

FRESH AIR INTAKE KIT INSTALLATION MANUAL

For authorized service personnel only.
UTZ-VXGA

(PART NO. 9379477024)

1. SAFETY PRECAUTIONS

- Be sure to read this Manual thoroughly before installation.
- The warnings and precautions indicated in this Manual contain important information pertaining to your safety. Be sure to observe them.
- Hand this Manual, to the customer. Request the customer to keep them on hand for future use, such as for relocating or repairing the unit.

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| ⚠ WARNING | This mark indicates procedures which, if improperly performed, might lead to the death or serious injury of the user. |
| Request your dealer or a professional installer to install the indoor unit in accordance with this Installation Manual. An improperly installed unit can cause serious accidents such as water leakage, electric shock, or fire. If the indoor unit is installed in disregard of the instructions in the Installation Manual, it will void the manufacturer's warranty. | |
| Do not turn ON the power until all work has been completed. Turning ON the power before the work is completed can cause serious accidents such as electric shock or fire. | |
| Installation work must be performed in accordance with national wiring standards by authorized personnel only. | |

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| ⚠ CAUTION | This mark indicates procedures which, if improperly performed, might possibly result in personal harm to the user, or damage to property. |
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2. ABOUT THE UNIT

2.1. Precautions for fresh air intake

- The Fresh Air Intake Kit can be installed onto cassette type air conditioners.
- On installation please also refer to the air conditioner installation manual and decoration panel installation manual.
- The volume of ventilated air provided by the Fresh Air Intake Kit may be unable to fulfill ventilation regulations in all countries. On such occasions we ask that this kit be used along with Energy recovery ventilators.
- When intaking outside air please ensure correct air-conditioning design as based on air-conditioning load calculations. As outside air is not being processed an increase in outside air load can affect air conditioning.
- When installing the duct fan, connect the drive relay (field supplied) and operate with the indoor unit. Please ensure the intake air volume is below 10% of the product's air volume HI. When the intaken air volume becomes too large there the operating noise may increase and room temperature detection may be affected.
- Make sure to carry out replacement of the room temperature sensor. Room temperature detection may be affected.
- Condensation may form on the product when outside air temperature is low, and the temperature and humidity surrounding the product are high. Don't intake the air of below 0°C (32°F) into the Fresh Air Intake Kit. The upper limit of the product's temperature range should respond to the outdoor temperature range.
- Please ensure the product is installed a distance of at least three times the duct diameter away from exterior wall air inlets, or air exhausts for the prevention of short circuits.

2.2. Accessories

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| ⚠ WARNING |
| For installation purposes, be sure to use the parts supplied by the manufacturer or other prescribed parts. The use of non-prescribed parts can cause serious accidents such as the unit falling, water leakage, electric shock, or fire. |

- The following installation parts are furnished. Use them as required.
- Keep the Installation Manual in a safe place and do not discard any other accessories until the installation work has been completed.

| Name and Shape | Q'ty | Application |
|---------------------------------|------|--|
| Duct Flange | 2 | Air joint for connecting duct |
| Cover | 2 | Protective cover to prevent surface condensation |
| Screw | 16 | For attaching duct flange For attaching Cover |
| Hook plate | 4 | Plate for attaching panel |
| Shutter plate | 1 | Shutter plate for 1-way intake |
| Insulation ① | 2 | Affixing the insulation outside of the kit |
| Insulation ② | 1 | Affixing the insulation to tube of drain pump for prevent condensation |
| Insulation ③ | 3 | Affixing the insulation outside of the kit |
| Insulation ④ | 4 | Affixing the insulation outside of the cover |
| Cable tie | 1 | For fixing wire |
| Extension wire for louver | 2 | Extension wire for louver |
| Extension wire for receiver kit | 1 | Extension wire for receiver kit |
| Wire (External output ①) | 1 | For connect indoor unit to relay of duct fan |
| Wire (External output ②) | 1 | For connect indoor unit to relay of duct fan |
| Wire (External output ③) | 1 | For connect indoor unit to relay of duct fan |
| Bolt | 4 | For attaching the kit to indoor unit |

3. INSTALLATION WORK

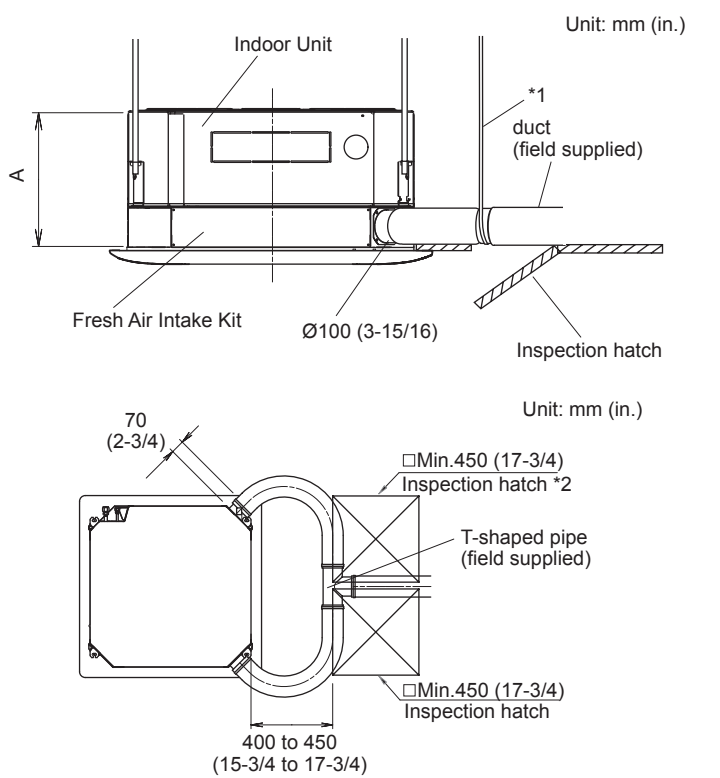
3.1. Selecting an installation location

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| ⚠ CAUTION |
| Do not install the unit in the following areas: <ul style="list-style-type: none">•Area with high salt content, such as at the seaside. It will deteriorate metal parts, causing the parts to fall or the unit to leak water.•Area filled with mineral oil or containing a large amount of splashed oil or steam, such as a kitchen. It will deteriorate plastic parts, causing the parts to fall or the unit to leak water.•Area that generates substances that adversely affect the equipment, such as sulfuric gas, chlorine gas, acid, or alkali. It will cause the copper pipes and brazed joints to corrode, which can cause refrigerant leakage.•Area that can cause combustible gas to leak, contains suspended carbon fibers or flammable dust, or volatile inflammables such as paint thinner or gasoline. If gas leaks and settles around the unit, it can cause a fire. |

3.2. Installation dimension location

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| ⚠ WARNING |
| Install the air conditioner in a location which can withstand a load of at least five times the weight of the main unit and which will not amplify sound or vibration. If the installation location is not strong enough, the indoor unit may fall and cause injuries. |
| If the job is done with the panel frame only, there is a risk that the unit will come loose. Please take care. |

| Indoor unit | A (mm (in.)) |
|-----------------|----------------|
| 30, 36, 45, 54L | 418 (16-1/2) |
| 18, 24 | 376 (14-13/16) |



*1 Suspend T-shaped pipe-assembly parts securely. A gap is likely to form between the indoor unit and the Fresh Air Intake Kit due to weight of parts, including the T-shaped pipe-assembly.

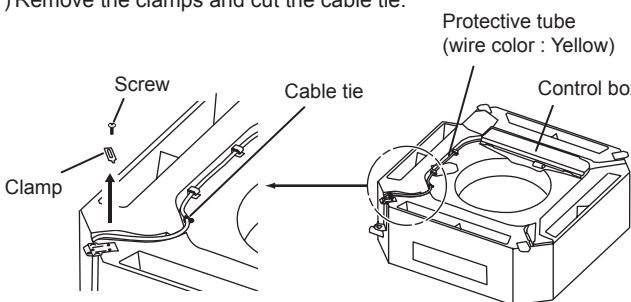
*2 Please install the Inspection hatch (more than 450 mm × 450 mm (17-3/4 in. × 17-3/4 in.)). Install Inspection hatch on just one side when both are available.

4. INSTALLATION OF THE FRESH AIR INTAKE KIT

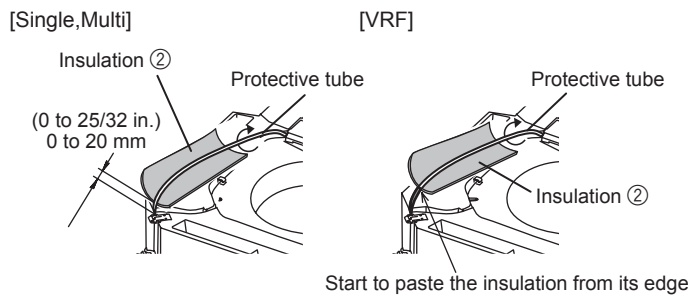
4.1. Pre-installation preparations of Indoor unit

- When the number of air outlets is to change, a separately-sold air-outlet sealing material should be fitted to the indoor unit main body prior to installing the Fresh Air Intake Kit.

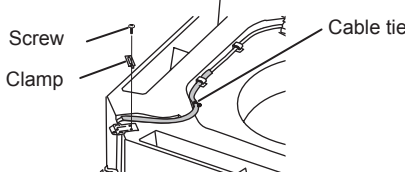
(1) Remove the clamps and cut the cable tie.



(2) Affix the Insulation ② provided around the protective tube of the drain pump as shown in the diagram.

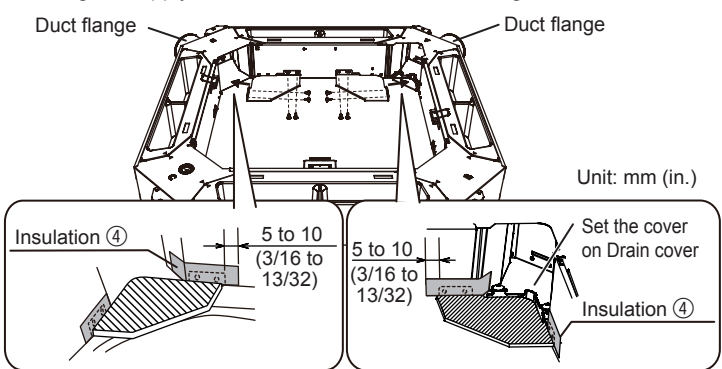
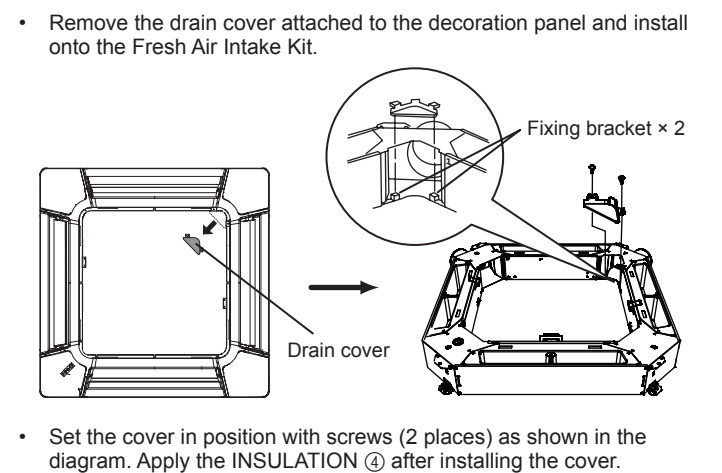
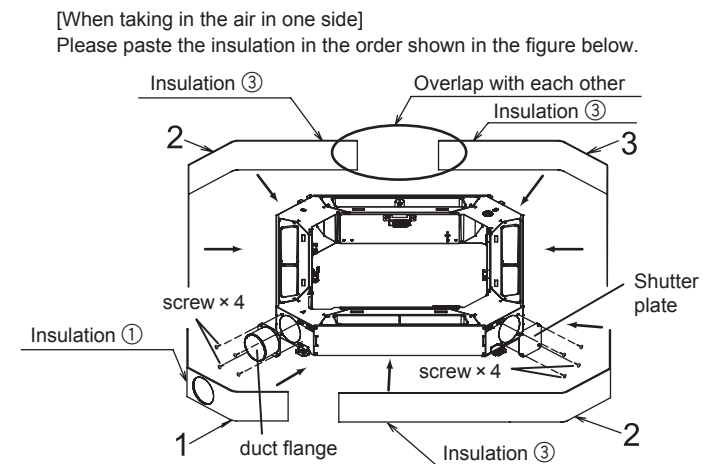
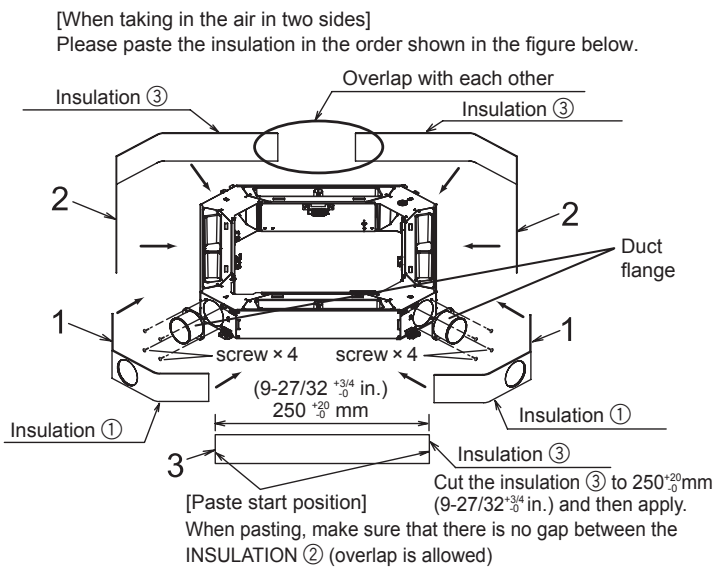


(3) Return the protective tube to its original position, then secure with cable tie and fix clamps.



4.2. Pre-installation preparations of fresh air intake kit

- Please attach the duct flange provided with screws.
- The Fresh Air Intake Kit can be used with an external air intake on just one side. Use included shutter plate to apply for different eye holes.
- Please apply Insulation ① to the installed duct flange parts (Do not apply to sealed areas).



4.3. Provisional attachment

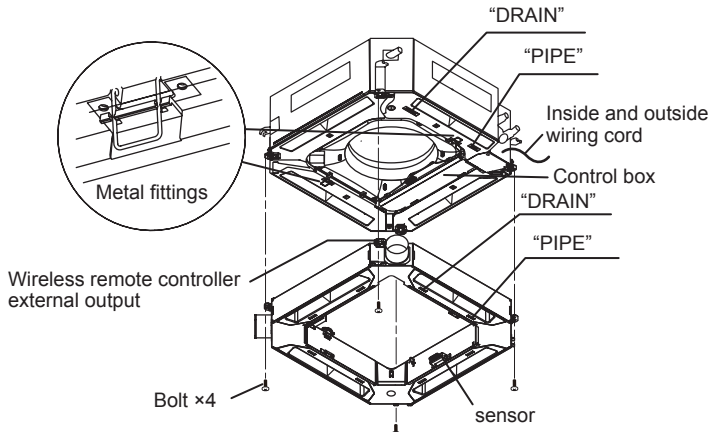
The wiring work for indoor unit. Please be sure to carry out the wiring work before installing the fresh air kit (inside and outside wiring cord, wireless remote controller cord, external output cord and etc.). (The wiring work after the installation may become difficult.)

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| ⚠ CAUTION |
| Installing the Fresh Air Intake Kit with the wrong direction is a cause of water leakage. |

Provisionally attach the "DRAIN", "PIPE" of the Fresh Air Intake Kit to the indoor unit foam-sealed "DRAIN", "PIPE", following the direction of the indoor unit, using the metal fittings of the combined diagram.

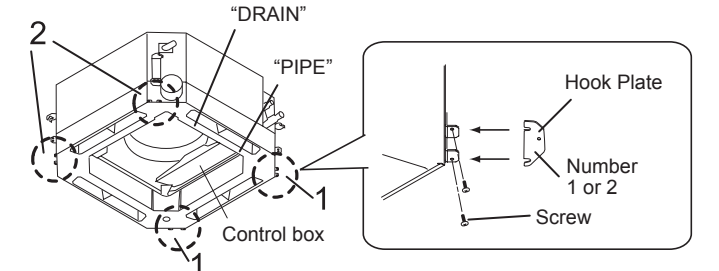
4.4. Attaching the Fresh Air Intake Kit

Attach the Fresh Air Intake Kit to the main body using the bolts provided.



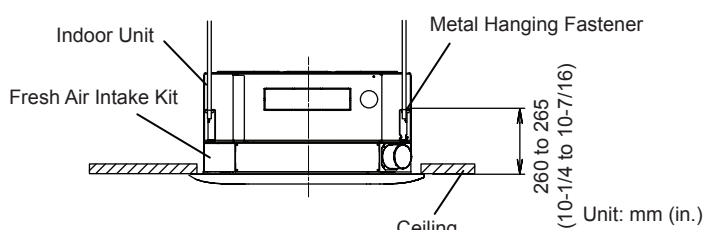
4.5. Attaching the Hook Plate

Attach the Hook Plate by each corner of the Fresh Air Intake Kit. (The attaching screws are attached to the body of the Fresh Air Intake Kit and must be loosened before installing.)



4.6. Mounting of indoor unit

- Please refer to the installation manual provided with the indoor unit for mounting.
- Please refer to the diagram below for installation height.
- When installing this product to existing indoor units, please adjust the installation height of the indoor units to height 260-265mm (10-1/4 to 10-7/16 in.).



5. DUCT INSTALLATION

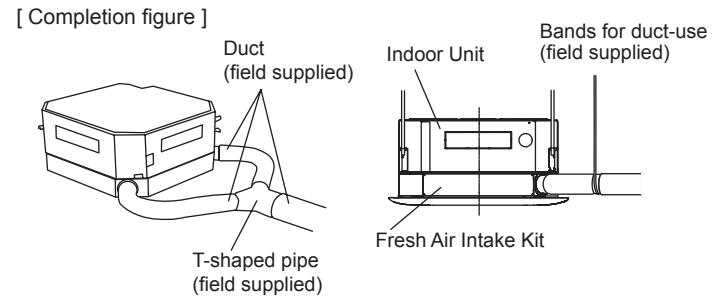
5.1. Pre-installation preparations

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| ⚠ CAUTION |
| Procure a duct with internal diameter that fits the external diameter of the duct flange. |
| Please note that regulations of some countries may require the use of a nonflammable duct. |
| If the duct penetrates a fire-retarding division or other fire-proofing measures, the installation of fire dampers, or a construction that does not adversely affect fire control measures is a regulatory requirement of some countries. |
| When using metallic ducts please ensure metals (i.e., metal lath, wire lath, stainless sheeting) are electrically insulated. (A short occurring by electrical connection can cause fire) |
| Please ensure to thermally insulate connected ducts to prevent condensation. |
| Please make certain that netting or other measures are installed in parts exposed to the outside air to prevent infiltration of small animals such as birds and insects. |
| Please be certain to install external air filters to parts exposed to the outside air for heat exchanger protection of indoor equipment. |
| Please avoid the infiltration of rain water by installing outside ducts with an incline of at least 1/30, and fitting hoods on openings. |
| Be certain to use electric dampers and shutters to avoid infiltration of cold air, wind and fog during shutdown in areas with cold climates, strong winds, or where fogs are common. |

5.2. Duct installation

- (1) Please fasten the connecting parts of the ducts with bands, and wrap with vinyl tape to ensure no air leaks. (Carry out the work to ensure no air leakage at a pressure of 200 Pa (0.03 psi))
 - Please do not construct the duct in the manner of below.
 - Extreme Bends
 - Highly Repetitive Bends
 - Making the Connecting Duct Diameters Smaller

(2) When using T-shaped pipe, suspend the kit with suspension bands for duct-use to avoid unnecessary load bearing.

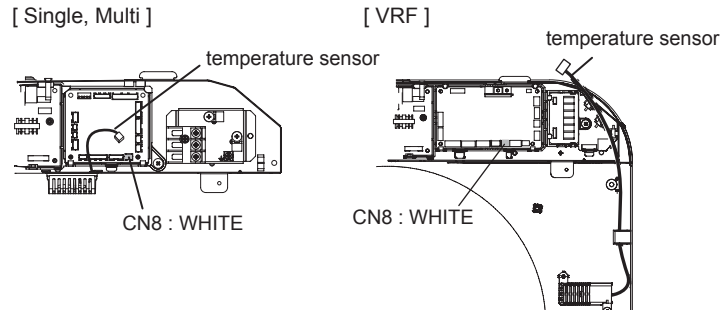


- Please refer to "7. WIRING THE DUCT FAN" when wiring is required for the duct fan.

6. DECORATION PANEL INSTALLATION

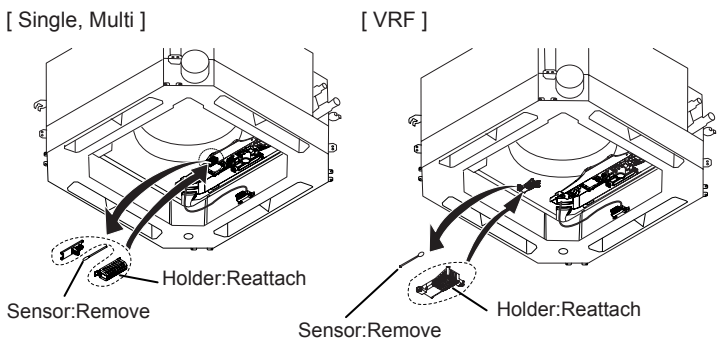
6.1. Pre-installation preparations

- (1) Please remove the control box cover.
- (2) Remove the connector from the existing temperature sensor, found on the circuit board of the indoor unit.

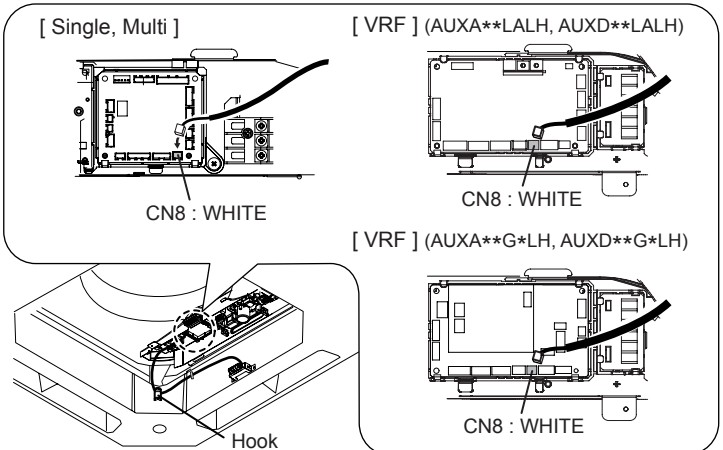


- (3) The existing temperature sensor will not be used so remove it from the sensor holder, and once more install the empty sensor holder (without sensor) in the control box.

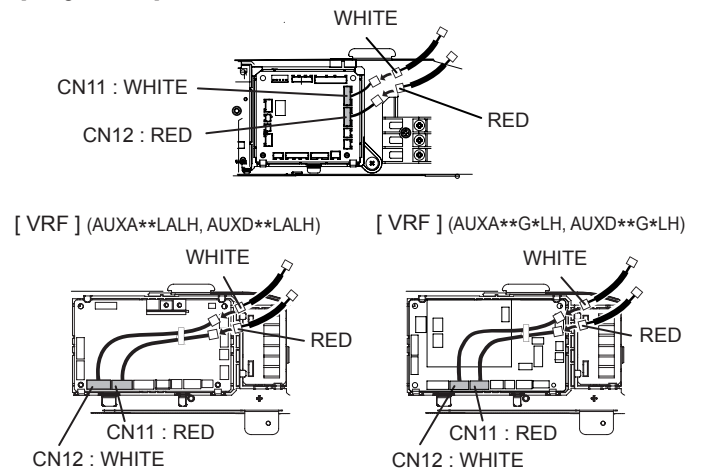
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| ⚠ CAUTION |
| Please make sure to install the sensor holder inside the control box, as it is a fire hazard. Otherwise, it may cause fire. |



(4) Insert the connector of the sensor attached to the Fresh Air Intake Kit onto the circuit board of the indoor unit.

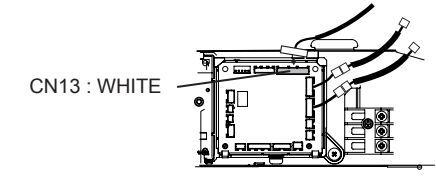


(5) Insert the included extension cable for use with louver to the connector.

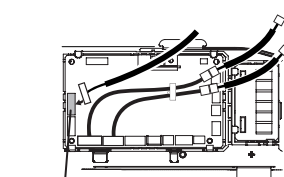


(6) When using the optical receiver unit (option) please insert the included extension wire to the indoor unit.
When duct fan is used, please connect the included external output cord to CN6.
(For connecting method, please refer to 7.WIRING DUCT FAN)

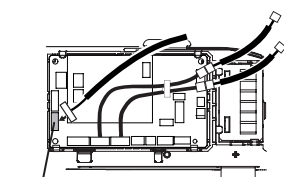
[Single, Multi]



[VRF] (AUXA**LALH, AUXD**LALH)



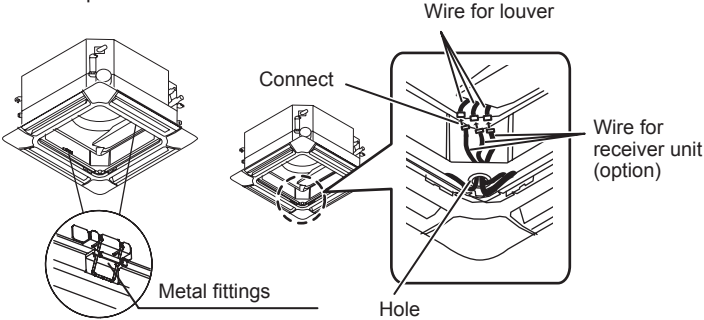
[VRF] (AUXA**G*LH, AUXD**G*LH)



(7) Close the control box cover when work is complete.
*Please do not pinch the wiring when installing.

6.2. Installation of decoration panel

- (1) After provisional fixing of a decoration panel, feed the louver extension wire (and optical receiver extension wire) through the penetrating hole.
- (2) Connect to the connector wires coming out of the decoration panel.
- (3) Please install decoration panel according to the installation instruction sheet provided.



7. WIRING THE DUCT FAN

7.1. Pre-installation preparations

- Make field supplied arrangements for duct fan and drive relay.
- Connect the relay with the wire provided for use as an external power output

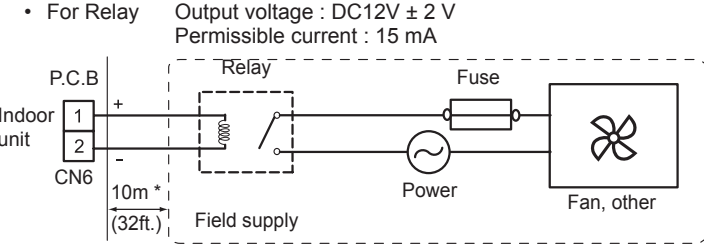
CAUTION

Wiring of the external output varies with equipment model.

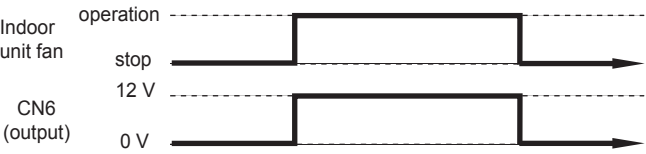
(1) TYPE 1 [Single & Multi]

- You can control duct fan by synchronization with fan operation of indoor unit.
- Wire for fresh air control output is supplied with Fresh Air Intake Kit.
- Extended length of the wire : For Single & Multi split system : Max. 10 m (32 ft.)

● Connection diagram



● Indoor unit status



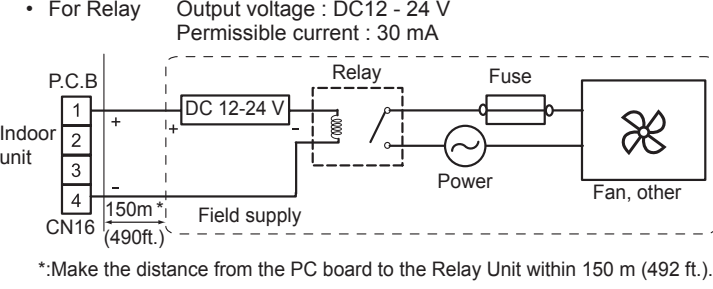
● Wire (External output ①)



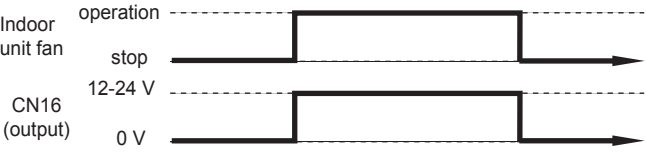
(2) TYPE 2 [VRF(AUXA**LALH, AUXD**LALH)]

- You can control duct fan by synchronization with fan operation of indoor unit.
- Wire for fresh air control output is supplied with Fresh Air Intake Kit.
- Extended length of the wire : For VRF system Max. 150m (490 ft.)

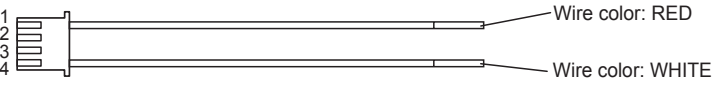
● Connection diagram



● Indoor unit status



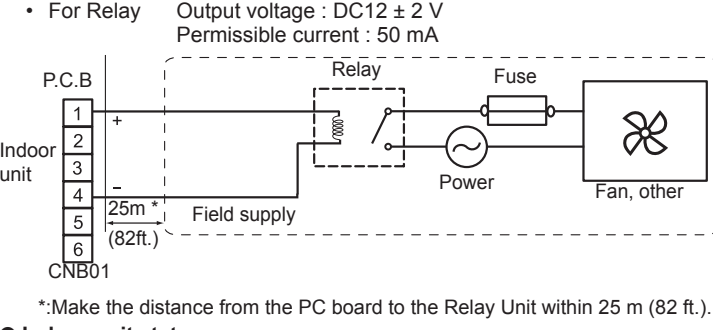
● Wire (External output ②)



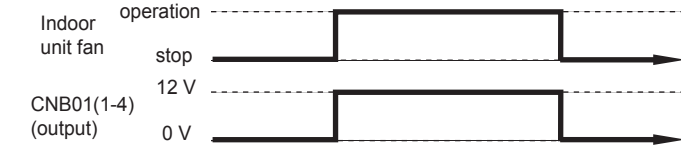
(3) TYPE 3 [VRF(AUXA**G*LH, AUXD**G*LH)]

- You can control duct fan by synchronization with fan operation of indoor unit.
- Wire for fresh air control output is supplied with Fresh Air Intake Kit.
- Extended length of the wire : For VRF system Max. 25m (82 ft.)

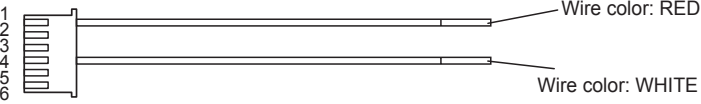
● Connection diagram



● Indoor unit status



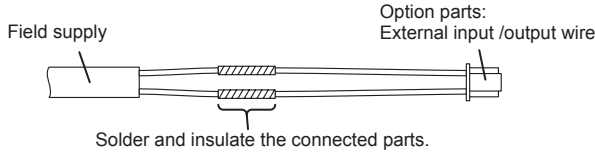
● Wire (External output ③)



7.2. Connection methods

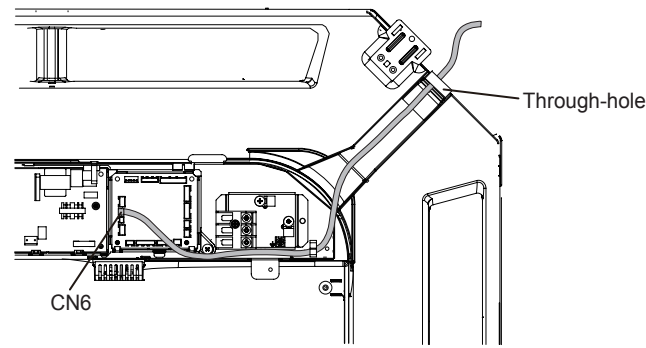
- Wire modification
Use a tool to cut off the terminal on the end of the wire, and then remove the insulation from the cut end of the wire.
Connect the wire with connecting wire with solder.

IMPORTANT: Be sure to insulate the connection between the wires.

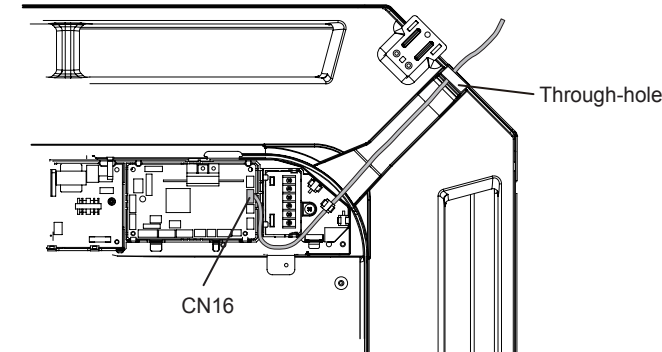


• Connection terminals and wiring arrangement

TYPE 1 [Single & Multi]



TYPE 2 [VRF (AUXA**LALH, AUXD**LALH)]



TYPE 3 [VRF (AUXA**G*LH, AUXD**G*LH)]

