AIR CONDITIONER OPTIONAL PARTS

External input and output PCB

PART No. 9380828112

INSTALLATION MANUAL

For authorized service personnel only.

- Hand this manual to the customer to keep for future use, such as for relocating or repairing the product.

1. SAFETY PRECAUTIONS

⚠WARNING	Indicates a potentially or imminently hazardous situation which, if not avoided, could result in death or serious injury.

For the air conditioner to operate satisfactorily, install as outlined in this installation manual.

Installation work must be performed in accordance with national wiring standards by authorized personnel only.

Before installation, be sure that all sources of power have been shut off. There is a danger of electric shock.

Never touch electrical components immediately after the power supply has been turned off. Electrical shock may occur. After turning off the power, always wait 5 minutes or more before touching electrical components.

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

Discharge static electricity before the installation.

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.

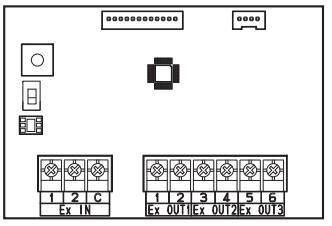
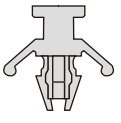
2. ABOUT THE UNIT

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), Fan (fresh air) control or External heater control.

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 connection PCB 	1	For various external input/ output connections
Spacer 	4	For attaching the PCB
Spacer 	1	For attaching the PCB
Wire with connector 	1	For connecting the PCB
EMI core 	1*	For mounting on wire

* Use of this item depends on the product. Please refer to the installation manual of the indoor unit.

3. INSTALLATION PROCEDURES

3.1. Connecting the PCB

Description of External input/output PCB

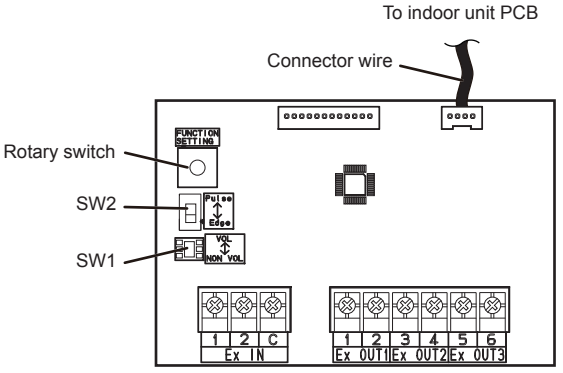


Fig. External input and output PCB

- Connection depends on the PCB type of the indoor unit. Refer to the installation manual of the indoor unit for details on how to connect to the indoor unit PCB.

4. SETTINGS

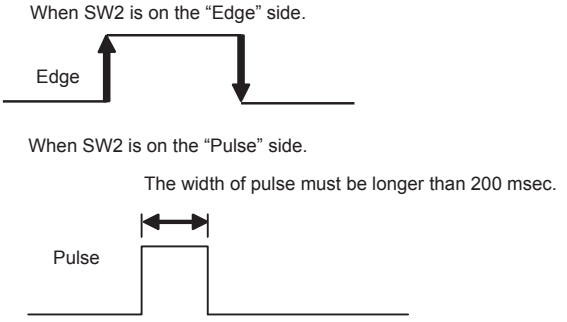
4.1. Connectable devices

	External input/ output	Terminal block	Input select (SW1)	Input signal (SW2)
External input	Operation/ Stop	Input 1/ Input 2	Dry contact/ Apply voltage	Edge/Pulse
	Forced thermostat off	Input 1		Edge
External output	Operation status	Output 1 Output 2 Output 3	–	–
	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 switch 2 (SW2) on the External input and output PCB.



4.2. External input

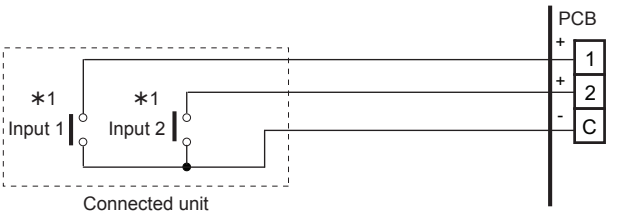
- “Operation/Stop” mode or “Forced stop” mode can be selected with function setting of indoor unit.
- A twisted pair cable (22AWG) should be used. Maximum length of cable is 150 m.
- The wire connection should be separate from the power cable line.

● Input select

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

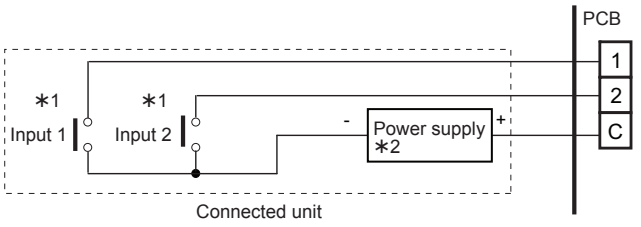
- Dry contact

In case of internal power supply, set the slide switch of SW1 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.

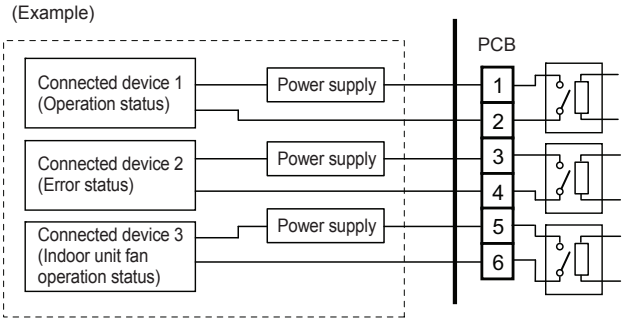
• Apply voltage
In case of external power supply, set the slide switch of SW1 to “VOL” side.



*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.

4.3. External output

- A twisted pair cable (22AWG) should be used.
- Permissible voltage and current: DC 5 V to 30 V / 3 A, AC 30 V to 250 V / 3 A
- For details, refer to the following chart “Combination of external input and output”.



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)
01: (Setting prohibited)
02: Forced stop
03: Operation/Stop mode 2* (R.C. disabled)
*: This function might not be available in some units. Refer to the installation manual of the indoor unit.