



Accessories

2011 LG Air Conditioner

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Brief History

Establishment

- 1947 Establishment of the LG Group
- 1958 Establishment of LG Electronics Inc.
- 1962 Establishment of Digital Appliance Company

Growth

- 1968 Manufactured Korea's first air conditioners
- 1985 Introduced Korea's first Inverter air conditioners
- 1986 Exported Korea's first window type air conditioners

Expansion

- 1995 Establishment of LGETA in china
- 1997 Establishment of LGEIL in India
- 1999 Establishment of LGEAT in Turkey
- 1999 Establishment of LGEMH in Vietnam
- 2001 Establishment of LGEAZ in Brazil
- 2002 Establishment of LGETH in Thailand
- 2002 Establishment of LGEIN in Indonesia
- 2004 Turnover of US\$1.4 Billion dollars



Contents



V-net 04

Remote Controller 06

Central Controller 12

Electronic Accessory 32



Mechanical Accessory 48



Piping Accessory 64

Global Air Conditioning Academies



Changwon in Korea



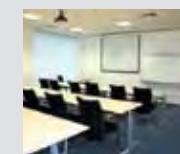
Pyeongtaek in Korea



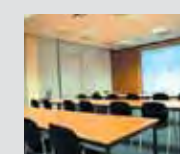
Moscow



Thailand



England



France



Australia



Saudi Arabia



Singapore



Spain



Italy



Dubai



China



Kazakhstan



Mexico



Panama



Indonesia



Iran



Turkey



Vietnam

V-NET

V-net, LG Network Solutions provide comfortable environments and energy savings by optimum control of the Air-conditioning system.

V-NET Line up

Remote Controller

Wired Remote Controller

Standard



PQRCVSLO
PQRCVSLOQW



PZRCUSBO
PVRCUSZO

Deluxe



PQRCUDSO (White)
PQRCUDSOB (Blue)
PQRCUDSOS (Silver)

Simple



PQRCVCLOQW(White,Simple)
PQRCVCLOQ (Black, Simple)
PQRCHCAOQW(White, Simple for Hotel)
PQRCHCAOQ(Black, Simple for Hotel)

Wireless Remote Controller



PQWRH(C)DFO

Central Controller

Simple Controller



(Simple Central Controller)



(Function Controller)



(Scheduler)



(AC EZ)

PQCSB101SO
PQCSB101SO+PQCSC101SO
PQCSB101SO+PQCS130AO
PQCSZ250SO

AC Smart II, Option Kit & 128 Unit Expansion Kit

AC Smart II & Option Kit



PQCSW320A1E



PQCSE341AO
PQCSE342AO

Expansion Kit



PQCSE440U0

ACP & AC Manager



PQCPA11AOE(Without IO)
PQCPB11AOE(With IO)
PQCSS520AOE (AC Manager)

BNU



PQNFB16A1 (LonWorks®)
PQNFB17B0 (BACnet)

AHU Application kit

Control kit



PRCKD20E
PRCKD40E

Comm. kit



PRCKAO
PUCKAO

EEV kit



PRLK048AO

Expansion kit



PATX13AOE
PATX20AOE
PATX25AOE
PATX35AOE
PATX50AOE

PI 485 & DO Kit



PMNFP14A1 / PMNFP14AO
PHNFP14AO / PSNFP14AO
PQNFP00T0

Electronic Accessory

Dry Contact, Cool/Heat Selector, Zone Controller, Electronic Thermostat
CTI, Low Ambient Kit, Remote Temperature Sensor, PDI, Telecom Shelter Controller

V-NET

Remote controller

Remote Controller Line up



Function	PQRCVSLO PQRCVSLOQW	PQRCUDS0(B,S)	PQRCHCA0Q PQRCHCA0QW	PQRCVCL0Q PQRCVCL0QW	PQWRHDF0
On / Off	✓	✓	✓	✓	✓
Fan speed	✓	✓	✓	✓	✓
Temperature setting	✓	✓	✓	✓	✓
Mode change	✓	✓		✓	✓
Auto swing	✓	✓	✓	✓	✓
Vane control	✓	✓		✓	
E.S.P function	✓	✓	✓	✓	
Reservation	✓	✓			✓
Timer Function	✓	✓			✓
Electric failure compensation	✓				
Child lock	✓	✓	✓	✓	



V-NET

Remote controller

Our air conditioning system can be controlled by various types of remote controllers providing general control to unique function.

08



Standard Wired Remote Controller

09



Deluxe Wired Remote Controller

10



Simple Wired Remote Controller

11



Wireless Remote Controller

Standard Wired Remote Controller

The standard remote controller can be used by various means. It can control one or a group of indoor units.

PQRCVSLO
PQRCVSLOQW
PZRCUSBO
PVRCUSZO



PQRCVSLO

PQRCVSLOQW

Deluxe Wired Remote Controller

With the future-oriented design more suitable for the high-end interior, the deluxe wired remote controller makes a perfect match with interior.

PQRCUDSO
PQRCUDSOB
PQRCUDSOS



For Air conditioner FEATURES



PQRCVSLO



PQRCVSLOQW

PQRCVSLO / PQRCVSLOQW	
Operating mode	On_Off / Fan speed / Mode / Temp.
On / Off LED	✓
Room temp.	✓
Fan / Plasma / Swirl / Heater	✓
Vane control / Auto swing / Fan auto	✓
E.S.P function	✓
Reservation	Weekly / Simple
Timer function	✓
Child lock	✓
Electric failure compensation	Max 3 hours
Wireless remote receiver	✓
Main/Sub setting of indoor units (For override function)	★
2 Controllers to 1 indoor units	★
Group and central control at the same time	★
Ventilation mode setting	✓
Rapid ventilation	✓
Power saving ventilation	✓
Size(mm)	120 x 120 x 15
Backlight Unit	★★

★ Applicable for MULTI V II and III series.
※ Terminal Block included. (Applied to models produced since '10 Nov.)
※ Compatible with SCAC models connected to wired remote controllers.
※ Refer to each model PDB for applicable models.

For ecoV™ (O series only) FEATURES



PZRCUSBO

PZRCUSBO	
On / Off LED	✓
Ventilation mode setting	✓
Rapid ventilation	✓
Power saving ventilation	✓
Reservation	Weekly / Simple
Electric failure compensation	Max 2 hours
Child lock	✓
Optional function	Plasma / Heater / Humidifier / Operating air volume

For Syncro – Convertible FEATURES



PVRCUSZO

PVRCUSZO	
Operating mode	On_Off / Fan speed / Mode / Temp.
On / Off LED	✓
Room temp.	✓
Fan	✓
Auto swing	✓
Fan auto	•
Reservation	Weekly / Simple
Timer function	✓
Child lock	✓
Electric failure compensation	Max 2 hours



PQRCUDSO
(White)

PQRCUDSOB
(Blue)

PQRCUDSOS
(Silver)

FEATURES

PQRCUDSO / PQRCUDSOB / PQRCUDSOS	
Operating mode	On_Off / Fan speed / Mode / Temp.
Touch screen / LCD back light	✓
Room temp.	✓
Fan / Plasma / Swirl / Heater	✓
Vane control / Auto swing	✓
E.S.P function	✓
Reservation	Weekly / Simple
Timer function	✓
Child lock	✓

※ Refer to each model PDB for applicable models.

Simple Wired Remote Controller

The simple wired remote controller with handy design is suitable for hotel or office applications because user can control air conditioner easily.

PQRCVCLOQ(Black)
PQRCVCLOQW(White)
PQRCHCAOQ(Black)
PQRCHCAOQW(White)



PQRCVCLOQ(Black)
PQRCVCLOQW(White)
(Simple)



PQRCHCAOQ(Black)
PQRCHCAOQW(White)
(Simple For Hotel)

FEATURES

	PQRCVCLOQ / PQRCVCLOQW	PQRCHCAOQ / PQRCHCAOQW
Operation mode	On_Off / Fan speed / Mode / Temp.	On_Off / Fan speed / Temp.
Room temp	✓	✓
Child lock	✓	✓
Mode change	Cooling / Heating / Fan / Dehumidify / Auto	Only Change-able by Central Controller
Back Light	✓	✓

※ Compatible with SCAC models connected to wired remote controllers.
※ Refer to each model PDB for applicable models.

COMBINATION



Wireless Remote Controller

The wireless remote controller allows the operation air conditioner from any corner of the room.

PQWRH(C)DFO



PQWRH(C)DFO

FEATURES

	PQWRH(C)DFO
Operating mode	On_Off / Fan speed / Mode / Temp
Room temperature checking	✓
Chaos swing / Jet cool	✓
On_Off timer	✓
Sleep mode auto	✓
Main / Sub setting of indoor units (For override function)	★

★ Applicable for MULTI V II and III series.
※ Refer to each model PDB for applicable models.

MODEL NAME & APPLICABLE MODELS

	Type	CST, SRAC, CVT, Duct, Floor Standing
PQWRHDFO	H/P	✓
PQWRCDFO	C/O	✓

V-NET

Central Controller

Central Controller Line up





Function	PQCSB101SO	PQCSB101SO+ PQCSC101SO	PQCSB101SO+ PQCSD130AO	PQCSZ250SO	PQCSW320A1E (+PQCSE440U0)	PQCPA11A0E PQCPB11A0E	PQCPB11A0E+ PQCSS520A0E
On / Off	✓	✓	✓	✓	✓	✓	✓
Max. no. of indoor units	16	16	16	32(16/16)	64(128)	256	4,096
Mode change	✓	✓	✓	✓	✓	✓	✓
Control of each room	✓	✓	✓	✓	✓	✓	✓
Total lock	✓	✓	✓	✓	✓	✓	✓
Error check	LED	LCD display	LCD display	LED/LCD display	Self-diagnosis	Self-diagnosis	Self-diagnosis
Fan speed / Temperature control		✓	✓	✓	✓	✓	✓
Schedule			Weekly	Weekly	Weekly / Yearly	Weekly / Yearly	Weekly / Yearly
Ventilation control				✓	✓	✓	✓
PDI Monitoring						✓	✓
Web access					✓	✓	✓
Set temp. range restriction					✓		✓
Auto Changeover					✓		✓
Temperature limit control					✓		✓
Histoy					✓	✓	✓
Interlocking function							✓
MULTI language					✓		✓



V-NET

Central Controller

The central controller offers more comfortable and convenient life by automatic control such as cooling, heating, ventilating, monitoring, scheduling, peak control, etc.

14  Simple Central Controller	15  Function Controller & Scheduler	16  AC EZ	18  AC Smart II, Option Kit & 128 Unit Expansion Kit	20  ACP & AC Manager
24  BNU(LONWORKS®)	25  BNU(BACnet)	26  PI 485 / DO Kit	28  AHU Comm. kit, AHU Comm. kit & EEV kit	30  AHU Control kit, AHU Expansion kit

Simple Central Controller

Simple and easy central control for 16 indoor units is made by this controller, a distinctive product.

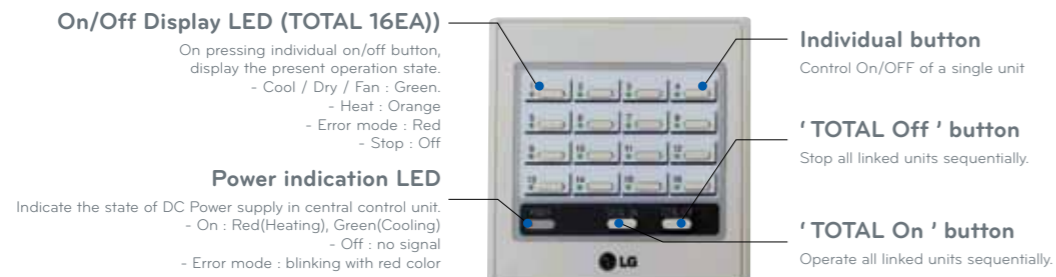
PQCSB101S0



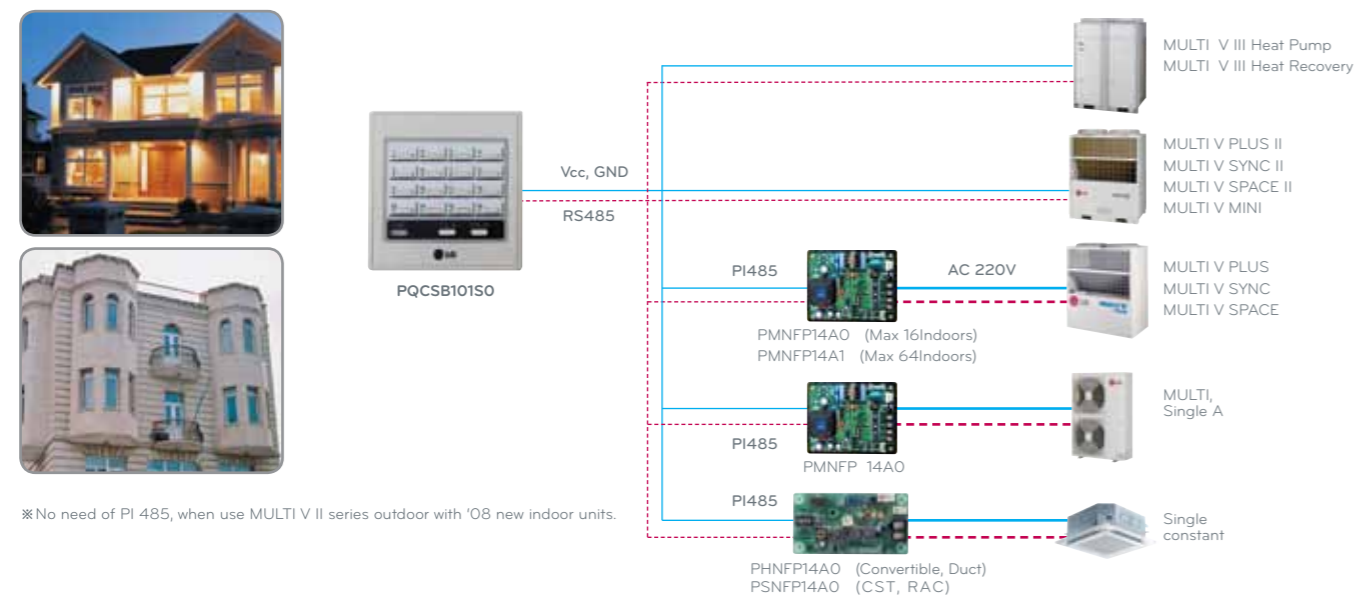
For LGAP applied models FEATURES

	PQCSB101S0
Max. no. of indoor units	16 indoor units
Individual control	On/Off control
Lock function	Total / Individual
Mode change	Cooling / Heating
Malfunction indicator	LED lamp
Dimension(mm)	120x120x20
Power(V)	DC 10V

NAME AND DESCRIPTION OF THE SYSTEM



COMBINATION



Function Controller & Scheduler

Apart from on/off control, operation mode, fan speed, schedule, additional functions can be displayed and easily controlled.

PQCSB101S0+PQCSC101S0
PQCSB101S0+PQCSD130A0



PQCSB101S0+PQCSC101S0
SCC + Function
Controller



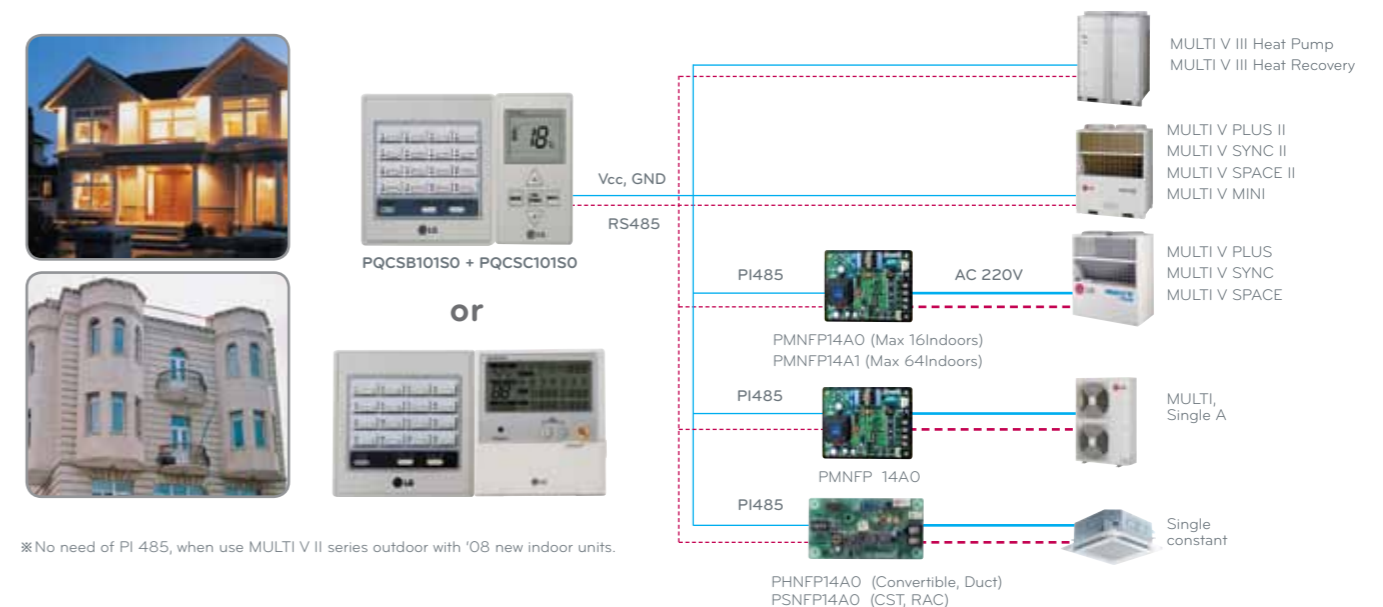
PQCSB101S0+PQCSD130A0
SCC + Scheduler

For LGAP applied models FEATURES

	PQCSB101S0+PQCSC101S0	PQCSB101S0+PQCSD130A0
Max. no. of indoor units	16 indoor units	16 indoor units
Individual control	On/Off / Fan speed / Mode / Temp.	On/Off / Fan speed / Mode / Temp.
Lock function	Total / Individual	Total / Individual
Mode change	Cooling / Heating / Fan	Cooling/Heating/Dehumidification/Fan/Auto
Malfunction indicator	Error display on LCD	Error display on LCD
Schedule	-	Weekly
Dimension(mm)	(120x120x20)+(70x120x14)	(120x120x20)+(120x133x20)
Power(V)	DC 10V	DC 10V

※1 function controller or scheduler can be combined with 8 simple central controllers.

COMBINATION



AC EZ

Apart from On/Off control, operation mode, fan speed, scheduling, additional functions can be displayed and easily controlled.

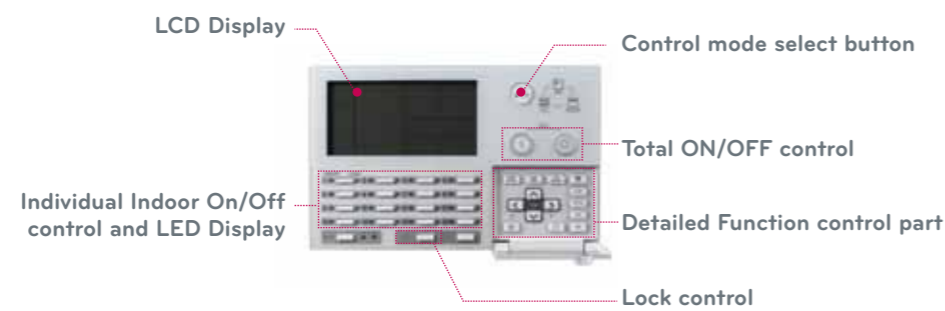
PQCSZ250S0



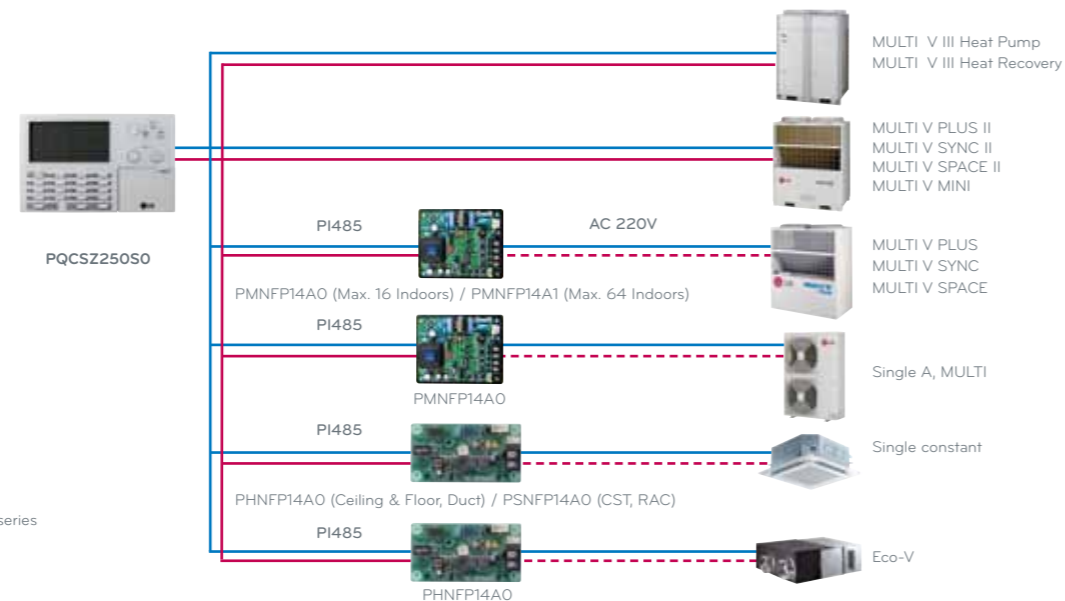
For LGAP applied models FEATURES

PQCSZ50S0	
Max. Indoor unit to control	32 Indoor Units
Individual Control	On, Off/Operation Mode/Fan Speed/Temp
Lock function	Central
Mode change	Cooling/Heating/Fan/Dehumidification/Auto
Schedule	8 event schedule
Ventilation control	On, Off/Ventilation Mode/Rapid Ventilation
Display(All Indoor status indication)	operation, Set temp, Room Temp, Schedule
Dimension(mm)	190x120x17
Power(V)	DC 12V

NAME AND DESCRIPTION OF THE SYSTEM



COMBINATION



*No need of PI 485, when use MULTI V II series outdoor with '08 new indoor units.



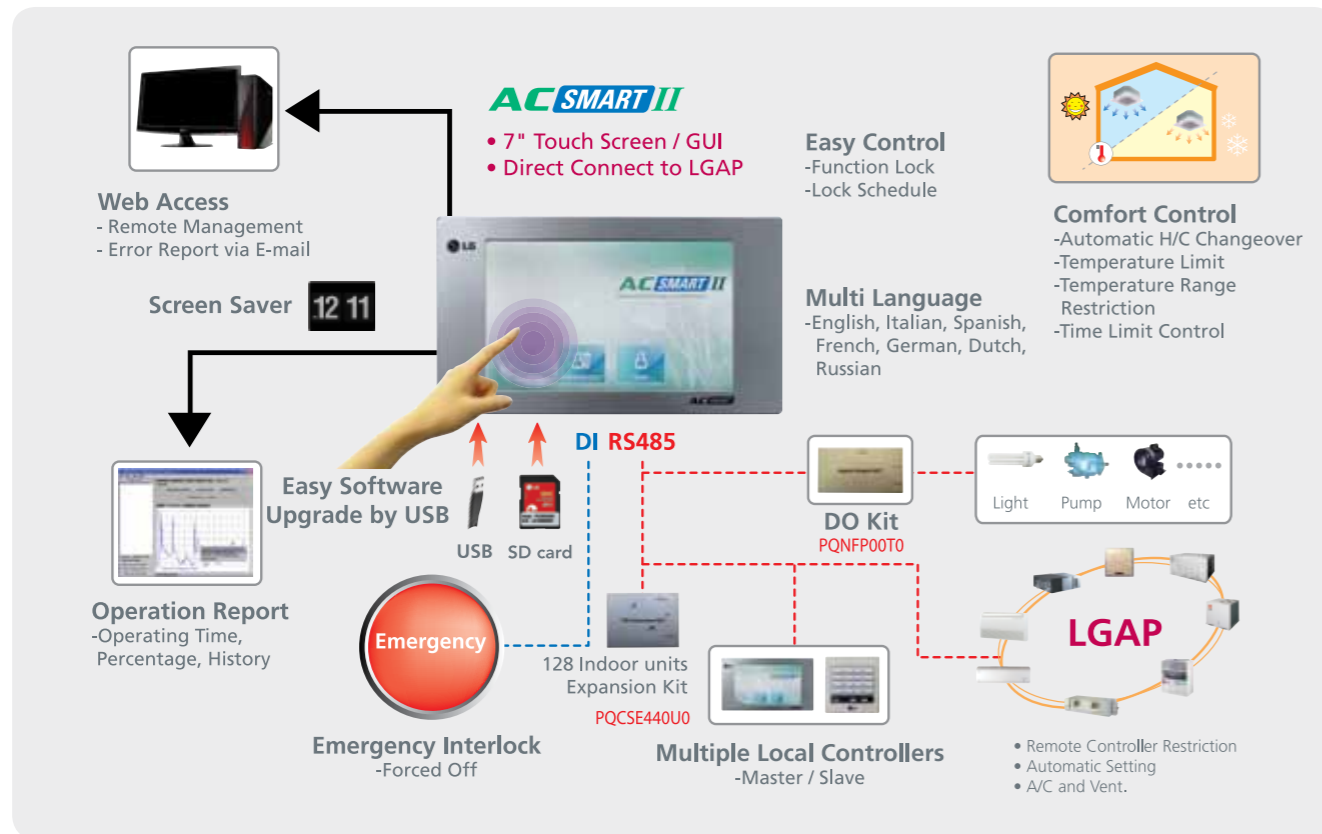
AC Smart II, Option Kit & 128 Unit Expansion Kit

For the mid sized buildings up to 64 or 128 indoor units can be controlled and monitored by touch screen central controller. It's possible to control and monitor the air conditioning system through web access, anywhere with PC.

AC Smart II : PQCSW320A1E
 Option Kit : PQCSE341A0
 PQCSE342A0
 128unit Expansion Kit :
 PQCSE44U0



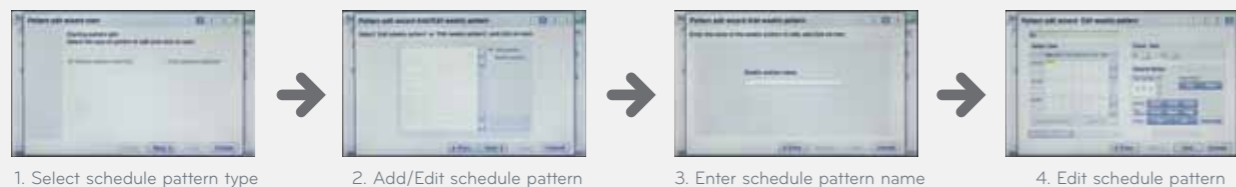
For LGAP applied models **AC SMART II**



FEATURES

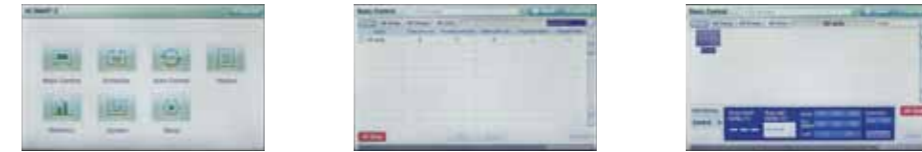
Schedule Wizard Function

Schedule pattern wizard is the process of configuring the operation of the unit in weekly or daily pattern. The pattern created through the schedule pattern wizard can be applied to the Group as a schedule through schedule wizard to be described in the next section.



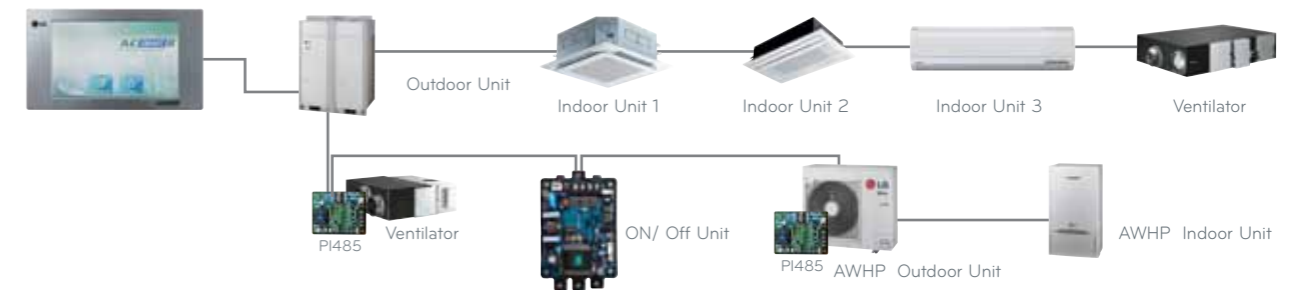
New GUI

It is more easy to use and control the products.



AWHP / ECO V DX unit control

It is possible to control the unit (Indoor unit, ventilator, On/Off, AWHP, ECO V DX) and register the units.



Option Kit control

AC Smart II additionally provides various convenient option functions for the users to use. (You must purchase Option Kit separately.)



AC Smart II option Kit Model name : PQCSE341A0 / PQCSE342A0

Description

AC Smart II additionally provides various convenient option functions for the users to use. These additional functions are provided in SD card format. When the user inserts the SD card to the main unit of the AC Smart II, the option function can be activated and used.

Option Function

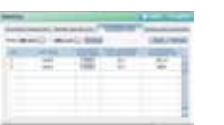
- Web schedule + Power consumption statistics function (PQCSE342A0)
- Web schedule function (PQCSE341A0)

Web based schedule setting function

By using the web server function of AC SMART II, you can set and apply the schedule of AC SMART II even from remote locations. The administrator can manage the schedule of AC SMART II through the network free from where he or she is and reduce any unnecessary operations of the unit by using the schedule functions.

Power consumption statistics function

You can view the power consumption information of the air conditioner. The power consumption is provided in various methods including total usage, usage by period, monthly/daily usage etc. By using the statistics information, the administrator can effectively analyze and manage the energy usage. To use the power consumption statistics function, the PDI and watt-meter to measure the power consumption must be connected to AC SMART II.



ACP

Through embedded web control function in ACP one can control and monitor various functions of air-conditioner such as temperature setting, schedule, peak power control, etc.

PQCPA11A0E(Without IO)
PQCPB11A0E(With IO)

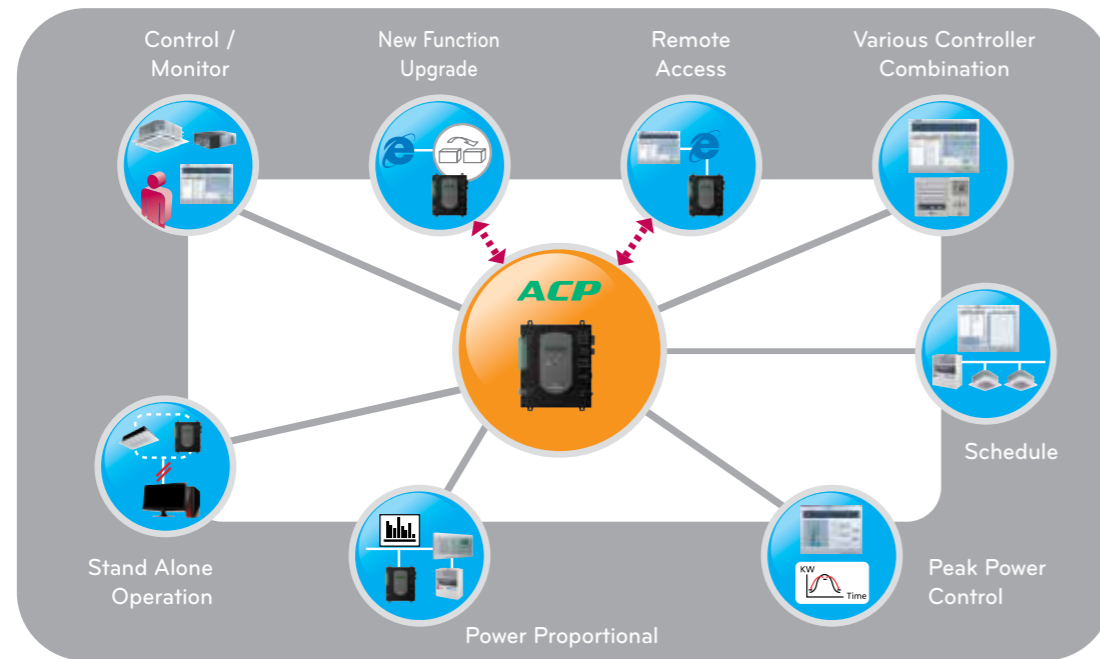


FEATURES

	PQCPA(B)11A0E
Max.no. of indoor units	256 indoor units
Control / Monitoring	✓
Schedule management	✓
Lock function	Temperature
Temperature range restriction	-
Temperature limit function	-
Auto Changeover function	-
History function	Monitoring
Peak control	✓
PDI monitoring	Need of PDI
Interlocking function	-
Printing function	-
Auto Address Setting Function	-
Statistics function	✓
Time limit function	-
ECO V DX Control	✓
Peak Priority function	-
Cycle Data Monitoring	-

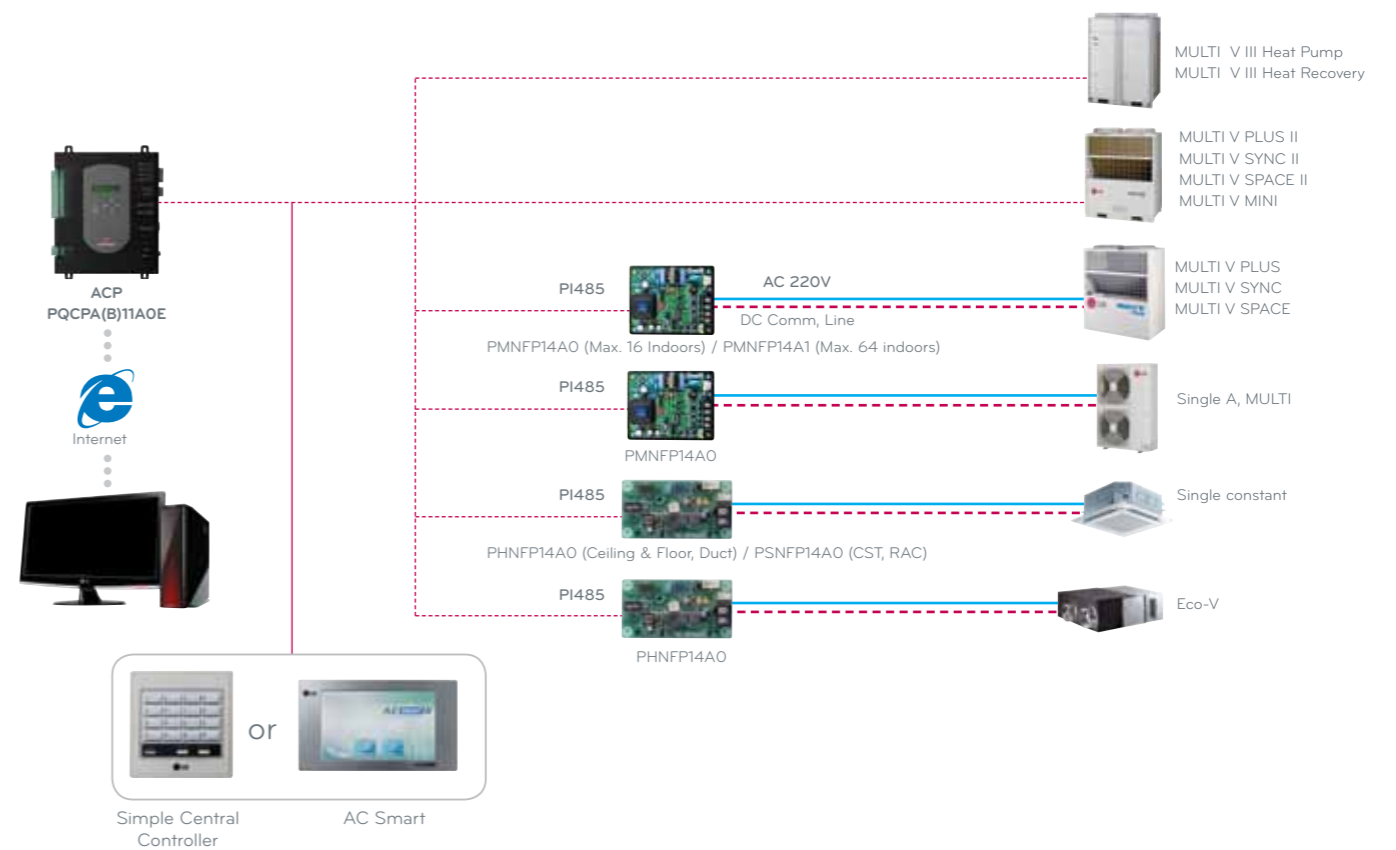
For LGAP applied models

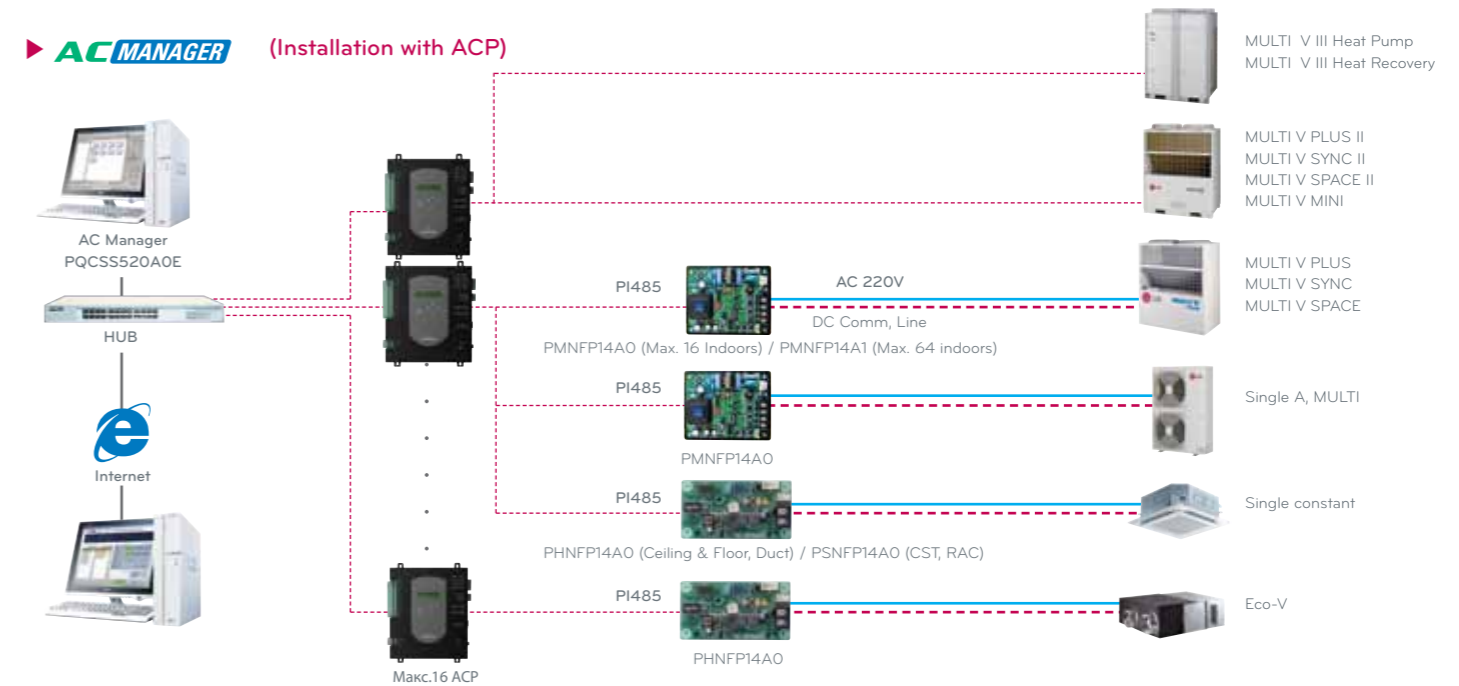
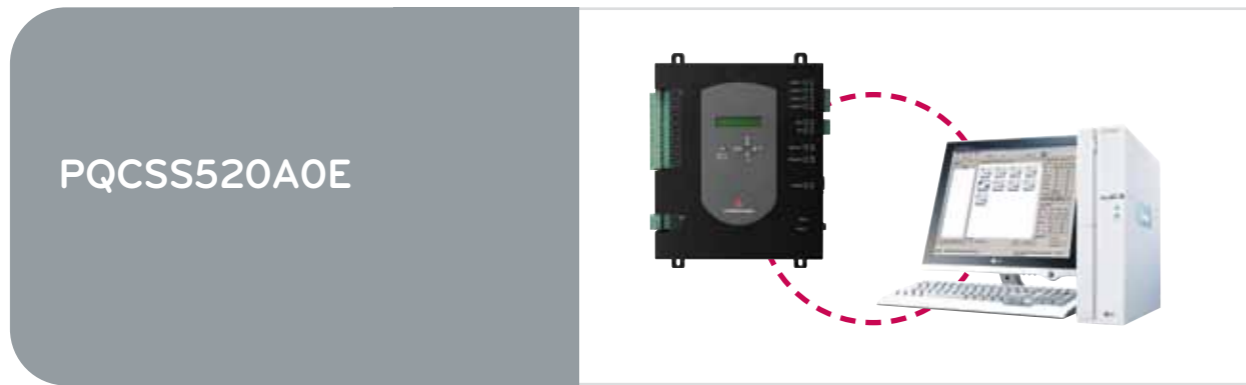
ACP



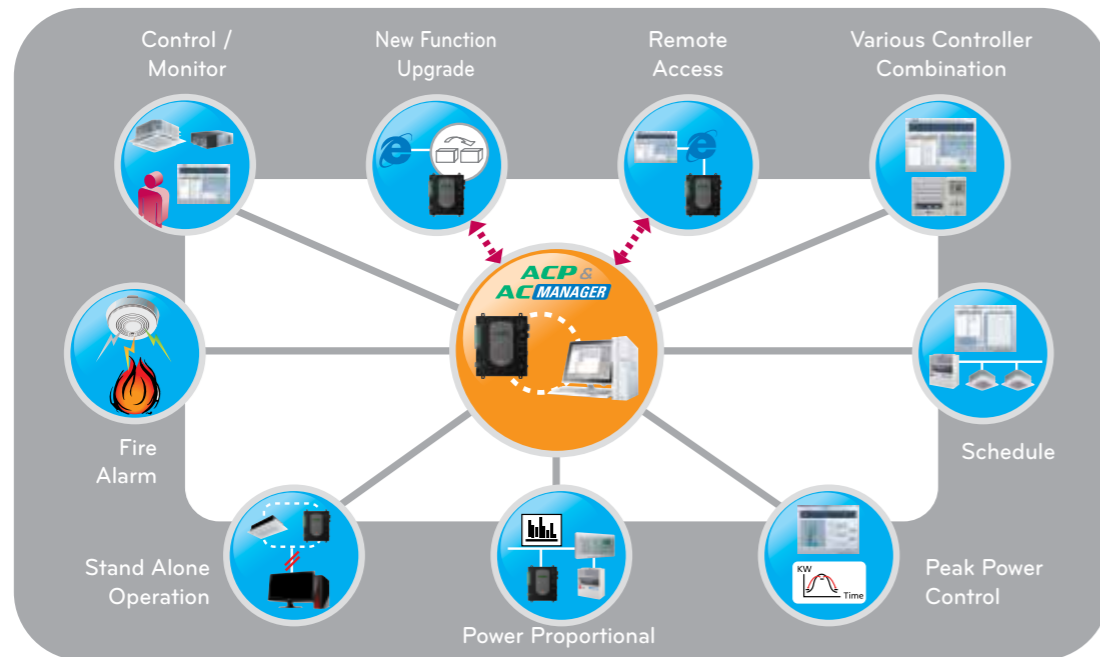
COMBINATION

▶ ACP





ACP & AC MANAGER



FEATURES

PQCPA(B)11A0E+PQCSS520A0E

Max.no. of indoor units	4,096 indoor units(16 ACP)
Control / Monitoring	✓
Schedule management	✓
Lock function	Mode/Temp/Fan speed/Total
Temperature range restriction	✓
Temperature limit function	✓
Auto Changeover function	✓
History function	Monitoring & Error history
Peak control	✓
PDI monitoring	Need of PDI
Printing function	✓
Statistics function	✓
Time limit function	-
ECO V DX Control	-
Peak Priority function	-
Cycle Data Monitoring	-
Interlocking function	Only PQCPB11A0E
AHU Control Function	-
AWHP	-
DO Kit	-

ACP & AC MANAGER APPLICATION



BNU-LW Gateway (Building Network Unit- LONWORKS®)

Easy interface between BMS and LG Air-conditioner
 • Independence of BMS under the standard BMS
 - Operation system based on LNS(LONWORKS® Network Service)

PQNFB16A1

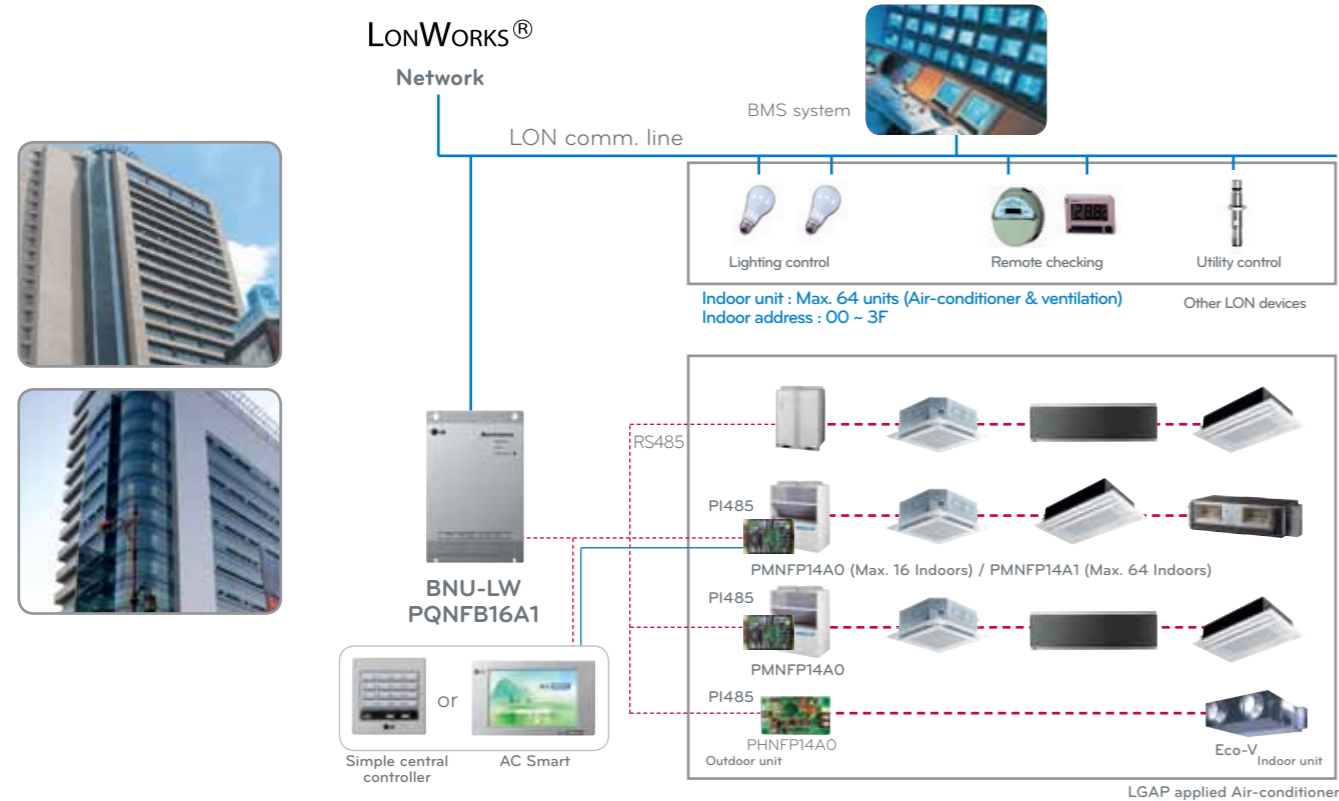


For LGAP applied models FEATURES

- Connection to LONWORKS® using LONTALK protocol and LG Air-conditioner protocol
- Process ability
 - 64 units(including indoors and ventilators)
 - Valid address for each unit : 0x00 ~ 0x3F
- Self installation verification function using internet (Web server included)
 - Setting gateway
 - Diagnosis of communication status on LG Air-conditioner network
- Connection to remote total management system (LG system)

Controlling	Monitoring items
On/Off command	On/Off status report
Operation mode setting	Operation mode status report
Fan Speed setting	Fan Speed status report
Lock setting	Lock status report
Air flow setting	Air flow status report
Set temp. setting	Set temp. status report
User mode setting (for only ventilator)	Current Space temp. status report
	Error status report
	User mode status report (for only ventilator)

COMBINATION



BNU-BN Gateway (Building Network Unit- BACnet)

Easy interface between BMS and LG Air-conditioner
 • Independence of BMS under the standard BMS.
 - Operation system based on BACnet Service.

PQNFB17B0

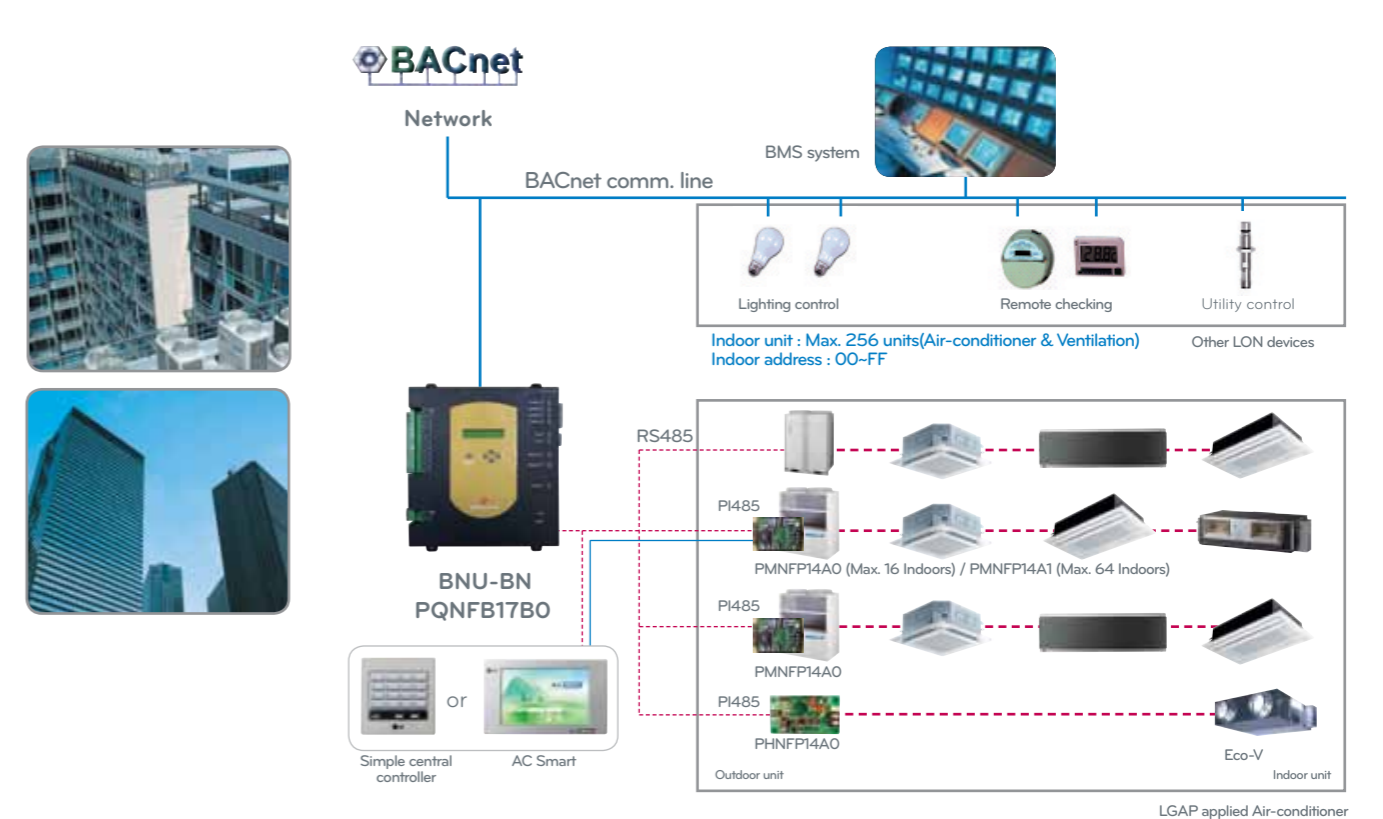


For LGAP applied models FEATURES

- Through embedded web control function in BACnet one can access the airconditioner and external devices through internet.
- It can control 256 indoor units. (A/C or Ventilator)
- External devices such as fire alarm, motion detector can be connected to gateway and their function can be interlinked with airconditioner operation.

Controlling	Monitoring items
On/Off command	On/Off status report
Operation mode setting	Operation mode status report
Fan Speed setting	Fan Speed status report
Lock setting	Lock status report
Air flow setting	Air flow status report
Set temp. setting	Set temp. status report
User mode setting (for only ventilator)	Current Space temp. status report
	Error status report
	User mode status report (for only ventilator)

COMBINATION



PI 485

PI 485 convert the protocol of air conditioner to the RS 485 protocol for central controller.

PMNFP14A1 / PMNFP14A0
PHNFP14A0 / PSNFP14A0



DO Kit

DO Kit is connected between ACP(AC Smart) and external devices. It can turn on/off external devices such as light, pump, motor, etc.

PQNFP00T0



PI-485 LINE-UP



- Model name : PMNFP14A0
- Power : Single phase AC 220V 50/60Hz
- Max. no of the indoor units that can be connected : 16 units
- Model applied : MULTI V, MULTI, Single A



- Model name : PMNFP14A1
- Power : Single phase AC 220V 50/60Hz
- Max. no of the indoor units that can be connected : 64 units
- Model applied : MULTI V



- Model name : PHNFP14A0
- Power : Connected with the indoor units
- Max. no of the indoor units that can be connected : 1 units
- Model applied : Single (Duct, CVT) , Eco V

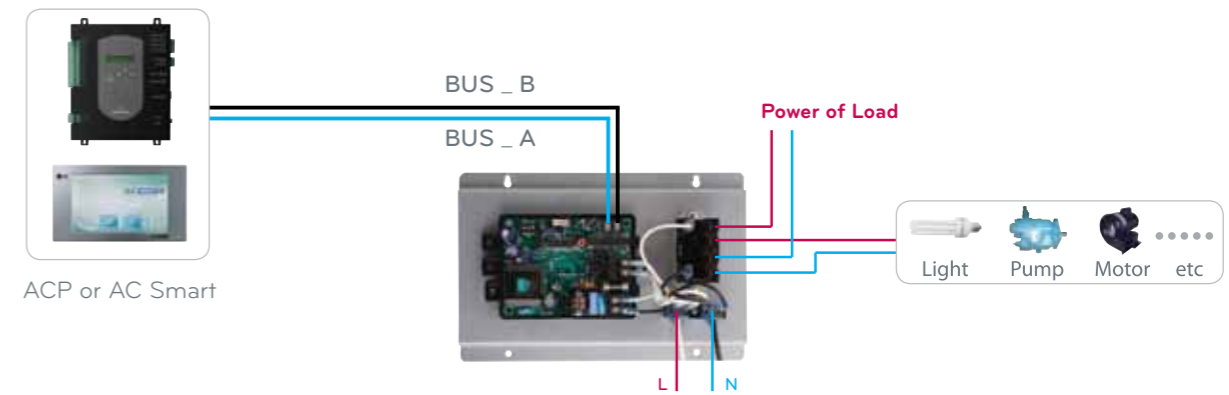


- Model name : PSNFP14A0
- Power : Connected with the indoor units
- Max. no of the indoor units that can be connected : 1 units
- Model applied : Single (RAC, PAC, CST)

※ MULTI V II Series don't need any other PI 485 because MULTI V II series have PI 485 in its outdoor unit PCB.

(**MULTI V PLUS** , **MULTI V SYNC** , **MULTI V SPACE** , **MULTI V MINI**)

WIRING DIAGRAM



AHU Comm. kit

To connect air handling unit for mid & large space and supply fresh air.
Connectable capacity is from 18 kbtu/h ~60kbtu/h.

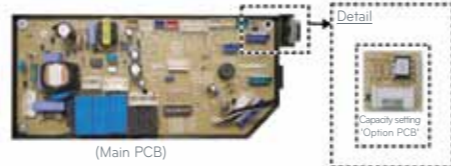


SPECIFICATION

Model Name	Weight(kg)		Dimension(mm)			POWER
	NET	Gross	W	H	D	
Comm.Kit PUCKAO	2.5	4	280	135	280	220~240V, 50/60Hz, 1Ph

SELECTION OF EVAPORATOR

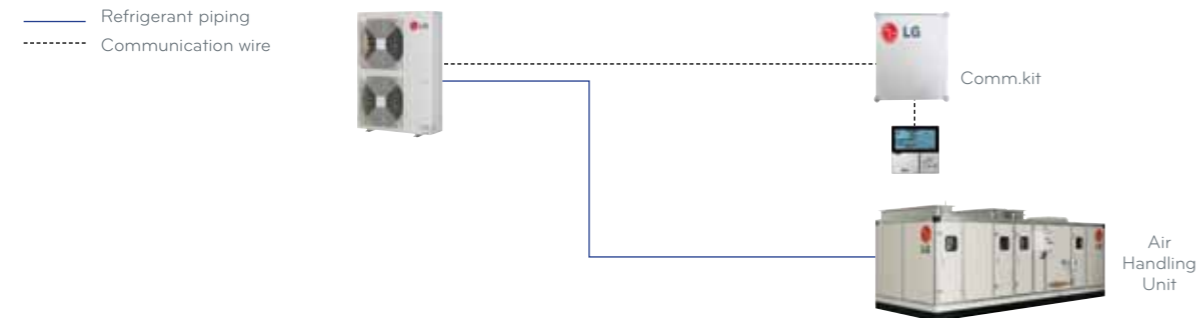
- When selecting evaporator, Change 'Option PCB' in Control kit according to below table (Basic 'Option PCB is for 24k Btu/h)



option PCB P/No	Capacity (Btu/h)	Allowed heat exchanger Volume (dm ³)	Allowed heat exchanger capacity (kW)	Air flow rate (CMM)	outdoor Unit Model Name
EBR65102902	18K	0.76-0.94	5-6	18-21	AUUH186D / AUUW186D
EBR65102903	24K	0.88-1.08	6-7	20-23	AUUH246D / AUUW246D
EBR65102904	30K	0.88-1.08	7-9	22-26	AUUH306D / AUUH306D / AUUW306D2
EBR65102905	36K	0.88-1.08	9-11	25-32	AUUH366D / AUUH368D / AUUW366D / AUUW368D
EBR65102906	42K	0.88-1.08	11-13	31-35	AUUW426D / AUUW428D
EBR65102907	48K	1.23-1.51	13-16	33-45	AUUH488D / AUUW486D / AUUW488D
EBR65102908	60K	1.93-2.35	20-24	42-55	AUUH608D / AUUW606D / AUUW608D

* Saturated Suction Temperature (SST) = 6°C, SH (Superheat)=5k, Air Temperature = 27°C DB / 19°C WB

WIRING DIAGRAM



AHU Comm. kit & EEV kit

To connect air handling unit for mid & large space and supply fresh air.
Connectable capacity is from 28 kbtu/h ~96kbtu/h.



SPECIFICATION

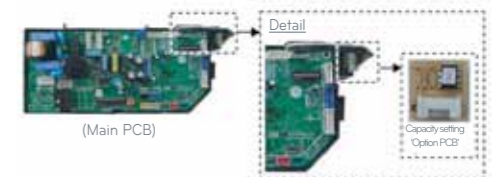
Model Name	Weight(kg)		Dimension(mm)			POWER
	NET	Gross	W	H	D	
Comm.Kit PRCKAO	2.2	3.6	280	135	280	220-240V, 50/60Hz, 1Ph
EEV Kit PRLK048AO	3.1	3.6	404	83	217	

SELECTION OF EVAPORATOR

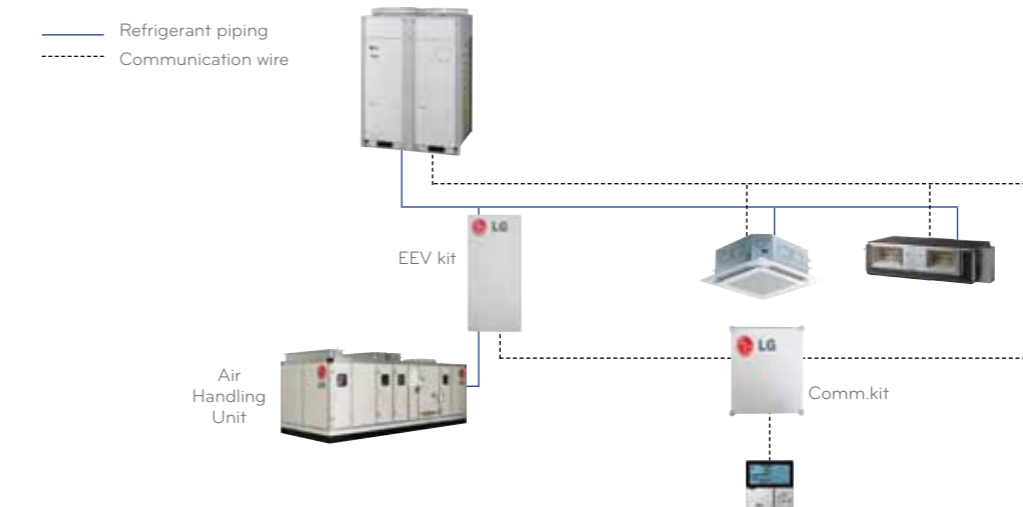
- When selecting evaporator, Change 'Option PCB' in Control kit according to below table (Basic 'Option PCB is for 36k Btu/h)

Option PCB P/No	Capacity (Btu/h)	Allowed heat exchanger Volume (dm ³)	Allowed heat exchanger capacity (kW)	Air flow rate (CMM)
EBR52358907	28k	0.88-1.08	7-9	22 - 26
EBR52358908	36k	0.88-1.08	9-11	25-32
EBR52358909	42k	0.88-1.08	11-13	31-35
EBR52358910	48k	1.23-1.51	13-16	33-45
EBR52358911	76k	1.93-2.35	20-24	50-64
EBR52358912	96k	1.93-2.35	25-31	64-72

Saturated Suction Temperature (SST) = 6°C, SH (Superheat) = 5K, Air Temperature = 27°C DB / 19°C WB.



WIRING DIAGRAM



AHU Control kit

AHU have functions like cooling, heating, humidification, Air cleaning & ventilation ; providing MULTI-solution to the consumer.

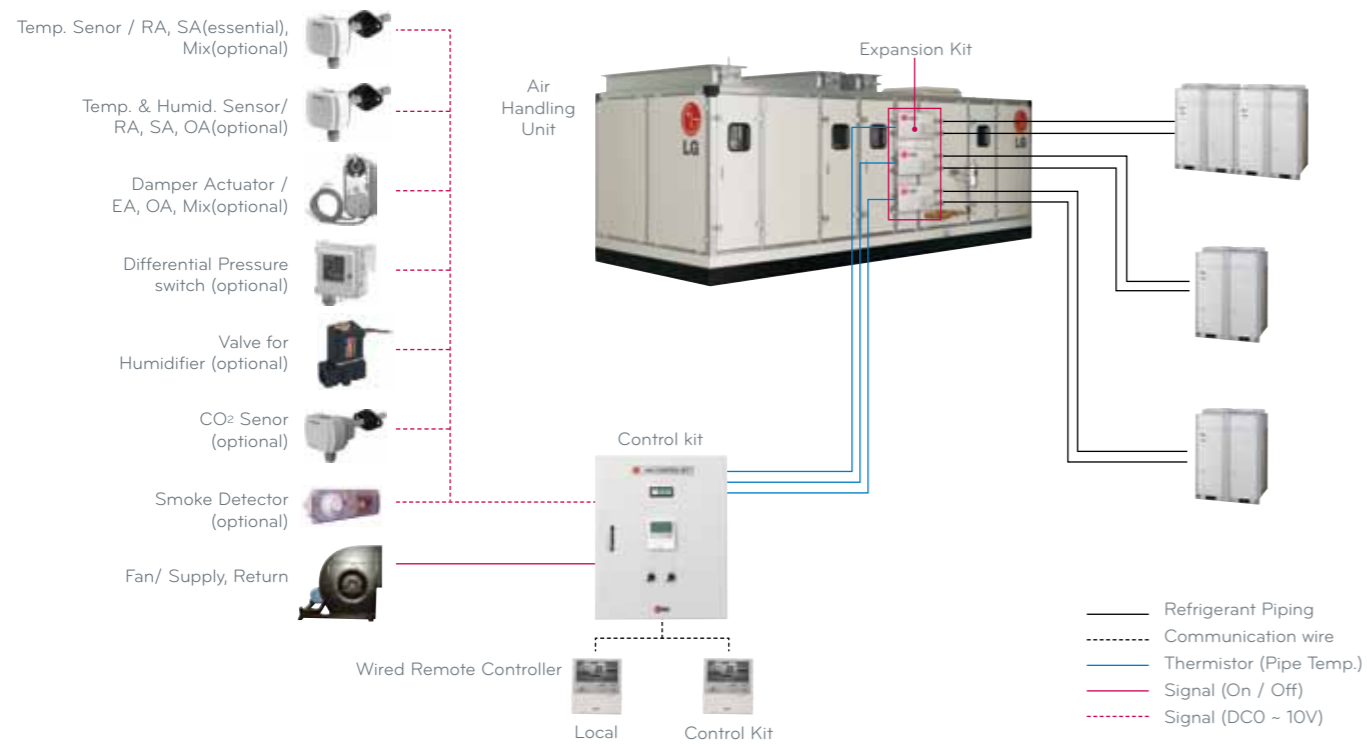
PRCKD20E
PRCKD40E



SPECIFICATION

	Model Name	Weight(kg)		Dimension(mm)			POWER	Model Feature
		NET	Gross	W	H	D		
Control Kit	PRCKD20E	43.5	48	600	750	285	220~240V, 50/ 60Hz, 1Ph	<ul style="list-style-type: none"> AHU Controller ODU Comm. PCB Sensor Power Supply
	PRCKD40E							
								5-8 Set ODU Combine

1.4 SYSTEM LAYOUT



AHU Expansion kit

AHU have functions like cooling, heating, humidification, Air cleaning & ventilation ; providing MULTI-solution to the consumer.

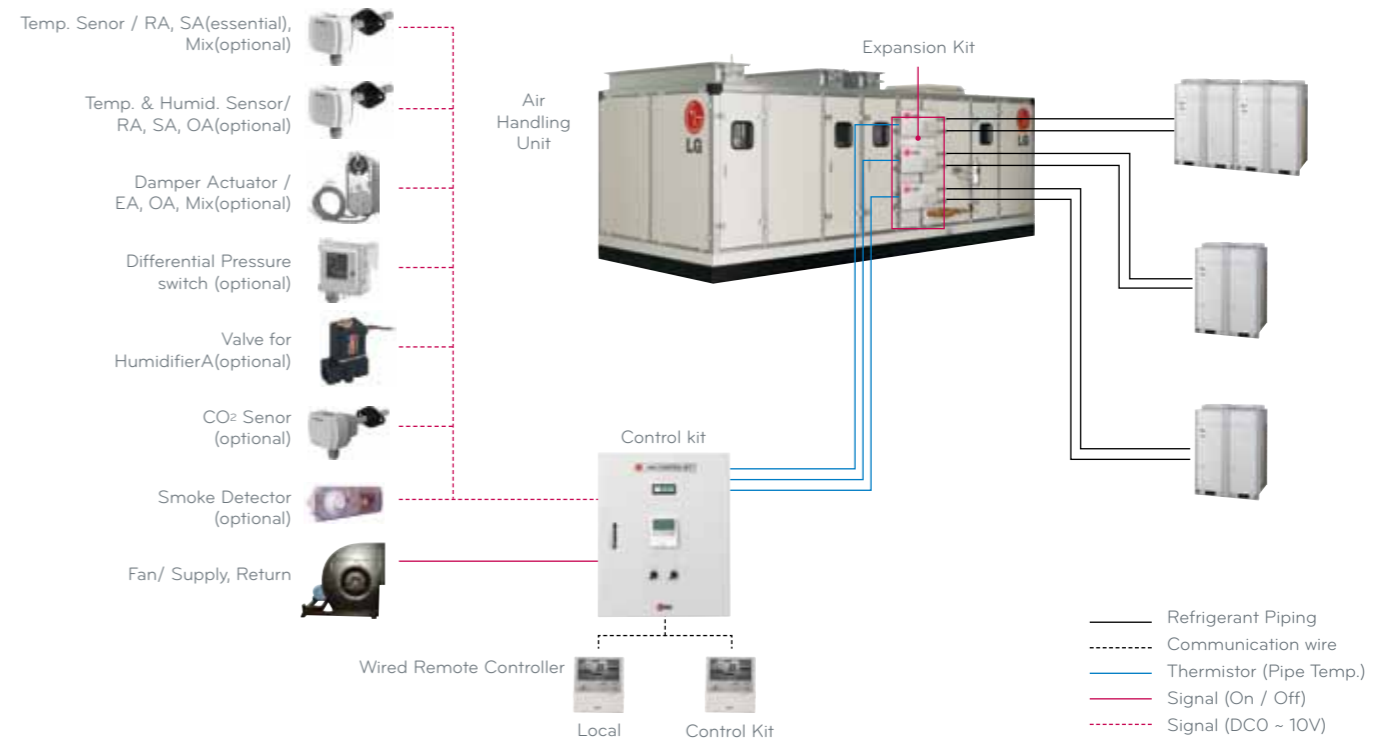
PATX13AOE
PATX20AOE
PATX25AOE
PATX35AOE
PATX50AOE



SPECIFICATION

	Model Name	Weight(kg)		Dimension(mm)			Model Feature
		NET	Gross	W	H	D	
Expansion Kit	PATX13AOE	5.6	6.9	238	169	491	<ul style="list-style-type: none"> ODU Capacity : 8-16HP ODU Capacity : 18-26HP ODU Capacity : 28-36HP
	PATX20AOE	5.8	7.1				
	PATX25AOE	6.0	7.3				
	PATX35AOE	6.2	7.5	291	192	561	<ul style="list-style-type: none"> ODU Capacity : 38-46HP ODU Capacity : 48HP-56HP
	PATX50AOE	8.5	10.0				

1.4 SYSTEM LAYOUT



Electronic Accessory



Electronic Accessory

A wide range of electronic accessories help to use our air conditioning system more conveniently.

34



PDI

36



Dry Contact

40



Group Control Wire

41



Cool/Heat Selector

42



Remote Temperature
Sensor

43



CTI

44



Zone Controller

46



Low Ambient Kit

47



Telecom Shelter
Controller

For the MULTI indoor units connected to an outdoor unit, the individual unit's and total system power consumption can be displayed on the device. This system can also be connected to a remote metering system.

PQNUD1S00



POWER INDICATOR OVERVIEW

- This device displays the power consumed for each indoor air conditioner unit that shares an outdoor unit.
- The power consumed by each indoor unit connected with the joint power line is indicated on the device.
- The information of the power distributed can be sent on a real-time basis through the remote metering system.



- 1 LCD indication window
- 2 Key operation section
- 3 Label indicating the locations of each indoor unit

FEATURES

- Accumulated total power consumption indicated
- Accumulated/Current power consumption of each indoor unit indicated.
- Accumulated power consumption by month indicated
- Max. connectable no. of indoor units : 64 indoor units
- 1 PDI per 1 outdoor unit
- Power failure-proof function : Data back up on EEPROM even if power turns off
- Connectable to PC based central controller
- Simple connection with the remote metering system (RS485 approach)
- Power distribution indication formula

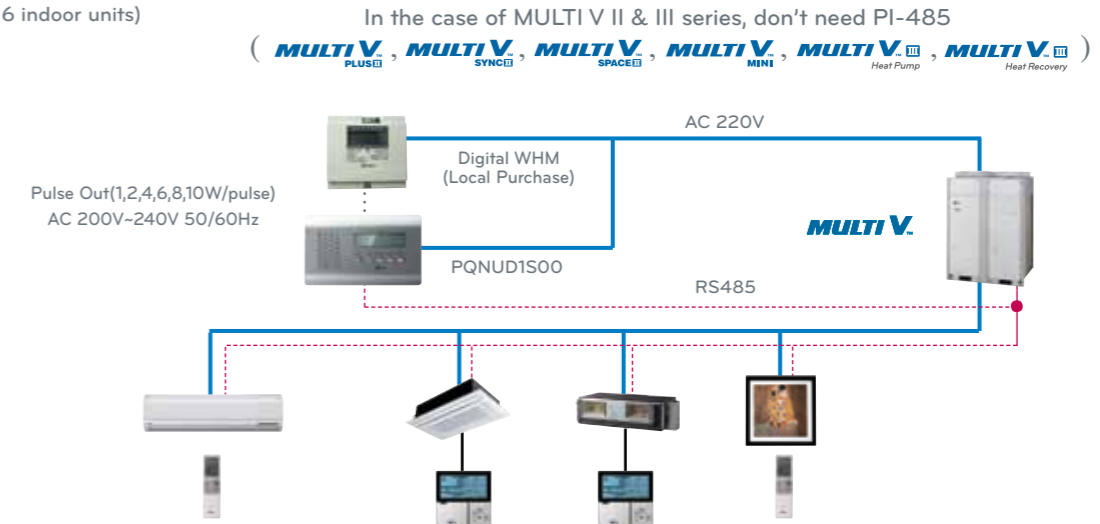
$$\text{Power used per room} = \frac{\text{Total power consumed for an external unit}}{\text{total weight}} \times \text{weight by room}$$

* Weight by room: Weight calculated based on the temperature set by room, mode and operating time.

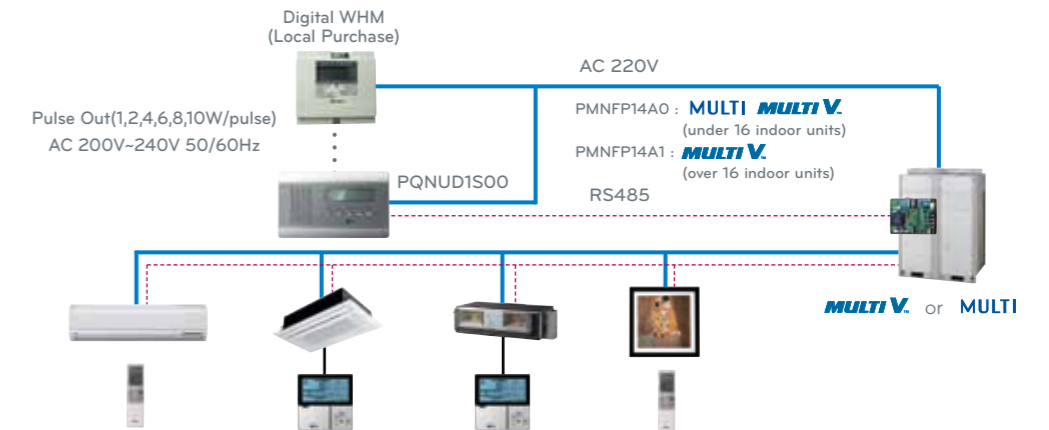
COMBINATION

[Installation without Central controller]

► **MULTI V.**
(under 16 indoor units)

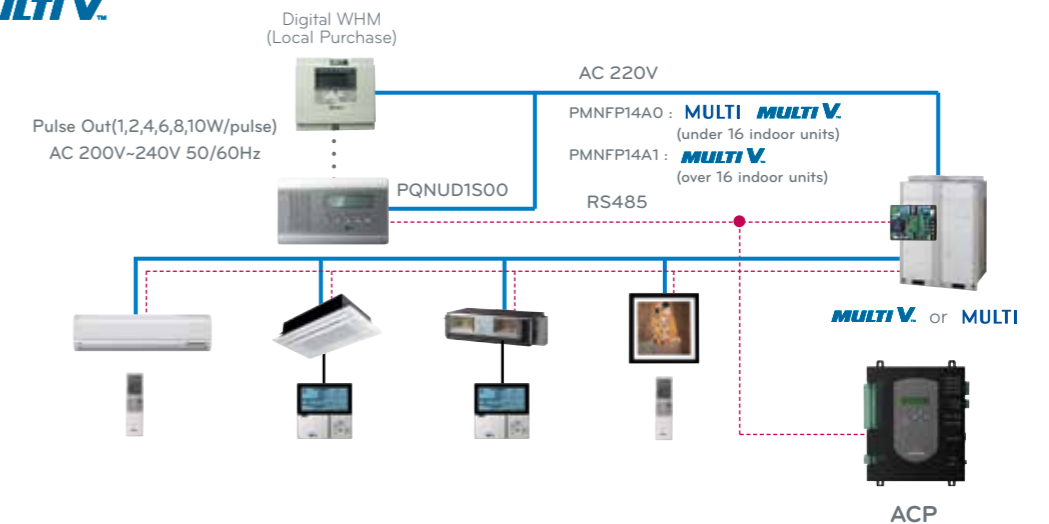


► **MULTI, MULTI V.**
(Over 16 Indoor units)



[Installation with Central controller]

► **MULTI, MULTI V.**



Dry Contact

It is connected between indoor units and external device, so it can be used for various purpose

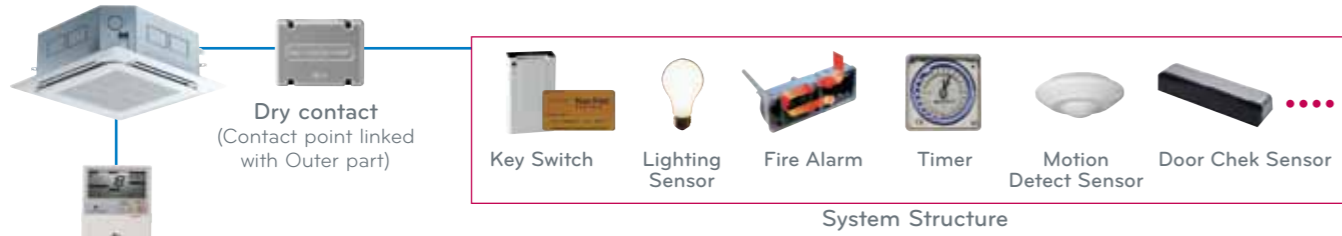
PQDSA(1)
PQDSB(1)
PQDSBC



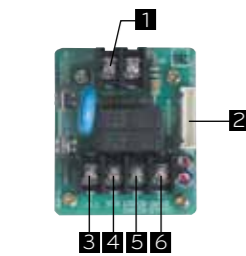
FEATURES

	PQDSA/ PQDSB	PQDSA1/ PQDSB1	PQDSBC
Contact point	1 Control point	1 Control point	2 Control points
Power input	AC 220V from outside power source	AC 24V from outside power source	DC 5V&12V from indoor unit PCB
Voltage / Non voltage input	-	-	✓
On_Off control	✓	✓	✓
Lock / Unlock	-	-	✓
Fan speed setting	-	-	✓
Thermo off	-	-	✓
Energy saving	-	-	✓
Temperature setting	-	-	✓
Error monitoring	✓	✓	✓
Operation monitoring	✓	✓	✓

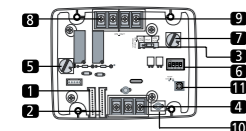
※ Refer to each model PDB for applicable models.
※ With case model : PQDSB(1), PQDSBC Without case model : PQDSA(1)



PARTS DESCRIPTION



- 1 CN-POWER : AC 220V / 24V
- 2 CN-CC : MAINPCB connector
- 3 CN-DRY(L) : DRY CONTROLLER connector
- 4 CN-DRY(SIG) : DRY CONTROLLER connector
- 5 CN-DRY(ERROR CHECK) : ERROR check display connector
- 6 CN-DRY(OPER STATE) : Operation display connector



- 1 CN_INDOOR2 : Connector for Main <-> Dry Contact
- 2 CN_INDOOR1 : PI 485 Connector
- 3 CHANGE_OVER_SW : Switch for selecting junction signal - Voltage(5V~12V) or Non Voltage
- 4 CN_CONTROL : Connector for input junction signal
- 5 CONTROL_MODE_SW : Switch for selecting control mode
- 6 SETTING_SW : Switch for selecting Dry Contact setting function
- 7 TEMP_SETTING : Switch for setting desired temperature
- 8 CN_OUT(O1,O2) : Terminal Block for displaying main operation
- 9 CN_OUT(E3,E4) : Terminal Block for displaying main error
- 10 DISPLAY_LED : LED for displaying status of Dry Contact
- 11 RESET_SW : Reset Switch

Dry Contact

It is connected between indoor units and external device, so it can be used for various purpose

PQDSBNGCM1

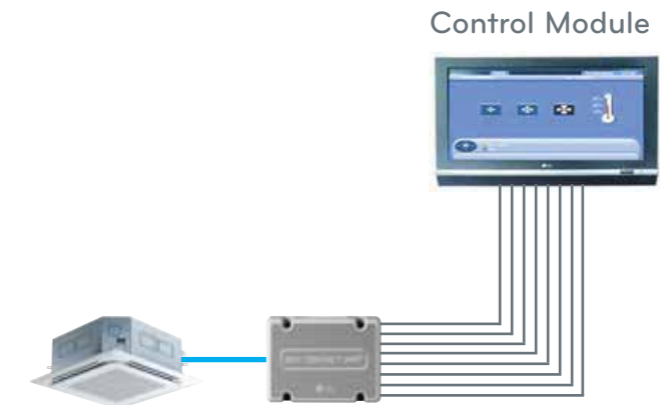


FEATURES

- 1) Model name : PQDSBNGCM1
- 2) Specification
 - Dimensions : 105 X 78 X 35 mm
 - Applied Model : MULTI V Plus II & MULTI V III
 - Function : Contact(Input) : 8 Contact
 - Voltage/ Non_Voltage selectable
 - Contact(Output) : 2 Contact(Operating, Error)
 - Rotary Switch1 : Operating Set_Temp Selection
 - Rotary Switch2 : Operating Logic Selection

- 3) Description
 - The product is specially designed for interface with other controller using dry contact communication.

STRUCTURE



Dry Contact

It is connected between indoor units and external device, so it can be used for various purpose

PQDSBCGCDO

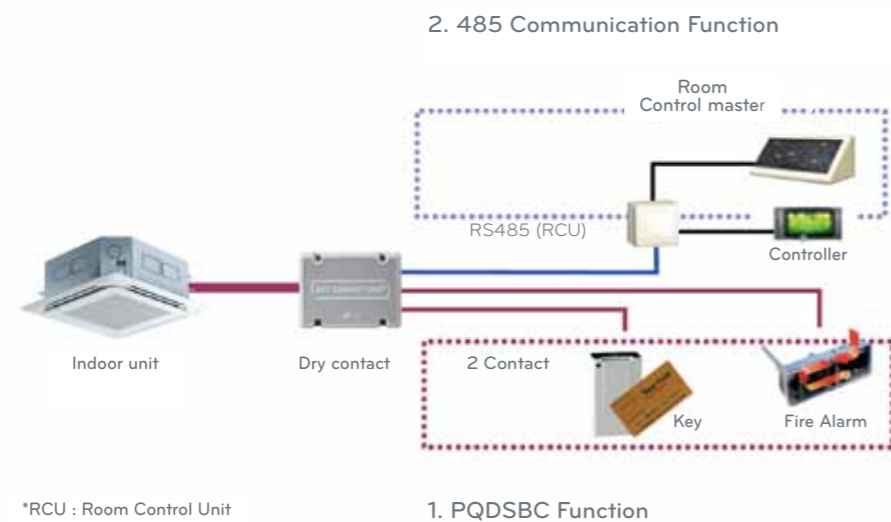


FEATURES

- 1) Model name : PQDSBCGCDO
- 2) Specification
 - Dimensions : 105 X 78 X 35 mm
 - Applied Model : MULTI V Plus II & MULTI V III
 - Function :
 - Contact(Input) : 2 Contact(Other operation selectable)
 - Contact(Output) : 2 Contact(Operating Error)
 - PI485 Communication Mode Input : LGAP 485 Communication

- 3) Description
 - The product is specially designed for interface with other controller using dry contact communication or 485 communication

STRUCTURE



ODU Dry Contact

Dry contact for demand control

PQDSBCDVM0



FEATURES

- 1) Model name : PQDSBCDVM0
- 2) Specification
 - Applied Model : Over MULTI V III Series
 - Function :
 - Demand control (3 contact signal)
 - Demand control (Co-work with DDC)
 - ODU fan low speed control (Night low noise operation)
 - All Off
 - Error Output (Display)

- 3) Description
 - The product is specially designed for demand control.
 - Applied to MULTI V III Heat Pump only

STRUCTURE



Group Control Wire

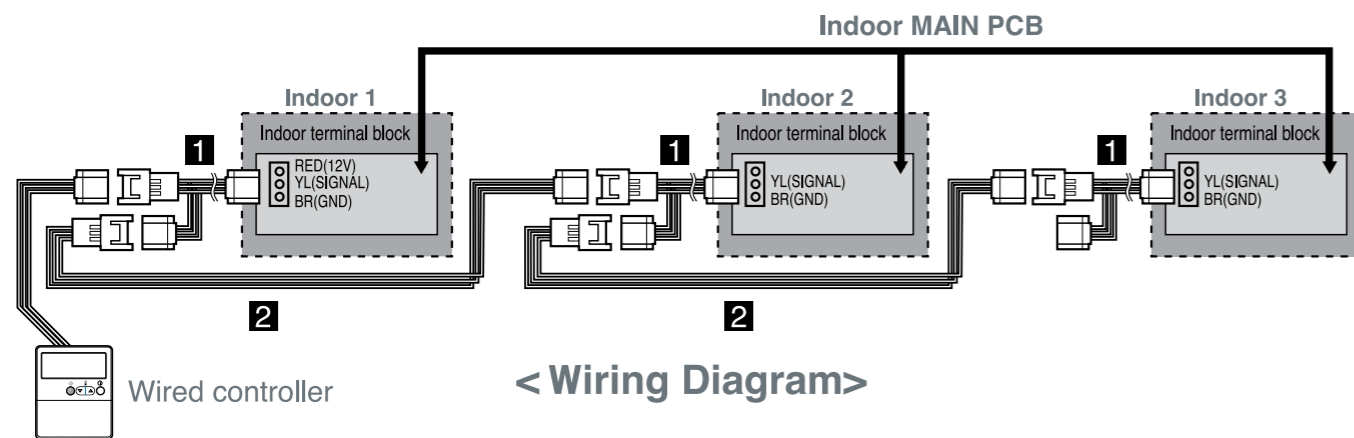
To cool you even in winter.

PZCWRCG3



FEATURES

PZCWRCG3	
Y- type cable	25cm length
Long cable	9.6m length



Cool/Heat Selector

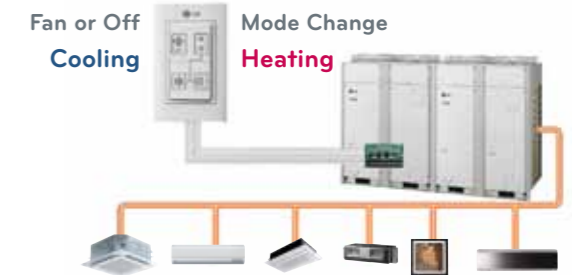
This switch enables selection of heating, cooling or fan mode. So it can prevent that cooling & heating mixing error occurs during the change of season.

PRDSBM



FEATURES

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

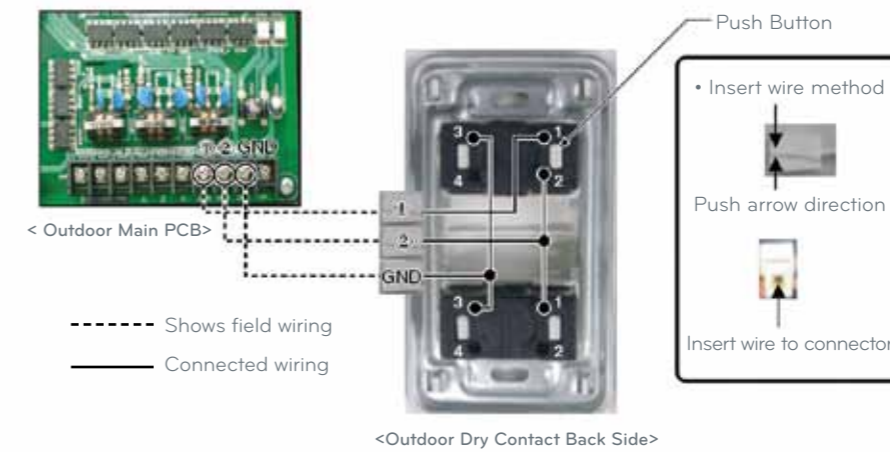


MODELS APPLIED



WIRING DIAGRAM

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



※Communication line length can be maximum 300m, use communication line as thick as 1.25mm².

Remote Temperature Sensor

Sensor for detecting the room temperature.

PQRSTAO



FEATURES

- It can help to detect the exact room temperature at the optimal position.

MODELS APLIED

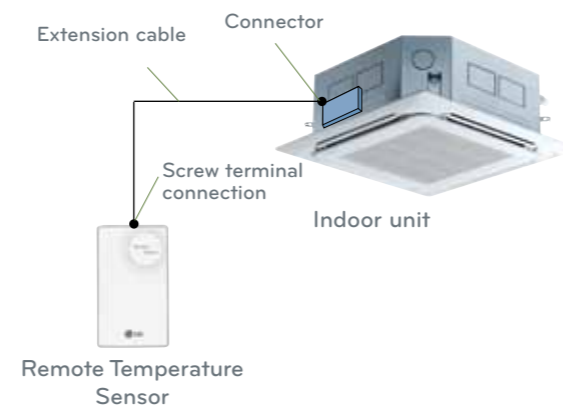
- Ceiling cassette type
- Ceiling concealed duct type

PARTS INCLUDED

- Remote temperature sensor
- Extension cable (15m)
- Manual

WIRING DIAGRAM

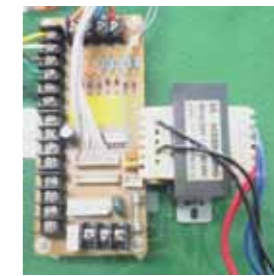
1. Wire to the control box in the indoor unit by removing the existing thermistor and connect the extension cable its place.
2. Cut the extension cable to the appropriate length and connect the screw terminal of the remote sensor.



CTI (Communication Transfer Interface)

Communicate with other Mechanical Thermostat and Unitary product

PKFCO



FEATURES

- Transfer each local contact signal from Thermostat to Unitary product

MODELS APLIED

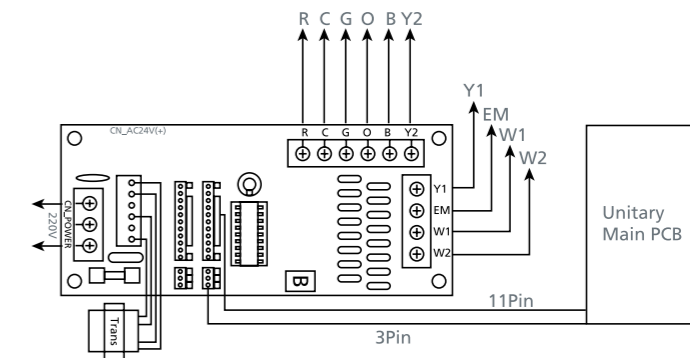
- Unitary

PARTS INCLUDED

- CTI PCB(1EA)
- Transformer
- Manual
- 11Pin Cable(to connect with Unitary PCB)
- 3Pin Cable(to connect with Unitary PCB)

WIRING DIAGRAM

- R : 24V(+)
- C : 24V(-)
- G : Fan
- Y1 : Cooling changeover
- W1 : Heating changeover
- Y2 : Comp1
- Y2 : Comp2
- EM : Emergency
- W1 : Heater1
- W2 : Heater2



Zone Controller

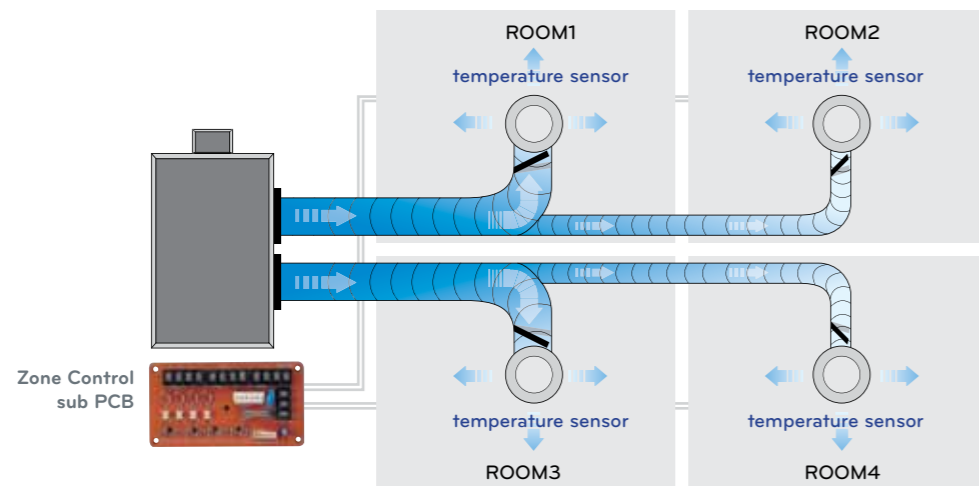
Controls air conditioning in up to 4 zones.

ABZCA

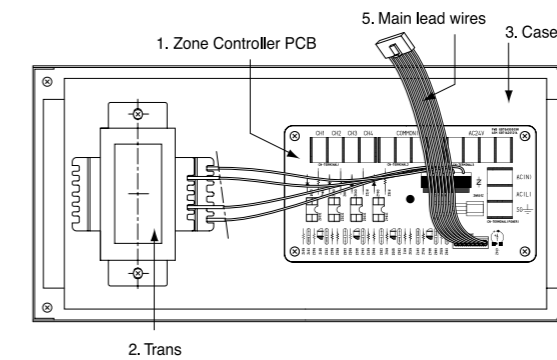
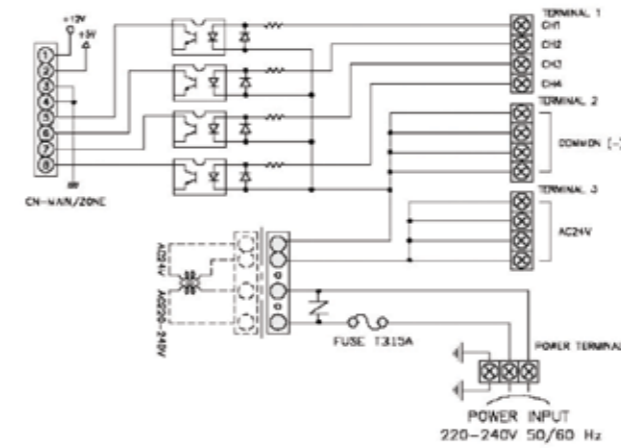


FEATURES

- Controls different zones (up to 4 zones)
- Maintain proper temperature of each zone
- Auto variation of dampers
- Auto control of fan speed



WIRING DIAGRAM



MODELS APPLIED

- Ceiling Concealed Duct (High Static Pressure)

*Refer to each model PDB for applicable models

PARTS INCLUDED

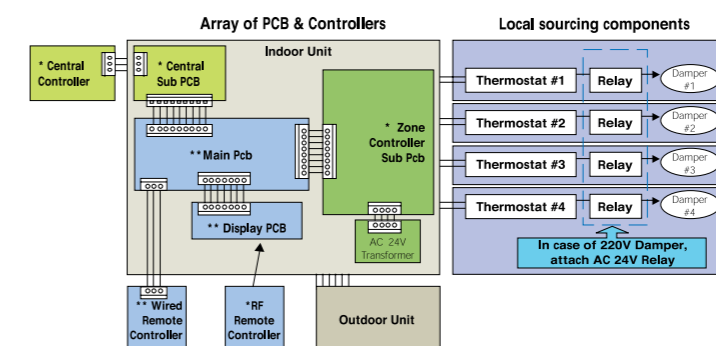
Factory supplied :

- | | | | |
|-----------------------------|---------------------|----------------|-----------------------------|
| • Zone controller PCB (1EA) | • Transformer (1EA) | • Case (1EA) | • Cover (1EA) |
| • Main lead wires (1EA) | • Screws (1EA) | • Holder (4EA) | • Installation manual (1EA) |

Purchased locally (reference siemens, honneywell)

- | | | |
|----------------|--------------|----------|
| • Damper Motor | • Thermostat | • Damper |
|----------------|--------------|----------|

COMPONENTS



Low Ambient Kit

To cool you even in winter.

AQLA



FEATURES

- Depending on the condensing temperature, speed of outdoor fan is varied automatically while compressor is ON.
- Maintains cooling function for very low ambient temperature such as (-5°C).
- Specific installation requirements
 - Gymnasium, Control rooms, Machine rooms, Computer rooms
- Simple and easy to install
- Used only for cooling mode

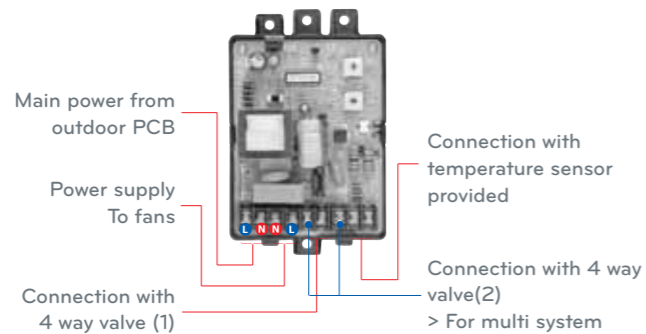
MODELS APPLIED TO

- Convertible, Ceiling Concealed Duct
- Single split
- Ceiling Cassette (Refer to each model PDB for applicable models)
- Multi Split(Specific models)

PARTS INCLUDED

- | | |
|------------------------------------|------|
| • AQLA fan speed controller | 1 EA |
| • Sensor assembly | 1 EA |
| • Buckle-clip | 3EA |
| • Adhesive insulation, 20mm x 80mm | 1 EA |
| • Tie wrap,100mm | 2EA |
| • Instruction manual | 1 EA |
| • Screw | 3EA |

WIRING DIAGRAM



Telecom Shelter Controller

This controller is suitable for telecom shelter. It can control and monitor air conditioner in telecom shelter.

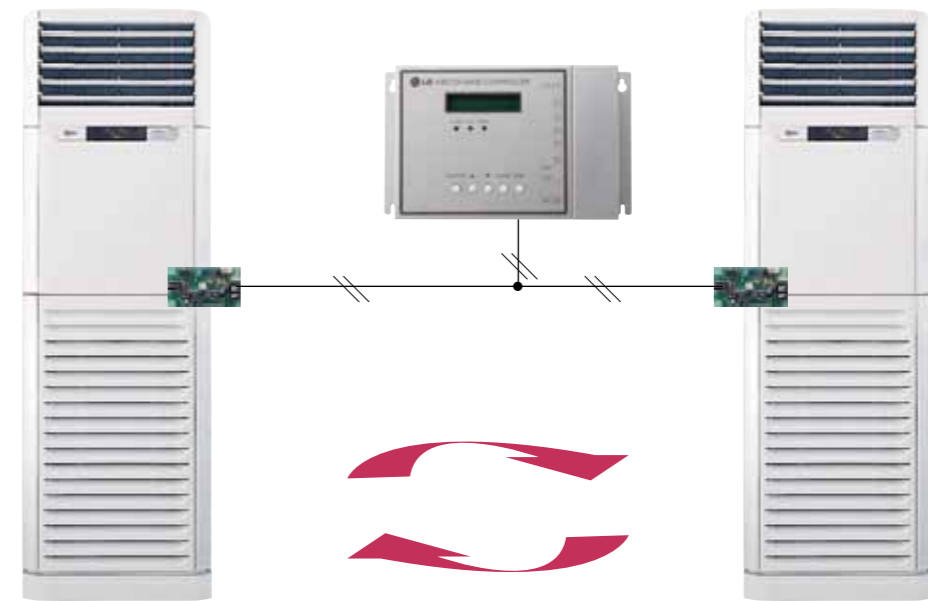
PQCSA001T0



FEATURES

- Automatically start and stop air conditioner by turns
- Display internal temperature of shelter on LCD
- Sense water leakage and humidity
- Fire alarm function
- Error display
- Electric failure compensation

COMBINATION



Auto Rotation of Air conditioner

Mechanical Accessory



Mechanical Accessory

For comfort and convenience.

Mechanical Accessory Line up and Application

Model	SINGLE TYPE	MULTI TYPE	MULTI V TYPE	REMARK
ARTCOOL Panel	✓	✓		ARTCOOL indoor unit
Electric Heater	✓			Single package / Ducted split
Drain Pump Kit	✓	✓		Ceiling concealed duct
Suction Grille / Canvas			✓	Ceiling concealed duct (Built-in)
Auto Elevation Grille	✓		✓	4 Way Cassette
Plasma Kit	✓		✓	4 Way Cassette
Cassette Cover	✓	✓	✓	4 Way Cassette
Air guide	✓	✓	✓	Outdoor unit



Panel ARTCOOL

A unique blend of art and colors.

ACCESSORY MODEL NAME



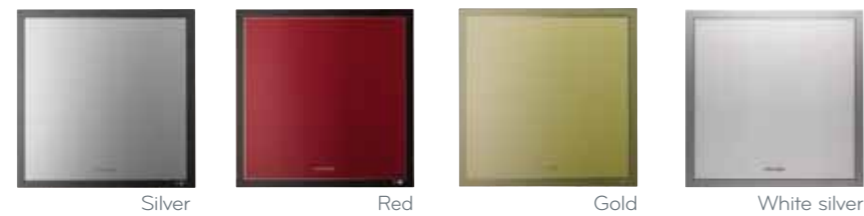
MODELS APPLIED TO

• All ARTCOOL models

ARTCOOL
Mirror Type

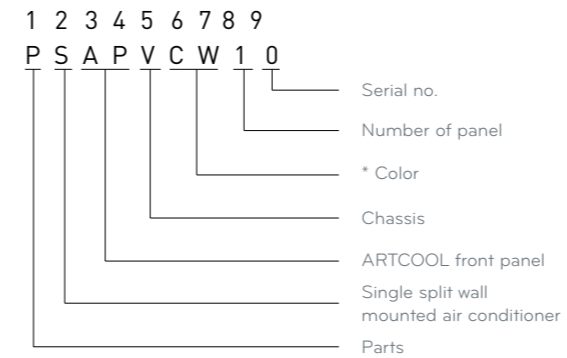


ARTCOOL SF
Chassis



Type	ARTCOOL Mirror			ARTCOOL SF chassis
				
Chassis	S3	SE	S8	SF
White wood	PSAP3CW10			
Blue	PSAP3CB10	PSAPECB10	PSAP8CB10	
Wood	PSAP3CD10			
Metal	PSAP3CM10			
Mirror	PSAP3CR10	PSAPECR10	PSAP8CR10	
Cherry	PSAP3CC10			
Silver		PSAPECV10	PSAP8CV10	PSAPFCV11
Red				PSAPFCE11
Gold				PSAPFCG11
White Silver				PSAPFCH11

DETAILS OF MODEL NAME



* Panel color

- CB : Blue
- CC : Cherry
- CD : Wood
- CE : Red
- CG : Gold
- CH : White Silver
- CM : Metal
- CR : Mirror
- CV : Silver
- CW : White Wood

Electric Heater

Gives heating to keep you warm.

Single Package : LKAEH, AKEH
Ducted Split : ANEH



FEATURES

- Provides quick and additional heating.

MODELS APPLIED TO

- Single package
- Ducted split (refer PDB for applicable models)

PARTS SUPPLIED

Single Package

- Electric heater (1EA)
- Installation manual (1EA)
- Heater control box (1EA)
- Screws

Ducted Split

- Electric heater (1EA)
- Hexagonal nut (6EA)
- Hexagonal bolt M6, L14 (16EA)
- Installation Manual (1EA)

ACCESSORY MODEL NAME AND ELECTRICAL DATA

50 / 60Hz

Single Package

Ton	Model Name	Heater Output(kW) Min/Max. Volts	Heater Rating (kW)	Control Stages	Voltage (V/ø)	Standard indoor fan motor			Over size indoor motor		
						M.C.A	M.F.S	M.C.B	M.C.A	M.F.S	M.C.B
3-5RT	LKAEH052	3.6/5.0	5	1	208-240/1	27.6/32.2	60/60	60/60	27.6/32.2	60/60	60/60
3-5RT	LKAEH102	7.2/10.0	10	1	208-240/1	47.7/55	60/60	60/60	47.7/55	60/60	60/60
6.25-17.5RT	LKAEH18B	15.6/18.0	18	1	208-240/3	56.2/64.8	60/60	60/60	56.2/64.8	60/60	60/60
15-17.5RT	LKAEH36B	31.2/36.0	18+18	2	208-240/3	97.1/112.1	125/125	125/125	97.1/112.1	125/125	125/125
20-25RT	LKAEH36BL	31.2/36.0	36	2	208-240/3	97.1/112.1	125/125	125/125	97.1/112.1	125/125	125/125
6.25-12.5RT	LKAEH098	7.5/9.0	9	1	380-415/3	26.0/27.2	60/60	60/60	31.0/32.2	60/60	60/60
7.5-17.5RT	LKAEH188	15.1/18.0	18	1	380-415/3	37.5/39.5	60/60	60/60	42.5/44.5	60/60	60/60
20-25RT	LKAEH368L	30.2/36.0	36	2	380-415/3	108.6/160.4	150/150	150/150	114.6/136.4	150/150	150/150

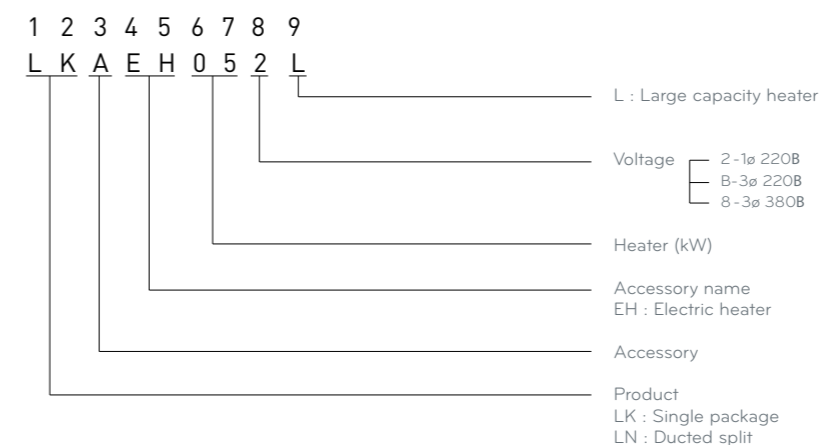
* MCA : Minimum current ampere / MFS : Maximum fuse size / MCB : Maximum circuit breaker

Ducted Split

Ton	Model Name	Heater Output(kW) Min/Max. Volts	Heater Rating (kW)	Control Stages	Voltage (V/ø)	Standard indoor fan motor			Over size indoor motor		
						M.C.A	M.F.S	M.C.B	M.C.A	M.F.S	M.C.B
3-5RT	ANEH0521A	3.6/5.0	5	1	208-240/1	27.6/32.2	60/60	60/60	27.6/32.2	60/60	60/60
3-5RT	ANEH1021A	7.2/10.0	10	1	208-240/1	47.4/55	60/60	60/60	47.7/55	60/60	60/60
6.25-12.5RT	ANEH09B1B	7.8/9.0	9	1	208-240/3	30.4/35.1	60/60	60/60	30.4/35.1	60/60	60/60
6.25-17.5RT	ANEH18B1B	15.6/18.0	18	1	208-240/3	50.9/58.7	70/70	70/70	50.9/58.7	70/70	70/70
15-20RT	ANEH18B1C	15.6/18.0	18	1	208-240/3	56.2/64.8	70/70	70/70	62.4/72.0	80/80	80/80
15-20RT	ANEH3682C	36.0	18+18	2	380-415/3	72/86.4	90	90	72/86.4	90/90	90/90

* MCA : Minimum current ampere / MFS : Maximum fuse size / MCB : Maximum circuit breaker

DETAILS OF MODEL NAME



Drain Pump Kit

Effectively drains out condensed water.

ABDPE
ABDPG
ABDPT



FEATURES

- In some places where natural drainage is not possible drain pump is very useful to pumps out condensed water from indoor unit.
- Drain pump assembly (AC 220~240V, 50/60Hz)

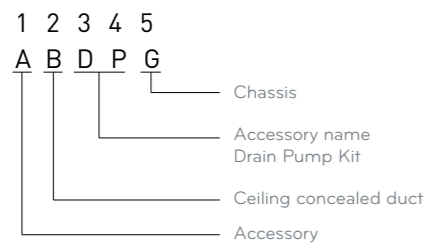
MODELS APPLIED TO

- Ceiling concealed duct (refer PDB for applicable models)

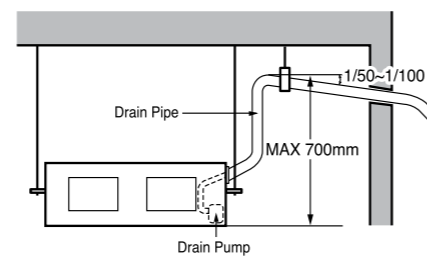
ACCESSORY MODEL NAME

Model Name	E Chassis	G/H/R Chassis	T Chassis
	ABDPE	ABDPG	ABDPT
Multi V Type	Default	Default	Default
Multi Type	✓	✓	✓
Single Type	✓	✓	

DETAILS OF MODEL NAME



APPLICATION



PARTS SUPPLIED

For E Chassis Models :

- Drain pump assembly(1EA)
(AC 220~240V,50/60Hz,400CMM)
- Elbow (ø32)(1EA)
- Tie wrap(2EA)
- Rubber(1EA)
- Hose(1EA)
- Screw(10EA)
- Installationmanual(1EA)

For G/H/R/T Chassis Models :

- Drain pump assembly(1EA)
(AC 220~240V,50/60Hz,400CMM)
- Screw(4EA)
- Cap(1EA)
- Installation manual(1EA)

Suction Grille / Canvas

High flexibility for a wide variety of applications

PBSGB30
PBSGB40
PBSC30
PBSC40



FEATURES

- High external static pressure facilitates unit use with flexible ducts of varying lengths.
- When using suction panel, unit requires only 270mm of ceiling space.
- Blends unobtrusively with any interior decoration.

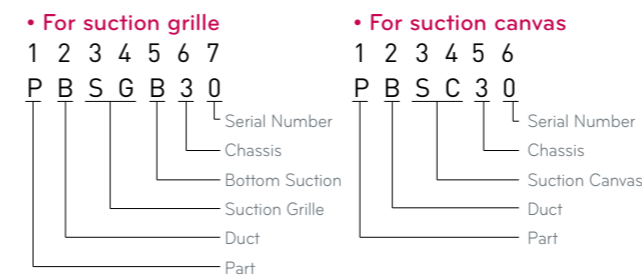
MODELS APPLIED TO

- Ceiling concealed duct _ Built-in type (refer PDB for applicable model)

ACCESSORY MODEL NAME

Type	Model Name	Capacity (Btu/h)					
		7K	9K	12K	15K	18K	24K
Grille	PBSGB30	✓	✓	✓	✓		
	PBSGB40					✓	✓
Canvas	PBSC30	✓	✓	✓	✓		
	PBSC40					✓	✓

DETAILS OF MODEL NAME



DIMENSION

	(Unit : mm)			(Unit : mm)			
	A	B	C	A	B	C	
PBSGB30	910	359	56	PBSC30	821	274	42-250
PBSGB40	1188	359	56	PBSC40	1100	274	42-250

PARTS SUPPLIED

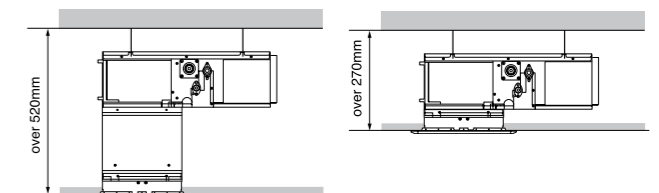
For the suction grille :

- Suction panel with air filter (1EA)
- Suction panel fix bolt M5x18 (4EA)
- Installation manual (1EA)

For the suction canvas :

- Air suction canvas (1EA)
- Screws for air suction canvas (4EA)
- Adjusting chain (4EA)
- Screws for adjusting chain (8EA)
- Installation manual (1EA)

APPLICATION

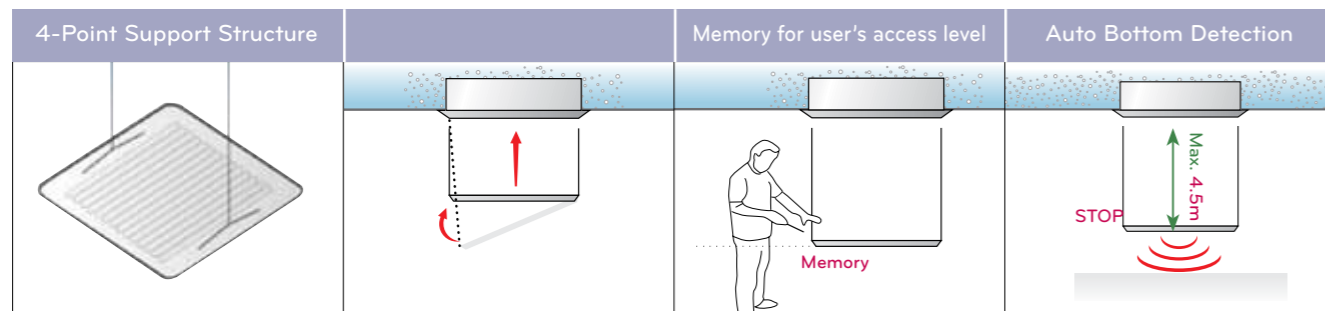


Auto Elevation Grille

Easy filter cleaning with elevation grille



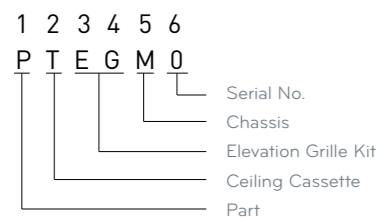
FEATURES



MODELS APPLIED TO

- 4 Way cassette - Single, Multi V II (refer PDB for applicable models)

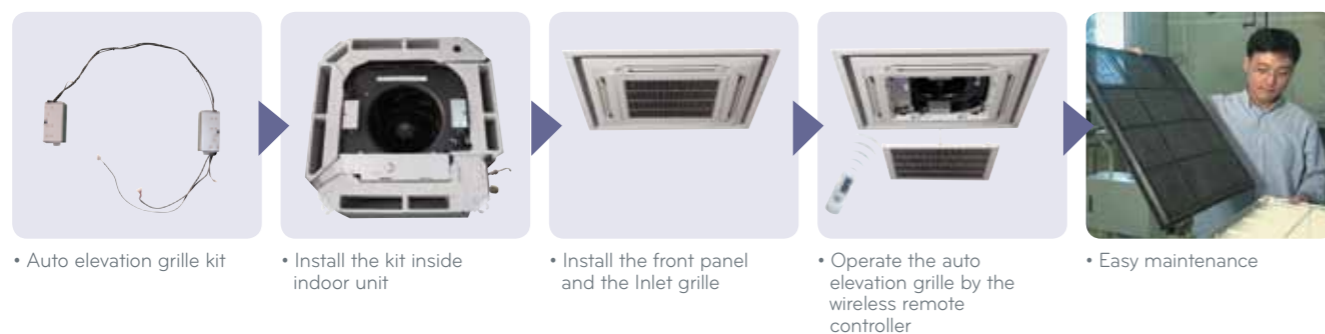
DETAILS OF MODEL NAME



PARTS SUPPLIED

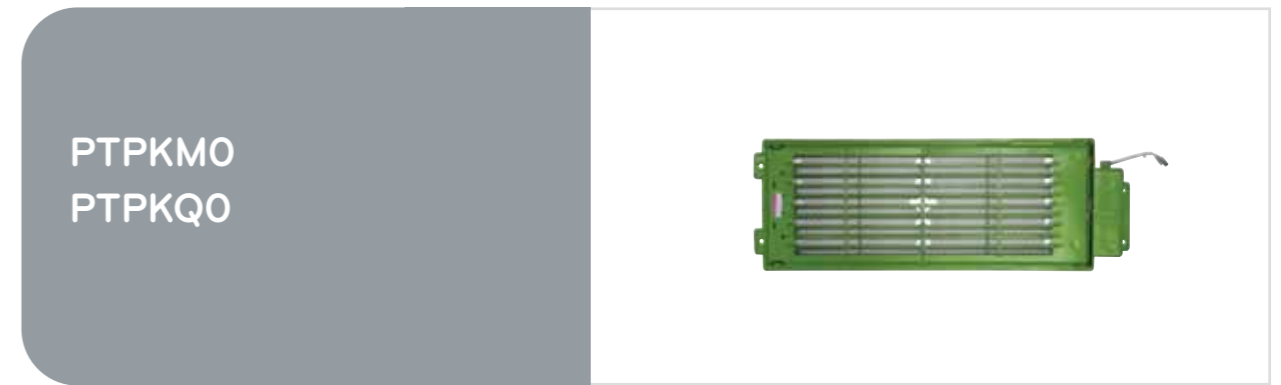
- Inlet Grille (1EA)
- Auto elevation grille kit (1EA)
- Wireless Remote Controller (1EA)
- Screws (4EA)
- Installation manual (1EA)

APPLICATION



Plasma Kit

Plasma air purifying system



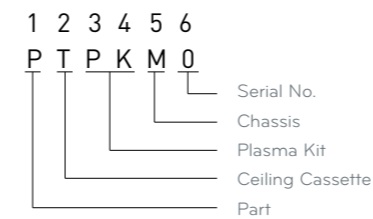
FEATURES

- It can remove microscopic contaminants and dust and house mites, pollen, pet fur to help prevent allergic diseases like asthma.

MODELS APPLIED TO

- 4Way cassette - Single MULTI V (refer PDB for applicable models)

DETAILS OF MODEL NAME



PARTS SUPPLIED

- Plasma Kit (1EA)
- Screws
- Installation Manual (1EA)

Sanitary Tank Kit PHLTA, PHLTB



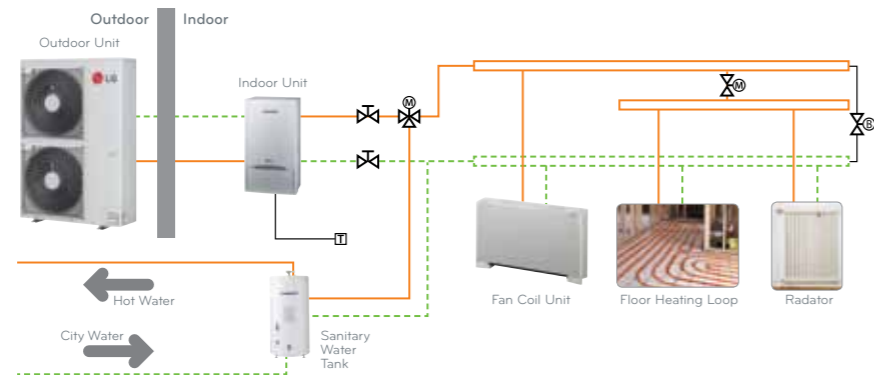
FEATURES

PHLTB
Easy to install the sanitary water tank for monobloc. There is a MCCB to protect the product.
Dimension(mm) (HxWxD) : 250x170x110
Weight(kg) : 2.1

PHLTA
To extend Therma V functionality in generating domestic hot water.
Only applied to split-type Therma V.
※ To be installed inside THERMA V indoor unit.

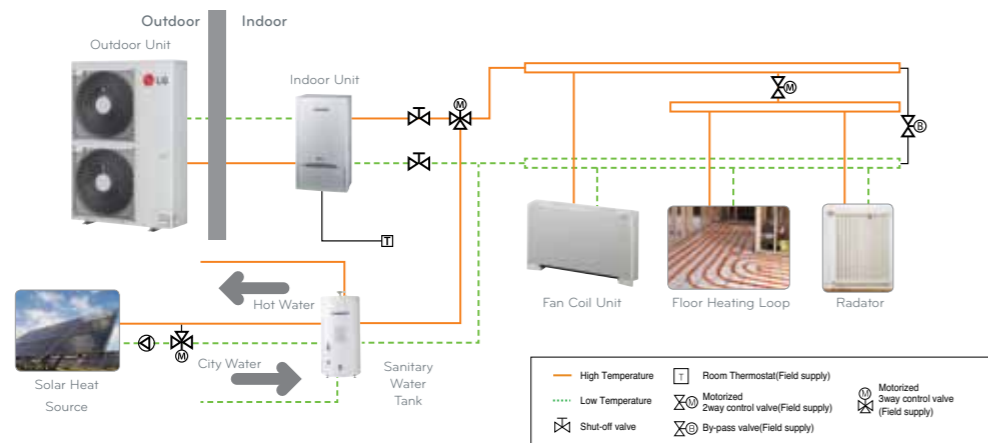
THERMA V with Single Coil Sanitary Tank

Components : THERMA V System, PHS0x060310, PHLTA, and Field-supplied items.



THERMA V with Double Coil Sanitary Tank

Components : THERMA V System, PHS0x060320, PHLTA, PHLA, and Field-supplied items.



Solar Heating Kit PHLLA



FEATURES

PHLLA
To interface solar-thermal system with split-type THERMA V and double coil sanitary tank.
Installed at the water pipe, between sanitary tank and solar-thermal system.
Dimension(mm) (HxWxD) : 110x55x22

Electric Heater AHEH0462A, AHEH0662A



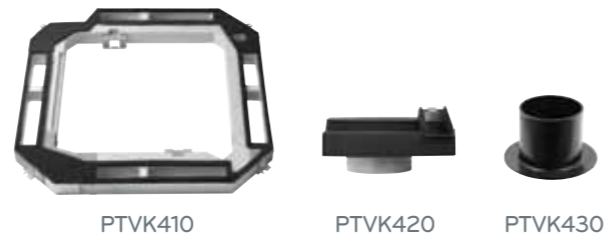
FEATURES

AHEH0462A, AHEH0662A
Provides quick and additional heating for monobloc, convenient to install the back-up heater.
There is a MCCB to protect the product.
Dimension(mm) (HxWxD) : 780x425x120
Weight(kg) : 17

Ventilation Kit (Fresh Kit) for New Cassette

Fresh air can be supplied from outside through this ventilation kit.

PTVK410
PTVK420
PTVK430



Cassette Cover

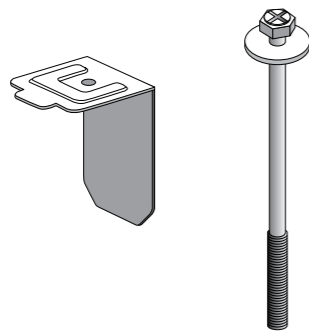
Maintains the ceiling elegance.

PTDCD
PTDCD1
PTDCM
PTDCQ

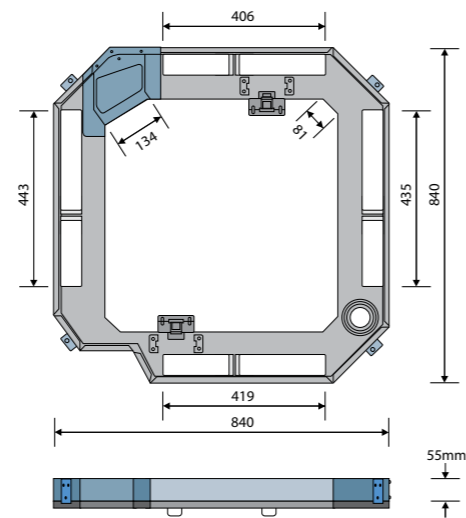


ACCESSORY

- Installation Bracket
- Bolt
- Screw
- Installation manual



DIMENSION



FEATURES

- Specially designed for indoor unit.
- Covers the side area of cassette.
- Gives elegant looks.
- Light weight.
- Suitable when false ceiling is unavailable.

MODELS APPLIED TO

- Ceiling cassette - 4Way (TD, TD1, TH, TP, TN, TM, TQ, TR)

PARTS SUPPLIED

- Cover A (4EA), Cover B (4EA)
- Cover C (4EA), Cover D (4EA)
- Screws
- Installation Manual (1EA)

MODELS APPLIED TO

- Ceiling Cassette - 4Way (TP, TN, TM)

ACCESSORY MODEL NAME

Model Name	Front Panel
PTDCD	PT-CDO, PT-CD1, PT-HD0, PT-HD1
PTDCD1	PT-CDA1, PT-CDC1, PT-HDA1, PT-HDC1
PTDCM	PT-UMC
PTDCQ	PT-UQC

Air Guide

Easy air discharge at odd places.

PQAGA
PRAGX*SO



MULTI V Plus II



MULTI V III

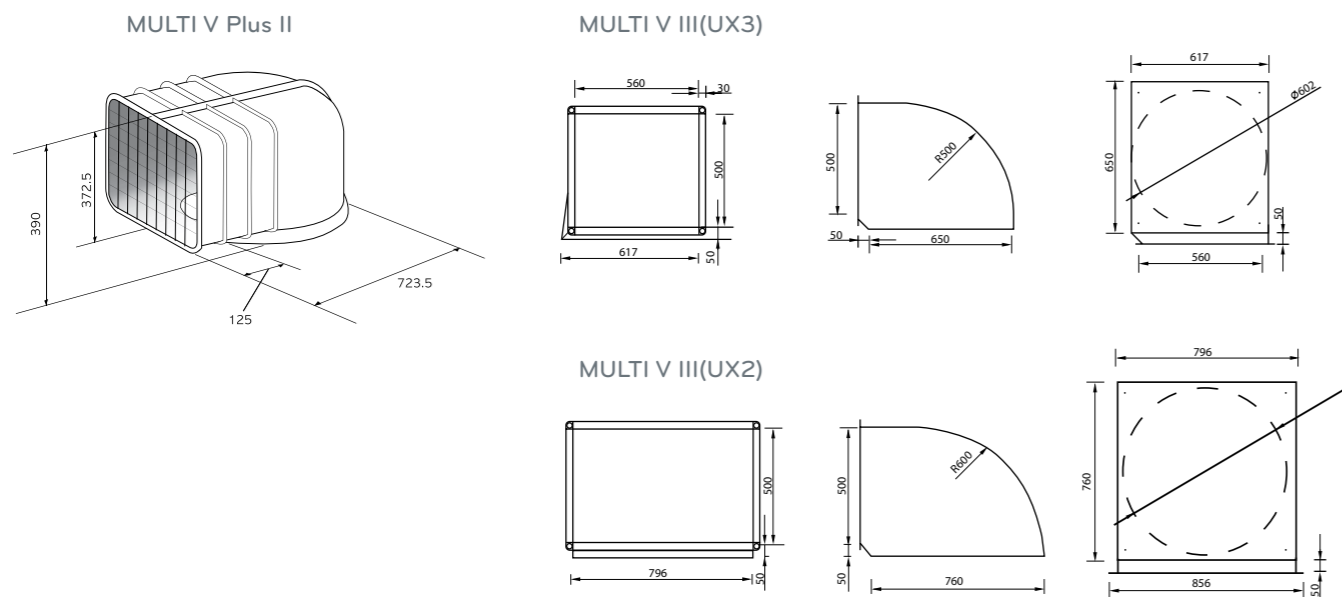
FEATURES

- Converts vertical discharge into horizontal discharge.
- Designed for outdoor discharge air.
- Direction of air discharge can be changed by simple installation.
- Installation flexibility

MODELS APPLIED TO

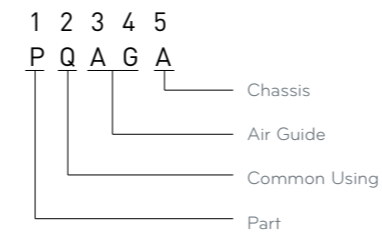
- MULTI V type, MULTI V Plus II type, Single A (UY, UW Chassis), MULTI V III (UX2, UX3)

DIMENSION

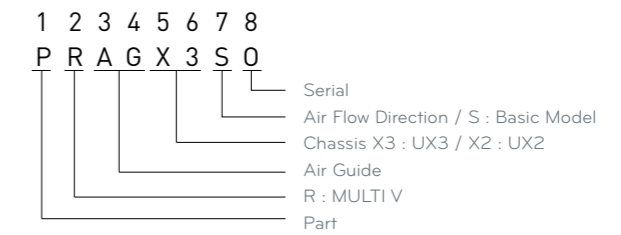


DETAILS OF MODEL NAME

MULTI V Plus II



MULTI V III



APPLICATION



MULTI V Plus II



MULTI V Plus II



MULTI V III(UX2)



MULTI V III(UX3)

Piping Accessory




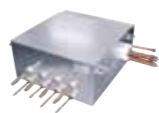



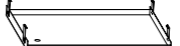



Model	SYNCHRO	MULTI	MULTI V	REMARK
Y Branch and Header Branch(Synchro)	✓	✓		Synchro
Branch Distributor (MULTI)				MULTI Mdx / MULTI Fdx
Heat Recovery Unit			✓	MULTI V Sync
Y Branch and Branch Kit (MULTI)		✓		MULTI Fdx
Y Branch and Header Branch (MULTI V)			✓	MULTI V Plus / MULTI V Sync MULTI V Space / MULTI V Mini



Piping Accessory

For comfort and convenience.

66  Y Branch & Header Branch (Synchro)	68  Branch Distributor	70  Stopper Valve	72  Heat Recovery Unit	76  Refrigerant charging Kit
77  Y Branch & Branch Kit (MULTI Fdx)	78  Drain Hose	79  Drain pan	80  Y Branch & Header Branch (MULTI V)	

Y Branch and Header Branch (Synchro)

Refrigerant distribution channel.

PMUB11A
(2units)

PMUB111A
(3units)

PMUB1111A
(4units)



Gas Pipe



Liquid Pipe

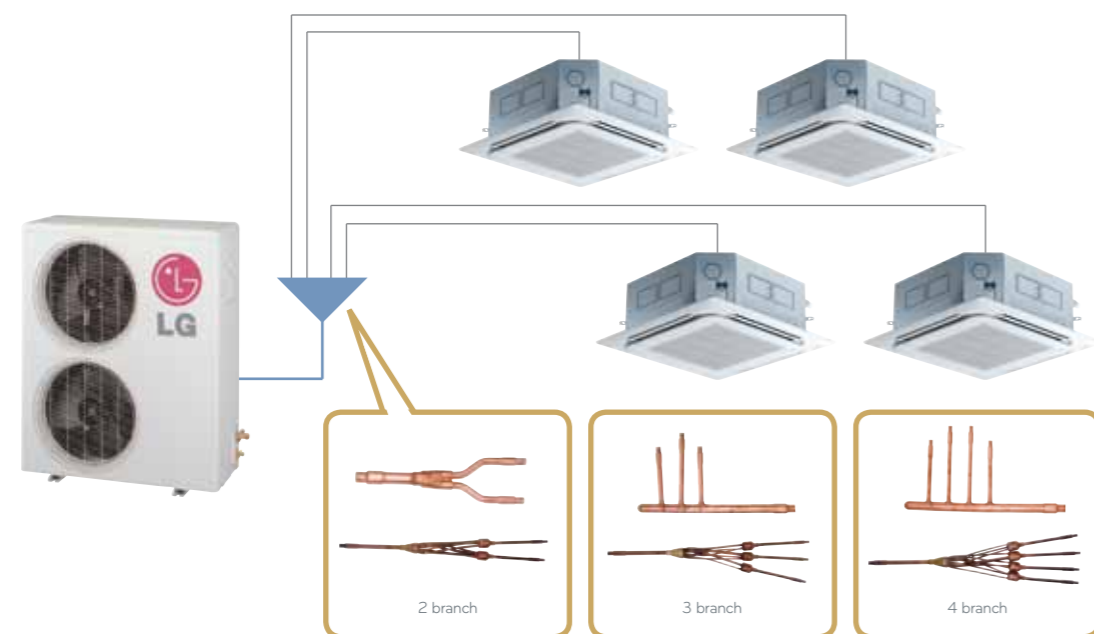
FEATURES

- Various Y-branch pipe of different capacities make installation much easier.
- Y-branch and header branch for both gas and liquid are provided.
- Insulation material is also provided for covering the branches.

MODELS APPLIED TO

- Synchro

PIPING DIAGRAM



ACCESSORY MODEL NAME

Connectable of Indoor Units	Models	Gas pipe	Liquid pipe
2 Units	PMUB 11A	 (1:1)	 (1:1)
3 Units	PMUB 111A	 (1:1:1)	 (1:1:1)
4 Units	PMUB 1111A	 (1:1:1:1)	 (1:1:1:1)

Branch Distributor

Effective and unique way of refrigerant distribution.

SPECIFICATION

PMBD3620 / PMBD5420L

PMBD3630

PMBD7230 / PMBD5430L

PMBD3640 / PMBD5440L



PMBD3620
PMBD5420L



PMBD3630
PMBD7230
PMBD5430L



PMBD3640
PMBD5440L

FEATURES



No brazing



Just flaring

- Distribution of refrigerant to various indoor units.
- 3 models (2, 3, 4 indoor units)
- Consists of LEVs inside it
- Controlling PCB inside the unit
- Internally insulated (prevents any chances of drainage)
- Flare joints for easy and clean installation
- Compact design (low height)
- Flexible installation

MODELS APPLIED TO

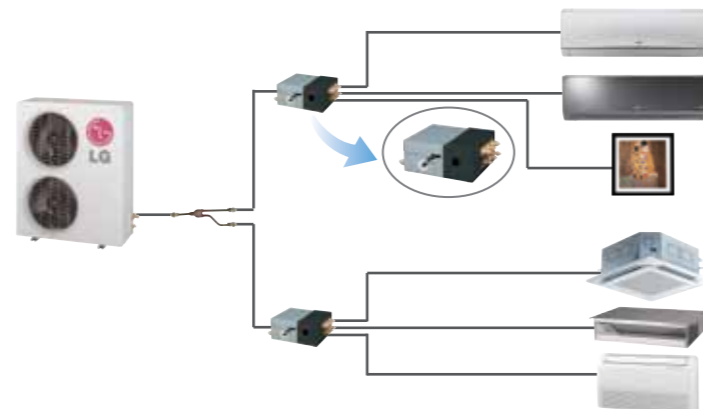
- MULTI M_{DX} systems
- MULTI F_{DX} systems
(refer PDB for applicable models)

INSTALLATION

- Position of branch distributor in the system
- PDB (Select) - Installation PDB

PARTS SUPPLIED

- BD(Banch Distributor) unit (1EA)
- Hanger metal (4EA)
- Screws (8EA)
- Installation Manual (1EA)



MULTI F_{DX} (R410A)

Connectable	Number of Indoor unit	PMBD3640	PMBD3630	PMBD3620	PMBD7230
		1-4	1-3	1-2	1-3
Capacity	(Btu/h)	7k/9k/12k/18k/24k	7k/9k/12k/18k/24k	7k/9k/12k/18k/24k	18k/24k/30k/36k
Casing color		Paintingless	Paintingless	Paintingless	Paintingless
Power source		1ø, 50/60Hz, 220-240/220B	1ø, 50/60Hz, 220-240/220B	1ø, 50/60Hz, 220-240/220B	1ø, 50/60Hz, 220-240/220B
Power consumption	(W)	10	10	10	10
Running current	(A)	0.05	0.05	0.05	0.05
Dimensions	(W x H x D) (mm)	302x143x252	302x143x252	302x143x252	302x143x252
Packing dimension	(W x H x D) (mm)	422x202x300	422x202x300	422x202x300	422x202x300
Net weight		5.0	4.9	4.8	5.0
Connecting cable	Indoor unit No. x mm2	4x0.75	4x0.75	4x0.75	4x0.75
	Outdoor unit No. x mm2	4x0.75	4x0.75	4x0.75	4x0.75
Piping connection	liquid (mm)	9.52	9.52	9.52	9.52
(Outdoor unit)	Gas (mm)	19.05	19.05	19.05	19.05
Piping connection	Liquid (mm)	6.35x4	6.35x3	6.35x2	6.35x3
(Indoor unit)	Gas (mm)	9.52x4	9.52x3	9.52x2	12.7/15.88x2
Parts	Hanger (EA)	4	4	4	4
	Screw (EA)	8	8	8	8
	Manual (EA)	1	1	1	1

MULTI M_{DX} (R22)

Connectable	Number of Indoor unit	PMBD5440L	PMBD5430L	PMBD5420L
		1-4	1-3	1-2
Capacity	(Btu/hr)	12,000-54,000	12,000-54,000	12,000-54,000
Casing color		Paintingless	Paintingless	Paintingless
Power source		1ø, 50/60Hz, 220-240/220B	1ø, 50/60Hz, 220-240/220B	1ø, 50/60Hz, 220-240/220B
Power consumption	(W)	10	10	10
Running current	(A)	0.05	0.05	0.05
Dimensions	(W x H x D) (mm)	302x143x252	302x143x252	302x143x252
Packing dimension	(W x H x D) (mm)	422x202x300	422x202x300	422x202x300
Net weight		5.0	4.9	4.8
Connecting cable	Indoor unit No. x mm2	4x0.75	4x0.75	4x0.75
	Outdoor unit No. x mm2	4x0.75	4x0.75	4x0.75
Piping connection	liquid (mm)	9.52	9.52	9.52
(Outdoor unit)	Gas (mm)	19.05	19.05	19.05
Piping connection	Liquid (mm)	6.35x4	6.35x3	6.35x2
(Indoor unit)	Gas (mm)	12.7x4	9.52x3	9.52x2
Parts	Hanger (EA)	4	4	4
	Screw (EA)	8	8	8
	Manual (EA)	1	1	1

DETAILS OF MODEL NAME

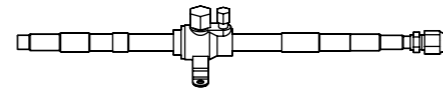
1 2 3 4 5 6 7 8 9
P M B D 5 4 2 0 L

- L : R-22
None : R410A
Serial number
- Number of indoor units connectable
- Maximum capacity
- Branch distributor
- MULTI
- Parts

Model	Capacity (kbtu/h)	Connectable number of indoor units		
		2 Indoor units	3 Indoor units	4 Indoor units
MULTI F _{DX}	36	⊙	⊙	
	72		⊙	
MULTI M _{DX}	54	⊙	⊙	

Stopper Valves

PRVT120 under 1/2 (inch)
 PRVT780 under 7/8 (inch)
 PRVT980 under 9/8 (inch)



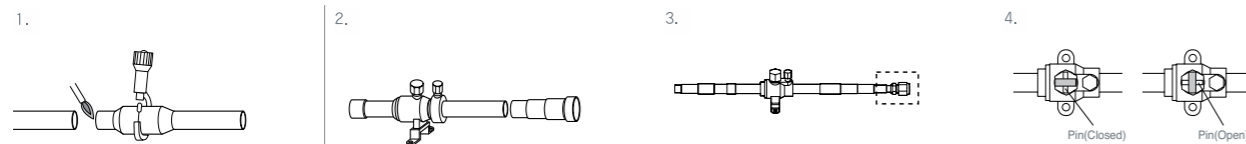
FEATURES

	Spec
PRVT120	
PRVT780	
PRVT980	

USAGE

- This unit can be applied for the additional indoor unit's installation.
- This unit can be applied for each indoor unit's service

INSTALLATION



Cut inlet side of the connector, and we the pipe

In case of the installation of additional indoor unit, outlet side connector should be cut according to installation pipe.

In case of installation of stopper valve, flare part should be facing towards additional indoor unit.

In case of installation of additional indoor unit, SVC valve should be in closed state

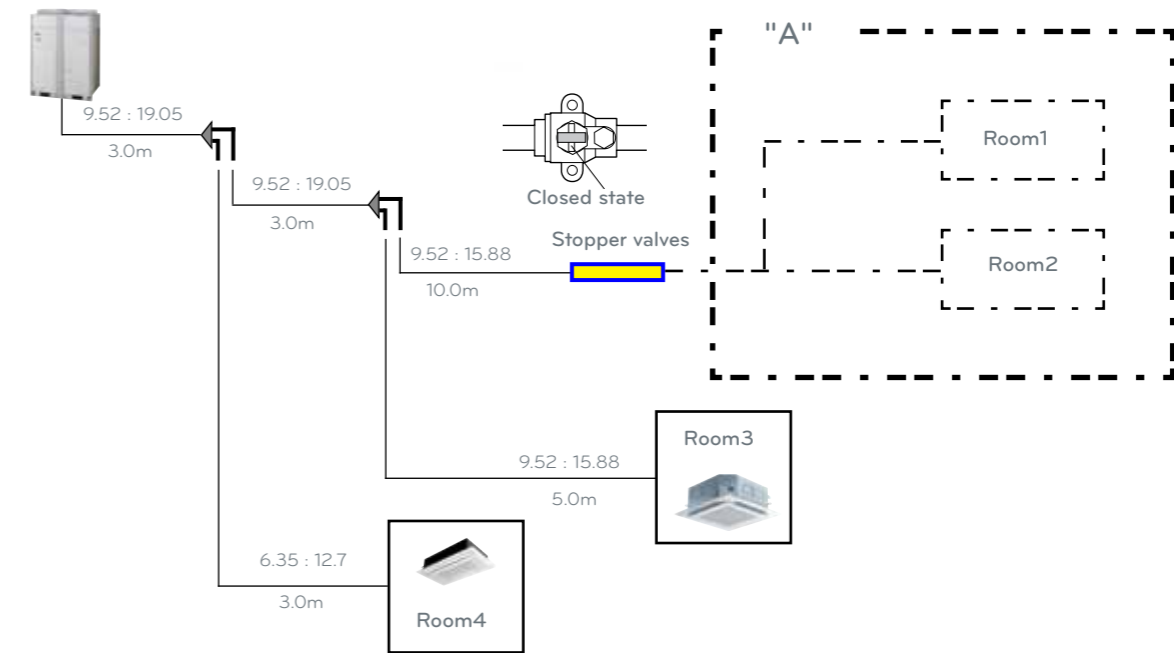
-When welding, service valve should be wrapped by wet cloth.

INSTALLATION SCENE

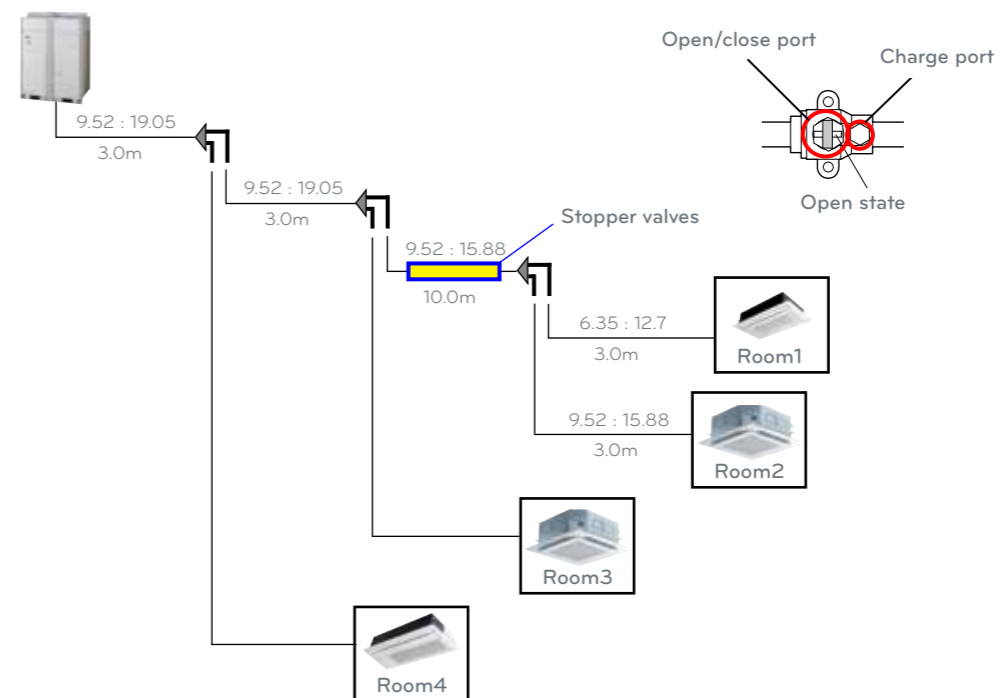
case1

(room3,4 is used. room1,2 need to install indoor unit)

※stopper valve is already installed



- In case of installation of additional indoor unit, refrigerant of used indoor unit must be discharged.(Room3 & Room4)
- If stopper valve is already installed, you can install additional indoor unit without refrigerant loss from the entire system.
- After installation of additional indoor unit, you just need refrigerant charging for "A" section.
- Then, open the stopper valve.



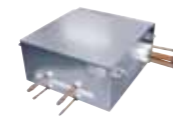
Heat Recovery Unit

REDUCERS FOR INDOOR UNIT AND HR UNIT

PRHR020

PRHR030

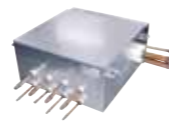
PRHR040



PRHR020
(2 Indoor Units)



PRHR030
(3 Indoor Units)



PRHR040
(4 Indoor Units)

FEATURES

- Max. 4 indoor unit can be connected by module design.
- Due to the automatic search algorithm for piping detection, easy installation
- Subcooling cycle in HR unit makes the system efficiency maximum.

MODELS APPLIED TO



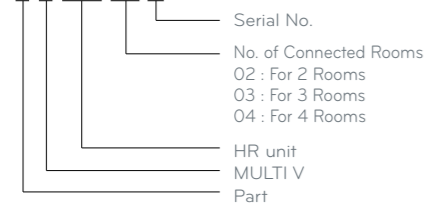
ACCESSORY MODEL NAME AND SPECIFICATION

		EA	PRHR020	PRHR030	PRHR040	
Max. connectable number of indoor units		EA	2	3	4	
Max. connectable capacity of indoor units(Per port/unit)		kW	14.1 / 47	14.1 / 47	14.1 / 47	
Nominal Input	Cooling	kW	26	40	40	
	Heating	kW	26	40	40	
Net. Weight		kg	19	20	21	
Dimensions(WxHxD))		mm	801x218x617	801x218x617	801x218x617	
Piping connections	Indoor Unit	Liquid	mm(inch)	9.52(3/8)	9.52(3/8)	9.52(3/8)
		Gas	mm(inch)	15.88(5/8)	15.88(5/8)	15.88(5/8)
	Outdoor Unit	Liquid	mm(inch)	9.52(3/8)	12.7(1/2)	12.7(1/2)
		Low pressure	mm(inch)	19.05(3/4)	28.58(11/8)	28.58(11/8)
	High Pressure	mm(inch)	19.05(3/4)	22.2(7/8)	22.2(7/8)	
Power Supply		ø /V/Hz	1 / 220-240 / 50	1 / 220-240 / 50	1 / 220-240 / 50	

DETAILS OF MODEL NAME

1 2 3 4 5 6 7

PRHR040



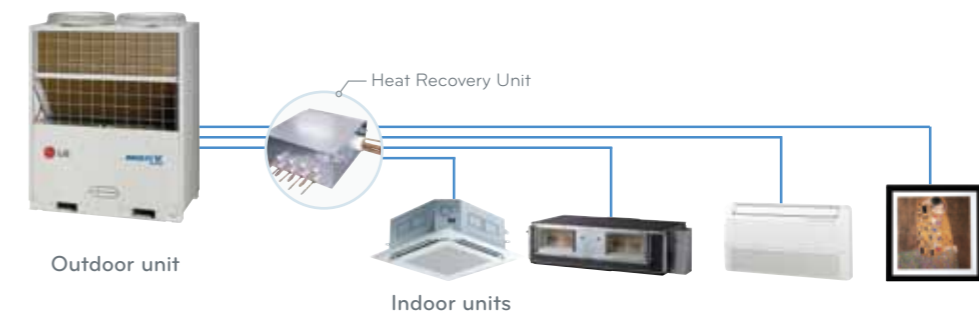
DIMENSION

- HR unit (1EA)
- Hanging bolts M10 or M8 (4EA)
- Nut M8 or M10 (8EA)
- Flat washers M10 (8EA)
- Reducers

Models	Liquid pipe	High pressure	Low pressure
Indoor unit reducer	 OD9.52 Ø6.35		 OD15.88 Ø12.7
HR unit reducer	 OD9.52 Ø6.35	 OD19.05 Ø15.88 Ø12.7	 OD22.2 Ø19.05 Ø15.88
		 OD12.7 Ø9.52	 OD15.88 Ø12.7
PRHR030/ PRHR040	 OD12.7 Ø9.52	 OD28.58 Ø22.22 Ø19.25	 OD22.2 Ø19.05 Ø15.88
		 OD19.05 Ø15.88	 OD15.88 Ø12.7

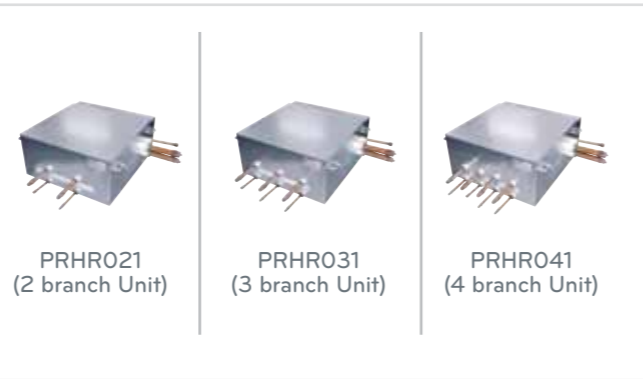
(Unit : mm)

INSTALLATION



Heat Recovery Unit

PRHR021
PRHR031
PRHR041



FEATURES

- Max. 32 indoor units can be connected by module design. (Max 8 indoor units per branch)
- Due to the automatic search algorithm for piping detection, easy installation
- Subcooling cycle in HR unit makes the system efficiency maximum.

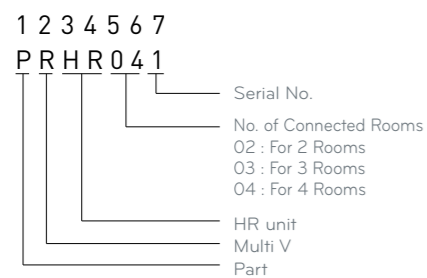
MODELS APPLIED TO



ACCESSORY MODEL NAME AND SPECIFICATION

		PRHR021	PRHR031	PRHR041		
Number of branch		EA	2	3	4	
Max. connectable capacity of indoor units(Per branch/unit)		kW	14.1/28.2	14.1/44.8	14.1/56.4	
Max. number of connectable indoor units per branch		EA	8	8	8	
Nominal Input	Cooling	kW	0.026	0.040	0.040	
	Heating	kW	0.026	0.040	0.040	
Net. Weight		kg	20	22	24	
Dimensions(WxHxD))		mm	801x218x617	801x218x617	801x218x617	
Piping connections	Indoor Unit	Liquid	mm(inch)	9.52(3/8)	9.52(3/8)	9.52(3/8)
		Gas	mm(inch)	15.88(5/8)	15.88(5/8)	15.88(5/8)
	Outdoor Unit	Liquid	mm(inch)	9.52(3/8)	15.88(5/8)	15.88(5/8)
		Low pressure	mm(inch)	22.2(7/8)	28.58(11/8)	28.58(11/8)
	High Pressure	mm(inch)	19.05(3/4)	22.2(7/8)	22.2(7/8)	
Power Supply		ø /V/Hz	1 / 220-240 / 50	1 / 220-240 / 50	1 / 220-240 / 50	

DETAILS OF MODEL NAME



DIMENSION

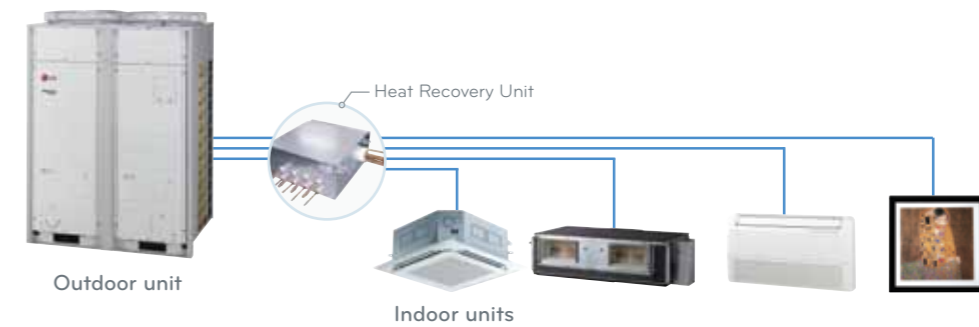
- HR unit (1EA)
- Hanging bolts M10 or M8 (4EA)
- Nut M8 or M10 (8EA)
- Flat washers M10 (8EA)
- Reducers

REDUCERS FOR INDOOR UNIT AND HR UNIT

Models	Liquid pipe	High pressure	Low pressure
Indoor unit reducer			
HR unit reducer	PRHR021 	 	
	PRHR031/ PRHR041 	 	

(Unit : mm)

INSTALLATION



Refrigerant charging Kit

Y Branch and Branch Kit (MULTI FDX)

Refrigerant distribution channel

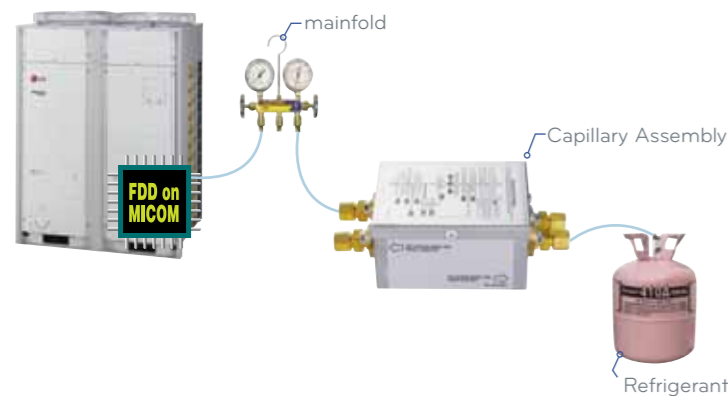
PRAC1



PROCEDURE

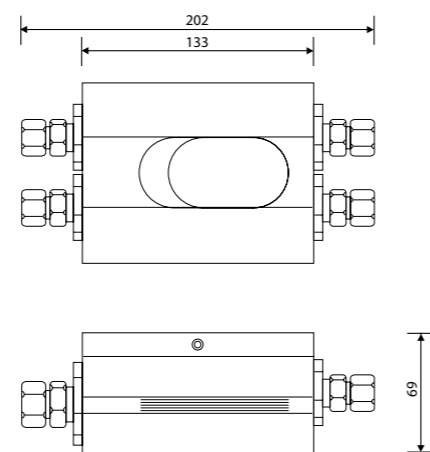
- Arrange manifold, capillary assembly, refrigerant vessel and scale
- Connect manifold to the gas pipe service valve of outdoor unit as shown in the figure.
- Connect manifold and Capillary tube. Use designated capillary assembly only.
If designated capillary assembly isn't used, the system may get damaged.
- Connect capillary and refrigerant vessel.
- Purge hose and manifold.
- After "568" is displayed, open the valve and charge the refrigerant

APPLICATION



* Fault Detect & Diagnosis

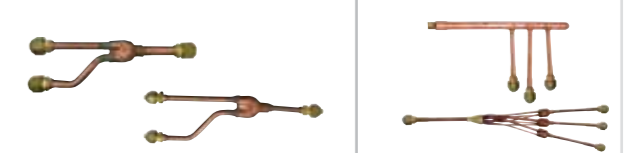
DIMENSION



Error contents about auto refrigerant charging function

- "329": Temperature Range Error (In case that indoor unit or outdoor unit is out of range)
- "339": Low Pressure Descent Error (In case the system runs at low pressure limit for over 10 minutes)
- "349": Rapid refrigerant inflow (In case the liquid refrigerant flows in because of not using designated capillary assembly)
- "359": Instability Error (In case the high/low pressure target doesn't get satisfied for some time after the starting operation)

PMBL3620 / PMBL5620
(2units)
PMBL1203FO
(3units)



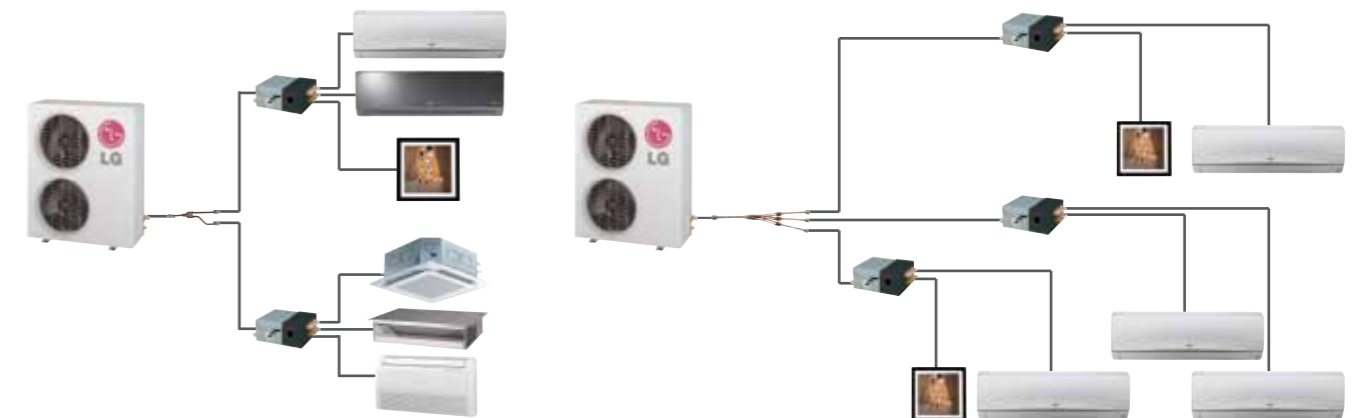
FEATURES

- Y Branch and Branch kit make Multi Fdx installation much easier.
- Y-Branch and Branch kit for both gas and liquid are provided.
- Insulation material is also provided for covering the branches.

MODELS APPLIED TO

- MULTI FDX 1ø, 3ø

APPLICATION



ACCESSORY MODEL NAME

Model Name	No. of BD units	Applicable Model	Specification (Unit : mm)	
			Gas	Liquid
PMBL3620	2 units	Only 3ø, 36k Btu/h		
PMBL5620	2 units	1ø, 3ø		
PMBL1203FO	3 units	1ø, 3ø		

PARTS SUPPLIED

- Y Branch for Gas side and Liquid side (1 set)
- Installation manual (1EA)

Drain Hose

Easy drain installation

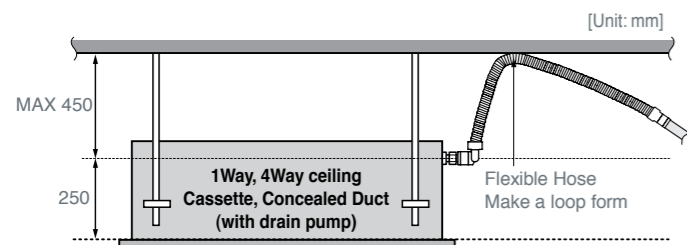
PHDHA05T
PHDHA07T
PHDHA05B
PHDHA07B



FEATURES

IT REDUCES THE INSTALLATION TIME BY OVER 40% WITH ELBOW-LESS DRAIN HOSE.
MIDGET DRAIN PUMP COVERS MAXIMUM 800MM HIGH, FEATURING EASY PIPING INSTALLATION.

STANDARD



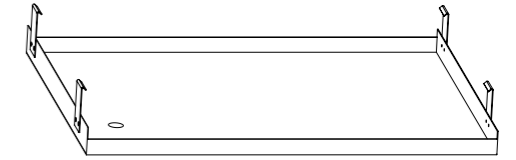
Models applied to Ceiling Cassette, Ceiling Concealed Duct. (refer PDB for applicable model.)

ACCESSORY MODEL NAME

Model Name	Length	Quantity
PHDHA05T	500mm	30EA
PHDHA07T	700mm	30EA
PHDHA05B	500mm	5EA
PHDHA07B	700mm	5EA

Drain Pan

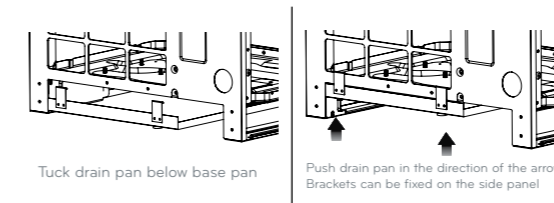
PRODX10
PRODX20
PRODX30



USAGE

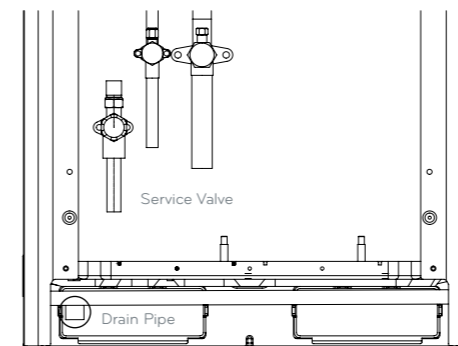
This unit can be applied for outdoor unit's drain

INSTALLATION



Tuck drain pan below base pan

Push drain pan in the direction of the arrow. Brackets can be fixed on the side panel



※ In case of the installation of drain pan, drain pipe should be located below the SVC valve.

- This unit does not cover water drops of the outside product
- Connect drain hose to drain pipe for drain condensate

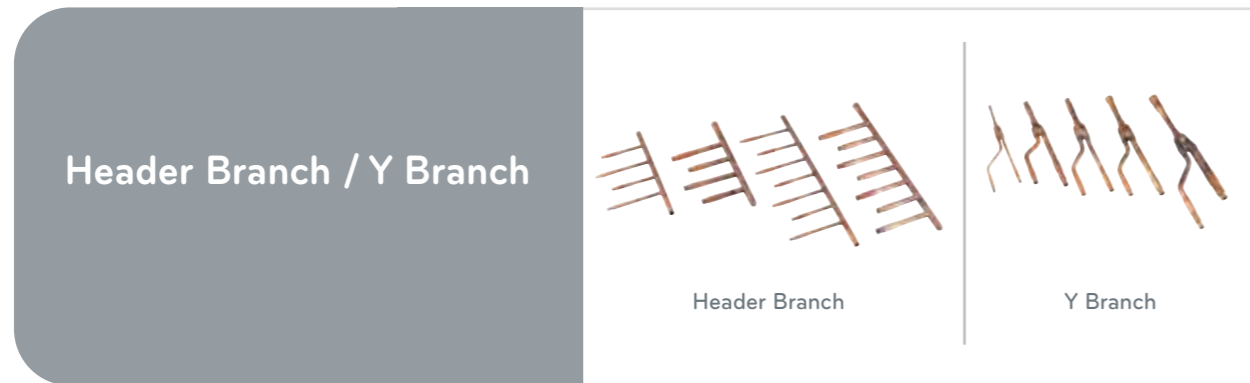
MODEL NAME

Model	L	Remark
PRODX10	618mm	UX1
PRODX20	920mm	UX2
PRODX30	1240mm	UX3

Y Branch and Header Branch(**MULTI V™**)

For refrigerant distribution in multi indoor units.

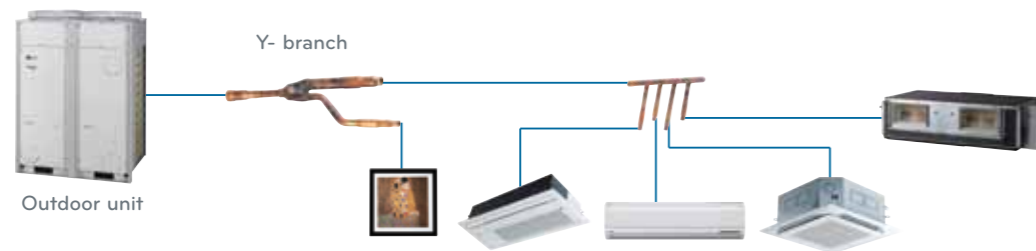
ACCESSORY MODEL NAME



FEATURES

- Various Y-branch pipe of different capacities make MULTI V installation much easier.
- Y-branch and header branch for both gas and liquid are provided.
- Insulation material is also provided for covering the branches.

PIPING DIAGRAM



MODELS APPLIED TO

- **MULTI V™ PLUS** • **MULTI V™ SPACE** • **MULTI V™ SYNC**
- **MULTI V™ PLUS III** • **MULTI V™ SPACE III** • **MULTI V™ SYNC III** • **MULTI V™ MINI**
- **MULTI V™ III Heat Pump** • **MULTI V™ III Heat Recovery** • **MULTI V™ WATER III**

Header Branch

- R22 / R410A

(Unit : mm)

Models	Gas pipe	Liquid pipe
4 branch / ARBL054		
7 branch / ARBL057		
4 branch / ARBL104		
7 branch / ARBL107		
10 branch / ARBL1010		
10 branch / ARBL2010		

PIPING ACCESSORY

Y Branch Pipe for connection of outdoor units

• R22 / **MULTI V. PLUS**

2 Outdoor Units		
Models	Gas pipe	Liquid pipe
ARBL202C		

(Unit : mm)

3 Outdoor Units		
Models	Gas pipe	Liquid pipe
ARBL202C		
ARBL302C		

• R410A / **MULTI V. PLUS MULTI V. PLUS II**

2 Outdoor Units		
Models	Gas pipe	Liquid pipe
ARCNN20		

(Unit : mm)

3 Outdoor Units		
Models	Gas pipe	Liquid pipe
ARCNN20		
ARCNN30		

• R410A / **MULTI V. III Heat Pump**

2 Outdoor Units		
Models	Low Pressure Gas pipe	Liquid pipe
ARCNN21		

3 Outdoor Units		
Models	Low Pressure Gas pipe	Liquid pipe
ARCNN31		

(Unit : mm)

4 Outdoor Units		
Models	Low Pressure Gas pipe	Liquid pipe
ARCNN41		

• R410A / **MULTI V. SYNC MULTI V. SYNC II**

2 Outdoor Units			
Models	Low Pressure Gas pipe	Liquid pipe	High Pressure Gas pipe
ARCNB20			

(Unit : mm)

3 Outdoor Units			
Models	Low Pressure Gas pipe	Liquid pipe	High Pressure Gas pipe
ARCNB20			
ARCNB30			

• R410A / **MULTI V. III Heat Recovery**

2 Outdoor Units			
Models	Low Pressure Gas pipe	Liquid pipe	High Pressure Gas pipe
ARCNB21			

3 Outdoor Units			
Models	Low Pressure Gas pipe	Liquid pipe	High Pressure Gas pipe
ARCNB31			

(Unit : mm)

4 Outdoor Units			
Models	Low Pressure Gas pipe	Liquid pipe	High Pressure Gas pipe
ARCNB41			

PIPING ACCESSORY

Y Branch Pipe for connection of indoor units

• R22 / **MULTI V. PLUS** **MULTI V. SPACE** (Unit : mm)

Models	Gas pipe	Liquid pipe
ARBL052S		
ARBL052L		
ARBL102S		
ARBL102L		

• R22 / **MULTI V. PLUS** (Unit : mm)

Models	Gas pipe	Liquid pipe
ARBL202S		
ARBL202L		
ARBL302S		
ARBL302L		

• R410A / **MULTI V. PLUS** **MULTI V. SPACE** **MULTI V. MINI**
MULTI V. PLUS **MULTI V. SPACE** **MULTI V. MINI** **MULTI V. WATER**
Heat Pump Heat Pump Heat Pump Heat Pump

(Unit : mm)

Models	Gas pipe	Liquid pipe
ARBLN01621		
ARBLN03321		

• R410A / **MULTI V. PLUS** **MULTI V. PLUS** **MULTI V. MINI**
MULTI V. WATER
Heat Pump Heat Pump Heat Pump Heat Pump

(Unit : mm)

Models	Gas pipe	Liquid pipe
ARBLN07121		
ARBLN14521		
ARBLN23220		

• R410A / **MULTI V. SYNC** **MULTI V. SYNC** **MULTI V. MINI** **MULTI V. WATER**
Heat Recovery Heat Recovery Heat Recovery Heat Recovery (Unit : mm)

Models	Low Pressure Gas pipe	Liquid pipe	High Pressure Gas pipe
ARBLB01621			
ARBLB03321			
ARBLB07121			
ARBLB14521			
ARBLB23220			