



Internal Use Only

<http://biz.lgservice.com>

Ventilation System Air Conditioner **SVC MANUAL(Exploded View)**

MODEL : LZ-H015GBA2 LZ-H080GBA2
LZ-H025GBA2 LZ-H100GBA2
LZ-H035GBA2 LZ-H150GBA2
LZ-H050GBA2 LZ-H200GBA2

CAUTION

Before Servicing the unit, read the safety precautions in General SVC manual.
Only for authorized service personnel.

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Safety Precautions

To prevent injury to the user or other people and property damage, the following instructions must be followed.

- Incorrect operation due to ignoring instruction will cause harm or damage. The seriousness is classified by the following indications.

⚠ WARNING This symbol indicates the possibility of death or serious injury.

⚠ CAUTION This symbol indicates the possibility of injury or damage.

- Meanings of symbols used in this manual are as shown below.

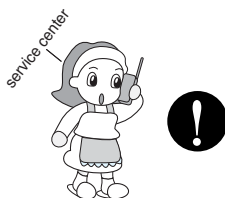
	Be sure not to do.
	Be sure to follow the instruction.

⚠ WARNING

■ For Installation

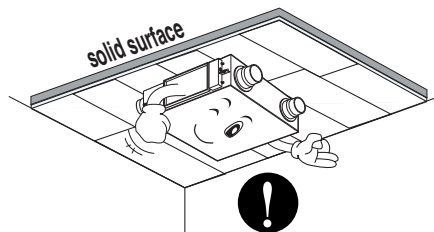
For electric working(wiring work), contact Service Center or agency you purchased the product.

- If you disassemble or repair arbitrarily, it may cause fire or electric shock.



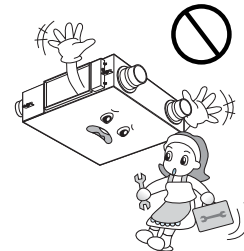
Install in a place capable of the product's weight.

- If the product is installed in a place incapable of its weight, it may cause an accident by its dropping.



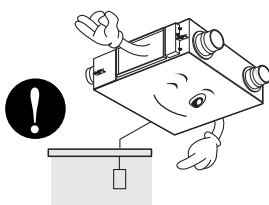
Do not arbitrarily disassemble, repair, or modify the product.

- It may cause fire or electric shock.



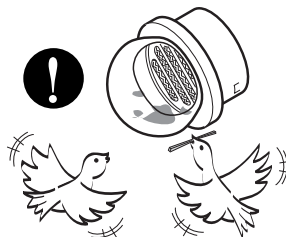
Be sure to undertake grounding work.

- If you do not undertake grounding work, it may cause electric shock.



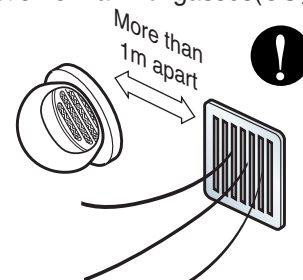
Use an netted inlet for external air to prevent birds from entering.

- Remove any clogs such as bird nest. It may cause an oxygen deficiency in a room.



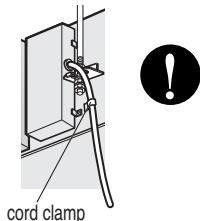
Install the air intake where polluted air can not be directly sucked in.

- It may cause various accidents, including suffocation, due to the suction of harmful gasses(CO, etc.)



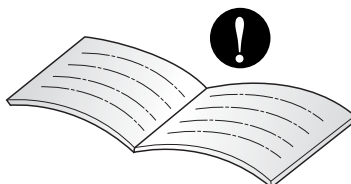
Wire with prescribed wire and fix firmly to prevent it from being pulled out by external impact.

- Improper wiring and fixing may cause fire.



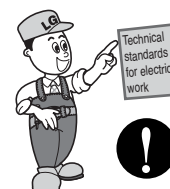
Install in accordance with installation manual.

- Improper installation may cause fire and electric shock.



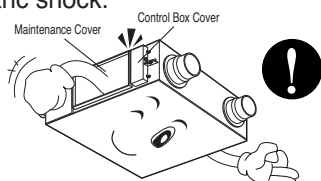
Electric works should be undertaken by an expert in accordance with installation manual and the indicated circuit diagram.

- Improper use of wires and electric may cause fire and electric shock.



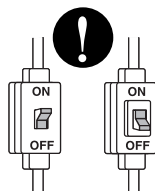
Be sure to install covers for inspection and control box.

- If not, water and dust infiltrating into the product may cause fire and electric shock.



Be sure to install electric leakage circuit breakers(ELB) and exclusive switch(switch for electrics).

- If not, it may cause fire and electric shock.



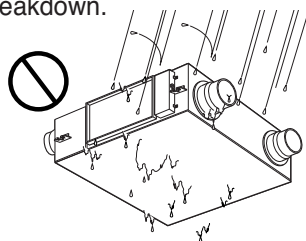
Do not keep flammable materials or volatile gas near the product.

- It may cause fire and breakdown.



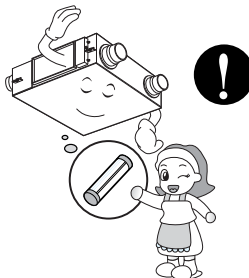
Be sure to keep the product out of water.

- It may cause electric shock and breakdown.



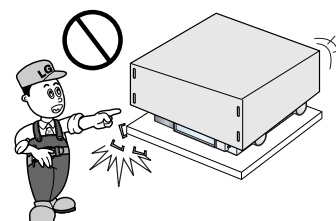
Use a fuse in standardized capacity.(Use a standardized capacity fuse)

- It may cause fire and electric shock.



When unpacking, keep the product from scratches and sharp materials(object).

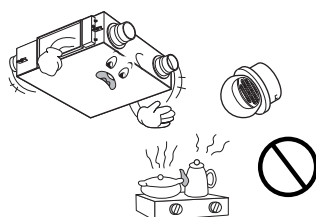
- If not, it may cause physical damage.



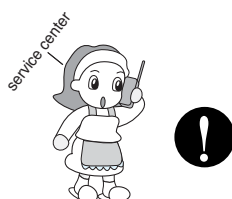
■ For use

Keep out of inflammable.

- It may cause fire.

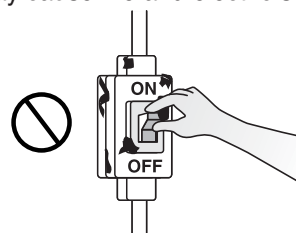


For the flooded product, contact Service Center.



Do not use damaged electric leakage circuit breaker or switch.

- It may cause fire and electric shock.

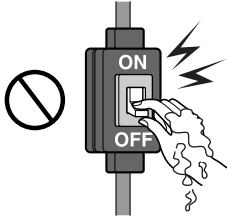


⚠ CAUTION

■ For Installation

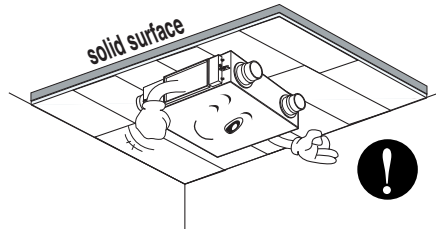
Do not touch electric leakage circuit breaker or switch with wet hands.

- It may cause electric shock.



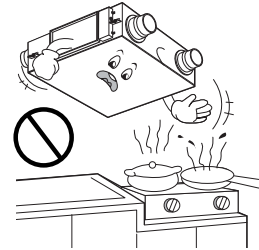
Install the product in an insulated space.

- If the product is installed outside of insulating layer(surface), it may cause a dew formation inside main body, electric shock, and dropping of condensed water.



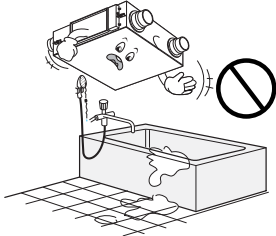
Do not install in oily place such as kitchen and factory.

- It may cause breakdown due to oils stained to filter or electric heat exchanger.



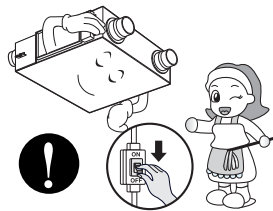
Do not install in humid place such as bathroom.

- It may cause electric shock and breakdown.



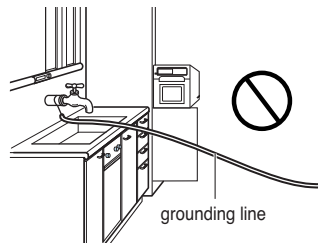
Switch the power off during cleaning.

- It may cause fire and electric shock.



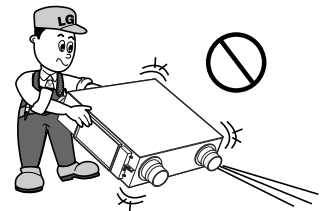
Do not connect grounding line to window frame (chassis) and tap.

- It has a danger of electric shock.



Do not carry the product alone.

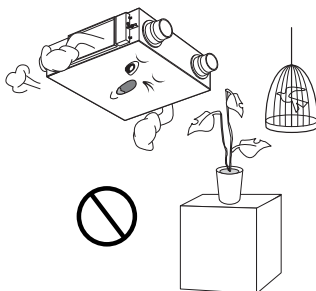
- Otherwise, it may cause physical damage.



■ For use

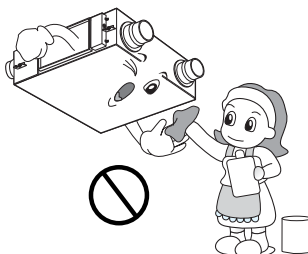
Do not use for special purposes and places including animals and plants, sensitive equipment, and art pieces.

- Otherwise, it may cause physical damage.



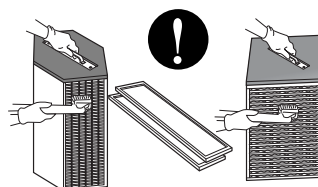
Do not use strong detergent such as wax or thinner in case of cleaning, instead use soft cloth.

- It ruins external appearance due to discoloration or scratches on the product.



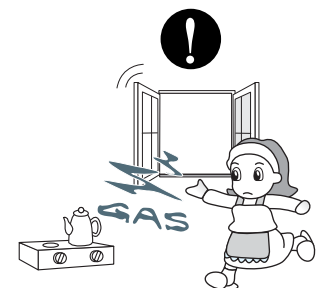
Clean filter and heat exchanger regularly with your gloves on.

- With a large quantity of dust in the product, the effect of ventilation may be reduced. (it may not well ventilated)



In case of gas leakage, open the window to change air(ventilate) before using remote controller.

- It may cause explosion and fire.



Standards for Model

LZ-H050GBA2

Serial No.

Marking in a developed order.

Function

A : Basic L : Nano Plasma + Clean(Wall mounted)

C : Plasma(Ceiling Cassette) G : Low Static Moter

Product Type

B: duct type hidden in ceiling

T: cassette type for ceiling

W: for window

Electrical Rating

G: 220-240 V, 50Hz, 1Ø / 220 V 60 HZ, 1Ø

Ventilation Capacity(Ventilating Ability)

Excluding the first digit of ventilating capacity per hour
50:500CMH

Heat Exchange Mode

H: Total heat(including humidity)

T: Sensible heat(temperature only)

Product classification

LZ : ventilation

Product Standards

Item(format)		Unit	LZ-H015GBA2		
Power		Ø,V,Hz	1, 220 - 240, 50 - 60		
Ventilation Mode		-	Total heat ventilation		
Wind velocity		-	Super High	High	Low
Electric current		A	0.84	0.76	0.45
Electricity consumption		W	100	90	55
Airflow		m³/h	150	150	100
External static press		Pa	130	100	50
Temperature efficiency		%	75	75	79
Enthalpy efficiency	Heating	%	62	62	69
	Cooling	%	55	55	59
Noise		dB(A)	32	31	22
Air Filter		-	Non-woven fabric filter		
Weight		kg	22		
Dimensions		mm	605(W) X 570(D) X 185(H)		

Item(format)		Unit	LZ-H025GBA2		
Power		Ø,V,Hz	1, 220 - 240, 50 - 60		
Ventilation Mode		-	Total heat ventilation		
Wind velocity		-	Super High	High	Low
Electric current		A	1.04	0.97	0.70
Electricity consumption		W	110	105	75
Airflow		m³/h	250	250	150
External static press		Pa	150	130	110
Temperature efficiency		%	80	80	85
Enthalpy efficiency	Heating	%	70	70	78
	Cooling	%	64	64	68
Noise		dB(A)	32	28	21
Air Filter		-	Non-woven fabric filter		
Weight		kg	32		
Dimensions		mm	750(W) X 680(D) X 250(H)		

Item(format)		Unit	LZ-H035GBA2		
Power		Ø,V,Hz	1, 220 - 240, 50 - 60		
Ventilation Mode		-	Total heat ventilation		
Wind velocity		-	Super High	High	Low
Electric current		A	1.73	1.58	0.77
Electricity consumption		W	200	180	80
Airflow		m³/h	350	350	210
External static press		Pa	170	150	100
Temperature efficiency		%	83	83	87
Enthalpy efficiency	Heating	%	80	80	85
	Cooling	%	78	78	83
Noise		dB(A)	33	28	23
Air Filter		-	Non-woven fabric filter		
Weight		kg	32		
Dimensions		mm	750(W) X 680(D) X 250(H)		

Item(format)		Unit	LZ-H050GBA2		
Power		Ø,V,Hz	1, 220 - 240, 50 - 60		
Ventilation Mode		-	Total heat ventilation		
Wind velocity		-	Super High	High	Low
Electric current		A	1.92	1.58	0.79
Electricity consumption		W	230	220	85
Airflow		m³/h	500	500	320
External static press		Pa	150	100	50
Temperature efficiency		%	75	75	79
Enthalpy efficiency	Heating	%	72	72	77
	Cooling	%	70	70	75
Noise		dB(A)	34	32	25
Air Filter		-	Non-woven fabric filter		
Weight		kg	44		
Dimensions		mm	988(W) X 1014(D) X 273(H)		

Item(format)		Unit	LZ-H080GBA2		
Power		Ø,V,Hz	1, 220 - 240, 50 - 60		
Ventilation Mode		-	Total heat ventilation		
Wind velocity		-	Super High	High	Low
Electric current		A	2.77	2.16	1.44
Electricity consumption		W	360	270	165
Airflow		m³/h	800	800	660
External static press		Pa	200	110	60
Temperature efficiency		%	79	79	82
Enthalpy efficiency	Heating	%	70	70	75
	Cooling	%	65	65	70
Noise		dB(A)	36	34	30
Air Filter		-	Non-woven fabric filter		
Weight		kg	60		
Dimensions		mm	1062(W) X 1140(D) X 365(H)		

Item(format)		Unit	LZ-H100GBA2		
Power		Ø,V,Hz	1, 220 - 240, 50 - 60		
Ventilation Mode		-	Total heat ventilation		
Wind velocity		-	Super High	High	Low
Electric current		A	3.41	2.91	1.76
Electricity consumption		W	470	385	210
Airflow		m³/h	1000	1000	800
External static press		Pa	160	90	50
Temperature efficiency		%	75	75	78
Enthalpy efficiency	Heating	%	66	66	71
	Cooling	%	61	61	66
Noise		dB(A)	37	35	31
Air Filter		-	Non-woven fabric filter		
Weight		kg	60		
Dimensions		mm	1062(W) X 1140(D) X 365(H)		

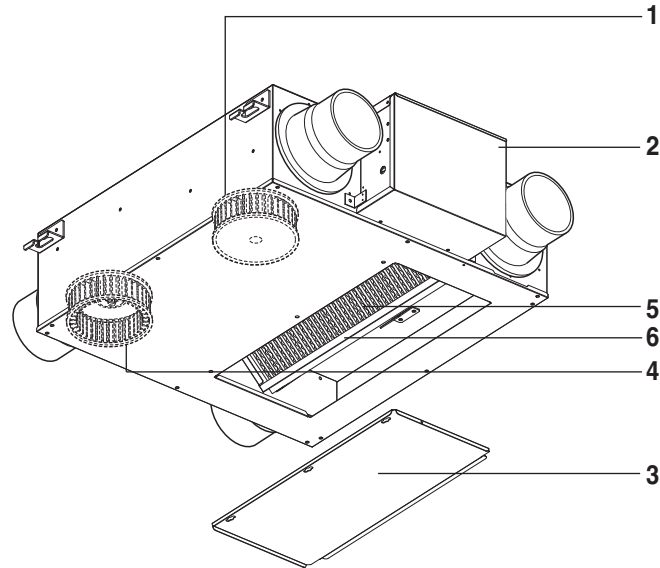
Item(format)		Unit	LZ-H150GBA2		
Power		Ø,V,Hz	1, 220 - 240, 50 - 60		
Ventilation Mode		-	Total heat ventilation		
Wind velocity		-	Super High	High	Low
Electric current		A	5.60	5.40	2.90
Electricity consumption		W	720	540	340
Airflow		m³/h	1500	1500	1200
External static press		Pa	200	110	60
Temperature efficiency		%	79	79	82
Enthalpy efficiency	Heating	%	70	70	75
	Cooling	%	65	65	70
Noise		dB(A)	39	37	33
Air Filter		-	Non-woven fabric filter		
Weight		kg	140		
Dimensions		mm	1313(W) X 1140(D) X 738(H)		

Item(format)		Unit	LZ-H200GBA2		
Power		Ø,V,Hz	1, 220 - 240, 50 - 60		
Ventilation Mode		-	Total heat ventilation		
Wind velocity		-	Super High	High	Low
Electric current		A	6.80	5.90	3.60
Electricity consumption		W	930	770	420
Airflow		m³/h	2000	2000	1600
External static press		Pa	160	90	50
Temperature efficiency		%	75	75	78
Enthalpy efficiency	Heating	%	66	66	71
	Cooling	%	61	61	66
Noise		dB(A)	39	37	33
Air Filter		-	Non-woven fabric filter		
Weight		kg	140		
Dimensions		mm	1313(W) X 1140(D) X 738(H)		

Descriptions for operation and functions

Main Body

Models: LZ-H015GBA2



1. Blower for Air Supply

A blower for sucking outside air.

2. Control Box

3. Blower for Exhausting

A blower for draining polluted air outside.

4. Maintenance cover

5. Total Heat Exchanger

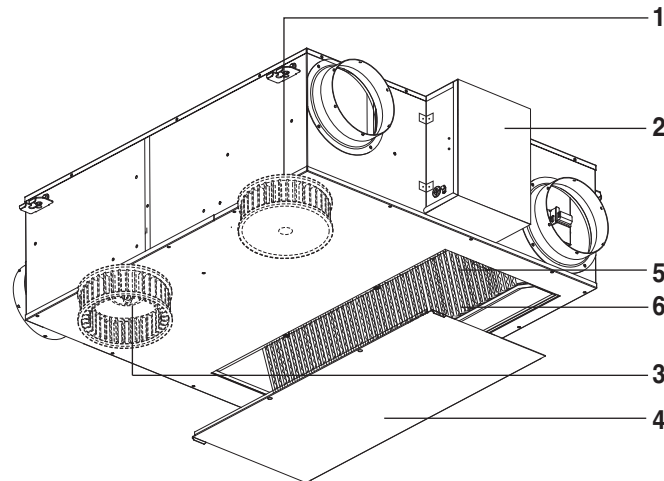
Exchanges temperature and moisture between air supply air and exhaust air.

6. Air Filter

Prevents clogging of the Total heat exchanger due to dust.

※ The figure of Total heat Exchanger can be different by the Product Model.

Models: LZ-H025GBA2 / LZ-H035GBA2



1. Blower for Air Supply

A blower for sucking outside air.

2. Control Box

3. Blower for Exhausting

A blower for draining polluted air outside.

4. Maintenance cover

5. Total Heat Exchanger

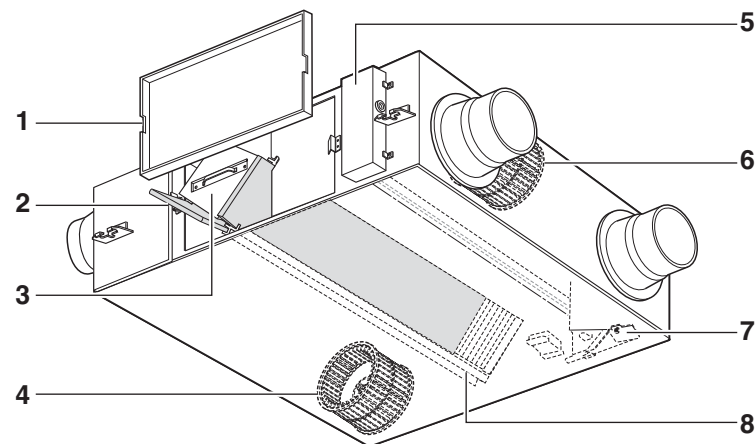
Exchanges temperature and moisture between air supply air and exhaust air.

6. Air Filter

Prevents clogging of the Total heat exchanger due to dust.

※ The figure of Total heat Exchanger can be different by the Product Model.

Models: LZ-H050GBA2



1. Maintenance Cover

2. Air Filter

It prevents dust from clogging in Total Heat Exchanger.

3. Total Heat Exchanger

It changes temperature and humidity between Supplying Air and exhausted air.

4. Blower for Exhausting Air

It is a fan for discharging the contaminated air to outdoor.

5. Control box

6. Blower for Exhausting Air

It is a fan for inhaling exterior air into an indoor space.

7. Damper plate(board)

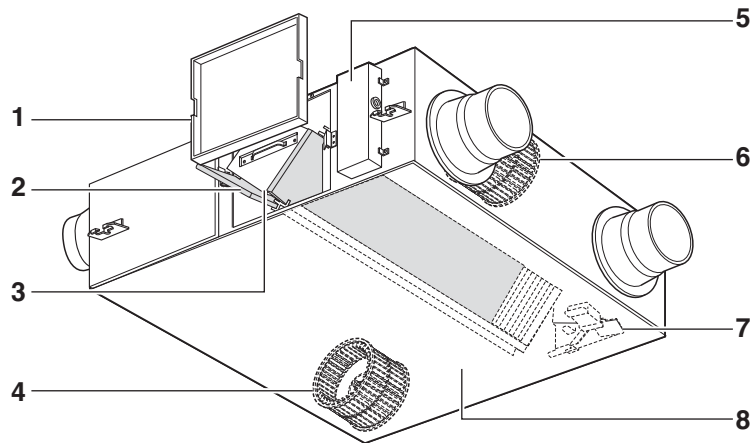
It converts exchanging mode between total heat ventilation and general ventilation.

8. Total Heat Exchanger holder

It is used in guiding for the installation of Total Heat Exchanger.

※ The figure of Total heat Exchanger can be different by the Product Model.

Models: LZ-H080GBA2 / LZ-H100GBA2



1. Maintenance Cover

2. Air Filter

It prevents dust from clogging in Total Heat Exchanger.

3. Total Heat Exchanger

It changes temperature and humidity between Supplying Air and exhausted air.

4. Blower for Exhausting Air

It is a fan for discharging the contaminated air to outdoor.

5. Control box

6. Blower for Exhausting Air

It is a fan for inhaling exterior air into an indoor space.

7. Damper plate(board)

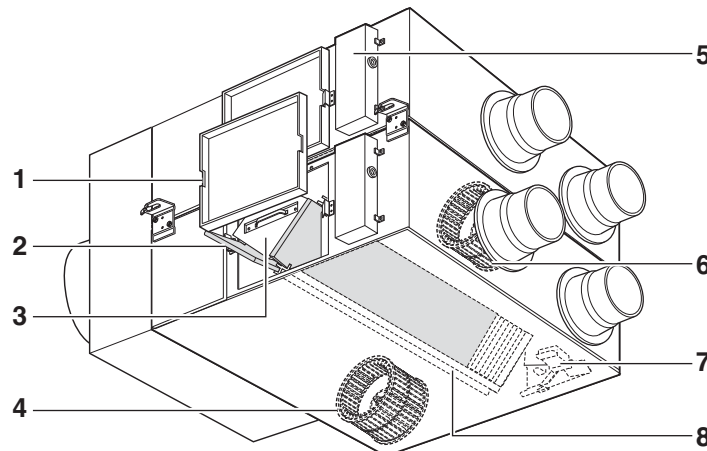
It converts exchanging mode between total heat ventilation and general ventilation.

8. Total Heat Exchanger holder

It is used in guiding for the installation of Total Heat Exchanger.

※ The form of Total Heat Exchanger varies according to models.

Models: LZ-H150GBA2 / LZ-H200GBA2



1. Maintenance Cover

2. Air Filter

It prevents dust from clogging in Total Heat Exchanger.

3. Total Heat Exchanger

It changes temperature and humidity between Supplying Air and exhausted air.

4. Blower for Exhausting Air

It is a fan for discharging the contaminated air to outdoor.

5. Control box

6. Blower for Supplying Air

It is a fan for inhaling exterior air into an indoor space.

7. Damper plate(board)

It converts exchanging mode between total heat ventilation and general ventilation.

8. Total Heat Exchanger holder

It is used in guiding for the installation of Total Heat Exchanger.

※ The form of Total Heat Exchanger varies according to models.

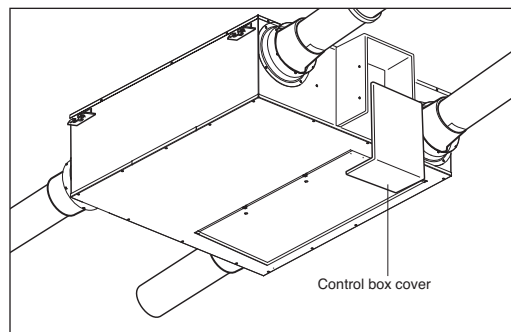
How to disassemble

In case of service, operate through inspecting tool(hole) installed on the surface of ceiling.
For main part disassembly, follow the instructions below.

Models: LZ-H015GBA2 / LZ-H025GBA2 / LZ-H035GBA2

Control Box

- Unscrew the control box cover, and disassemble.

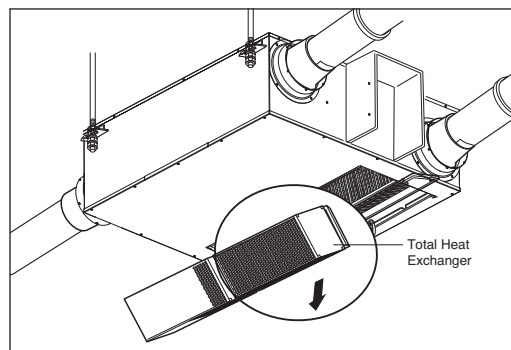
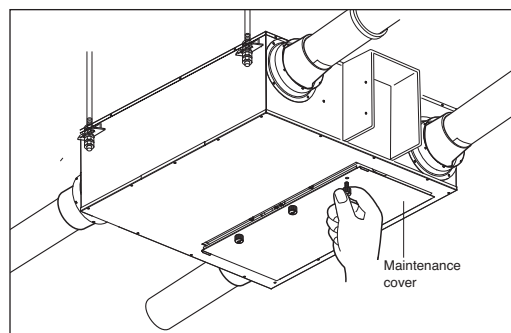


Total Heat Exchanger, Filter

- Take the Maintenance Cover off, and take them out. (in case that the Maintenance Cover is screwed up, unscrew it first.)

⚠ CAUTION

- Be careful of sharp area when taking the Air Filter out.
- Be careful not to drop the Total Heat Exchanger from the main body when detaching.

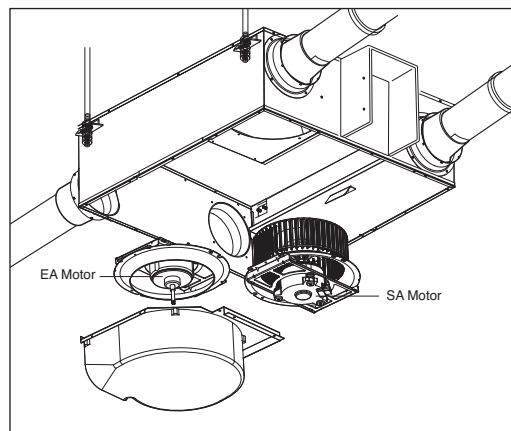


Fan

- Take the fan out after taking the Maintenance Cover off. (in case that the Maintenance Cover is screwed up, unscrew it first.)

⚠ CAUTION

- Be careful of sharp area when taking the fan out.

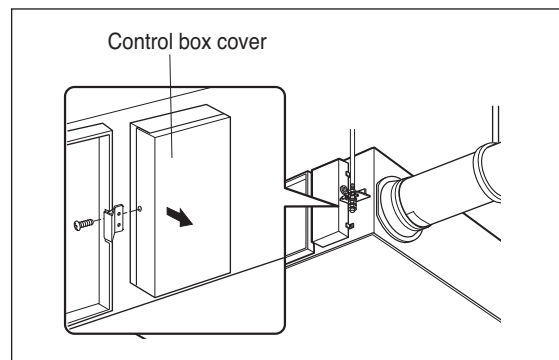


In case of service, operate through inspecting tool(hole) installed on the surface of ceiling.
For main part disassembly, follow the instructions below.

Models: LZ-H050GBA2

Control Box

- Unscrew the control box cover, and disassemble.

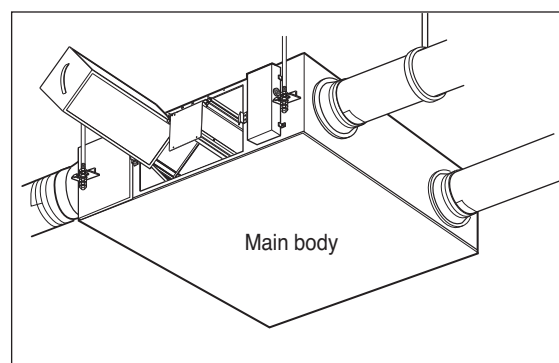
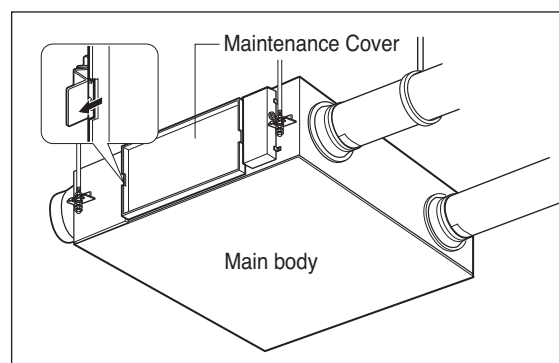


Total Heat Exchanger, Filter

- Take the Maintenance Cover off, and take them out. (in case that the Maintenance Cover is screwed up, unscrew it first.)

⚠ CAUTION

- Be careful of sharp area when taking the Air Filter out.
- Be careful not to drop the Total Heat Exchanger from the main body when detaching.

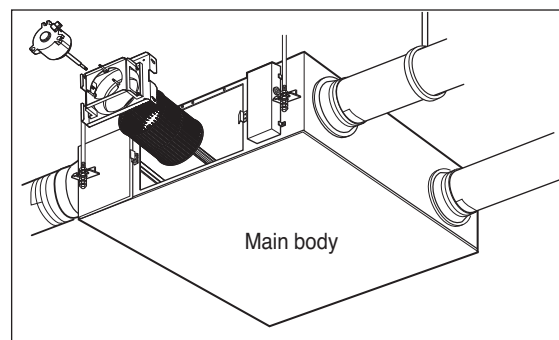


Fan

- Take the fan out after taking the Maintenance Cover off. (in case that the Maintenance Cover is screwed up, unscrew it first.)

⚠ CAUTION

- Be careful of sharp area when taking the fan out.

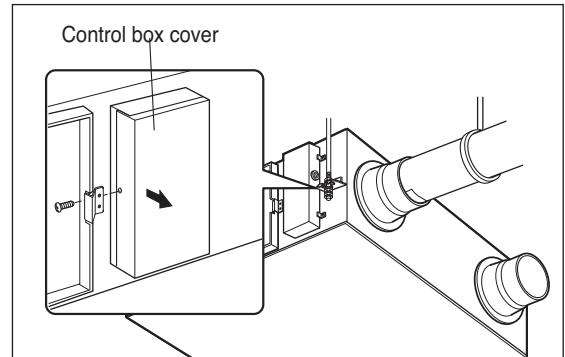


In case of service, operate through inspecting tool(hole) installed on the surface of ceiling.
For main part disassembly, follow the instructions below.

Models: LZ-H080GBA2 / LZ-H100GBA2

Control Box

- Unscrew the control box cover, and disassemble.

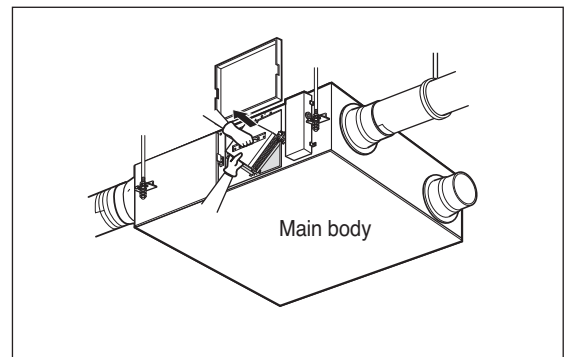
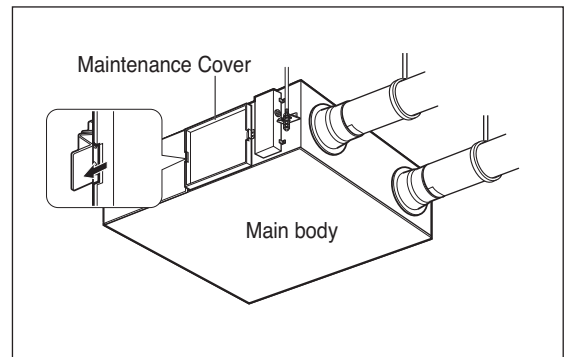


Total Heat Exchanger, Filter

- Take the Maintenance Cover off, and take them out. (in case that the Maintenance Cover is screwed up, unscrew it first.)

⚠ CAUTION

- Be careful of sharp area when taking the Air Filter out.
- Be careful not to drop the Total Heat Exchanger from the main body when detaching.

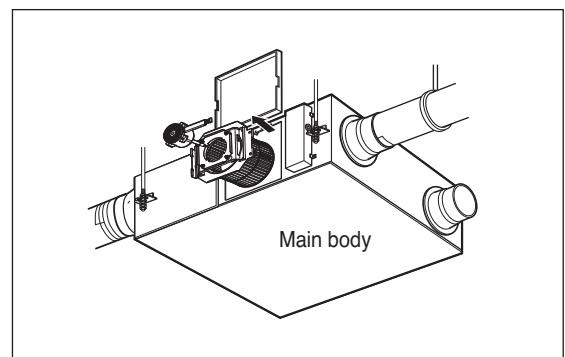


Fan

- Take the fan out after taking the Maintenance Cover off. (in case that the Maintenance Cover is screwed up, unscrew it first.)

⚠ CAUTION

- Be careful of sharp area when taking the fan out.

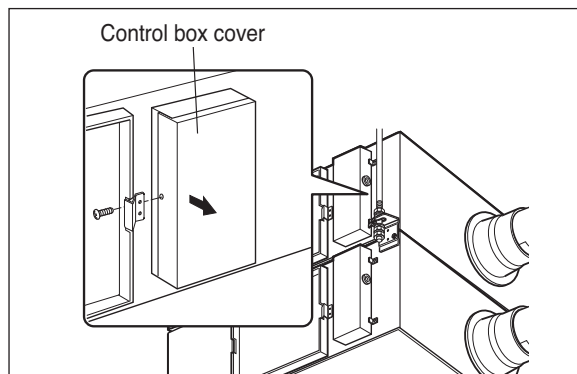


In case of service, operate through inspecting tool(hole) installed on the surface of ceiling.
For main part disassembly, follow the instructions below.

Models: LZ-H150GBA2 / LZ-H200GBA2

Control Box

- Unscrew the control box cover, and disassemble.

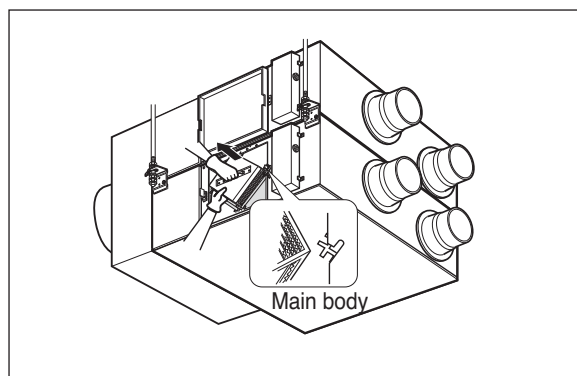
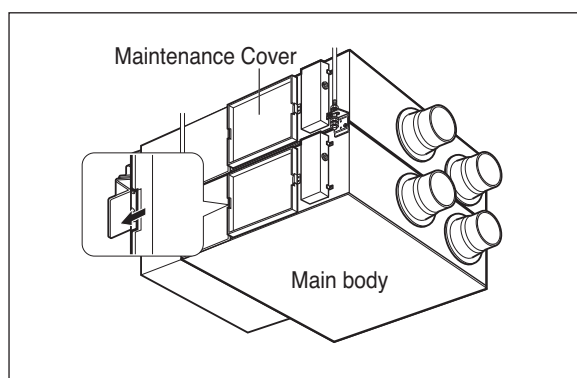


Total Heat Exchanger, Filter

- Take the Maintenance Cover off, and take them out. (in case that the Maintenance Cover is screwed up, unscrew it first.)

⚠ CAUTION

- Be careful of sharp area when taking the Air Filter out.
- Be careful not to drop the Total Heat Exchanger from the main body when detaching.

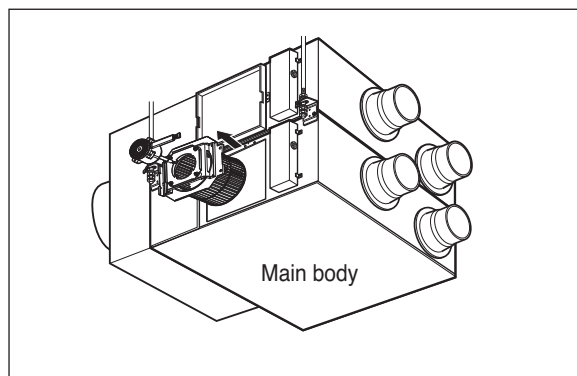


Fan

- Take the fan out after taking the Maintenance Cover off. (in case that the Maintenance Cover is screwed up, unscrew it first.)

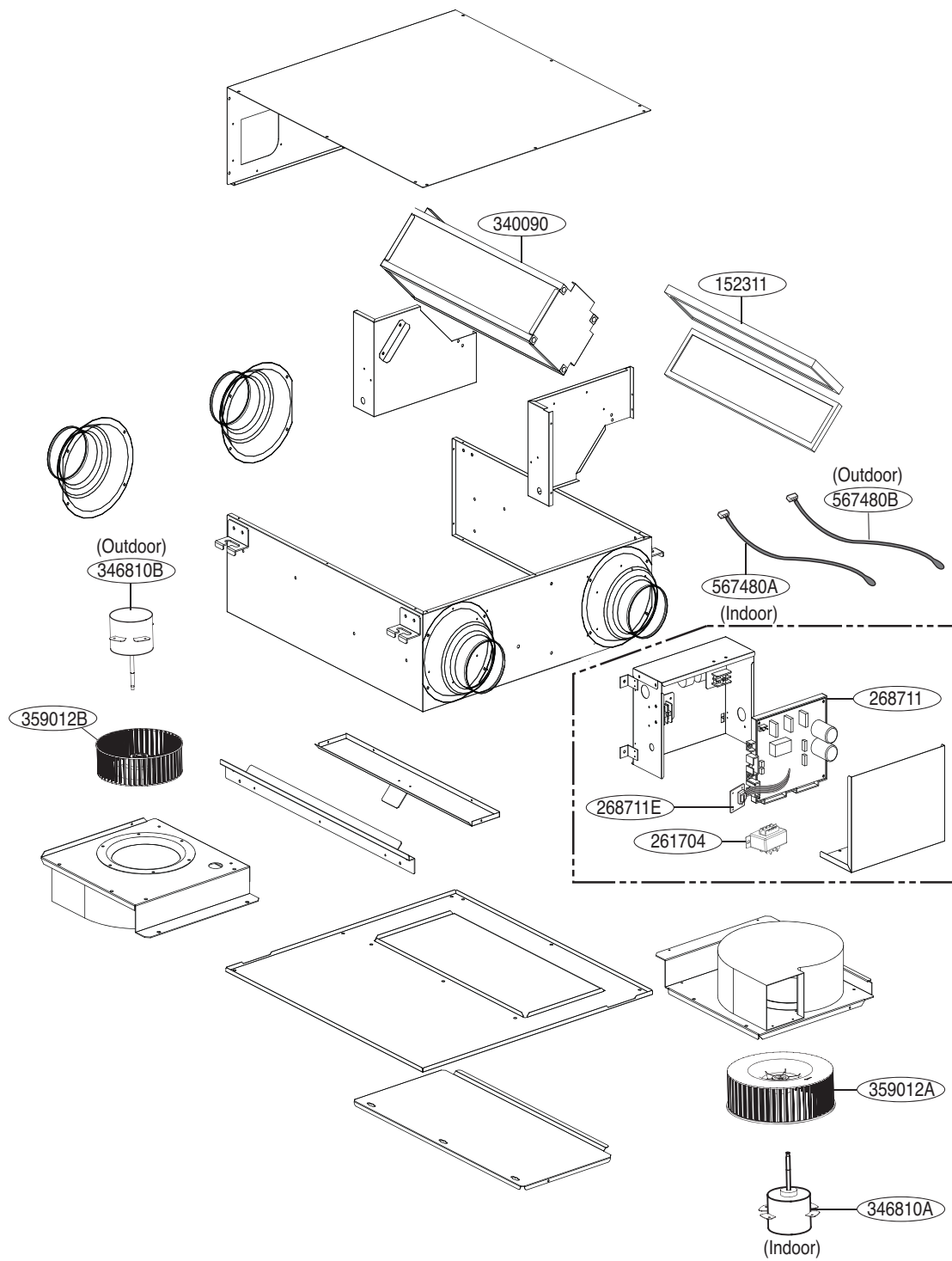
⚠ CAUTION

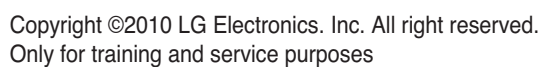
- Be careful of sharp area when taking the fan out.



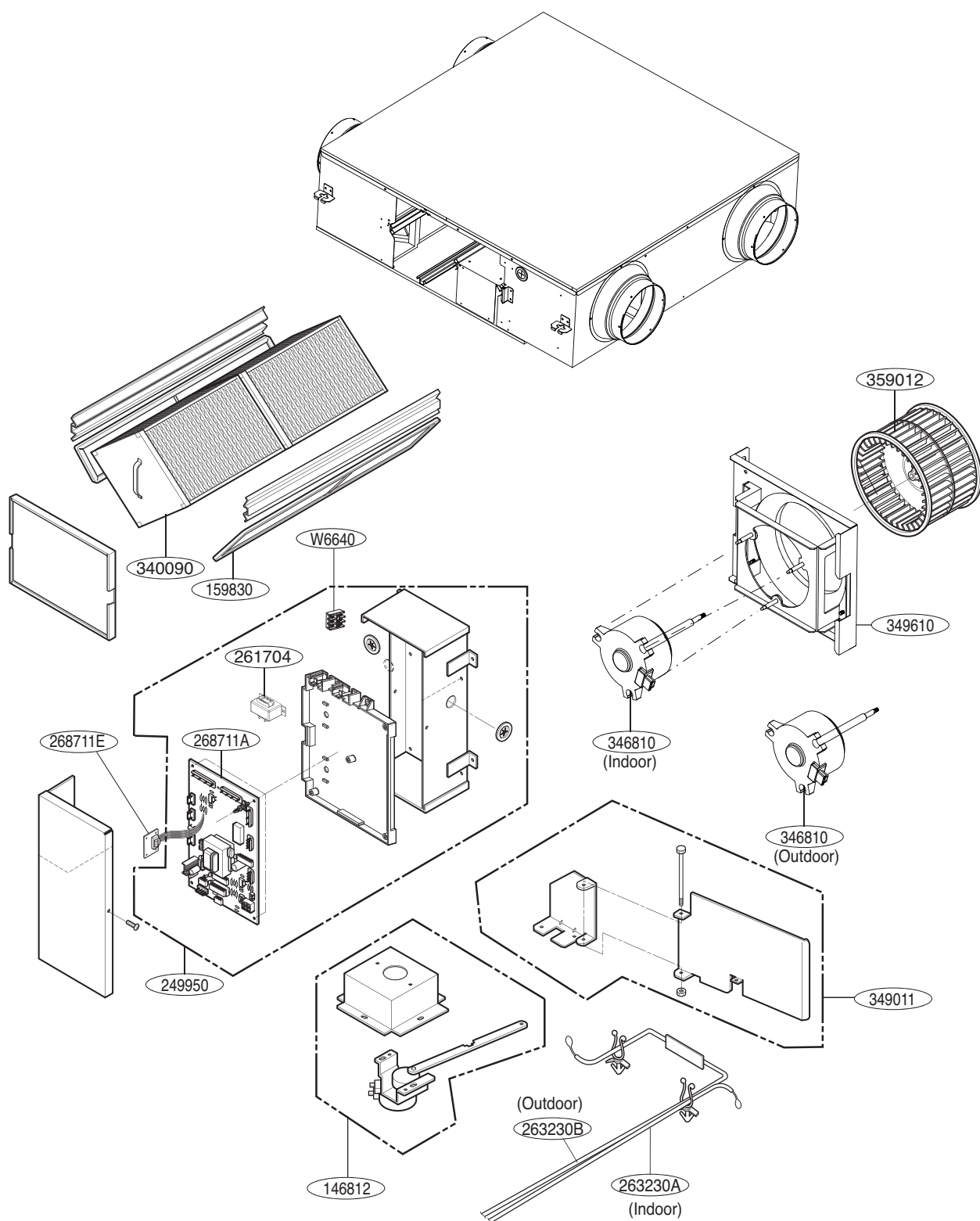
Disassembly Diagram (Deal Drawing)

Models: LZ-H015GBA2

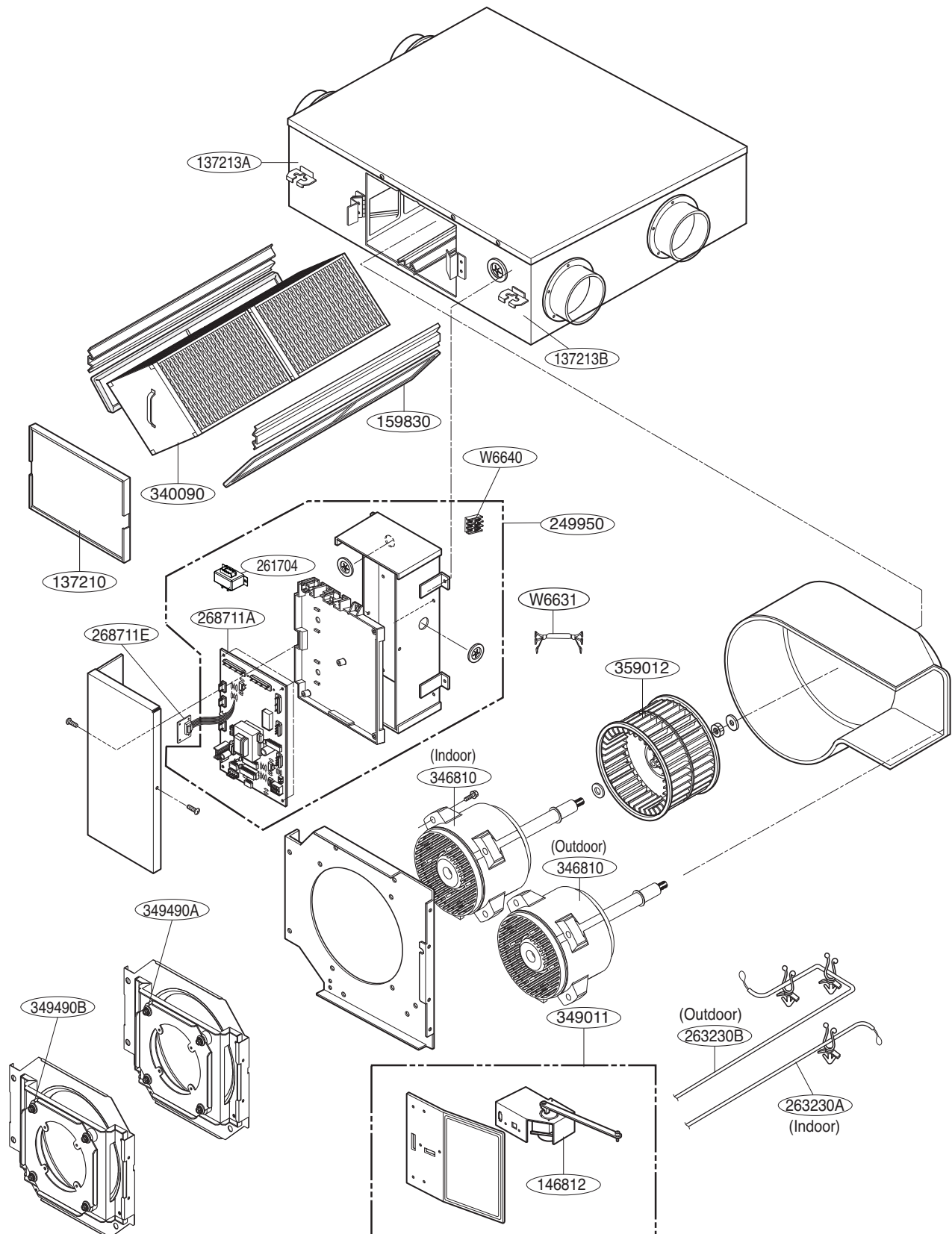


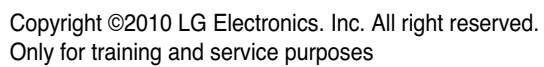


Models: LZ-H050GBA2



Models: LZ-H080GBA2 / LZ-H100GBA2

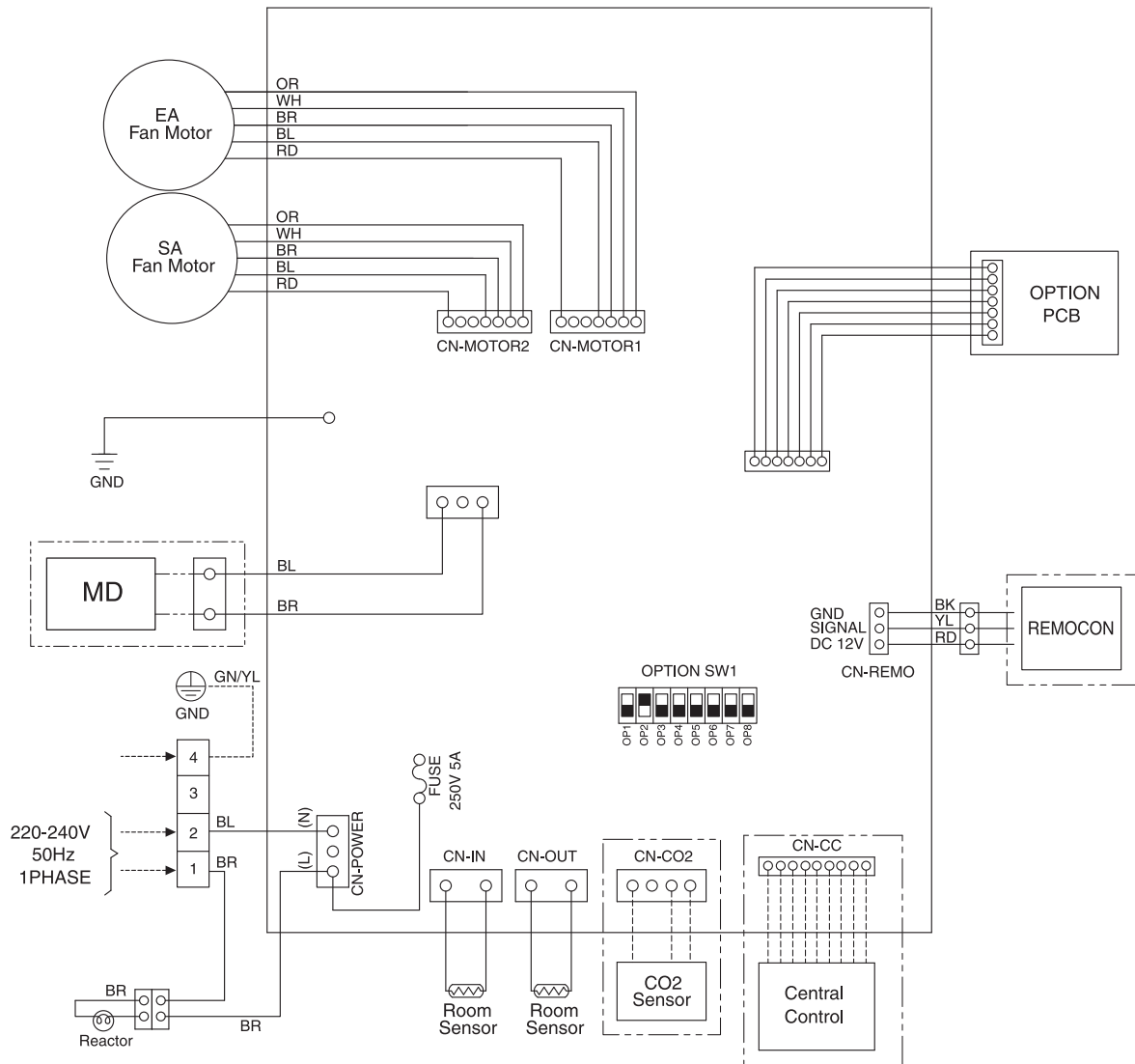




Wiring Diagram

Models: LZ-H015GBA2 / LZ-H025GBA2 / LZ-H035GBA2

- This product has different wiring method by system configuration. Perform the wiring work(electric working) on several necessary parts(areas).



WARNING

- There is risk of electric shock due to failure or electric leakage.
- Always ground the product.
- You can install the product by referring to owner's manual.

INFORMATION

- * You need to buy a dedicated circuit separately.
- * — — — — — Field Wiring
- * [] Accessory

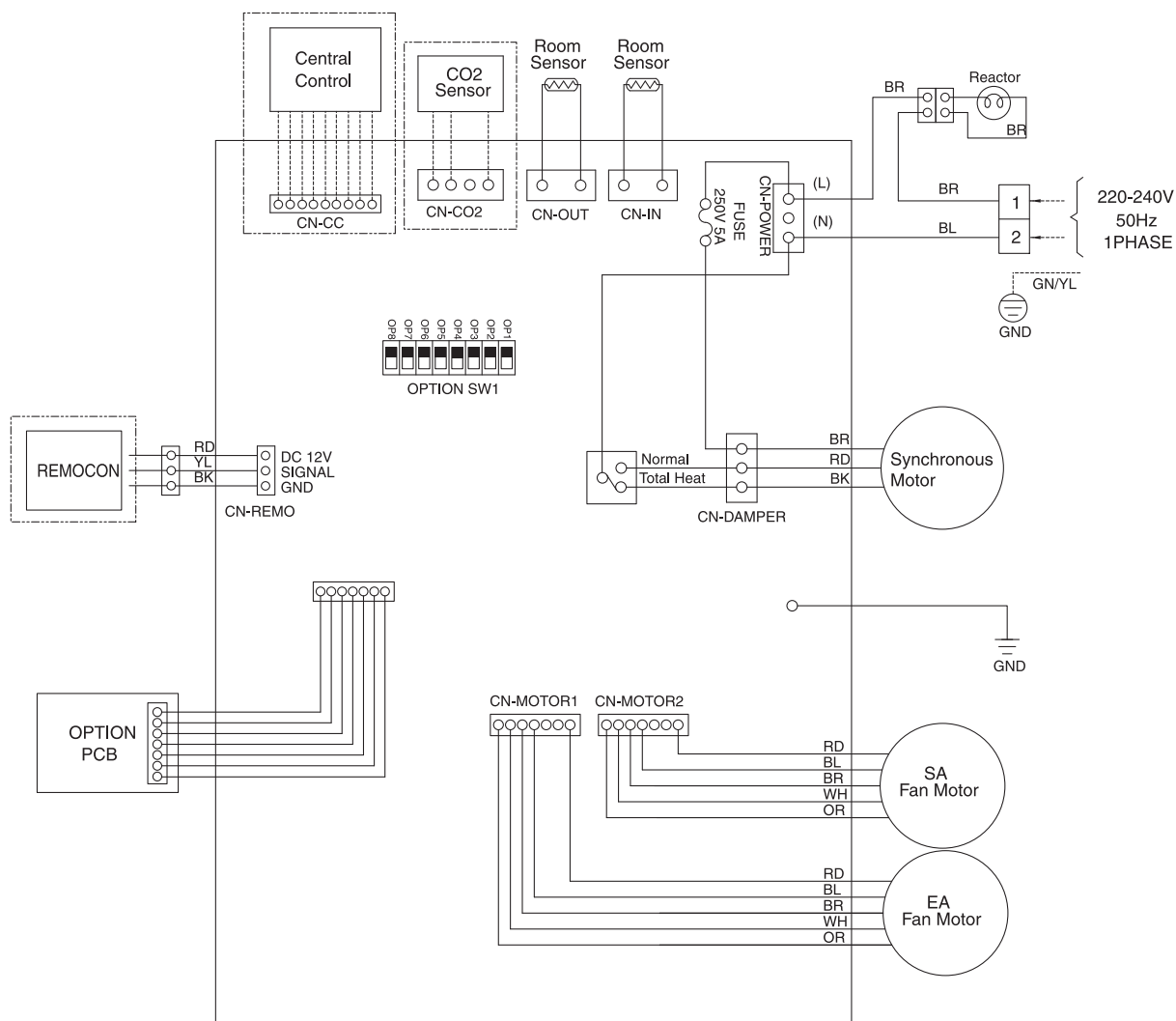
Note

RD : RED
BR : BROWN
BL : BLUE
BK : BLACK
OR : ORANGE
YL : YELLOW
WH : WHITE
GN/YL : GREEN/YELLOW

P/No.: MEZ42256711

Models: LZ-H050GBA2

- This product has different wiring method by system configuration. Perform the wiring work(electric working) on several necessary parts(areas).



WARNING

- There is risk of electric shock due to failure or electric leakage.
- Always ground the product.
- You can install the product by referring to owner's manual.

INFORMATION

- * You need to buy a dedicated circuit separately.
- * — — — — — Field Wiring
- * [] Accessory

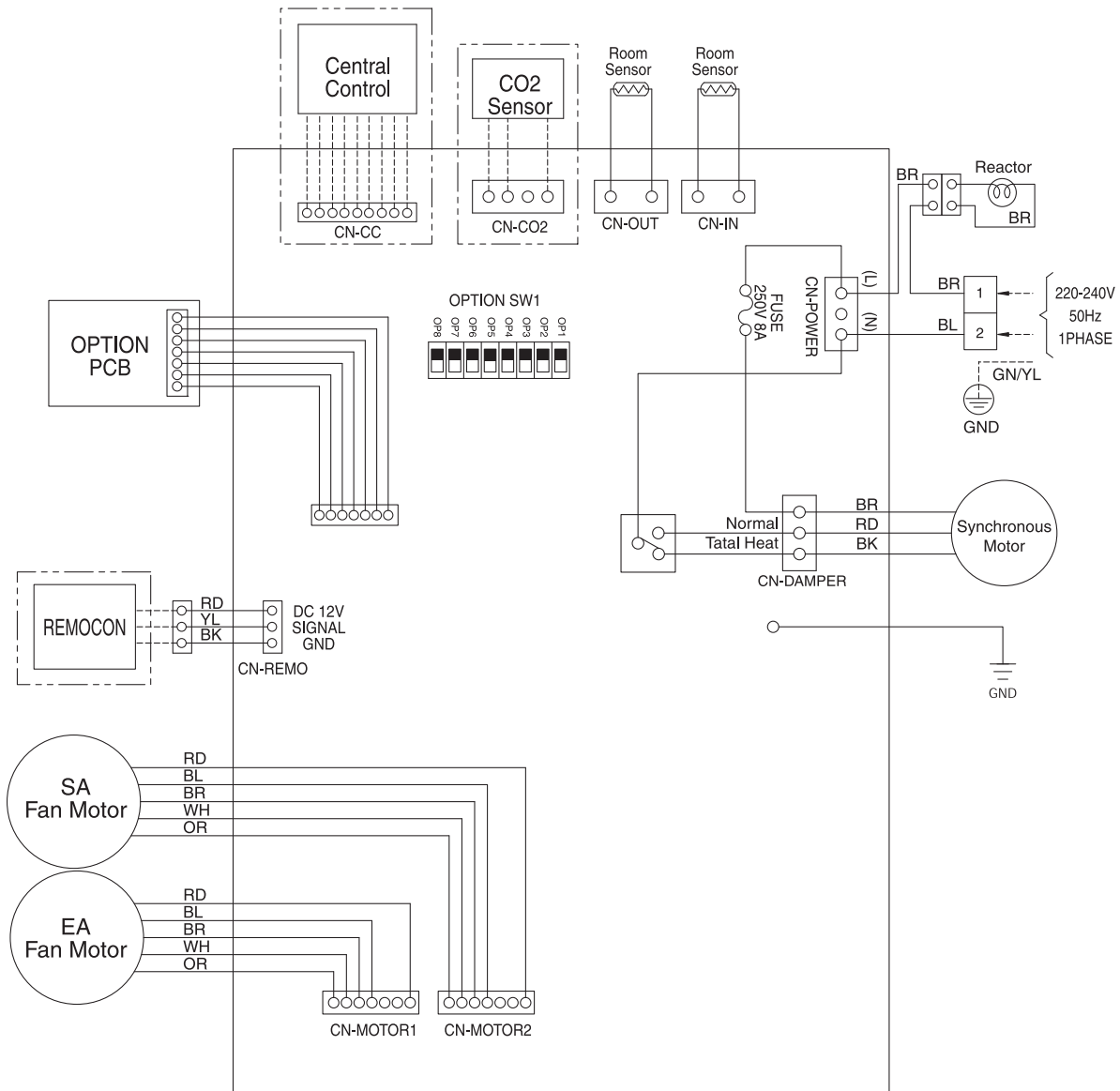
Note

RD : RED
 BR : BROWN
 BL : BLUE
 BK : BLACK
 OR : ORANGE
 YL : YELLOW
 WH : WHITE
 GN/YL : GREEN/YELLOW

P/No : MEZ42256709

Models: LZ-H080GBA2 / LZ-H100GBA2

- This product has different wiring method by system configuration. Perform the wiring work(electric working) on several necessary parts(areas).



WARNING

- There is risk of electric shock due to failure or electric leakage.
- Always ground the product.
- You can install the product by referring to owner's manual.

INFORMATION

- * You need to buy a dedicated circuit separately.
- * — — — — — Field Wiring
- * [— — — — —] Accessory

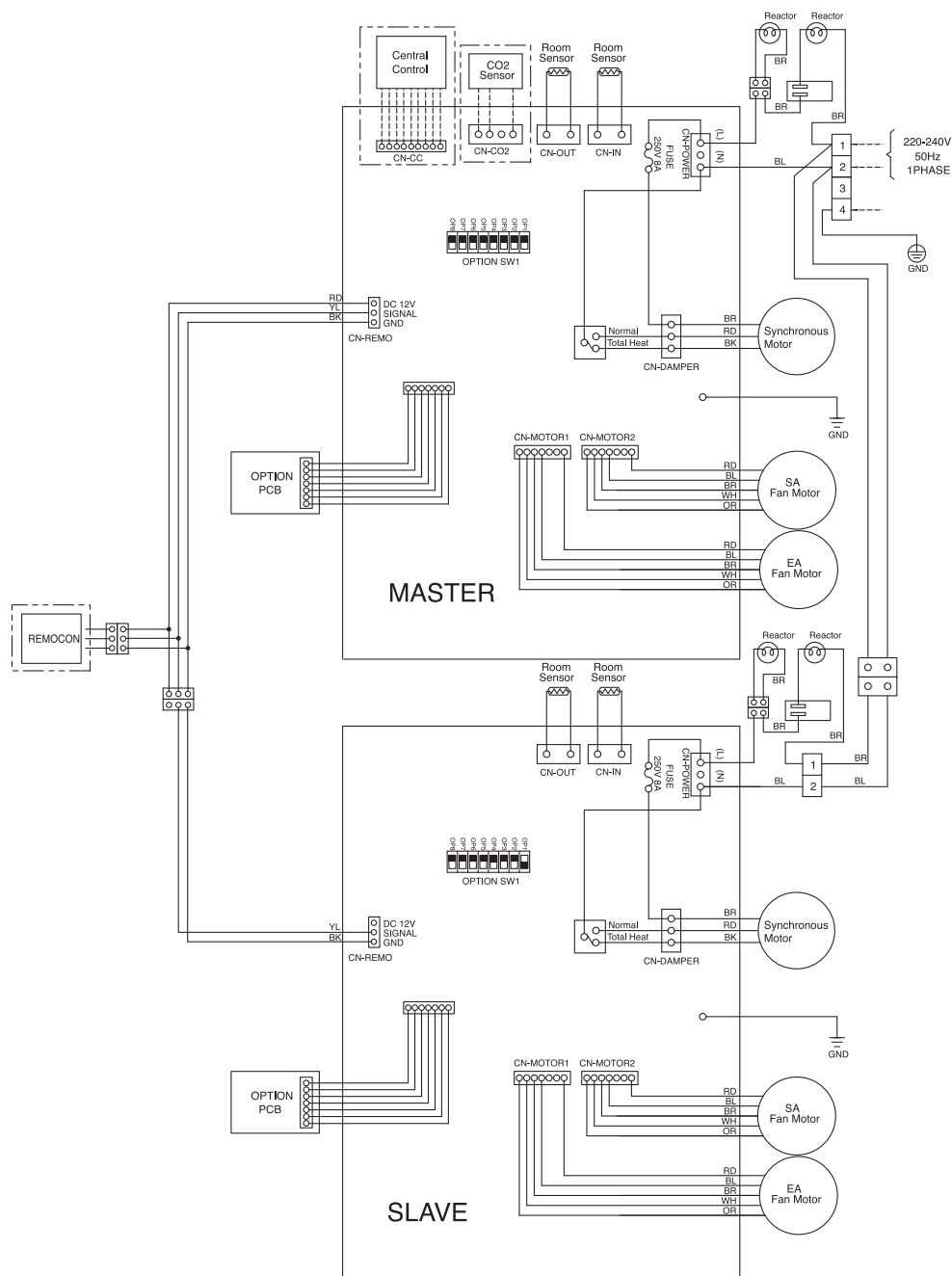
Note

RD : RED
 BR : BROWN
 BL : BLUE
 BK : BLACK
 OR : ORANGE
 YL : YELLOW
 WH : WHITE
 GN/YL : GREEN/YELLOW

P/No : MEZ42256714

Models: LZ-H150GBA2 / LZ-H200GBA2

- This product has different wiring method by system configuration. Perform the wiring work(electric working) on several necessary parts(areas).



WARNING

- There is risk of electric shock due to failure or electric leakage.
- Always ground the product.
- You can install the product by referring to owner's manual.

INFORMATION

- * You need to buy a dedicated circuit separately.
- * — — — — — Field Wiring
- * [] Accessory

Note

RD : RED
BR : BROWN
BL : BLUE
BK : BLACK
OR : ORANGE
YL : YELLOW
WH : WHITE
GN/YL : GREEN/YELLOW

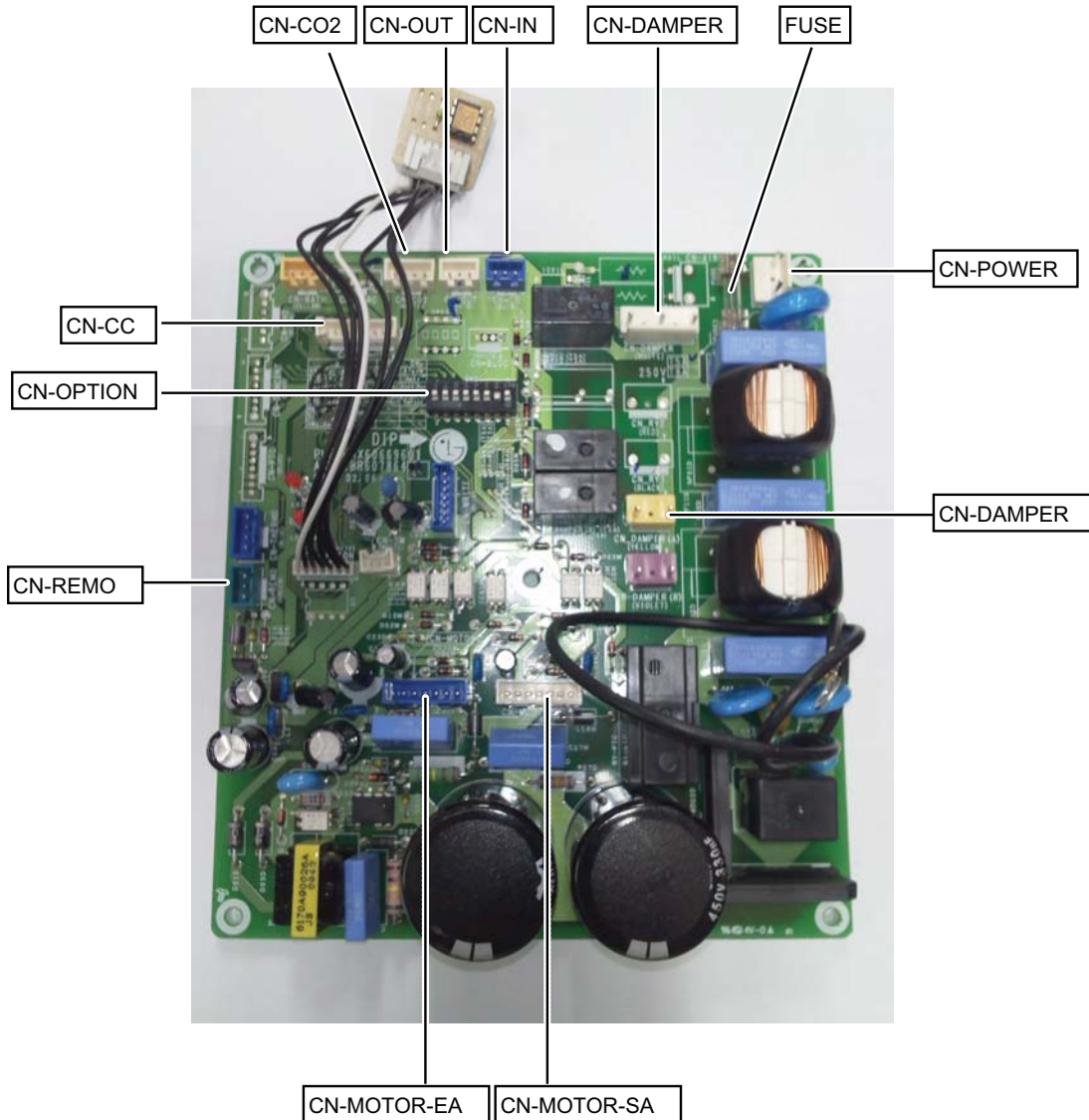
P/No : MEZ42256710

Control Part Detailed Drawing

Models: LZ-H015GBA2 / LZ-H025GBA2 / LZ-H035GBA2 / LZ-H050GBA2

This product has different wiring method by system configuration. Perform the wiring work(electric working) on several necessary parts(areas).

Identification of inside control box



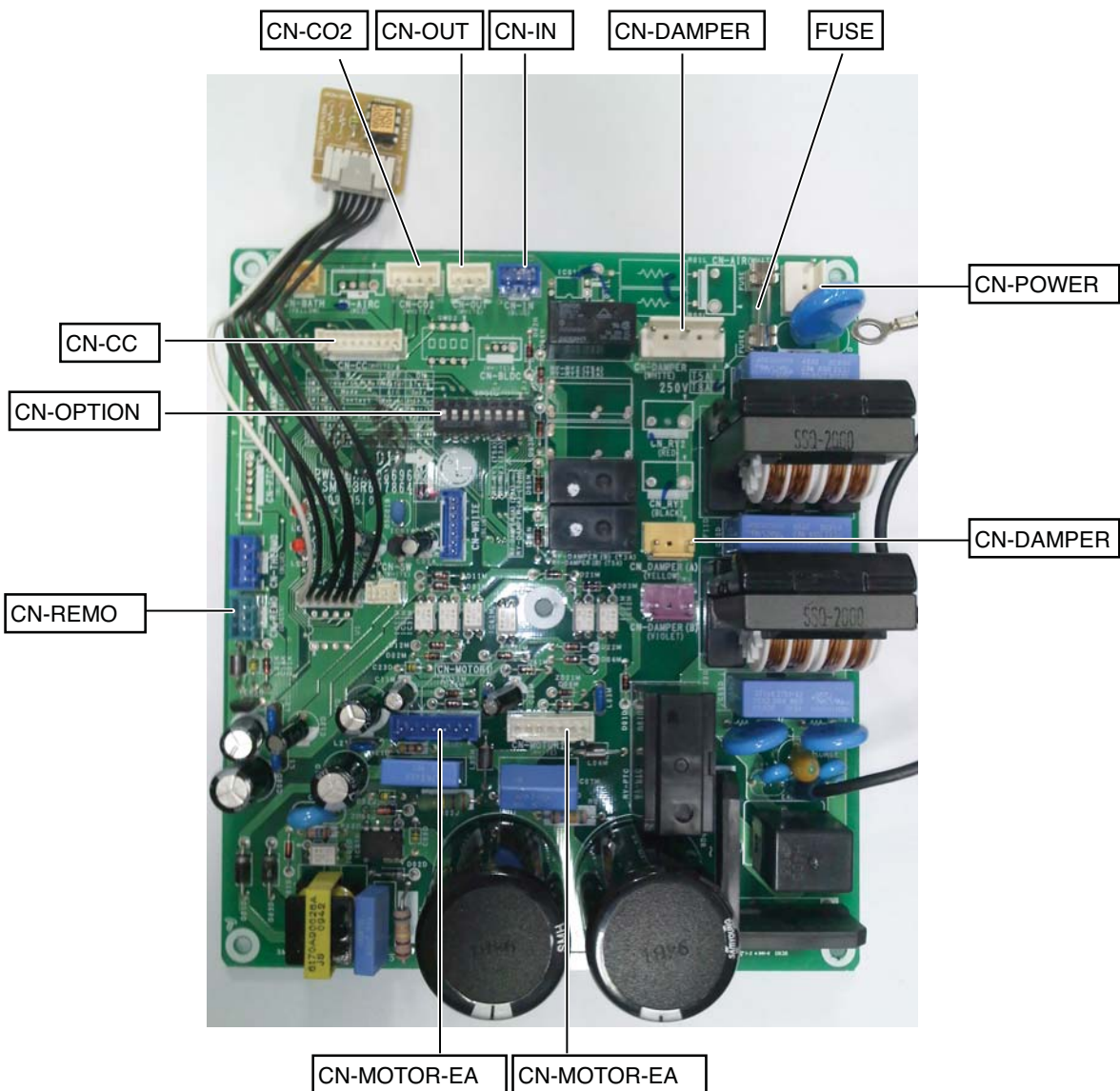
Descriptions of symbols(marking)

Marking	Name	Marking	Name
CN-POWER	Power Code Connector	CN-IN	Thermistor(indoor) connector
FUSE	Fuse	CN-OUT	Thermistor(outdoor) connector
CN-MOTOR-SA	Fan motor connector(Supplying Air	CN-CO2	CO2 Sensor connector
CN-MOTOR-EA	Fan motor connector(Exhausted air)	OPTION SWITCH	Option Switch
CN-DAMPER	Synchronous Motor connector	CN-REMO	Remote controller terminal block
CN-CC	Central controller connector		

Models: LZ-H080GBA2 / LZ-H100GBA2 / LZ-H150GBA2 / LZ-H200GBA2

This product has different wiring method by system configuration. Perform the wiring work(electric working) on several necessary parts(areas).

Identification of inside control box

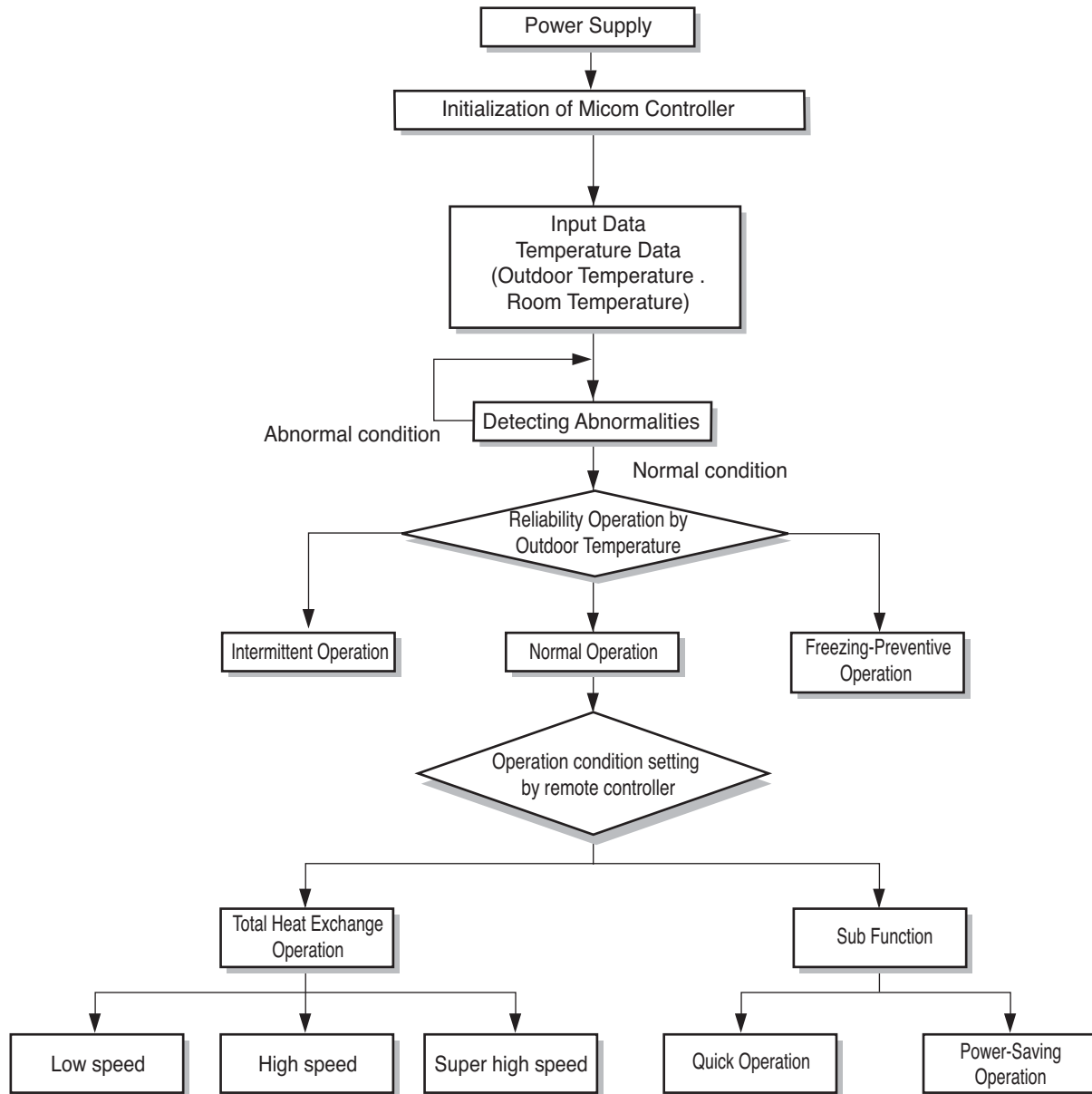


Descriptions of symbols(marking)

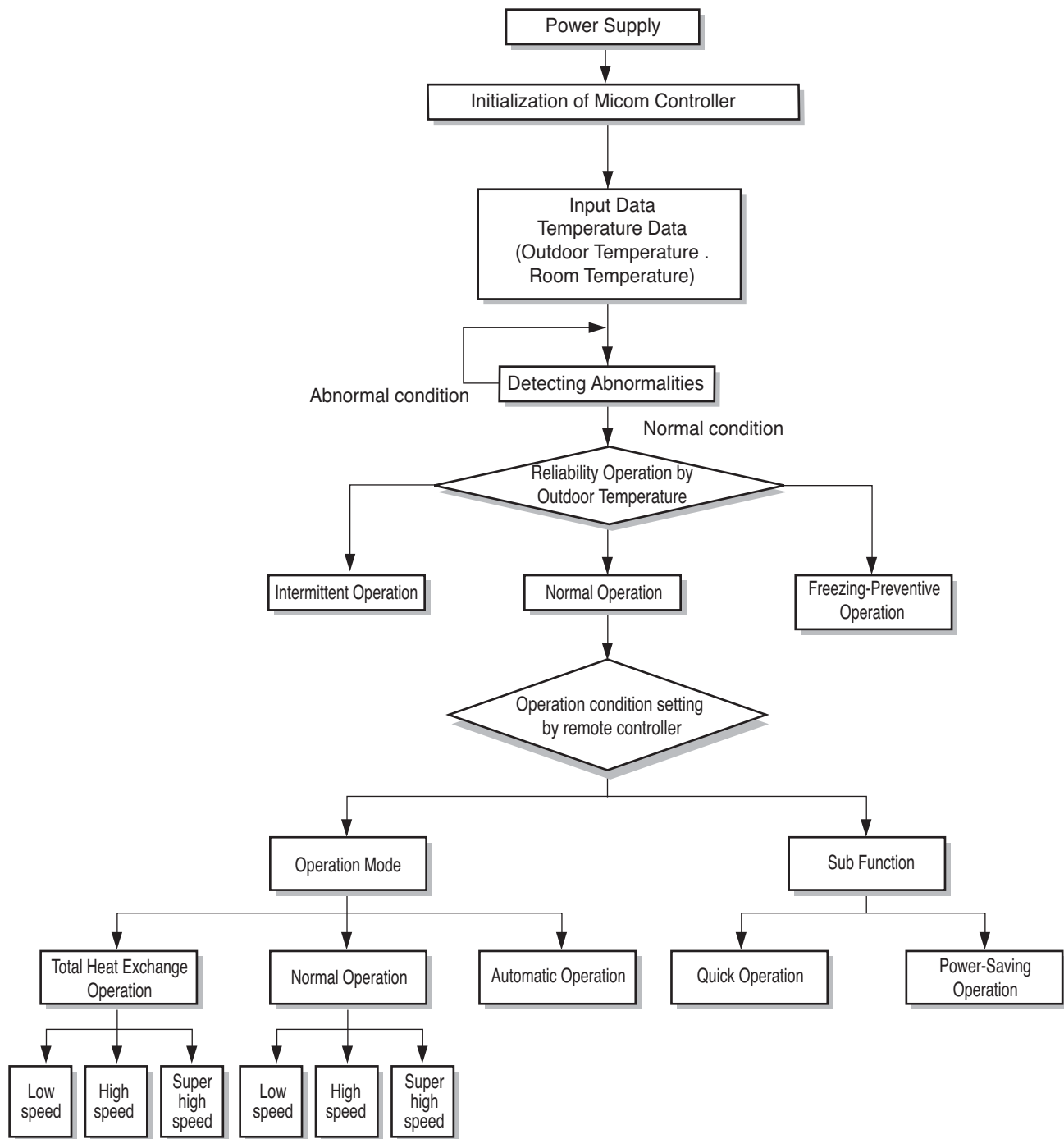
Marking	Name	Marking	Name
CN-POWER	Power Code Connector	CN-IN	Thermistor(indoor) connector
FUSE	Fuse	CN-OUT	Thermistor(outdoor) connector
CN-MOTOR-EA	Fan motor connector(Exhausted air)	CN-CO2	CO2 Sensor connector
CN-MOTOR-SA	Fan motor connector(Supplying Air)	OPTION SWITCH	Option Switch
CN-DAMPER	Synchronous Motor connector	CN-REMO	Remote controller terminal block
CN-CC	Central controller connector		

Descriptions for Control Circuit

Models: LZ-H015GBA2 / LZ-H025GBA2 / LZ-H035GBA2



Models: LZ-H050GBA2 / LZ-H080GBA2 / LZ-H100GBA2 / LZ-H150GBA2 / LZ-H200GBA2



Troubleshooting

Instructions for diagnostics

- When separating main PCB, hold the tip of main PCB to prevent any force into over-all parts.
- When separating main PCB, be careful of the edge of metal plate.
- When pulling or putting a connector on main PCB, do not pull the lead wire, instead pull the entire housing.

For the ventilation system failure

No.	Failure	Possible Causes	Necessary actions
1	Failure in Operation	• Check the power line	• Re-construct the power
		• Check the wiring of PCB remote controller switch	• Wire in accordance with power wiring diagram
		• Check if FUSE is disconnected	• Replace FUSE
2	Failure in Total Heat Exchange	• * Isn't it normal ventilation mode?	• Convert the function into Total heat exchange mode
		• * Is damper working normally?	• Check whether damper is operating while repeating total heat exchange and normal ventilating alternately
		• Check the PCB remote controller switch wiring	• Wire in accordance with power wiring diagram
3	Failure in Operating Remote controller switch	• Check the PCB remote controller switch wiring	• Wire in accordance with power wiring diagram
4	Failure in Supply/Exhaust Fan Operation	• Check the fan motor	• Re-wire for motor Connector separation, and replacing for inferior motor
		• *Defrosting operation	• Check the Thermistor, Check Outdoor Temperature
5	Failure in Defrosting Operation	• Check the Thermistor	• Replace the Thermistor
6	Failure in Air flow Control	• Check if it is AC220V for power of PCB fan motor terminal	• If it is AC220V, the air flow control relay is in bad condition (replace PCB)
7	* Failure in Damper Operation	• Check the connection of connector to PCB	• Re-wire for damper connector separation, and replacing for inferior connector
		• Isn't it in defrosting operation?	Check the Outdoor temperature

* The part marked with * is not applied to LZ-H015GBA2 / LZ-H025GBA2 / LZ-H035GBA2

For the remote controller failure

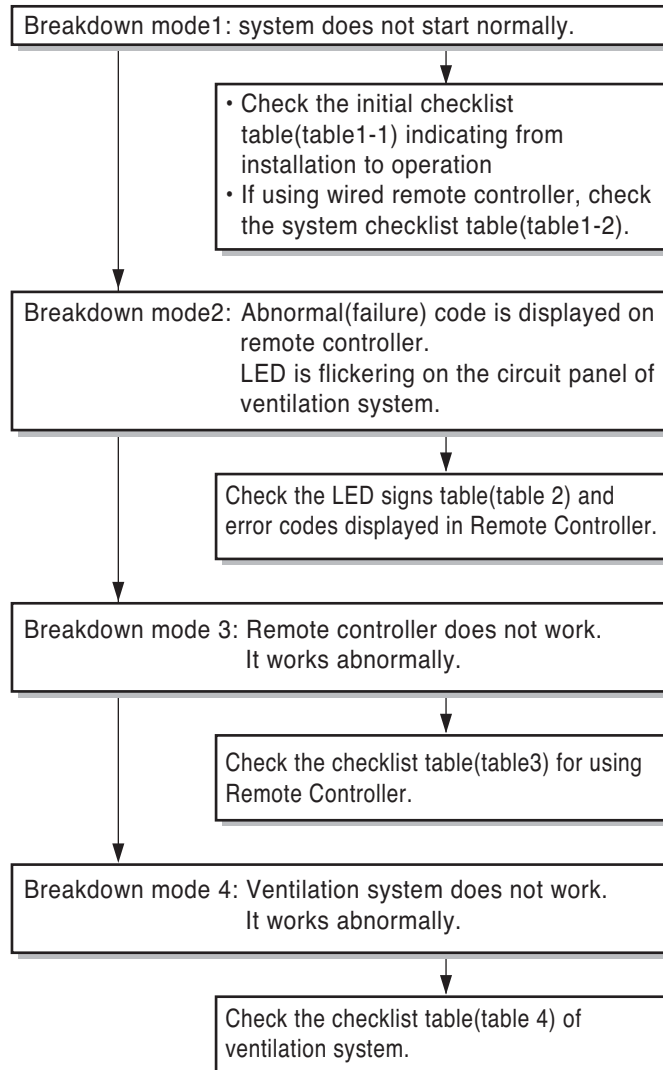
No.	Failure	Possible Causes	Necessary actions
1	No Display on Remote Controller	• No power supply to ventilation system	• Check power of ventilation system
		• Longer wiring length of transmission wire than standards	• Check the length of transmission wire
2	Impossible to Operate Remote Controller	• Longer wiring length of transmission wire than standards	• Check the length of transmission wire
3	No Interlocking with External Equipment	• Delay mode set in remote controller	• Check the delay mode setting of remote controller
		• Longer wiring length of signal wire to external equipment than standards	• Check the wiring length of signal wire
		• No input of external equipment signals	• Check the external equipment
4	Failure in single operation by remote controller for ventilation system, instead interlocking to other air conditioner	• Interlocking to air conditioner set	• Release the interlocking setting
5	Communication error in ventilation system	• Connecting failure of transmission line	• Check the connection of transmission line
6	Communication error in remote controller	• Communication error in remote controller	• Check the connection of transmission line
		• Longer wiring length of transmission line	• Check the wiring length of transmission line
7	Failure in screen displaying	• Power off in ventilation system	• Check the power in ventilation system
		• Incorrect power supplied in ventilation system	• Check the power
		• Connecting failure of transmission line	• Check the connection of transmission line
		• Longer wiring length of transmission line than prescribed	• Check the wiring length of transmission line
		• Omission of LED screen on remote controller	• Replace the remote controller
8	Arbitrarily operated/stop or converted the mark	• Too short distance between transmission line and power line	• Wire the transmission line and power line at more than 5cm interval
9	when power on, the remote controller is indicated and ventilation system operates	• Power off during operation of ventilation system	• Stop the ventilation system using remote controller, and temporarily turn the power off

Instructions for diagnostics

- When replacing main PCB, detach the supporter for fixing the main PCB from PCB.
- When separating main PCB, be careful of the edge of metal plate.
- When pulling or putting a connector on main PCB, do not pull the lead wire, instead pull the entire housing.
- After replacing main PCB, establish the switch setting on main PCB in the same manner as the previous main PCB.

Service Checkup procedure

Checkup items	
1. Breakdown condition	: Remote controller display etc.
2. Breakdown frequency	: The first starting date of operation/ the first date of breakdown
3. Breakdown timing	
4. presence of contract drawing	: Equipment (including separate purchase/control equipment) wiring/piping/setting















Checking Points

Breakdown mode 1 : System does not work normally.

After checking the system, check the following checklist.

Initial checklist table(table1-1) from installation to operation




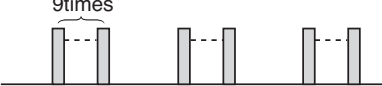
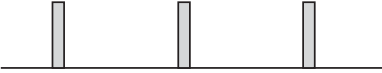
No.	Checklist												
1	Are the switch capacity of main power and wiring diameter in accordance with regulations?												
2	Is the prescribed power supplied to power terminal in ventilation system?												
3	Is the wiring length of transmission line in accordance with regulations? In case of wiring remote controller: total extension of less than 50m												
4	Is the prescribed transmission line used? (type of line, diameter of line)												
5	Are the transmission line and power line wired at more than 50mm interval?												
6	Aren't there any multiple transmission line or signal line in the same wire pipe?												
7	Aren't multiple transmission lines wired as multicable?												
8	Does the connecting terminal plate of transmission have trouble? (for LCD remote controller, CN-REMO for air conditioner interlocking controls, CN-AIR)												
9	Is the transmission line precisely connected to the terminal plate of ventilation system?												
10	Are the power line, transmission line, and signal line precisely connected to the indicated terminal plate?												
11	Is the thermistor precisely connected to the terminal plate?												
12	<div>Is the option switch(SW1/SW2) correctly set?</div> <div>Factory default setting</div> <table><tr><td>Op. SW</td><td></td><td></td><td> </td></tr><tr><td></td><td></td><td>Master</td><td>Slave</td></tr><tr><td>Model</td><td>LZ-H015GBA2 LZ-H025GBA2 LZ-H035GBA2</td><td>LZ-H050GBA2 LZ-H080GBA2 LZ-H100GBA2</td><td>LZ-H150GBA2 LZ-H200GBA2</td></tr></table>	Op. SW			 			Master	Slave	Model	LZ-H015GBA2 LZ-H025GBA2 LZ-H035GBA2	LZ-H050GBA2 LZ-H080GBA2 LZ-H100GBA2	LZ-H150GBA2 LZ-H200GBA2
Op. SW			 										
		Master	Slave										
Model	LZ-H015GBA2 LZ-H025GBA2 LZ-H035GBA2	LZ-H050GBA2 LZ-H080GBA2 LZ-H100GBA2	LZ-H150GBA2 LZ-H200GBA2										

System checklist table(table1-2) for using wired remote controller(LCD TYPE)

No.	Details	Possible Causes	Necessary actions
1	No message displayed on remote controller	• No power supplied to ventilation system, or incorrect power connected to the system	• Check the power in ventilation system
		• Longer total wiring length of transmission line than prescribed	• Check the wiring length of transmission line
		• No connection of remote controller to CN-REMO	• Connect the transmission line to CN-REMO
2	No control with remote controller (display/communicate failure)	• Longer total wiring length of transmission line than prescribed (more than 50m)	• Check the length of transmission line
		• Multiple transmission line wired as multicable.	• Use exclusive wires, and wire the transmission lines at more than 50mm intervals.
3	Odd message displayed on the screen	• Running out of liquid crystal	• Replace the remote controller

**Breakdown mode2: failure code is displayed on remote controller.
LED light is on or flickering on the circuit panel of ventilation system.**

The failure details are indicated by checking number indicated on air conditioner interlocking controller or on wired remote controller(LCD-TYPE) and the number of on-and-off(flickering) in LED(red color) on the circuit plate.

Error code	Details display(operation LED/ main body display)	wired remote controller LCD display(screen)	Loading status
CH1	Indoor thermistor Open/Short (LED 1) 	CH01	Turn operation off
CH2	Outdoor thermistor Open/Short (LED 1) 	CH02	Turn operation off
CH3	Remote controller communication error (LED 1) 	CH03	Turn operation off
CH9	Indoor unit EEPROM error (LED 1) 	CH9	Turn operation off
CH10	Supply and exhaust motor fan do not operation(LED 2) 	CH10	Turn operation off

Error codes and LED display table for using Remote controller (table 2)

Checking No.	Details	Possible Causes	Necessary actions
CH1	Errors related to indoor thermistor	• Connector failure related to thermistor	• Check the connection of circuit connector and lead line connecting connector
CH2	Errors related to outdoor thermistor	• Connector failure related to thermistor	• Check the connection of circuit connector and lead line connecting connector
CH3	Remote controller communication errors	<ul style="list-style-type: none"> • Several transmission lines wired as multicables • Transmission lines in too close vicinity to power line • Connecting failure of transmission line • Longer wiring length of transmission line than prescribed (more than 50m) 	<ul style="list-style-type: none"> • With electric wires, place each transmission line at intervals. • Wire the transmission line and power line at more than 50mm intervals. • Check the connection of transmission line. • Check the wiring length of transmission line.
CH9	Indoor unit EEPROM error	<ul style="list-style-type: none"> • Error developed in transmission between the microprocessor and the EEPROM. • ERROR due to the EEPROM damage. 	<ul style="list-style-type: none"> • Reassembly the indoor unit Option PCB. • Replace the indoor unit PCB (Option PCB)
CH10	Error related to supply and exhaust fan	• Connector failure related to motor	• Check the connection of circuit connector and lead line connecting connector

Breakdown mode 3: Remote controller does not work. It works abnormally.

Checklist table(table3) for using PQRCVSL0 / PQRCVSL0QW / PZRCUSB0

No.	Details	Possible Causes	Necessary actions
1	No message displayed on LC screen	• Different transmission line connection terminal	• Check the connection of transmission line (CN-REMO on the ventilation system panel)
		• No power on ventilation system	• Check the power in ventilation system.
		• Incorrect power on ventilation system	• Check the power
		• Connecting failure of transmission line	
		• Longer wiring length of transmission line than prescribed(more than 50m)	• Check the wiring length of transmission line.
2	Arbitrarily operated/stop, or converted displays	• Several transmission lines wired with muticables.	• With exclusive wires, wire each transmission line at intervals.
		• Transmission line wired in too closely to power line	• Wire transmission line and power line at more than 50mm intervals.
3	Checking number other than the checking number list is displayed	• Omission of liquid crystal letter on remote controller	• Replace remote controller
4	Impossible to stop ventilation system with remote controller (interlocking operation)	• Under interlocking operation in air conditioner	• No error • Activate the ventilation stop in air conditioner to stop ventilating.
5	Main power is displayed on remote controller and then ventilation system operates	• Disconnected main power during ventilation system operation	• Stop the ventilation system with remote controller, and temporarily disconnect the main power
6	Impossible to operate or stop ventilation system with remote controller(central controlling sign is displayed)	• LOCK is set in the upper controller • Interlocking ON/OFF preferable to external is set	• Check the upper controller setting
7	Impossible to operate or stop ventilation system with remote controller (multi remote controller displayed)	• Under operation in LCD remote controller	• No error • Activate the ventilation stop in LCD remote controller to stop ventilating.

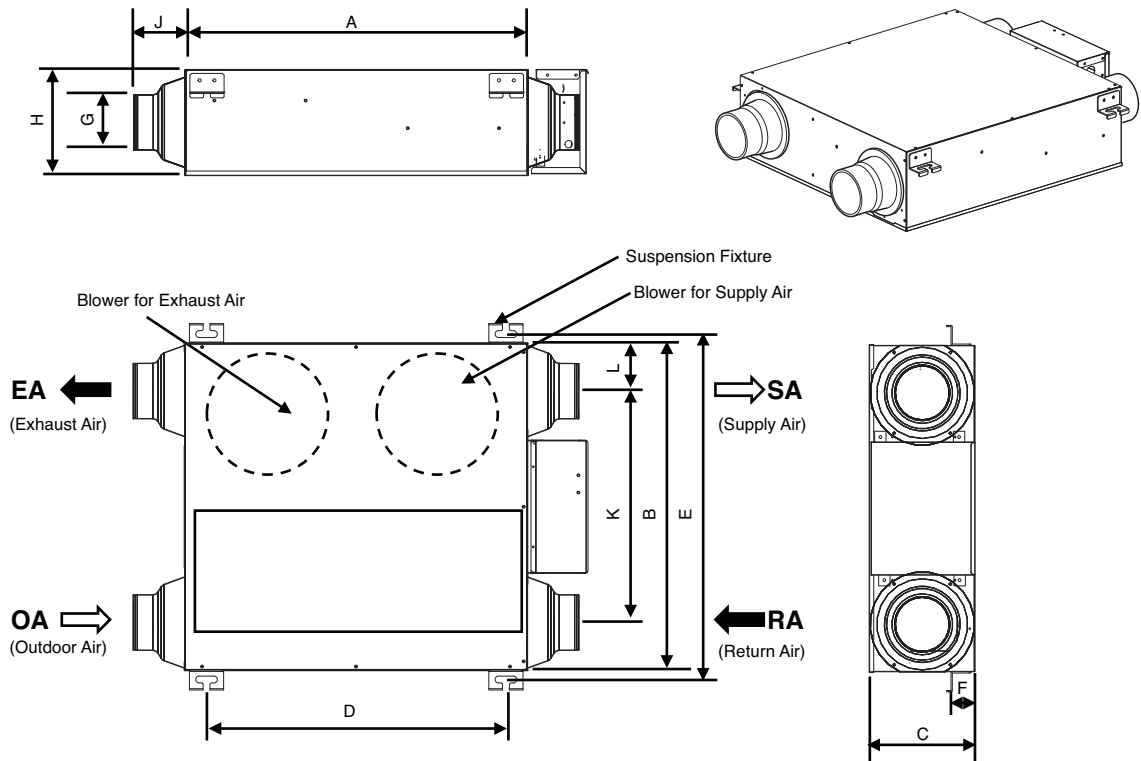
(304) Breakdown mode 4: Ventilation system does not work. It works abnormally.

Checklist table(table 4) of ventilation system.

No.	Details	Possible Causes	Necessary actions
1	Fan does not operate. failure in fan operation	• Connecting failure in control circuit connector or fan related connector	• Check the connection of control circuit connector and lead line connecting connector
		• No power on ventilation system, or incorrect power	• Check the power
		• Central control is set in ventilation system	• Check LOCK of central control and address of ventilation system
2	No interlocking to external equipment (air conditioner)	• Incorrect terminal plate for connecting to external signals	• Check the connection of external control terminal(CN-AIR)
		• No input of external equipment signals	• Check the external equipment
3	Ventilation system operated by main power	• Power failure	• If main power is disconnected by remote controlling during ventilation system operation, ventilation system operates. (normal condition with no errors)
4	Frequent stop of air changing fan	• When the option switch No.5 is set ON and air temperature is below -10°C or above 45°C	• Normal condition with no errors
		• When air temperature ranges below -10°C, supply fan stops to prevent the heat exchanger from freezing.	
		• When ducted with Multi V air conditioner(made by this company) by interlocking, the air conditioner stops in case of defrosting.	• Normal condition with no errors
5	Frequent stop of air changing and ventilating fans	• Displayed power saving operation • Displayed intermittent operation (40~45°C)	• Normal condition with no errors

Feature Dimensions Diagram

• LZ-H015GBA2

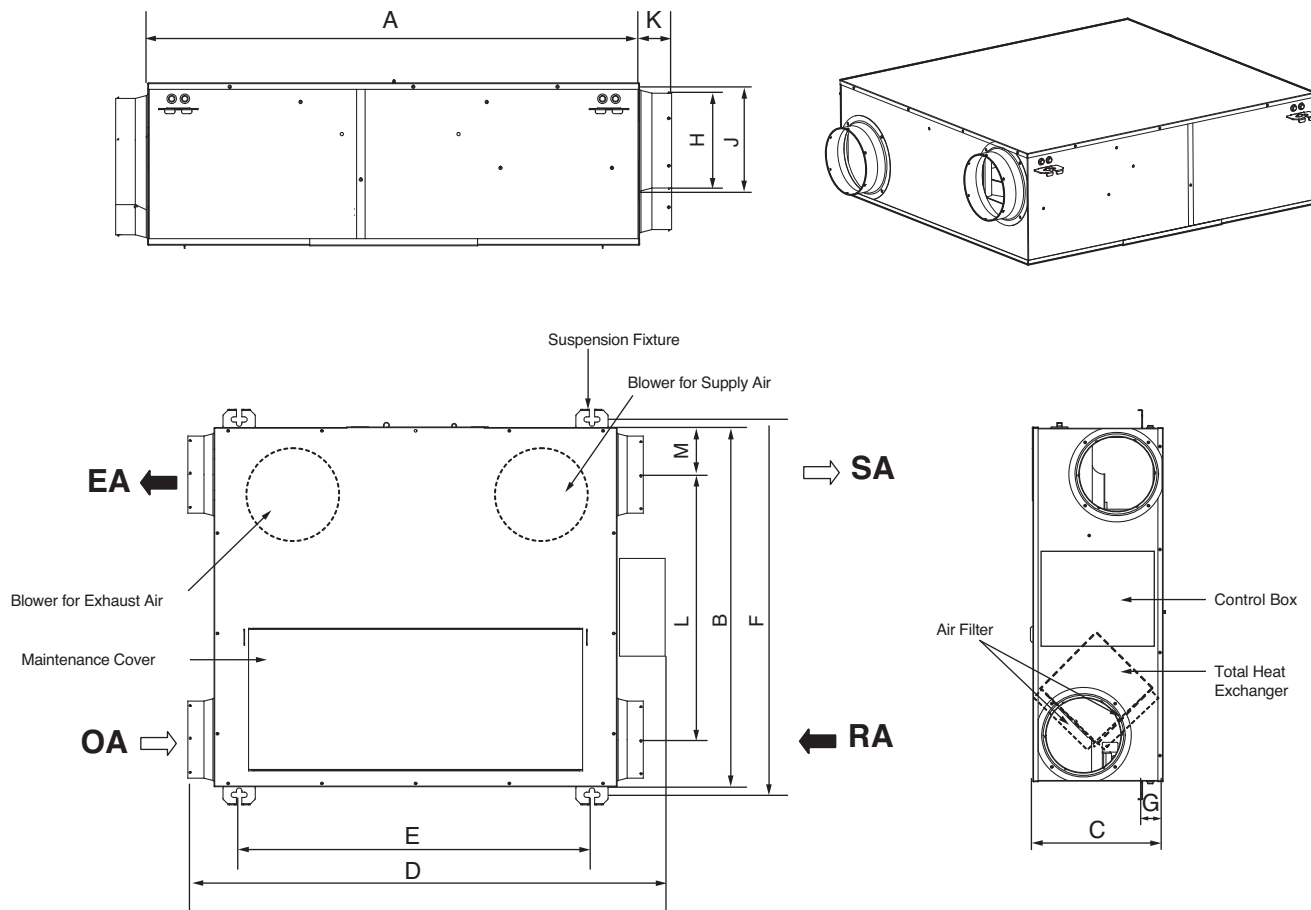


Unit: mm

Model	Figure			Pitch of Suspension Fixture			Nominal Diameter	Duct Connection Flange			Duct Pitch		Weight (kg)
	A	B	C	D	E	F		G	H	J	K	L	
LZ-H015GBA2	605	570	185	525	603	40	100	97	184	90	394	100	22

※ It necessary to secure sufficient space for maintenance more than the dimensions described in the product service.

• LZ-H025GBA2/ LZ-H035GBA2

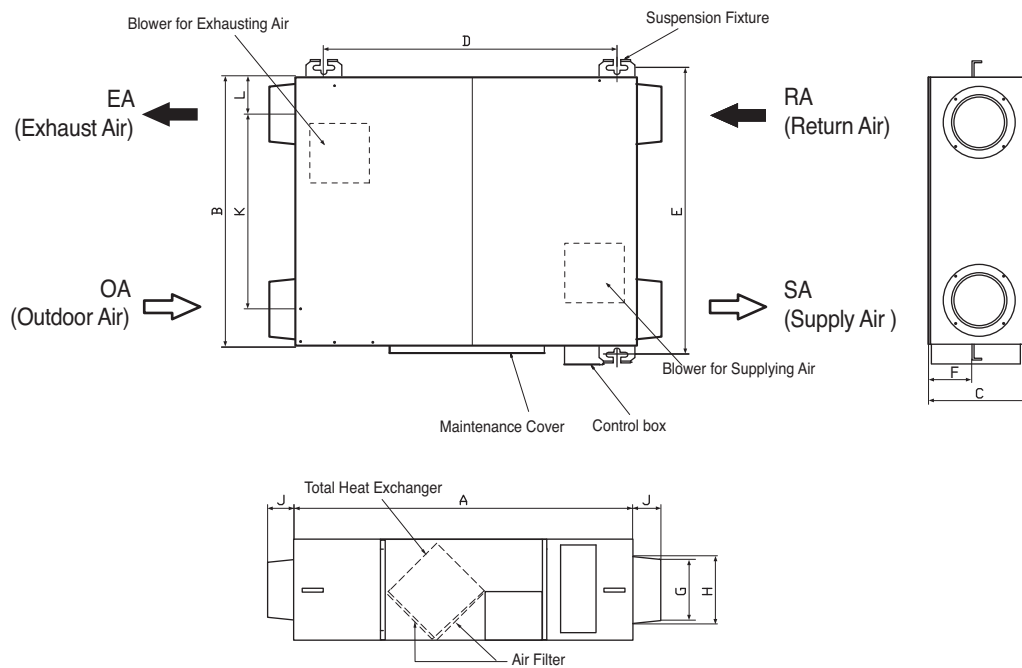


Unit: mm

Model	Figure				Pitch of Suspension Fixture			Nominal Diameter	Duct Connection Flange			Duct Pitch		Weight (kg)
	A	B	C	D	E	F	G		H	J	K	L	M	
LZ-H025GBA2	750	680	250	850	657	711	40	150	146	155	50	502	89.2	32
LZ-H035GBA2														

※ It necessary to secure sufficient space for maintenance more than the dimensions described in the product service.

• LZ-H050GBA2

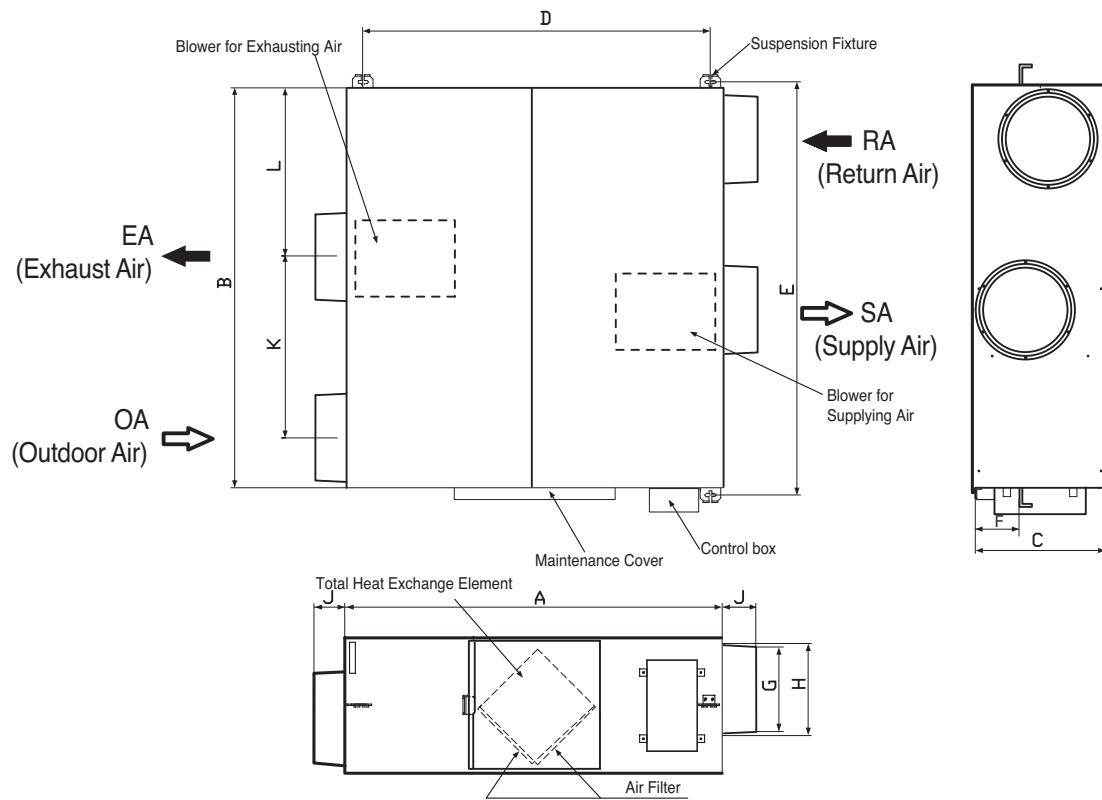


Unit: mm

Model	Figure			Pitch of Suspension Fixture			Nominal Diameter	Duct Connection Flange			Duct Pitch		Weight (kg)
	A	B	C	D	E	F		G	H	J	K	L	
LZ-H050GBA2	1014	988	273	939	1025	135	200	194	252	96	590	198	44

※ It necessary to secure sufficient space for maintenance more than the dimensions described in the product service.

• LZ-H080GBA2 / LZ-H100GBA2

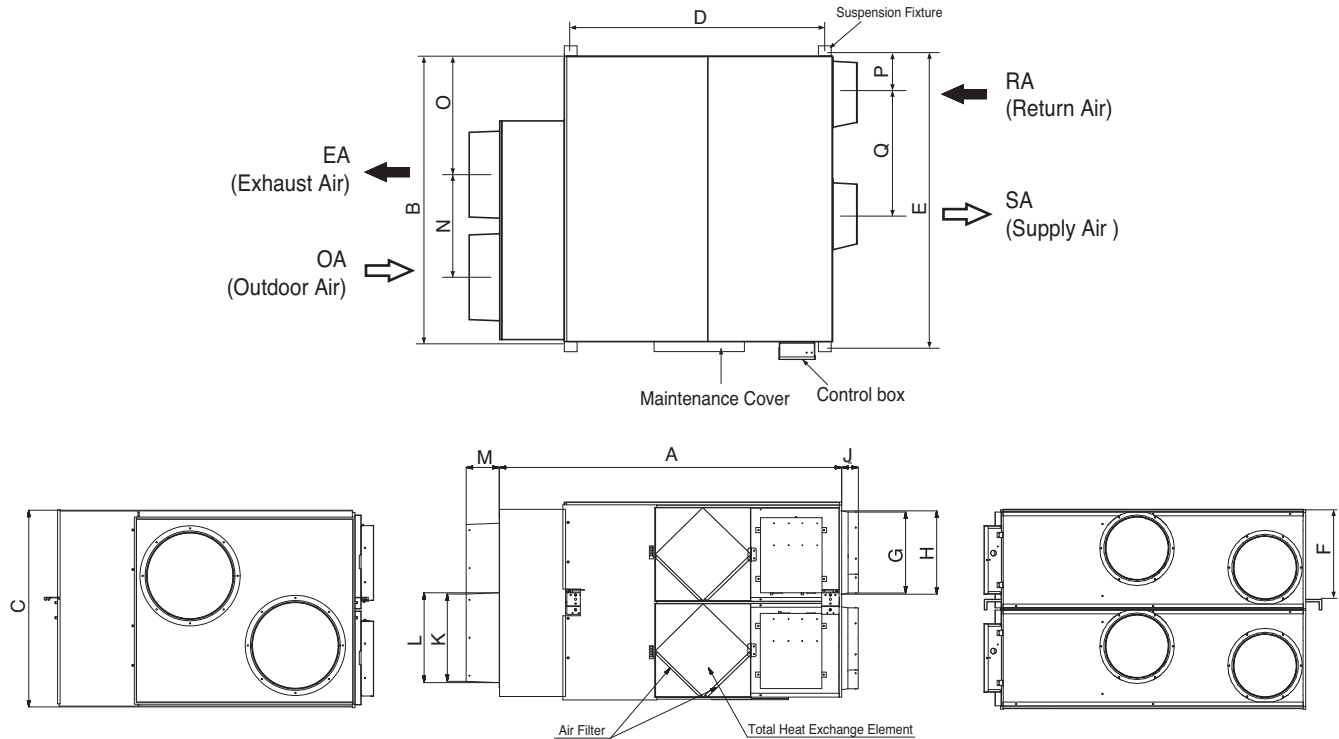


Unit: mm

Model	Figure			Pitch of Suspension Fixture			Nominal Diameter	Duct Connection Flange			Duct Pitch		Weight (kg)
	A	B	C	D	E	F		G	H	J	K	L	
LZ-H080GBA2	1062	1140	365	987	1176	180	250	242	253	98	513	481	60
LZ-H100GBA2													

※ It necessary to secure sufficient space for maintenance more than the dimensions described in the product service.

• LZ-H150GBA2 / LZ-H200GBA2



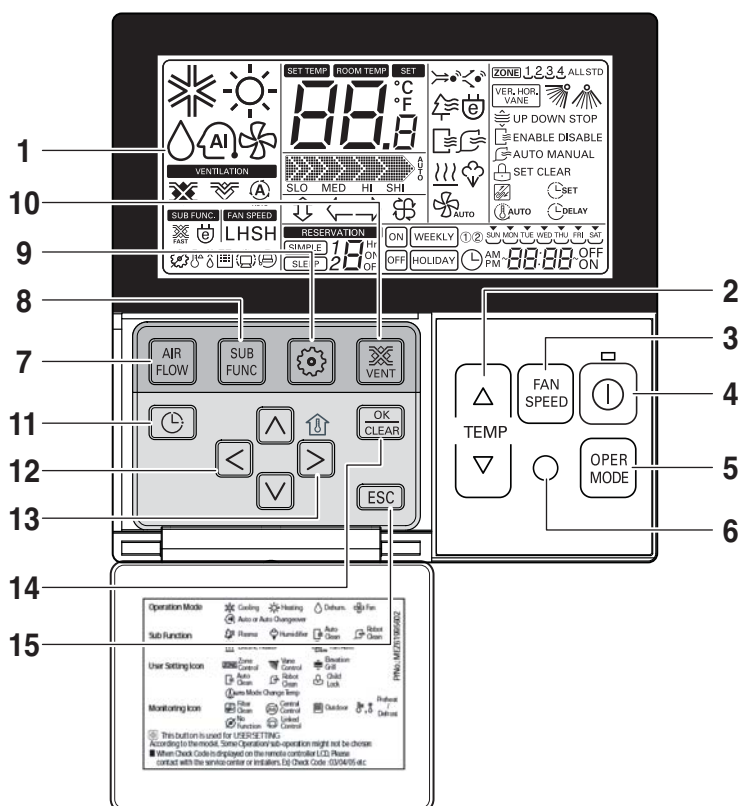
Unit: mm


Model	Figure			Pitch of Suspension Fixture			Duct Connection Flange						Nominal Diameter		Duct Pitch				Weight (kg)
	A	B	C	D	E	F	G	H	J	K	L	M	EA	SA	N	O	P	Q	
LZ-H150GBA2 LZ-H200GBA2	1313	1140	738	987	1176	339	242	253	98	340	350	130	350	250	410	482	146	512	140

Accessory

LCD Remote Controller (PQRCVSL0 / PQRCVSL0QW)

LCD remote controller is a separate purchase.

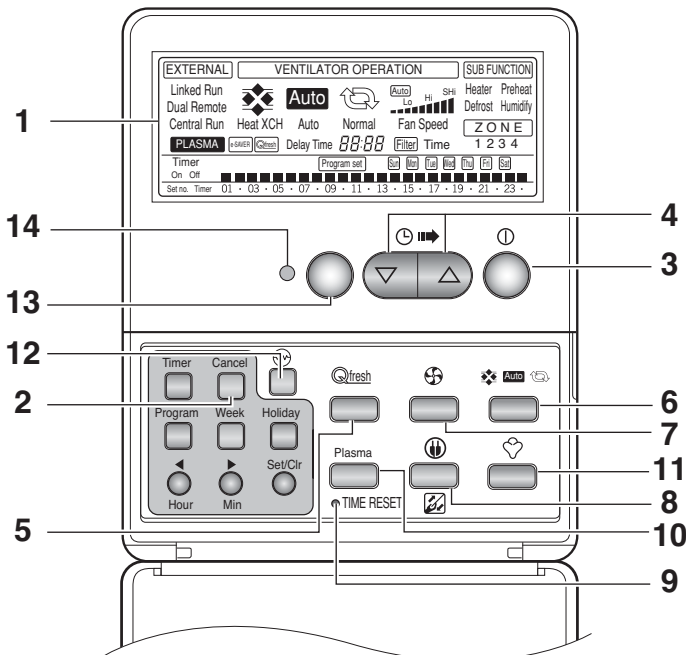


1. OPERATION INDICATION SCREEN
2. SET TEMPERATURE BUTTON
3. FAN SPEED BUTTON
4. ON/OFF BUTTON
5. OPERATION MODE SELECTION BUTTON
6. WIRELESS REMOTE CONTROLLER RECEIVER
 - Some products don't receive the wireless signals.
7. AIR FLOW BUTTON
8. SUBFUNCTION BUTTON
9. FUNCTION SETTING BUTTON
10. VENTILATION BUTTON
11. RESERVATION
12. UP,DOWN,LEFT,RIGHT BUTTON
 - To check the indoor temperature, press  button.
13. ROOM TEMPERATURE BUTTON
14. SETTING/CANCEL BUTTON
15. EXIT BUTTON

* Some functions may not be operated and displayed depending on the product type.

Ventilation System LCD Remote Controller (PZRCUSB0)

Ventilation system LCD remote controller is a separate purchase.



* Functions depend on model type

1. Display Window
2. Execute/Cancel of Time Reservation, Weekly Reservation/Week Day Select/Holiday Select Button
3. On/Off Button
4. Time Delay Button
5. Rapid Ventilation Button
6. Ventilation Mode Button
7. Air volume Select Button
8. Power Saving/Filter Cleaning Button
9. Time Reset Button
10. Plasma Button
11. Humidification Button
12. Heater Button
13. Wireless Data Receiver
14. Operation Lamp

※ Operation LED will Turn ON 'Green color' during the operation of indoor unit. If any error occurs, the LED will turn red.

※ Some functions may not be operated and displayed depending on the product type.



P/No.: MFL63279702

FEBRUARY, 2010