

AIR CONDITIONING SYSTEMS

# CONTROLS & ACCESSORIES 2016



# ABOUT LG

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## About LG Electronics USA

LG Electronics USA, Inc., based in Englewood Cliffs, NJ, is the North American subsidiary of LG Electronics, Inc., a \$56 billion global force and technology leader in consumer electronics, home appliances and mobile communications. LG Electronics, a proud 2015 ENERGY STAR® Partner of the Year, sells a range of stylish and innovative home entertainment products, mobile phones, home appliances, commercial displays, air conditioning systems and solar energy solutions in the United States, all under LG's "Life's Good" marketing theme. For more news and information on LG Electronics, please visit [www.LG.com](http://www.LG.com).

## LG Electronics USA Air Conditioning Systems

The LG Electronics USA Commercial Air Conditioning business is based in Alpharetta, GA. LG is a leading player in the global air conditioning market, manufacturing both commercial and residential air conditioners and providing total sustainability and building management solutions. From consumer and individual units to industrial and specialized air conditioning systems, LG provides a wide range of products for heating, ventilating and air conditioning. For more information, please visit [www.lghvac.com](http://www.lghvac.com).

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**By utilizing advanced control strategies,** LG Air Conditioning Systems not only save energy, they also increase operational convenience and living standards.

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LG offers a variety of controls, including individual zone control, central control, and building management system integration control options that scale easily to meet the requirements of jobs small to large. User-friendly controllers from LG allow users to control and monitor their entire system at the touch of a button. Centralized controllers provide building owners, facilities managers and maintenance personnel with the ability to manage the entire LG air conditioning system from a single location. This allows convenient management of air conditioning units and other facilities equipment—even in multiple sites—which helps ensure the highest energy savings are realized from the system.



LG building controllers allow for interfacing with third-party building management systems and also control sub-market segments such as lighting control, security control and access control. Built to be compatible with the entire family of LG Air Conditioning Systems products, LG controls are the best way to achieve the highest performance from LG systems.

#### **ENHANCED ENERGY SAVINGS**

While LG Air Conditioning Systems are engineered for efficiency, there are many ways that LG controls can help save even more energy with advanced features like scheduling and setpoint range limiting.

#### **CONVENIENCE**

LG controls come with features that make them easy to use and make LG systems easy to control. From our touch screen interface on the AC Smart BACnet to modes like auto-changeover, you are sure to be pleased with the aesthetic appeal of the control as well as its ease of use.

#### **EASY TO INSTALL**

The LG communications network is based on simple two-wire, daisy chain architecture that reduces installation cost and complexity. This allows the system to be installed by the mechanical contractor, eliminating the need for costly building management system integration contractors and specialists.

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## CONTROLS

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## MECHANICAL ACCESSORIES





















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# CONTROLS

## Lineup

INDIVIDUAL CONTROLLERS				CENTRAL CONTROLLERS
Wired Remote Controller			Wireless Remote Controller	System
Premium	Standard	Simple		
  PREMTA000	  PREMTB10U	  PQRCVCL0QW	  PQWRHQ0FDB	<p>AC Smart IV</p>   PACS4B000
		  PQRCVCL0Q		<p>ACP IV</p>   PACP4B000
		  PQRCHCA0QW		<p>AC EZ</p>   PQCSZ250S0
		  PQRCHCA0Q		

SYSTEM INTEGRATION DEVICES		OTHER INTEGRATION DEVICES			
Gateway	Facility Integrator	Indoor Unit		Outdoor Unit	AHU Kit
		Dry Contact	Control Accessory		
<b>AC Smart IV BACnet</b>  PBACNA000	<b>PDI (Power Distribution Indicator)</b>  Premium (8 port) PQNUD1S41 Standard (2 port) PPWRDB000	<b>Dry Contact for Thermostat</b>  PDRYCB300	<b>Remote Temperature Button Sensor</b>  ZRTBS01	<b>Low Ambient Kit</b>  PRVC2	<b>Communication Kit</b>  PRCKAM
<b>ACP IV BACnet</b>  PQNFB17C2	<b>IO Module (Input / Output Module)</b>  PEXPMB000	<b>Dry Contact for Economizer</b>  PQDSB1	<b>Remote Sensor</b>  PQRSTA0	<b>Cool / Heat Selector</b>  PRDSBM	<b>Communication Kit</b>  PRDCAM
<b>ACP LonWorks</b>  PLNWKB000		<b>Simple Dry Contact</b>  PDRYCB100	<b>PI-485 For ERV</b>  PSNFP14A0  <b>CO2 Sensor for ERV</b>  PES-CORV0  <b>Group Control Wire</b>  PZCWRC1  <b>Extension Cable</b>  PZCWRC1	<b>Variable Water Flow Control Kit</b>  PWFCKN000	<b>EEV Kit</b>  PRLK048A0 (8 Ton) PRLK096A0 (16 Ton)

AIR CONDITIONING  
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# INDIVIDUAL CONTROLLERS



# INDIVIDUAL CONTROLLERS

## Premium Wired Remote Controller

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## Standard Wired Remote Controller

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## Wireless Remote Controller

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## Simple Wired Remote Controller

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## Remote Controller Lineup

Model Name	 PREMTA000	 PREMTB10U	 PQWRHQ0FDB	 PQRCVCL0QW PQRCHCA0QW PQRCHCA0QW PQRCHCA0QW
On / Off	●	●	●	●
Fan Speed Control	●	●	●	●
Temperature Setting	●	●	●	●
Mode Change	●	●	●	●
Additional Mode Setting	●	●	●	●
Auto Swing	●	●	●	●*
Vane Control (Louver Direction)	●	●	●	-
E.S.P. (External Static Pressure)	●	●	-	●
Reservation	Weekly / Yearly	Simple / Sleep / On / Off / Weekly / Holiday	Sleep, on / off	-
Child Lock	●	●	-	●
Settings Recovery	●	●	-	●*
Time Display	●	●	●	-
Filter Sign	Time Remaining & Alarm	●	-	-
Energy Management**	●	●	-	●
Setback	Two set points control	-	-	-

\* This feature is not available for PQRCHCA0QW/PQRCHCA0Q

\*\* A central controller and PDI are required for this function.

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

# PREMIUM WIRED REMOTE CONTROLLER

## PREMTA000



## Features

- Designed to optimize user experience
  - Full touch/Intuitive GUI (graphical user interface)
  - Main display simple mode/Touch buzzer
- Two set points control
- Improved scheduling
  - Timer/Daily/Weekly/Yearly/Holiday
- Self-management for energy saving
  - Time limit operation/Power consumption monitoring
  - Weekly/Monthly/Yearly trend tracking
  - Target alert alarm
  - Temperature range setting

Model Name	PREMTA000
On / Off	●
Fan Speed Control	●
Temperature Setting	●
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting	Plasma Purification / Energy-Saving Cooling / Robot Cleaning / Heater / Humidification
Auto Swing	●
Vane Control (Louver Direction)	●
E.S.P. (External Static Pressure)	●
Reservation	Simple / Sleep / On / Off / Weekly / Yearly / Holiday
Time Display	●
Electric Failure Compensation	●
Child Lock	●
Filter Sign	Time Remaining & Alarm
Energy Management	Check Energy Usage* / Check Operation Time / Target Setting (Energy, Operation Time) / Time Limit Operation / Alarm Popup / Initialization Usage Data
Operation Status LED	●
Indoor Temperature Display	●
Wireless Remote Controller Receiver	●
Display	5-inch TFT color LCD (480 x 272)
Dimensions WxHxD (in)	5- 1/2 x 4- 3/4 x 3/4
Backlight	●
Home Leave	Two set points control

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

# STANDARD WIRED REMOTE CONTROLLER

## PREMTB10U



## Features

Model Name	PREMTB10U
On / Off	●
Fan Speed Control	●
Temperature Setting	●
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting	Plasma Purification / Energy-Saving Cooling / Robot Cleaning / Heater / Humidification
Auto Swing	●
Vane Control (Louver Direction)	●
E.S.P. (External Static Pressure)	●
Reservation	Simple / Sleep / On / Off / Weekly / Holiday
Time Display	●
Electric Failure Compensation	●
Child Lock	●
Filter Sign	Time Remaining & Alarm
Operation Status LED	●
Indoor Temperature Display	●
Wireless Remote Controller Receiver	●
Dimensions WxHxD (in)	4-3/4 x 4-3/4 x 5/8
Backlight	●
Energy Management	●**
Check Model Information	●

\*\* A central controller and PDI are required for this function.

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

# WIRELESS REMOTE CONTROLLER

PQWRHQ0FDB



## Features

Model Name	PQWRHQ0FDB
On / Off	●
Fan Speed Control	●
Temperature Setting	●
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting	Plasma Purification / Energy-Saving Cooling / Robot Cleaning / Auto Dry
Auto Swing	●
Vane Control (Louver Direction)	●
Reservation	Sleep / On / Off
Indoor Temperature Display	●
Sleep Mode Auto	Max. 7 hours
Dimensions WxHxD (in)	2-3/16 x 6-3/16 x 1- 3/16

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

# SIMPLE WIRED REMOTE CONTROLLER

## With Mode Selection



PQRCVCLOQW  
(White)



PQRCVCLOQ  
(Black)

## Without Mode Selection



PQRCHCA0QW  
(White)



PQRCHCA0Q  
(Black)

## Features

Model Name	PQRCVCLOQW / PQRCVCLOQ	PQRCHCA0QW / PQRCHCA0Q
On / Off	●	●
Fan Speed Control	●	●
Temperature Setting	●	●
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan	Only Changeable by Central Controller
Auto Swing	●	-
Vane Control (Louver Direction)	●	-
E.S.P. (External Static Pressure)	●	●
Electric Failure Compensation	●	-
Child Lock	●	●
Indoor Temperature Display	●	●
Wireless Remote Controller Receiver	●	●
Dimensions WxHxD (in)	2-3/4 x 4-3/4 x 5/8	2-3/4 x 4-3/4 x 5/8
Backlight	●	●

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

AIR CONDITIONING  
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# CENTRAL CONTROLLERS



# CENTRAL CONTROLLERS

## AC Smart IV

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## ACP IV

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## AC EZ

> Page 18



## Central Controller Lineup

Model Name	 PACS4B000	 PACP4B000	 PQCSZ250S0
Maximum Number of Indoor Units	128	256	32
Individual / Group Control (On/Off, Mode, Set Point, Fan Speed)	●	●	●
Ventilation Control	●	●	●
Individual Controller Lock	●	●	●
Error Check	●	●	●
Schedule	●	●	●
Operation History	●	●	-
Visual Navigation	●	●	-
Operation Time Limit	●	●	-
Temperature Limit	●	●	-
Internet Access <sup>1)</sup>	●	●	-
Auto Changeover/Setback	●	●	-
Power Consumption Monitoring (with PDI)	●	●	-
Interlock Control	●	●	-
Virtual Group Control	●	●	-
Emergency Pattern Display	●	●	-
IO Module Interlocking	●	●	-

<sup>1)</sup> An IP address is required to access the central controller through the internet.

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

# AC SMART IV

Large 10.2 inch touch screen with intuitive GUI (Graphic User Interface) for easy system control.

## PACS4B000



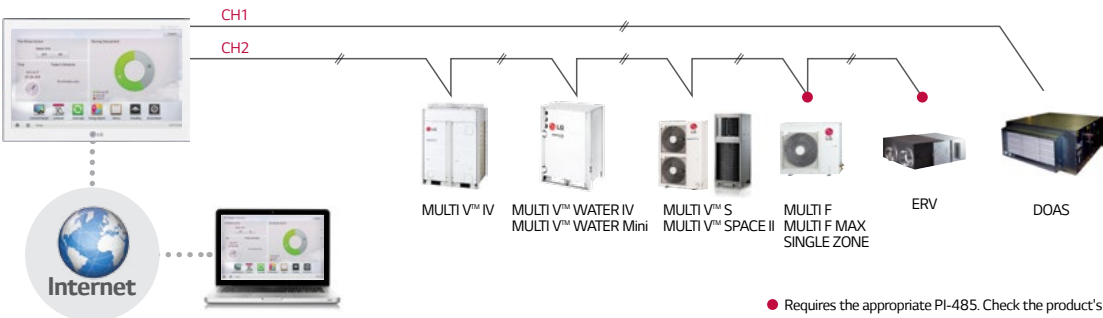
## Features

Model Name	PQCS4B000
Maximum Number of Indoor Units	Up to 128
Individual / Group Control	●
Ventilation Control	●
Individual Controller Lock	● (Temperature / Mode / Fan / All)
Error Check	Self Diagnosis
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Schedule	Daily / Weekly / Monthly / Yearly / Exception Day
Operation History	●
Visual Navigation	●
Operation Time Limit	●
Temperature Limit	●
Internet Access <sup>1)</sup>	●
Auto Changeover / Setback	● (Two set)
Power Consumption Monitoring (with PDI)	●
Interlock Control	●
Virtual Group Control	●
Emergency Alarm Display	●
IO Module Interlocking	●
External IO Port No.	DI 2 / DO 2
Dimensions WxHxD (in)	10 x 6-5/8 x 1-3/16

<sup>1)</sup> An IP address is required to access the central controller through the internet.

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

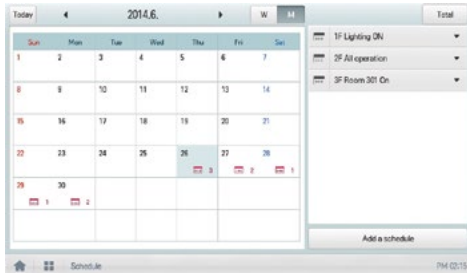
## System Communication Architecture



● Requires the appropriate PI-485. Check the product's engineering manual for details.

# AC SMART IV

## Functions



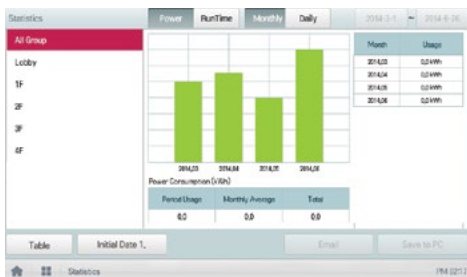
### Schedule

You can set a schedule for system air conditioner in advance for timed events. Optimize system performance by enabling system operation only as needed from centralized control management.



### Visual Navigation

Provides one view of the system's operation status for the building's floor plan.



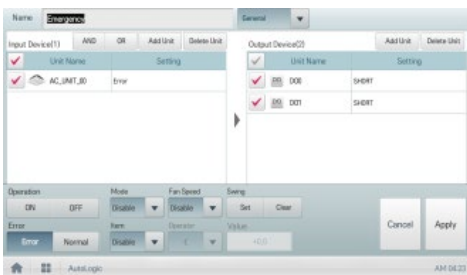
### Energy Statistics (with PQNUD1S41 or PPWRDB000)

Statistics of operational status (time and energy management) are provided to help make intelligent system operation decisions.

Date	Time	Unit Name	Code	Detail Information
2014-06-26	16:15:50	Room 303	S	COOL/HEAT C/OPF by NONE
2014-06-26	16:15:43	Room 302	S	COOL/HEAT C/OPF by NONE
2014-06-26	16:15:42	Room 303	S	COOL/HEAT C/OPF by NONE
2014-06-26	16:15:42	Room 101	S	COOL/HEAT C/OPF by NONE
2014-06-26	16:15:42	Room 105	S	COOL/HEAT C/OPF by NONE
2014-06-26	16:15:42	Room 303	S	COOL/HEAT C/OPF by U_System_admin
2014-06-26	16:14:00	Room 302	S	COOL/HEAT C/OPF by U_System_admin
2014-06-26	16:13:56	Room 303	S	COOL/HEAT C/OPF by U_System_admin

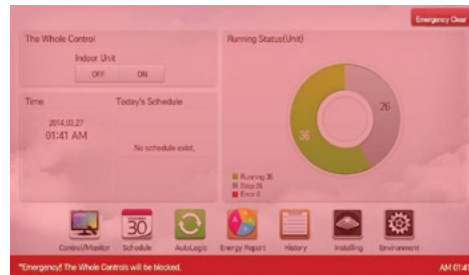
### Operation Report

A report including control status and other information is provided to allow for operation history review. Data can be sent by e-mail or stored externally via USB.



### Interlocking

Allows interlocked operation of devices or between digital inputs and outputs on the AC Smart IV.



### Emergency Display

The entire display will show a red alert in an emergency situation while all other control signals are disabled.

# ACP IV (ADVANCED CONTROL PLATFORM)

PACP4B000



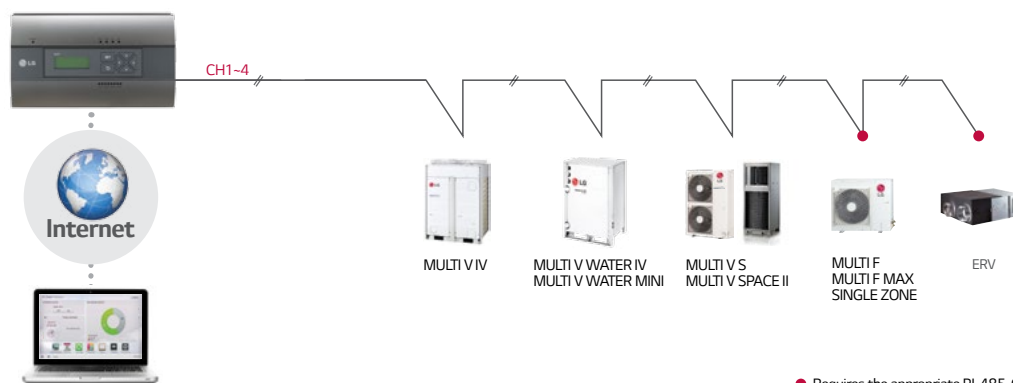
## Features

Model Name	PACP4B001
Maximum Number of Indoor Units	Up to 256
Individual / Group Control	●
Ventilation Control	●
Individual Controller Lock	● (Temperature / Mode / Fan / All)
Error Check	Self Diagnosis
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Schedule	Daily / Weekly / Monthly / Yearly / Exception Day
Operation History	●
Visual Navigation	●
Operation Time Limit	●
Temperature Limit	●
Internet Access <sup>1)</sup>	●
Auto Changeover / Setback	● (Two set)
Power Consumption Monitoring (with PDI)	●
Interlock Control	●
Virtual Group Control	●
Emergency Alarm Display	●
IO Module Interlocking	●
External IO Port No.	DI 10 / DO 4
Dimensions WxHxD (in)	10-11/16 x 6-3/16 x 2-5/8

<sup>1)</sup> An IP address is required to access the central controller through the internet.

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture



● Requires the appropriate PI-485. Check the product's engineering manual for details.

# AC EZ

## PQCSZ250S0

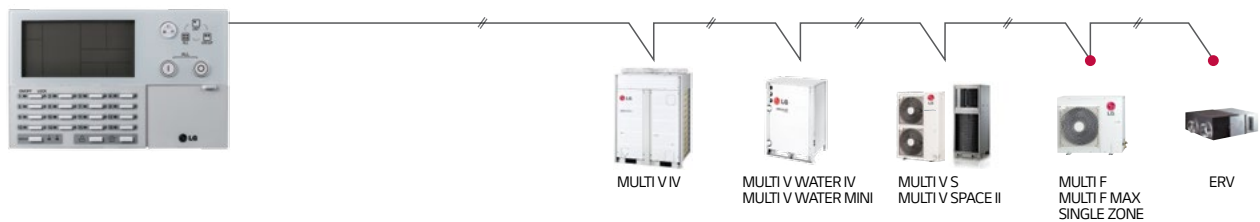


## Features

Model Name	PQCSZ250S0
Maximum Number of Indoor Units	32
Individual / Group Control	●
Ventilation Control	●
Individual Controller Lock	●
Error Check	LCD Display
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Schedule	Weekly
Display	Operation Status, Set Temperature, Room Temperature, Schedule
Dimensions WxHxD (in)	7-1/2 x 4-3/4 x 11/16
Power	DC 12V

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture



● Requires the appropriate PI-485. Check the product's engineering manual for details.

# SYSTEM INTEGRATION DEVICES

GATEWAY	FACILITY INTEGRATOR
<p>AC Smart IV BACnet</p>  <p>PBACNA000</p>	<p>PDI (Power Distribution Indicator)</p>  <p>Premium (8 port) PQNUD1S41 Standard (2 port) PPWRDB000</p>
<p>ACP IV BACnet</p>  <p>PQNFB17C2</p>	<p>IO MODULE (Input / Output Module)</p>  <p>PEXPMB000</p>
<p>ACP LonWorks</p>  <p>PLNWKB100</p>	

# AC SMART IV BACNET GATEWAY

PBACNA000



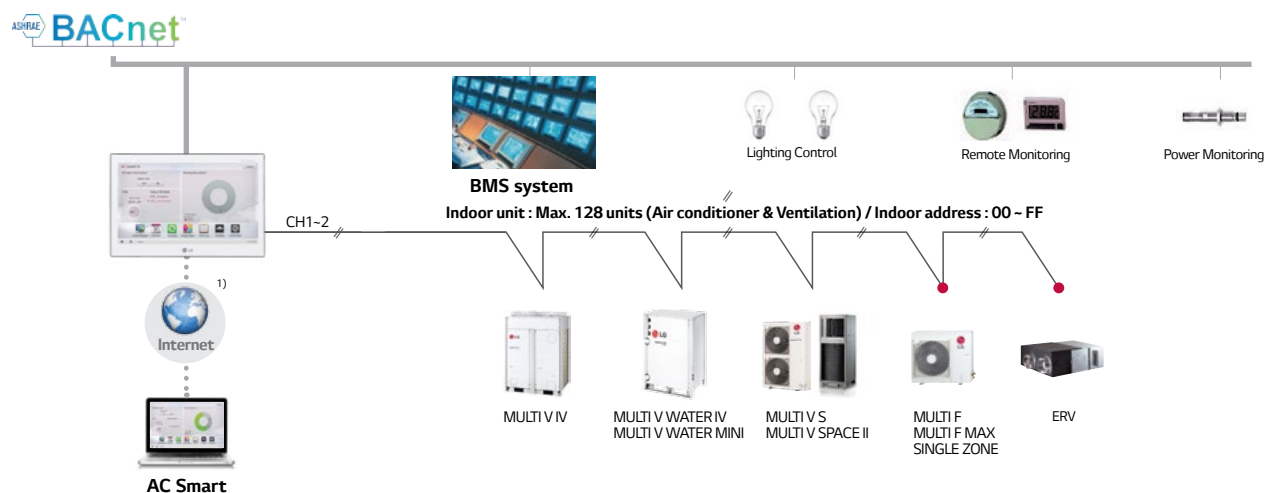
## Features

- Controls up to 128 indoor units
- Controls up to 16 AHU Control kits
- Provides graphical user interface that allows centralized control
- BTL Listed (B-ASC)
- Integrates Multi V and select Mini and Multi Split systems with third-party building management systems using a large 10.2-inch touch screen with intuitive GUI (graphical user interface).

Controlling	Monitoring Items
On/Off Command	On/Off Status
Operation Mode Setting	Operation Mode Status
Fan Speed Setting	Fan Speed Status
Lock Setting	Lock Status
Air Flow Setting	Air Flow Status
Temperature setpoint	Temperature setpoint status
-	Current Space Temperature Status
-	Error Status
User Mode Setting	User Mode Status
-	Accumulator Power Distribution Status
Upper Limit Temp. Setting	Upper Limit Temperature Status
Low Limit Temp. Setting	Low Limit Temperature Status
Mode Lock Setting	Mode Lock Status
AC Operation Mode Setting	AC Operation Mode Status
AC On/Off Command	AC On/Off Status
Occupied/Unoccupied	Occupied/Unoccupied
Dual Temperature Setpoint Setting	Dual Temperature Setpoint Status

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture



● Requires the appropriate PI-485. Check the product's engineering manual for details.

1) Assignment of an IP address is required to access central controller through the Internet.

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# ACP IV BACNET GATEWAY

Replaces current model PQNFB17C1—available Summer 2016.

## PQNFB17C2



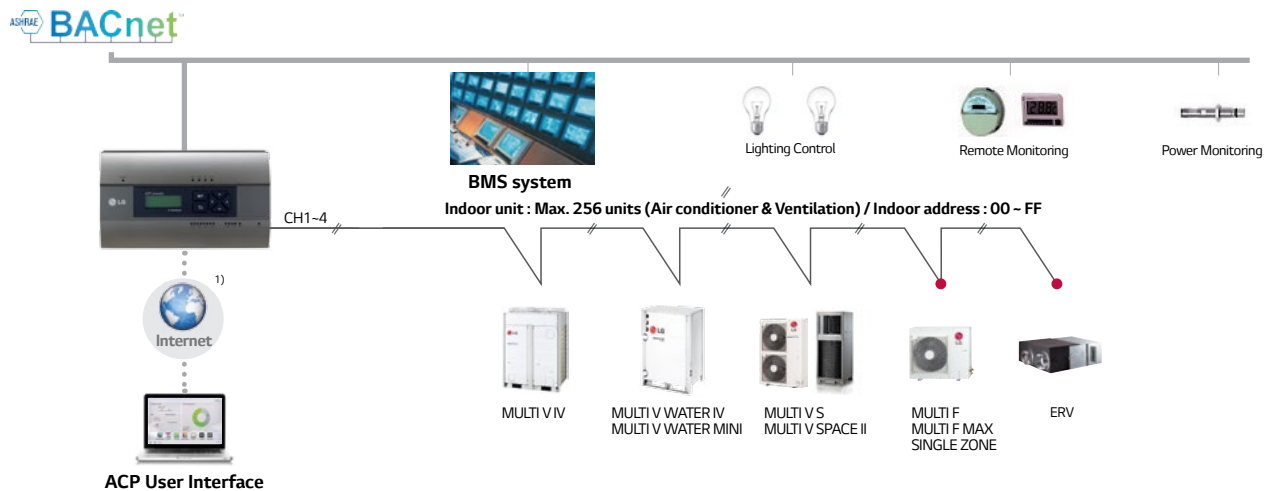
## Features

- Controls up to 256 indoor units
- Controls up to 16 AHU Control kits
- Provides graphical user interface that allows centralized control
- BTL Listed (B-ASC)

Controlling	Monitoring Items
On/Off Command	On/Off Status
Operation Mode Setting	Operation Mode Status
Fan Speed Setting	Fan Speed Status
Lock Setting	Lock Status
Air Flow Setting	Air Flow Status
Temperature setpoint	Temperature setpoint status
-	Current Space Temperature Status
-	Error Status
User Mode Setting	User Mode Status
-	Accumulator Power Distribution Status
Upper Limit Temp. Setting	Upper Limit Temperature Status
Low Limit Temp. Setting	Low Limit Temperature Status
Mode Lock Setting	Mode Lock Status
AC Operation Mode Setting	AC Operation Mode Status
AC On/Off Command	AC On/Off Status
Occupied/Unoccupied	Occupied/Unoccupied
Dual Temperature Setpoint Setting	Dual Temperature Setpoint Setting

NOTE: Available functions/features may differ based on the connected system.  
Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture



● Requires the appropriate PI-485. Check the product's engineering manual for details.

1) Assignment of an IP address is required to access central controller through the Internet.  
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# ACP LONWORKS GATEWAY

PLNWKB000



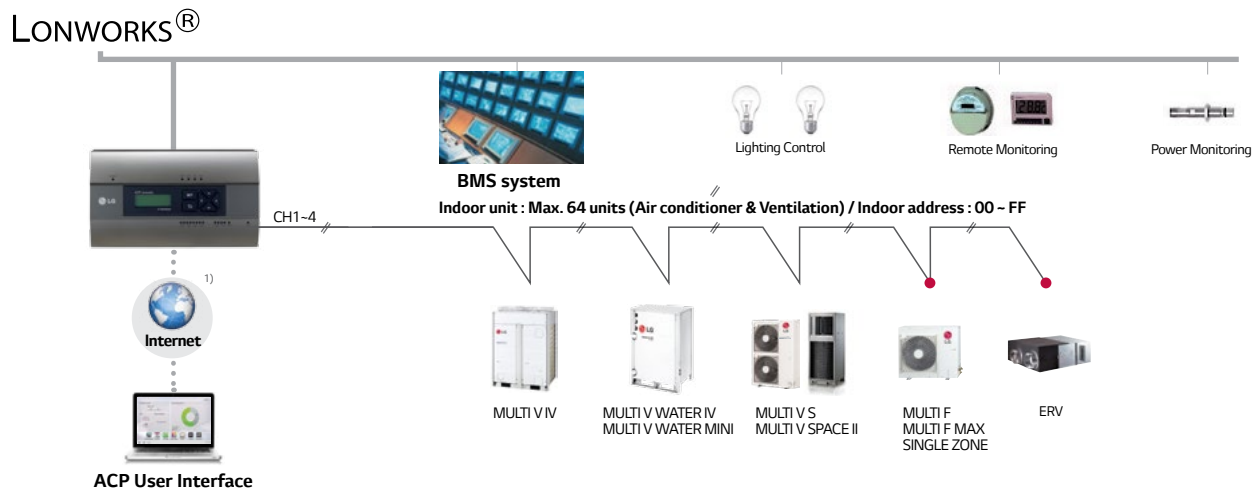
## Features

- Controls up to 64 indoor units
- Controls up to 16 AHU Control kits
- Provides graphical user interface that allows centralized control
- LonMark Certified

Controlling	Monitoring Items
On / Off Command	On / Off Status
Operation Mode Setting	Operation Mode Status
Fan Speed Setting	Fan Speed Status
Lock Setting	Lock Status
Air Flow Setting	Air Flow Status
Set Temperature Setting	Set Temperature Status
-	Current Space Temperature Status
-	Error Status
-	Accumulator Power Distribution Status
Upper Limit Temp. Setting	Upper Limit Temperature Status
Low Limit Temp. Setting	Low Limit Temperature Status
Mode Lock Setting	Mode Lock Status
Peak Operation Ratio Setting	Peak Operation Ratio Status
All On / Off Setting	-
-	Total Accumulated Power Status

NOTE: Available functions/features may differ based on the connected system.  
Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture



● Requires the appropriate PI-485. Check the product's engineering manual for details.

1) Assignment of an IP address is required to access central controller through the Internet.  
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# I/O MODULE (INPUT/OUTPUT MODULE)

## PEXPMB000



## Features

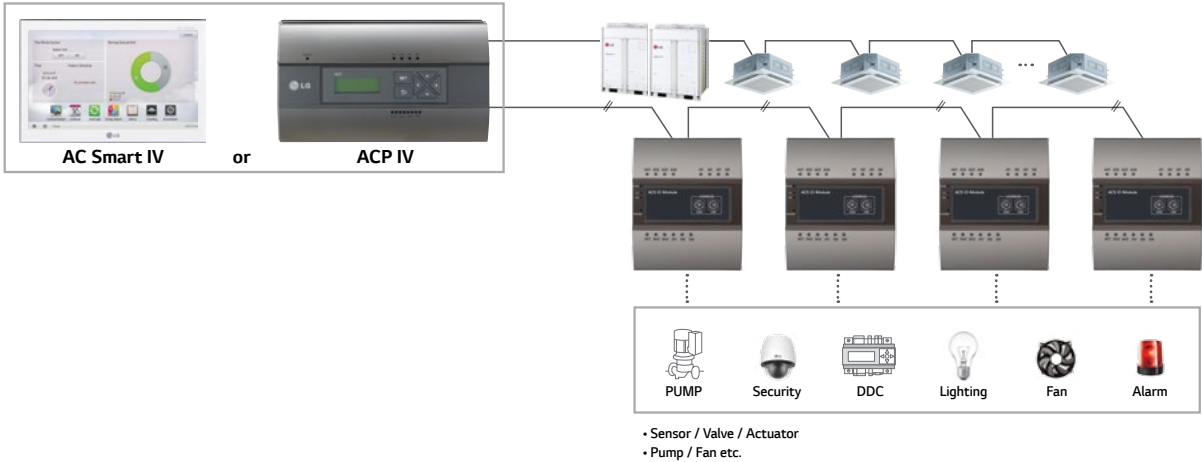
Model Name		PEXPMB000
Linkable Products		AC Smart IV ACP IV
Communication	RS-485	1
	DI	3
I/O	DO	3
	UI	4
	AO	4

Interface Type		Min.	Max.
Analog Input	NTC 10k	0.68k $\Omega$	177k $\Omega$
	PT 1000	803k $\Omega$	1573k $\Omega$
	Ni 1000	871.7k $\Omega$	1675.2k $\Omega$
	DC (Voltage)	0V	10V
	DC (Current)	0mA	20mA
Analog Output	-	0V	10V
Digital Input	Binary Input (Dry Contact)	-	-
Digital Output	Normal open	-	30VAC / 30VDC, 2A

	AC Smart IV	ACP IV
Number of Indoor Units	64-128	128-256
Max. I/O Points	130	224
Maximum Number of Node	9	16

\* Maximum number of Indoor units may be reduced by increasing the number of I/O points.  
NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture



NOTE: For a full list of compatible features, check the latest Engineering Manual.

# PDI PREMIUM (POWER DISTRIBUTION INDICATOR)

## Premium

PQNUD1S41 (8 port)

## Standard

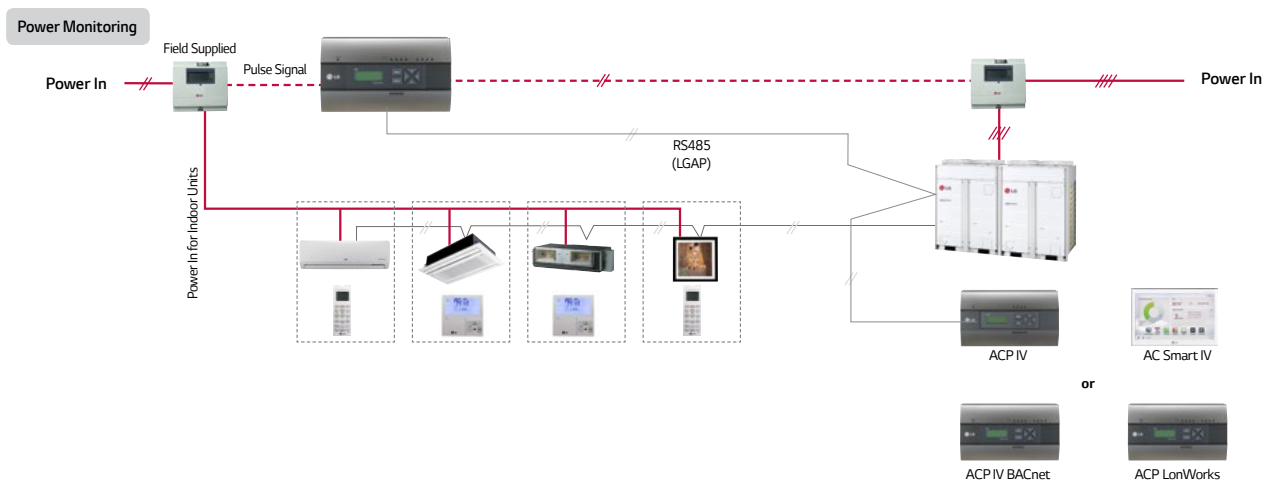
PPWRDB000 (2 port)



## Features

- Power monitoring data is backed up in the event of a power outage
- Connector can be separated for convenient installation
- Linkable with RS485 communication type or pulse type power meter
- Shows power consumption of up to 128 indoor units.

## System Communication Architecture


















AIR CONDITIONING  
SYSTEMS

OTHER  
INTEGRATION  
DEVICES



# OTHER INTEGRATION DEVICES

## Lineup

INDOOR UNIT		OUTDOOR UNIT	AHU KIT	FOR ERV
Dry Contact	Control Accessory			
<p>Dry Contact for Thermostat</p>  <p>PDRYCB300</p>	<p>Remote Temperature Button Sensor</p>  <p>ZRTBS01</p>	<p>Low Ambient Kit</p>  <p>PRVC2</p>	<p>Communication Kit</p>  <p>PRCKAM</p>	<p>CO<sub>2</sub> sensor</p>  <p>PES-CORV0</p>
<p>Dry Contact for Economizer</p>  <p>PQDSBC1</p>	<p>Remote Sensor</p>  <p>PQRSTA0</p>	<p>Variable Water Flow Control Kit</p>  <p>PWFCKN000</p>	<p>Communication Kit</p>  <p>PRDCAM</p>	<p>PI-485</p>  <p>PSNFP14A0</p>
<p>Simple Dry Contact</p>  <p>PDRYCB100</p>	<p>Group Control Wire</p>  <p>PZCWRCG3</p>	<p>Cool / Heat Selector</p>  <p>PRDSBM</p>	<p>EEV Kit (Electronic Expansion Valve Kit)</p>  <p>PRLK048A0 / PRLK096A0</p>	
	<p>Extension Cable</p>  <p>PZCWRC1</p>			

# DRY CONTACT

Simple Dry Contact

PDRYCB100



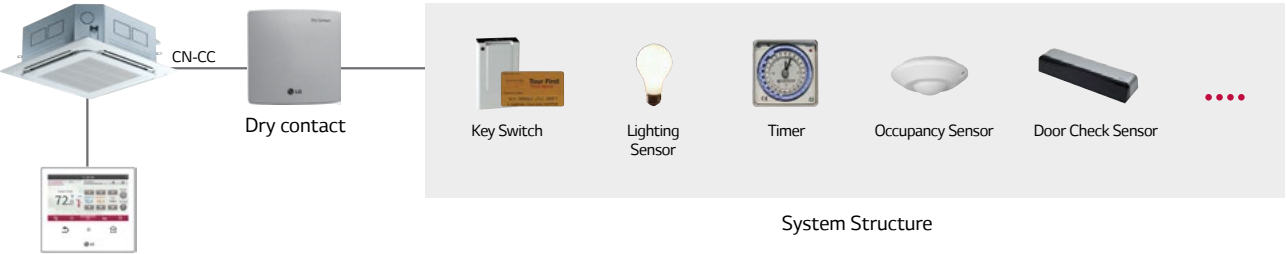
## Features

Model Name	PDRYCB100
Contact Point	One Contact Point
Power Input	AC 24V
Voltage / Non Voltage Input	-
On / Off Control	●
Lock / Unlock	-
Thermo Off	-
Energy Saving	-
Temperature Setting	-
Error Monitoring	●
Operation Monitoring	●
Dimensions WxH (in)	4.73 x 4.73

\* Maximum operation AC : 3A

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture



# DRY CONTACT

Dry Contact for Economizer

PQDSBC1

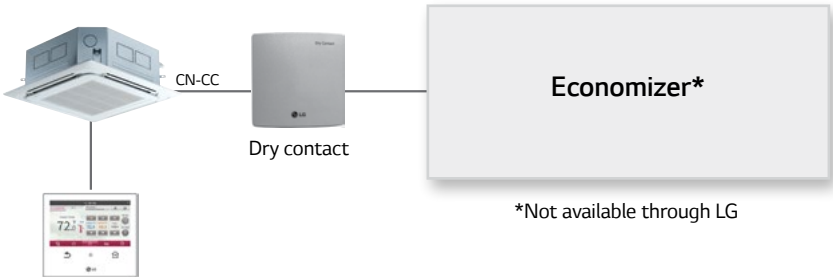


## Features

Model Name	PDRYCB100
On / Off	●
Economizer	●
Occupied / Unoccupied	●
Remote Lock / Unlock	●
Compressor Stop	●
Dimensions WxH (in)	4.73 x 4.73

\* Maximum operation AC : 3A  
NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture



# DRY CONTACT

Dry Contact for Thermostat (5-12Vdc, 24Vac)

## PDRYCB300



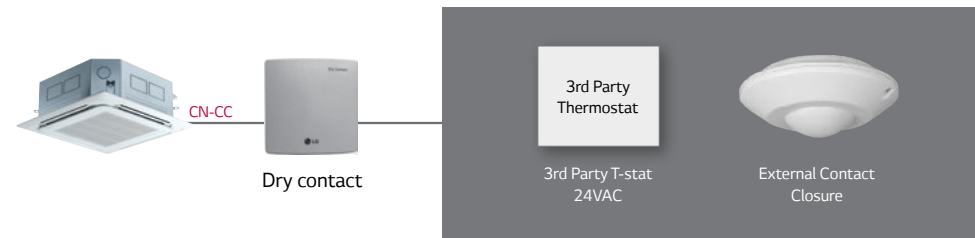
## Features

Model Name	PDRYCB300
On / Off Control	●
Mode Control	● (Cool, Heat, Fan)
Fan Speed Setting	● (Low, Middle, High)
Thermo Off	●
Error Monitoring	●
Operation Monitoring	●
Rotary Switch 1	Operating Set Temperature Selection
Rotary Switch 2	Operating Logic Selection
Dimensions WxH (in)	4.73 x 4.73
Power Input	24V AC

\* Maximum operation AC : 3A

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture



# CABLES

PZCWRCG3  
PZCWRC1



## Features

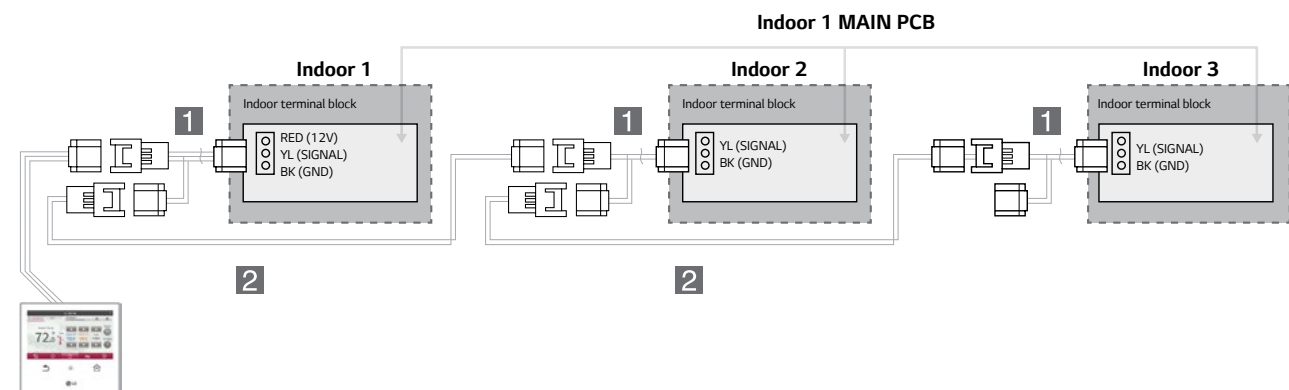
Description	Model	Length (ft.)
Group Control Cable Kit	PZCWRCG3	0.82
Extension Cable	PZCWRC1	32.8

\* Maximum operation AC : 3A

Connect up to 16 indoor units with the group control cable kit. Extend the control wire up to 32.8 ft with the extension cable.

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture



Note : 1 Group Control Cable Kit  
2 Extension Cable

# REMOTE TEMPERATURE BUTTON SENSOR

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ZRTBS01



## Features

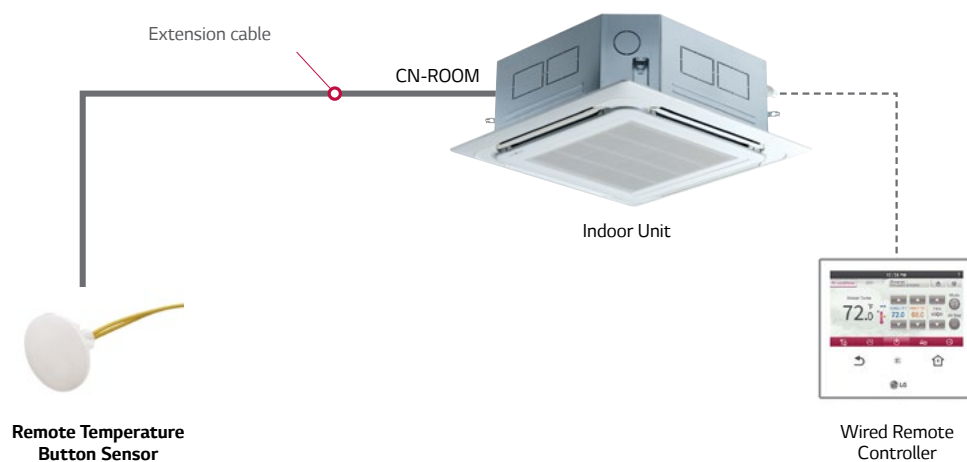
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- 0.8" Diameter (approximate size of a quarter) flush button mounts virtually anywhere
- Paintable with latex or oil base to match any decor
- Replaces IDU return air sensor for remote temperature sensing
- Connects to CN-ROOM on IDU PCB
- Compatible LG indoor units: All cassette and ducted IDUs for Multi V, Multi F, Multi F MAX, and Single Zone
- Applied to Ceiling Mounted Cassette, Ceiling Concealed Duct, and Hydro Kit
- Extension cable (49 ft) is included

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture

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# REMOTE TEMPERATURE SENSOR

PQRSTA0

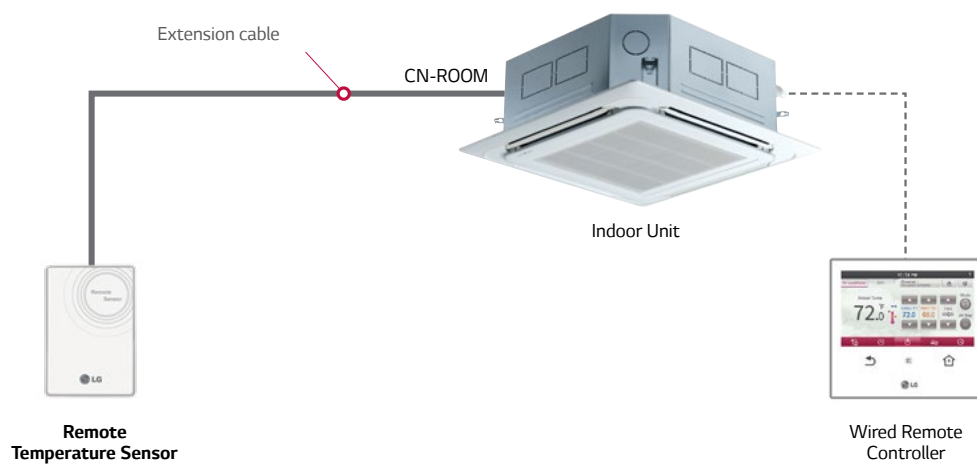


## Features

- Replaces indoor unit return air sensor for remote temperature sensing
- Connects to CN-ROOM plug on indoor unit PCB
- Compatible with cassette and ducted models only

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

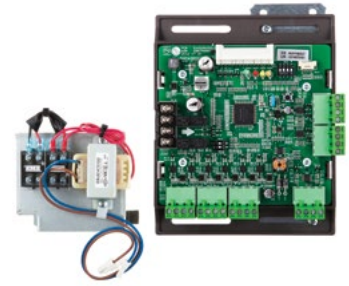
## System Communication Architecture



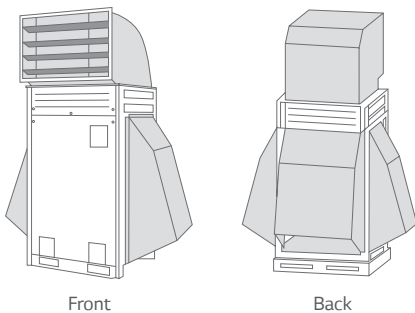
# LOW AMBIENT KIT

External integration module for cooling operation with -9 °F low ambient temperature.

## PRVC2



## Features



### FUNCTION

- -9 °F Low ambient cooling operation using Low ambient kit and hood with damper (Analog output 0~10V)
- Demand control

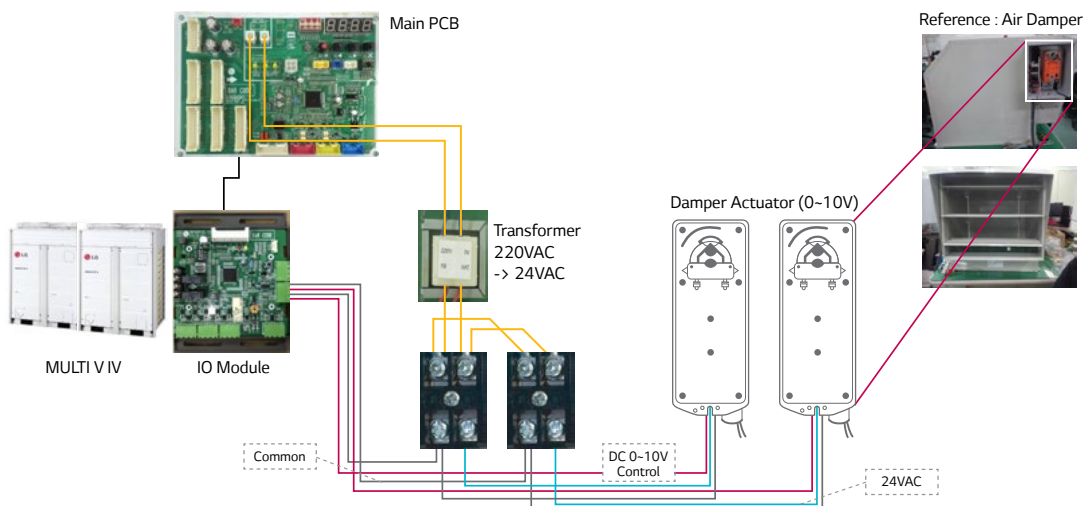
### DESCRIPTION

- Low ambient kit supports -9 °F cooling operation by making stable condensing pressure with reducing air flow rate from hood and damper control given 0~10V proportional to condensing pressure.
- Low ambient kit provides IO Module function.
- The appropriate Low Ambient Baffle Kit is a required accessory.
- Transformer and terminal block are included.

## Models applied

- MULTI V IV

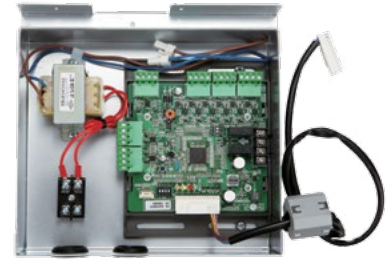
## System Communication Architecture



# VARIABLE WATER FLOW CONTROL KIT

Accessory developed for controlling the water flow

PWFCKN000



## Features

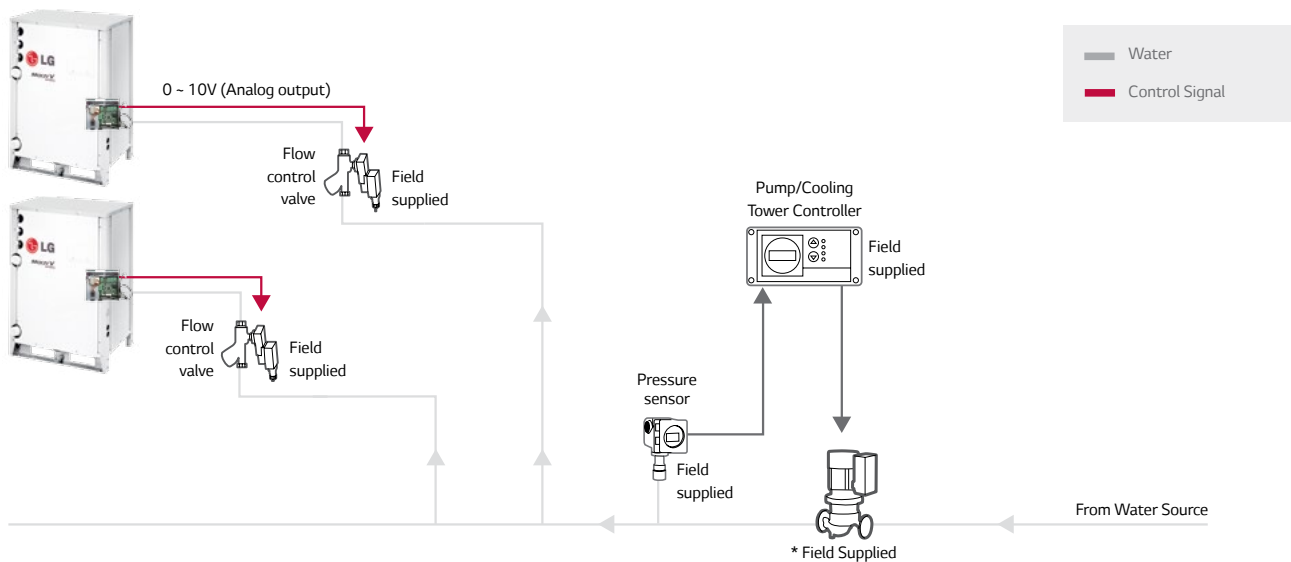
### FUNCTION

- Water valve control (0~10V)
- Minimum output voltage setting available
- Operation, error output (250VAC, Max 1A)
- Dry contact input and analog output for demand control
- Digital output for operation, error status (250VAC, Max 1A)

### ADVANTAGE

- Water flow consumption reduction
- Pump electricity consumption reduction
- Including IO Module (Dry contact input, Analog input/output, Digital output)
- : Using Dry contact and variable water flow control function simultaneously

## Wiring Diagram



# AIR HANDLING UNIT (AHU) MODULES

Solution to extend the benefits of LG VRF technology to third party Air Handling Units.



## Specifications

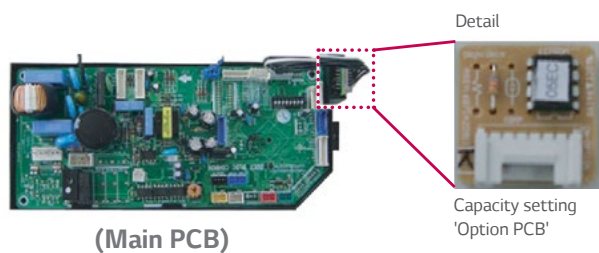
Type	Model Name	Combination				Description	Dimensions (in)		
		Outdoor unit	EEV Kit	Expansion Kit	Central controller		W	H	D
Communication Kit	PRCKAM	MULTI V	●	●	●	Return/room air by remote controller or dry contact control	11-13/16	11-13/16	6-1/8
	PRDCAM	MULTI V	●	●	-	Return/room air or supply air (capacity) control by DDC. This unit is connected with outdoor unit 1:1	15-3/4	19-11/16	8-3/8

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## Capacity Selection

### For MULTI V

- When selecting evaporator, change 'Option PCB' in Communication kit according to below table (Basic 'Option PCB' is for 36k Btu/h)
- After verifying the required capacity, remove the 36k Option PCB equipped in the main PCB, and replace with the corresponding Option PCB in the table to the right.



Option PCB P/No	Capacity Index (Btu/h)
EBR52358907	28k
EBR52358908	36k
EBR52358909	42k
EBR52358910	48k
EBR52358911	76k
EBR52358912	96k
EBR52358914	115k
EBR52358915	134k
EBR52358916	153k
EBR52358917	172k
EBR52358913	192k

## Function list for Communication Kit

	List	Description	Specification			
			PRCKAM	PRDCAM		
			Min	Type	Min	Max
Controlling	Outdoor Unit Operation	On/Off	By wired controller*	Digital input** (Non-voltage)	-	-
	Mode	Fan only/heating/cooling		Digital input (Non-voltage)	-	-
	Fan Step	High/mid/low (three steps)		Digital input (Non-voltage)	-	-
	Room Temperature Control	Cooling 64 ~ 86 °F, Heating 60 ~ 86 °F	By wired controller*	Analog input	0 V	10 V
	Supply Air Temperature (by outdoor capacity control)	Compressor Off, Compressor Off & Fan Off, 40 ~ 100% capacity control	-	Analog input	0 V	10 V
Monitoring	Outdoor Unit Operation	On/Off	-	Digital input** (Non-voltage)	Max : AC 250 V, DC 30 V, 1A	
	AHU Communication Kit Operation	On/Off	-	Digital input (Non-voltage)	Max : AC 250 V, DC 30 V, 1A	
	Outdoor Mode	Fan/defrost/cooling/heating	-	Digital input (Non-voltage)	Max : AC 250 V, DC 30 V, 1A	
	Fan Mode	High/mid/low (three steps)		Digital input (Non-voltage)	Max : AC 250 V, DC 30 V, 1A	
	Error Status	No error/error occurred		Digital input (Non-voltage)	Max : AC 250 V, DC 30 V, 1A	

\* Optional accessory, recommended model : PREMTB10U

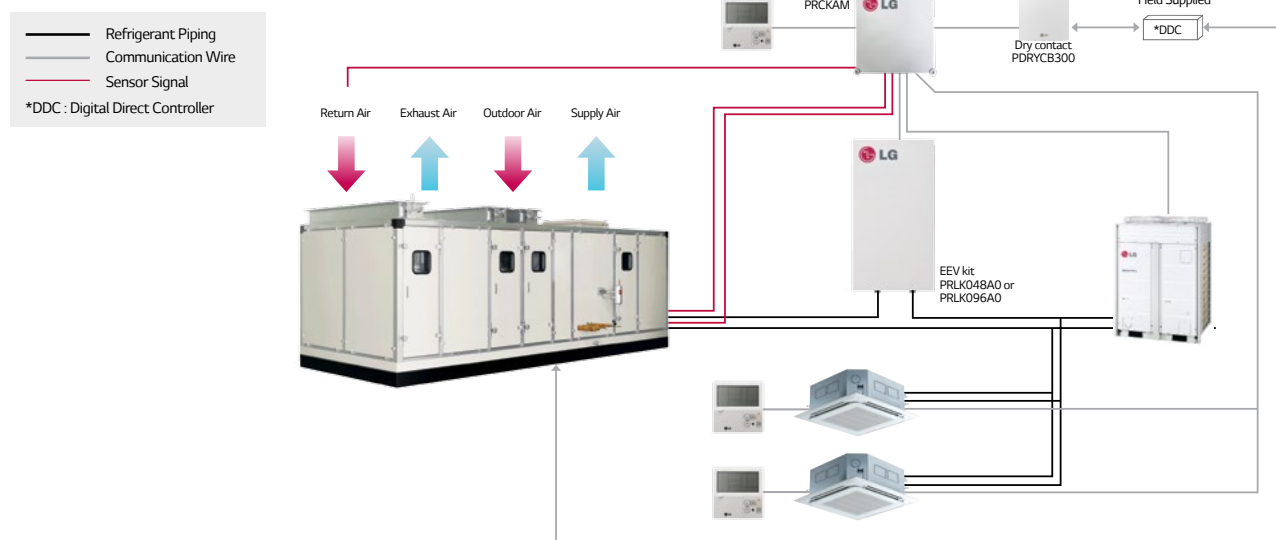
\*\* Binary input and output (Open and short), DO is normal open

## Specifications

Type	Model Name	Description	Capacity Range	Dimensions (in)		
				W	H	D
EEV Kit	PRLK048A0	For MULTI V - In combination with or without indoor units. Several EEV kits can be connected to a single outdoor unit.	8 tons maximum	8-5/8	15-15/16	3-5/16
	PRLK096A0		16 tons maximum	8-5/8	15-15/16	3-5/16

## System Architecture

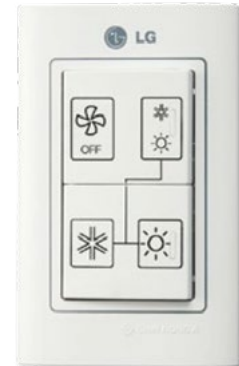
## • MULTI V Application (in Combination with third-party AHU)



# COOL/HEAT SELECTOR

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## PRDSBM



## Features

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- Provides a single location for choosing cooling, heating, or fan mode for the entire system.
- Mode lock for cooling & heating

## Models Applied

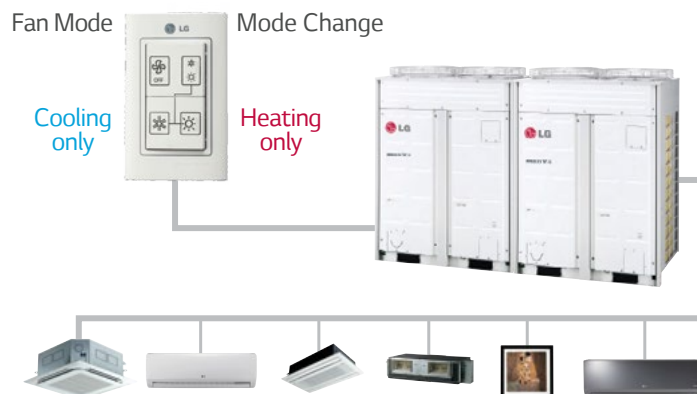
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- MULTI V IV
- MULTI V S
- MULTI V WATER IV
- MULTI V SPACE II
- MULTI V WATER MINI

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## System Communication Architecture

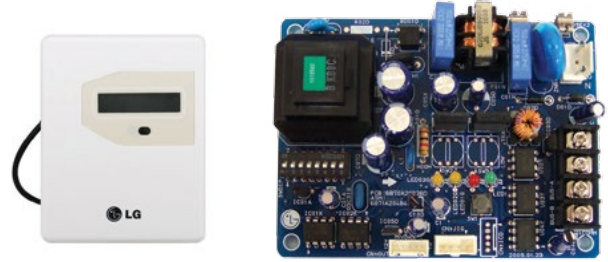
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# ACCESSORIES FOR ERV

These accessories allow for additional functionality when using LG ERV systems.

PSNFP14A0  
PES-CORV0



## Features for PI-485



- Model Number: PSNFP14A0
- Power: Connected with the Indoor Units
- 1 for Each Indoor Unit

- \* Provided with a case to be installed on the exterior.
- \* A PI-485 is not required when used with Multi V systems.

## Features for CO<sub>2</sub> Sensor



### PES-CORV0

The PES-CORV0 is especially designed to work in conjunction with LG Energy Recovery Ventilators (ERVs). Real-time CO<sub>2</sub> levels are detected and displayed on the sensor's LCD. The PES-CORV0 then sends the data to the LG ERV via the hard-wired connection cable coupled with the supplied 33-foot extension cable. LG ERVs, using stand-alone embedded logic, will respond to CO<sub>2</sub> changes in the surrounding ambient air by applying demand control ventilation when its fan is set to Auto mode. Energy efficiency is increased, and indoor air quality can be improved when ventilation air is introduced to the monitored space only as necessary.

### STANDARD FEATURES:

- Constant monitoring of CO<sub>2</sub> levels
- LCD display readout
- LED sensor light indications for troubleshooting
- Direct attachment through a 33-foot cable
- Connects to CN\_CC02 socket on ERV control board

NOTE: Available functions/features may differ based on the connected system. Due to our policy of innovation, some specifications may be changed without notification.

## Compatibility



ARVU053ZEA2 / ARVU063ZEA2






ARVU093ZFA2 / ARVU123ZFA2

- Compatible with ERV (Energy Recovery Ventilator):  
ARVU053ZEA2  
ARVU063ZEA2  
ARVU093ZFA2  
ARVU123ZFA2

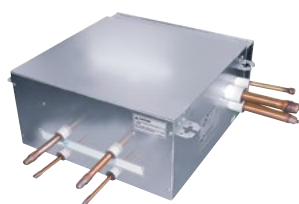
# MECHANICAL ACCESSORIES

## Lineup

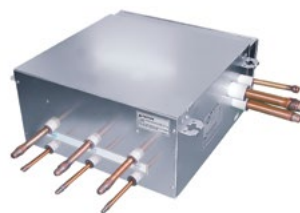
INDOOR			AIR TECHNOLOGIES
Ceiling Mounted Cassette		Ceiling Concealed Duct	
Auto Elevation Grille  PTEGM0	Cassette Cover  PTDCM PTDCQ	Suction Grille  PBSGB30 / PBSGB40 	Air Cleaner ZFBXD201A ZFBXD402A
Cassette Panel  4-Way Cassette PT-UQC / PT-UMC1	Plasma Kit  PTPKM0 PTPKQ0	Canvas  PBSC30 / PBSC40	Air Cleaner Media  ZFLT1301A ZFLT1302A
4-Way True 2x2 Cassette PT-QCHW0 	Ventilation Kit  PTVK410   PTVK420 PTVK430	Other Aux Heater Relay Kit  PRARH* PRARS* HSD Filter Box  ZFBXB*01A	Return Air Grill ZGRLRA01A ZGRLRA02A  Return Air Plenum ZPLMV201A ZPLMV402A
4-Way Black Cassette PT-UMC1B 2-Way Cassette PT-HLC1 1-Way Cassette PT-UUC1 PT-UTC			
OUTDOOR			MULTI V
Air Guide  PRAGX3S0	Hail Guard  ZHGDKA01A ZHGDKA04A	Low Ambient Baffle Kit  ZLABKA01A ZLABKA03A	Heat Recovery Unit  PRHR022A PRHR032A PRHR042A
Air Guide  PRAGX2S0		Wind Baffle  ZLABKA04A	

# HEAT RECOVERY UNIT

PRHR022A  
PRHR032A  
PRHR042A



PRHR022A  
(2-branch Unit)



PRHR032A  
(3-branch Unit)



PRHR042A  
(4-branch Unit)

## Features

- Max. 32 indoor units can be connected (Max eight indoor units per branch)
- Easy installation with auto pipe detect
- Delivers maximum efficiency using the subcooling cycle within the HR Unit

## Models Applied

- MULTI V IV Heat Recovery
- MULTI V WATER IV Heat Recovery

## Specifications

Specification		Unit	PRHR022A	PRHR032A	PRHR042A
Number of Indoor Unit Ports <sup>2</sup>			2	3	4
Power Input		Watts	26	40	40
Max Port Capacity	Each Port	Btu/h	54,000	54,000	54,000
	Sum of Ports	Btu/h	192,000	192,000	192,000
Electrical	Power Supply	(V/Hz/Ø)	208-230/60/1	208-230/60/1	208-230/60/1
	Rated Amps	A	0.08	0.12	0.16
Piping	Port Liquid Line	in	3/8	3/8	3/8
	Port Vapor Line	in	5/8	5/8	5/8
	System Liquid Line	in	3/8	1/2	5/8
	System Vapor Line High	in	3/4	7/8	7/8
	System Vapor Line Low	in	7/8	1-1/8	1-1/8
Sound Pressure Data	Cooling Mode	dB(A)	35.2	35.2	35.2
	Heating Mode	dB(A)	35.1	35.1	35.1
	Simultaneous	dB(A)	43.3	43.3	43.3
Weight	Net Unit Weight	lbs	40	45	49
	Shipping Weight	lbs	48	54	57

1. All refrigerant pipes require insulation.

2. Each port can allow up to eight indoor units with a maximum capacity of 48k Btu/h per port.

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

4. Kit components must be kept dry and free of debris before installation.

5. Must follow installation instructions in the applicable LG installation manual.

6. Power wiring cable size must comply with the applicable local and national code.

7. This unit comes with a dry nitrogen charge.

# ACCESSORIES

## Indoor Accessories



PTEGM0



PTDCM  
PTDCQ



PT-UQC  
PT-UMC1



PT-QCHW0



PT-UMC1B



PT-HLC1



PT-UUC1  
PT-UTC



PTVK410



PTVK420



PTVK430



PTPKM0  
PTPKQ0



ZFLT1301A  
ZFLT1302A



PBSC30  
PBSC40



PBSGB30  
PBSGB40



PRARH0  
PRARH1  
PRARS1



PSNFP14A0



CO<sub>2</sub> Sensor



HSD Filter Box

Unit Type	Category	Model	Description	Used with
Ceiling Cassettes	Cassette Auto Elevation Kit	PTEGM0	Auto Elevation Grill Kit	TP, TN, TM
	Cassette Cover	PTDCM	Decorative Cover for 4-Way Ceiling Cassette	TP, TN, TM
		PTDCQ		TQ, TR
	Cassette Panel	PT-UTC	1-Way Ceiling Cassette Panel	TT
		PT-UUC1	1-Way Ceiling Cassette Panel	TU
		PT-HLC1	2-Way Ceiling Cassette Panel	TL
		PT-UQC	4-Way Ceiling Cassette Panel	TQ, TR
		PT-QCHW0	4-Way Ceiling Cassette Panel, True 2x2	TQ, TR
		PT-UMC1	4-Way Ceiling Cassette Panel	TP, TN, TM
		PT-UMC1B	4-Way Ceiling Cassette Panel, Black	TP, TN, TM
		PTVK410	Ventilation Air Intake Spacer for 4-Way Ceiling Cassette (Requires PTVK420)	TP, TN, TM
	Cassette Ventilation	PTVK420	6" Ø Ventilation Air Connection Flange for 4-Way Ceiling Cassette	TP, TN, TM
		PTVK430	3" Ø Ventilation Air Connection Flange for 4-Way Ceiling Cassette	TQ, TR, TP, TN, TM
		PTPKM0	4-Way Ceiling Cassette Plasma Kit (3x3)	TP, TN, TM
	Plasma Kit	PTPKQ0	4-Way Ceiling Cassette Plasma Kit (2x2)	TQ, TR
High Static Ducted	HSD Filter Box	ZFBXB801A	High-Capacity Filter Box	B8
		ZFBXBG01A	High-Capacity Filter Box	BG
		ZFBXBH01A	High-Capacity Filter Box	BH
		ZFBXBR01A	High-Capacity Filter Box	BR
	Air Cleaner	ZFBXD201A	DYNAMIC V8-2VL Low-Profile Air Cleaner	BG, BH, BR, B8
		ZFBXD402A	DYNAMIC V8-4VL Low-Profile Air Cleaner	BG, BH, BR, B8
	Air Cleaner Media	ZFLT1301A	Air Cleaner Media 4-Pack	BG, BH, BR, B8
		ZFLT1302A	Air Cleaner Media 24-Pack	BG, BH, BR, B8
	Return Air Plenum	ZPLMV201A	2VL Return Air Plenum	BG, BH, BR, B8
		ZPLMV401A	4VL Return Air Plenum	BG, BH, BR, B8
LSD Bottom Return	LSD Bottom Return Canvas	PBSC30	Return Air Canvas (Requires PBSGB30 Grille)	B3
		PBSC40	Return Air Canvas (Requires PBSGB40 Grille)	B4
	LSD Bottom Return Grille	PBSGC30	Return Air Grille (Requires PBSC30 Canvas)	B3
		PBSGC40	Return Air Grille (Requires PBSC40 Canvas)	B4
Vertical AHU	Heat Kit	ANEH053B1	5kw Electric Heat Kit	NJ, NK
		ANEH103B2	10kw Electric Heat Kit	NJ (243, 303, 363), NK
		ANEH153B2	15kw Electric Heat Kit	NK
		ANEH203B2	20kw Electric Heat Kit	NK
Auxiliary Heat Kit		PRARH0	Auxiliary Heat Kit for Gen 2 Cassettes, Ducted, and Convertible units	VJ, VE
		PRARH1	Auxiliary Heat Kit for Gen 4 Cassettes, Ducted, and Convertible units	B3, B4, B8, BG, BH, BR, L1, L2, L3, TL, TM, TN, TP, TQ, TR, TT, TU
		PRARS1	Auxiliary Heat Kit for Wall Mounted Units	SB, SC

# ACCESSORIES

## Outdoor Accessories

Air Guide



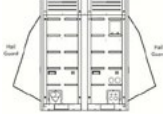
PRAGX3S0

Air Guide



PRAGX2S0

Hail Guard

ZHGDKA01A  
ZHGDKA04A

Low Ambient Baffle Kit

ZLABKA01A  
ZLABKA03A

Wind Baffle



ZLABKA04A

Type	Model	Description	Used with
Air Guide	PRAGX2S0	Air Guide (one required per frame)	Multi V IV 6 Ton Chassis
	PRAGX3S0	Air Guide (two required per frame)	Multi V IV 8 to 14 Ton Chassis
Hail Guard	ZHGDKA01A	Hail Guards Kit	Multi V IV 6 Ton Chassis
	ZHGDKA04A	Hail Guards Kit	Multi V IV 8 to 14 Ton Chassis
Low Ambient Baffle Kit	ZLABKA01A	Low Ambient Baffle Kit (requires PRVC2)	Multi V IV 6 Ton Chassis
	ZLABKA03A	Low Ambient Baffle Kit (requires PRVC2)	Multi V IV 8 to 14 Ton Chassis
Wind Baffle	ZLABKA04A	Low Ambient Baffle Kit (two required per unit)	Multi V S



## LG Electronics USA, Inc.

Air Conditioning Systems

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