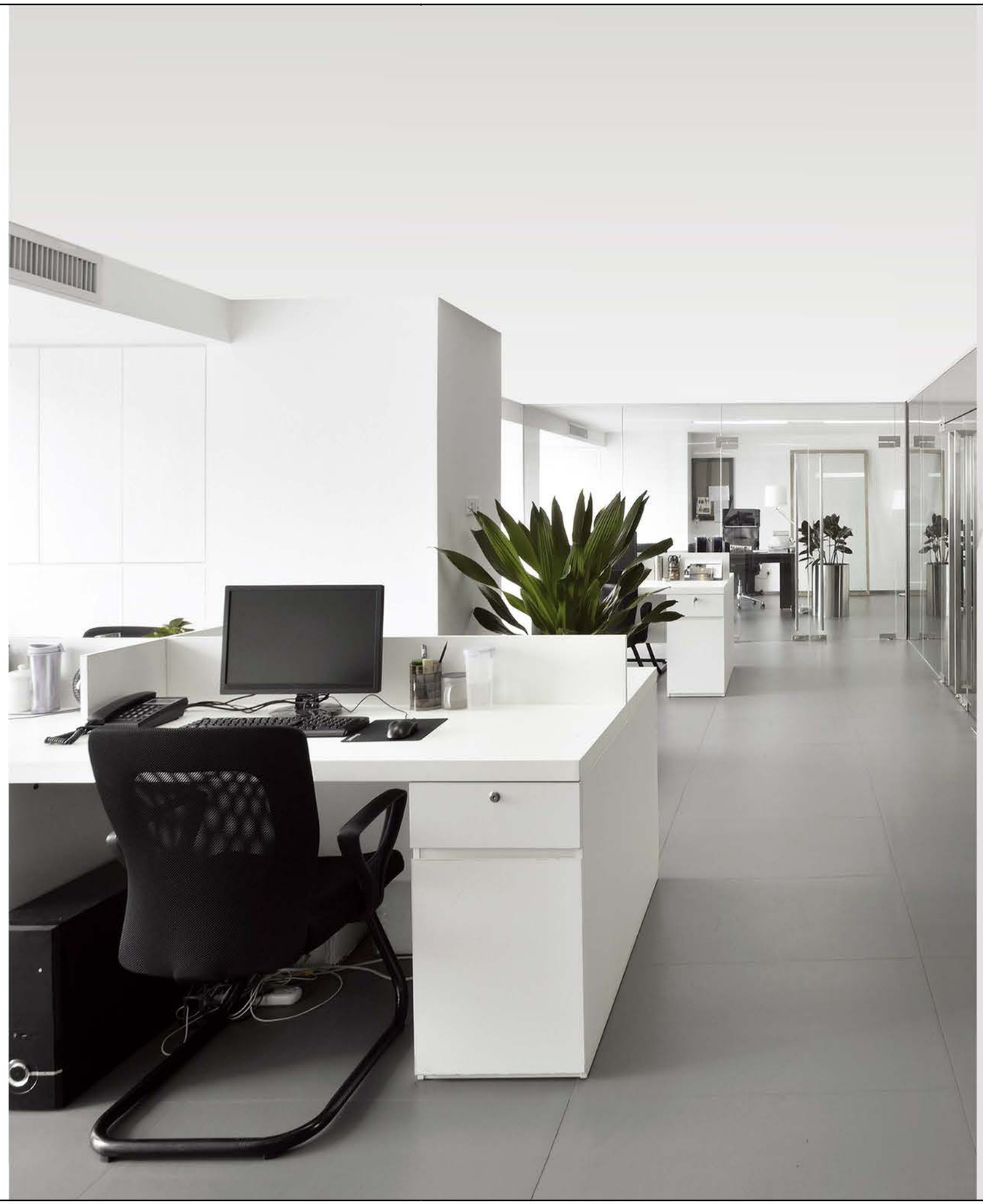
CONTROL SOLUTIONS

INDIVIDUAL CONTROL / CENTRALIZED CONTROL

INTEGRATION DEVICE



LG HVAC CONTROL LINE-UP

INDIVIDUAL CONTROL

Wired Remote Controller

Standard

Standard III (White)

PREMTB100

Standard III (Black)

PREMTBB10

Standard II (White)

PREMTB001

Standard II (Black)

PREMTBB01

Premium

PREMTA000
PREMTA000A
PREMTA000B

Simple

PQRCVCL0QW

PQRCVCL0Q

PQRCHCA0QW
(Simple for Hotel)

PQRCHCA0Q
(Simple for Hotel)

Wireless Remote Controller

PQWRHQ0FDB

Wi-Fi Controller

LG Wi-Fi Modem

For Indoor Unit
PWFMDD200

CENTRALIZED CONTROL

Display

AC Ez

PQCSZ250S0
(Indoor Unit ~32)

AC Ez Touch

PACEZA000
(Indoor Unit ~64)

AC Smart 5

PACS5A000
(Indoor Unit ~128)

Platform

ACP 5

PACP5A000
(Indoor Unit ~256)

AC Manager 5

PACM5A000
(Indoor Unit ~8,192)

Gateway

ACP Lonworks

PLNWKB000
(Indoor Unit ~64)

Modbus RTU Gateway

PMBUSB00A

KNX Gateway

LG-AC-KNX4
LG-AC-KNX8
LG-AC-KNX16
LG-AC-KNX64

PI-485

For Indoor Unit (ERV)
PHNFP14A0

CENTRALIZED CONTROL

Facility Integrator

PDI
(Power Distribution Indicator)

Premium (8 port)
PQNUD1S40
Standard (2 port)
PPWRDB000

ACS IO Module
(Input / Output Module)

PEXPMB000

Chiller Option Kit

PCHILLN000

ACU IO Module

NEW UIO

PEXPM300

NEW UO

PEXPM200

NEW UI

PEXPM100

INTEGRATION DEVICE

Indoor Unit

Dry Contact

Simple Dry Contact
PDRYCB000

Dry Contact for Thermostat
PDRYCB300

2 Points Dry Contact
(For Setback)
PDRYCB400

For Modbus
PDRYCB500

Control Accessory

Group Control Wire

PZCWRCG3

Remote Temperature Sensor

PQRSTA0

Low Profile Remote
Temperature Button Sensor

ZRTBS01

Zone Controller

4 Zones by
thermostat ABZCA

Outdoor Unit

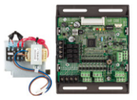
IO Module
(Input / Output Module)

For MULTI V 5
PVDSMN000

Variable Water Flow
Control kit

For MULTI V WATER IV
PWFCKN000

Low Ambient Kit



For MULTI V IV, 5
PRVC2

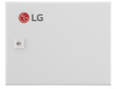
Cool / Heat Selector

PRDSBM

AHU Kit

Communication Kit

Return/Room Air control
PAHCMR000



Discharge Air control
PAHCMS000

Control kit

PRCKD21E (~ 4 ODUs)
PRCKD41E (~ 8 ODUs)

EEV Kit
(Electronic Expansion Valve)

PRLK048A0 (~ 10HP)
PRLK096A0 (~ 20HP)

TXV Kit
(Thermal Expansion Valve)

PATX13A0E (8 ~ 16HP)
PATX20A0E (18 ~ 26HP)
PATX25A0E (28 ~ 36 HP)
PATX35A0E (38 ~ 46 HP)
PATX50A0E (48 ~ 56 HP)

Note
1. AC Smart 5 & ACP 5 provides BACnet IP / Modbus TCP
2. KNX Gateway is provided by INTESIS

LG CONTROL SOLUTIONS

MULTI V 5 offers a diverse range of effective control solutions that satisfy specific needs of each building and its user scene. These controlling systems are equipped with user friendly interface, flexible interlocking environment, energy management and smart individual controller for optimized controlling conditions and smart building management.

HOTEL

Hotel Room Solution

OFFICE

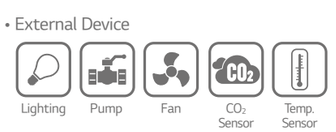
Central Control Solution

3rd Party BMS

Cloud System

- Energy Management

- External Device



reddot award
User Interface Design

Integration Solution

APARTMENT

Power Distribution Solution

RESIDENTIAL

Smart Individual Control Solution

SMALL BUILDING

Small Central Control Solution

INDIVIDUAL CONTROL

FEATURE FUNCTIONS

Controller Name		Wired Remote Controller					Wireless Remote Controller	Wi-Fi Controller
		Premium	Standard III	Standard II	Simple	Simple(Hotel)		
Model Name								
		PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001 PREMTBB01	PQRCVCL0Q PQRCVCL0QW	PQRCHCA0Q PQRCHCA0QW	PQWRHQ0FDB	PWFMDD200
Basic	On / Off	○	○	○	○	○	○	○
	Fan Speed Control	○	○	○	○	○	○	○
	Temperature Setting	○	○	○	○	○	○	○
	Mode Change	○	○	○	○	-	○	○
	Auto Swing	○	○	○	○	○	○	
	Vane Control (Louver Angle)	○	○	○	○	○	○	○
	E.S.P (External Static Pressure)	○	○	○	○	○	-	-
	Electric Failure Compensation	○	○	○	○	○	-	○
	Indoor Temperature Display	○	○	○	○	○	○	
	ALL Button Lock (Child Lock)	○	○	○	○	○	-	-
Advanced	Schedule / Timer	Weekly~Yearly	Weekly~Yearly	Weekly	-	-	Sleep / On / Off	Weekly
	Additional Mode Setting [1]	○	○	○	-	-	-	-
	Time Display	○	○	○	-	-	○	-
	Humid. Display	○	○	-	-	-	-	-
	Advanced Lock (mode, set point, set point range, On / Off Lock)	Advanced Lock	Advanced Lock	Mode Lock	-	-	-	-
	Filter Sign	○	○	○	-	-	-	-
	Energy Management [2]	○	○	○	-	-	-	-
	Dual Set Point	○	○	-	-	-	-	-
	Human Detection	-	○	-	-	-	-	-
	Temp, Humidity Compensation	○	○	-	-	-	-	-
	Wi-Fi AP Mode Setting	○	○	○	○	○	○	-
ETC	Operation Status LED	○	○	○	○	○	-	-
	Wireless Remote Controller Receiver	○ [3]	-	○ [3]	○ [3]	○ [3]	-	-
	Display	5 inch Color	4.3 inch Color	4.3 inch mono	2.6 inch mono	2.6 inch mono	2 inch mono	-
	Size (W x H x D, mm)	137 x 121 x 16.5	120 x 120 x 16	120 x 120 x 16	64 x 120 x 15	64 x 120 x 15	51 x 153 x 26	-
	Black Light Control for Screen Saver	○	○	-	-	-	-	-

※ ○ : Applied, - : Not Applied
1) It might not be indicated or operated at the partial product
2) Centralized control (PACEZA000 / PACS5A000 / PACP5A000 / PLNWKB000) and PDI (PQNUD1S40 / PPWRDB000) should be installed for this function
3) For ceiling type duct
Note : 1. Indoor unit should have functions requested by the controller
2. If you need more detail, please refer to the manual of product. (http://partner.lge.com: Home> Doc.Library> Manual)

STANDARD III WIRED REMOTE CONTROLLER

4.3 inch Color screen with a modern design.

PREMTB100 (White)

PREMTBB10 (Black)

- The Optimized Controller in MULTI V 5
  - Humidity sensor embedded
  - Comfort cooling setting
  - Smart Load Control setting
  - Outdoor unit low noise setting
  - Defrost mode setting
- New Modern Design & Easy Interface
  - Seamless design / Touch button
  - 4.3 inch color LCD / Intuitive GUI
- Energy Saving Functions
  - Instantaneous power monitor
  - Energy consumption check (power consumption, operation time)
  - Temp. Setback Timer, Time Limit Control
  - Target setting (ODU Capacity, Instantaneous power…etc)
- Group Control
  - Up to 16 Indoor units can be controlled with one remote control
- External Device On / Off (1 point)
  - Customized interlocking control with indoor unit is possible without dry contact
- 2 Set Points Control
  - Increase convenience and comfort
  - Auto changeover, Setback (home leave)

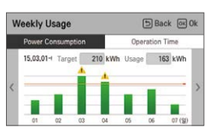
Model Name	PREMTB100 / PREMTBB10
On / Off	○
Fan Speed Control	○
Temperature Setting	○
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting [1]	Energy-Saving Cooling / Robot Cleaning / Heater / Humidification / Comfort Cooling
Auto Swing	○
Vane Control (Louver direction)	○
E.S.P. (External Static Pressure) [2]	○
Reservation	Simple / Sleep / On & Off timer / Weekly / Yearly / Holiday
Time Display	○
Electric Failure Compensation	○
Lock	All / On & Off / Mode / Set temperature range
Filter Sign	○ (Remain time + Alarm)
Energy Management	Check Energy Usage 3) / Check Operation Time / Target Setting (Energy, Operation Time) / Time Limit Operation / Alarm Popup / Initialization Usage Data
Operation Status LED	○
Indoor Temperature Display	○
Indoor Humidity Display	○
Display	4.3 inch TFT color LCD (480 x 272)
Size (W x H x D, mm)	120 x 120 x 16
Black light for Screen saver	○
Home Leave	2 set points control

※ ○ : Applied, - : Not Applied
1) It might not be indicated or operated at the partial product
2) This function is available for duct type
3) This function requires PDI (PQNUD1S40 / PPWRDB000) to be installed.
Note : 1. Indoor unit needs to have functions requested by the controller
2. 2 set points control works normally with MULTI V Heat Recovery and Single Split Heat Pump. But in case of MULTI V Heat Pump, It may not work properly

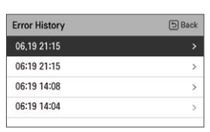
Touch Button

Cool Heat Dry Fan Auto

Comfort Level



Energy Contents

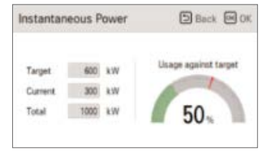


Error History

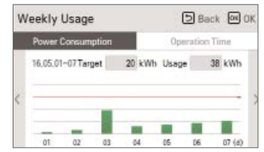
Energy Saving Function

Energy Management

- Energy Monitoring & Alarm
  Real-time and day / week / month / year energy usage monitoring is possible. In addition, it can set target for energy usage and operation time, and alarm will be displayed when exceeded.
  * PDI (PQNUD1S40 / PPWRDB000) is required.



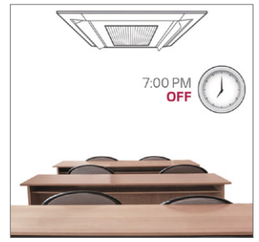
Instantaneous Power Check



Energy Usage Target Setting

Time Limit Control

- The time-limit operation is to limit the amount of time.
  By setting the device operation time in advance, you can control for how long a device works and have it stop automatically.



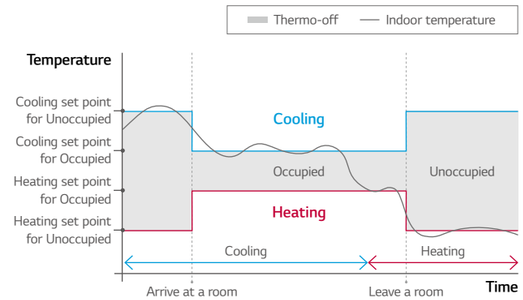
2 Set Points Control

Auto Changeover (Convenience)

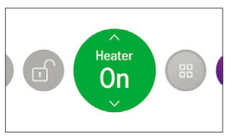
- The indoor unit automatically manages room temperature with heating and cooling with extended setting temperature ranges. With setting heating and cooling set temp. just one time, comfortable condition will continue at all times.

Setback (Home Leave) (Energy saving & Comfort)

- In the absence, room temperature can be kept in the range of 2 set points instead of power off. It provides comfortable indoor environment quickly when the mode is changed to occupied.
  * This function is for Heat Recovery system or Single heat pump. Otherwise it is not guaranteed.

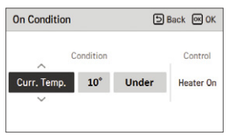


External Device On / Off



External Equipment Control

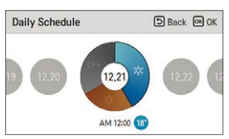
User can turn on or off the external equipment through contact point output.



Customized Interlocking Control

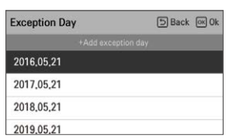
User can make control scenario.
example) When temperature is under 10 degree, turn on the external heater.

Schedule Function



Easy Checking Schedule

Standard III remote controller provides clock type daily schedule.



Exception Day settings

Convenient settings are possible with schedule exception settings.

PREMIUM WIRED REMOTE CONTROLLER

5 inch full touch screen with a premium design.

PREMTA000 [1] / PREMTA000A [2] / PREMTA000B [3]

1) English / Portuguese / Spanish / French
2) English / Italian / Russian / Chinese
3) English / German / Polish / Czech

Features & Benefit

- Full Touch screen
- The Optimized Controller in MULTI V 5
  - Comfort cooling setting
  - Smart Load Control setting
  - Outdoor unit low noise setting
  - Defrost mode setting
- Design with User's Convenience
  - Intuitive GUI
  - Main display simple mode
  - 5 inch color LCD
- Energy Saving Functions
  - Instantaneous power monitor
  - Energy consumption check (power consumption, operation time)
  - Temp. Setback Timer, Time Limit Control
  - Target setting (ODU Capacity, Instantaneous power…etc)
- Group Control
  - Up to 16 Indoor units can be controlled with one remote control
- 2 Set Points Control
  - Increase convenience and comfort
  - Auto changeover, Setback (home leave)

Model Name	PREMTA000 / PREMTA000A / PREMTA000B
On / Off	○
Fan Speed Control	○
Temperature Setting	○
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting [1]	Energy-Saving Cooling / Robot Cleaning / Heater / Humidification
Auto Swing	○
Vane Control (Louver direction)	○
E.S.P (External Static Pressure) [2]	○
Reservation	Simple / Sleep / On / Off / Weekly / Yearly / Holiday
Time Display	○
Electric Failure Compensation	○
Child Lock	○
Filter Sign	○ (Remain time + Alarm)
Energy Management	Check Energy Usage [3] / 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	○ [4]
Display	5 inch TFT color LCD (480 x 272)
Size (W x H x D, mm)	137 x 121 x 16.5
Black Light for Screen Saver	○
Home Leave	2 set points control

※ ○ : Applied, - : Not Applied
1) It might not be indicated or operated at the partial product
2) This function is available for duct type
3) This function requires PDI (PQNUD1S40 / PPWRDB000) to be installed.
4) For ceiling type ducted unit
Note : 1. Indoor unit needs to have functions requested by the controller
2. 2 set points control works normally with MULT V Heat Recovery and Single Split Heat Pump. But in case of MULTI V Heat Pump, It may not work properly

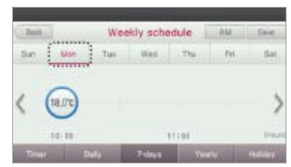
Full Touch Screen

Easy Energy Management

- Check the operation hour or electricity usage
- Comparison of usage compared to last year
- Set the target usage and time

Easy Scheduling

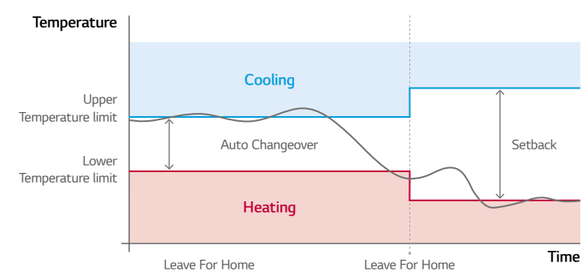
- Daily, Weekly, Yearly schedule function
- Schedule pattern setting
- Schedule copy



2 Set points Control

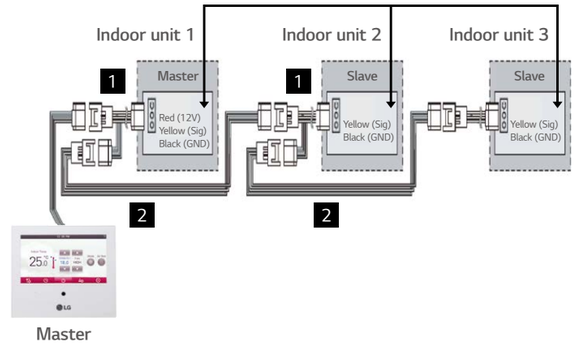
- Auto changeover switching the operation mode automatically
- Setback (Home Leave) Changing status by occupied / unoccupied

* This function is only for Heat Recovery system and Single heat pump.



Group Control

1. Max.16 Indoor units by one remote controller.



Master

STANDARD II WIRED REMOTE CONTROLLER

Providing easy control of one or a group of indoor units with various functions.

PREMTB001 (White)

PREMTBB01 (Black)

Model Name	PREMTB001 / PREMTBB01
On / Off	○
Fan Speed Control	○
Temperature Setting	○
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting	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	○ (Remain time + Alarm)
Operation Status LED	○
Indoor Temperature Display	○
Wireless Remote Controller Receiver	○[1)]
Size (W x H x D, mm)	120 x 120 x 16
Blacklight	○
Power Consumption Monitoring	○[2)]
Check Model Information	○

※ ○ : Applied, - : Not Applied
1) For ceiling type ducted unit
2)This function requires PDI (PQNUD1S40 / PPWRDB000) to be installed.
Note : Indoor unit needs to have functions requested by the controller

Features & Benefit

• Wired remote controller that can implement various functions such as schedule, filter sign.

SIMPLE WIRED REMOTE CONTROLLER

A simple way to control office or hotel systems in a compact design

PQRCVCL0QW (White) / PQRCVCL0Q (Black)

PQRCHCA0QW (White) / PQRCHCA0Q (Black)

Model Name	PQRCVCL0QW / PQRCVCL0Q	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	○[1)]	○[1)]
Size (W x H x D, mm)	70 x 121 x 16	70 x 121 x 16
Blacklight	○	○

※ ○ : Applied, - : Not Applied
1) For ceiling type ducted unit
Note : Indoor unit needs to have functions requested by the controller

Features & Benefit

• Small remote control with minimal functionality

WIRELESS REMOTE CONTROLLER

PQWRHQ0FDB

Features & Benefit

• Easy to use while moving
• Main functions are available

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
Size (W x H x D, mm)	51.4 x 153 x 26

※ ○ : Applied, - : Not Applied

LG Wi-Fi MODEM

Control LG air conditioners via using the internet devices as Android or iOS smartphones.

PWFMDD200

Model Name	PWFMDD200
Size (W x H x D, mm)	48 x 68 x 14
Interfaceable Products	MULTI V Indoor unit 3)
Connection Type	Indoor unit 1:1
Communication Frequency	2.4 GHz
Wireless Standards	IEEE 802.11b/g/n
Mobile Application	LG SmartThinQ (Android v4.1(Jellybean) or higher, iPhone iOS 9.0 or higher)
Optional Extension Cable	PWYREW000 (10m extension)

1) Vane Control may not be possible according to the type of Indoor unit
2) LG Centralized controller and PDI installation is required for this function
3) For the compatibility with Indoor unit, please contact regional LG office
Note : 1. Functionality may be different according to each IDU model
2. User interface of application shall be revised for its design and contents improvement
3. Application is optimized for smartphone use, so it may not be well functioning with tablet devices

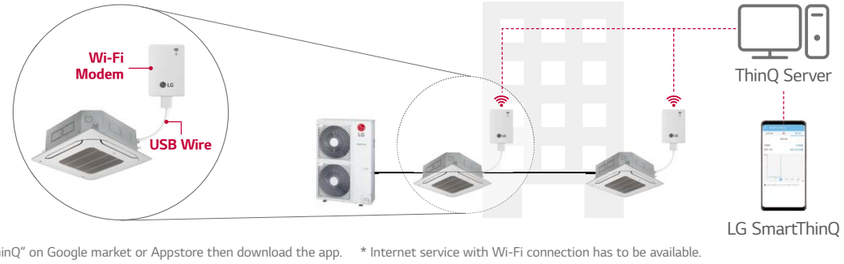
Features & Benefit

- Access LG air conditioner anytime and from anywhere with Wi-Fi equipped device.
  It is possible to check whether the air conditioner is turned off when the user goes out (energy saving), and can be operated in advance before entering the house (comfort improvement).
- LG's exclusive Home Appliances control app(SmartThinQ) is available
- Simple operation for various functions
  - On / Off
  - Operation Mode
  - Current/Set Temperature
  - Fan Speed
  - Vane Control 1)
  - Reservation (Sleep, Weekly On / Off)
  - Energy Monitoring 2)
  - Filter Management
  - Error Check

Download on the App Store

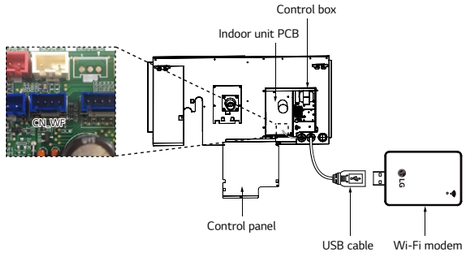
GET IT ON Google Play

Overview



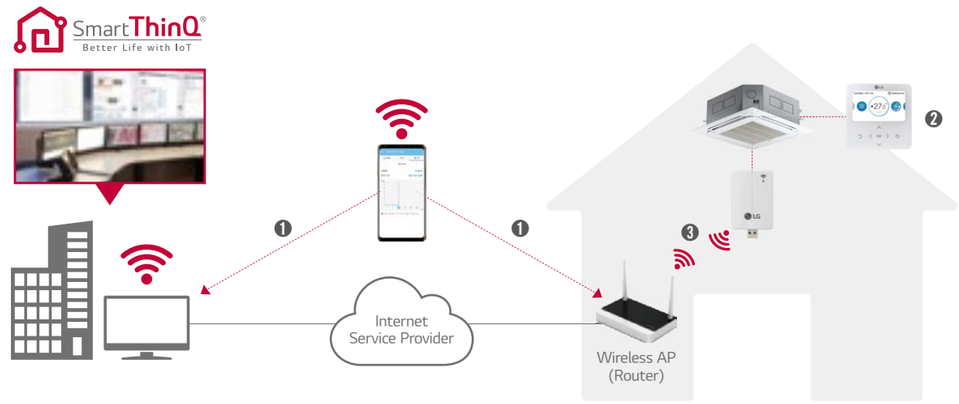
* Search "LG SmartThinQ" on Google market or Appstore then download the app.
* Internet service with Wi-Fi connection has to be available.

Installation Scene



* Each indoor unit has a Wifi modem installation location inside the product, and it can be installed by exposure if necessary.

Connected Diagram

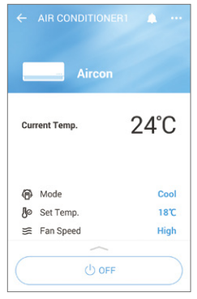


Connection (Pairing) Order
❶ Make LG account on LG Smart ThinQ and select the Router that will use
❷ Insert passwords of selected router and do set AP by LG remote controller
❸ Confirm the pairing between Wi-Fi Modem and Router

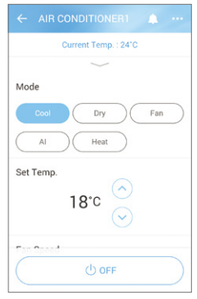
Smart ThinQ

Simple operation for various functions

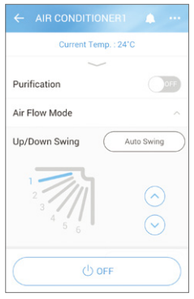
On / Off, Current Temp

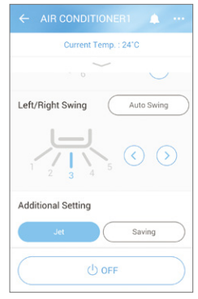


Mode, Set Temp



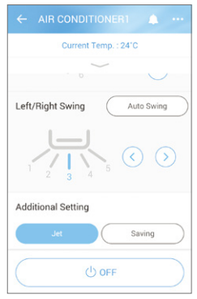
Vane Control

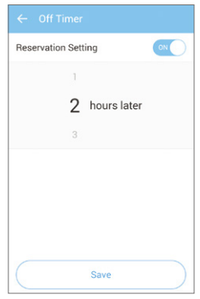




Straight forward Management

Reservation

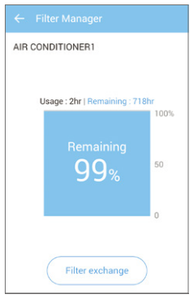




Energy Monitoring

Smart Diagnosis

Filter Management



CENTRALIZED CONTROL

CENTRALIZED CONTROLLER FEATURE LIST

Controller Name			AC Ez	AC Ez Touch	AC Smart 5 [5]	ACP 5 [5]	ACP Lonworks	AC Manager 5 [3]
Model Name								
			PQCSZ250S0	PACEZA000	PACS5A000	PACP5A000	PLNWKB000	PACM5A000
Product	DO		-	-	2	4	2	-
	DI		-	1	2	10	2	-
	Max. Connectable No.	IDUs	32	64	128	256	64	8,192
		ERV	32	64	128	256	64	-
		A/C + ERV	32	64	128	256	64	-
		AHU	-	-	16	16	16 [4]	-
		Chiller	-	-	5 Optional [2]	10 Optional [2]	-	-
Compatibility	Air Conditioner		○ [1]	○	○	○	○	○
	Ventilation (ERV / ERV DX)		○ [2]	○	○	○	○	○
	Heating		-	○	○	○	○	○
	AHU		-	-	○	○	○	○
	Chiller		-	-	○ [4]	○ [4]	-	○
	ACS IO		-	-	○ [4]	○ [4]	○ [4]	○
Additional Function	Add Drawing		-	-	○ [4]	○ [4]	○ [4]	○
	Group Management		-	-	○ [4]	○ [4]	○ [4]	○
	Auto Changer Over		-	○	○ [4]	○ [4]	○ [4]	○
	Set Back		-	○	○ [4]	○ [4]	○ [4]	○
	2 Set		-	○	○	○	○ [4]	-
	Change Alarm		-	Filter	Filter	Filter	Filter	Filter
	Indoor Unit Lock		-	○	○	○	○ [4]	-
	Cycle		-	-	○	○	○ [4]	○
Schedule			○	○	○ [4]	○ [4]	○ [4]	○
Auto Control	Peak Control	Priority Control	-	○	○	○	○ [4]	○
		Outdoor Unit Capacity Control	-	-	○ [4]	○ [4]	○ [4]	○
	Demand Control	Priority Control	-	-	-	-	○ [4]	○
		Outdoor Unit Capacity Control	-	-	-	-	○ [4]	○
	Time limit control		-	-	○ [4]	○ [4]	○ [4]	○
	InterLocking		-	-	○ [4]	○ [4]	○ [4]	○
Energy Navigation			-	-	○ [4]	○ [4]	-	○
Energy Report	Power		-	○	○	○	○ [4]	○
	Gas		-	-	○	○	○ [4]	○
	Run time		-	-	○ [4]	○ [4]	○ [4]	○
	Email		-	-	○ [4]	○ [4]	○ [4]	-
	PC / USB		-	-	○ [4]	PC	PC	PC
Trend Reporting			-	-	-	-	-	○
History	Report (Control / Error)		-	Error	○ [4]	○ [4]	○ [4]	○
	Send Email		-	-	○ [4]	○ [4]	○ [4]	○
	Save to PC / USB		-	-	○ [4]	○ [4]	○ [4]	PC
etc	Summer Time		-	○	○ [4]	○ [4]	○ [4]	-
	Outdoor Unit Oil-Return Operation		-	-	○ [4]	○ [4]	○ [4]	-
	User Authority		-	Password	○ [4]	○ [4]	○ [4]	○
	PC Access		-	○	○ [4]	○ [4]	○ [4]	○

※ ○ : Applied, - : Not Applied
1) Except for some feature (individual lock, limit, temp., etc.)
2) Except for some feature (user mode, additional function, etc)
3) ACP 5 or AC Smart 5 is required
4) This function is possible to use in Web Only (BMS Point is not applied)
5) Without additional device, ACP 5 and AC Smart 5 provide BACnet IP and Modbus TCP interface for BMS

AC EZ TOUCH

Smart management with 5 inch touch screen for small site.

PACEZA000

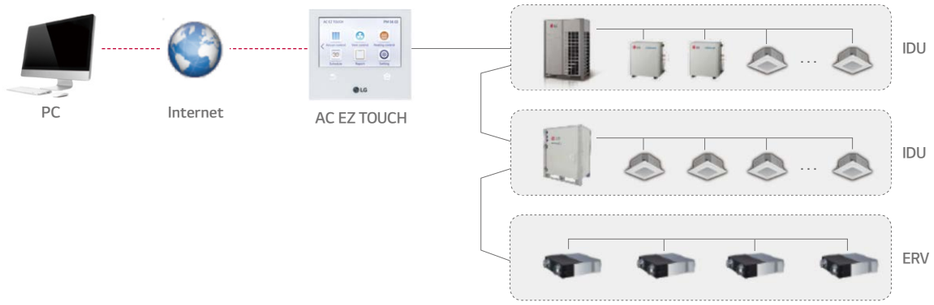
Model Name	PACEZA000
Size (W x H x D, mm)	137 x 121 x 25
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro kit / THERMA V
Maximum number of units	64
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Error Check	○
Slave Mode (Interlocking with higher level controller)	○
Schedule	Weekly / Monthly / Yearly / Exception day
Remote Access	By client S/W
Emergency Stop & Alarm Display	○
Power Consumption Monitoring (with PDI)	○
Auto Changeover / Setback	○
Temperature Limit	○
Operation History	Error record
ODU Low Noise 1)	○
Daylight Saving Time	○
External IO Port	DI 1
IPv6 Support	○

※ ○ : Applied, - : Not Applied
1) It is only available in some products

Features & Benefit

- Remote Access with Graphical User Access Control
- Total 200 Schedule Events
- Energy saving mode
- Energy Monitoring (with PDI)
- 2 Set point function (Upper/Lower Temperature setting)
- Temperature Set points Range Limit
- Remote Controller Lock (All, Temp, Mode, Fan Speed)
- Operation History
- Change alarm (Filter change)
- Emergency stop

Overview



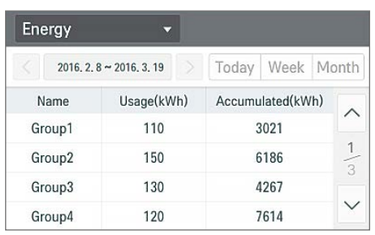
Feature

PC Access

Users can control each space efficiently through PC access.

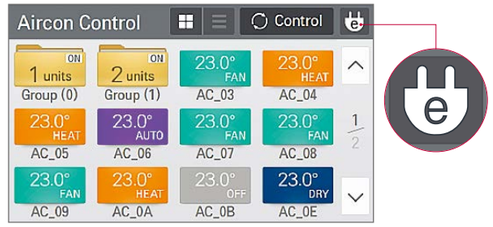
Energy Statistics (with PDI)

Statistics of operational status (time, power consumption) are provided to help make intelligent system operation decisions.



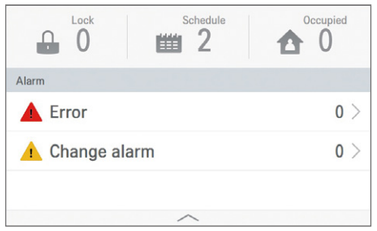
Energy Mode

When using energy mode function, operation mode changes from cooling to fan or heating to off mode by force. (It is available only 'on' mode indoor unit)



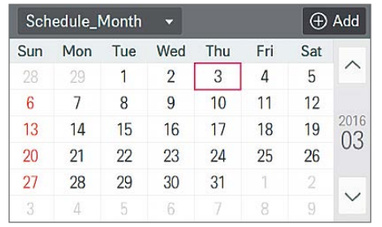
Alarm Indicator

It works when there are some errors or it's time to change the filter. Users can respond immediately according to alarm indicator therefore HVAC system is monitored consistently.



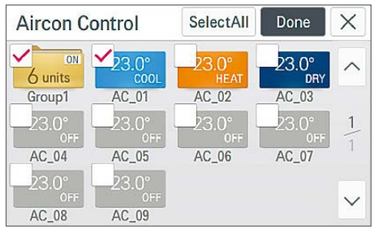
Schedule

Schedule control allows user to set the events in advance to maximize system performance. Also, by blocking unnecessary operation, it prevents a waste of energy.



Group / Individual Control

According to the situation, it can be controlled by group or each indoor unit. It is useful to monitor or control for the best fit of request.



AC EZ

Easy to manage up to 32 indoor units, including ERV with simple interface.

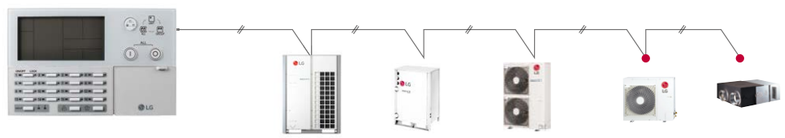
PQCSZ250S0

Model Name	PQCSZ250S0
Size (W x H x D, mm)	190 x 120 x 20
Interfaceable Products	MULTI V / ERV / ERV DX
Display	LED / LCD Display
Power	DC 12V
Maximum number of units	32
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	All
Error Check	○
Slave Mode (Interlocking with higher level controller)	○
Schedule	Weekly

※ ○ : Applied, - : Not Applied

Features & Benefit

- 32 indoor units control
- Weekly Schedule
- Individual / Group Control



● Appropriate PI 485 should be used according to PDB

- MULTI V 5
- MULTI V IV
- MULTI V III
- MULTI V II
- MULTI V WATER IV
- MULTI V WATER II
- MULTI V S
- MULTI SPLIT
- SINGLE SPLIT
- ERV

AC SMART 5

Control LG air conditioners via using the internet devices as Android or iOS bases smartphones.

PACS5A000

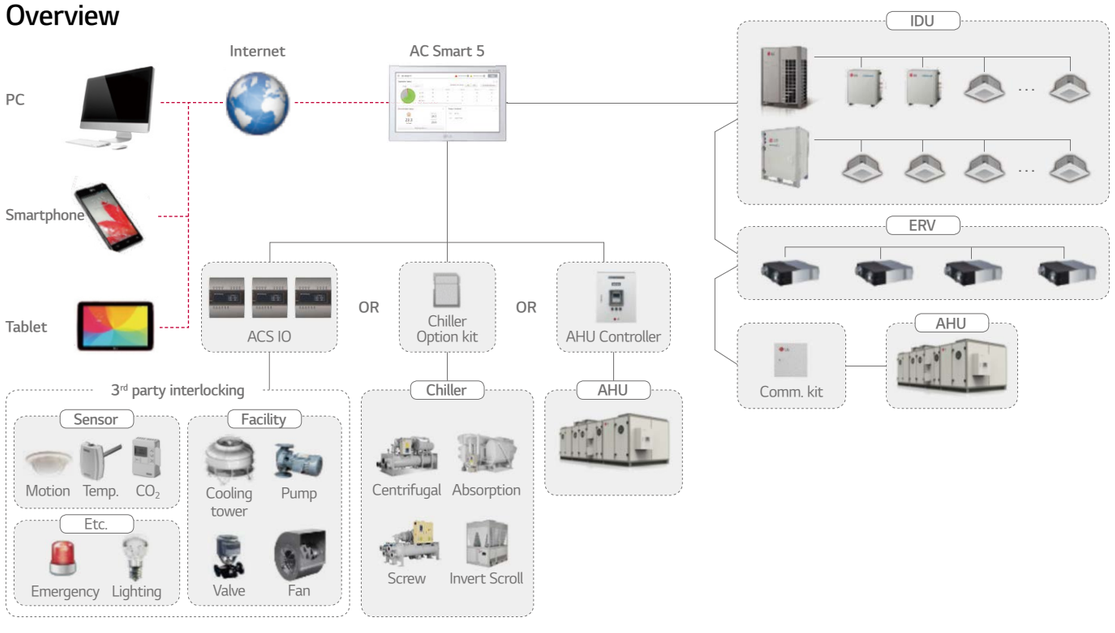
Features & Benefit

- The central controller allows control of the LG HVAC system to various platforms. (Touch screen, PC, Smartphone, Tablet)
  - DI : 2 / DO : 2
  - Max. 128 IDU control
  - BACnet IP/Modbus TCP
  - Schedule
  - Map View (Visual Navigation)
  - Time limit control / Auto change over
  - Energy monitoring
  - History / Operation Trend
  - Interlock with 3rd party equipment (ACS IO, ACU IO Module is needed)
  - Multi level grouping
  - Emergency stop & alarm
  - Error alarm by E-mail

Model Name	PACS5A000
Size (W x H x D, mm)	253.2 x 167.7 x 28.9
Interfaceable Products	MULTI V / ERV / ERV DX / HYDRO KIT / THERMA V / AHU kit / LG Chiller 1)
Maximum number of units	128
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Advanced Function Setting and Display 2)	Comfort Cooling / ODU Low Noise / ODU Defrost Mode / Comfort Level display / CO_2 Level display (for ERV / ERV DX) / Night Time Free Cooling (for ERV / ERV DX)
Error Check	○
Slave Mode (Interlocking with higher level controller)	○
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	○
Emergency Stop & Alarm Display	○
Power Consumption Monitoring (with PDI)	○
Auto Changeover / Setback	○
Temperature Limit	○
Operation Time Limit	○
Visual Navigation	○
Operation Trend	○
Interlock Control	○
Virtual Group Control	○
ODU Capacity Control	○
Energy Navigation (with PDI)	○
Daylight Saving Time	○
External IO Port	DI 2 / DO 2
BMS Integration 3)	BACnet IP / Modbus TCP
IPv6 Support	○

※ ○ : Applied, - : Not Applied
1) Chiller Option Kit (PCHLLN000) is required
2) It is only available in some products
3) For the detail point list, please refer to the installation manual

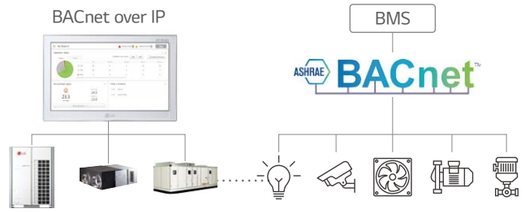
Overview



Feature

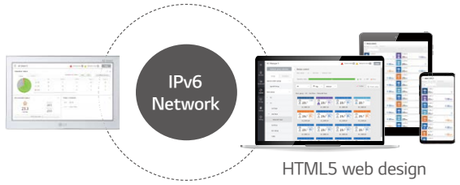
BMS Integration

Without additional device, AC Smart 5 provides BACnet IP / Modbus TCP interface for BMS (Building Management System) integration as well as its own management function.



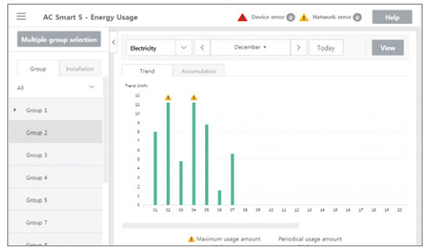
Advanced Network Accessibility

AC Smart 5 reflects the state of the art of network technology trend. IPv6 (Internet Protocol version 6), which is the most recent version of the Internet Protocol, provides accessibility to the IPv6 compatible network environment. In addition, HTML5 allows you to easily control LG HVAC system on a variety of platforms (PC, Mobile, Tablet), at any time and from any location, not just on the touch screen.



Energy Management / Operation Trend

Energy navigation function allows air conditioners operation to be managed under the monthly (Weekly / Yearly) plan of energy usage. By analyzing present energy consumption and comparing with the plan, overuse of system operational costs can be prevented.

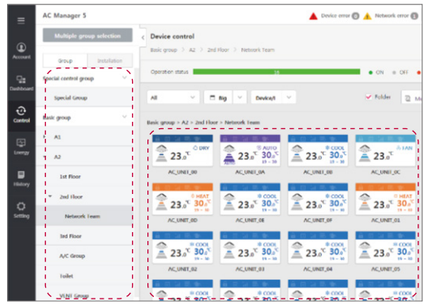


Visualized Control

Visual navigation enables controlling and monitoring the unit on floor plan view for the intuitive management.

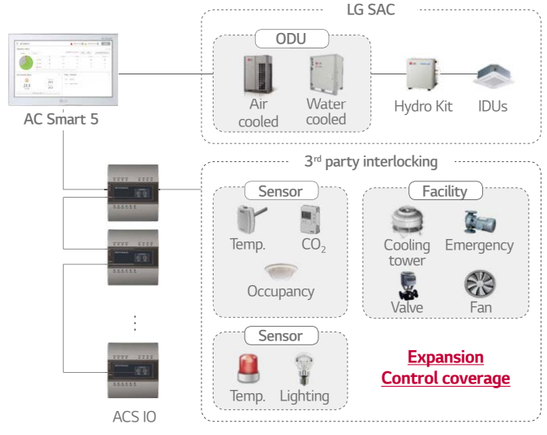
Multi Level Group Composition

You can freely apply layer structure such as building, floor, zone, etc. and set the group as the same as the site composition to control and monitor the devices.
Special control group You can additionally compose frequently used groups such as VIP Room, executive room, etc. regardless of the building structure.



Interlocking with 3rd party equipment

AC Smart 5 can make operation scenario with 3rd party equipment by ACS IO Module. Control coverage is expanded. (Air conditioner only → Sensors, Fans, Pumps, Switches…)



ACP 5

Advanced solution for BMS integration up to 256 units via BACnet and Modbus protocol as well as its own smart management function with web server interface.

PACP5A000

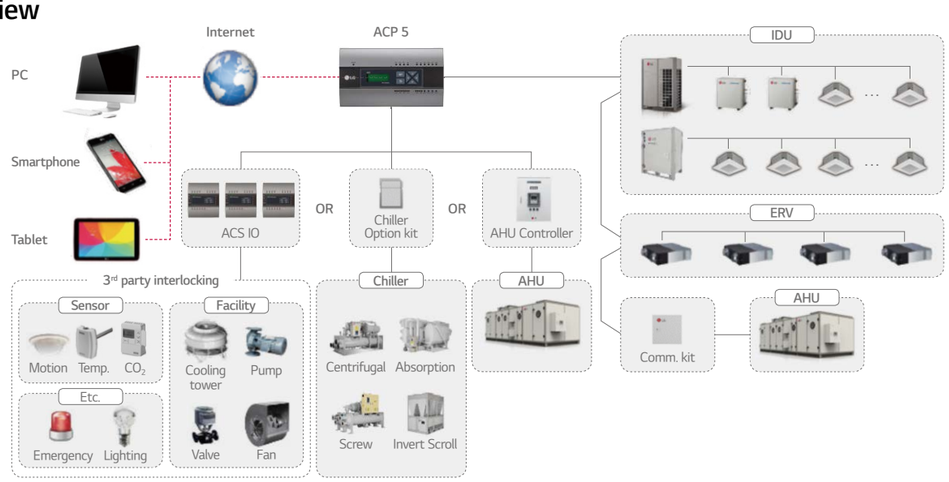
Features & Benefit

• The central controller allows control of the LG HVAC system to various platforms. (PC, Smartphone, Tablet)
- DI :10 / DO : 4
- Max. 256 IDU control
- BACnet IP/Modbus TCP
- Schedule
- Map View (Visual Navigation)
- Time limit control / Auto change over
- Energy monitoring
- History / Operation Trend
- Interlock with 3rd party equipment (ACS IO, ACU IO Module is needed)
- Multi level grouping
- Emergency stop & alarm
- Error alarm by E-mail

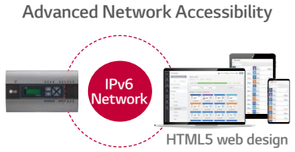
Model Name	PACP5A000
Size (W x H x D, mm)	270 x 155 x 65
Interfaceable Products	MULTI V / ERV / ERV DX / HYDRO KIT / THERMA V / AHU kit / LG Chiller 1)
Maximum number of units	256
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Advanced Function Setting and Display 2)	Comfort Cooling / ODU Low Noise / ODU Defrost Mode / Comfort Level display / CO_2 Level display (for ERV / ERV DX) / Night Time Free Cooling (for ERV / ERV DX)
Error Check	○
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	○
Emergency Stop & Alarm Display	○
Power Consumption Monitoring (with PDI)	○
Auto Changeover / Setback	○
Temperature Limit	○
Operation Time Limit	○
Visual Navigation	○
Operation Trend	○
Interlock Control	○
Virtual Group Control	○
ODU Capacity Control	○
Energy Navigation (with PDI)	○
Daylight Saving Time	○
External IO Port	DI 10 / DO 4
BMS Integration 3)	BACnet IP / Modbus TCP
IPv6 Support	○

※ ○ : Applied, - : Not Applied
1) Chiller Option Kit (PCHLLN000) is required
2) It is only available in some products
3) For the detail point list, please refer to the installation manual

Overview

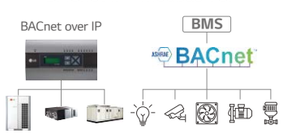


Advanced Network Accessibility

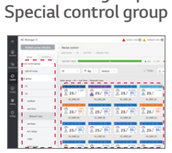


Energy Navigation

BACnet IP / Modbus TCP



Multi level group / Special control group



ACP LONWORKS GATEWAY

LonWorks easily link LG air conditioners and other existing building systems. By including ACP control function, the controlling continues even when error occurs with BMS.

PLNWKB000

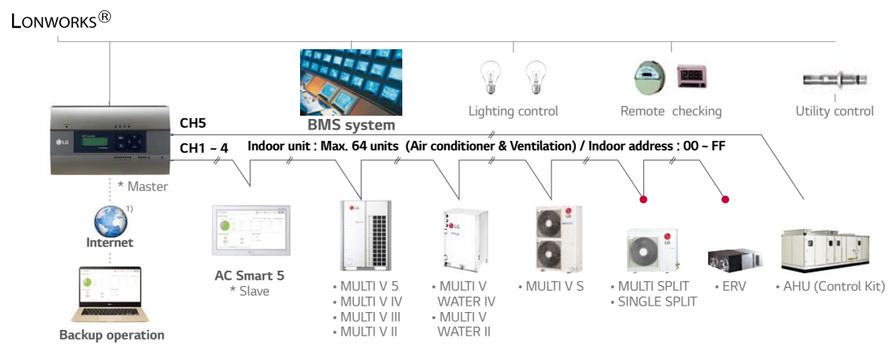
Features & Benefit

• Connect to use Lonworks® protocol and LG air conditioner protocol.
• Process Ability (Max. connection) : Indoor unit 64EA, AHU Control Kit : Max. 16EA
• Self installation verification using interne (Web Server Included)
  - Diagnosis of communication status on LG Air-conditioner network
• It offers a variety of functions as ACP which allows the customer to efficiently control various types of equipment from the customer's own Integration.

Control	Monitoring
On / Off Command	On / Off
Operation Mode Setting	Operation Mode
Lock	Lock
Temperature	Temperature
Fan Level	Fan Level
Fan Direction Auto	Fan Direction Auto
Mode Lock	Mode Lock
Fan Level Lock	Fan Level Lock
Temperature Lock	Temperature Lock
Temperature Lower Limit	Temperature Lower Limit
Temperature Higher Limit	Temperature Higher Limit
Peak Convert Cycle	Peak Convert Cycle
Peak Setting	Peak Setting
Temperature Unit	Temperature Unit
Total Temperature Lock	-
Total On / Off	-
Total Temperature	-
-	Product Type
-	Product Address
-	Current Temperature
-	Alarm
-	Power
-	Error Code
-	Peak Current Operating Percent
-	Total Accumulate Power

※ ○ : Applied, - : Not Applied

Overview



1) Assignment of public IP address is required to access central controller through internet. ● Appropriate PI 485 should be used according to PDB (Product Data Book)

PI 485

PI 485 converts LG air conditioner's protocol to the RS485 protocol for the central controller

• Power : Connected with the Indoor Units
• 1 for Each Indoor Unit
  - Indoor Unit (ERV)

PHNFP14A0

AC MANAGER 5

Multiple ACP and AC Smart integration solution to manage multi sites up to 8,192 units as a single system.

reddot award
User Interface Design

PACM5A000

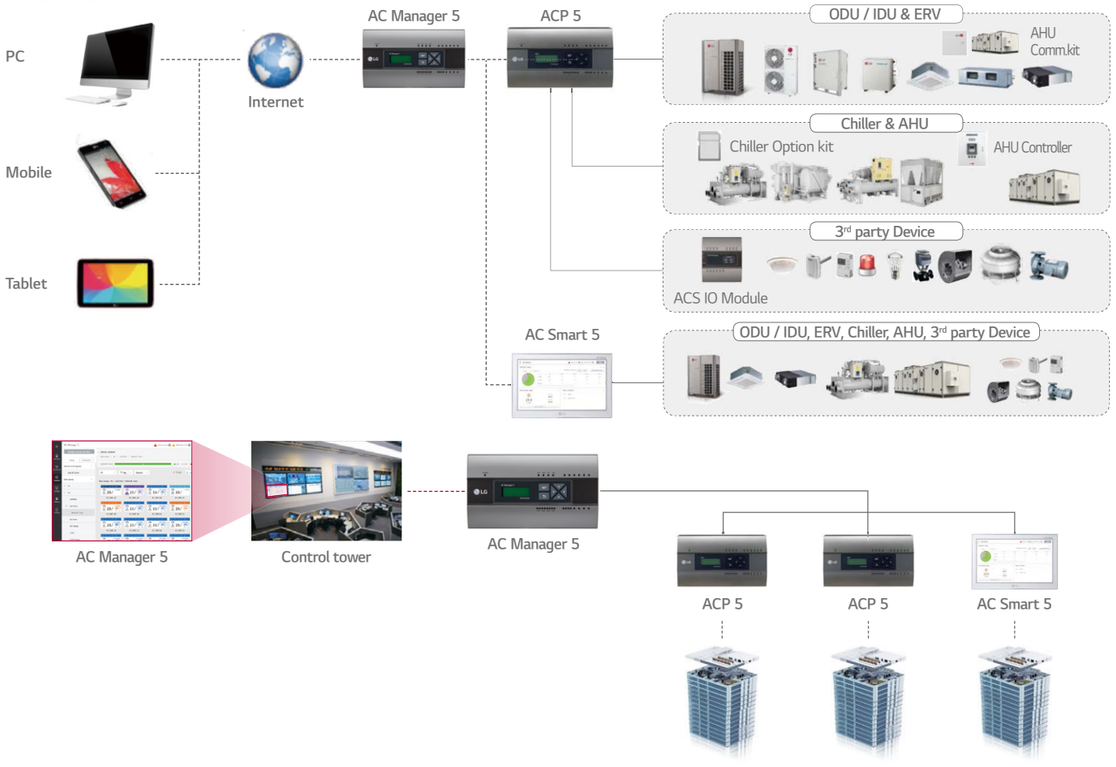
Features & Benefit

- Consol Type : No needs software installation and lock-key
- Max. 8,192 IDU Control
- Schedule
- Map View (Visual Navigation)
- Time limit control / Auto change over
- Energy Monitoring / Navigation
- History / Operation Trend
- Emergency stop & alarm
- Error alarm by E-mail
- Multi Language
  (Eng, Ita, Spa, Por, Rus, Fra, Ger, Tur, Pol, Chi, Kor)

Model Name	PACM5A000
Size (W x H x D, mm)	270 x 155 x 65
Interfaceable Products	MULTI V / ERV / ERV DX / HYDRO KIT / THERMA V / AHU kit / LG Chiller 1)
Maximum number of units	8,192 (supports 32 ACP 5 or AC Smart 5)
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Error Check	○
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	○
Emergency Alarm Display	○
Power Consumption Monitoring (with PDI)	○
Auto Changeover / Setback	○
Temperature Limit	○
Operation Time Limit	○
Visual Navigation	○
Operation Trend	○
Interlock Control	○
Virtual Group Control	○
ODU Capacity Control	○
Energy Navigation (with PDI)	○

※ ○ : Applied, - : Not Applied
1) Chiller Option Kit (PCHLLN000) is required
Note : AC Manager 5 requires ACP 5 or AC Smart 5

Overview



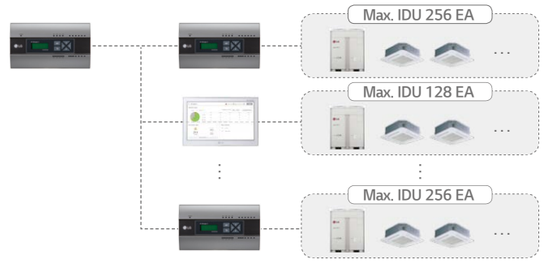
Feature

Stand-alone

Integrated with S/W program and Hardware platform, it is convenient to install since users no longer need to install program with lock-key on PC.

Up to 8,192 Connections for Indoor Units

Administrators can easily and conveniently manage a variety of LG HVAC equipment. Also, it is available to manage many buildings or areas at one place via AC Manager 5.



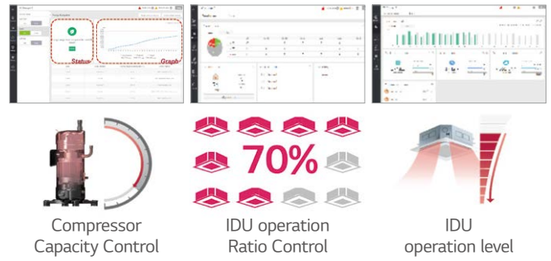
Advanced Network Accessibility & User Friendly GUI (reddot award)

As an advanced central controller, AC Manager 5 offers flexible interface for each user by assessing the device screen and automatically customizing the layout to provide the most optimized interface.

reddot award
User Interface Design

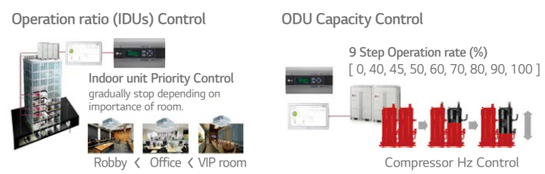
Energy Navigation & Energy Usage Trend

Energy navigation is the function to set the target usage amount to limit the monthly power consumption and to control so that the total accumulated power consumption does not exceed the target usage amount. It performs total of 7 control levels with the estimated/actual usage amount exceeding ratio compared to the monthly target usage amount. For the control method, there are indoor unit operation ratio, outdoor unit capacity control, and indoor unit operation control.



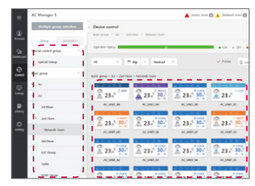
Peak Control

This function can reduce electricity use. There are two kinds of control logic. Energy saving effect by indoor unit operation rate control. Load management effect by outdoor unit capacity control.



Multi Level Group Composition

You can freely apply layer structure such as building, floor, zone, etc. and set the group as the same as the site composition to control and monitor the devices. Special control group You can additionally compose frequently used groups such as VIP Room, executive room, etc. regardless of the building structure.



KNX GATEWAY 1)

Specially designed to allow monitoring and bidirectional control of all the parameters and functionality of LG air conditioners from KNX protocol.

Model Name	Max. Connection Indoor Units
LG-AC-KNX4	4
LG-AC-KNX8	8
LG-AC-KNX16	16
LG-AC-KNX64	64

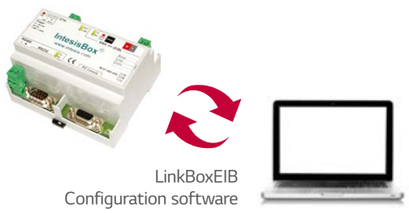
LG-AC-KNX4 / LG-AC-KNX8
LG-AC-KNX16 / LG-AC-KNX64

Features & Benefit

- Easy installation, direct connection to all outdoor units (communication interface PMNFP14A1, when needed) and Heat recovering units (communication interface PHNFP14A0, when needed) through the RS485 Bus.
- Great integration flexibility. Using the supplied software LinkBoxEIB, a complete set of communication objects can be accessed.
- Direct connection to KNX bus
- Independent management of communications
- Power supply : 9 to 24V DC or 24V AC
- Standard DIN-Rail 6 modules enclosure
- Maximum connection unit
- LG Central controller (for example, AC Smart) and PDI can be operated with KNX gateway.

Link BoxEIB Configuration Software for IntesisBox® KNX Serious

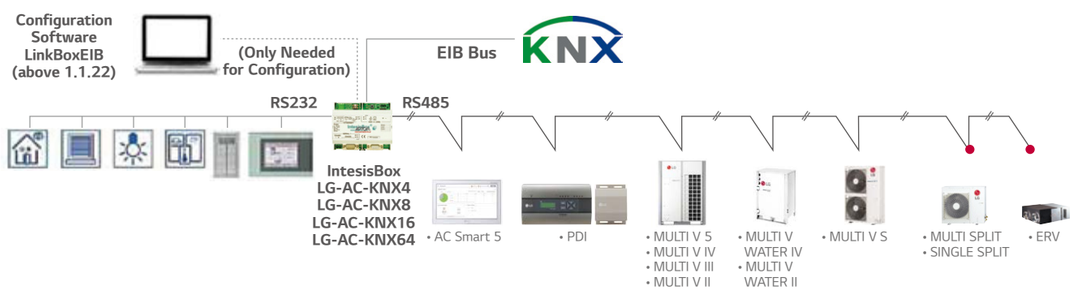
Easy to use tool for the configuration of intesisBox, in a fast and effective way.
It offers the maximum integration possibilities with a minimal knowledge required on the system to be integrated.



LinkBoxEIB
Configuration software

- Only needed during configuration.
- One single tool for the configuration of the whole range of IntesisBox KNX series gateways.
- Supplied with IntesisBox with no additional cost.
- Configuration examples for all systems that can be integrated.
- Mapping table editable using excel, allowing a simple and fast association of KNX Group Addresses, exported from ETS, to IntesisBox's datapoints.
- Includes powerful and useful features for configuration, setup and troubleshooting.

Installation Scene



1) This product is provided by INTESIS.

● Appropriate PI 485 should be used according to PDB

MODBUS RTU GATEWAY

Providing Modbus RTU connection between LG Air conditioners and BMS.

PMBUSB00A

Features & Benefit

- Function
  - MODBUS RTU communication with MODBUS master controller
  - MODBUS RTU slave (RS485) / 9,600 bps
  - Applicable for Multi V 5
  - Size (W x H x D) : 53.6 x 89.7 x 60.7
  - Max.16 IDUs with single module / Max. 64 IDUs with 4 modules
  - Power : DC 12V

Coil Register (0 x 01)

No.	Data Bit		Function
	Air Conditioner	Ventilator	
1	Operate (On / Off)	Operate (On / Off)	0 : Stop / 1 : Run
2	Auto Swing	Aircon Operate (On / Off)	0 : Disable / 1 : Enable
3	Filter Alarm Reset	Filter Alarm Reset	0 : Normal / 1 : Reset
4	Lock Remote Controller	Lock Remote Controller	0 : UnLock / 1 : Lock
5	Lock Operate Mode	Lock Operate Mode	0 : UnLock / 1 : Lock
6	Lock Fan Speed	Lock Fan Speed	0 : UnLock / 1 : Lock
7	Lock Target Temp.	Lock Target Temp.	0 : UnLock / 1 : Lock
8	Lock IDU Address	Lock IDU Address	0 : UnLock / 1 : Lock
9	Reserved	Quick Ventilate	0 : Disable / 1 : Enable
10	Reserved	Energy Save	0 : Disable / 1 : Enable

Discrete Register (0 x 02)

No.	Data Bit		Function
	Air Conditioner	Ventilator	
10001	Connected IDU	Connected IDU	0 : Disconnected / 1 : Connected
10002	Alarm	Alarm	0 : Normal / 1 : Alarm
10002	Filter Alarm	Filter Alarm	0 : Normal / 1 : Filter Alarm

Holding Register (0 x 03)

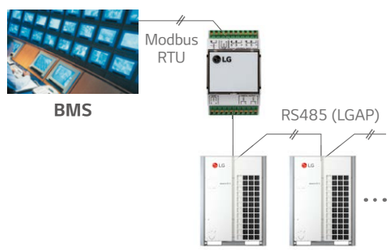
No.	Data Bit		Function
	Air Conditioner	Ventilator	
40001	Operate Mode	Operate Mode	0 : Cooling, 1 : Dehumidifying, 2 : Fan, 3 : Auto, 4 : Heating
40002	Fan Speed	Fan Speed	1 : Low, 2 : Mid, 3 : High, 4 : Auto
40003	Target Temp.	Target Temp.	16.0 ~ 30.0 [℃] x 10
40004	Target Temp. Limit (Upper)	Target Temp. Limit (Upper)	16.0 ~ 30.0 [℃] x 10
40005	Target Temp. Limit (Lower)	Target Temp. Limit (Lower)	16.0 ~ 30.0 [℃] x 10
40006	Reserved	Vent. Operate Mode	0 : HEX, 1 : Auto, 2 : Normal

Input Register (0 x 04)

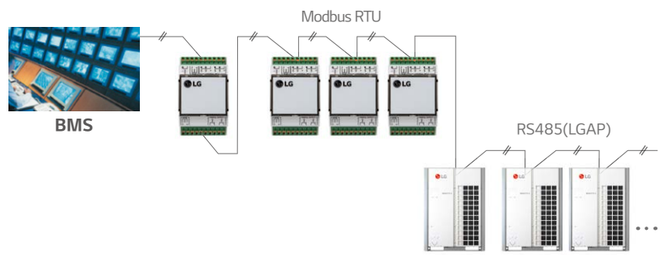
No.	Data Bit		Function
	Air Conditioner	Ventilator	
30001	Error Code	Error Code	0 ~ 255 ※ Please refer to the product error table.
30002	Room Temp.	RA Temp.	-99.0 ~ 99.0 [℃] x 10
30003	Pipe In Temp.	OA Temp.	-99.0 ~ 99.0 [℃] x 10
30004	Pipe Out Temp.	SA Temp.	-99.0 ~ 99.0 [℃] x 10
30005	Reserved	Pipe In Temp.	-99.0 ~ 99.0 [℃] x 10
30006	Reserved	Pipe Out Temp.	-99.0 ~ 99.0 [℃] x 10

Installation Scene

• Single module
Max. 16 indoor units with a single module



• Multiple module
Max. 64 indoor units with 4 modules in one Modbus communication line



Max. 16 outdoor units in one RS485(LGAP) line

INTEGRATION DEVICE

PDI (POWER DISTRIBUTION INDICATOR)

PDI shows distributed power consumption of up to 128 indoor units

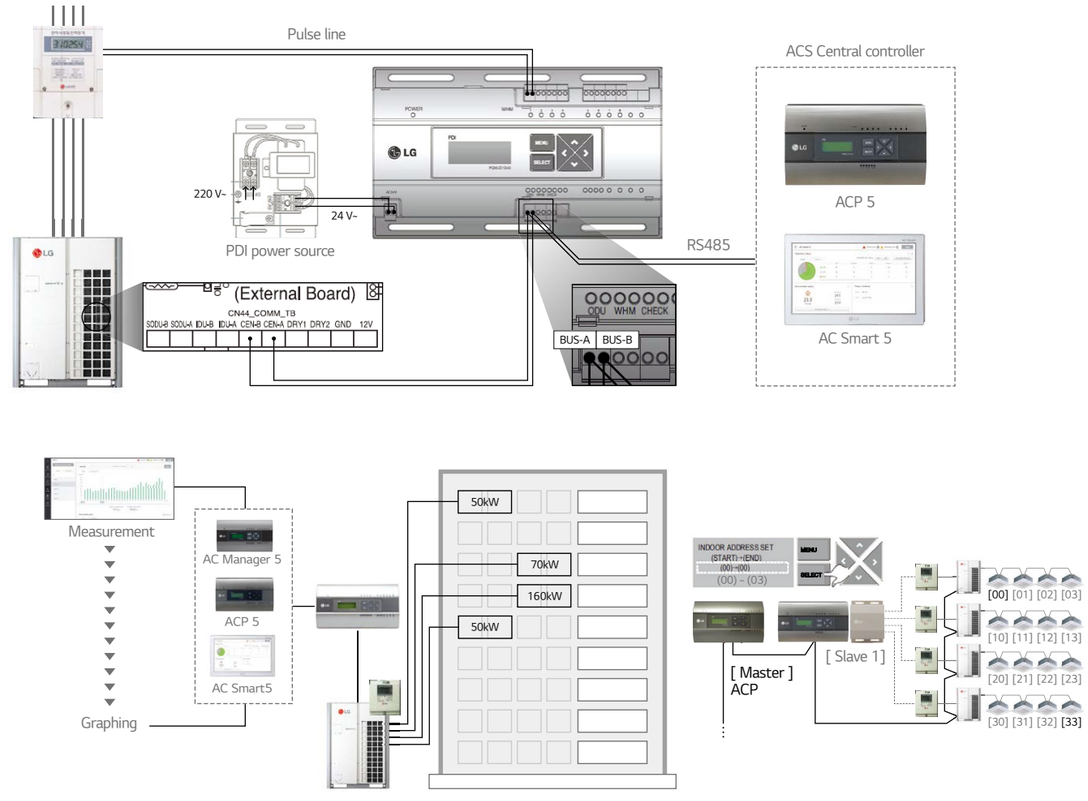
PQNUD1S40 (Premium, 8 port)
PPWRDB000 (Standard, 2 port)

Model Name	PQNUD1S40	PPWRDB000
Size (W x H x D, mm)	270 x 155 x 65	
Interfaceable Products	Air conditioner, ERV DX	
Maximum Number of Power Meters	EHP : 8 Watt meter GHP : 4 Watt meter / 4 Gas meter	EHP : 2 Watt meter GHP : 1 Watt meter / 1 Gas meter
Maximum Number of Indoor Units	MULTI V : 128	
Data Backup When Power Outage	○	
Power Input	PDI : AC 24V, Transformer : AC 220V	

※ ○ : Applied, - : Not Applied

Features & Benefit

- Total and indoor power consumption monitoring is possible.
- When connected to the LG central controller, it is possible to expand functions such as energy monitoring, energy saving operation and target usage setting.
- It is also possible to distribute gas consumption in addition to electricity.



Note : 1. Power cable and type could be different from this scene depending on the Outdoor unit's specification
2. Measured power consumption could be different between PDI and Watt meter
3. Applicable Central Controller : ACP 5, ACP Lonworks, AC Smart 5, AC Ez Touch
(Combination : we recommend to connect separated watt meter for Outdoor units to have correct power distribution value)

ACS IO MODULE

This module can be connected with ACP 5 or AC Smart 5 controller if additional I/O points such as DI/DO and AI/AO for 3rd party devices control and monitoring are needed.

PEXPMB000

Model Name		PEXPMB000
Linkable Products		PACS4B000 PACP4B000 PACS5A000 PACP5A000
Communication	RS-485	1 ch.
I/O	Digital Input	3 port
	Digital Output	3 port
	Universal Input 1)	4 port
	Analog Output	4 port

Value Spec		Min.	Max.
Analog Input	NTC 10k	0.68k Ω	177k Ω
	PT 1000	803 Ω	1,573 Ω
	Ni 1000	871.7 Ω	1,675.2 Ω
	DC (Voltage)	0V	10V
	DC (Current)	0mA	20mA
Analog Output	-	0V	10V
Digital Input	Binary Input (Non Voltage)	-	-
Digital Output	Normal open	-	30VAC / 30VDC, 2A

※ ○ : Applied, - : Not Applied
1) The type of UI (Universal Input) is selectable among Digital Input and Analog Input

Features & Benefit

- Interlocking with 3rd party equipment LG Central controller can make operation scenario with 3rd party equipment by ACS IO Module.
- Control coverage is expanded.
  (Air conditioner only → Sensors, Fans, Pumps, Switches…)

Key Application

* DI : Digital Input, DO : Digital Output, UI : Universal Input, AO : Analog Output / Please contact our regional office to have connectable relay specification for analog output

ACU IO MODULE NEW

This module can be connected with ACP 5 or AC Smart 5 controller if additional I/O points such as UIO / UI / UO for 3rd party devices control and monitoring are needed.

ACU.UIO

PEXPMB300

ACU.UO

PEXPMB200

ACU.UI

PEXPMB100

Module Name	PEXPMB300	PEXPMB200	PEXPMB100
Linkable Products	PACS5A000, PACP5A000		
Communication RS-485	2 ch. 1)	1 ch.	1 ch.
Digital Input	-	-	3port
Digital Output	2port	6port	-
Universal Input 2)	4port	-	6port
Analog Output	2port	4port	

Value Spec		Min.	Max.
Analog Input	DC (Voltage)	0V	10V
Analog Output	DC (Voltage)	0V	10V
Digital Input	Binary Input (Non Voltage)	-	-
Digital Output	Normal Open	-	30VDC, 1A

※ ○ : Applied, - : Not Applied
1) 1ch is reserved for internal communication
2) The type of UI (Universal Input) is selectable among Digital Input and Analog Input

Features & Benefit

- Interlocking with 3rd party equipment LG Central controller can make operation scenario with 3rd party equipment by ACU IO Module.
- Control coverage is expanded.
  (Air conditioner only → Sensors, Fans, Pumps, Switches…)

CHILLER OPTION KIT

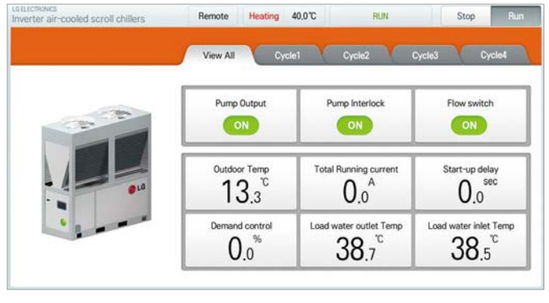
LG central controller 5 series with Chiller Option Kit can provide LG chiller remote control and cycle monitoring.

PCHLLN000

Model Name	PCHLLN000
Monitoring Points	Evaporator status / Compressor status (Scroll, Screw, Centrifugal chiller only) / Condensor status / Generator status (Abs. chiller only)
On / Off	○
Target Temp. setting	○
Mode Change	Scroll chiller only
Schedule	○
Interfaceable Products	Scroll, Screw, Centrifugal, Absorption (LG Only)

※ ○ : Applied, - : Not Applied

Cycle Display Example



Installation Scene

- Chiller Option Kit installation of LG HVAC Solution product should be conducted by a specialized installation service engineer.
- Chiller Option Kit installation can be proceeded with a SD Card.
- The SD Card can install Chiller Option Kit in one LG HVAC Solution product.

Insert the SD Card in the LG HVAC Solution product. If a backup SD Card is inserted, replace it with a ChillerOption Kit SD Card.

DRY CONTACT

Connection between an indoor unit and external devices to control various functions.

Model Name			PDRYCB000	PDRYCB400	PDRYCB300	PDRYCB500
						
Case			○	○	○	○
Input Port			1	2	8	-
Comm. Protocol			-	-	-	Modbus RTU
Power			AC 220V	Connect to Indoor unit PCB (CN_CC)		
Control	Aircon	On / Off	○	○	○	○
		Oper Mode	-	○	○	○
		Set Temp.	-	(Select & Fix)	(Select & Fix)	○
		Fan Speed	-	-	○	○
		Thermo-Off	-	(Select & Fix)	○	-
		Energy Saving	-	(Select & Fix)	-	-
		Lock/Unlock	-	(Select & Fix)	-	-
	AWHP	On / Off	○	-	○	-
		DHW On / Off	-	-	○	-
		Thermo-Off	-	-	○	-
		Oper Mode	-	-	○	-
		Silent Mode	-	-	○	-
		Emergency Mode	-	-	○	-
	Vent	On / Off	○	-	-	○
		Oper Mode	-	-	-	○
		Aircon Mode	-	-	-	○
		Additional Mode	-	-	-	○
		Fan Speed	-	-	-	○
Output		Operation Status	○	○	○	○
		Error	○	○	○	○
		Room Temp.	-	-	-	○

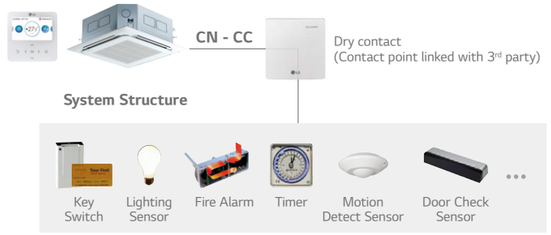
※ ○ : Applied, - : Not Applied

Note : 1. Compatibility of PDRYCB300
- Can use with all types of aircon indoor units after 2010 (Cassette, Ducted, Convertible, Applied PAC, Wall mounted, Console)
- Can not use with Single package models
- AWHP : 3 series split and monobloc models

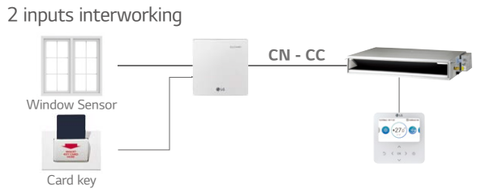
2. Compatibility of PDRYCB400
- Can use with all types of aircon indoor units after 2010 (Cassette, Ducted, Convertible, Applied PAC, Wall mounted, Console)
- Can not use with single package models
- Can not use with AWHP, Hydrokit models

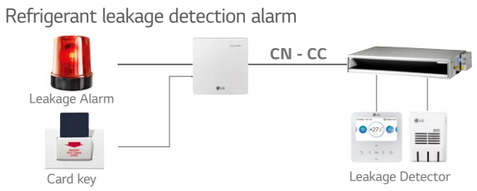
3. (Select & Fix) : This function is preset by rotary switch.

PDRYCB000

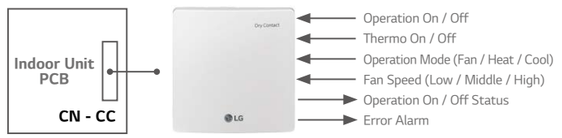


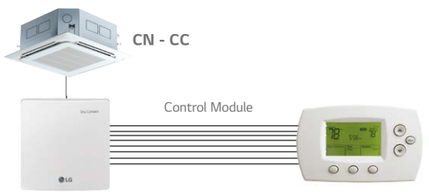
PDRYCB400





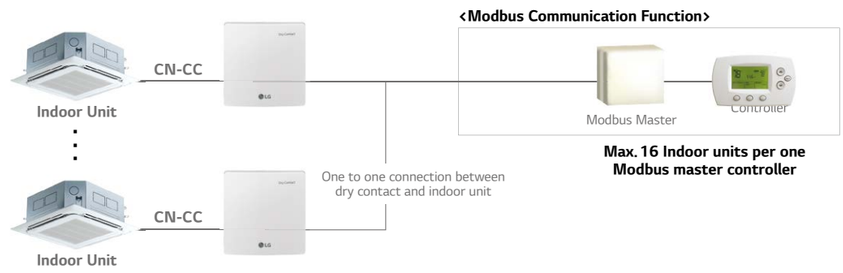
PDRYCB300





* Please contact our regional office to have full compatible room controller list

PDRYCB500



* Please contact our regional office to check the compatibility with 3rd party room controller

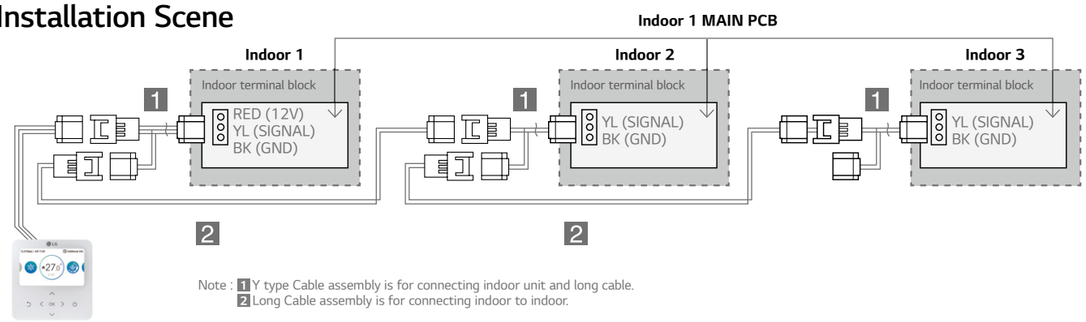
GROUP CONTROL WIRE

Cables used to connect a wired remote controller up to 16 indoor units.

PZCWRCG3

Model Name	PZCWRCG3
Y-type Cable	0.25m Length
Long Cable	9.6m Length

Installation Scene



Note : 1 Y type Cable assembly is for connecting indoor unit and long cable.
2 Long Cable assembly is for connecting indoor to indoor.

REMOTE TEMPERATURE SENSOR

Sensor for detecting the room temperature.

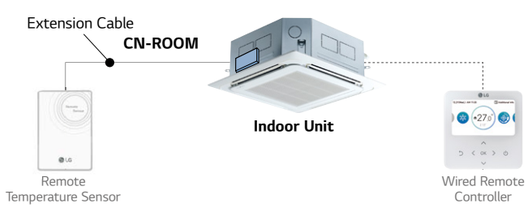
PQRSTA0

Features & Benefit

- It detects the exact room temperature instead of indoor unit's air temperature sensor
- Applied to Ceiling Mounted Cassette, Ceiling Concealed Duct, THERMA V and HYDRO KIT
- Extension cable (15m) is included

Installation Scene

1. Wire to the control box in the indoor unit by removing the existing thermistor and connect the extension cable its place.
2. Cut the extension cable to the appropriate length and connect the screw terminal of the remote sensor.



LOW PROFILE REMOTE TEMPERATURE BUTTON SENSOR

This installs easily and discreetly into a wall and then connects to indoor unit

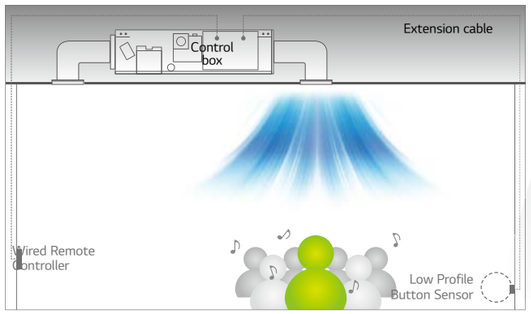
ZRTBS01

Model Name		ZRTBS01
Operation Range		-40℃ to 85℃ (0 to 100%RH, Non-condensing)
Sensing Element		Thermistor
Sensing Element Accuracy		0.2℃ (0 to 70℃)
Wire Leads	Material	Etched Teflon
	Length	15m
	Thickness	0.33mm²
Mounting		10mm hole, push in plastic sheath with peel off tape strip
Enclosure Material Ratings		Plastic, NEMA 1, UL94

Features & Benefit

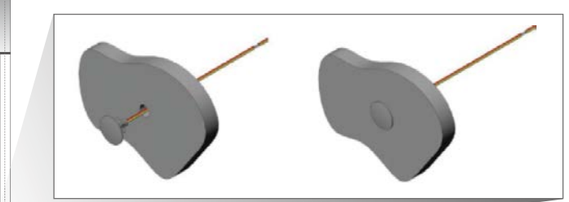
- Ideal for locations where aesthetics are as important as the temperature measurement.
- Inconspicuous wall sensor that mounts easily by pushing through a 10mm hole and secured with a peel off tape strip.
- Small flush sensor mounting.
- Accurate direct air measurement.
- Paintable with latex or oil base.

Key Application

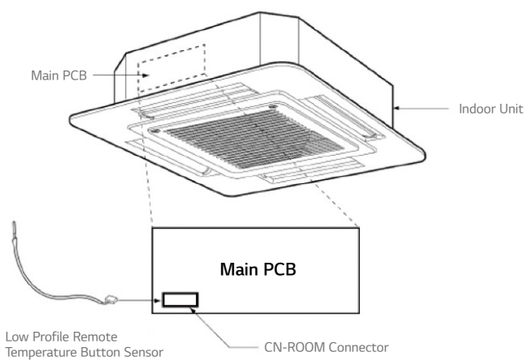


Models Applied

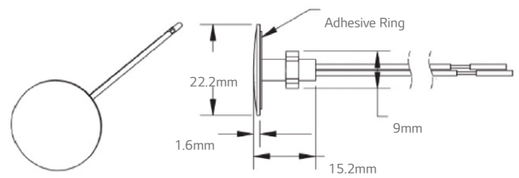
- LG indoor units excluding Wall-Mounted Type



Installation Scene

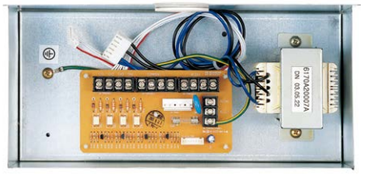


Drawing

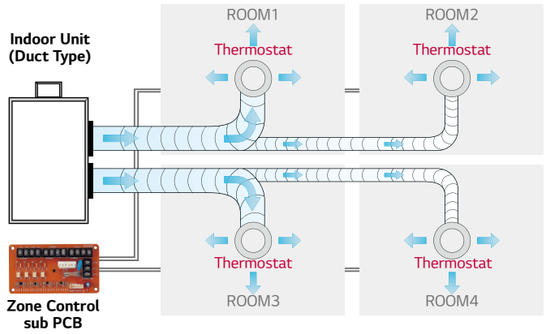


ZONE CONTROLLER

Controls air conditioning up to 4 zones by external thermostat.



ABZCA



Features & Benefit

- Controls different zones (up to 4 zones) by external thermostat (AC 24V)
- Maintain proper air volume of each zone
- Auto variation of dampers
- Auto control of fan speed and On / Off operation

Models Applied

- Ceiling Concealed Duct (refer to Product Data Book for applicable models)

Wiring Diagram

Ceiling Concealed Duct

CN - ZONE

AC 24V

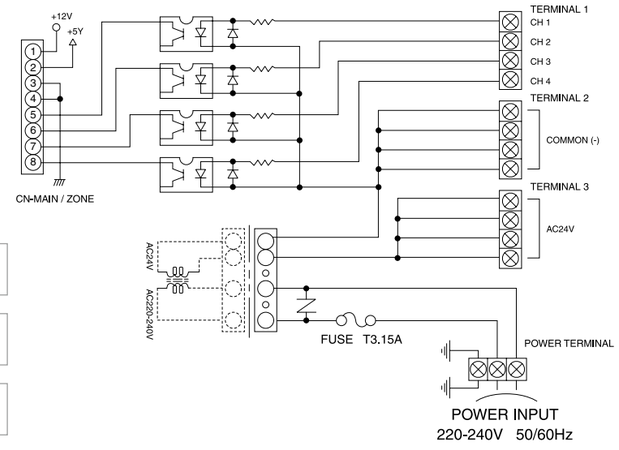
Zone controller

ROOM(External) THERMOSTAT #1 → Damper Or Relay

ROOM THERMOSTAT #2 → Damper Or Relay

ROOM THERMOSTAT #3 → Damper Or Relay

ROOM THERMOSTAT #4 → Damper Or Relay



IO MODULE

Interface module between system air conditioner's outdoor unit and external device.

PVDSMN000

Features

Function

- Demand control
- Low noise operation
- Output outdoor or indoor unit operation status
- Output error status

Description

- IO Module is communication interface module for connection between MULTI V 5 and external IO (Input / Output Module) devices.

Note : IO Module is not compatible for MULTI V III

Models Applied

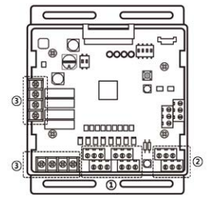
- MULTI V 5
- MULTI V S
- MULTI V WATER IV

Part Description

1) Digital Input Part (DI : Dry Contact Input)
   - Demand control by contact input (3 Step)
   - Low Noise Operation input
   - Priority Setting input : Setting the priority of demand control command (Capacity control for external signal from DDC vs Peak control by LG Central controller)
     - Open : External signal has priority to central controller (Default)
     - Close : Central controller has priority to external signal

2) Analog Input Part (AI : DC 0 ~ 10V)
   - Demand control by analog input (10 Step)

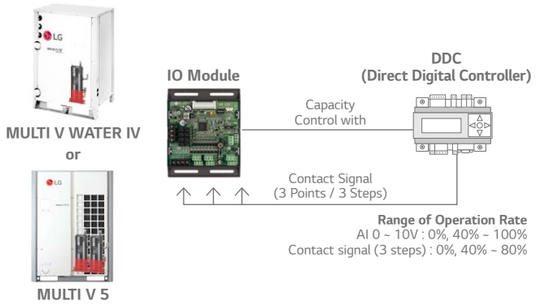
3) Digital Output Part (DO : AC 250V, Max. 1A)
   - Error status relay output
   - Operation status relay output
   - Valve control



Key Application

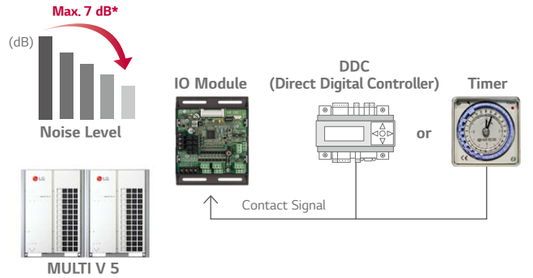
Demand Control

Provides variable setting for demand control according to input method to reduce power consumption. This function supports 2 types of input signal : AI (0 ~ 10V, 10 Step) and contact signal (3 Step).



Low Noise Operation

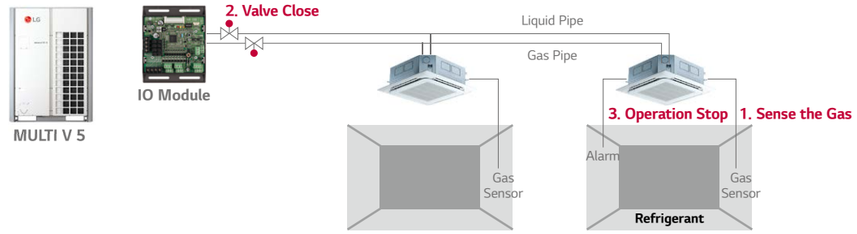
To reduce noise level , control outdoor unit's fan speed by dry contact input.



* 8 HP (22.4kW) model, Sound power level can be changed by outdoor unit operation status and low noise operation input signal.

Refrigerant Leakage detection with Pump-down

For safety, IO module close refrigerant valve when Pump-down operation.



VARIABLE WATER FLOW CONTROL KIT

Accessory developed for controlling the water flow.

PWFCKN000
(MULTI V WATER IV)

Features

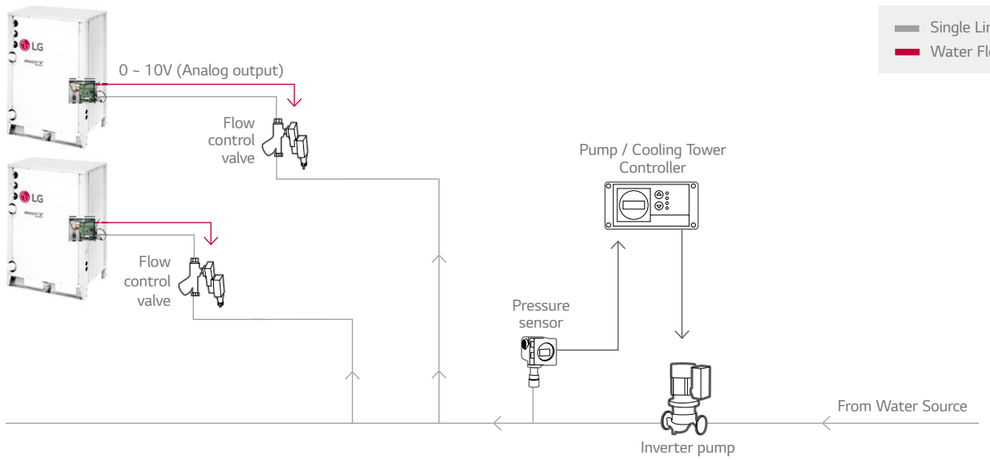
Function

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

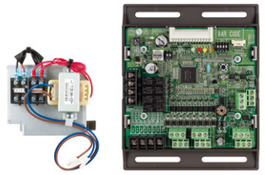
Wiring Diagram



- Flow control valve : Regulates the flow or pressure of a fluid, normally responding to signals generated by independent devices.
- Flow Meter : Measures mass flow rate of a fluid traveling through a tube. (The mass flow rate is the mass of the fluid traveling past a fixed point per unit time.)
- Pressure Sensor : Measures the pressure.

LOW AMBIENT KIT

External integration module for cooling operation with -25°C low ambient temperature.



PRVC2

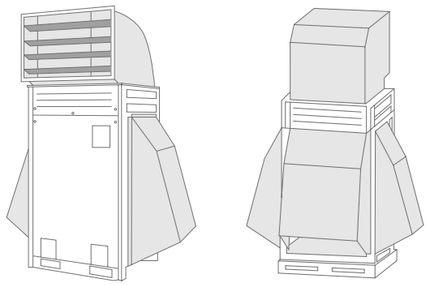
Features

Function

- 25°C Low ambient cooling operation by Low ambient kit and hood with damper (Analog output 0 ~ 10V)
- Demand contro
- Low noise operation
- Output outdoor or indoor unit operation status (AC 250V, Max. 1A)
- Output error status (AC 250V, Max. 1A)

Description

- Low ambient kit supports -25° C 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.
- External snow hood and air damper are required for this item.
- Transformer and terminal block are included.

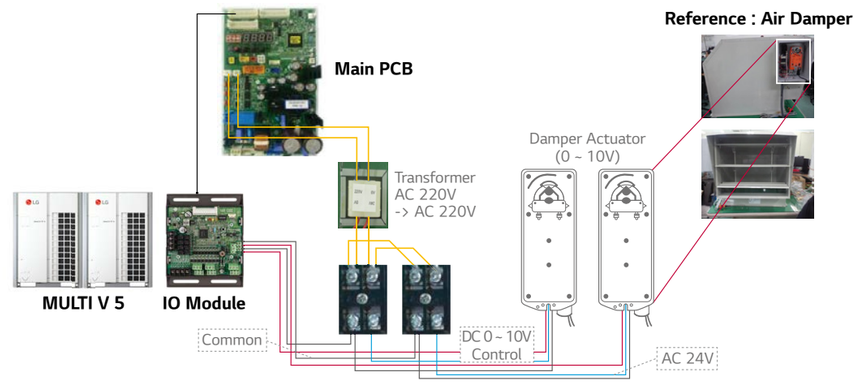


: Field Supply item

Models Applied

- MULTI V 5
- MULTI V IV

Installation Scene



Note : The IO Module can control maximum three actuators. Please, review damper actuator's installation manual.

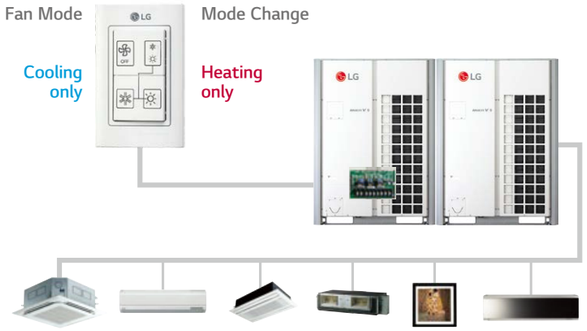
COOL / HEAT SELECTOR

Cooling, heating, or fan mode can be selected to prevent cooling and heating mixing errors during seasonal changes.

PRDSBM

Features

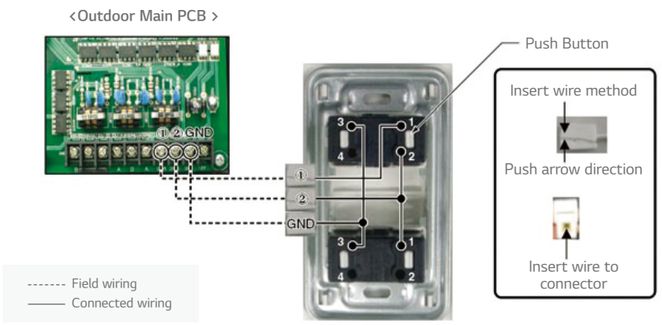
- Indoor unit mode control without central controller
- Select operation mode : Cooling, Heating, Fan mode
- Mode lock for cooling & heating mixing error-proof during the change of season



Models Applied

- MULTI V 5
- MULTI V IV
- MULTI V WATER II
- MULTI V S
- MUL TI V PLUS II, MULTI V PLUS
- MULTI V WATER IV

Wiring Diagram



- Connect Terminals (1, 2, GND) on the back side of the outdoor dry contact to terminals (1, 2, GND) of outdoor as shown below.

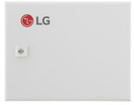
* Communication line length can be maximum 300m, use Communication line as thick 1.25mm

AHU KITS

A solution to connect LG's high efficiency system to the DX coil of an air handling unit for the maximum energy savings.

COMMUNICATION KIT

PAHCMR000



PAHCMS000

CONTROL KIT

PRCKD21E
PRCKD41E

EEV KIT

PRLK048A0
PRLK096A0

TXV Kit (Thermal Expansion Valve)

PATX13A0E / PATX20A0E
PATX25A0E / PATX35A0E
PATX50A0E

Specifications

Communication & Control Kit

Type	Model	Combination				Description	Dimensions (mm)		
		Outdoor Unit	EEV Kit	TXV Kit	Centralized Controller		W	H	D
Communication kit	PAHCMR000	Multi V	○	○	○	Return / Room air temperature control by DDC or LG individual / centralized controller	300	300	155
		Single Split	-	-	○				
	PAHCMS000	Multi V	○	○	○	Discharge air temperature control by DDC or LG individual / centralized controller	380	300	155
		Single Split	-	-	○				
Control kit	PRCKD21E	Multi V	-	○	○	Max. capacity 1 ~ 4 master outdoor unit	600	750	285
	PRCKD41E	Multi V	-	○	○	Max. capacity 5 ~ 8 master outdoor unit	600	750	285

※ ○ : Applied, - : Not Applied

Expansion Valves

Type	Model	Capacity Range	Pipe Diameter (mm)				Dimensions (mm)		
			Liquid (ODU)	Liquid (AHU)	Gas (ODU)	Gas (AHU)	W	H	D
EEV Kit (Electronic Expansion Valve)	PRLK048A0	1.3 ~ 10 HP	12.7	12.7	-	-	217	404	83
	PRLK096A0	12 ~ 20HP	12.7	12.7	-	-	217	404	83
TXV Kit (Thermal Expansion Valve)	PATX13A0E	8 ~ 16HP	15.88	15.88	22.22	22.22	491	238	174
	PATX20A0E	18 ~ 26HP	15.88	22.22	28.58	28.58	491	238	174
	PATX25A0E	28 ~ 36HP	22.22	28.58	34.92	34.92	491	238	174
	PATX35A0E	38 ~ 46HP	28.58	34.92	41.3	41.3	491	238	174
	PATX50A0E	48 ~ 56HP	28.58	34.92	41.3	41.3	561	291	192

※ ○ : Applied, - : Not Applied

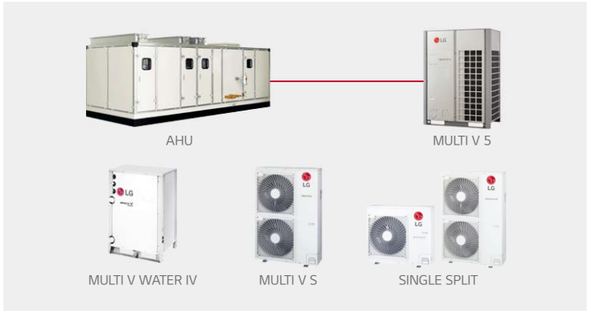
AHU KITS

Communication Kit

HIGH ENERGY EFFICIENCY

LG's DX AHU solutions are capable of performing all indoor air conditioning tasks with success under all operating conditions thanks to their superior performance with high efficiency heat source system.

Solution benefits offer the following advantages:
- High energy efficiency inverter system
- Large range of expansion valves
  : 1.3 ~ 20 HP EEV Kit, 8 ~ 56 HP TXV Kit
- Connected to various heat sources
  : MULTI V, MULTI V WATER, MULTI V S, SINGLE SPLIT

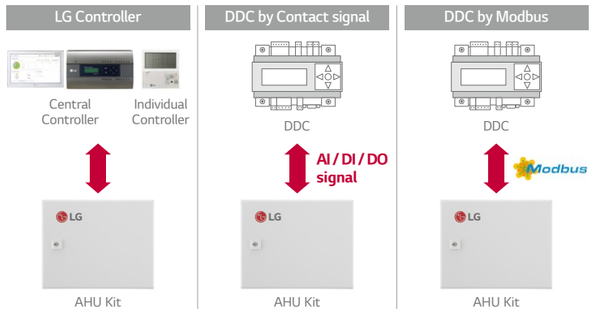


DIVERSE OPTIONS FOR CONTROL

AHU communication kit can be connected to various control system such as LG individual/central controller and DDC [1]. It can be directly connected to DDC without separated controller, so DDC can receive product control and monitor information through contact signal or Modbus protocol.

- LG Individual/Central controller supported
  - LG controller stand alone or combination with DDC
- Direct wiring between DDC and AHU communication kit
  - Embedded Digital I/O and Analog Input
  - Modbus RTU protocol supported

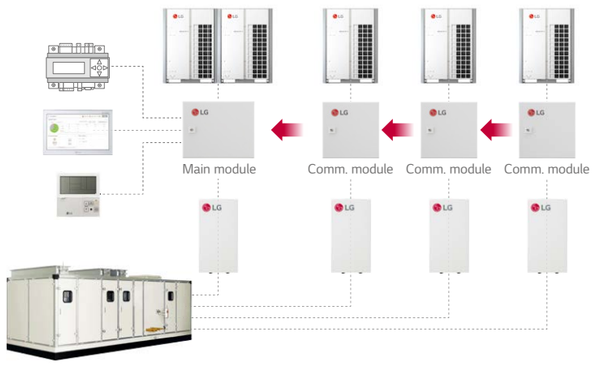
1) DDC : Direct Digital Controller



EXPANDABLE SYSTEM DESIGN

LG AHU system can be a suitable solution for various sites due to its application flexibility and wide range of line up with large capacity models. According to the required capacity, a single or multiple module combination is possible thanks to AHU communication kit's modular design.

- Multiple module combination for large capacity AHU

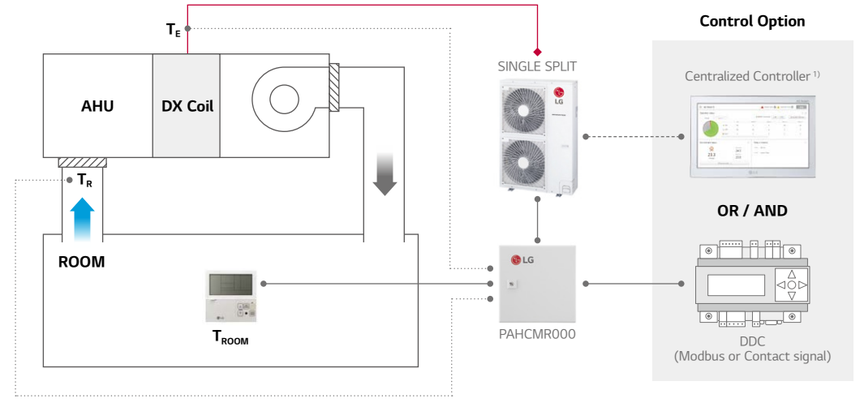


Communication Kit Application

Small Capacity with Single Split + Return / Room Air Temperature Control

Temp. Sensors
Comm. Line
Central Comm. Line to ODU
Ref. Pipe

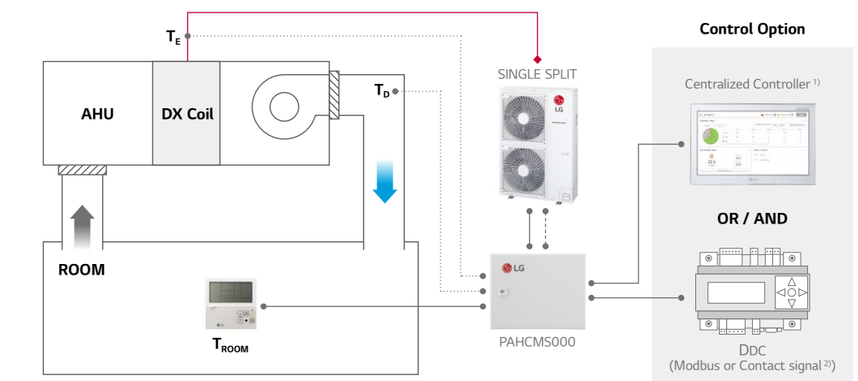
T_E = Evaporator Temperature (Liquid Pipe / Gas Pipe)
T_R = Return Air Temperature
T_{ROOM} = Room Air Temperature



Small Capacity with Single Split + Discharge Air Temperature Control

Temp. Sensors
Comm. Line
Central Comm. Line to ODU
Ref. Pipe

T_E = Evaporator Temperature (Liquid Pipe / Gas Pipe)
T_D = Discharge Air Temperature
T_{ROOM} = Room Air Temperature



1) PI485 (PMNFP14A1) is required for centralized controller
2) In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC
Note : For more detail, please refer to the PDB

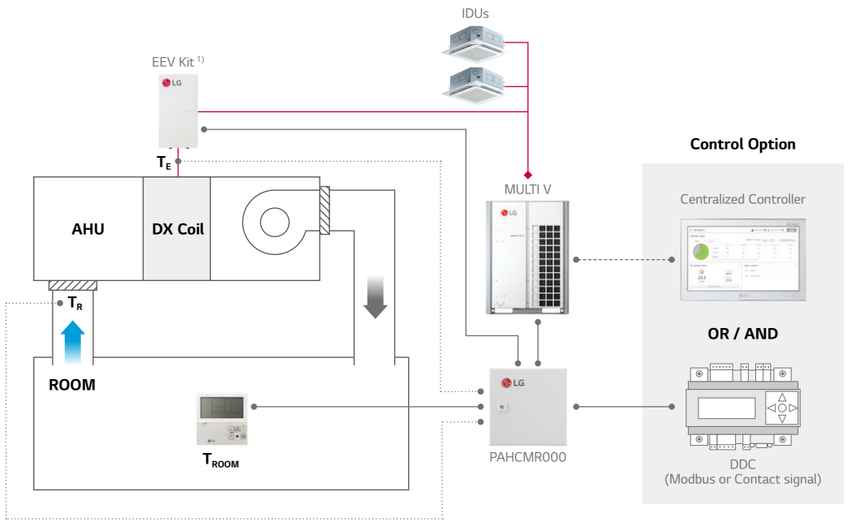
AHU KITS

Communication Kit Application

Small-Medium Capacity with Multi V + EEV Kit + IDU + Return / Room Air Temperature Control

- Temp. Sensors
- Comm. Line
- Central Comm. Line to ODU
- Ref. Pipe

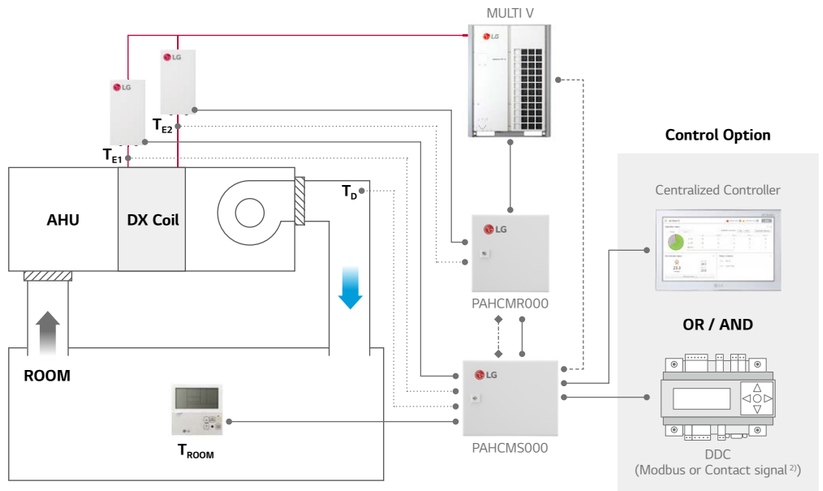
T_E = Evaporator Temperature (Liquid Pipe / Gas Pipe)
T_R = Return Air Temperature
T_{ROOM} = Room Air Temperature



Small-Medium Capacity with Multi V + EEV Kit + Discharge Air Temperature Control

- Temp. Sensors
- Comm. Line
- Central Comm. Line to ODU
- Ref. Pipe
- Comm. Line between modules

T_E = Evaporator Temperature (Liquid Pipe / Gas Pipe)
T_D = Discharge Air Temperature
T_{ROOM} = Room Air Temperature



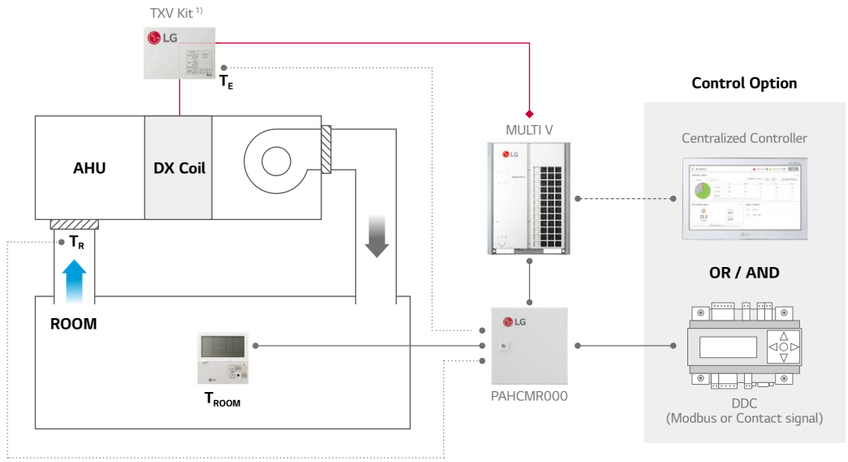
1) Multiple EEV kits can be applicable with multiple DX Coils and PAHCMR000s
2) In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC
Note : For more detail, please refer to the PDB

Communication Kit Application

Large Capacity with Multi V + TXV Kit + Return / Room Air Temperature Control

- Temp. Sensors
- Comm. Line
- Central Comm. Line to ODU
- Ref. Pipe

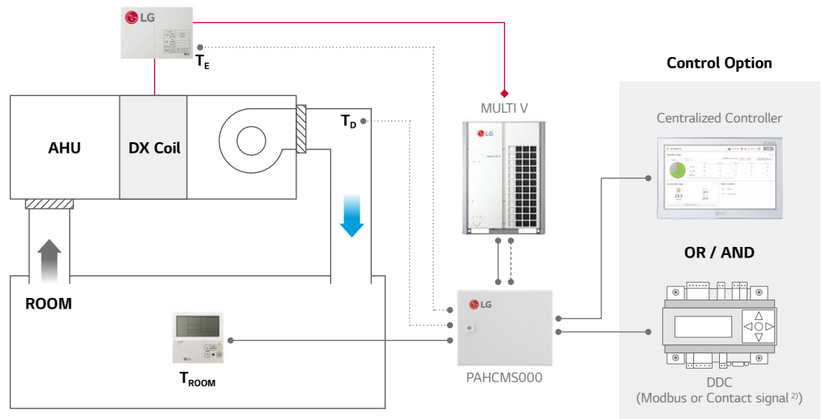
T_E = Evaporator Temperature (Liquid Pipe / Gas Pipe)
T_R = Return Air Temperature
T_{ROOM} = Room Air Temperature



Large Capacity with Multi V + TXV Kit + Discharge Air Temperature Control

- Temp. Sensors
- Comm. Line
- Central Comm. Line to ODU
- Ref. Pipe

T_E = Evaporator Temperature (Liquid Pipe / Gas Pipe)
T_D = Discharge Air Temperature
T_{ROOM} = Room Air Temperature



1) TXV Kit should be connected with outdoor unit 1:1
2) In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC
Note : For more detail, please refer to the PDB

Communication Kit Function

Communication with DDC via Contact Signal

Function List		PAHCMR000	PAHCMS000	Type	Electric Spec.
Control	Comm. Kit Operation	On / Off		Digital Input	Non voltage
	Operation Mode 1)	Cooling / Heating		Digital Input	Non voltage
	Return (room) Air Temperature 2)	16 ~ 30°C	-	Analog Input	DC 0 ~ 10V / 20mA
	Discharge Air Temperature 3)	-		-	-
	Fan Speed 4)	-	Low / Middle / High	Digital Input	Non voltage
	Forced Thermal On / Off	On / Off	-	Digital Input	Non voltage
	Capacity Control	-	○	Analog Input	DC 0 ~ 10V / 20mA
Monitor	Comm. Kit Operation 2)	On / Off		Digital Output	Max. : DC 12V / 1A, AC 250V / 3A
	Operation Mode	-		-	It needs to be checked through control signal
	Return (room) Air Temperature	-		-	-
	Discharge Air Temperature	-		-	-
	Fan Speed 2)	Low / Middle / High		Digital Output	Max. : DC 12V / 1A, AC 250V / 3A
	Defrost Operation 2)	Defrost / Normal		Digital Output	Max. : DC 12V / 1A, AC 250V / 3A
	Error Alarm 2)	Error / Normal		Digital Output	Relay C contact (Max. : DC 30V / 5A, AC 250V / 5A)
	Compressor On / Off	-	On / Off	Digital Output	Max. : DC 12V / 1A, AC 250V / 3A

※ ○ : Applied, - : Not Applied
1) Available operation mode can be varied depending on the setting of Communication Kit
2) This function may not be possible depending on the setting of Communication Kit. For more details, please refer to the product data book
3) Discharge air temperature should be controlled directly through DDC
4) To control the fan speed using contact signal, DO ports for the status of fan speed needs to be connected with the fan unit

Communication with DDC via Modbus protocol

Function List		PAHCMR000	PAHCMS000	Note
Control	Comm. Kit Operation	On / Off		-
	Operation Mode 1)	Cooling / Heating		-
	Return (room) Air Temperature	16 ~ 30°C	-	-
	Discharge Air Temperature	-	16 ~ 30°C	-
	Fan Speed 2)	Low / Middle / High	-	-
	Forced Thermal On / Off	-		-
	Capacity Control	-	○	-
Monitor	Comm. Kit Operation	On / Off		-
	Operation Mode 1)	Cooling / Heating		-
	Return (room) Air Temperature	-50 ~ 100°C	-	Corresponding air temperature sensor connected to AHU comm. kit is required
	Discharge Air Temperature	-	-50 ~ 100°C	
	Fan Speed	Low / Middle / High	-	-
	Defrost Operation	On / Off		-
	Error Alarm	Error Alarm & Code		-
	Compressor On / Off	On / Off		-

※ ○ : Applied, - : Not Applied
1) Available operation mode can be varied depending on the setting of Communication Kit
2) To control the fan speed using Modbus, DO ports for the status of fan speed needs to be connected with the fan unit
Note : For the Modbus memory map, pleases refer to the product data book

Communication Kit Function

With LG Control system (Individual & Centralized Controller)

Function List		PAHCMR000	PAHCMS000	Note
Control*	Comm. Kit Operation	On / Off	On / Off	-
	Operation Mode 1)	Cooling / Heating	Cooling / Heating	-
	Return (room) Air Temperature	16~30°C	-	-
	Discharge Air Temperature 2)	-	16 ~ 30°C	-
	Fan Speed 3)	Low / Middle / High	-	-
	Forced Thermal On / Off	-	-	-
	Capacity Control	-	-	-
Monitor	Comm. Kit Operation	On / Off	On / Off	-
	Operation Mode 1)	Cooling / Heating	Cooling / Heating	-
	Return (room) Air Temperature	11~39.5°C / -50~100°C	-	By Individual controller : 11 ~ 39.5°C By Centralized controller : -50 ~ 100°C
	Discharge Air Temperature	-	-50 ~ 100°C	Only with Centralized Controller
	Fan Speed 3)	Low / Middle / High	-	-
	Defrost Operation	On / Off	On / Off	Only with Individual Controller
	Error Alarm	Error Code	Error Code	-
	Compressor On / Off	On / Off	On / Off	Only with Individual Controller

※ ○ : Applied, - : Not Applied
1) Available operation mode can be varied depending on the setting of Communication Kit. For more details, please refer to the product data book
2) This range may differ depending on the type of controller
3) To control the fan speed using contact signal, DO ports for the status of fan speed needs to be connected with the fan unit
Note : Control function is unavailable in case of using together with DDC via contact signal

Compatibility with LG HVAC Controllers

Controller	Individual Controller			Centralized Controller					BMS Gateway	PDI
	Premium	Standard III	Standard II	AC Ez	AC Ez Touch	AC Smart 5	ACP 5	AC Manager 5 1)	ACP Lonworks	Premium Standard
										
Model no.	PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001	PQCSZ250S0	PACEZA000	PACS5A000	PACP5A000	PACM5A000	PLNWKB000	PQNUD1S40 PPWRDB000
PAHCMR000	○	○	○	○	○	○	○	○	○	○
PAHCMS000	-	-	○ 2)	-	-	○	○	○	-	-

※ ○ : Applied, - : Not Applied
1) AC Manager 5 is an integrator, so the installation with AC Smart 5 or ACP 5 is required
2) Set temperature range of this model shall be extended in the future
Note : 1. Dry contact for indoor unit (PDRYCB000 / 400 / 300 / 500) is not applied
2. For more details, please refer to the product data book

AHU KITS

Communication Kit Function

Outdoor Unit Compatibility

Multi V

Model		MULTI V				MULTI V WATER		
		5	IV	III	S	IV	II	S
AHU Controller	PAHCMR000	○	○	○	○	○	○	○
	PAHCMS000	○	○	○	○	○	○	-

Single Split

Standard Inverter (1-phase)								
Capacity	Cooling kW	4.7	7.7	8.0	10.0	12.5	13.9	14.6
	Heating kW	5.5	8.0	9.0	11.0	14.0	15.4	16.9
AHU Kit	PAHCMR000	○	○	○	○	○	○	○
	PAHCMS000	○	○	○	-	-	-	-

Standard Inverter (3-phase)							
Capacity	Cooling kW	10.0	12.5	13.9	14.6	19.0	23.0
	Heating kW	11.0	14.0	15.4	16.9	22.4	27.0
AHU Kit	PAHCMR000	○	○	○	○	○	○
	PAHCMS000	-	-	-	-	○	○

※ ○ : Applied, - : Not Applied
Note : 1. Table of the outdoor unit compatibility is based on European regional model.
2. When connecting outdoor units in other areas, please check whether they are compatible or not.

Expansion valves for MULTI V system

EEV Kit	PRLK048A0											PRLK096A0				
HP	1.3	1.6	2	2.5	3	3.5	4	5	6	8	10	12	14	16	18	20
Cooling (kW)	3.6	4.5	5.6	7.1	8.2	10.6	12.3	14.1	15.8	22.4	28	33.6	39.2	44.8	50.4	56
Heating (kW)	4	5	6.3	8	9.2	11.9	13.8	15.9	18	25.2	31.5	37.8	44.1	50.4	56.7	63

TXV Kit	PATX13A0E	PATX20A0E	PATX25A0E	PATX35A0E	PATX50A0E
HP	8 ~ 16	18 ~ 26	28 ~ 36	38 ~ 46	48 ~ 56
Cooling (kW)	22.4 ~ 44.8	50.4 ~ 72.8	78.4 ~ 100.8	106.4 ~ 128.8	134.4 ~ 156.8
Heating (kW)	25.2 ~ 50.4	56.7 ~ 81.9	88.2 ~ 112.1	118.4 ~ 143.6	148.5 ~ 175.1

* Capacities are based on the following conditions :
- Cooling : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
  Condensing temperature (tc) 46°C, Evaporating temperature (te) 6°C
- Heating : Indoor 20°C (68°F) DB / 15°C (59°F) WB Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
  Hot gas inlet temperature 70°C, Condensing temperature (tc) 46°C
- Piping Length : Interconnected Pipe Length = 7.5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is zero

Control Kit

List	Required Item
Heating / Cooling	SA / RA temperature sensor (or SA / RA temperature & humidity sensor)
Automatic Ventilation	SA / RA temperature, CO_2 sensor, Damper actuator (OA, EA, MA)
Energy Saving (Cooling Mode Only)	SA temperature, OA / RA temp&humidity sensor, Damper actuator (OA, EA, MA)
Humidification	SA temperature, RA temperature & humidity sensor, Humidifier
Inverter Fan Control	SA / RA temperature, Static pressure sensor, Inverter driver for fan control
Filter Alarm	Difference pressure sensor
Smoke Detecting	Smoke detection sensor

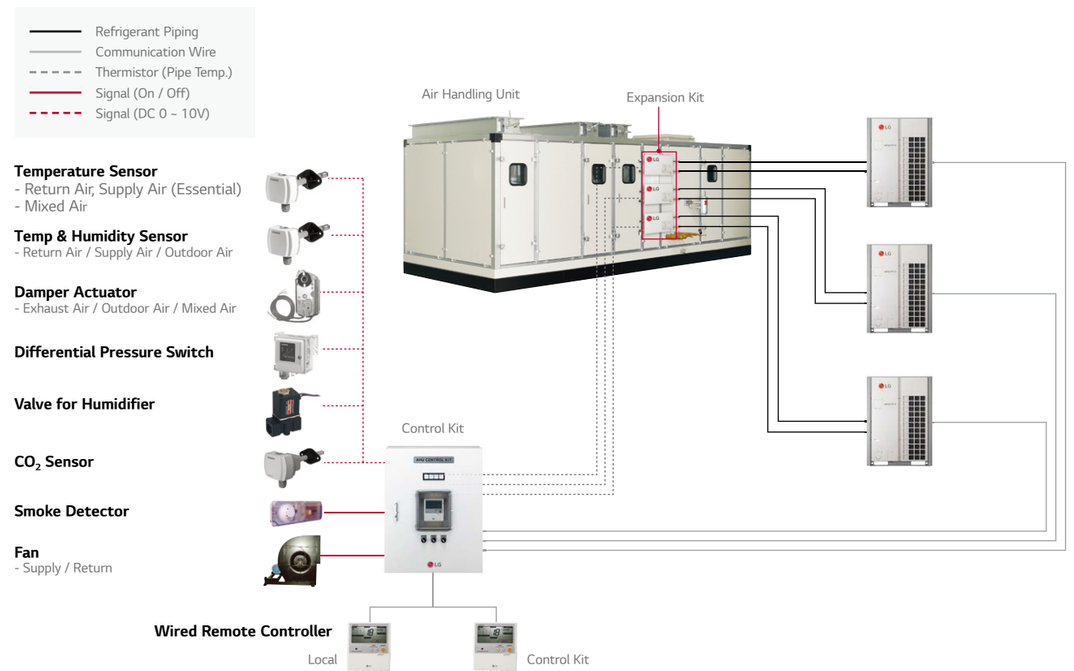
RA : Return Air, EA : Exhaust Air, OA : Outdoor Air, SA : Supply Air, MA : Mix air (RA + OA)

Field Supplied Item

List	Required Specification	Apply Location
Temperature Sensor	- Power : AC 24V, Output signal : DC 0 ~ 10V - Temperature boundary : -50 ~ 50°C	- Apply to MA, SA, RA
Temperature & Humidity Sensor	- Power : AC 24V, Output signal : DC 0 ~ 10V - Temperature boundary : -40 ~ 70°C - Humidity boundary : 0 ~ 95% RH	- Apply to SA, RA, OA - Can not be applied to MA
Damper Actuator	- Power : AC 24V, In/Output signal : DC 0 ~ 10V - Torque : 15 Nm, Operation time : 150sec. - Rotation angle : 90°	- Apply to OA, EA, MA damper
Difference Pressure Sensor (for Filter)	- Power : AC 24V, Output signal : DC 0 ~ 10V * Boundary : 0 ~ 1000Pa - Switch type : Relay Open / Close	- Apply to filter
Static Pressure Sensor	- Power : AC 24V, Output signal : DC 0 ~ 10V - Boundary : 0 ~ 1000pa	- Apply to SA (for inverter control)
CO_2 Sensor	- Power : AC 24V, Output signal : DC 0 ~ 10V - Boundary : 0 ~ 2000ppm	- Apply to RA duct
Smoke Detection Sensor	- Power : AC 24V, From : Contact point type	- Apply to RA duct

Note : Boundary of specification can be changed through LGAV software. However, please make a specification referring to the above table

Various Control with Control kit – Multiple MULTI V + TXV Kits



HOTEL

Hotel Control Solution

Guest Rooms

The air conditioner automatically turn off when guests leave — Dry contact

Integrated control of air conditioner with the hotel room controller — Dry contact

Control the air conditioner with an existing hotel thermostat — Dry contact For thermostat

Guest safety is the first priority — Refrigerant Leak detector

Reception

Air conditioner control in conjunction with check-in or check out — AC Smart 5 (Schedule)

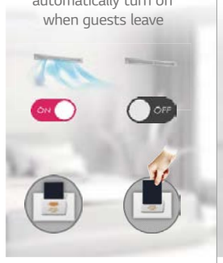
Public Areas

Centralized management of the public areas

Hotel Proposal / Design

Guest Room

The air conditioner automatically turn off when guests leave



PDRYCB400
2 contact point

Input
- Operation On / Off

Output
- Operation On / Off status
- Error alarm

Integrated control of air conditioner with the hotel room controller

PDRYCB500
Modbus RTU(9,600bps)

Function
- Operation
- Indoor temperature
- Error alarm
- Set run mode
- Set temperature
- Set fan speed

Control with existing hotel thermostat

PDRYCB300
8 contact point

Input
- Operation On / Off
- Thermo On / Off
- Operation mode (Fan / Heat / Cool)
- Fan speed (Low / Middle / High)

Output
- Operation On / Off status
- Error alarm

Guest safety is the first priority

PRLDNVS0
Refrigerant leakage detector
- 6000ppm

PREMTB100
Wired remote controller
- 4.3 inch color LCD
- Touch button

Lobby

Air conditioner control in conjunction with check-in or check out

PACS5A000
AC Smart 5
- BMS Integration (BACnet IP, Modbus TCP)

PACP5A000
ACP 5
- BMS Integration (BACnet IP, Modbus TCP)

SHOPPING MALL

Shopping Mall Control Solution

Retail

Rationally distribute and manage the power consumption by tenants — PDI

Fast problem detection and alarms — Central controller (Operation trend)

Maintenance Office

Reduces energy by checking operational trends — Central controller (Operation trend)

Atrium

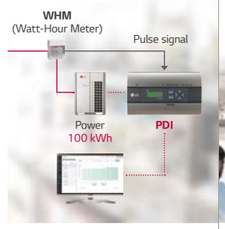
Integrated management of AHU applied to large spaces — Comm. Kit

Chiller and VRF integrated control — Central controller (Operation trend) + Chiller option kit

Shopping Mall Reference

Retail

Rationally distribute and manage power consumption by the tenant



PPWRDB000
PDI Standard (2 port)
- Max. 128 IDU

PQNUD1S40
PDI Premium (8 port)
- Max. 128 IDU

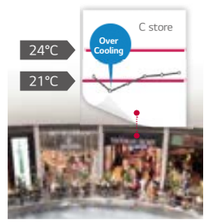
Fast problem detection and alarms

PACS5A000
AC Smart 5
- BMS Integration (BACnet IP, Modbus TCP)

PACP5A000
ACP 5
- BMS Integration (BACnet IP, Modbus TCP)

Maintenance Office

Reduces energy by checking operational trends



Atrium

Integrated management of AHU applied to large spaces

PAHCMR000
AHU Comm. Kit
- Return air

PAHCMS000
AHU Comm. Kit
- Discharge air

Chiller and VRF integrated control

PCHLLN000
Chiller option kit
+

PACP5A000
ACP 5

PACS5A000
AC Smart 5

HOSPITAL

Hospital Control Solution

Hospital Ward

Proper airflow management for patients — Wired remote controller

Monitor the comfort level for each hospital ward — Central controller (Comport level)

Control fan speed and air volume — Dry contact

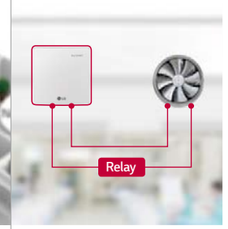
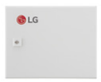
Service Zone

Energy savings based on flexible scheduling — Central controller (Schedule)

Lobby

Centralized management of AHU for large spaces — Comm. Kit

Hospital Proposal / Design

Hospital Ward			Service Zone	Lobby
Proper airflow management for patients	Monitor the comfort level for each hospital ward	External device interlock control	Energy savings based on flexible scheduling	Centralized management of AHU for large space
				
				
PTVSMA0 Human detection sensor	**PACS5A000** AC Smart 5 • BMS Integration (BACnet IP, Modbus TCP)	**PDRYCB400** 2 contact point **Input** • Operation On / Off **Output** • Operation On / Off status • Error alarm	**PACS5A000** AC Smart 5 • BMS Integration (BACnet IP, Modbus TCP)	**PAHCMR000** AHU Comm. Kit • Return air
				
PREMTB100 Wired remote controller • 4.3 inch color LCD • Touch button	**PACP5A000** ACP 5 • BMS Integration (BACnet IP, Modbus TCP)		**PACP5A000** ACP 5 • BMS Integration (BACnet IP, Modbus TCP)	**PAHCMS000** AHU Comm. Kit • Discharge air

EDUCATION

Education Control Solution

Class Room

Automatically save energy in the absence of students — Wired remote controller

Central controls prevent students from arbitrary control — Central controller (Lock)

Lecture Room

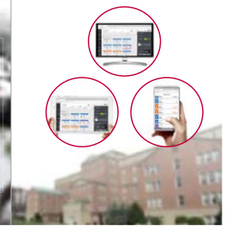
Schedule management according to academic plan — Central controller (Schedule)

Maintenance Office

Integrated management of distributed buildings — Central controller (Multiple management)

Centralized management with multiple interfaces — Central controller (HTML5)

Education Proposal / Design

Class Room		Lecture Room	Maintenance Office	
Automatically save energy in the absence of students	Central controls prevent students from arbitrary control	Schedule management according to academic plan	Integrated management of distributed buildings	Centralized management with multiple interfaces
				
				
PTVSMA0 Human detection sensor		**PACS5A000** AC Smart 5 • BMS Integration (BACnet IP, Modbus TCP)	**PACP5A000** ACP 5 • BMS Integration (BACnet IP, Modbus TCP)	**PACM5A000** AC Manager 5
				
PREMTB100 Wired remote controller • 4.3 inch color LCD • Touch button				

OFFICE

Office Control Solution

Maintenance Office

Energy savings and management throughout the building
Central controller (Energy Navi.)

Integrated management of HVAC with BMS system
Central controller (BMS Gateway)

Reduce costs by replacing BMS
Central controller (Operation trend) + ACS IO Module

Office Room

Reasonable power distribution to tenants
PDI

Server Room

Main equipment 24 hours back up management
Central controller (Backup operation)

Meeting Room

Energy savings based on occupancy detection
Wired remote controller

Office Proposal / Design

Maintenance Office

Energy savings and management throughout the building

PACS5A000
AC Smart 5

- BMS Integration (BACnet IP, Modbus TCP)

PACP5A000
ACP 5

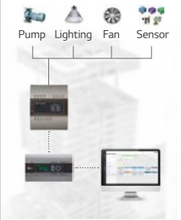
- BMS Integration (BACnet IP, Modbus TCP)

Integrated management of HVAC with BMS system

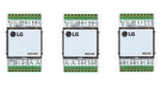
PLNWKB000
LonWorks gateway

PMBUSB00A
Modbus RTU gateway

Reduce costs by replacing BMS



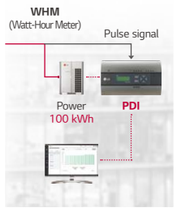
PEXPMB000
ACS IO Module



PEXPM300
PEXPM200
PEXPM100
ACU IO Module

Office Room

Reasonable power distribution to tenants



PPWRDB000
PDI Standard (2 port)

- Max. 128 IDU

PQNUD1S40
PDI Premium (8 port)

- Max. 128 IDU

Server Room

Main equipment 24 hours back up management

PACS5A000
AC Smart 5

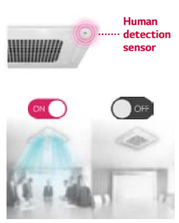
- BMS Integration (BACnet IP, Modbus TCP)

PACP5A000
ACP 5

- BMS Integration (BACnet IP, Modbus TCP)

Meeting Room

Energy savings based on occupancy detection



PTVSMA0
Human detection sensor

PREMTB100
Wired remote controller

- 4.3 inch color LCD
- Touch button

RESIDENTIAL

Residential Control Solution

Home

Control your home air conditioner anytime, anywhere
Wi-Fi Modem

Living Room

Build a smart house
Modbus RTU

Bed Room

Use a familiar residential thermostat
Dry contact For thermostat

Simple interlocking control by remote control
Wired remote controller

Apartment / Residence

Stable system operation
Independent power module

Residential Proposal / Design

Home

Control your home air conditioner anytime, anywhere

PWFMDD200
LG Wi-Fi modem

Function

- On / Off
- Fan speed
- Operation mode
- Vane control
- Reservation (Sleep, Weekly On / Off)
- Error check

Living Room

Build a Smart house

PDRYCB500
Modbus RTU (9,600bps)

Function

- Operation
- Indoor temperature
- Error alarm
- Set operation mode
- Set temperature
- Set fan speed

Bed Room

Use a familiar residential thermostat

PDRYCB300
8 contact point

Input

- Operation On / Off
- Thermo On / Off
- Operation mode (Fan / Heat / Cool)
- Fan speed (Low / Middle / High)

Output

- Operation On / Off status
- Error alarm

Simple interlocking control by remote control

PREMTB100
Wired remote controller

- 4.3 inch color LCD
- Touch button

Apartment

Stable system operation when indoor unit power is lost

PRIP0
Independent power module

- EEV full close function