



AIR CONDITIONER OPTIONAL PARTS

PART No. 9380828082-02

External input and output PCB

INSTALLATION MANUAL

For authorized service personnel only.

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1. SAFETY PRECAUTIONS

| | |
|--|---|
| ⚠ WARNING | Indicates a potentially or imminently hazardous situation which, if not avoided, could result in death or serious injury. |
| When installing the unit, please read this manual thoroughly. | |
| Before installation, be sure that all sources of power have been shut off. There is a danger of electric shock. | |
| Do not turn on the power until all installation works is complete. | |
| For the PCB and locally purchased parts, apply voltage indicated on specifications of parts. Application of unspecified voltage may result in failure or malfunction of air conditioner. | |
| ⚠ CAUTION | Indicates a potentially hazardous situation that may result in minor or moderate injury or damage to property. |
| Do not pull on the connectors with too much force. | |

2.2. Parts and accessories

- The following installation parts are supplied.
Use them as required.

| Name and shape | Q'ty | Description |
|-------------------------------|------|--|
| Installation manual | 1 | This manual |
| External input and output PCB | 1 | For various external input/ output connections |
| Wire with connector | 1 | For connecting the PCB |

* Depending on the indoor unit, the External input and output PCB box (option) is necessary for installation.

2. ABOUT THE UNIT

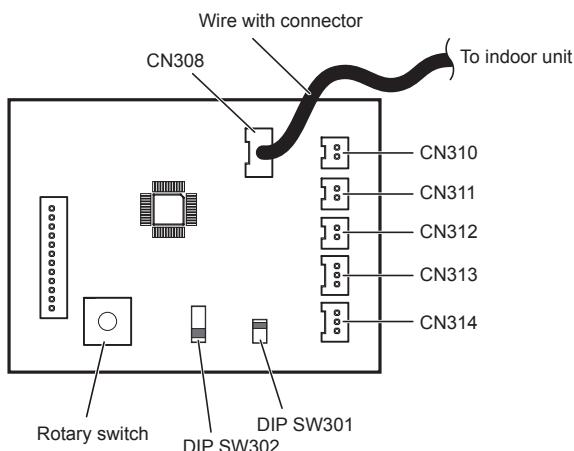
2.1. General

- This PCB is an adapter connecting indoor unit control PC board and local wiring for various controls (remote operations, operation status display, error status display), and fan operation status.



2.3. Connecting the PCB

Description of External input and output PCB



- Connection depends on the PCB type of the indoor unit. Refer to the installation manual of the indoor unit or External input and output PCB box (option) for details on how to connect to the indoor unit PCB.

3. SETTING

3.1. Connectable devices

| | External input/output | Connector | Input select | Input signal |
|-----------------|----------------------------------|-------------------------|-------------------------------|--------------|
| External input | Operation/Stop | CN313/ CN314 | Dry contact/ Apply voltage | Edge/Pulse |
| | Forced thermostat off | CN313 | | Edge |
| External output | Operation status | CN310 CN311 CN312 | — | — |
| | Error status | | | |
| | Indoor unit fan operation status | | | |
| | External heater output | | | |

■ Input signal type

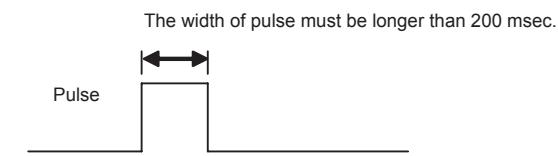
The input signal type can be selected.

Signal type (edge or pulse) can be switched by the DIP SW302 on the External input and output PCB.

When DIP SW302 is on the "Edge" side.



When DIP SW302 is on the "Pulse" side.



3.2. External input

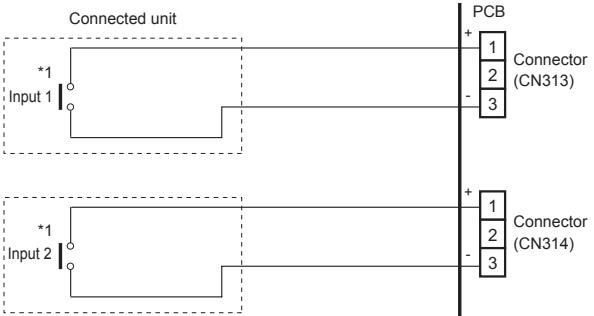
- "Operation/Stop" mode or "Forced stop" mode can be selected with function setting of indoor unit.
- A twisted pair cable (22AWG) should be used. Maximum length of cable is 150 m.
- The wire connection should be separate from the power cable line.

● Input select

Use either one of these types of terminals according to the application. (Both types of terminals cannot be used simultaneously.)

- Dry contact

In case of internal power supply, set the DIP SW301 to "NON VOL" side.

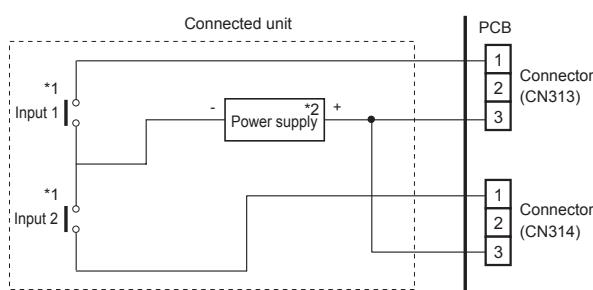


*1: The switches can be used on the following condition:
DC 12 V to 24 V, 1 mA to 15 mA.



- Apply voltage

In case of external power supply, set the DIP SW301 to "VOL" side.



*1: The switches can be used on the following condition:
DC 12 V to 24 V, 1 mA to 15 mA.

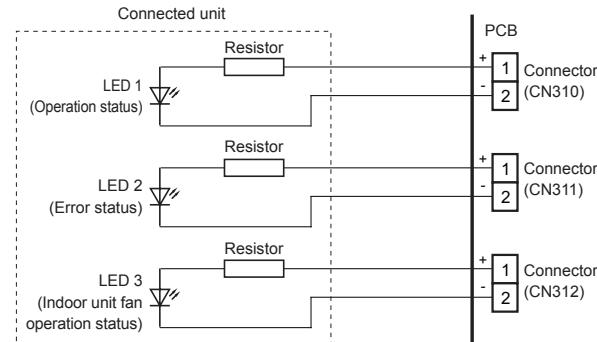
*2: Make the power supply DC 12 V to 24 V 10 mA or more.

3.3. External output

- A twisted pair cable (22AWG) should be used. Maximum length of cable is 25 m.
- Output voltage: High DC 12 V±2 V, Low 0 V.
- Permissible current: 50 mA
- For details, refer to the technical manual.

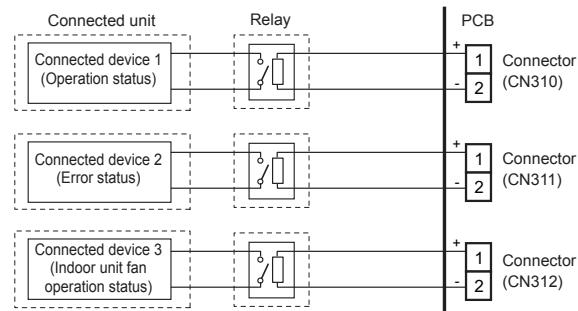
● When indicator or other components are connected directly

Example: Function setting 60 is set to "00".



● When connecting with a device equipped with a power supply

Example: Function setting 60 is set to "00".



Combination of external input and output

By combining the function setting of the indoor unit and rotary switch setting of the External input and output PCB, you can select various combinations of functions.

To set the function setting, refer to the installation manual of the indoor unit.

For details, please refer to the technical manual.

Combination examples of external input and output are as follows:

| Mode | Rotary SW | External input | | | External output | | |
|--------|-----------|---|---------------|-------------|-----------------|----------------------------------|----------------------------------|
| | | 1 | 2 | Signal type | 1 | 2 | 3 |
| 0-1 | 1 | Operation/Stop | Not available | Edge | Operation/Stop | Error status | Indoor unit fan operation status |
| | | Operation | Stop | Pulse | | | |
| 0-2 | 2 | Forced Thermostat OFF | Not available | Edge | Error status | Indoor unit fan operation status | External heater output |
| 1 to 8 | 3 to 9, A | Available for USA Market Only *For details regarding the settings, please check the Design & Technical Manual. | | | | | |
| 9 | B | Forced Thermostat OFF | Not available | Edge | Operation/Stop | Indoor unit fan operation status | External heater output |
| 10 | C | Forced Thermostat OFF | Not available | Edge | Operation/Stop | Error status | External heater output |
| 11 | D | Forced Thermostat OFF | Not available | Edge | Operation/Stop | Indoor unit fan operation status | Error status |

NOTE: Input of Operation/Stop depends on the setting of function setting 46 of the indoor unit.

00: Operation/Stop mode 1 (R.C. enabled)

02: Forced stop

01: (Setting prohibited)

03: Operation/Stop mode 2 (R.C. disabled)

