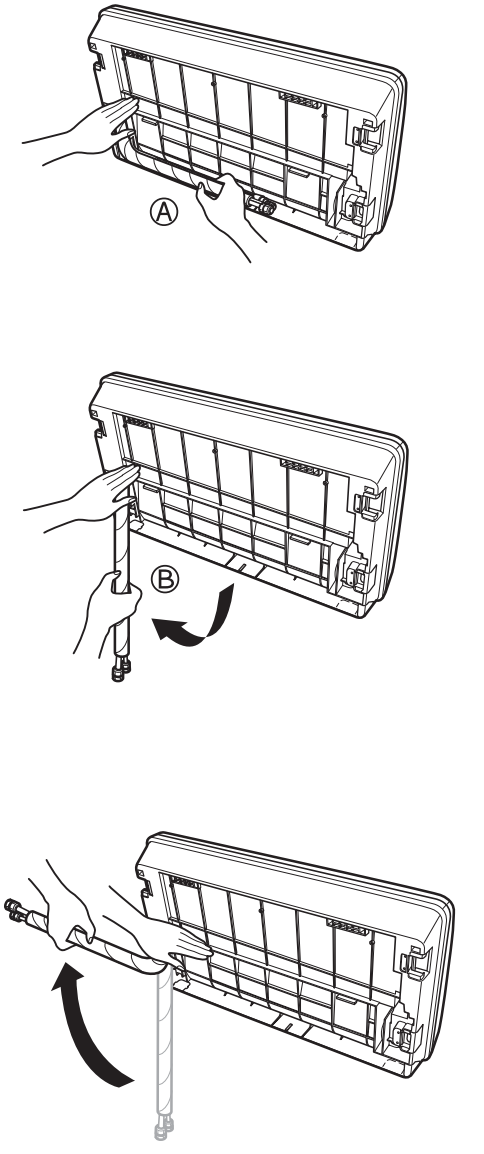
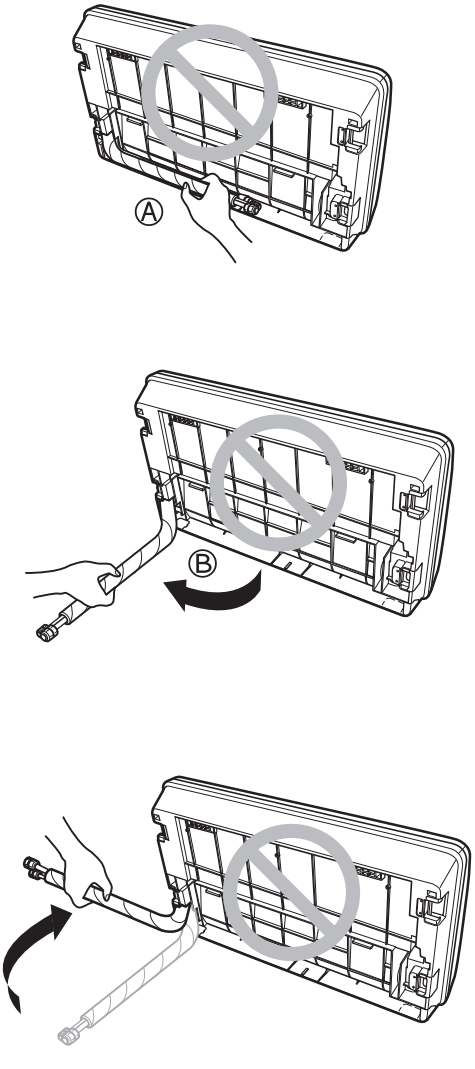


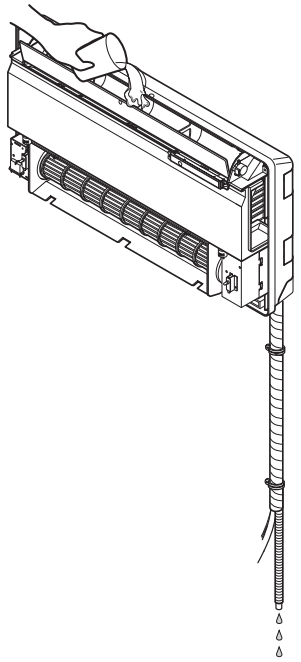
Figure 383: Bad Piping Example



Checking Drainage

1. By hand, set the air direction louvers to a vertical position.
2. Remove the air filter. Take hold of the tab and pull slightly upwards.
3. Pour a glass of water on the evaporator.
4. Ensure the water flows through the drain hose of the indoor unit without any leaks and goes out the drain exit.

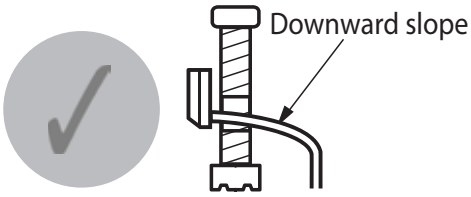
Figure 384: Checking Drainage



Drain Piping

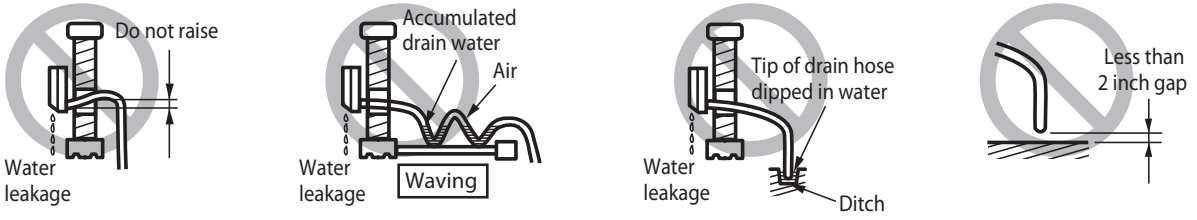
• The drain hose should point downward for easy drain flow.

Figure 385: Drain Piping



• See image below for examples of bad drain piping:

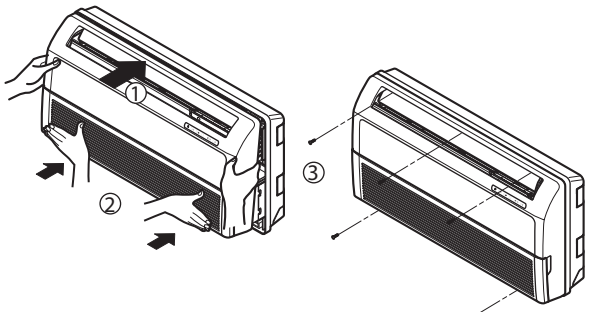
Figure 386: Bad Piping Example



Front Panel Assembly

1. Suspend the hook of the front panel in the groove.
2. Press the front of the panel.
3. Screw in the front of the panel.

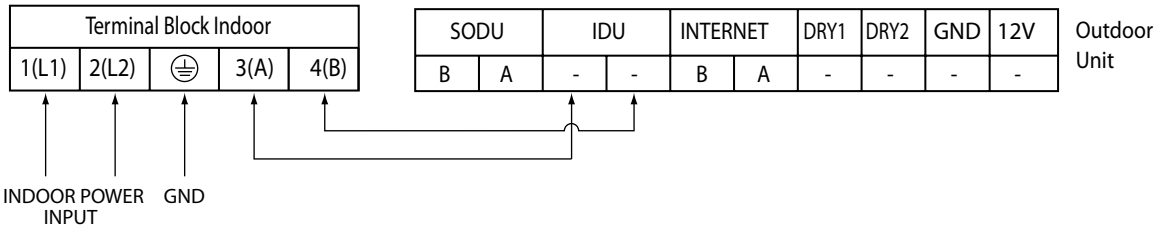
Figure 387: Front Panel Assembly



Wiring Connection

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires on the outdoor unit and the terminal No. are the same as those on the indoor unit. Make sure to tighten the terminal screws firmly.

Figure 388: Wiring Connection

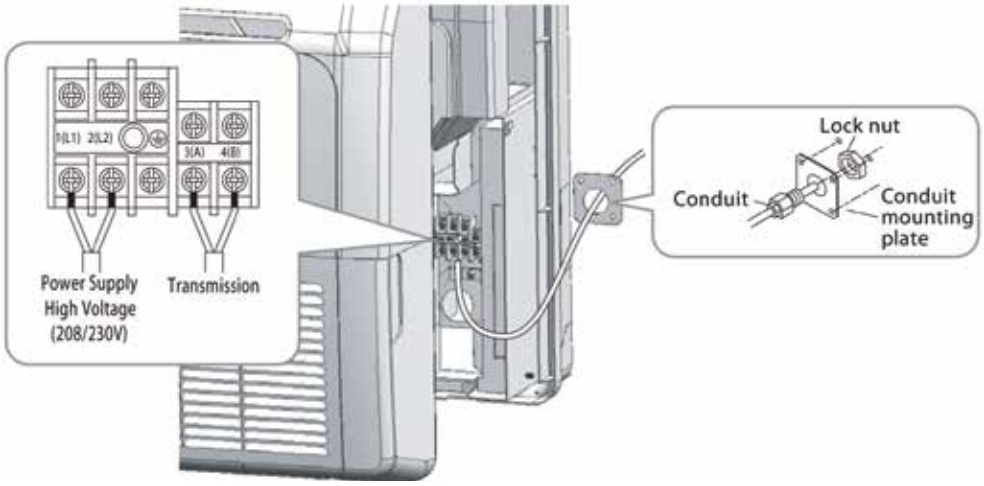


⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Cable Connection Method

Figure 389: Cable Connection Method



⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Wiring

- Always have separate power for the indoor unit.
- Follow the circuit diagram pasted on the inside on the control box cover.
- Confirm the specification of the power source.
- Confirm that the electrical capacity is sufficient.
- Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
- Confirm the cable thickness is as specified in the power sources specification.
- Always equip a leakage breaker where conditions are wet or moist.
- A way to disconnect from a power supply should be incorporated in the fixed wiring and have an air gap contact separation of at least 1/8 inch in each active (phase) conductor.

The following problems can be caused by voltage drop-down:

- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Wired Remote Controller Installation

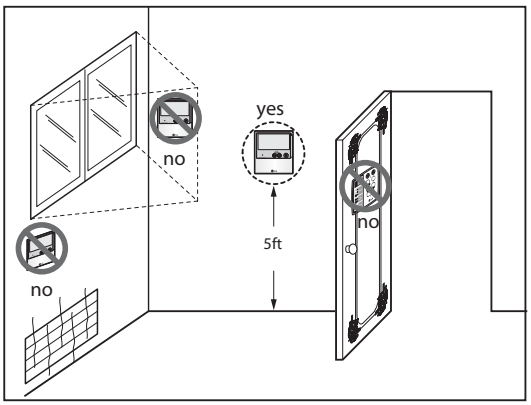
Since the room temperature sensor is inside the remote controller, the remote controller should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about 5 ft above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is 4 - 5 ft from floor level.

Figure 390: Wired Remote Controller Installation



AIR VELOCITY & TEMP DISTRIBUTION

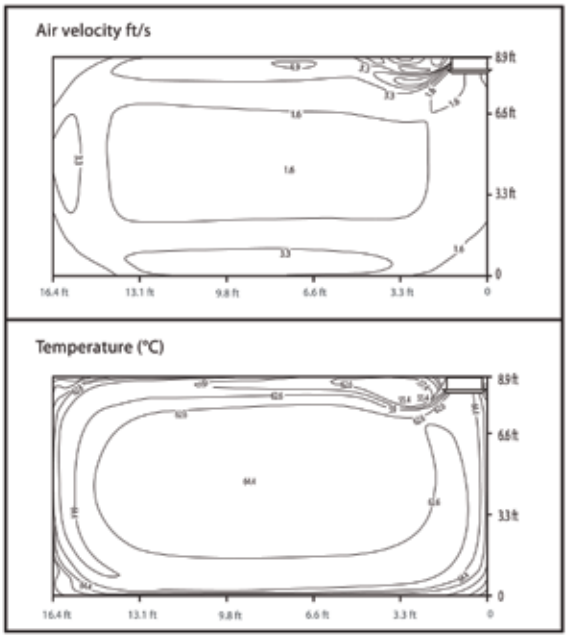
ARNU093VEA2

Figure 391: ARNU093VEA2

☒ Ceiling

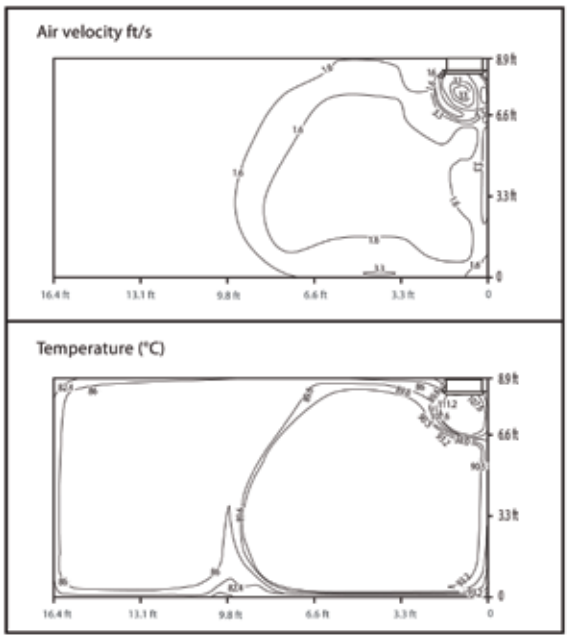
Cooling

Discharge angle:50°



Heating

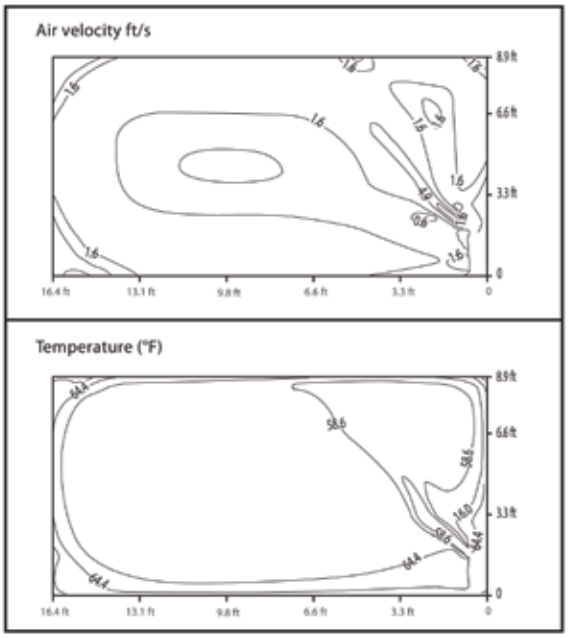
Discharge angle: 60°



☒ Floor

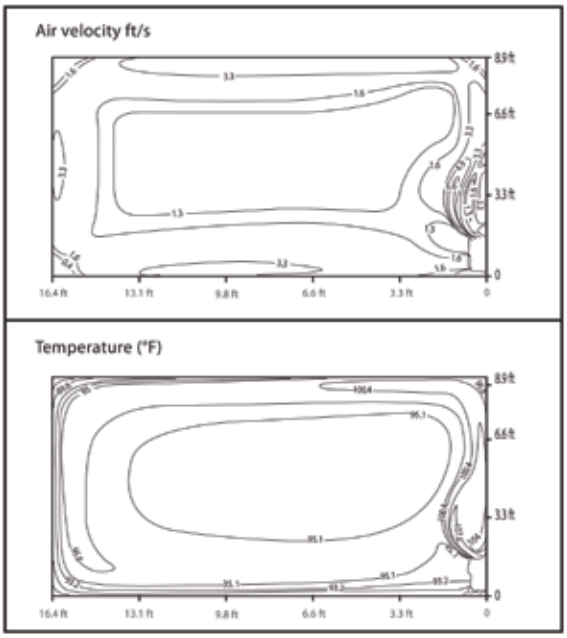
Cooling

Discharge angle: 50°



Heating

Discharge angle: 60°



AIR VELOCITY & TEMP DISTRIBUTION

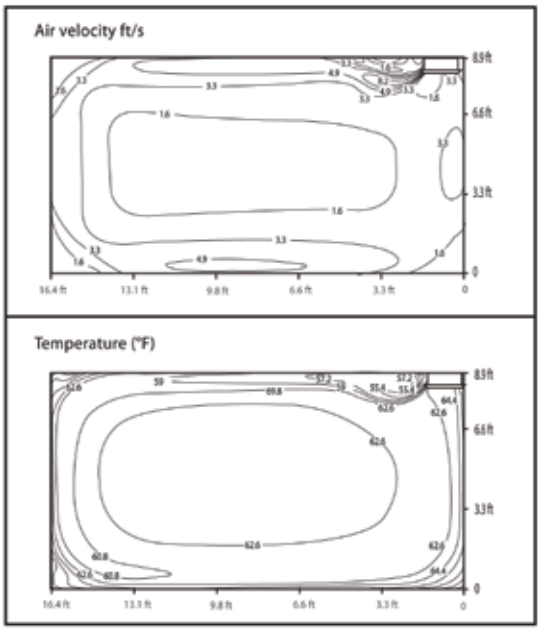
ARNU123VEA2

Figure 392: ARNU123VEA2

☒ Ceiling

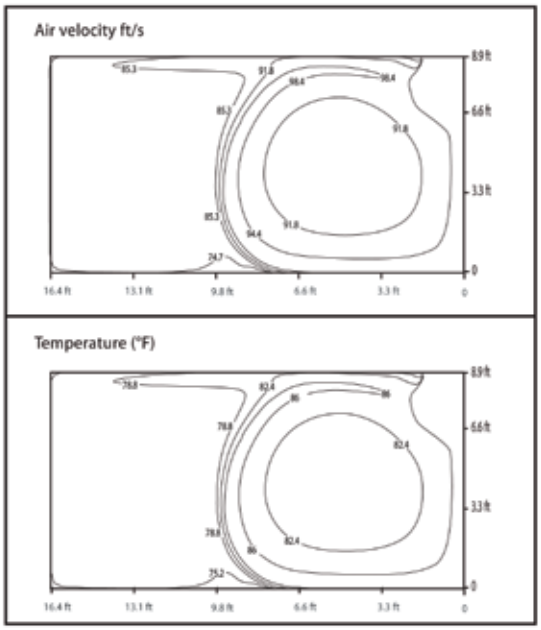
Cooling

Discharge angle: 50°



Heating

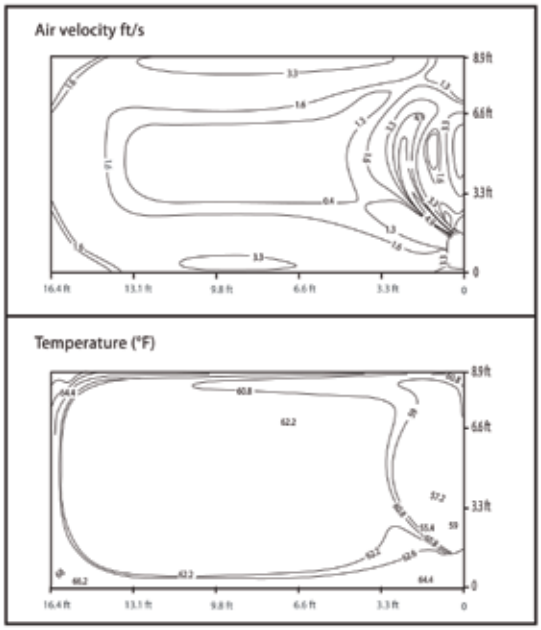
Discharge angle: 60°



☒ Floor

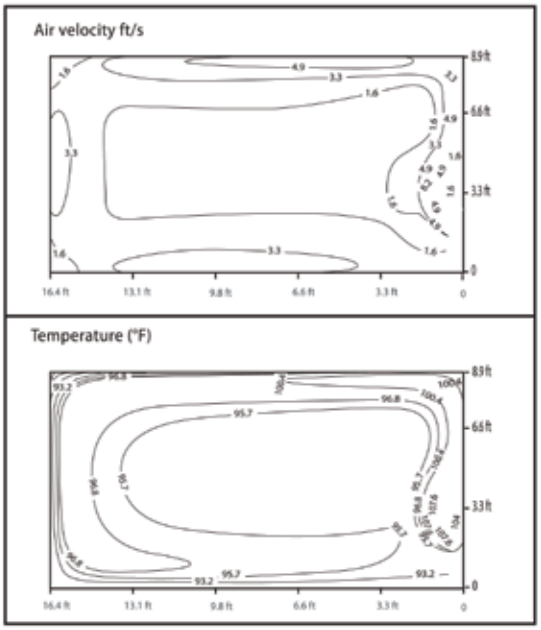
Cooling

Discharge angle: 50°



Heating

Discharge angle: 60°



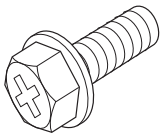
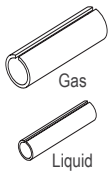
Cased

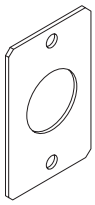
Uncased

FLOOR STANDING

FACTORY SUPPLIED PARTS & MATERIALS

Factory Supplied Parts

Part	Quantity	Image
Drain Hose	1	
Level Adjustment Screw	4	
Fitting Insulation	1 Set	

Part	Quantity	Image
Clamp (Tie Wrap)	8	
Conduit Mounting Plate	1	

Factory Supplied Materials

- Owner's Manual
- Installation Manual

GENERAL DATA

Floor Standing Unit Specifications

ARNU073CEA2, ARNU093CEA2, ARNU123CEA2

Table 271: Floor Standing (Cased) Unit General Data

Type	Floor Standing (Cased)		
	ARNU073CEA2	ARNU093CEA2	ARNU123CEA2
Cooling Mode Performance			
Capacity (Btu/h)	7,500	9,600	12,300
Power Input[1] (W)	30	30	30
Heating Mode Performance			
Capacity (Btu/h)	8,500	10,900	13,600
Power Input[1] (W)	30	30	30
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	35/33/31	36/34/32	37/35/33
Net Unit Weight (lbs)	60	60	60
Shipping Weight (lbs)	69	69	69
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	1	1	1
Housing	3	3	3
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	300/265/229	335/300/265	371/335/300
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	1/4 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	1/2 Flare
Condensate Line (in, ID)	1/2	1/2	1/2

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Floor Standing Unit Specifications

ARNU153CEA2, ARNU183CFA2, ARNU243CFA2

Table 272: Floor Standing (Cased) Unit General Data

Type	Floor Standing (Cased)		
	ARNU153CEA2	ARNU183CFA2	ARNU243CFA2
Cooling Mode Performance			
Capacity (Btu/h)	15,400	19,100	24,200
Power Input[1] (W)	30	80	80
Heating Mode Performance			
Capacity (Btu/h)	17,100	21,500	27,300
Power Input[1] (W)	30	80	80
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	38/37/35	40/37/34	43/40/37
Net Unit Weight (lbs)	60	75	75
Shipping Weight (lbs)	69	84	84
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	1	2	2
Housing	3	4	4
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	406/353/335	565/494/424	635/565/494
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	3/8 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	5/8 Flare
Condensate Line (in, ID)	1/2	1/2	1/2

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80ºF dry bulb (DB) and 67ºF wet bulb (WB) and outdoor ambient conditions of 95ºF dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70ºF dry bulb (DB) and outdoor ambient conditions of 47ºF dry bulb (DB) and 43ºF wet bulb (WB).
[1]Power Input is rated at high speed.
[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Floor Standing Unit Specifications

ARNU073CEU2, ARNU093CEU2, ARNU123CEU2

Table 273: Floor Standing (Uncased) Unit General Data

Type	Floor Standing (Uncased)		
	ARNU073CEU2	ARNU093CEU2	ARNU123CEU2
Cooling Mode Performance			
Capacity (Btu/h)	7,500	9,600	12,300
Power Input[1] (W)	30	30	30
Heating Mode Performance			
Capacity (Btu/h)	8,500	10,900	13,600
Power Input[1] (W)	30	30	30
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	35/33/31	36/34/32	37/35/33
Net Unit Weight (lbs)	45	45	45
Shipping Weight (lbs)	56	56	56
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	1	1	1
Housing	3	3	3
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	300/265/229	335/300/265	371/335/300
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	1/4 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	1/2 Flare
Condensate Line (in, ID)	1/2	1/2	1/2

EEV: Electronic Expansion Valve
Power wiring is field supplied and must comply with the applicable local and national codes.
This unit comes with a dry nitrogen charge.
This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.
Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).
Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).
[1]Power Input is rated at high speed.
[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.
Power Supply (V/Hz/Ø): 208-230/60/1

GENERAL DATA

Floor Standing Unit Specifications

ARNU153CEU2, ARNU183CFU2, ARNU243CFU2

Table 274: Floor Standing (Uncased) Unit General Data

Type	Floor Standing (Uncased)		
	ARNU153CEU2	ARNU183CFU2	ARNU243CFU2
Cooling Mode Performance			
Capacity (Btu/h)	15,400	19,100	24,200
Power Input[1] (W)	30	80	80
Heating Mode Performance			
Capacity (Btu/h)	17,100	21,500	27,300
Power Input[1] (W)	30	80	80
Entering Mixed Air			
Cooling Max (°F WB)	76	76	76
Heating Min (°F DB)	59	59	59
Unit Data			
Refrigerant Type[2]	R410A	R410A	R410A
Refrigerant Control	EEV	EEV	EEV
Sound Pressure[3] dB(A) (H/M/L)	38/37/35	40/37/34	43/40/37
Net Unit Weight (lbs)	45	60	60
Shipping Weight (lbs)	56	71	71
Communication Cable[4] (No. x AWG)	2 x 18	2 x 18	2 x 18
Fan			
Type	Sirocco	Sirocco	Sirocco
Motor	1	2	2
Housing	3	4	4
Motor/Drive	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct	Brushless Digitally Controlled/ Direct
Airflow Rate H/M/L (CFM)	406/353/335	565/494/424	635/565/494
Piping			
Liquid Line (in, OD)	1/4 Flare	1/4 Flare	3/8 Flare
Vapor Line (in, OD)	1/2 Flare	1/2 Flare	5/8 Flare
Condensate Line (in, ID)	1/2	1/2	1/2

EEV: Electronic Expansion Valve

Power wiring is field supplied and must comply with the applicable local and national codes.

This unit comes with a dry nitrogen charge.

This data is rated 0 ft above sea level, with 25 ft of refrigerant line per indoor unit and a 0 ft level difference between outdoor and indoor units. All capacities are net with a combination ratio between 95-105%.

Cooling capacity rating obtained with air entering the indoor coil at 80°F dry bulb (DB) and 67°F wet bulb (WB) and outdoor ambient conditions of 95°F dry bulb (DB).

Heating capacity rating obtained with air entering the indoor unit at 70°F dry bulb (DB) and outdoor ambient conditions of 47°F dry bulb (DB) and 43°F wet bulb (WB).

[1]Power Input is rated at high speed.

[2]Take appropriate actions at the end of HVAC equipment life to recover, recycle, reclaim or destroy R410A refrigerant according to applicable regulations (40 CFR Part 82, Subpart F) under section 608 of CAA.

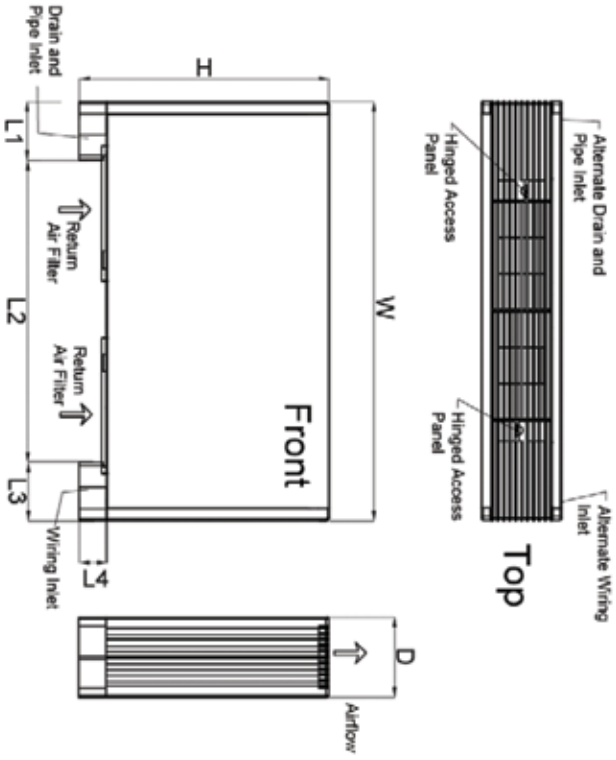
[3]Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.

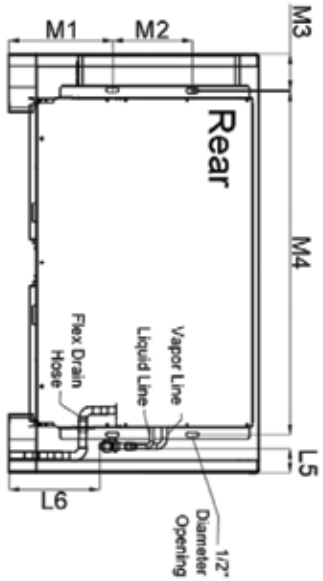
[4]All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable and national code.

Power Supply (V/Hz/Ø): 208-230/60/1

DIMENSIONS

CE (Cased) Chassis



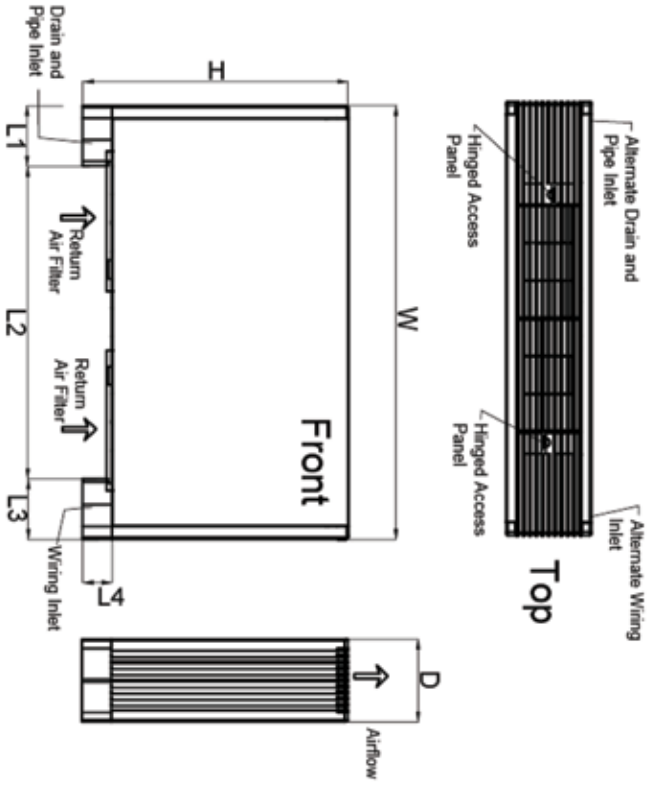


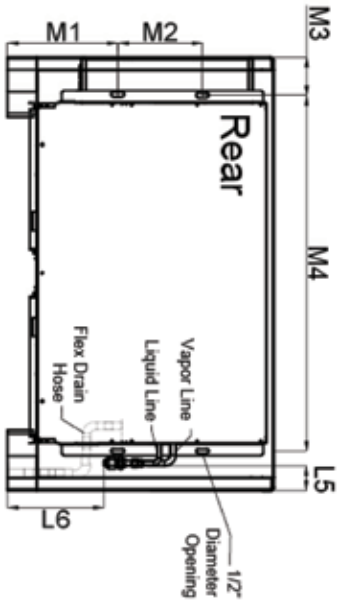
W	42-3/16"
H	25"
D	8"
L1	5-13/16"
L2	30-9/16"
L3	5-13/16"
L4	2-3/4"
L5	2-1/2"
L6	11"
M1	10-3/8"
M2	7-13/16
M3	4-1/2"
M4	33-3/4"

Note - All dimensions have a tolerance of ± 0.25 in.

DIMENSIONS

CF (Cased) Chassis

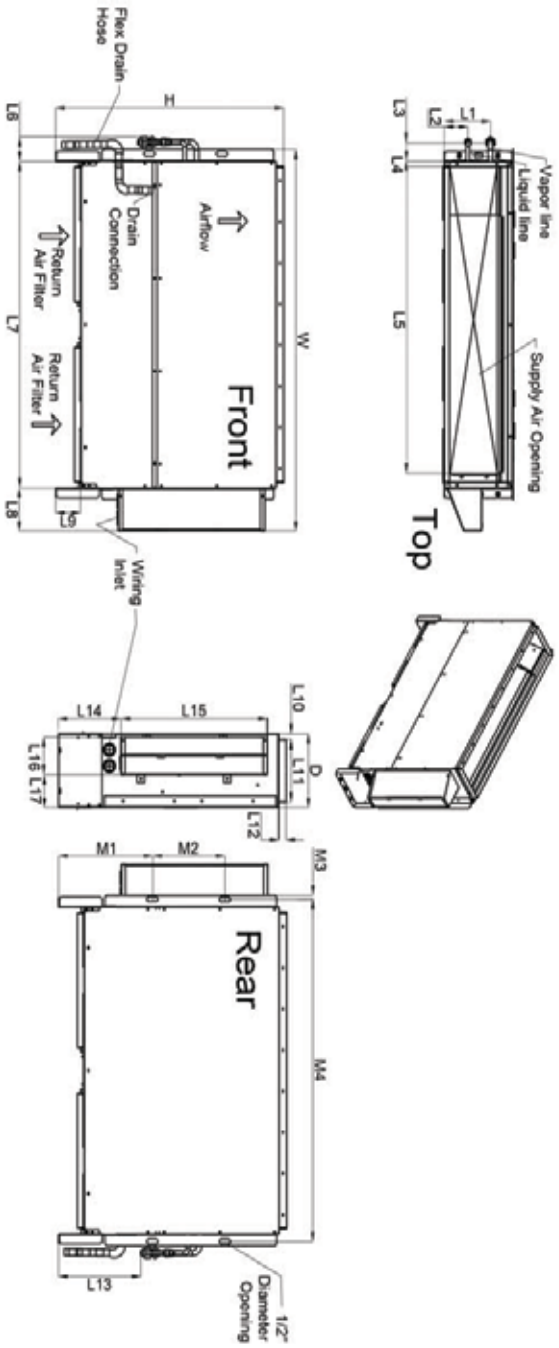




W	H	D	L1	L2	L3	L4	L5	L6	M1	M2	M3	M4
52-15/16"	25"	8"	5-13/16"	41-1/4"	5-13/16"	2-3/4"	2-1/2"	11"	10-3/8"	7-13/16"	4-1/2"	44-3/4"

DIMENSIONS

CE (Uncased) Chassis

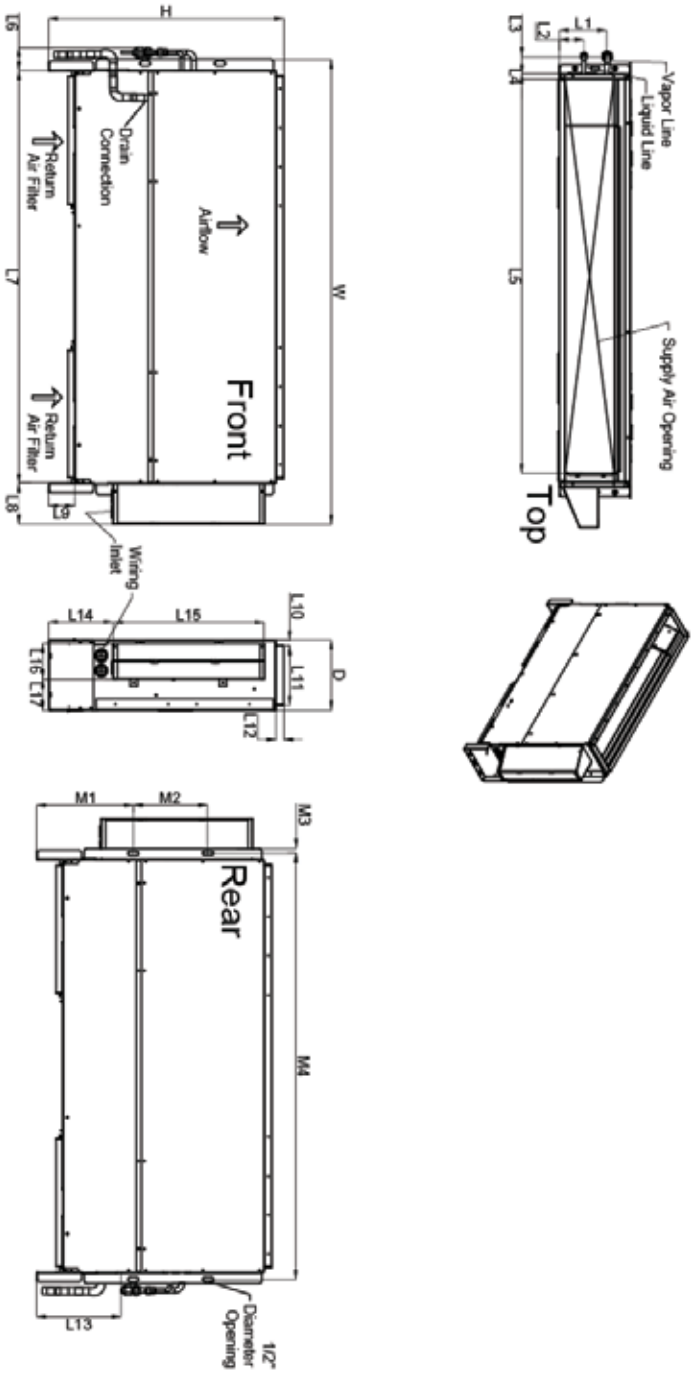


W	38-1/2"
H	25-3/16"
D	7-1/2"
L1	5-1/16"
L2	2-5/8"
L3	1-13/16"
L4	9/16"
L5	31-5/16"
L6	2-3/8"
L7	32-7/8"
L8	4-5/16"
L9	2-3/4"
L10	9/16"
L11	6-5/16"
L12	3/4"
L13	11"
L14	6-7/8"
L15	16-1/8"
L16	3-13/16"
L17	3-5/16"
M1	10-3/8"
M2	7-13/16"
M3	1/2"
M4	33-3/4"

Note - All dimensions have a tolerance of ± 0.39 in.

DIMENSIONS

CF (Uncased) Chassis



W	49-7/16"
H	25-3/16"
D	7-1/2"
L1	5-1/16"
L2	2-5/8"
L3	1-13/16"
L4	9/16"
L5	42-3/16"
L6	2-3/8"
L7	43-1/4"
L8	4-5/16"
L9	2-3/4"
L10	9/16"
L11	6-5/16"
L12	1-3/16"
L13	11"
L14	8-7/16"
L15	16-1/8"
L16	3-13/16"
L17	3-5/16"
M1	10-3/8"
M2	7-13/16"
M3	1/2"
M4	44-3/4"

Table 275: ARNU073CEA2 & ARNU073CEU2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
23	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
25	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
30	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
35	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
40	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
45	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
50	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
55	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.7	5.7
60	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.6	5.7
65	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.5	5.6
70	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.3	5.5
75	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.9	5.8	9.1	5.4
80	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.4	5.8	8.7	5.7	8.9	5.4
85	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.3	5.7	8.4	5.5	8.6	5.2
90	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	8.2	5.6	8.3	5.4	8.4	5.1
95	5.0	4.1	6.0	4.8	6.8	5.1	**7.5**	**5.4**	8.0	5.6	8.2	5.3	8.3	5.1
100	5.0	4.1	6.0	4.8	6.8	5.1	7.5	5.4	7.9	5.5	8.0	5.3	8.2	5.0
105	5.0	4.1	5.7	4.5	6.5	4.9	7.2	5.2	7.4	5.2	7.7	5.1	7.9	4.9
110	4.8	4.0	5.4	4.3	6.0	4.5	6.8	4.9	6.9	4.9	7.4	4.9	7.7	4.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 276: ARNU093CEA2 & ARNU093CEU2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
23	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
25	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
30	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
35	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
40	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
45	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
50	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.3
55	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.4	7.4
60	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.3	7.3
65	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	12.1	7.2
70	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	11.9	7.1
75	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.4	7.4	11.6	6.9
80	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.8	7.4	11.1	7.3	11.3	6.9
85	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.7	7.4	10.8	7.0	10.9	6.6
90	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.5	7.2	10.6	6.9	10.8	6.5
95	6.3	5.3	7.7	6.1	8.6	6.5	**9.6**	**6.9**	10.3	7.2	10.5	6.8	10.7	6.5
100	6.3	5.3	7.7	6.1	8.6	6.5	9.6	6.9	10.1	7.1	10.3	6.8	10.5	6.4
105	6.3	5.3	7.3	5.8	8.3	6.2	9.2	6.6	9.4	6.6	9.9	6.5	10.1	6.3
110	6.1	5.1	6.9	5.5	7.7	5.8	8.6	6.2	8.8	6.2	9.4	6.2	9.8	6.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Cooling Capacity

ARNU123CEA2, ARNU123CEU2, ARNU153CEA2, ARNU153CEU2

Table 277: ARNU123CEA2 & ARNU123CEU2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
25	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
30	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
35	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
40	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
45	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
50	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
55	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.9	9.4
60	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.7	9.4
65	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.5	9.2
70	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	15.3	9.1
75	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.6	9.4	14.9	8.9
80	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.8	9.5	14.3	9.4	14.5	8.8
85	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.7	9.4	13.8	9.0	14.0	8.5
90	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	13.4	9.3	13.5	8.8	13.8	8.4
95	8.1	6.8	9.8	7.8	11.1	8.3	**12.3**	**8.9**	13.2	9.2	13.4	8.8	13.7	8.3
100	8.1	6.8	9.8	7.8	11.1	8.3	12.3	8.9	12.9	9.1	13.2	8.7	13.4	8.2
105	8.1	6.8	9.3	7.4	10.6	8.0	11.8	8.5	12.1	8.5	12.7	8.4	12.9	8.0
110	7.9	6.6	8.9	7.0	9.8	7.4	11.1	8.0	11.3	8.0	12.1	8.0	12.5	7.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 278: ARNU153CEA2 & ARNU153CEU2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
25	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
30	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
35	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
40	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
45	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
50	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
55	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.9	11.8
60	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.7	11.7
65	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.4	11.5
70	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	19.1	11.4
75	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	18.3	11.8	18.6	11.1
80	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.2	11.9	17.9	11.7	18.2	11.1
85	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	17.1	11.8	17.2	11.2	17.6	10.6
90	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	16.8	11.6	16.9	11.0	17.2	10.5
95	10.2	8.5	12.3	9.8	13.9	10.4	**15.4**	**11.1**	16.5	11.5	16.8	11.0	17.1	10.4
100	10.2	8.5	12.3	9.8	13.9	10.4	15.4	11.1	16.2	11.4	16.5	10.9	16.8	10.3
105	10.2	8.5	11.7	9.3	13.2	10.0	14.8	10.6	15.1	10.6	15.9	10.5	16.2	10.0
110	9.9	8.3	11.1	8.8	12.3	9.3	13.9	10.0	14.2	10.0	15.1	10.0	15.7	9.8

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 279: ARNU183CFA2 & ARNU183CFU2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
25	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
30	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
35	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
40	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
45	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
50	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
55	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.6	14.4
60	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.4	14.3
65	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	24.1	14.1
70	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	23.7	13.9
75	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.7	14.4	23.1	13.6
80	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.4	14.6	22.2	14.4	22.5	13.5
85	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	21.2	14.4	21.4	13.7	21.8	13.0
90	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	20.8	14.2	21.0	13.5	21.4	12.8
95	12.6	10.4	15.3	12.0	17.2	12.8	**19.1**	**13.6**	20.4	14.1	20.8	13.4	21.2	12.7
100	12.6	10.4	15.3	12.0	17.2	12.8	19.1	13.6	20.1	13.9	20.4	13.3	20.8	12.6
105	12.6	10.4	14.5	11.4	16.4	12.2	18.3	13.0	18.7	13.0	19.7	12.8	20.1	12.3
110	12.2	10.1	13.8	10.8	15.3	11.4	17.2	12.2	17.6	12.2	18.7	12.2	19.5	11.9

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

Table 280: ARNU243CFA2 & ARNU243CFU2 Cooling Capacities

Outdoor Air Temp. (°F DB)	Indoor Air Temperature (°F WB)													
	57		61		64		67		70		73		76	
	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh	TC MBh	SHC MBh
23	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
25	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
30	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
35	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
40	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
45	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
50	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
55	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.2	18.3
60	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	31.0	18.2
65	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	30.5	17.9
70	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	30.0	17.6
75	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.8	18.3	29.3	17.2
80	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	27.1	18.5	28.1	18.2	28.6	17.1
85	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	26.9	18.3	27.1	17.4	27.6	16.5
90	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	26.4	18.0	26.6	17.1	27.1	16.2
95	16.0	13.2	19.4	15.2	21.8	16.2	**24.2**	**17.2**	25.9	17.9	26.4	17.0	26.9	16.1
100	16.0	13.2	19.4	15.2	21.8	16.2	24.2	17.2	25.4	17.6	25.9	16.9	26.4	15.9
105	16.0	13.2	18.4	14.4	20.8	15.5	23.2	16.5	23.7	16.5	24.9	16.3	25.4	15.6
110	15.5	12.8	17.4	13.6	19.4	14.4	21.8	15.5	22.3	15.5	23.7	15.5	24.7	15.1

TC: Total Capacity (MBh) SHC: Sensible Heat Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU073CEA2, ARNU073CEU2, ARNU093CEA2, ARNU093CEU2

Table 281: ARNU073CEA2 & ARNU073CEU2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	5.7	5.7	5.7	5.7	5.6	5.6	5.6	5.6
0	-0.4	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8
5.0	4.5	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5
10.0	9.0	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8
15.0	14.0	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.1
20.0	19.0	7.7	7.7	7.7	7.7	7.5	7.5	7.4	7.3
25.0	23.0	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.7
30.0	28.0	8.2	8.2	8.2	8.2	8.2	8.1	7.8	7.6
35.0	32.0	8.5	8.5	8.5	8.5	8.4	8.2	7.8	7.4
40.0	36.0	8.8	8.8	8.8	8.8	8.5	8.2	7.8	7.4
45.0	41.0	9.2	9.2	9.2	8.9	8.5	8.2	7.8	7.4
47.0	43.0	9.5	9.4	9.4	8.9	**8.5**	8.2	7.8	7.4
50.0	46.0	10.2	9.8	9.4	8.9	8.5	8.2	7.8	7.4
55.0	51.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4
60.0	56.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8	7.4

TC: Total Capacity (MBh)

Table 282: ARNU093CEA2 & ARNU093CEU2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0	-0.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
5.0	4.5	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.3
10.0	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
15.0	14.0	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.2
20.0	19.0	9.9	9.9	9.9	9.9	9.7	9.7	9.5	9.4
25.0	23.0	10.4	10.4	10.4	10.4	10.4	10.1	10.0	9.9
30.0	28.0	10.6	10.6	10.6	10.6	10.6	10.4	10.0	9.7
35.0	32.0	10.9	10.9	10.9	10.9	10.8	10.6	10.0	9.5
40.0	36.0	11.3	11.3	11.3	11.3	10.9	10.6	10.0	9.5
45.0	41.0	11.8	11.8	11.8	11.4	10.9	10.6	10.0	9.5
47.0	43.0	12.2	12.1	12.0	11.4	**10.9**	10.6	10.0	9.5
50.0	46.0	13.1	12.5	12.0	11.4	10.9	10.6	10.0	9.5
55.0	51.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5
60.0	56.0	13.3	12.6	12.0	11.4	10.9	10.6	10.0	9.5

TC: Total Capacity (MBh)

Table 283: ARNU123CEA2 & ARNU123CEU2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
0	-0.4	9.4	9.4	9.4	9.4	9.4	9.2	9.2	9.2
5.0	4.5	10.6	10.5	10.3	10.3	10.3	10.3	10.3	10.3
10.0	9.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9
15.0	14.0	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.4
20.0	19.0	12.4	12.4	12.4	12.4	12.1	12.1	11.9	11.7
25.0	23.0	12.9	12.9	12.9	12.9	12.9	12.6	12.5	12.4
30.0	28.0	13.2	13.2	13.2	13.2	13.2	12.9	12.5	12.1
35.0	32.0	13.6	13.6	13.6	13.6	13.5	13.2	12.5	11.9
40.0	36.0	14.1	14.1	14.1	14.1	13.6	13.2	12.5	11.9
45.0	41.0	14.7	14.7	14.7	14.3	13.6	13.2	12.5	11.9
47.0	43.0	15.2	15.1	15.0	14.3	**13.6**	13.2	12.5	11.9
50.0	46.0	16.4	15.6	15.0	14.3	13.6	13.2	12.5	11.9
55.0	51.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9
60.0	56.0	16.6	15.8	15.0	14.3	13.6	13.2	12.5	11.9

TC: Total Capacity (MBh)

Table 284: ARNU153CEA2 & ARNU153CEU2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	11.5	11.5	11.5	11.5	11.3	11.3	11.3	11.3
0	-0.4	11.8	11.8	11.8	11.8	11.8	11.6	11.6	11.6
5.0	4.5	13.3	13.2	13.0	13.0	13.0	13.0	13.0	13.0
10.0	9.0	13.9	13.9	13.9	13.7	13.7	13.7	13.7	13.7
15.0	14.0	14.7	14.7	14.7	14.7	14.7	14.7	14.5	14.4
20.0	19.0	15.6	15.6	15.6	15.6	15.2	15.2	15.0	14.8
25.0	23.0	16.2	16.2	16.2	16.2	16.2	15.9	15.7	15.6
30.0	28.0	16.6	16.6	16.6	16.6	16.6	16.2	15.7	15.2
35.0	32.0	17.1	17.1	17.1	17.1	16.9	16.6	15.7	14.9
40.0	36.0	17.8	17.8	17.8	17.8	17.1	16.6	15.7	14.9
45.0	41.0	18.5	18.5	18.5	18.0	17.1	16.6	15.7	14.9
47.0	43.0	19.2	19.0	18.8	18.0	**17.1**	16.6	15.7	14.9
50.0	46.0	20.6	19.7	18.8	18.0	17.1	16.6	15.7	14.9
55.0	51.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9
60.0	56.0	20.9	19.8	18.8	18.0	17.1	16.6	15.7	14.9

TC: Total Capacity (MBh)

PERFORMANCE DATA

Heating Capacity

ARNU183CFA2, ARNU183CFU2,ARNU243CFA2, ARNU243CFU2

Table 285: ARNU183CFA2 & ARNU183CFU2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.2
0	-0.4	14.8	14.8	14.8	14.8	14.8	14.6	14.6	14.6
5.0	4.5	16.8	16.6	16.3	16.3	16.3	16.3	16.3	16.3
10.0	9.0	17.4	17.4	17.4	17.2	17.2	17.2	17.2	17.2
15.0	14.0	18.5	18.5	18.5	18.5	18.5	18.5	18.3	18.1
20.0	19.0	19.6	19.6	19.6	19.6	19.1	19.1	18.8	18.5
25.0	23.0	20.4	20.4	20.4	20.4	20.4	20.0	19.8	19.6
30.0	28.0	20.9	20.9	20.9	20.9	20.9	20.4	19.8	19.2
35.0	32.0	21.5	21.5	21.5	21.5	21.3	20.9	19.8	18.8
40.0	36.0	22.4	22.4	22.4	22.4	21.5	20.9	19.8	18.8
45.0	41.0	23.2	23.2	23.2	22.6	21.5	20.9	19.8	18.8
47.0	43.0	24.1	23.9	23.7	22.6	**21.5**	20.9	19.8	18.8
50.0	46.0	25.8	24.7	23.7	22.6	21.5	20.9	19.8	18.8
55.0	51.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8
60.0	56.0	26.3	24.9	23.7	22.6	21.5	20.9	19.8	18.8

TC: Total Capacity (MBh)

Table 286: ARNU243CFA2 & ARNU243CFU2 Heating Capacities

Outdoor Air Temp. (°F)		Indoor Air Temperature (°F DB)							
		59	61	64	67	70	73	76	80
DB	WB	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh	TC MBh
-4	-4.4	18.3	18.3	18.3	18.3	18.0	18.0	18.0	18.0
0	-0.4	18.8	18.8	18.8	18.8	18.8	18.6	18.6	18.6
5.0	4.5	21.3	21.0	20.7	20.7	20.7	20.7	20.7	20.7
10.0	9.0	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.8
15.0	14.0	23.5	23.5	23.5	23.5	23.5	23.5	23.2	22.9
20.0	19.0	24.8	24.8	24.8	24.8	24.2	24.2	23.9	23.6
25.0	23.0	25.9	25.9	25.9	25.9	25.9	25.4	25.1	24.8
30.0	28.0	26.5	26.5	26.5	26.5	26.5	25.9	25.1	24.3
35.0	32.0	27.3	27.3	27.3	27.3	27.0	26.5	25.1	23.8
40.0	36.0	28.4	28.4	28.4	28.4	27.3	26.5	25.1	23.8
45.0	41.0	29.5	29.5	29.5	28.7	27.3	26.5	25.1	23.8
47.0	43.0	30.6	30.3	30.0	28.7	**27.3**	26.5	25.1	23.8
50.0	46.0	32.8	31.4	30.0	28.7	27.3	26.5	25.1	23.8
55.0	51.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8
60.0	56.0	33.4	31.7	30.0	28.7	27.3	26.5	25.1	23.8

TC: Total Capacity (MBh)

Electrical Data

Table 287: Floor Standing (Cased) Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU073CEA2	187-253	0.22	15	0.1	60	208-230V	1	30	30
ARNU093CEA2		0.22	15	0.1				30	30
ARNU123CEA2		0.22	15	0.1				30	30
ARNU153CEA2		0.22	15	0.1				30	30
ARNU183CFA2		0.55	15	0.43				80	80
ARNU243CFA2		0.55	15	0.43				80	80

MCA = Minimum Circuit Ampacity MOP = Maximum Overcurrent Protection

Table 288: Floor Standing (Uncased) Unit Electrical Data

Model	Voltage Range	MCA	MOP	Rated Amps (A)	Power Supply			Power Input (W)	
					Hz	Volts	Phase	Cooling	Heating
ARNU073CEU2	187-253	0.22	15	0.1	60	208-230V	1	30	30
ARNU093CEU2		0.22	15	0.1				30	30
ARNU123CEU2		0.22	15	0.1				30	30
ARNU153CEU2		0.22	15	0.1				30	30
ARNU183CFU2		0.55	15	0.43				80	80
ARNU243CFU2		0.55	15	0.43				80	80

MCA = Minimum Circuit Ampacity MOP = Maximum Overcurrent Protection

- Units are suitable for use on an electrical system where voltage supplied to unit terminals is within the listed range limits
- Select wire size based on the larger MCA value
- Instead of fuse, use the circuit breaker

Sound Pressure Data

Table 289: Floor Standing (Cased) Unit Sound Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU073CEA2	35	33	31
ARNU093CEA2	36	34	32
ARNU123CEA2	37	35	33
ARNU153CEA2	38	37	35
ARNU183CFA2	40	37	34
ARNU243CFA2	43	40	37

Table 290: Floor Standing (Uncased) Unit Sound Levels

Model	Sound Levels dB(A)		
	High Fan Speed	Medium Fan Speed	Low Fan Speed
ARNU073CEU2	35	33	31
ARNU093CEU2	36	34	32
ARNU123CEU2	37	35	33
ARNU153CEU2	38	37	35
ARNU183CFU2	40	37	34
ARNU243CFU2	43	40	37

ACOUSTIC DATA

CE, CF Chassis

Figure 393: ARNU073CEA2
ARNU073CEU2

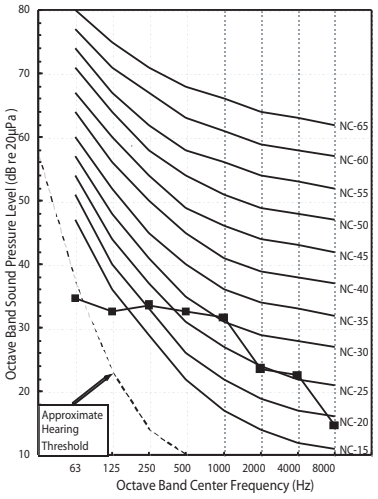


Figure 394: ARNU093CEA2
ARNU093CEU2

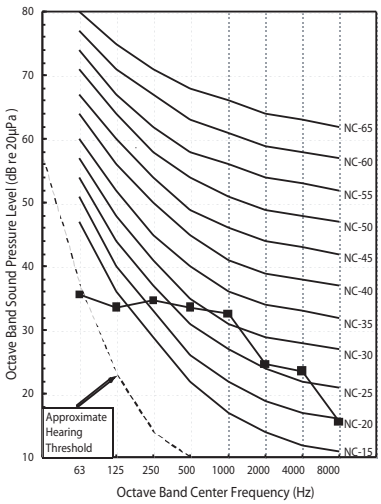


Figure 395: ARNU123CEA2
ARNU123CEU2

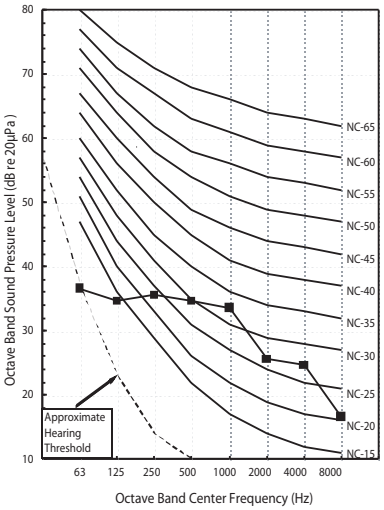


Figure 396: ARNU153CEA2
ARNU153CEU2

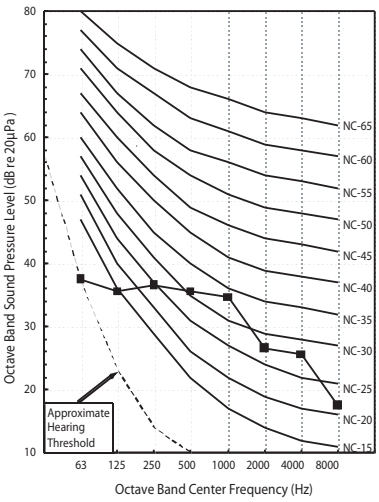


Figure 397: ARNU183CFA2
ARNU183CFU2

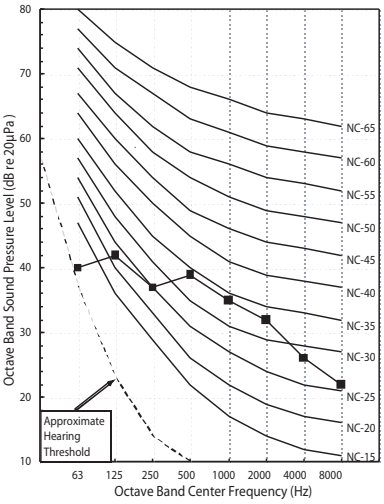
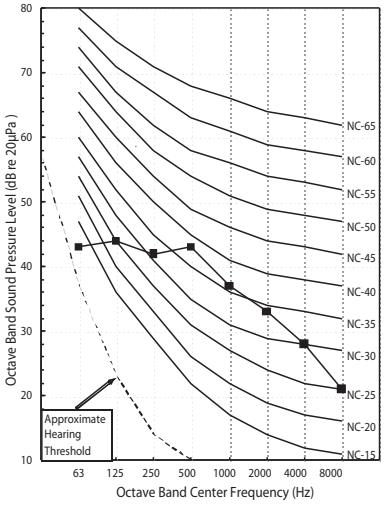


Figure 398: ARNU243CFA2
ARNU243CFU2



- Measurements are taken 4.9 ft away from the front of the unit.
- Sound pressure levels are measured in dB(A) with a tolerance of ±3.
- Sound pressure levels are tested in an anechoic chamber under ISO Standard 1996.

Operating Conditions:

- Power source: 220V/60 Hz
- Sound level will vary depending on a range of factors including the construction (acoustic absorption coefficient) of a particular room in which the unit was installed.

Figure 399: Sound Levels

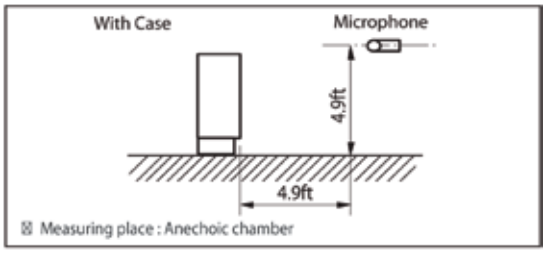


Figure 400: CE, CF Piping Diagram

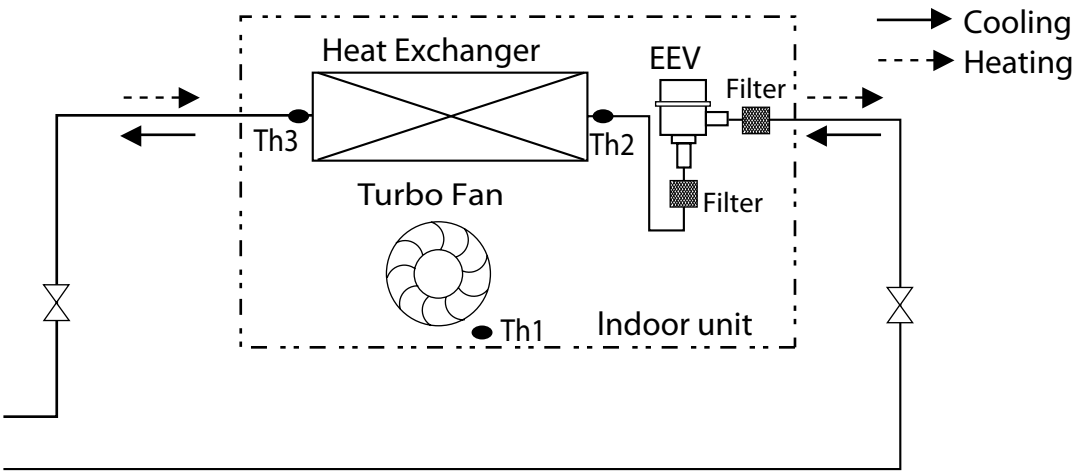


Table 291: CE, CF Chassis Refrigerant Pipe Connection Port Diameters

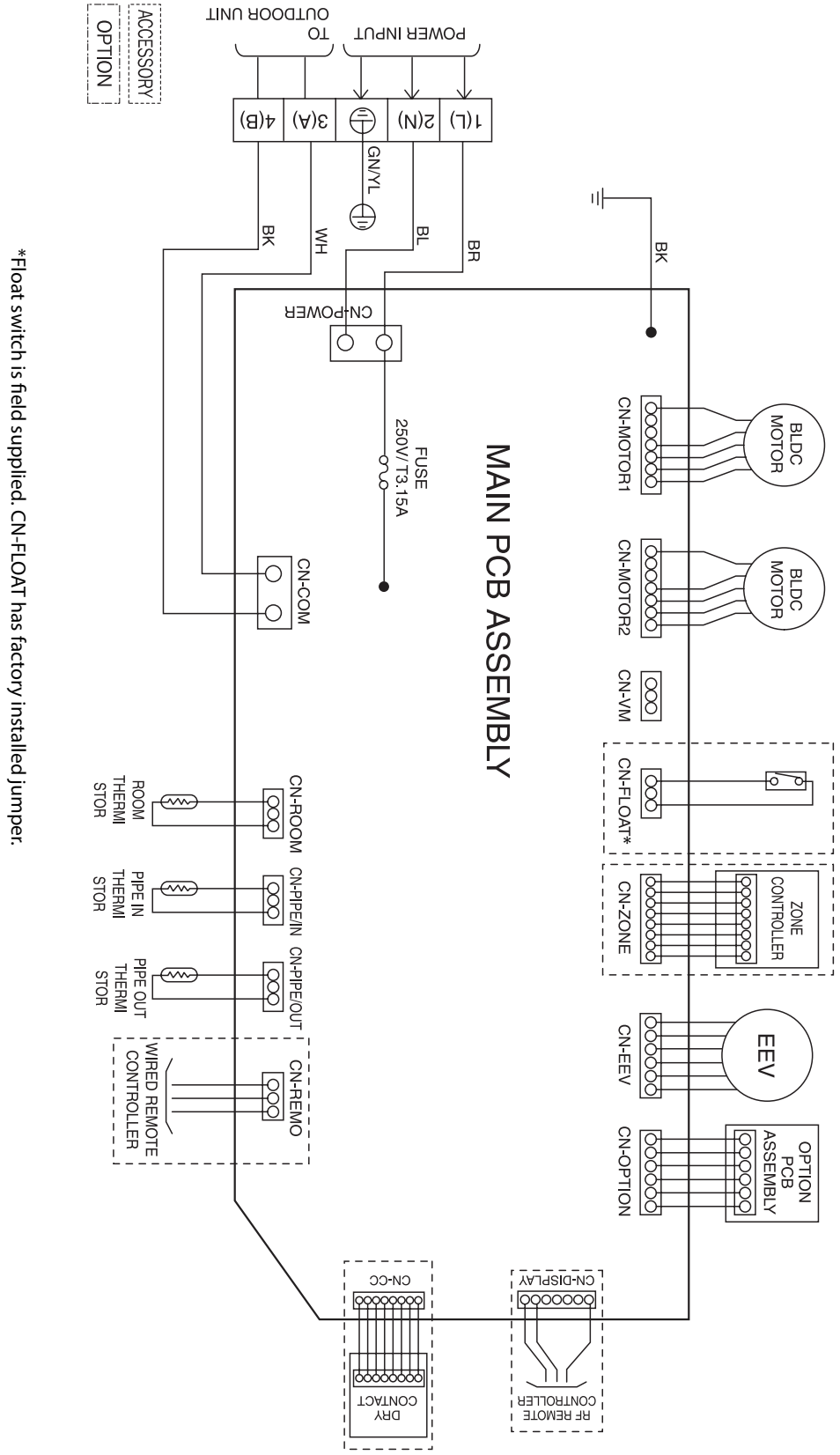
Model	Liquid (inch)	Gas (inch)
ARNU073CEA2	1/4	1/2
ARNU093CEA2	1/4	1/2
ARNU123CEA2	1/4	1/2
ARNU153CEA2	1/4	1/2
ARNU183CFA2	1/4	1/2
ARNU243CFA2	3/8	5/8
ARNU073CEU2	1/4	1/2
ARNU093CEU2	1/4	1/2
ARNU123CEU2	1/4	1/2
ARNU153CEU2	1/4	1/2
ARNU183CFU2	1/4	1/2
ARNU243CFU2	3/8	5/8

LOC.	Description
Th1	Return air thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

WIRING DIAGRAMS

CE, CF Chassis

Figure 401: CE, CF Wiring Diagram



*Float switch is field supplied. CN-FLOAT has factory installed jumper.

Table 292: CE, CF Chassis Wiring Diagram

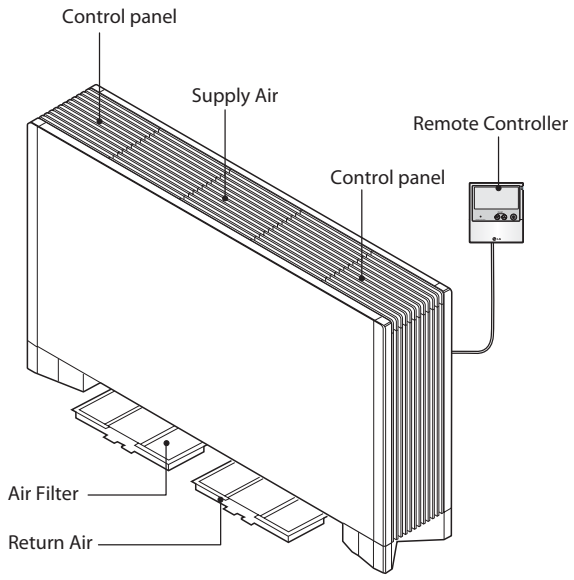
CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-COMM	Communication	Communication between indoor and outdoor
CN-EEV	EEV output	EEV control output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-OPTION	Option PCB	Communication between main and option
CN-ZONE	Zone controller	Zone control line
CN-DISPLAY	RF Remote controller	RF remote control line
CN-CC	Dry contact	Dry contact line

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using 7-Day Programmable Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable: Auto/Manual Mode can be chosen by 7-Day Programmable Controller or Wireless Remote Controller (when shipped from factory -> Manual Mode) 2. Auto: For Dry Contact, it is always Auto mode
SW5	EXTRA 1	Off	On	NO: Function

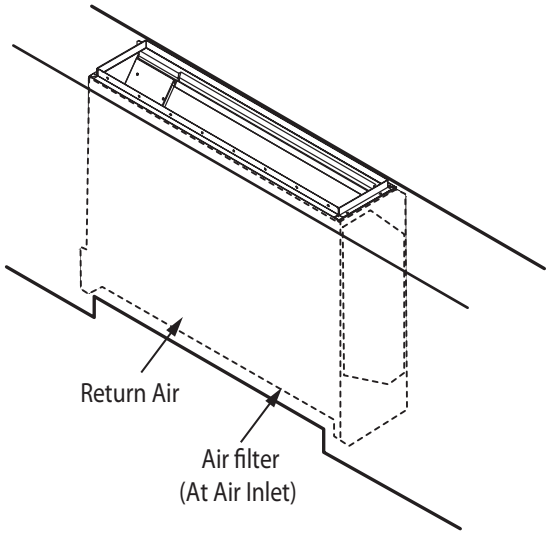
For Multi V systems, dip switches 1, 2, 6, 7 and 8 must be set to OFF. These dip switches are used for the other models.

Figure 402: Unit Parts

[Cased]



[Uncased]



Required Tools

- Level
- Screw driver
- Electric drill
- Hole core drill
- Flaring tool set
- Spanner (Half union)
- Thermometer

Required Parts

- Drain hose
- Level adjustment screws
- Fitting insulation
- Tie wrap clamps
- Conduit mounting plate

⚠WARNING

- *Please read all instructions before installing the product.*
- *When the power cord is damaged, all replacement work must be performed by authorized personnel only.*
- *Installation work must be performed by authorized personnel and in accordance with the national wiring standards and all local codes.*

Selecting the Best Location

Do's

- Place the unit in a location that can easily bear a load exceeding four times the unit's weight.
- Place the unit where there is sufficient space for maintenance (as shown in the image).
- Place the unit where it will be level.
- Place the unit where it can be easily connected to the outdoor unit.
- Place the unit where it will not be affected by electrical noise.
- Place the unit where air circulation will not be blocked.
- Place the unit where the floor is strong enough to bear the weight of the indoor unit.
- Place the unit where noise prevention is taken into consideration.
- Place the unit where condensate can drain properly.
- Place the unit where optimum air distribution can be ensured.
- Place the unit where piping between indoor and outdoor units is within the allowable limit (refer to the installation manual for the outdoor unit).
- Keep the indoor and outdoor unit, power cable and transmission wiring at least 1m from TVs and radios to prevent distorted pictures and static. Depending on the type and source of the electrical waves, static may be heard even when more than 1m away.

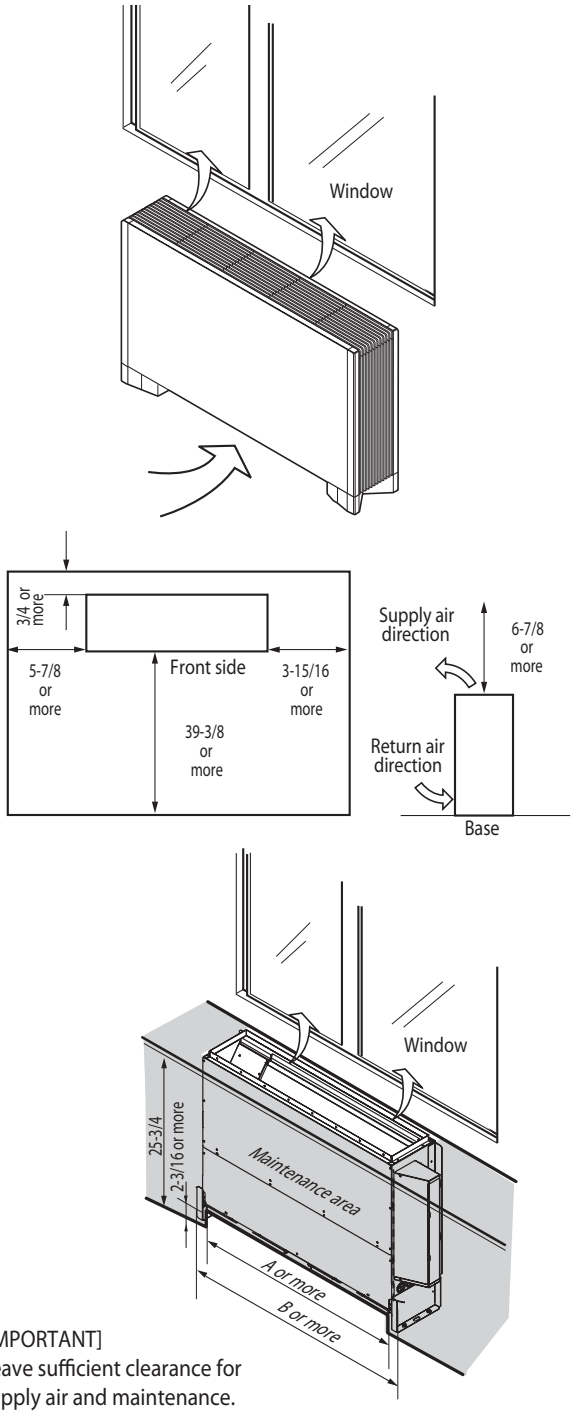
Don'ts

- The unit should not be near a heat source or steam.
- The air circulation should not be blocked by obstacles.
- Do not place the unit where there is a possibility of flammable gas leakage.
- Do not place the unit where the floor is significantly inclined.

⚠WARNING

If the unit is installed near a body of water, the installation parts are at risk of being corroded. Appropriate anti-corrosion methods should be taken for the unit and all installation parts.

Figure 403: Selecting the Best Location



[IMPORTANT]
Leave sufficient clearance for supply air and maintenance.

Type	A (inch)	B (inch)
CE Chassis	31	42-1/2
CF Chassis	42	53-1/2

Do not install the indoor units in the following locations:

- Restaurant or kitchen where considerable amounts of oil, steam and flour is generated. This may cause heat exchanger efficiency reduction, water drops or drain pump malfunction. If this problem occurs, make sure that ventilation fan is large enough to cover all noxious gases.
- Avoid installing unit in places where cooking oil or iron powder is generated.
- Avoid installing unit where flammable gas is generated, flows, stored or vented.
- Avoid installing where sulfurous acid gas or corrosive gas is generated.
- Avoid installing unit near high frequency generators.

Bolt Pitch

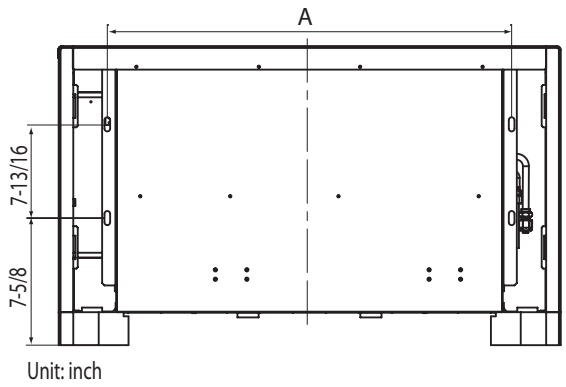
1. Position the holes for fastening to the wall.

Type	A (inch)
Cased and Uncased CE Chassis	33-3/4
Cased and Uncased CF Chassis	44-3/4

2. Use the installation mount for installation. Ensure the wall is strong enough to bear the weight of the unit. If there is a potential risk, reinforce the wall before installing the unit.
3. The unit requires a minimum clearance of 3-15/16 below the unit for air intake.
4. Ensure that the unit is level so that drainage flows smoothly. If there is an incline, water may leak.

Depending on the shape and nature of the wall surface, the operating sound may be louder.

Figure 404: Bolt Pitch



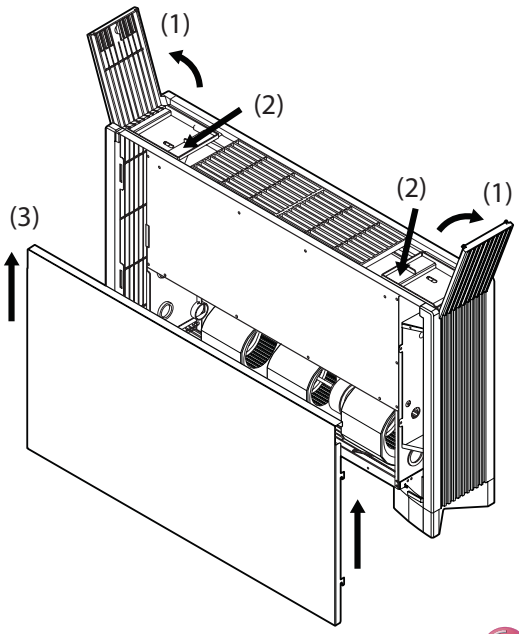
Opening the Front Panel

1. Open the lid of the control panel (both left and right).
2. Remove the screws (both left and right).
3. Lift the front panel of the unit.

Closing the Front Panel

1. Place the panel on the unit.
2. Replace screws (both left and right).
3. Close the lid of the control panel (both left and right).

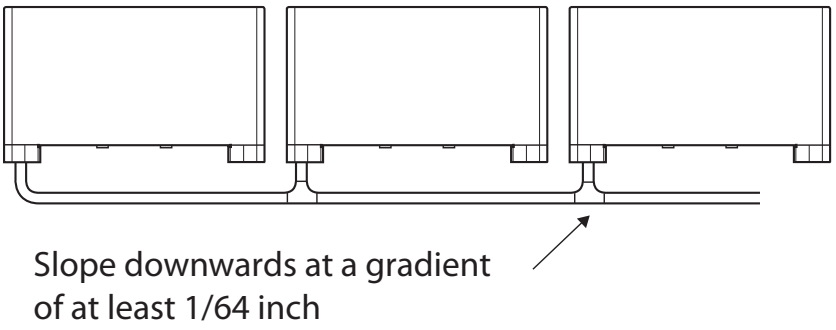
Figure 405: Opening and Closing Panel



Drain Piping Work

- Drain piping must have downward slope (1/32 to 1/64 inch). Do not provide up-and-down slope to prevent reverse flow.
- During drain piping connection, do not exert extra force on the drain port on the indoor unit.
- The outside diameter of the drain connection to the indoor unit is 13/16 inch.
- The piping material is polyvinyl chloride pipe (1 inch).
- Install heat insulation on the drain piping.
- The heat insulation material should be polyethylene foam with a thickness of at least 3/8 inch.
- If converging multiple drain pipes, install according to the procedure shown below:

Figure 406: Drain Piping

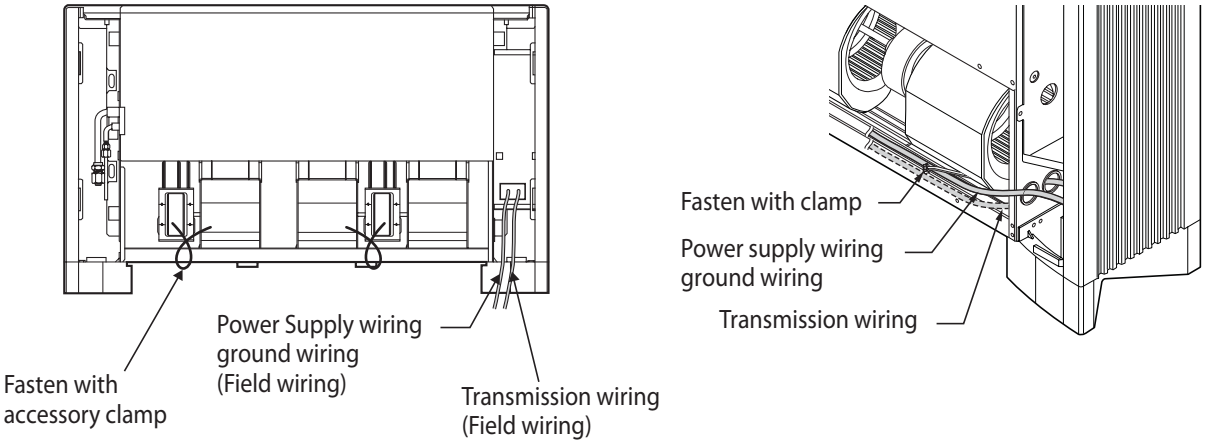


- After piping work is completed, check for drainage.
- Insulate all indoor units.

Connecting Wiring

- Remove the electric compartment box cover and connect the wiring.

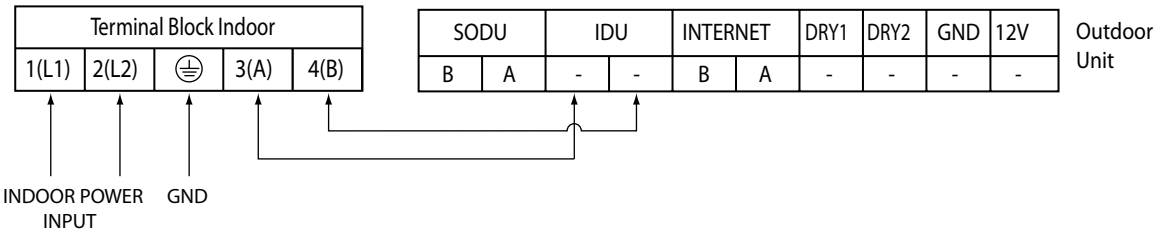
Figure 407: Connecting Wiring



Wiring Connection

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires on the outdoor unit and the terminal No. are the same as those on the indoor unit.

Figure 408: Wiring Connection



⚠CAUTION

The screws used to fasten the wiring in the casing of electrical fittings are liable to come loose during transport. Check these screws and make sure they are fastened tightly. If the screws remain loose they could cause wires to burn out.

Wiring

- Always have separate power for the indoor unit.
- Follow the circuit diagram pasted on the inside on the control box cover.
- Confirm the specification of the power source.
- Confirm that the electrical capacity is sufficient.
- Be sure starting current is maintained more than 90 percent of the rated current marked on the name plate.
- Confirm the cable thickness is as specified in the power sources specification.
- Always equip a leakage breaker where conditions are wet or moist.
- A way to disconnect from a power supply should be incorporated in the fixed wiring and have an air gap contact separation of at least 1/8 inch in each active (phase) conductor.

The following problems can be caused by voltage drop-down:

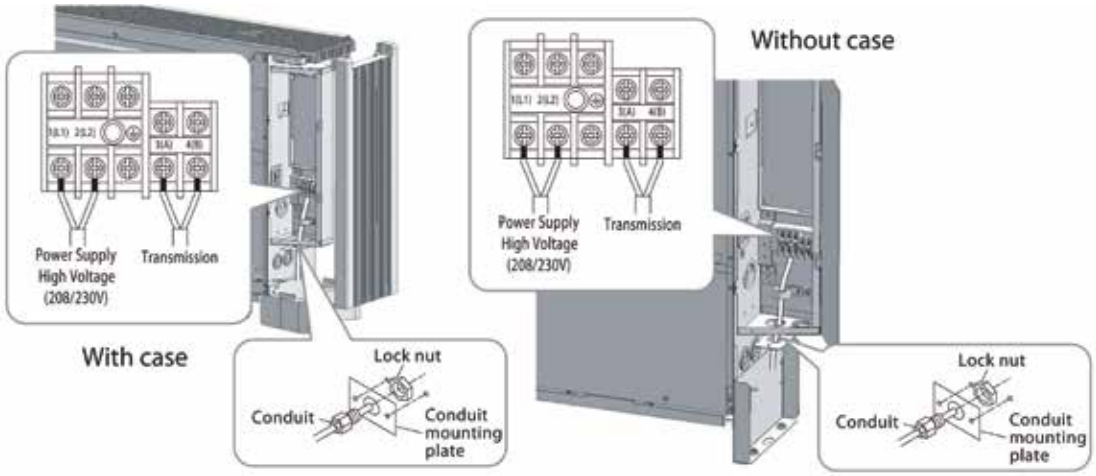
- Vibration of a magnetic switch, fuse breaks or disturbance to the normal function of an overload protection device.
- Proper starting power is not given to the compressor.

⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Cable Connection Method

Figure 410: Cable Connection Method



⚠WARNING

1. *Loose wiring may cause the terminal to overheat (which is a fire hazard) or result in unit malfunction.*
2. *Make sure that terminal screws are tightened properly.*

Wired Remote Controller Installation

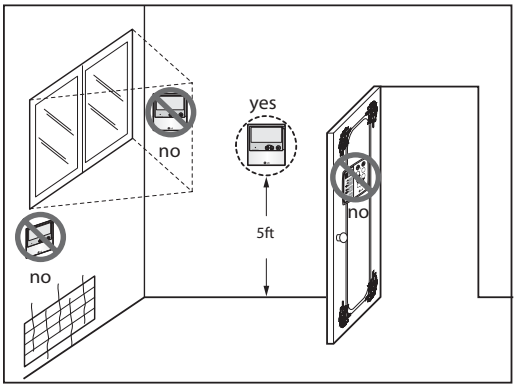
Since the room temperature sensor is inside the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the remote controller about five (5) feet above the floor in an area with good air circulation and an average temperature.

Do not install the remote controller where it can be affected by the following:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Uncontrolled areas such as an outside wall behind the remote controller

This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly as shown below. The standard height is four (4) to five (5) feet from floor level.

Figure 409: Wired Remote Controller Installation



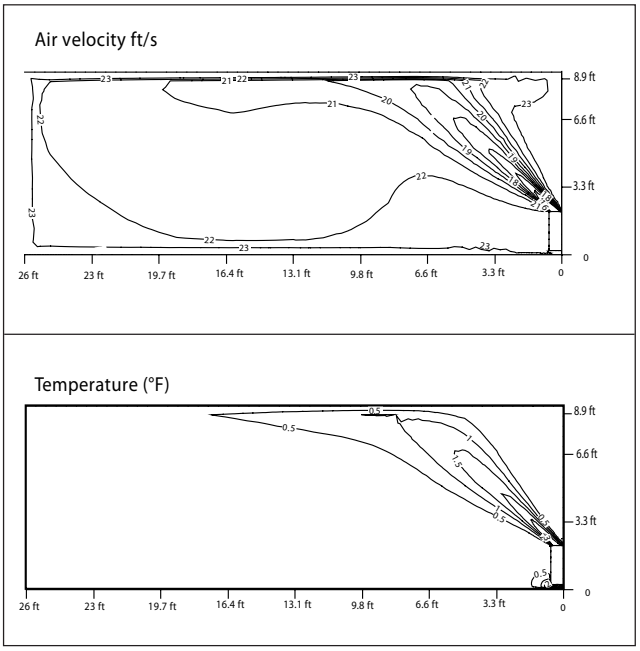
AIR VELOCITY & TEMP DISTRIBUTION

ARNU073CEA2, ARNU073CEU2, ARNU093CEA2, ARNU093CEU2

Figure 411: ARNU073CEA2/ARNU073CEU2

Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°

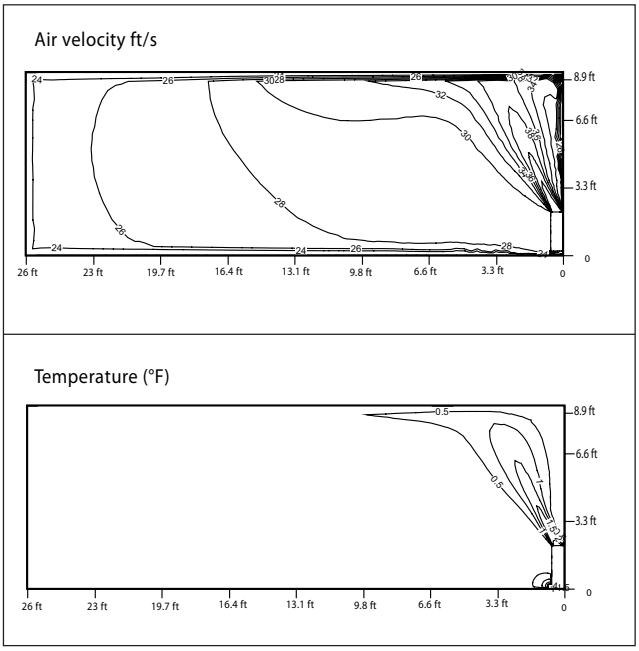
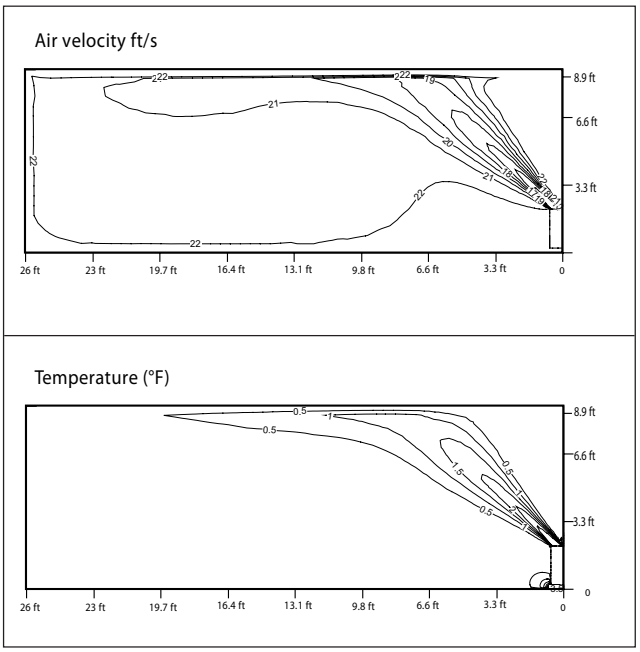


Figure 412: ARNU093CEA2/ARNU093CEU2

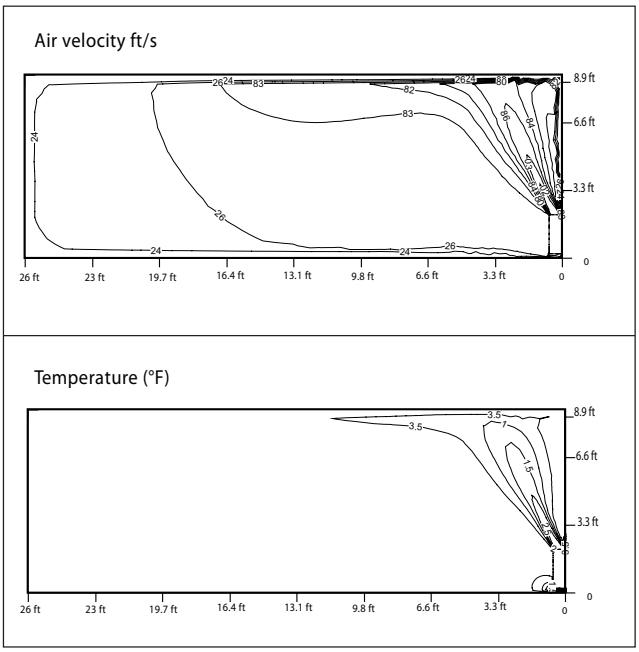
Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°



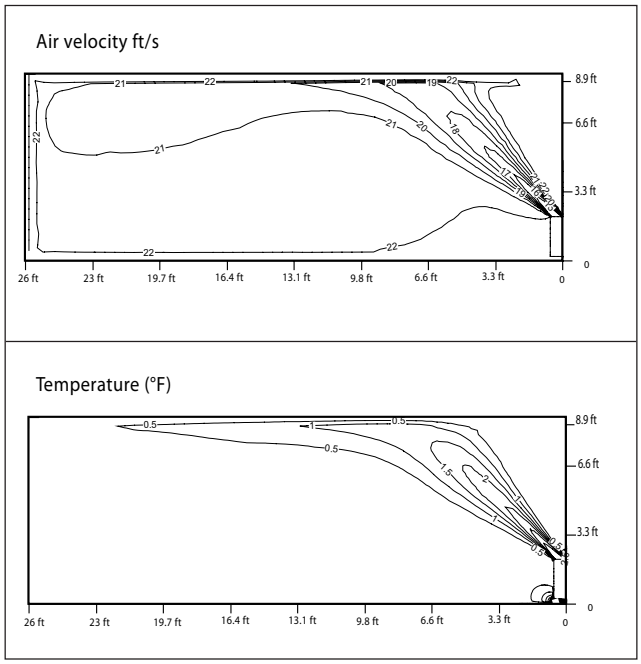
AIR VELOCITY & TEMP DISTRIBUTION

ARNU123CEA2, ARNU123CEU2, ARNU153CEA2, ARNU153CEU2

Figure 413: ARNU123CEA2/ARNU123CEU2

Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°

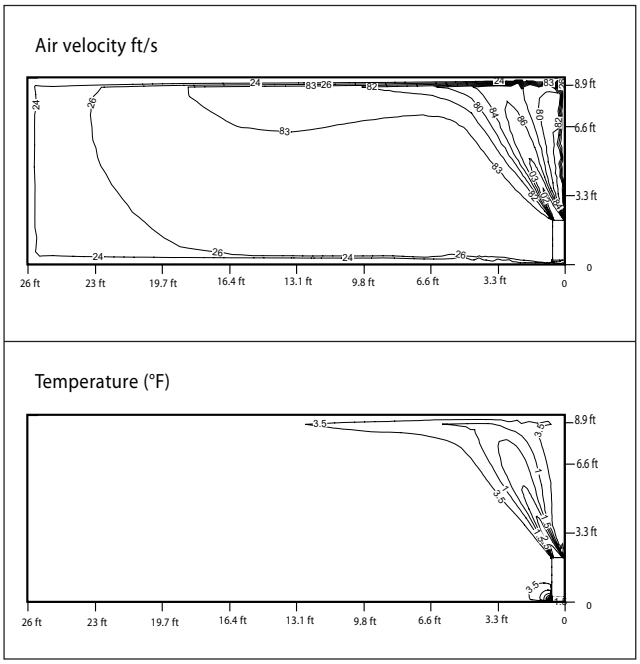
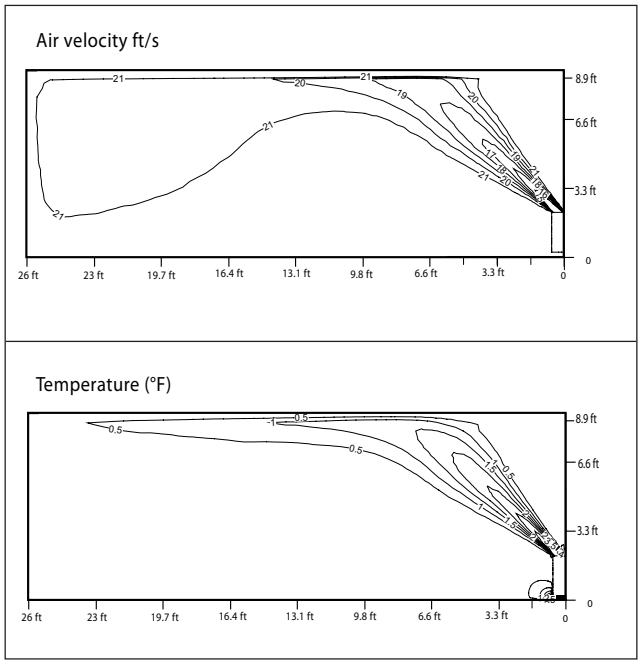


Figure 414: ARNU153CEA2/ARNU153CEU2

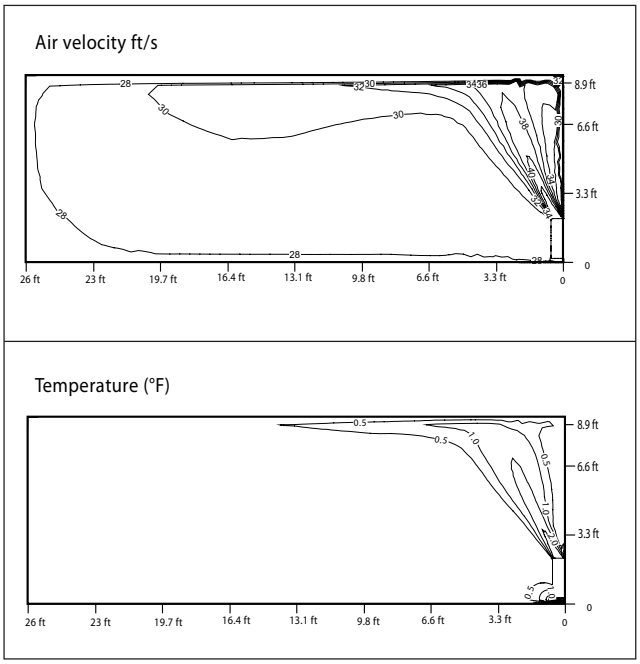
Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°



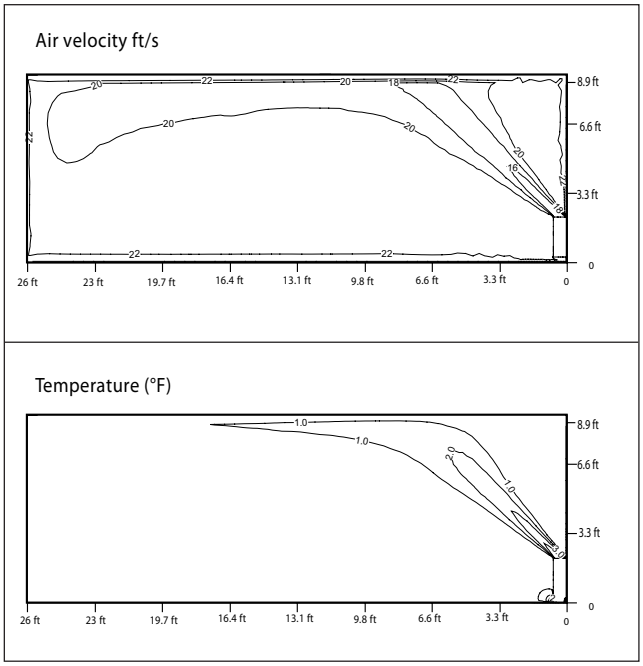
AIR VELOCITY & TEMP DISTRIBUTION

ARNU183CFA2, ARNU183CFU2, ARNU243CFA2, ARNU243CFU2

Figure 415: ARNU183CFA2/ARNU183CFU2

Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°

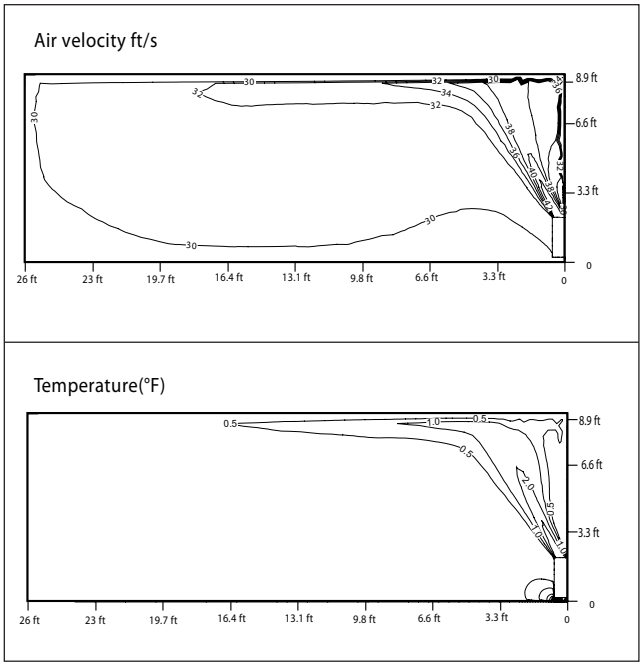
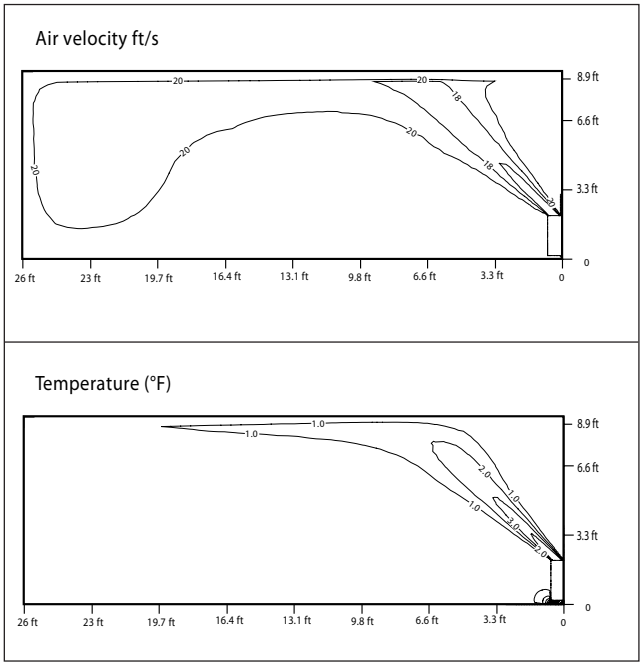


Figure 416: ARNU243CFA2/ARNU243CFU2

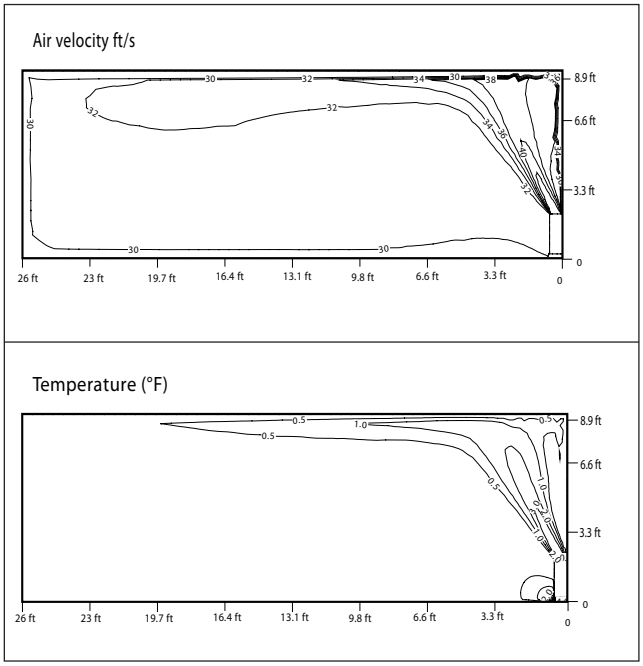
Cooling

Discharge angle: 45°



Heating

Discharge angle: 60°



MECHANICAL SPECIFICATIONS

MECHANICAL SPECIFICATIONS

Art Cool™ Mirror Wall Mounted

Art Cool™ Mirror

Casing

Units are designed to mount on a vertical surface and come complete with an installation mounting template guide and a separate hanging bracket. The unit case is manufactured with coated metal. Cold surfaces are covered with a coated polystyrene insulating material.

Finish

The unit case has a light grey/silver matte finish. The front surface of the unit has an architectural flat panel smoked mirror finish. Optionally, at an additional cost, interchangeable architectural front panels with a mirrored finish are available in either blue or silver.

Fan Assembly and Control

The unit has a single, direct-drive, crossflow tangential Sirocco fan made of high strength ABS BSN-7530 polymeric resin. The fan motor is a Brushless Digitally-Controlled, (BLDC) design with permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted on vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor-based direct digital control algorithm that provides a minimum of three pre-programmed fan speeds in the Heating and Fan Only modes and four speeds in the Cooling mode. Fan settings are high, medium, and low. The fourth speed in the Cooling mode is a fan power cooling cycle that runs for 30 minutes at high fan speed. A chaos setting provides a simultaneous and random change in fan speed and flow direction at the discharge. The fan speed algorithm provides a field-selectable fixed-speed or auto-speed setting that changes the fan speed based on the difference between the controller setpoint and space temperature.

Air Filter

Return air is filtered with a removable, washable filter. The unit is also equipped with a plasma filter. Filter access is from the front of the unit without the use of tools.

Airflow Guide Vanes

The indoor unit is provided with a motorized sweeping guide vane that automatically changes the direction of airflow from side-to-side and up-and-down.

Microprocessor Control

The unit is provided with an integrated microprocessor controller capable of performing functions necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is factory mounted in the return air stream. All unit operation parameters, excluding the operating schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional, wall-mounted, local or central controllers. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded, and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operation modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches control of the indoor unit between Cooling and Heating modes based on space temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate indoor unit operation when the indoor room temperature falls below setpoint temperature. At which point, a signal is sent to the outdoor unit to begin the heating cycle. The indoor unit fan operation is delayed until coil pipe temperature reaches 76ºF. Significant airflow is generated when pipe temperature reaches 80°F. A field-selectable option maintains fan operation for 30 minutes following cooling cycle operations. The unit is equipped with an infrared receiver designed to communicate with an LG hand-held remote controller. In lieu of wireless remote or factory return air thermistor, pluggable connection sockets on the microprocessor circuit board accommodate various models of wall-mounted local controllers. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall-mounted wired controller(s)
2. Factory-mounted return air thermistor

A single indoor unit has the capability of being controlled by up to two local wired controllers. The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature set-point. The microprocessor control provides a cooling mode test cycle that operates the unit for 18 minutes without regard to the space temperature. If the system is provided with an optional wall-mounted local or central controller, displayed diagnostic codes are specific, alpha-numeric, and provide the service technician with a reason for the code displayed.

Handling Condensate

The unit is designed for gravity draining of condensate. LG provides a factory insulated flexible drain hose. If condensate lift/pumps are needed for the application, they are to be field provided. The lift pump comes with a safety switch that shuts off the indoor unit if condensate rises too high in the drain pan.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto clean (coil dry)[1]
- Child lock
- Dual themistor control
- Group control
- Forced operation
- Hot start
- Self diagnostics
- Sleep mode
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)
- Auto direction/swing (up/down)
- Auto direction (left/right)
- Fan speed control
- Chaos swing (random louver swing)
- Chaos wind (random fan speed)
- Jet cool (fast cooling)

[1]Requires wireless handheld controller

Standard Wall Mounted

Casing

Units are designed to mount on a vertical surface and come complete with an installation mounting template guide and a separate hanging bracket. The unit case is manufactured with coated metal. Cold surfaces are covered with a coated polystyrene insulating material.

Finish

The unit case is manufactured using ABS polymeric resin and has a pearl white finish.

Fan Assembly and Control

The unit has a single, direct-drive, crossflow tangential Sirocco fan made of high strength ABS BSN-7530 polymeric resin. The fan motor is a Brushless Digitally-Controlled, (BLDC) design with permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted on vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor-based direct digital control algorithm that provides a minimum of three pre-programmed fan speeds in the Heating and Fan Only modes and four speeds in the Cooling mode. Fan settings are high, medium, and low. The fourth speed in the Cooling mode is a fan power cooling cycle that runs for 30 minutes at high fan speed. A chaos setting provides a simultaneous and random change in fan speed and flow direction at the supplied air flow. The fan speed algorithm provides a field-selectable fixed-speed or auto-speed setting that changes the fan speed based on the difference between the controller setpoint and space temperature.

Air Filter

Return air is filtered with a removable, washable filter. The unit is also equipped with a plasma filter. Filter access is from the front of the unit without the use of tools.

Airflow Guide Vanes

7–15 MBh

The indoor unit is provided with a motorized oscillating guide vane that automatically changes the direction of up-and-down airflow. The indoor unit includes factory installed, manually adjustable guide vanes that control the side-to-side direction of supplied airflow.

18–24 MBh

The indoor unit is provided with a motorized sweeping guide vane that automatically changes the direction of airflow from side-to-side and up-and-down.

Microprocessor Control

The unit is provided with an integrated microprocessor controller capable of performing functions necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is factory mounted in the return air stream. All unit operation parameters, excluding the operating schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional, wall-mounted, local or central controllers. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded, and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operation modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches control of the indoor unit between Cooling and Heating modes based on space temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate indoor unit operation when the indoor room temperature falls below setpoint temperature. At which point, a signal is sent to the outdoor unit to begin the heating cycle. The indoor unit fan operation is delayed until coil pipe temperature reaches 76°F. Significant airflow is generated when pipe temperature reaches 80°F. A field-selectable option maintains fan operation for 30 minutes following cooling cycle operations. The unit is equipped with an infrared receiver designed to communicate with an LG hand-held remote controller. In lieu of wireless remote or factory return air thermistor, pluggable connection sockets on the microprocessor circuit board accommodates various models of wall-mounted local controllers. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall-mounted wired controller(s)
2. Factory-mounted return air thermistor

A single indoor unit has the capability of being controlled by up to

MECHANICAL SPECIFICATIONS

Standard Wall Mounted

two local wired controllers. The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature set-point. The microprocessor control provides a cooling mode test cycle that operates the unit for 18 minutes without regard to the space temperature. If the system is provided with an optional wall-mounted local or central controller, displayed diagnostic codes are specific, alpha-numeric, and provide the service technician with a reason for the code displayed.

Handling Condensate

The unit is designed for gravity draining of condensate. LG provides a factory insulated flexible drain hose. If condensate lift/pumps are needed for the application, they are to be field provided. The lift pump comes with a safety switch that shuts off the indoor unit if condensate rises too high in the drain pan.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto clean (coil dry)[1]
- Child lock
- Dual themistor control
- Group control
- Forced operation
- Hot start
- Self diagnostics
- Sleep mode
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)
- Auto direction/swing (up/down)
- Auto direction (left/right)[2]
- Manual direction (left/right)[3]
- Fan speed control
- Chaos swing (random louver swing)
- Chaos wind (random fan speed)
- Jet cool (fast cooling)

[1]Requires wireless handheld controller
[2]S5 models only
[3]SE models only

1-Way Ceiling Cassette

Casing

The case is designed to mount recessed in the ceiling and has a surface-mounted concentric grille on the bottom of the unit. The unit case is manufactured with coated metal. Cold surfaces are covered with a coated polystyrene insulating material. The case is provided with metal ears designed to support the unit weight on four corners. Ears have pre-punched holes designed to accept field-supplied all-thread rod hangers.

Ventilation Air

The case has a factory designated cutout for the connection of a field-supplied outside air duct and flange. The outside air can supply only one ceiling cassette indoor unit.

Architectural Filter/Grille

The ceiling cassette assembly is provided with an off-white ABS polymeric resin architectural grille with a tapered trim edge and a hinged, spring clip (screw-less) return air filter-grille door.

Fan Assembly and Control

The indoor unit has a single, direct-drive, cross-flow tangential Sirocco fan made of high strength ABS GP-2305 polymeric resin. The fan motor is a Brushless Digitally Controlled (BLDC) design with permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted on vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor-based control algorithm that provides a minimum of four pre-programmed fan speeds in the Heating and Fan Only modes and five speeds in the Cooling mode. Fan settings are super high, high, medium, and low. Each setting can be field adjusted from the factory setting (RPM/ESP) to compensate for a limited amount of additional resistance to airflow caused by field connected ductwork or other airflow restricting devices. The fifth speed in the Cooling mode is a fan power cooling cycle that runs for 30 minutes at high fan speed. A chaos setting provides a random change in fan speed. The fan speed algorithm provides a field-selectable fixed-speed or auto-speed setting that adjusts the fan speed based on the difference between the controller setpoint and space temperature.

Air Filter

Return air is filtered with a removable, washable filter. The unit is also equipped with a plasma filter.

Airflow Guide Vanes

The architectural grille has a single directional slot diffuser with an oscillating motorized guide vane designed to change the angle airflow is discharged. The discharge range of motion is 40º in an up/down direction with the capability of locking the vanes in a field adjusted fixed position.

Microprocessor Controls

The unit is provided with an integrated microprocessor controller capable of performing functions necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is factory-mounted in the return air stream. All unit operation parameters, excluding the operation schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional,

wall-mounted, local, or central controller. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded, and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operating modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches control of the indoor unit between Cooling and Heating modes based on space temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate indoor unit operation when the indoor room temperature falls below setpoint temperature. At which point, a signal is sent to the outdoor unit to begin the heating cycle. The indoor unit fan operation is delayed until coil pipe temperature reaches 76ºF. Significant airflow is generated when pipe temperature reaches 80°F. The unit is equipped with an infrared receiver designed to communicate with an LG hand-held remote controller. In lieu of wireless remote or factory return air thermistor, pluggable connection sockets on the microprocessor circuit board accommodate various models of wall-mounted local controllers and/or a wall-mounted remote temperature sensor. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall-mounted wired controller(s)
2. Factory mounted return air thermistor or the optional wall-mounted wired remote temperature sensor

A single indoor unit has the capability of being controlled by up to two local wired controllers. The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature set-point. The microprocessor control provides a cooling mode test cycle that operates the unit for 18 minutes without regard to the space temperature. If the system is provided with an optional wall-mounted local or central controller, displayed diagnostic codes are specific, alpha-numeric, and provide the service technician with a reason for the code displayed.

MECHANICAL SPECIFICATIONS

MULTI V

1-Way Ceiling Cassettes, 2-Way Ceiling Cassettes

Condensate Lift/Pump

The indoor unit comes with a factory installed and wired condensate lift/pump capable of providing a minimum 27.5 inch lift from the bottom surface of the unit. The lift pump comes with a safety switch that shuts off the indoor unit if condensate rises too high in the drain pan.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto restart
- Child lock
- Dual themistor control
- Forced operation
- Group control
- High ceiling
- Hot start
- Self diagnostics
- Sleep mode
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)
- Auto direction/swing (up/down)
- Fan speed control
- Chaos wind (random fan speed)
- Jet cool (fast cooling)

2-Way Ceiling Cassettes

Casing

The case is designed to mount recessed in the ceiling and has a surface-mounted concentric grille on the bottom of the unit. The unit case is manufactured with coated metal, and cold surfaces are covered with a coated polystyrene insulating material. The case is provided with metal ears designed to support the unit weight on four corners. Ears have pre-punched holes designed to accept field-supplied, all-thread rod hangers.

Architectural Filter/Grille

The ceiling cassette assembly is provided with an off-white ABS polymeric resin architectural grille with a tapered trim edge and a hinged, spring clip (screw-less) return air filter-grille door.

Fan Assembly and Control

The indoor unit has two direct-drive, cross flow tangential Sirocco fans made of high strength ABS GP-2305 polymeric resin. The fan motor is a Brushless Digitally-Controlled (BLDC) design with permanently lubricated and sealed ball bearings. The fan/ motor assembly is mounted on vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor-based direct digital control algorithm that provides a minimum of four pre-programmed fan speeds in the Heating and Fan Only modes and five speeds in the Cooling mode. Fan settings are super high, high, medium, and low. Each setting can be field adjusted from the factory setting (RPM/ESP) to compensate for a limited amount of additional resistance to airflow caused by field connected ductwork or other airflow restricting devices. The fifth speed in the Cooling mode is a fan power cooling cycle that runs for 30 minutes at high fan speed. A chaos setting provides a random change in fan speed. The fan speed algorithm provides a field selectable, fixed-speed or auto-speed setting that adjusts the fan speed based on the difference between the controller setpoint and space temperature.

Air Filter

Return air is filtered with a removable, washable filter. The unit is also equipped with a plasma filter.

Airflow Guide Vanes

The architectural grille has two parallel directional slot diffusers each equipped with oscillating motorized guide vanes designed to change the angle airflow is discharged. Discharge range of motion is 40º in an up/down direction. The control algorithm provides the capability of locking guide vanes in a field adjusted fixed position.

Microprocessor Controls

The unit is provided with an integrated microprocessor controller capable of performing functions necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is factory-mounted in the return air stream. All unit operation parameters, excluding the units operating schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional, wall-mounted, local, or central controller. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded, and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operating modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches control of the indoor unit between Cooling and Heating modes based on space temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate indoor unit operation when the indoor room temperature falls below setpoint temperature. At which point, a signal is sent to the outdoor unit to begin the heating cycle. The indoor unit fan operation is delayed until coil pipe temperature reaches 76ºF. Significant airflow is generated when pipe temperature reaches 80°F. The unit is equipped with an infrared receiver designed to communicate with an LG hand-held remote controller. In lieu of wireless remote or factory return air thermistor, pluggable sockets on the microprocessor circuit board accommodate various models of wall-mounted local controllers and or wall-mounted temperature sensors. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall-mounted wired controller(s)

LG

2. Factory mounted return air thermistor or the optional wall mounted wired remote temperature sensor.

A single indoor unit has the capability of being controlled by up to two local wired controllers. The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature set-point. The microprocessor control provides a Cooling mode test cycle that operates the unit for 18 minutes without regard to space temperature. If the system is provided with an optional wall-mounted or central controller, displayed diagnostic codes are specific, alpha numeric, and provide the service technician with the reason for the code displayed.

Condensate Lift/Pump

The indoor unit is provided with a factory installed and wired condensate lift/pump capable of providing a minimum 27.5 inch lift from the bottom surface of the unit. The lift pump comes with a safety switch that will shut off the indoor unit if condensate rises too high in the drain pan.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto restart
- Child lock
- Dual themistor control
- Forced operation
- Group control
- High ceiling
- Hot start
- Self diagnostics
- Sleep mode
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)
- Auto direction/swing (up/down)
- Fan speed control
- Chaos wind (random fan speed)
- Jet cool (fast cooling)

4-Way Ceiling Cassettes

Casing

The case is designed to mount recessed in the ceiling and has a surface-mounted concentric grille on the bottom of the unit. The unit case is manufactured with coated metal. Cold surfaces are covered with a coated polystyrene insulating material. The case is provided with metal ears designed to support the unit weight on four corners. Ears have pre-punched holes designed to accept field-supplied all-thread rod hangers.

Ventilation Air

TQ, TR Chassis

The case has a factory designated cutout for the connection of a field-supplied outside air duct. An optional flange kit is available from LG. The outside air can supply only one ceiling cassette indoor unit.

TM, TN, TP Chassis

The case has a factory designated cutout for the connection of a field-supplied outside air duct. LG offers two flange kits. The outside air can supply only one ceiling cassette indoor unit.

Supply Air Branch Duct Connections

Factory designated cutouts are marked on the unit case. Branch

2' x 2' Chassis

3' x 3' Chassis

ducts provide the designer with the ability to duct up to ½ the unit airflow capacity to adjacent spaces. The adjacent space must be in the room where the ceiling cassette is installed. It cannot be branched to another room.

TQ, TR Chassis

Connections can be made on up to any two of the three available connection points.

TM, TN, TP Chassis

Connections can be made on up to any two of four available connection points.

Architectural Filter/Grille

The ceiling cassette assembly is provided with an off-white ABS polymeric resin architectural grille equipped with a tapered trim edge and a hinged, spring clip (screwless) return air filter-grille door.

TM, TN, TP Chassis

The unit case allows access to hanger rods and the inspection of piping through corner access panels on the architectural grille. The optional auto-elevating grille kit is designed to provide motorized ascent/descent of the return air grille/pre-filter assembly a distance of up to 14-3/4 feet allowing easy access to remove and clean the filter.

The kit consists of two lifting mechanisms comprised of an electric motor driven winch with braided steel lifting cables. The winch kit is mounted behind the grille and is not visible during normal unit operation. The auto-elevating return air grille appearance and finish matches that of the architectural grille on similar indoor unit models equipped with the standard hinged filter grilles. The auto-elevating grille control algorithm accepts up, down, and stop control commands from either a wall-mounted or the lift remote controller. The algorithm does not permit the lowering of the grille while the indoor unit fan is operating. The pair of winch controllers work in unison to keep the return air grille level during lift and descent operations and will automatically stop the descent of the return air grille/filter if contact is made with any obstacle.

Fan Assembly and Control

The indoor unit has a single, direct-drive, turbo fan. The fan wheel is made of high strength ABS HT-700 polymeric resin. The fan motor is a Brushless Digitally-Controlled (BLDC) design with permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted on vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor-based, direct digital control algorithm that provides a minimum of four pre-programmed fan speeds in the Heating and Fan Only modes and five speeds in the Cooling mode. Fan settings are super high, high, medium, and low. Each setting can be field adjusted from the factory speed setting (RPM/ESP) to compensate for a limited amount of additional resistance to airflow caused by field connected ductwork or other airflow restricting devices. The fifth speed in the Cooling mode is a

MECHANICAL SPECIFICATIONS

4-Way Ceiling Cassettes

fan power cooling cycle that runs for 30 minutes at high fan speed. A chaos setting provides a random change in fan speed. The fan speed algorithm provides a field selectable, fixed-speed or auto-speed setting that adjusts the fan speed based on the difference between the controller set-point and space temperature.

Air Filter

Return air is filtered with a removable, washable filter. The unit may also be equipped with a plasma filter.

Airflow Guide Vanes

The architectural grille has four-directional slot diffusers each equipped with independent oscillating motorized guide vanes designed to change the angle airflow is discharged. Discharge range of motion is 40° in an up/down direction. The unit has a guide vane control algorithm designed to sequentially change the predominant discharge airflow direction in a counterclockwise pattern. The control algorithm also provides the capability of locking each guide vane independently in a field adjusted fixed position. Guide vanes provide airflow in all directions. The ends of each vane are tapered to provide airflow to the space in the direction of the four corners of the architectural grille.

Microprocessor Controls

The unit is provided with an integrated microprocessor controller capable of performing functions necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is factory-mounted in the return air stream. All unit operation parameters, excluding the unit operating schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional, wall-mounted, local, or central controller. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded, and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control algorithms provide the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operating modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches control of the indoor unit between cooling and heating modes based on space temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate indoor unit operation when the indoor room temperature falls below setpoint temperature. At which point, a signal is sent to the outdoor unit to begin the heating cycle. The indoor unit fan operation is delayed until coil pipe temperature reaches 76ºF. Significant airflow is generated when pipe temperature reaches 80°F. The unit is equipped with an infrared receiver designed to communicate with an LG hand-held remote controller. In lieu of wireless remote or factory return air thermistor, pluggable connection sockets on the microprocessor circuit board accommodate various models of wall-mounted local controllers and/or a wall-mounted remote temperature sensor. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall-mounted wired controller(s)
2. Factory mounted return air thermistor or the optional wall-mounted wired remote temperature sensor.

A single indoor unit has the capability of being controlled by up to two local wired controllers. The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature set-point. The microprocessor control provides a cooling mode test cycle that operates the unit for 18 minutes without regard to the space temperature. If the system is provided with an optional wall-mounted, local, or central controller, displayed diagnostic codes are specific, alpha numeric, and provide the service technician with the reason for the code displayed.

Condensate Lift/Pump

The indoor unit is provided with a factory installed and wired condensate lift/pump capable of providing a minimum 27.5 inch lift from the bottom surface of the unit. The lift pump comes with a safety switch that shuts off the indoor unit if condensate rises too high in the drain pan.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto restart
- Child lock
- Dual themistor control
- Forced operation
- Group control
- High ceiling
- Hot start
- Self diagnostics
- Sleep mode
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)
- Auto direction/swing (up/down)
- Fan speed control
- Chaos wind (random fan speed)
- Swirl wind (alternating vanes)
- Jet cool (fast cooling)

High Static

Casing

The case is designed to mount concealed above a finished ceiling. Fan supply air is front horizontal with a dedicated rear horizontal return. The unit is manufactured with coated metal. Cold surfaces are covered with a coated polystyrene insulating material. The cold surface areas of the case are covered externally with sheet insulation made of Ethylene Propylene Diene Monomer (M-Class) (EPDM) conforming to ASTM Standard D-1418. The case is provided with hanger brackets designed to support the unit weight on four corners. Hanger brackets have pre-punched holes designed to accept field supplied, allthread rod hangers.

Fan Assembly and Control

The unit has Sirocco fans made of high strength ABS GP-2200 polymeric resin. Fans are directly driven and mounted on a common shaft. The fan motor is a Brushless Digitally-Controlled (BLDC) design with permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted on vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor based, direct digital control algorithm that provides a minimum of three pre-programmed fan speeds. Fan settings are high, medium, and low. Each setting can be field adjusted from the factory setting (RPM/ESP) to compensate for a limited amount of additional resistance to airflow caused by field connected ductwork or other airflow restricting devices.

Air Filter

Return air is filtered with a removable, washable filter. MERV 13 filter modules with plenums available.

Microprocessor Controls

The unit is provided with an integrated microprocessor-based controller. The controller is capable of performing functions necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is factory-mounted in the return air stream. All unit operation parameters, excluding the unit operating schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional, wall-mounted, local, or central controller. The field supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2-conductor, stranded, and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operating modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches control of the indoor unit between cooling and heating modes based on space temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate the indoor unit when indoor room temperature falls below setpoint temperature and signals the outdoor unit to begin heating cycle. The indoor unit fan operation is delayed until coil pipe temperature reaches 76ºF. Significant airflow is generated when pipe temperature reaches 80°F. In lieu of factory return air thermistor, pluggable connection sockets on the microprocessor circuit board accommodate various models of wall-mounted local controllers and/or a wall-mounted remote temperature sensor. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall-mounted wired controller(s)
2. Factory mounted return air thermistor or the optional wall-mounted wired remote temperature sensor

A single indoor unit has the capability of being controlled by up to two local wired controllers. The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature set-point. If the system is provided with an optional wall-mounted local or central controller, displayed diagnostic codes are specific, alpha numeric, and provide the service technician with a reason for the code displayed.

Condensate Lift/Pump

The indoor unit is provided with a factory installed and wired condensate lift/pump capable of providing a minimum 27.5 inch lift from the bottom exterior surface of the unit casing. The unit drain pan is provided with a secondary drain port/plug allowing the pan to be drained for service. The lift pump comes with a safety switch that will shut off indoor unit if condensate rises too high in the drain pan.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto restart
- Child lock
- Dual themistor control
- Group control
- E.S.P. control
- Hot start
- Self diagnostics
- Sleep mode
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)
- Fan speed control
- Ventilation (outside air)

MECHANICAL SPECIFICATIONS

Low Static Convertible

Low Static Convertible

Casing

The case is a low profile design with a maximum height of eight inches designed to mount concealed above the finished ceiling. Fan supply air is front horizontal with a rear horizontal field convertible to a bottom return. The unit is manufactured with coated metal. Cold surfaces are covered with a polystyrene insulating material. The case is provided with hanger brackets designed to support the unit weight on four corners. Hanger brackets have prepunched holes designed to accept field supplied all-thread rod hangers.

Fan Assembly and Control

The unit has Sirocco fans made of high strength ABS HT-700 polymeric resin. Fans are directly driven and mounted on a common shaft. The fan motor is a Brushless Digitally-Controlled (BLDC) design with permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted on vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor based direct digital control algorithm that provides a minimum of three pre-programmed fan speeds. Fan settings are high, medium, and low. Each setting can be field adjusted from the factory setting (RPM/ESP) to compensate for a limited amount of resistance to airflow caused by field connected ductwork or other airflow restricting devices.

Air Filter

Return air is filtered with a removable, washable filter.

Microprocessor Controls

The unit is provided with an integrated microprocessor-based controller. The controller is capable of performing functions necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is factory-mounted in the return air stream. All unit operation parameters, excluding the unit operating schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional, wall-mounted, local, or central controller. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operating modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches control of the indoor unit between cooling and heating modes based on space temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate the indoor unit when indoor room temperature falls below setpoint temperature and signals the outdoor unit to begin heating cycle. The indoor unit

fan operation is delayed until coil pipe temperature reaches 76ºF. Significant airflow is generated when pipe temperature reaches 80°F. In lieu of factory return air thermistor, pluggable connection sockets on the microprocessor circuit board accommodate various models of wall-mounted local controllers and/or a wall-mounted remote temperature sensor. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall-mounted wired controller(s)
2. Factory mounted return air thermistor or the optional wall-mounted wired remote temperature sensor.

A single indoor unit has the capability of being controlled by up to two local wired controllers. The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature set-point. If the system is provided with an optional wall-mounted or central controller, displayed diagnostic codes are specific, alpha numeric, and provide the service technician with a reason for the code displayed.

Condensate Lift/Pump

The indoor unit is provided with a factory installed and wired condensate lift/pump capable of providing a minimum 27.5 inch lift from the bottom exterior surface of the unit casing. The lift pump comes with a safety switch that will shut off indoor unit if condensate rises too high in the drain pan.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto restart
- Child lock
- Dual themistor control
- Group control
- E.S.P. control
- Hot start
- Self diagnostics
- Sleep mode
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)
- Fan speed control
- Ventilation (outside air)

Low Static Bottom Return

Casing

The case is designed to mount concealed above a finished ceiling. Supply air is front horizontal with a dedicated bottom vertical return. The unit is manufactured with coated metal. Cold surfaces are covered with a coated polystyrene insulating material. The case is provided with hanger brackets designed to support the unit weight on four corners. Hanger brackets have pre-punched holes designed to accept field-supplied all-thread rod hangers.

Fan Assembly and Control

The unit has Sirocco fans made of high strength ABS HR-2407 polymeric resin. Fans are directly driven and mounted on a common shaft. The fan motor is a Brushless Digitally-Controlled (BLDC) design with permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted on vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor based direct digital control algorithm that provides a minimum of three pre-programmed fan speeds. Fan settings are high, medium, and low. Each setting can be field adjusted from the factory setting (RPM/ESP) to compensate for a limited amount of additional resistance to airflow caused by field connected ductwork or other airflow restricting devices.

Ceiling Grille/Duct Kit

An optional flush-mounted ceiling return air grille and accordion-style canvas duct kit provides a short-ducted return air solution.

Air Filter

Return air is filtered with a removable, washable filter.

Microprocessor Controls

The unit is provided with an integrated microprocessor-based controller. The controller is capable of performing functions necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is factory-mounted in the return air stream. All unit operation parameters, excluding the unit operating schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional, wall-mounted, local or central controller. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded, and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operating modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches control of the indoor unit between cooling and heating modes based on space temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate the indoor unit when indoor room temperature falls below setpoint temperature and signals the outdoor unit to begin the heating cycle. The indoor unit fan operation is delayed until coil pipe temperature reaches 76°F. Significant airflow is generated when pipe temperature reaches 80°F. In lieu of factory return air thermistor, pluggable connection sockets on the microprocessor circuit board accommodate various models of wall-mounted local controllers and/or a wall-mounted remote temperature sensor. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall-mounted wired controller(s)
2. Factory mounted return air thermistor or the optional wall-mounted wired remote temperature sensor

A single indoor unit has the capability of being controlled by up to two local wired controllers. The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature set-point. If the system is provided with an optional wall-mounted local or central controller, displayed diagnostic codes are specific, alpha numeric, and provide the service technician with a reason for the code displayed.

Condensate Lift/Pump

The indoor unit is provided with a factory installed and wired condensate/lift pump capable of providing a minimum 27.5 inch lift from the bottom exterior surface of the unit casing. The lift pump comes with a safety switch that will shut off indoor unit if condensate rises too high in the drain pan.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto restart
- Child lock
- Dual themistor control
- Group control
- E.S.P. control
- Hot start
- Self diagnostics
- Sleep mode
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)
- Fan speed control
- Ventilation (outside air)

MECHANICAL SPECIFICATIONS

Vertical/Horizontal Air Handling Units

Vertical/Horizontal Air Handling Units

Casing

The unit is designed to operate in the vertical up flow configuration or horizontal left end supply air. Return air opening is on the bottom in the vertical position or right end in the horizontal position. Return air plenum subbase is to be field-provided. The supply air connection is male flange. The unit case is made of 22-gauge coated metal and the external surfaces are finished with a high gloss baked enamel finish. Finish color is “morning fog” (medium beige). Cold surfaces are galvanized steel. The cold surfaces of the case are internally insulated with ½ inch foil faced, polystyrene fiber insulation. The inside surface of the fan assembly door access panel is treated with ½ inch polystyrene fiber insulation, encapsulated on both sides, and sealed along the edges with a reinforced foil-faced covering to prevent deterioration caused by panel removal. All access panels are provided with gasket seals to minimize air leakage. The unit case is designed to accept an internal, optional, LG electric strip heater. The unit bears the ETL label. Unit breaker, fuses, and/or disconnect are provided by others.

Fan Assembly and Control

The indoor unit has an integral fan assembly consisting of a galvanized steel housing and a forward-curved fan wheel. The direct drive fan/motor assembly is mounted on rubber grommets isolating the rotating assembly from the fan housing. The fan motor is a Brushless Digitally-Controlled design (BLDC), having permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted on vibration attenuating rubber grommets. Fan speed is controlled using a microprocessor-based direct digital control algorithm that provides a minimum of three pre-programmed fan speeds. Fan speeds are high, medium, and low. Each setting can be field adjusted from the factory setting (RPM/ESP). The setting provides delivery of the high speed air volume against an external static pressure of up to 0.8 in-wg and up to 85% of the high speed air volume against an external static pressure of 1.0 in-wg.

Air Filter

The unit comes with a filter rack capable of accepting a field-provided 16” x 20” x 1” (NJ chassis) or 24” x 20” x 1” (NK chassis) filter cartridge. The filter rack is equipped with guides that keep the filter centered in the rack. Filter service access is from the front of the unit without removing the coil or fan area access panels. Filter access door is provided with thumb screws that are removal.

Optional Auxiliary Electric Heat Module(s)

LG optional electric heat modules are designed for field installation in the reheat position. The electric heat module is provided with heating elements, contractors, relays, high temperature safety switch, and interconnecting control wiring harness with a quick connect plug for easy connection to the air handler control board. Auxiliary heat modules are available in nominal capacities of 5, 10, 15, and 20 kW at 230/60/1. Heating elements are powered from a field provided separate power source. 5 and 10 kW modules are powered from a single power wire. The 15 and 20 kW modules are powered from two power wires. Heating module breakers, fuses, and/or disconnects are to be field provided.

Electric Heat Module Controls

The electric heat module is capable of operating at full capacity during system defrost and oil return operations. When the air handler is operating in the Cooling, Dry, or Fan Only modes, the electric heater operation is locked out and unavailable. When the air handler is operating in the Heating mode, the heater is field selectable to operate when the room temperature is 2°F lower than set-point or manually if provided with a start/stop signal from a third-party outside source.

Microprocessor Controls

The unit is equipped with an integrated microprocessor-based controller capable of performing functions necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is mounted in the return air stream. All unit operating parameters, excluding the operation schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional wall-mounted local or central controller. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded, and shielded (RS485).The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, and will operate the indoor unit using one of the following five operation modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches control of the indoor unit between cooling and heating modes based on space temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control does not begin fan operation until coil pipe temperature reaches 76ºF. Significant airflow is generated when pipe temperature reaches 80°F. A field-selectable option maintains fan operation for 30 minutes following cooling cycle operations. The controller is capable of monitoring space temperature using any of the three sensors individually or any two of the three concurrently.

1. Wall-mounted wire controller
2. Factory-mounted return air thermistor or the optional wall-mounted wired remote temperature sensor.

The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature setpoint. A single indoor unit has the capability of being controlled by up to two local wired controllers. The microprocessor control provides a Cooling mode test cycle that operates the unit for 18 minutes without regard to the space temperature. If the system is provided with an optional local or central controller, displayed diagnostic codes are specific and provide the service technician with the reason for the code displayed.

Handling Condensate

The drain pan is designed to work with a gravity building drain system. If condensate lifts/pumps are needed, they are to be field-provided. A secondary drain port plug is provided allowing the pan to be drained for service.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto restart
- Child lock
- Dual themistor control
- E.S.P control
- Group control
- Forced operation
- Hot start
- Self diagnostics
- Sleep mode
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)
- Fan speed control

MECHANICAL SPECIFICATIONS

Ceiling Suspended

Ceiling Suspended

Casing

The case is designed to mount against the ceiling surface in a horizontal supply air configuration. The return air is from the bottom and supply air is from a single slot on the front of the unit. The unit is manufactured using a coated metal frame covered with an off-white ABS architectural polymeric resin exterior case. Cold surfaces are covered with a coated polystyrene insulating material.

Fan Assembly and Control

The unit has a single, direct driven, Sirocco fan made of high strength ABS HR-2407 polymeric resin. The fan motor is a Brushless Digitally-Controlled (BLDC) design with permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted on vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor-based direct digital control algorithm that provides a minimum of three pre-programmed fan speeds in the Heating and Fan Only modes and four speeds in the Cooling mode. Fan settings are high, medium, and low. The fourth speed in the Cooling mode is a super high setting that runs for 30 minutes at high fan speed. A chaos wind setting provides random change in fan speed. The fan speed algorithm provides a field selectable fixed or auto-speed setting that changes fan speed based on the difference between controller set-point and space temperature.

Air Filter

Return air is filtered with a removable, washable filter. Access to the filter media is through a hinged, spring clip (screwless) return air grille located on the bottom of the unit.

Airflow Guide Vanes

The supply air opening has a single directional slot diffuser with an oscillating motorized guide vane designed to change the angle airflow is supplied. The supply air range of motion is 40° in an up/down direction with the capability of locking the valve in a fixed position. Manually adjustable guide vanes are provided to set the airflow supply air direction from side-to-side.

Microprocessor Controls

The unit is provided with an integrated microprocessor-based controller. The controller is capable of performing functions necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is factory-mounted in the return air stream. All unit operation parameters, excluding the operating schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional, wall-mounted, local or central controller. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded, and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operating modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling

4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches between cooling and heating modes based on room temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate the indoor unit when indoor room temperature falls below setpoint temperature and signals the outdoor unit to begin the heating cycle. The indoor unit fan operation is delayed until coil pipe temperature reaches 76°F. Significant airflow is generated when pipe temperature reaches 80°F. The unit is equipped with an infrared receiver designed to communicate with an LG hand-held remote controller. Pluggable connection sockets on the microprocessor circuit board accommodate various models of wall-mounted local controllers and/or a wall-mounted remote temperature sensor. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall-mounted wired controller(s)
2. Factory mounted return air thermistor or the optional wall-mounted wired remote temperature sensor

A single indoor unit has the capability of being controlled by up to two local wired controllers. The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature set-point. The microprocessor control provides a Cooling mode test cycle that operates the unit in full Cooling mode for 18 minutes without regard to space temperature. If the system is provided with an optional wall-mounted or central controller, displayed diagnostic codes are specific, alpha numeric, and provide the service technician with a reason for the code displayed.

Handling Condensate

The unit is designed for gravity draining of condensate. LG provides a factory insulated flexible drain hose. If condensate lift/pumps are needed for the application, they are to be field-provided.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto restart
- Child lock
- Dual themistor control
- Forced Operation
- Group control
- High ceiling
- Hot start
- Self diagnostics
- Sleep mode
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)
- Auto direction/swing (up/down)
- Manual control direction (left/right)
- Fan speed control
- Chaos wind (random fan speed)
- Jet cool (fast cooling)

Convertible Surface Mounted

Casing

The case is designed to mount against the ceiling surface in a horizontal discharge configuration or on a wall in a vertical discharge configuration. When mounted against the ceiling surface, the return air is from the bottom of the unit. When mounted on a wall, the return air is from the front surface of the unit. The unit is manufactured using a coated metal frame covered with an off-white ABS architectural polymeric resin exterior case. Cold surfaces are covered with a coated polystyrene insulating material.

Fan Assembly and Control

The unit has a single, direct driven, Sirocco fan made of high strength ABS HR-2407 polymeric resin. The fan motor is a Brushless Digitally-Controlled (BLDC) design with permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted on vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor-based direct digital control algorithm that provides a minimum of three pre-programmed fan speeds in the Heating and Fan Only modes and four speeds in the Cooling mode. Fan settings are high, medium, and low. The fourth speed in the Cooling mode is a super high setting that runs for 30 minutes at high fan speed. A chaos wind setting provides random change in fan speed. The fan speed algorithm provides a field-selectable fixed or auto-speed setting that changes fan speed based on the difference between controller set-point and space temperature.

Air Filter

Return air is filtered with a removable, washable filter. Access to the filter media is through a hinged, spring clip (screwless) return air grille located on the front/bottom of the unit.

Airflow Guide Vanes

The discharge opening has a single directional slot diffuser with an oscillating motorized guide vane designed to change the angle airflow is discharged. The discharge range of motion is 40° in an up/down direction with the capability of locking the vane in a fixed position. Manually adjustable guide vanes are provided to set the airflow discharge direction from side-to-side.

Microprocessor Controls

The unit is provided with an integrated microprocessor-based controller. The controller is capable of performing functions

necessary to operate the system without the use of a wall-mounted controller. A temperature thermistor is factory-mounted in the return air stream. All unit operation parameters, excluding the operating schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional, wall-mounted, local or central controller. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operating modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches between cooling and heating modes based on room temperature conditions.

For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate the indoor unit when indoor room temperature falls below setpoint temperature and signals the outdoor unit to begin heating cycle. The indoor unit fan operation is delayed until coil pipe temperature reaches 76°F. Significant airflow is generated when pipe temperature reaches 80°F. The unit is equipped with an infrared receiver designed to communicate with an LG hand-held remote controller. In lieu of factory return air thermistor, pluggable connection sockets on the microprocessor circuit board accommodate various models of wall-mounted local controllers and/or a wall-mounted remote temperature sensor. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall-mounted wired controller(s)
2. Factory mounted return air thermistor or the optional wall-mounted wired remote temperature sensor

A single indoor unit has the capability of being controlled by up to two local wired controllers. The microprocessor controls space temperature using the value provided he temperature sensor sensing a space temperature that is farthest away from the temperature set-point. The microprocessor control provides a Cooling mode test cycle that operates the unit for 18 minutes without regard to space temperature. If the system is provided with an optional

wall-mounted or central controller, displayed diagnostic codes are specific, alphanumeric, and provide the service technician with a reason for the code displayed.

Handling Condensate

The unit is designed for gravity draining of condensate. LG provides a factory insulated flexible drain hose. If condensate lift/ pumps are needed for the application, they are to be field-provided.

Controls Features

- Auto changeover (Heat Recovery only)
- Auto operation
- Auto restart
- Child lock
- Dual themistor control
- E.S.P. control
- Hot start
- Self diagnostics
- Timer (on/off)
- Weekly schedule
- Soft dry (dehumidification)

Floor Standing

Casing

Cased

The case is designed to be free standing on the floor against a vertical surface. The backplane of the unit allows secure attachment of the unit to a vertical surface. Supply air is vertical from the top of the unit with a bottom front return through a toe slot at floor level. The supply air opening is covered with an architectural grille. The unit is manufactured using coated metal with an off-white ABS architectural poly meric resin exterior case. Cold surfaces are covered with a coated polystyrene insulating material. Flip open controller access doors cover the controller mounting bays located on both ends of the top panel. A polymeric resin coated metal safety grille is provided behind the removable filters located in the toe space to prevent reach access to the fan wheel.

Uncased

The unit case is designed to be concealed in a field-provided architectural enclosure. The unit case is manufactured using coated metal. Cold surfaces are covered with a coated polystyrene insulating material. The back plane of the unit has two side mounting flanges with bolt holes for hanging the unit on a vertical wall near the floor. Airflow is vertical from the bottom to the top. A polymeric resin coated metal safety grille is provided behind the removable filters located at the return air opening to prevent reach access to the fan wheels.

Fan Assembly and Control

7–15 MBh

The unit has three Sirocco fans mounted on a common shaft and made of high strength ABS HT-700 polymeric resin. The fan shaft is directly driven by a single digitally-controlled inverter fan motor.

18–24 MBh

The unit has two independent fan assemblies consisting of two motors and four fans. Each assembly consists of two Sirocco fans made of high strength ABS HT-700 polymeric resin. Each pair of fans are mounted on a common shaft and driven directly by a single digitally controlled inverter motor.

Fan Motors

The fan motors are a Brushless Digitally Controlled (BLDC) design with permanently lubricated and sealed ball bearings. The fan/motor assembly is mounted in vibration attenuating rubber grommets. The fan speed is controlled using a microprocessor-based direct digital control algorithm that provides a minimum of three preprogrammed fan speeds. Fan settings are high, medium, and low. Each setting can be field adjusted from the factory speed setting (RPM/ESP) to compensate for a limited amount of additional resistance to airflow caused by field-provided airflow restricting devices. The fan speed algorithm provides a field-selectable fixed or auto-speed setting that adjusts fan speed based on the difference between controller set-point and space temperature.

Air Filter

Return air is filtered using two (2) removable, washable filters on the 7-15 MBh models and three (3) removable, washable filters on the 18-24 MBh models. Access to the filter media is from the return air toe slot located on the front of the unit without removing unit panels.

Cased

Uncased

Microprocessor Control

The unit is provided with an integrated microprocessor-based controller. A temperature thermistor is factory-mounted in the return air stream. The controller is capable of performing functions necessary to operate the system without the use of a separate unit or wall-mounted controller. All unit operation parameters, excluding the operation schedule, are stored in non-volatile memory resident on the unit microprocessor. Operating schedules are stored in select models of the optional unit or wall-mounted, local or central controller. The field-supplied communication cable between the indoor unit(s) and outdoor unit is to be a minimum of 18 AWG, 2 conductor, stranded, and shielded cable (RS485), terminated via screw terminals on the control boards. The microprocessor control provides the following functions: self-diagnostics, auto restart following power restoration, test run, and will operate the indoor unit using one of five operating modes:

1. Auto Changeover (Heat Recovery only)
2. Heating
3. Cooling
4. Dry
5. Fan Only

For Heat Recovery systems the Auto Changeover setting automatically switches between cooling and heating modes based on room temperature conditions.
For Heat Pump systems, heated or cooled air delivery is dependant upon outdoor unit operating mode.

In Heating mode, the microprocessor control will activate the indoor unit when indoor room temperature falls below setpoint temperature and signals the outdoor unit to begin the heating cycle. The indoor unit fan operation is delayed until coil pipe temperature reaches 76°F. Significant airflow is generated when pipe temperature reaches 80°F. In lieu of factory return air thermistor, pluggable control wire connection sockets on the microprocessor circuit board accommodate various models of wall or unit-mounted local controllers and/or a wall-mounted remote temperature sensor. The unit microprocessor is capable of accepting space temperature readings concurrently or individually from either:

1. Wall or unit mounted wired controller(s)
2. Factory mounted return air thermistor or the optional wall-mounted wired remote temperature sensor

The microprocessor controls space temperature using the value provided by the temperature sensor sensing a space temperature that is farthest away from the temperature set-point. If the system is provided with an optional local or central controller, displayed diagnostic codes are specific, alpha numeric, and provide the service technician with the reason for the code displayed.

MECHANICAL SPECIFICATIONS

Floor Standing Units

Handling Condensate

The unit is designed to provide gravity draining of condensate. LG provides a factory insulated flexible drain hose. If condensate lifts/ pumps are needed for the application, they are to be field-provided.

GROUP CONTROL SETTINGS

“Group Control Accessories” on page 434

Accessory	Model Number	Image
Wired Remote Group Control Cable Assembly - Required for connecting multiple indoor units to a control group	PZCWRCG3	
Wired Remote/Wired Remote Extension Cable - Required for extending the distance between indoor units or remote controllers in a control group	PZCWRC1	

Figure 1: Group Control Accessories

1. A maximum of 16 indoor units can be connected to a wired remote controller. Set only one indoor unit to master. Set the remaining units to slave.
2. Wired remote controllers can be connected to all indoor unit types.
3. Wireless handheld controllers can be used in conjunction with wired remote controllers.
4. A dry contact unit can be connected with a central controller simultaneously.
   - The master indoor unit is recognized by the dry contact unit and the central controller
   - Group Control only available for indoor units manufactured after February 2009
   - The central controller can control indoor units after setting the address of the master indoor unit only
   - Slave indoor unit cannot be individually controlled by central controller
   - Slave indoor unit will operate like master indoor unit
5. If an error occurs with the indoor unit, the error will be displayed on the wired remote controller.
6. The following functions are available with group control:
   - Selection of operation options (operation/mode/set temperature)
   - Control of air flow rate (High/Middle/Low)

GENERAL INFORMATION

“Acronyms” on page 438

ACRONYMS

ABS	Acrylonitrile Butadiene Styrene	IDU	Indoor Unit
AC	Air Conditioner/Alternate Current	kW	Kilowatts
ACP	Advanced Control Platform	in Aq	inches water
AHU	Air Handling Unit	ISO	International Standards Organization
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning	LATS	LG Air Conditioning Technical Solution software
ASTM	American Society for Testing and Materials	LED	Light Emitting Diode
AWG	American Wire Gauge	LEED	Leadership in Energy and Environmental Design
AWHP	Air-to-Air Water Heat Pump	MBh	Thousands BTUs per hour
BLDC	Brushless Digitally-Controlled	MCA	Minimum Circuit Ampacity
BTL	BACnet® Testing Laboratories	mm	Millimeter
Btu/h	British Thermal Unit per Hour	MOP	Maximum Overcurrent Protection
CAA	Clean Air Act	OD	Outside Diameter
CFM	Cubic Feet per Minute	ODU	Outdoor Unit
CFR	Code of Federal Regulations	PI	Power Input
DB	Dry Bulb	PTAC	Packaged Terminal Air Conditioner
dB(A)	Decibels with “A” frequency weighting	SHC	Sensible Heat Capacity
DPST	Double-Pole Single Throw	SMACNA	Sheet Metal & Air Conditioning Contractors’ National Association
DX	Direct expansion	RPM	Revolutions per Minute
EEV	Electric Expansion valve	TC	Total Capacity
EPDM	Ethylene Propylene Diene M-Class Rubber	USD	United States Dollar
EMF	Electromagnetic Field	UL	Underwriters Laboratories
ESP	External Static Pressure	V	Voltage
ETL	Electric Testing Laboratories	VAV	Variable Air Volume
GND	Ground	VRF	Variable Refrigerant Flow
H/M/L	High/Medium/Low	W	Watts
HVAC	Heating, Ventilating and Air Conditioning	WB	Wet Bulb
Hz	Hertz	wg	Water Gauge
ID	Inside Diameter		

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