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LG

PI485 for Outdoor Unit

## **INSTALLATION MANUAL**

**Models: PMNFP14A0  
PMNFP14A1  
PGNFP14A0**

ENGLISH

ITALIANO

ESPAÑOL

FRANÇAIS

DEUTSCH

CHINESE

### **IMPORTANT**

- Please read this installation manual completely before installing the product.
- Installation work must be performed in accordance with the national wiring standards by authorized personnel only.
- Please retain this installation manual for future reference after reading it thoroughly.

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# Safety Precautions



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

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

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

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

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

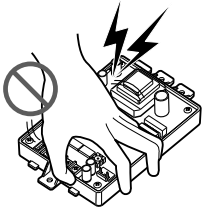
	<b>Be sure not to do.</b>
	<b>Be sure to follow the instruction.</b>

**⚠ WARNING**

## ■ Installation

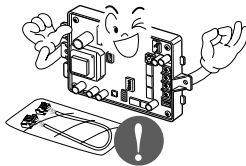
**Don't touch with the hands while the power is on**

- There is risk of fire or electric shock.



**Use standard parts(connector).**

- Do not disassemble or repair the product. There is risk of fire or electric shock.



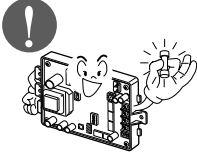
**For electrical work, contact the dealer, seller, a qualified electrician, or an Authorized Service Center.**

- Do not disassemble or repair the product. There is risk of fire or electric shock.



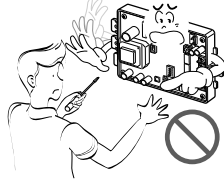
**Use the correctly rated breaker or fuse.**

- There is risk of fire or electric shock.



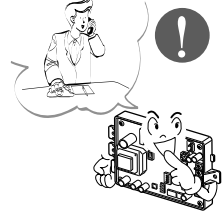
**Do not install, remove, or re-install the unit by yourself (customer).**

- There is risk of fire, electric shock, explosion, or injury.



**For installation, always contact the dealer or an Authorized Service Center.**

- There is risk of fire, electric shock, explosion, or injury.



**■ Operation**

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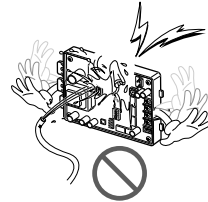
**When the product is soaked (flooded or submerged), contact an Authorized Service Center.**

- There is risk of fire or electric shock.



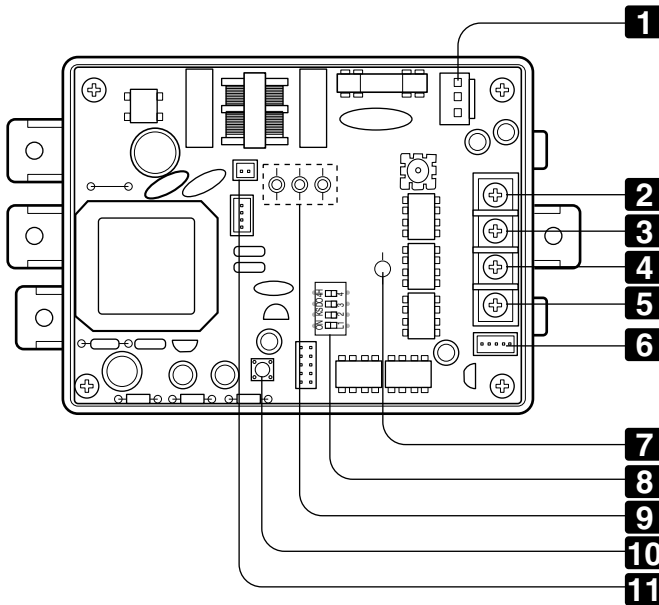
**Be cautious that water could not enter the product.**

- There is risk of fire, electric shock, or product damage.



# Part Description

## PMNFP14A0 / PMNFP14A1 / PGNFP14A0



\* The location of parts might be different in case of PMNFP14A1.

PMNFP14A0 : For connecting 1 ~ 16 Indoor Units

PMNFP14A1 : For connecting 1 ~ 48 Indoor Units

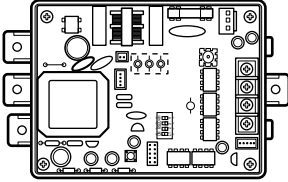
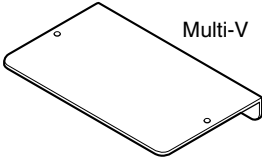
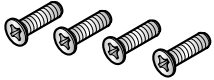
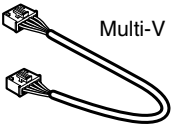
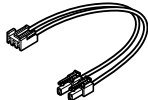
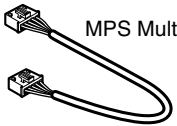
PGNFP14A0 : For connecting only base controller

### PI485 GATEWAY(M)

- 1** CN\_PWR: AC 220V Connector
- 2** +10V: DC 10V Terminal
- 3** GND: Ground
- 4** BUS\_A: \*RS-485 (+) Terminal  
(Refer to note)
- 5** BUS\_B: RS-485 (-) Terminal
- 6** CN\_OUT: Outdoor Unit Connector
- 7** LED1:RS-485 Status LED
- 8** DIP Switch: Product Selection (Refer to the 「DIP Switch Configuration」)
- 9** LED01G, 02G, 03G: Communication Status LED
- 10** Reset Switch: PI485(M) Reset
- 11** CN\_DRY: DRY Contact

\* **Note** : RS-485 is one of the international interface standards for serial communication.

# Accessory Parts

 <p>PI485 : PMNFP14A0(1EA) or PMNFP14A1(1EA) or PGNFP14A0(1EA)</p>	 <p>Multi-V</p> <p>BRACKET (1EA)</p>	 <p>SCREW (4EA)</p>
 <p>Multi-V</p> <p>WIRE ASSY 1(1EA)</p>	 <p>WIRE ASSY 2(1EA)</p>	 <p>MPS Multi</p> <p>WIRE ASSY 3(1EA)</p>

**Others** : Tie Wrap (3 EA) - Cable Tie  
Clamp (1 EA)

# Installation Guide

## Installation Steps

1. **6** Connect CN\_OUT with Outdoor Unit by the cable (provided)
2. **4 5** Connect RS-485 BUS\_A(+) and BUS\_(B)(-) with other network products (ex. Central Controller , I-Gateway.....)
3. **2 3** In case of using Simple Central Controller, connect VCC(+10V) and GND. No need to connect otherwise.
4. **8** Select DIP Switch Configuration(Refer page 8)
5. **1** Connect CN\_PWR with Outdoor PCB Power connector (Refer page 9, 10)
6. After Power is ON, check the Communication LED **9**
  - LED1G(Red)
    - Normal : LED blinks for 5 times and then gets OFF  
This process is repeated after every 3 minutes
    - Error : Check the Indoor Unit's address & wiring connections
  - LED2G(Yellow), LED3G(Orange)
    - Normal : LED blinks continuously
    - Error : Check the DIP Switch setting & wiring connections
7. **7** Check RS-485 Communication Status LED:
  - Normal : LED's blinks 2 times in every 10~30 seconds
  - Error : Check the wiring connections
8. Finally if all of the above steps are OK, then tie the cables by tie wraps & clamp



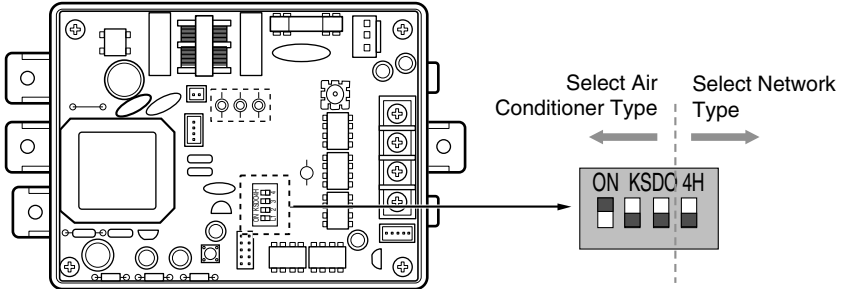
\* Example about Multi V plus



### CAUTION:






Install the PI485 on the Noise Filter in Multi V plus.  
Install the PI485 after checking the hole for screw.

# DIP Switch Configuration



\* LGAP : LG Air conditioner Protocol

## Multi V & Multi(LGAP applied) products Configuration Methods

-  → **1 ON, All others OFF:** Multi V products(Except CRUN products) or Multi(Non-Inverter) Product applied Common PCB(Refer to NOTE) or Multi(Inverter) Product + Central Controller(All types) - Without LGAP
-  → **1 and 4 ON, All others OFF:** Multi V products(Except CRUN products) or Multi(Non-Inverter) Product applied Common PCB or Multi(Inverter) Product + Central Controller(All types) - Using LGAP
-  → **2 ON, All others OFF:** Multi(Non-Inverter) Product + Centroller(All types) - Without LGAP
-  → **2 and 4 ON, All others OFF:** Multi Non-Inverter Product + Central Controller(All Types) - Using LGAP
-  → **1,2,3,4 ON :** Multi V CRUN Product + Central Controller(All types) - Using LGAP

\* Please refer the corresponding Central Controller installation manual if you want to know whether your Central Controller is compatible with LGAP or not.



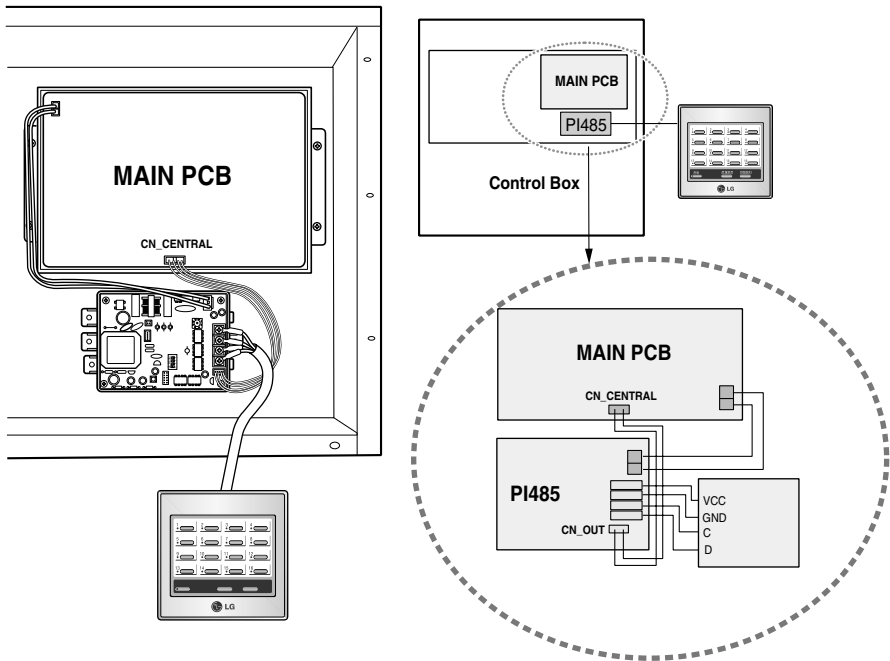
**CAUTION:**

**The wrong setting of air-conditioner switch could cause malfunctioning.  
Switch setting must be done carefully.  
Push the Reset button after changing the Dip switch.**

**NOTE:** Multi(Non-Inverter) Product applied Common PCB  
PCB P/NO. : 6871A20917\*  
P/NO. : 6871A20918\*  
P/NO. : 6871A20910\*



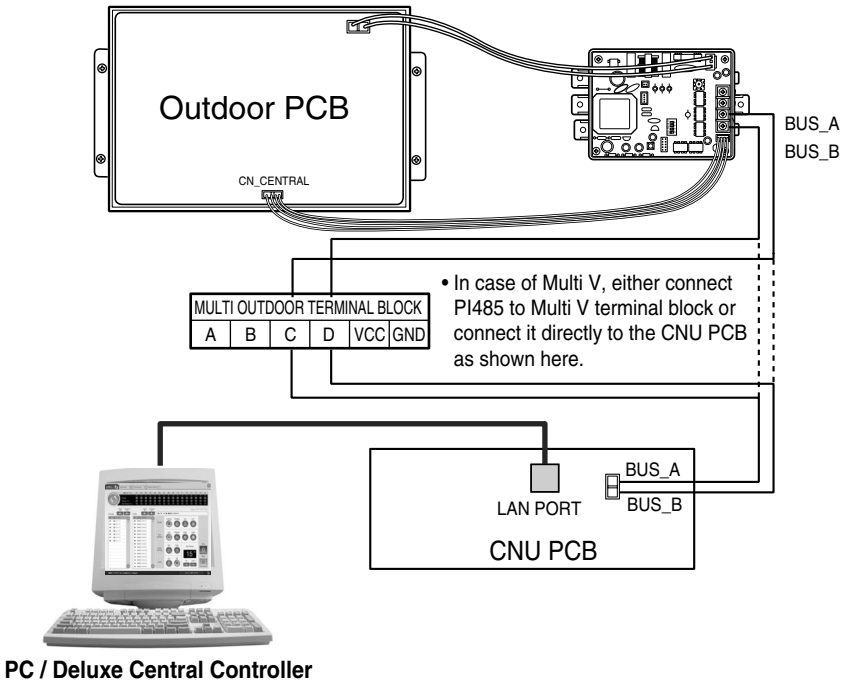
## Simple Central Controller - Connection Diagram



**CAUTION:**

After product installation, tie the cables with Clamps & Tie-Wraps provided. Check the right connection of each BUS A and BUS B.

## PC/ Deluxe Central Controller - Connection Diagram



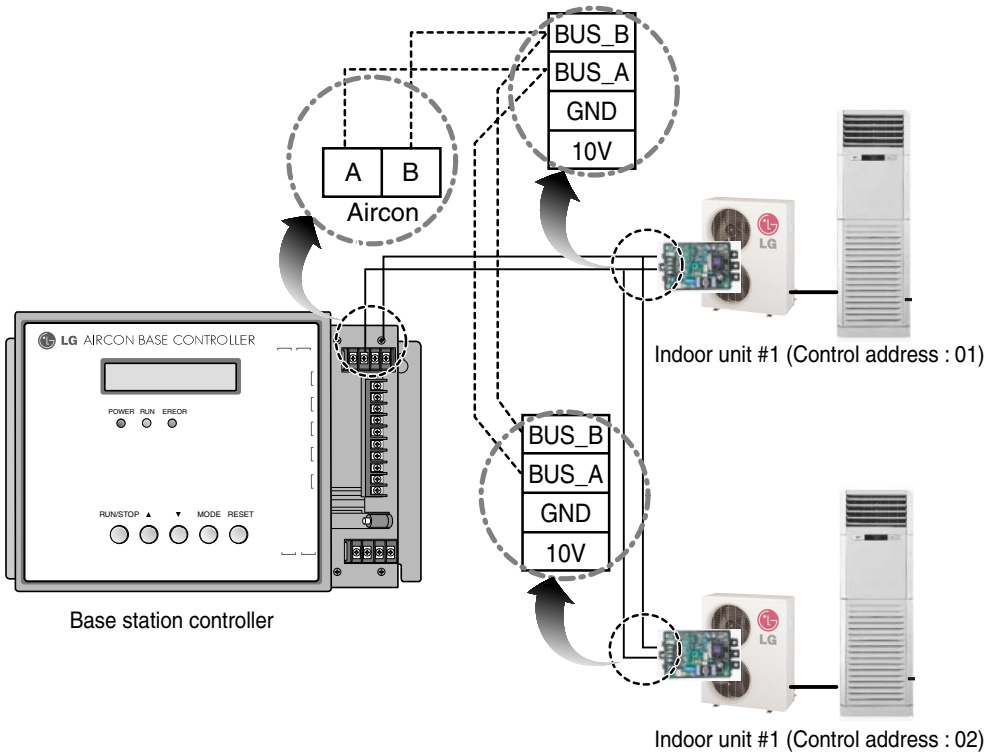
**CAUTION:**

After product installation, tie the cables with Clamps & Tie-Wraps provided. Check the right connection of each BUS A and BUS B.

## How to connect the base station controller

### • PGNFP14A0 (Only)

### Connecting the PI 485 communication line



### [Steps to connect]

\***Note:** See the PI 485 manual for the internal setting.

\***Note:** Because the RS485 communication line connecting to the PI 485 has polarity, check A and B. PI485



