OWNER'S & 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.

MULTI-TENANT POWER MODULE
PINPMB001
Original instruction

Manufacturer :
LG Electronics Inc. Changwon 2nd factory, 84,
Wanam-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, KOREA
UK Importer :
LG Electronics U.K. Ltd, Velocity 2, Brooklands Drive, Weybridge, KT13 0SL

This manual is the simplified version of original manual.
You can obtain the original manual from website.

MFL71859501
Rev.03_092324

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IMPORTANT!

Please read this instruction sheet completely before installing the product.
This air conditioning system meets strict safety and operating standards. As the installer or service person, it is an important part of your job to install or service the system so it operates safely and efficiently.

⚠ WARNING

- 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.

Caution: Improper installation, adjustment, alteration, service or maintenance can void the warranty. The weight of the condensing unit requires caution and proper handling procedures when lifting or moving to avoid personal injury. Use care to avoid contact with sharp or pointed edges.

Safety Precautions
- Always wear safety eye wear and work gloves when installing equipment.
- Never assume electrical power is disconnected. Check with meter and equipment.
- Keep hands out of fan areas when power is connected to equipment.
- R-32 / R-410A causes frostbite burns.
- R-32 / R-410A is toxic when burned.

Note to installing dealer: The Owners Instructions and Warranty are to be given to the owner or prominently displayed near the indoor Furnace/Air Handler Unit.

⚠ WARNING

When wiring:
Electrical shock can cause severe personal injury or death. Only a qualified, experienced electrician should attempt to wire this system.
- Do not supply power to the unit until all wiring and tubing are completed or reconnected and checked.
- Highly dangerous electrical voltages are used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause accidental injury or death.
- Ground the unit following local electrical codes.
- Connect all wiring tightly. Loose wiring may cause overheating at connection points and a possible fire hazard.

When transporting:
Be careful when picking up and moving the indoor and outdoor units. Get a partner to help, and bend your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut your finger.

When installing...
... in a wall: Make sure the wall is strong enough to hold the unit's weight. It may be necessary to construct a strong wood or metal frame to provide added support.
... in a room: Properly insulate any tubing run inside a room to prevent "sweating" that can cause dripping and water damage to wall and floors.
... in moist or uneven locations: Use a raised concrete pad or concrete blocks provide a solid, level foundation for the outdoor unit. This prevents water damage and abnormal vibration.
... in an area with high winds: Securely anchor the outdoor unit down with bolts and a metal frame. Provide a suitable air baffle.
... in a snowy area(for Heat Pump Model): Install the outdoor unit on a raised platform that is higher than drifting snow. Provide snow vents.

When connecting refrigerant tubing:
- Keep all tubing runs as short as possible.
- Use the flare method for connecting tubing.
- Check carefully for leaks before starting the test run.

When servicing:
- Turn the power OFF at the main power box(mains) before opening the unit to check or repair electrical parts and wiring.
- Keep your fingers and clothing away from any moving parts.
- Clean up the site after you finish, remembering to check that no metal scraps or bits of wiring have been left inside the unit being serviced.

SAFETY INSTRUCTIONS

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 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

- Electric works should be carried out according to 'The technology requirement on the electric installation', The wiring standard and this manual by a qualified personnel.
- If the installation is not complete or the capacity of the power circuit is insufficient, electric shock or fire may occur, or death or injury can be caused.
- If the installation was done by a user, there may be incompleteness, which may cause electric shock, fire, injury and death.
- When operating the machine (applying power to the machine), do not carry out any electric work and do not put hand or finger into it. This may cause electric shock, injury and death.

⚠ CAUTION

- Before installation, read this manual and carry out the works according to it.
- Before installation, be sure to check all the included items. (However, be sure to use all kinds of certified products when purchasing the items other than those provided by LG at your local store.)

* If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

* Means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

* Do not install the unit in potentially explosive atmospheres.

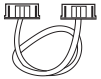
According to IEC 60335-1

- 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.

INCLUDED ITEMS

Components

Installation Parts

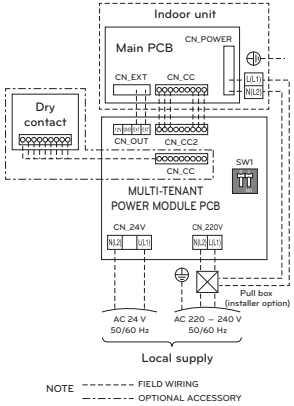
Name	Quantity	Appearance	Remark	
MULTI-TENANT POWER MODULE (MPM)	1			
DC power cable (3 m)	1		For connecting the MPM's CN_CC to Indoor unit's CN_CC	
Screw	2			
Installation manual	1			
Cable Tie	3			
DC signal cable	1		CASSETTE[UV], Hydro-kit	For connecting the MPM's CN_OUT(EXT) to Indoor unit's CN_EXT
	1		Wall-mounted type indoor unit	
	1		CASSETTE, DUCT and CVT	

Installation Equipment

Appearance	Name
	Driver

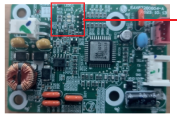
ELECTRICAL WIRING

Electrical Wiring of Indoor unit and MULTI-TENANT POWER MODULE



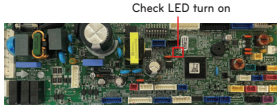
1. Turn the power off using circuit breaker.
2. Connect the MPM'S CN_CC or CN_CC2 to Indoor unit's CN_CC using the DC power cable provided with this product.
3. Connect the MPM's CN_OUT(EXT) to Indoor unit's CN_EXT using the DC signal cable provided with this product. (Check the DC signal cable used for each indoor unit in page 5)
4. Connect the AC 24 V power cable to the CN_24V of the MPM.
5. Connect the main power cable to the MPM's CN_220V (L(L1) N(L2), Same node what is supplied to IDU).
6. If Dry contact connection is required, connect the MPM's CN_CC or CN_CC2 to the Dry contact's PCB using DC power cable provided with Dry contact.
7. After wiring, be sure to turn off the main power of the IDU and check the power supply through MPM.
   - Be sure to check that the LED on the IDU PCBA or Communication module is turn on.

1) Main PCB + Communication module



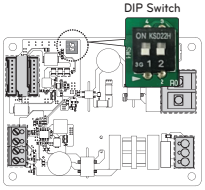
<Communication module>

2) Main PCB



<Main PCB>

* If the LED does not turn on, turn on DIP switch 1 of the MPM.



8. Check that the LED turns on after turning off the main power of the indoor unit. Assemble MPM's cover

⚠ CAUTION

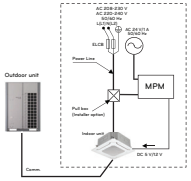
Other wires should not be connected to the terminal block of the MPM's PCB, as connecting wires for other purposes to the terminal block may cause malfunction.

⚠ WARNING

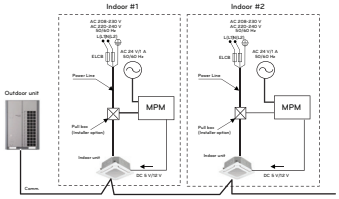
- The wire should not be exposed to the outside otherwise it may leads to the malfunction of the MULTI-TENANT POWER MODULE due to wire damage.
- Wrong wiring also causes the malfunction of the MULTI-TENANT POWER MODULE or damage to it.

INSTALLATION EXAMPLE

When installing one MPM



When installing multiple MPMs



- If the building power cannot supply AC 24 V(1 A) to the MPM directly, Adaptor or Transformer should be used.
- When installing multiple MPM with one transformer, current capacity should be designed as 1 A x number of MPM.

Minimum cross-sectional area of conductors

Rated current of appliance A			Nominal cross-sectional area mm²
		≤ 0.2	Tinsel cord [a]
> 0.2	and	≤ 3	0.5 [a]
> 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

* [a] These cords may only be used if their length does not exceed 2 m between the point where the cord or cord guard enters the appliance and the entry to the plug.
[b] Cords having the cross-sectional areas indicated in the parentheses may be used for portable appliances if their length does not exceed 2 m.

NOTE: For supply cords supplied with multi-phase appliances, the nominal cross-sectional area of the conductors is based on the maximum cross-sectional area of the conductors per phase at the supply cord connection to the appliance terminals.

