

Job Name/Location:

Tag #:

Date:

For: ☐ File ☐ Resubmit

PO No.:

☐ Approval ☐ Other _____

Architect:

GC:

Engr:

Mech:

Rep:

(Company)

(Project Manager)

PLNWKB100 ACP LonWorks® Gateway

Electrical:

Power Supply	24 VAC 60 Hz
Power Consumption	22 VA

40 VA transformer recommended.

Surrounding Conditions:

Operating Temperature	-4 - 140°F
Storage Temperature	-4 - 176°F
Humidity	0-95% (non-condensing)

Unit Data:

Dimensions	10-11/16" W x 6-3/16" H x 2-5/8" D
Maximum Number of Devices	64 (64 per V-Net ¹)
Maximum Number of Outdoor Units	16 (16 per V-Net)

Standard Features:

- Integrates Multi V and select Mini and Multi Split systems² with third party building management systems.
- 20 x 4 character LCD
- Indoor unit control/monitoring by groups/indoor units
- Web access with user access control
- Operation and error history log
- Forced off dedicated digital input (first of two digital inputs)
- One digital input and two digital outputs for device interlocking

Basic Unit Functions

- Operation – On/Off
- Mode – Auto/Cool/Dry/Heat/Fan Only
- Setpoint
- Fan Speed – Auto/Low/Med/High/Power
- Louver Swing

Advanced Unit Functions

- Two Setpoint Auto-Changeover
- Two Setpoint Setback
- 200 Programmable Schedule Events with Control of Setpoint, On/Off, Mode, Fan Speed, Controller Lock and Louver Swing
- Temperature Setpoint Range Limit
- Remote Controller Lock (All, Setpoint, Mode, Fan Speed)
- Run Time Limit (Unoccupied Override)
- Software Device Interlocking
- Manual Control and Scheduling of Digital Output Kit
- Peak Control
- Visual Floorplan Navigation
- Error Email Notification
- Power Distribution Indicator (PDI) (optional)

Notes:

1. When combined with AC Smart Premium or PDI, 64 max devices per V-Net even though the capacity of AC Smart Premium is 128 indoor units.

2. PI-485 adapter required. Contact Engineering for a list of compatible systems. Must follow installation instructions in the applicable LG installation manual.

Optional Accessories (sold separately)

- ☐ Digital Output Kit - PQNFP00T0
- ☐ Power Distribution Indicator (PDI) - PQNUD1S41
- ☐ PI-485 V-Net Interface Adapter for Duct-free Split Systems² - PMNFP14A0
- ☐ PI-485 V-Net Interface Adapter for ERV² - PSNFP14A0

For continual product development, LG reserves the right to change specifications without notice.

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Connectivity:

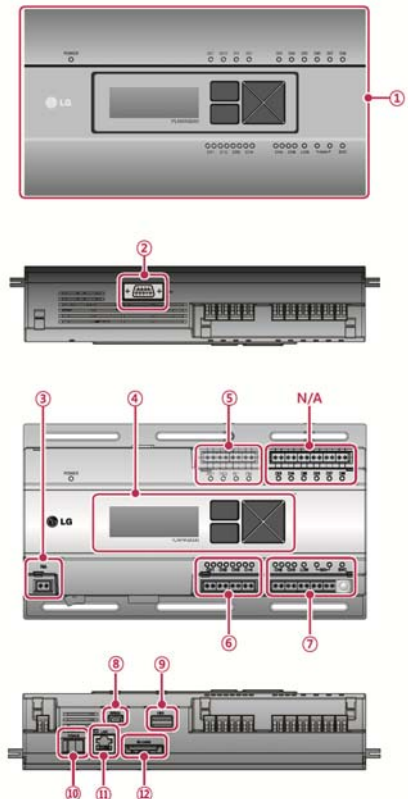
LG Communications	1 Channel/RS-485 V-Net
BMS Communications	TP/FT-10 78Kb/sec
Ethernet	10/100 BASE-T

Communications Cabling Specifications (V-Net):

Type	2-conductor, stranded, shielded copper cable/PVC or vinyl jacket
Size	AWG 18 x 2
Maximum Length	3,280 ft (end to end)

AWG - American Wire Gauge

Description:



- | | |
|---|-----------------------------|
| 1 Cover | 7 LON port & Service Switch |
| 2 RS-232 Console Port | 8 Mini USB Port |
| 3 24 VAC Power Terminals | 9 USB Port |
| 4 Buttons and LCD Display | 10 Power Switch |
| 5 Digital I/O | 11 Ethernet Port |
| 6 RS-485 V-Net Port (only first port available) | 12 SD Card Slot |

PLNWK100

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Available points for each Indoor Unit

Check the appropriate box below to indicate the required integrated points for this project.

Function	Network Variable	Unit				
ON/OFF (Setting)	nviOnOff	0.0 0 (OFF)	100.0 1 (ON)			
ON/OFF (Status)	nvoOnOff	0.0 0 (OFF)	100.0 1 (ON)			
Operation Mode (Setting)	nviHeatcool	HVAC_AUTO (Auto)	HVAC_HEAT (Heating)	HVAC_COOL (Cooling)	HVAC_FAN_ONLY (Fan)	HVAC_DEHUMID (Dehumid)
Operation Mode (Status)	nvoHeatCool	HVAC_AUTO (Auto)	HVAC_HEAT (Heating)	HVAC_COOL (Cooling)	HVAC_FAN_ONLY (Fan)	HVAC_DEHUMID (Dehumid)
Lock (Setting)	nviLock	0.0 0 (OFF)	100.0 1 (ON)			
Lock (Status)	nvoLock	0.0 0 (OFF)	100.0 1 (ON)			
Temperature (Setting)	nviSetPoint	18~30				
Temperature (Status)	nvoSetPoint	18~30				
Fan Level (Setting)	nviFanSpeedCmd	0.00 (Auto)	1.00 (Low)	2.00 (Med)	3.00 (High)	
Fan Level (Status)	nvoFanSpeed	0.00 (Auto)	1.00 (Low)	2.00 (Med)	3.00 (High)	
Fan Direction Auto (Setting)	nviSwing_Heater	0.0 0 (OFF)	100.0 1 (ON)			
Fan Direction Auto (Status)	nvoSwing_Heater	0.0 0 (OFF)	100.0 1 (ON)			
Mode Lock (Setting)	nviModlok	0.0 0 (OFF)	100.0 1 (ON)			
Mode Lock (Status)	nvoModlok	0.0 0 (OFF)	100.0 1 (ON)			
Fan Level Lock (Setting)	nviFanlok	0.0 0 (OFF)	100.0 1 (ON)			
Fan Level Lock (Status)	nvoFanlok	0.0 0 (OFF)	100.0 1 (ON)			
Temperature Lock (Setting)	nviTmplek_Humid	0.0 0 (OFF)	100.0 1 (ON)			
Temperature Lock (Status)	nvoTmplek_Humid	0.0 0 (OFF)	100.0 1 (ON)			
Temperature Lower Limit (Setting)	nviLow_HW_Tmp	16~30				
Temperature Lower Limit (Status)	nvoLow_HW_Tmp	16~30				
Temperature Higher Limit (Setting)	nviUp_Tmp	18~30				
Temperature Higher Limit (Status)	nvoUp_Sol_Tmp	18~30				
Product Type	nvoPType	0				
Product Address	nvoPAddr	0~255				
Current Temperature	nvoSpaceTemp	0~255				
Error	nvoUnitStatus	mode/0/0/0/0/0/				
Power	nvoAccuPw	0~16777215				

Available points for all indoor units

Peak Convert Cycle (Sec) (Setting)	nviPeakSwTime	300~900				
Peak Convert Cycle (Sec) (Status)	nvoPeakSwTime	300~900				
Peak Setting (%) (Setting)	nviPeakTgtRate	0~100				
Peak Setting (%) (Status)	nvoPeakTgtRate	0~100				
Temperature Unit (Setting)	nviTempUnit	0.00 (C°)	100.01 (F°)			
Temperature Unit (Status)	nvoTempUnit	0.00 (C°)	100.01 (F°)			
Total Temperature Lock	nviAllTemplock	0.0 0 (OFF)	100.01 (ON)			
Total OnOff	nviTotalOnOff	0.0 0 (OFF)	100.01 (ON)			
Total Temperature	nviTotalTemp	18~30				
Peak Current Operating Ratio (%)	nvoPeakCurRate	0~100				
Total Accumulate Power (Kwh)	nvoTotalAccuPw	0~16777215				

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	Function	Network Variable	Unit		
	ON/OFF (Setting)	nviOnOff	0.0 0 (OFF)	100.0 (ON)	
	ON/OFF (Status)	nvoOnOff	0.0 0 (OFF)	100.0 (ON)	
	Operation Mode (Setting)	nviHeatCool	HVAC_HEAT (Heating)	HVAC_FAN_ONLY (Fan)	HVAC_AUTO (Auto)
	Operation Mode (Status)	nvoHeatCool	HVAC_HEAT (Heating)	HVAC_FAN_ONLY (Fan)	HVAC_AUTO (Auto)
	Lock (Setting)	nviLock	0.0 0 (OFF)	100.0 (ON)	
	Lock (Status)	nvoLock	0.0 0 (OFF)	100.0 (ON)	
	Fan Level (Setting)	nviFanSpeedCmd	0.00 (Auto)	1.00 (Low)	3.00 (High) 4.00 (SuperHigh)
	Fan Level (Status)	nvoFanSpeed	0.00 (Auto)	1.00 (Low)	3.00 (High) 4.00 (SuperHigh)
	Heater (Setting)	nviSwing_Heater	0.0 0 (OFF)	100.0 (ON)	
	Heater (Status)	nvoSwing_Heater	0.0 0 (OFF)	100.0 (ON)	
	Additional Functionality (Setting)	nviUsrmod	0 (NONE)	1 (QUICK)	2 (POWER SAVE)
	Additional Functionality (Status)	nvoUsrmod	0 (NONE)	1 (QUICK)	2 (POWER SAVE)
	Product Type	nvoPType	1		
	Product Address	nvoPAddr	0~255		
	Error	nvoUnitStatus	mode/0/0/0/0/0/alarm		

Total On Off	nviTotalOnOff	0.0 0 (OFF)	100.0 (ON)		
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	Function	Network Variable	Unit			
	ON/OFF (Setting)	nviOnOff	0.0 0 (OFF)	100.0 1 (ON)		
	ON/OFF (Status)	nvoOnOff	0.0 0 (OFF)	100.0 1 (ON)		
	Operation Mode (Setting)	nviHeatcool	HVAC_COOL (Cooling)	HVAC_HEAT (Heating)	HVAC_AUTO (Auto)	
	Operation Mode (Status)	nvoHeatCool	HVAC_COOL (Cooling)	HVAC_HEAT (Heating)	HVAC_AUTO (Auto)	
	Lock (Setting)	nviLock	0.0 0 (OFF)	100.0 1 (ON)		
	Lock (Status)	nvoLock	0.0 0 (OFF)	100.0 1 (ON)		
	Temperature (Setting)	nviSetPoint	18~30			
	Temperature (Status)	nvoSetPoint	18~30			
	Hot Water Operation (Setting)	nviIDUrun_HWEn	0.0 0 (OFF)	100.0 1 (ON)		
	Hot Water Operation (Status)	nvoIDUrun_HWEn	0.0 0 (OFF)	100.0 1 (ON)		
	Hot Water Supply Temperature (Setting)	nviLow_HW_Tmp	25~80			
	Hot Water Supply Temperature (Status)	nvoLow_HW_Tmp	25~80			
	Temperature Select (Status)	nvoFilt_TmpsEl	0.00 (Air)	100.01 (Water)		
	Product Type	nvoPType	3 (AWHP)	4 (Hydro Kit)	7 (Heat_Only_ AWHP)	8 (Cascade)
	Product Address	nvoPAddr	0~255			
	Current Temperature	nvoSpaceTemo	0~255			
	Error	nvoUnitStatus	mode/0/0/0/0/0/alarm			
	Hot Water Only Mode	nvoMS_Hwmod	0.0 0 (OFF)	100.0 1 (ON)		
	Hot Water Tank Temperature	nvoTankTmp	0~99			
	Pipe In Temperature	nvoinTmp	0~99			
	Pipe Out Temperature	nvoOutTmp	0~99			
	Solar Heat Source Temperature	nvoUp_Sol_Tmp	0~99			

Total OnOff	nviTotalOnOff	0.0 0 (OFF)	100.0 1 (ON)		
Total Temperature	nviTotalTemp	18~30			