

## INSTALLATION MANUAL

# AIR CONDITIONER

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.

**HVAC Controller(ACP 5)**  
PACP5A000



MFL69981503  
Rev.07\_060524

[www.lghvac.com](http://www.lghvac.com)  
[www.lg.com](http://www.lg.com)

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# SAFETY INSTRUCTIONS

This product must be installed by an installation professional from an LG authorised service center. Any issues stemming from an installation by an unauthorised person is the responsibility of the user and will not be covered by warranty.

The following safety guidelines are intended to prevent unforeseen risks or damage from unsafe or incorrect operation of the appliance.

The guidelines are separated into 'WARNING' and 'CAUTION' as described below.

This product has been designed for commercial purposes. This product has successfully cleared the EMI test.



This symbol is displayed to indicate matters and operations that can cause risk.

Read the part with this symbol carefully and follow the instructions in order to avoid risk.



## WARNING

This indicates that the failure to follow the instructions can cause serious injury or death.



## CAUTION

This indicates that the failure to follow the instructions can cause the minor injury or damage to the product.



## WARNING

### Installation

- To reinstall the product, please contact the dealer from where you purchased the product, or a service center.
  - Installation of the product by an unauthorised person may result in fire, electric shock, explosion, injury, or a malfunctioning of the product.
- Do NOT twist or damage the power cord.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries or product malfunctioning.
- For electrical work, please contact the dealer from where you purchased the product, or a service center.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries or product malfunctioning.
- Install the product in an area shielded from rain.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries or product malfunctioning.
- Do NOT install the product in a humid area.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries or product malfunctioning.
- For installation of the product, please contact the dealer from where you purchased the product, or a service center.
  - Installation of the product by an unauthorised person may result in fire, electric shock, explosion, injury, or a malfunctioning of the product.
- For electrical work, it is advisable for the electrician to refer the installation manual and specified circuit diagram.

- Using an unsuitable cord, or having a non-professional work on the electricals may result in fire or electrical shock.
- Do NOT place the product near a fire source.
  - It may result in combustion.
- If the product is installed in a hospital or a communication base station, shield the product from electrical noise by providing sufficient protective equipment.
  - Protective equipment prevents the product from malfunctioning.
- Securely install the product.
  - If the product is not secured during installation, it may fall or malfunction.
- Read the manual thoroughly to correctly install the product.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries or product malfunctioning.
- When wiring the product, do not use a non-standard cable, nor extend the cable excessively.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries or product malfunctioning.
- Securely install the power cord and communication cable.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries or product malfunctioning.
- Do NOT connect the power cord to the communication terminal.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries or product malfunctioning.
- Do NOT install the product in an area near combustible gases.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries or product malfunctioning.

## Operation

- Do NOT place a heavy object on the power cord.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Do NOT change or extend the power cord arbitrarily.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Use the cord specific to the product.
  - Using an unauthorised non-standard cord may result in a fire or electric shock.
- Do NOT use a heat device near the power cord.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Ensure that water never gets into the product.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Do NOT place any container with liquid on the product.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Do NOT touch the product with wet hands.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Use standard components.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.

- If the product has been submerged in water, you should contact a service center.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Do NOT shock the product.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Do NOT store or use any combustible gas or flammable substances near the product.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Do NOT disassemble, repair, or revamp the product arbitrarily.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Children and the elderly should use the product under the supervision of a guardian.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- The guardian should prevent children from accessing the product.
  - The product can be damaged or it may fall, causing injury to children.
- Note that the operating temperature range of the product is between 0 °C(32 °F) ~ 40 °C(104 °F).
  - If the product is used outside this range, the product may be severely damaged.
- Do NOT depress the switch or button using a sharp object.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Do NOT wire the product while it is turned ON.
  - It may cause a fire or electric shock.
- If the product sounds different or emanates an unpleasant odor, stop using the product.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Do NOT place a heavy object on the product.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Do NOT spray water on the product, or clean it with a water-soaked cloth.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Do NOT use the product for the preservation of animals and plants, precision instruments, art pieces, or for other special purposes.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.
- Dispose the packing material safely.
  - Follow the below precautions properly; else it might result in a fire disaster, risk of incurring electric shock injuries, product malfunctioning or damage to property.



## CAUTION

### Installation

- Securely install the product in an area where the weight of the product can be supported.
  - The product may fall and be destroyed.
- Do NOT use the product where there is oil, steam, or sulfuric gas.
  - It may affect the product's performance, or damage it.
- Check the rated power capacity.
  - It may cause a fire, or a product malfunction.

- Use the adapter provided with the product or power from a class 2 24 V~ transformer, depending on the product model.
  - If a non-standard adapter is used, the product may malfunction. The adaptor is not provided with the ACP 5 package sold in the U.S.
- Be careful not to drop or damage the product when moving it.
  - The product may malfunction or the person may sustain an injury.
- Ensure that the cord is connected securely to protect the product from dew, water, or insects.
  - If a foreign substance gets inside, it may cause an electric shock or the product may malfunction.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Installation work must be performed in accordance with the national wiring standards by authorized personnel only.
- This equipment shall be provided with a supply conductor complying with the national regulation.
- The appliance is only to be used with the power supply unit provided with the appliance.
- The appliance must only be supplied at safety extra low voltage corresponding to the marking on the appliance.
- Do not install the unit in potentially explosive atmospheres.

## Operation

- Do NOT clean the product with solvent based detergents; instead use cloth.
  - The use of a solvent-based detergent may cause a fire or deform the product.
- Do NOT touch the panel using a pointed or sharp object.
  - It can result in an electric shock, or the product may malfunction.
- Do NOT expose the product to a metal substance.
  - The product may malfunction.
- When sterilizing or disinfecting, stop using the product.
  - The product may work abnormally.
- Do NOT touch internal components of the product.
  - The product may malfunction.
- Check whether the product is in a proper condition after using the product for an extended period of time.
  - Deteriorating condition of the product, may cause injury to the user.
- Do NOT leave the product near a flower base, water bottle, or any other liquids.
  - It may cause a fire or electric shock.
- If the liquid crystal of the product is broken, please do NOT allow the product to come in contact with your skin (hands, face).
  - This may result in personal injury or property damage.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- The appliance shall be disconnected from its power source during service and when replacing parts.
- Battery must be recycled or disposed of properly.

**Class A device****NOTE**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**⚠ CAUTION**

Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

**• Selection of Transformer.**

- Select an insulating product that complies with IEC61558-2-6 and NEC Class 2.
- In addition, consider the combined power consumption of the modules, accessories, and field devices installed for the selection of an appropriate transformer.

Main module current : 24 V~, 850 mA.

- 40 VA transformer is recommended.

- Use the provided adaptor when using 12 V ---. The adaptor is not provided with the ACP 5 package sold in the U.S.

**AN ARBITRATION PROVISION**

By using this product, you agree that all disputes between you and LG arising out of or relating in any way to this product (including but not limited to warranty disputes) shall be resolved exclusively through binding arbitration on an individual basis.

The terms of the arbitration agreement (including details on the procedure for resolving disputes) is available at [www.lg.com/us/arbitration](http://www.lg.com/us/arbitration) (USA) or [www.lg.com/ca\\_en/arbitration](http://www.lg.com/ca_en/arbitration) (Canada) and/or your owner's manual or warranty.

# ACP 5 FUNCTIONS AND SPECIFICATION

ACP 5 is the central controller that can manage up to 256 equipments in one space individually or as combined. ACP 5 can monitor or control the equipments installed in each room of the building from the places such as the management office of a building or the administration office of a school.

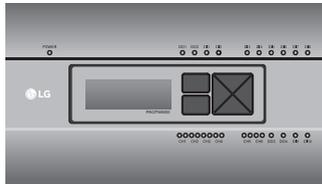
## ACP 5 Functions

Major functions of the ACP 5 are as follows.

- Controlling of up to 256 air conditioner indoor units.
- Monitoring of error and operation status
- Controlling the peak power / demand power
- System setting function
- Up to 16 AHU can be interlocked

## ACP 5 Components

Inside the packaged box of the ACP 5, there are the components as in the following drawing. Open the packaged box of the ACP 5, and check if all of the corresponding components are included.



ACP 5



Manual



Screw



SD Card 8 GB



## CAUTION

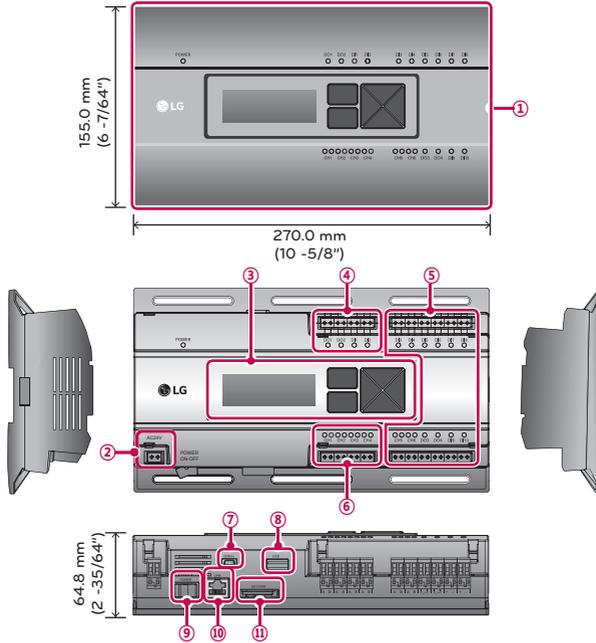
SD Card provided by LG is for the data backup and recovery when specialized service technician supports the service, so be careful not to lose it by using it for other purposes.

## NOTE

Components or options may differ from the actual product picture.

## Names of each part of ACP 5

ACP 5 is composed as follows.



Number	Item	Description
①	Cover	Front cover of the ACP 5
②	Power port	24 V~ port for power connection
③	Buttons and LCD	Buttons and LCD to set network environment and to display other information
④	Basic external input/ output signal connectors	Connection ports to connect to external input/output signals (DI:2, DO:2)
⑤	Optional input/output and RS-485 communication port	Connection port to connect to external input/output signals and RS-485 communication port for external expansion. (8 DI's, 2 DO's, 2 RS-485 communication ports)
⑥	RS-485 communication port	RS-485 communication ports to connect to air conditioner and ERV equipment (4 in total)
⑦	Mini USB port	USB to Serial port for software debugging
⑧	USB port	For SW update, data backup and Lonworks Commission with U60FT module
⑨	Power switch	Switch to turn on or off the power of the ACP 5
⑩	Ethernet port	Ethernet port to connect to internet and AC Manager 5
⑪	SD card slot	For RS-485 communication data backup.

## ACP 5 Hardware specification

ACP 5 hardware specification is as follows.

No	Category	Description
①	Operating temperature	0 °C(32 °F) ~ 40 °C(104 °F)
②	Rated voltage	24 V~
③	Rated current	Max 1 A
④	Communication port	<ul style="list-style-type: none"> <li>• Ethernet 10 / 100 BASE-T</li> <li>• USB : USB Host (SW update, data backup, Lonworks Commission with U60FT module)</li> <li>• Mini USB Device (Debug)</li> <li>• RS-485 communication ports 6 EA</li> <li>• SD card slot (RS-485 communication logging)</li> </ul>
⑤	External input/output ports	DI 10 EA, DO 4 EA
⑥	LED	27 EA (power status, communication status)
⑦	LCD	20 × 4 Character-LCD (network environment setting and information display)

# INSTALLING ACP 5

## Installing ACP 5

This chapter describes how to install the ACP 5 to use.

In order to use the ACP 5, the installation should be performed by the following order.

### STEP 1. Check the cautions during the ACP 5 installation

Before installing the ACP 5, check the cautions.

### STEP 2. Study the cable connections diagram of the entire system.

Study the cable connection diagram of the site where the ACP 5 is installed.

### STEP 3. Set all device unit address

Set the address of the ACP 5 not to be overlapped with the connecting device unit.

### STEP 4. Set PI485 and connect cables

Set DIP switch of PI485 correctly, and connect RS-485 communication cable.

### STEP 5. Install ACP 5 and connect cables

Install the ACP 5, and set network and other settings.

### STEP 6. Set ACP 5 network address

Set the network address to be able to access the ACP 5 through internet.

### STEP 7. Set ACP 5 functions

Set language, peak/demand, etc.

### STEP 8. Set web GUI access environment

Set the access environment in web GUI, which is the operation program of the ACP 5.

### STEP 9. Input all device information

Set the access environment in web GUI, which is the operation program of the ACP 5.

### STEP 10. Verify and check ACP 5 installation

Verify and check whether the ACP 5 is properly installed.



## CAUTION

- The ACP 5 installation work needs the professional technique. Therefore, the installation described in this chapter should be performed by the certified installation professional.
- Consult the service center or the professional installation agency certified by us about any question or request related to the installation.

## Check points during the ACP 5 installation

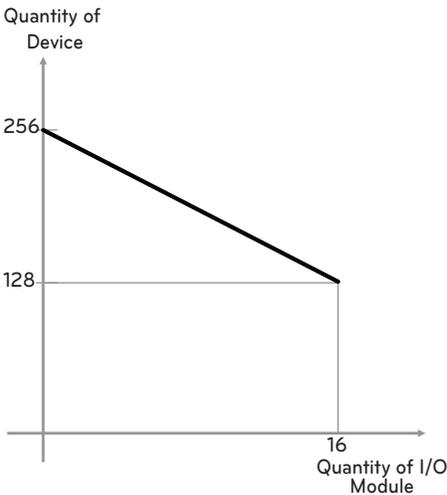
- The number of PI485 connected to one RS-485 communication line ACP 5 provides 4 RS-485 ports for indoor unit connection. (CH1 ~ CH4) Up to 16 PI485 for outdoor unit can be connected to one RS-485 port, and up to 31 PI485 for SINGLE/ERV can be connected. For optimal communication performance, it is recommended to connect up to 64 units to one RS-485 port. Communication speed delay may occur if connecting more than 128 units.
- The number of the indoor units that can be connected to one ACP 5. One ACP 5 can be connected up to 256 indoor units. With ACS I/O interlocking, you can connect 128 indoor units and 16 I/O modules. And with chiller interlocking, you can connect 128 indoor units and 10 chiller units. To improve the communication performance of RS-485, it should be divided and connected to 4 ports. The maximum quantity of connected indoor unit is different depending on the quantity of connected I/O modules. Please refer to following information related to product connection quantity.

- RS-485 communication cable connection  
There is a polarity in RS-485 communication cable connection, so be careful not to reverse the connection of the two cables. Do not let the length of RS-485 communication cable exceed total of 1 km(3280').  
RS-485 communication cable must be connected with BUS type.  
For the RS-485 communication line, shield cable with a core area of 1.0 ~ 1.5 mm<sup>2</sup> (AWG17, AWG16) must be used.
- IP address of the ACP 5  
IP address of the ACP 5, address of Gateway, and Net mask must be requested to the person in charge of the network of the corresponding site.

### CAUTION

#### RS-485 Connection of the ERV equipment

To connect ERV equipment, it is recommended to use the ports other than RS-485 communication ports which are connected to air conditioners.



Quantity of I/O Module	Quantity of Device
0	256
1	248
2	240
3	232
4	224
5	216
6	208
7	200
8	192
9	184
10	176
11	168
12	160
13	152
14	144
15	136
16	128

\* Devices: Indoor units, ERV, DI/DOs, DOKITs, Heatings, AHUs

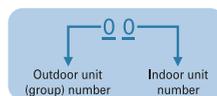
## Setting the indoor unit address

By considering the entire installation configuration connecting to one ACP 5, set the address to each indoor unit not to be overlapped. 00~FF in hexadecimal can be set to the indoor unit address. However, in case of I/O module, address 00 should not be set because address 00 is used as Broadcast in MODBUS communication.

### NOTE

#### Assigning indoor and outdoor unit number

If the outdoor unit product is Multi V, it is recommended to assign the address by setting the first digit of the address as the number of the outdoor unit, and classifying the second digit as the number of the indoor unit, for easy composition and classification of the system.

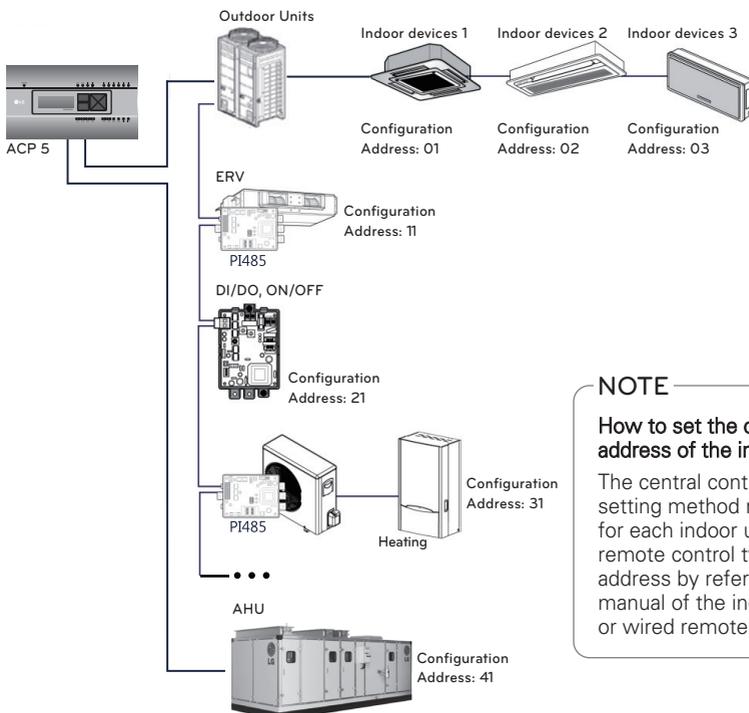


### NOTE

#### Precautions for setting the central control address when controlling the indoor unit group

In order to control all indoor units with the central controller and use the TMS function, both the master and slave indoor units need to set the central control address. Slave indoor units must set the central control address in the master state before setting them as slaves.

Here is an example of configuring ACP 5 and the device.



### NOTE

#### How to set the central control address of the indoor unit

The central control address setting method may be different for each indoor unit product or remote control type, so set the address by referring to the manual of the indoor unit product or wired remote controller.

When the ACP 5 is interconnected with the AC Manager 5, the ERV can be installed together and controlled. The above figure shows the example that sets the address of 11 to the ERV and connects to the ACP 5.

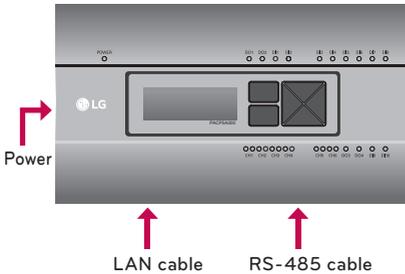
## Installing ACP 5 and connecting cables

After setting PI485, the ACP 5 shall be installed in an adequate place, and RS-485 cable shall be connected for the communication with PI485.

And, Ethernet cable (LAN cable) shall be connected for the connection with internet or AC Manager 5.

To fix the ACP 5, the following 2 methods may be used.

Install in DIN RAIL or fix to the wall considering the environment of the site.



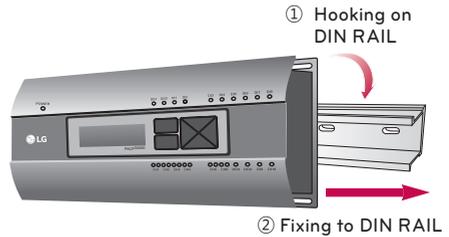
## Installing the ACP 5 in DIN RAIL

ACP 5 can be installed in DIN RAIL with width 35 mm(1 -3/8") and height 7.5 mm(19/64").

Proceed as the follows to install the ACP 5 in an adequate place.

The installation method of the ACP 5 is explained here with the example of installing the ACP 5 in DIN RAIL.

- Decide the space to install the ACP 5.
- Before installing the ACP 5, check if it is the adequate place to connect the ACP 5 with the power, RS-485, and LAN cable.
- Install DIN RAIL.
- Hook the top part of the ACP 5 on DIN RAIL.
- Push the main body of the ACP 5 until you hear the sound of installation.
- Pull the ACP 5 to check if it is fixed.



### CAUTION

Use the designated parts when connected to a power source.

- Connector manufacturers: PHOENIX CONTACT
- PartNo: MVSTBR 2.5 / 2-ST-5.08 2P 5.00 mm(3/16")



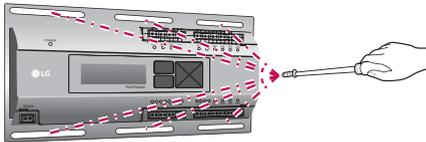
### CAUTION

- After installing to DIN RAIL, do not fix to the wall using screws.
- ACP 5 may be damaged.
- DIN Rail fixing Screw Spec: M3, screw head height 1.75 mm(1/16") ~ 2.0 mm(3/32"), screw head diameter 5.5 mm(7/32") ~ 7.0 mm(9/32").

## Fixing the ACP 5 to the wall

ACP 5 can be installed by fixing to the wall. To install the ACP 5 in an adequate place, proceed according to the following explanation. It explains here on how to install the ACP 5 with the example of installing the ACP 5 on the wall.

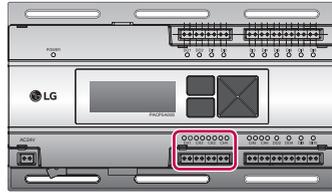
- Decide the space to install the ACP 5. Before installing the ACP 5, check if it is the adequate place to connect the ACP 5 with the power, RS-485, and LAN cable.
- Fix to the wall using the driver. It can be fixed as in the following figure according to the location to install



## Connecting RS-485 cable to the ACP 5

After fixing the ACP 5 in the installation place, RS-485 cable that was connected to PI485 shall be connected to the ACP 5. To connect RS-485 cable to the ACP 5, proceed as the following order.

- First, among the connectors that can be connected to the ACP 5, connect the end of RS-485 cable connected to BUS A of PI485 to Tx part. Next, connect the end of RS-485 cable connected to BUS B of PI485 to Rx part.
- RS-485 cable that was connected to PI485 shall be connected to CH port (RS-485 port) of the ACP 5.
  - Plug the connector connecting RS-485 cable into one of CH1 ~ CH4 ports.
  - There are CH1 ~ CH6 ports, and it must be plugged into one of CH1 ~ CH4 ports for use.
  - For AHU, plug the connector connecting RS-485 cable into CH5 ports.
  - For chiller, plug the connector connecting RS-485 cable into CH6 ports.



## CAUTION

If a different type of connection is made other than BUS format as in the figure, the product may malfunction. So be careful during the installation. ACP 5 shall be installed in accordance with national wiring regulations.

## Connecting Ethernet cable (LAN cable) to the ACP 5

After connecting the ACP 5 and RS-485 cable, Ethernet cable shall be connected to the ACP 5.

ACP 5 may be connected to hub through Ethernet cable, or directly to AC Manager 5.

## Connecting the ACP 5 and hub

It is the case of connecting the ACP 5 to the basic internet network installed at the site, and it is generally connected to the hub.

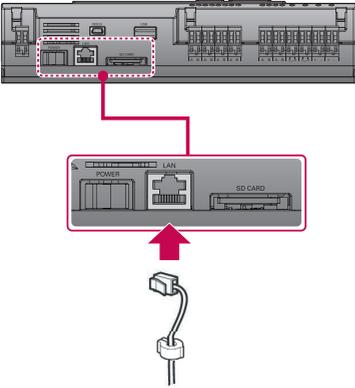
In such case, Ethernet cable shall be connected as a direct cable.

Use Ethernet cable (direct cable) to connect to LAN port of the ACP 5.

### Connecting ACP 5 and PC

It is the case of connecting ACP 5 and PC directly. In such case, Ethernet cable shall be connected as a cross cable.

Use Ethernet cable to connect to LAN port of the ACP 5.



### Setting the ACP 5 network address

After connecting the ACP 5 to various devices via the cable, the network environment of the ACP 5 should be set by driving the ACP 5. The following information should be set for using the ACP 5.

- IP address of the ACP 5
- Gateway address
- Net mask

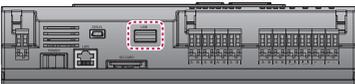
#### ! CAUTION

##### Setting the network environment information

If the above information is not entered, the communication error may be occurred or it may be impossible to control by the ACP 5. So, be careful to correctly input.

### Connecting ACP 5 and Lonworks module

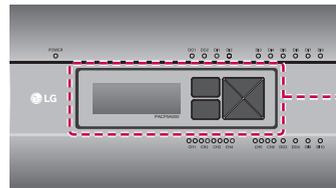
U60FT module shall be connected to USB port of the ACP 5.



### Before configuring the ACP 5 environment

The network environment of the ACP 5 can be set by the LCD and the buttons at the front side of the ACP 5.

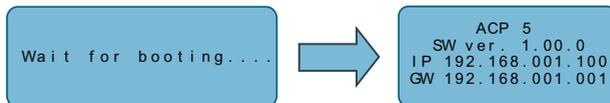
The current ACP 5 information and the menu are displayed on the LCD, and the menu can be changed and selected by pressing **SET** and **ENTER** button and Up/Down/Left/Right (**▲**, **▼**, **◀**, **▶**) buttons.



## Turning on the ACP 5

Turn on the ACP 5 to set the network environment of the ACP 5.

When the power switch is turned on, the ACP 5 booting screen is displayed on the LCD as shown at the following figure, and when booting is completed, the initial ACP 5 screen is displayed.

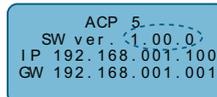


### NOTE

#### Software version

The software version of the current ACP 5 is displayed at the initial ACP 5 screen.

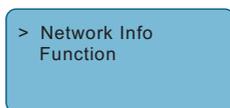
Also, the software version may be different according to the manufacturing date of the ACP 5.



## Entering into the environment setup mode

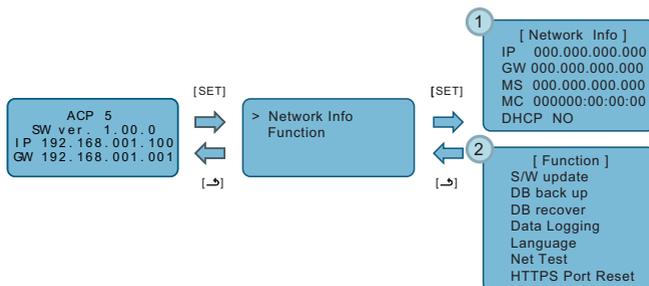
Press [SET] button of the ACP 5 to enter into the environment setup mode of the ACP 5.

When the [SET] button is pressed for the first time, the menu to set the IP address is displayed as shown below.



Press up/down(▲, ▼) button to place the arrow on the desired function.

- When you select [Network Info] and press [SET] button, it enters the No. 1 menu in the following figure. In [Network Info] menu, input the network information such as IP address of the ACP 5.
- When you select [Function] and press [SET] button, it enters the No. 2 menu in the following figure. In [Function] menu, ACP 5 software service function is supported.



### CAUTION

- [Function] menu is used by the system air conditioner service technician, so user shall never use this function.
- If this function is incorrectly used, it may cause disorder of the ACP 5.

# INITIAL SETUP

It describes about how to access the system before completely using the ACP 5.

## Login and logout

The following explains how to log in and out of ACP 5.

ACP 5, can be controlled either by the equipment or the web. If you enter the IP address of the ACP 5 in the address bar of the command window of web browser (Run>cmd>ipconfig) without the installation of another program, the central control program ACP 5 Web server is executed automatically.

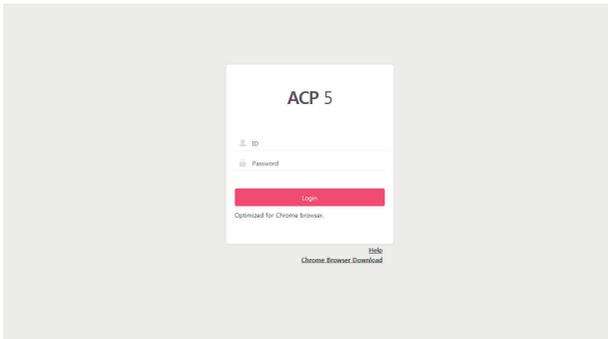
### NOTE

- Special characters (^), (!), (!), (,), (l), (N) cannot be used.
- Default IP address - 192.168.1.101

## Login

You can login as follows.

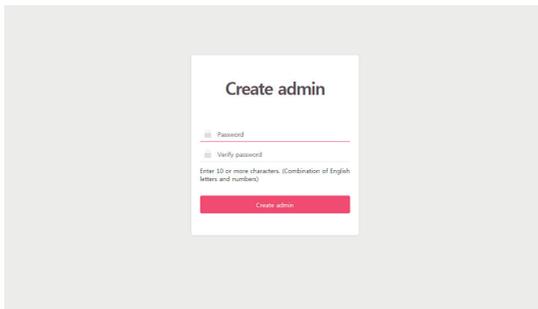
- 1 Run ACP 5.
- 2 Input ID and password in log-in window and touch [Login] button.



## Log-in (for first time access)

In case of initially accessing, set password for the manager account (ID : admin).

- 1 Run ACP 5.
- 2 Input password of manager account to use in the account creation window and touch [Create admin] button.



**CAUTION**

- Do NOT disclose account related info to unauthorised personnel.
- In case you have forgotten your password, contact the installer.

**NOTE**

- To maintain confidentiality, change the password once in every 90 days (as prompted by the pop-up window).

**Logout**

You can logout as follows.

- 1 In ACP 5 menu, choose the sub-menu 'Account'.
- 2 From the list of options as displayed by the 'Account' sub-menu press 'Log Out'.

**User manual**

You can view the user manual as follows.

- 1 In ACP 5 log-in screen, input ID and password and touch [Log in] button.
- 2 Press 'Help' at the top right side of ACP 5 screen.
  - The user manual is displayed.

**Lonworks setting**

1. In ACP 5 menu, click 'Setting' > 'BACnet/Modbus/Lonworks Setting' menu.
2. After setting 'Lonworks enable' and 'Temperature Unit Setting', click [Apply] button. 'SVC pin Setting' will be activated.
3. If 'press SVC Pin' request is shown on BMS Engineering tool, press [Connect] button activated when BMS communication is normal.

Lonworks enable  Set  Clear

Temperature Unit Setting  °C  °F

SVC pin Setting

When the communication with the BMS is confirmed, the [Connect] button will be activated.

# HINT

## Pre-Tech Support Checklist

If the abnormality occurs in products, please first check the following points before requesting to service center.

Symptom	Measures
Because there is no icon on the desktop, it is impossible to control.	Please refer to the connection guide.
Although running on the desktop icon, Web GUI does not run.	Please check LAN cable and the power supply of Hub.
Indoor remote control does not work.	ACP 5 in the lock feature is enabled, the remote control function is not set. Peak control state must function setting from the remote control at the indoor unit. If the function is active, set the time schedule may be disabled.
I would like to change the name of the indoor unit.	Log in as superuser → System Settings → After select the device you want to change, modify the name of or the device → Apply → Complete group settings

## ⚠ WARNING

- **INGESTION HAZARD:** This product contains a button cell or coin battery.  
\* The icon 1) means the above warning text.
- **DEATH** or serious injury can occur if ingested. A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH OF CHILDREN**.
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.



### The product contains non-replaceable batteries.

- a) Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- b) Even used batteries may cause severe injury or death.
- c) Call a local poison control center for treatment information.
- d) Compatible battery type is ML2032.
- e) Nominal battery voltage is 3.3 V.
- f) Non-rechargeable batteries are not to be recharged.
- g) Do not force discharge, recharge, disassemble, heat above 104 °F or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.

## LIMITED WARRANTY (USA)

The product's full Limited Warranty terms and conditions and arbitration requirements are available at <https://www.lghvac.com>

## WARRANTY (CANADA)

ARBITRATION NOTICE: THIS LIMITED WARRANTY CONTAINS AN ARBITRATION PROVISION THAT REQUIRES YOU AND LG TO RESOLVE DISPUTES BY BINDING ARBITRATION INSTEAD OF IN COURT, UNLESS THE LAWS OF YOUR PROVINCE OR TERRITORY DO NOT PERMIT THAT, OR, IN OTHER JURISDICTIONS, IF YOU CHOOSE TO OPT OUT. IN ARBITRATION, CLASS ACTIONS AND JURY TRIALS ARE NOT PERMITTED. PLEASE SEE THE SECTION TITLED "PROCEDURE FOR RESOLVING DISPUTES" BELOW.

### PROCEDURE FOR RESOLVING DISPUTES(FOR CANADIAN PRODUCTS):

EXCEPT WHERE PROHIBITED AT LAW, ALL DISPUTES BETWEEN YOU AND LG ARISING OUT OF OR RELATING IN ANY WAY TO THIS LIMITED WARRANTY OR THE PRODUCT SHALL BE RESOLVED EXCLUSIVELY THROUGH BINDING ARBITRATION, AND NOT IN A COURT OF GENERAL JURISDICTION. EXCEPT WHERE PROHIBITED AT LAW, YOU AND LG BOTH IRREVOCABLY AGREE TO WAIVE THE RIGHT TO A JURY TRIAL AND TO BRING OR PARTICIPATE IN A CLASS ACTION.

**Definitions.** For the purposes of this section, references to "LG" mean LG Electronics Canada, Inc., its parents, subsidiaries and affiliates, and each of their officers, directors, employees, agents, beneficiaries, predecessors in interest, successors, assigns and suppliers; references to "dispute" or "claim" shall include any dispute, claim or controversy of any kind whatsoever (whether based in contract, tort, statute, regulation, ordinance, fraud, misrepresentation or any other legal or equitable theory) arising out of or relating in any way to the sale, condition or performance of the product or this Limited Warranty.

**Notice of Dispute.** In the event you intend to commence an arbitration proceeding, you must first notify LG in writing at least 30 days in advance of initiating the arbitration by sending a letter to LGECI Legal Team at 20 Norelco Drive, North York, Ontario, Canada M9L 2X6 (the "Notice of Dispute"). You and LG agree to engage in good faith discussions in an attempt to amicably resolve your claim. The notice must provide your name, address, and telephone number; identify the product that is the subject of the claim; and describe the nature of the claim and the relief being sought. If you and LG are unable to resolve the dispute within 30 days of LG's receipt of the Notice of Dispute, the dispute shall be resolved by binding arbitration in accordance with the procedure set out herein. You and LG both agree that, during the arbitration proceeding, the terms (including any amount) of any settlement offer made by either you or LG will not be disclosed to the arbitrator until the arbitrator determines the dispute.

**Agreement to Binding Arbitration and Class Action Waiver.** Upon failure to resolve the dispute during the 30 day period after LG's receipt of the Notice of Dispute, you and LG agree to resolve any claims between you and LG only by binding arbitration on an individual basis, unless you opt out as provided below, or you reside in a jurisdiction that prevents full application of this clause in the circumstances of the claims at issue (in which case if you are a consumer, this clause will only apply if you expressly agree to the arbitration). To the extent permitted by applicable law, any dispute between you and LG shall not be combined or consolidated with a dispute involving any other person's or entity's product or claim. More specifically, without limitation of the foregoing, except to the extent such a prohibition is not permitted at law, any dispute between you and LG shall not under any circumstances proceed as part of a class or representative action. Instead of arbitration, either party may bring an individual action in small claims court, but that small claims court action may not be brought on a class or representative basis except to the extent this prohibition is not permitted at law in your province or territory of jurisdiction as it relates to the claims at issue between you and LG.

**Arbitration Rules and Procedures.** To begin arbitration of a claim, either you or LG must make a written demand for arbitration. The arbitration will be private and confidential, and conducted on a simplified and expedited basis before a single arbitrator chosen by the parties under the provincial or territorial commercial arbitration law and rules of the province or territory of your residence. You must also send a copy of your written demand to LG at LG Electronics, Canada, Inc., Attn: Legal Department- Arbitration, 20 Norelco Drive, North York, Ontario M9L 2X6. This arbitration provision is governed by your applicable provincial or territorial commercial arbitration legislation. Judgment may be entered on the arbitrator's award in any court of competent jurisdiction. All issues are for the arbitrator to decide, except that, issues relating to the scope and enforceability of the arbitration provision and to the arbitrability of the dispute are for the court to decide. The arbitrator is bound by the terms of this provision.

**Governing Law.** The law of the province or territory of your purchase shall govern this Limited Warranty and any disputes between you and LG except to the extent that such law is preempted by or inconsistent with applicable federal or provincial/territorial law. Should arbitration not be permitted for any claim, action, dispute or controversy between you and LG, you and LG atorn to the exclusive jurisdiction of the courts of the province or territory of your purchase for the resolution of the claim, action, dispute or controversy between you and LG.

**Fees/Costs.** You do not need to pay any fee to begin an arbitration. Upon receipt of your written demand for arbitration, LG will promptly pay all arbitration filing fees unless you seek more than \$25,000 in damages, in which case the payment of these fees will be governed by the applicable arbitration rules. Except as otherwise provided for herein, LG will pay all filing, administration and arbitrator fees for any arbitration initiated in accordance with the applicable arbitration rules and this arbitration provision. If you prevail in the arbitration, LG will pay your attorneys' fees and expenses as long as they are reasonable, by considering factors including, but not limited to, the purchase amount and claim amount. Notwithstanding the foregoing, if applicable law allows for an award of reasonable attorneys' fees and expenses, an arbitrator can award them to the same extent that a court would. If the arbitrator finds either the substance of your claim or the relief sought in the demand is frivolous or brought for an improper purpose (as measured by the applicable laws), then the payment of all arbitration fees will be governed by the applicable arbitration rules. In such a situation, you agree to reimburse LG for all monies previously disbursed by it that are otherwise your obligation to pay under the applicable arbitration rules. Except as otherwise provided for, LG waives any rights it may have to seek attorneys' fees and expenses from you if LG prevails in the arbitration.

**Hearings and Location.** If your claim is for \$25,000 or less, you may choose to have the arbitration conducted solely (1) on the basis of documents submitted to the arbitrator, (2) through a telephonic hearing, or (3) by an in-person hearing as established by the applicable arbitration rules. If your claim exceeds \$25,000, the right to a hearing will be determined by the applicable arbitration rules. Any in-person arbitration hearings will be held at the nearest, most mutually-convenient arbitration location available within the province or territory in which you reside unless you and LG both agree to another location or agree to a telephonic arbitration.

**Severability and Waiver.** If any portion of this Limited Warranty (including these arbitration procedures) is unenforceable, the remaining provisions will continue in full force and effect to the maximum extent permitted by applicable law. Should LG fail to enforce strict performance of any provision of this Limited Warranty (including these arbitration procedures), it does not mean that LG intends to waive or has waived any provision or part of this Limited Warranty.

**Opt Out.** You may opt out of this dispute resolution procedure. If you opt out, neither you nor LG can require the other to participate in an arbitration proceeding. To opt out, you must send notice to LG no later than 30 calendar days from the date of the first consumer purchaser's purchase of the product by either (i) sending an e-mail to [optout@lge.com](mailto:optout@lge.com), with the subject line: "Arbitration Opt Out;" or (ii) calling 1-800-980-2973. You must include in the opt out e-mail or provide by telephone: (a) your name and address; (b) the date on which the product was purchased; (c) the product model name or model number; and (d) the serial number (the serial number can be found (i) on the product; or (ii) online by accessing [https://www.lg.com/ca\\_en/support/repair-service/schedule-repair](https://www.lg.com/ca_en/support/repair-service/schedule-repair) and clicking on "Find My Model & Serial Number").

In the event that you "Opt Out", the law of the province or territory of your residence shall govern this Limited Warranty and any disputes between you and LG except to the extent that such law is preempted by or inconsistent with applicable federal or provincial/territorial law. Should arbitration not be permitted for any claim, action, dispute or controversy between you and LG, you and LG agree to atorn to the exclusive jurisdiction of the courts of the province or territory of your residence for the resolution of the claim, action, dispute or controversy between you and LG.

You may only opt out of the dispute resolution procedure in the manner described above (that is, by e-mail or telephone); no other form of notice will be effective to opt out of this dispute resolution procedure. Opting out of this dispute resolution procedure will not affect the coverage of the Limited Warranty in any way, and you will continue to enjoy the full benefits of the Limited Warranty. If you keep this product and do not opt out, then you accept all terms and conditions of the arbitration provision described above.

**Conflict of Terms.** In the event of a conflict or inconsistency between the terms of this Limited Warranty and the End User License Agreement ("EULA") in regards to dispute resolution, the terms of this Limited Warranty