

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.

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PI485 Gateway(C, R)

Original instruction



MFL70585305
Rev.02_110521



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Important Safety Instructions

READ ALL INSTRUCTIONS BEFORE USING THE APPLIANCE.

Always comply with the following precautions to avoid dangerous situations and ensure peak performance of your product.

WARNING

It can result in serious injury or death when the directions are ignored.

CAUTION

It can result in minor injury or product damage when the directions are ignored.

WARNING

- Installation or repairs made by unqualified persons can result in hazards to you and others.
- Installation work must be performed in accordance with the National Electric Code by qualified and authorized personnel only.
- The information contained in the manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.
- Failure to carefully read and follow all instructions in this manual can result in equipment malfunction, property damage, personal injury and/or death.

Installation

- Be sure to request to the service center or installation specialty store when installing products. It will cause fire or electric shock or explosion or injury.
- Request to the service center or installation specialty store when reinstalling the installed product. It will cause fire or electric shock or explosion or injury.

- Do not disassemble, fix, and modify products randomly. It will cause fire or electric shock.
- Be sure to turn off power before installation. It will cause electric shock.
- Installation work must be performed in accordance with the national wiring standards by authorized personnel only.
- Always perform grounding. Otherwise, it may cause electrical shock.
- You need to use a safely insulated power supply which follows IEC61558-2-6 and NEC Class2. If you do not follow, It may cause fire, electric shock, explosion or injury.
- Securely attach the electrical part cover to Module. If the electric part cover of Module is not attached securely, it could result in a fire or electric shock due to dust, water, etc.
- Make the connections securely so that the outside force of the cable may not be applied to the terminals. Inadequate connection and fastening may generate heat and cause a fire.

In-use

- Do not place flammable stuffs close to the product. It will cause fire.
- Do not allow water to run into the product. It will cause electric shock or breakdown.
- Do not give the shock to the product. It will cause breakdown when giving the shock to the product.
- Request to the service center or installation specialty store when the product becomes wet. It will cause fire or electric shock.
- Do not give the shock using sharp and pointed objects. It will cause breakdown by damaging parts.

- Do not touch the board when the power is connected. It can cause a fire, electric shock, explosion, injury and problem to the product.
- Unplug the unit if strange sounds, smell, or smoke comes from it. Otherwise, it may cause electrical shock or a fire.
- The appliance must only be supplied at safety extra low voltage corresponding to the marking on the appliance.
- This appliance is not intended to be accessible to the general public.

⚠ CAUTION

In-use

- Do not clean using the powerful detergent like solvent but use soft cloths. It will cause fire or product deformation.
- Do not press the screen using powerful pressure or select two buttons. It will cause product breakdown or malfunction.
- Do not touch or pull the lead wire with wet hands. It will cause product breakdown or electric shock.
- 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.
- 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.

Installation


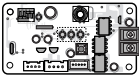


- If anyone other than a licensed professional installs, repairs, or alters LG Electronics air conditioning products, the warranty is voided.
 - All costs associated with repair are then the full responsibility of the owner.
- Do not install the unit in potentially explosive atmospheres.

Minimum cross-sectional area of conductors

Rated current of appliance A	Nominal cross-sectional area mm ²
≤0.2	Tinsel cord *
>0.2 and ≤3	0.5 *
>3 and ≤6	0.75
>6 and ≤10	1.0 (0.75) ^b
>10 and ≤16	1.5 (1.0) ^b
>16 and ≤25	2.5
>25 and ≤32	4
>32 and ≤40	6
>40 and ≤63	10

Accessory Parts

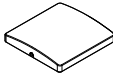

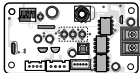


• PHNFP14A0(PI485 GATEWAY(C))

Holder for DUCT	PCB
	
Cable 1 EA (For Connecting with indoor unit)	Cable(for Others)
	

* Others :

Tie Wrap 3 EA - Cable Tie
Clamp 1 EA, Supporter 4 EA
Screw 4 EA (For installation)
Manual

• PSNFP14A0(PI485 GATEWAY(R))

Front Case	Rear Case	PCB
		
Cable 1 EA (For Connecting with indoor unit)	Cable(for Others)	
		

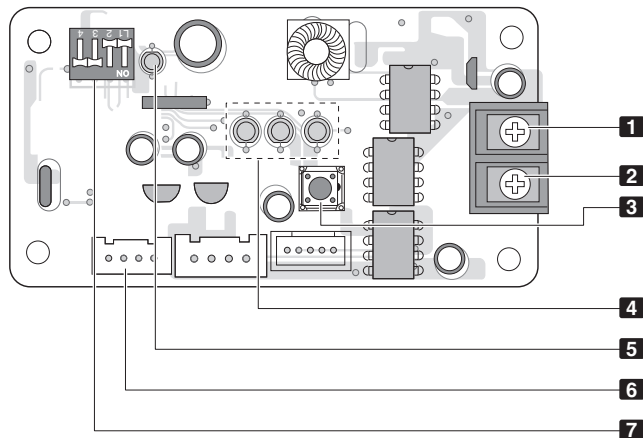
* Others :

Tie Wrap 3 EA - Cable Tie
Clamp 1 EA
Screw 6 EA (For installation)
Manual

* PCB is assembled in the rear case.

Part Description

PI485 GATEWAY(C), (R)



- 1** BUS_B: RS-485 (-) Terminal
- 2** BUS_A: RS-485 (+) Terminal
- 3** Reset Switch: PI485(C) Reset
- 4** LED01G,02G,03G: Communication Status LED
- 5** LED1: RS-485 Communication Status LED
- 6** CN_OUT: Indoor Unit Connector
- 7** DIP Switch: Product Selection

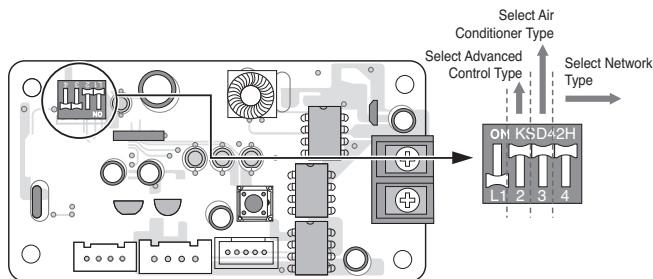
Installation Guide

Installation Steps (PI485 GATEWAY(C), (R))

1. **7** Select DIP Switch Configuration
2. **1 2** Connect RS-485 BUS_A(+), BUS_(B)(-) with other network products (ex. Simple Central Controller, ACP.....)
3. **6** Connect CN_OUT with Indoor Unit by the cable (provided)
4. **4** Check the Communication Status LED
 - LED1G(Red)
 - OK operation : LED blinks for 5 times and then gets OFF
This process is repeated after every 3 minutes
 - NG operation : Check the Indoor Unit's address & wiring connections
 - LED2G(Yellow), LED3G(Orange)
 - NG operation : Check the DIP Switch setting & wiring connections
5. **5** Check RS-485
 - OK operation :
(1) LED blinks when PI485 receives data from central controller.
 - NG operation : Check the wiring connections
6. Finally if all of the above steps are OK then tie the cables by tie wraps & clamp

DIP Switch Configuration

• PI485 GATEWAY(C), (R)



For CAC products using LGAP

* This means Central controller type (Central controller using LGAP is under development. Next generation controller would use LGAP.)



→ 3 ON+ALL OFF: Using LGAP CAC Products + Central Controller



→ 3, 4 ON+ALL OFF: LGAP CAC / Air Purifier Products + Central Controller (ALL type)-Using LGAP

⚠ CAUTION

Wrong products configuration can lead to malfunction.

The wrong setting of air-conditioner switch could cause malfunctioning. Switch setting must be done carefully.

Advanced Lock Control Type

- To use the advanced lock function (Run Mode lock, Fan Speed lock, Temperature Lock, and Temperature Range lock; adjustable only within certain boundary) by central controller, Set up the second DIP switch according to the type of outdoor product.
- In case of advanced lock function, it can use only the central controller applied to LGAP.



→ 2,3,4 ON+All OFF : LGAP CAC/RAC/SRAC Products + Central Controller (All types) - Using LGAP

NOTE : The advanced lock setting

Some products do not support advanced lock function. In this case, The second DIP switch on PI485 must be on.

In case of product applied to advanced function, it can process the advanced lock function without second DIP switch ON.

If all units support advanced lock function, It is recommended that the second DIP switch be off, so that advanced lock function is processed faster.

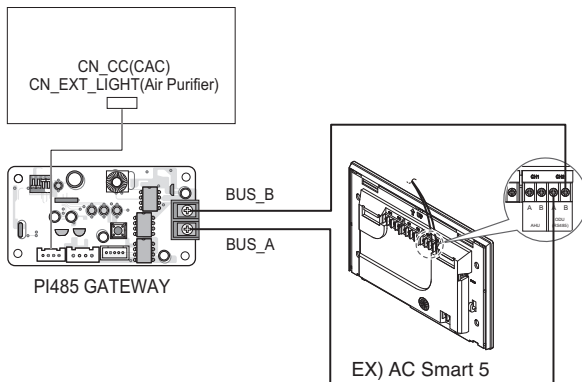
⚠ CAUTION

The wrong setting of air-conditioner switch could cause malfunctioning. Switch setting must be done carefully. After setting the DIP switch, PI485 must be reset

Central Controller Connection Diagram

• PI485 GATEWAY(C), (R)

CAC Indoor Unit / Air Purifier Main PCB

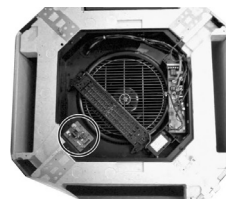


⚠ CAUTION

After product installation, tie the cables with the clamps & tie-wraps provided.

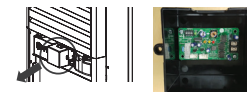
Examples For Product Installation

- (1) The Installation for 4Way Cassette Product
→ Check Screw boss for PCB in 4way Cassette Product then fix it.



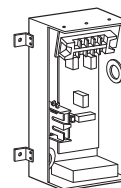
Remove the PCB cover after separating the air inlet.

Install the PI485 PCB inside the PCB cover as shown in the figure.



※ Note : The harness for connecting the PI485 PCB and the main PCB is included with the air purifier product.

- (2) The Installation for DUCT Product
→ Using PCB Holder provided

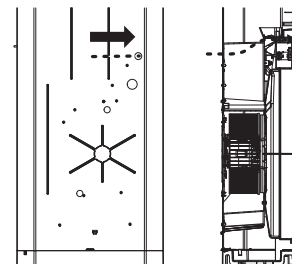
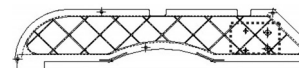


Connect the communication line for connecting the central controller and the PI485 PCB through the hole on the rear side.

※ Note : Be careful not to allow the hole knockout to enter into the product when eliminating it for the communication line.

※ Note : Apply the O type and the Y type terminals for connecting the PI485 communication line.

- (3) The Installation for Cassette Product Cover
→ Check Screw boss for PCB in 4way Cassette Product Then fix It.



⚠ CAUTION

Installation location can be different depending upon product's structure.

Disposal of your old appliance(as per e-waste Rules)



1. When this crossed out wheeled bin symbol is depicted on the product and its operator's manual, it means the product is covered by the e-waste Management and Handling Rules, 2011 and are meant to be recycled, dismantled, refurbished or disposed off.

2. Dos

- a. The product is required to be handed over only to the authorized recycle for disposal.
- b. Keep the product in isolated area, after it becomes non-functional/un-repairable so as to prevent its accidental breakage.

Don't

- a. The product should not be opened by the user himself/herself, but only by authorized service personnel.
- b. The product is not meant for re-sale to any unauthorized agencies/scrap dealer/kabariwalah.
- c. The product is not meant for mixing into household waste stream.
- d. Do not keep any replaced spare part(s) from the product in exposed area.

3. Any disposal through unauthorized agencies/person will attract action under Environment (Protection) Act 1986.

4. This product is complied with the requirement of Hazardous Substances as specified under Rule 13 (1) & (2) of the E-Waste (Management & Handling) Rules, 2011.

5. To locate a nearest collection centre or call for pick-up (limited area only) for disposal of this appliance, please contact Toll Free No. **1800-180-9999** for details. All collection centre and pick up facilities are done by third parties with **LG Electronics India Pvt. Ltd.** Merely as a facilitator. For more detailed information, please visit : <http://www.lge.com/in>.

※ The above information applies only to India.

अपने पुराने नपिटान के उपकरण (ई-अपशष्टि नयिम के अनुसार)



1. जब इस काटे गए पहिये वाले बनि का चनिह किसी उपकरण और इसके ओपरेटर की पुस्तिका के साथ संलग्न होता है तो इसका मतलब है कि इसे "ई-अपशष्टि" (प्रबंधन और हथालन) नयिम २०११ के अंतर्गत सम्मिलित किया गया है, और इसे नवीनीकरणकरण, वधिचन और नपिटान के लिए बनाया गया है।

2. करें

क. उपकरण को सर्फि अधिकृत पुनः नवीनीकरणकर्ता को ही नपितारण करने हेतु हस्तांतरित करें।

ख. जब उपकरण कार्यरत न हो इसे अलग क्षेत्र में रखें ताकि उपकरण से होने वाली दुर्घटनाओं से बचा जा सके।

न करें

क. इस उपकरण को स्वयं/खुद नहीं खोलना चाहिए! उपकरण को केवल अधिकृत अधिकारी के द्वारा ही खोला जाना चाहिए।

ख. इस उपकरण को पुनः बिक्री के लिए किसी भी कबाड़ीवाला / भंगार-वाला / अनाधिकृत संस्था को न दें।

ग. इस उपकरण को किसी घरेलू अपशष्टि सामान के साथ मलिकर न रखें।

घ. उपकरण के बदले हुए या आंतरिकि पुरजो को खुले क्षेत्र में न रखें।

3. यदि किसी अनाधिकृत वभिग या व्यक्तिक के द्वारा नपिटारन किया जाता है तो यह पर्यावरण (सुरक्षा) धारा १९८६ के अंतर्गत आता है।

4. यह उत्पाद खतरनाक पदार्थों के लिए बनाये गए नयिमांक १३ (१) और (२), ई-वेस्ट (प्रबन्धन और रखरखाव) नयिम २०११ के कानून का पालन करता है.

5. उपरोक्त पदार्थों के नपिटारन के लिए नजदीकी नपिटारन संस्थान (संकीर्ण क्षेत्र) में कॉल करें। अधिक जानकारी के लिए हमारे टोल फ्री नंबर **1800-180-9999** पर कॉल करें. सभी संग्रहण केंद्र व पक्कि-अप की सुविधाएं किसी थर्ड-पार्टी जो "LG Electronics India Pvt. Ltd." को अपनी सेवाएं प्रदान कर रही हों, से करवाएं।

ज्यादा जानकारी के लिए देखें वेब:साईट - <http://www.lge.com/in>

※ ऊपर दी गई जानकारी केवल भारत पर लागू होती है।