

Remote Control PC-Board Set Installation Manual <KRP413AB1S, KRP413BB1S>

Safety Precautions

- Read these safety precautions carefully before installing the unit, and be sure to install the unit properly.
- This manual classifies precautions to the user into the following two categories. These warnings and cautions are for your safety. Follow them.

| | |
|------------------|--|
| ⚠ WARNING | Faulty installation can result in death or serious injury. |
| ⚠ CAUTION | Faulty installation can result in serious injury, damage to property, or other serious consequences. |

- After installation is complete, test the unit to confirm that it is working properly, and instruct the owner its proper use.

⚠ WARNING

- Installation should be left to the dealer from whom you purchased the unit, or another qualified professionals.
- Install the unit securely according to the installation manual. Faulty installation may lead to electric shock or fire.
- Be sure to use the supplied or specified parts. Using other parts may lead to electric shock or fire.
- Install the unit securely in a location that will support its weight. If installed in a poor location or improperly installed, the unit may not work as intended.
- For electrical work, follow local electric standards and the installation manual. Faulty installation may lead to fire or electric shock.
- Do not bundle the power cord, or attempt to extend it by splicing it with another cord or by using an extension cord. Do not place any other load on the power circuit used for the unit. Improper wiring may lead to electric shock, heat generation or fire.
- Use dedicated wiring for all electrical connections, and be sure to arrange the wiring so that force applied to the wiring will not damage the terminals. Poor wiring or installation may cause electric shock, heat generation or fire.

⚠ CAUTION

- Before installation, unplug the air conditioner to ensure safety. Failure to do so may cause electric shock.
- Static electricity may damage electric components. Before connecting cables and communication lines, and operating the switches, be sure to discharge any electrical charge from your body (by, for example, touching the earth line)
- Do not install the unit in a location where it may be exposed to flammable gases. If gas leaks and build up around the unit, it may catch fire.
- Do not place the wiring close to the power cord, inter-unit cable, or pipes which generate noise. Treat the wiring with care.

1. Functions and Features

- On/Off setting
- Switching between Instantaneous Contact/Normal Contact
- Connection with five-room central controller (KRC72 for oversea model)
- Connection with fan coil remote controller
- Automatic reset after power failure
- Output of normal operation signals/malfunction signals

2. Field Wiring

For interconnecting wiring, use Daikin KDC100A12 cable (not supplied) or other similar cable. Use a vinyl-covered wire or cable with four conductors each with a thickness of 0.2 to 1.25 mm².

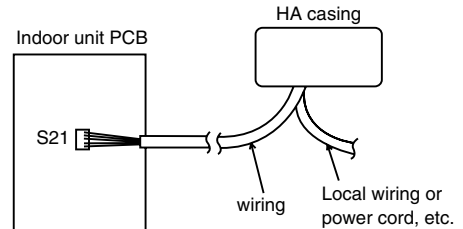
■ Optional cable KDC100A12 (without connectors)

Specifications: 0.2 mm² × 4 core (sheathed)
Outer diameter: φ5.3
Length: 100 m
Colour: Grey

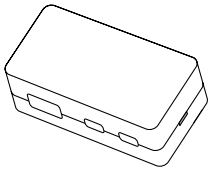
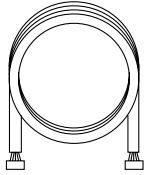
Note : Keep any wiring for the control unit away from the power cord to prevent electrical noise.

Installation ①

1 Installation diagram



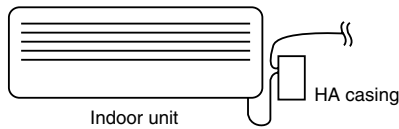
2 Components

| | |
|---|---|
| <p>① HA casing ASSY (Remote Control PCB is attached in the HA casing.)</p>  | <p>② Wiring (approx. 0.8 m)</p>  |
| <p>③ Accessories Binding band (6 pcs.) • Screws for attaching to the wall (3 pcs.)</p> | |
| <p>④ Installation manual</p> | |

Installation ②

Attaching HA Case ASSY

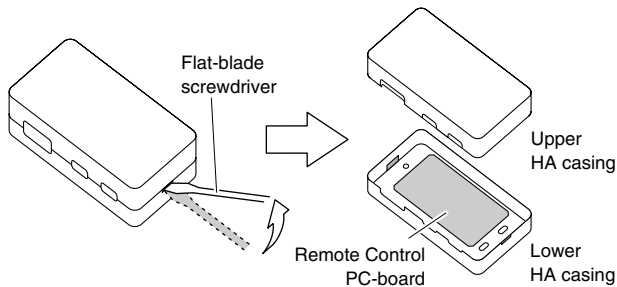
- Use the 3 supplied screws to attach the HA casing ASSY.



Install the HA casing ASSY as close to the indoor unit as possible.

① Removal of upper HA casing

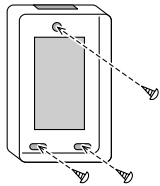
- (1) Insert a flat-blade screwdriver into the groove between the upper and lower HA casings.



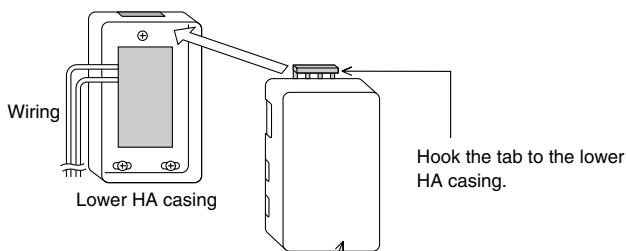
- (2) Lift the handle of the screwdriver upward.

- ② Mount and secure the lower HA casing directly on the wall with the provided screws inserted into the screw holes (a round hole and two ellipse holes) of the casing.

NOTE Mount the HA casing in a direction where the wiring through-holes will be hidden in order to prevent infants from putting their fingers into the HA casing and the LED light on the internal PC-board from leaking outside.



- ③ After connecting the cables (refer to the following sections), replace the case front. Be careful not to damage the wiring in the case.



Press the lower part of the upper HA casing and press fit it onto the lower HA casing.
Press the upper HA casing precisely until a clicking sound is heard.

Wiring ①

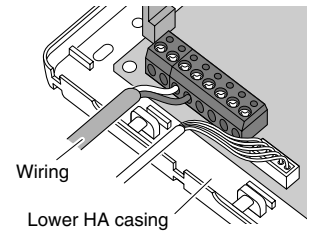
1. Wiring

- ① Connect one end of the wiring to connector S21 of the PCB in the indoor unit.
- ② Connect the other end of the wiring to connector S6 of the Remote Control PCB.
- ③ Connect field wiring according to the functions assigned to each connection terminal of the Remote Control PCB.
- ④ Secure all wires.

1 Securing wires in the HA casing ASSY

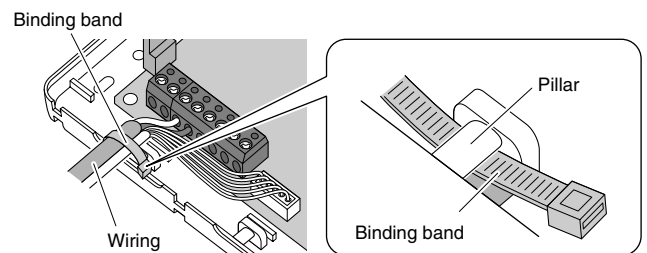
① Connection of wiring

Connect the wiring to the connector terminals.

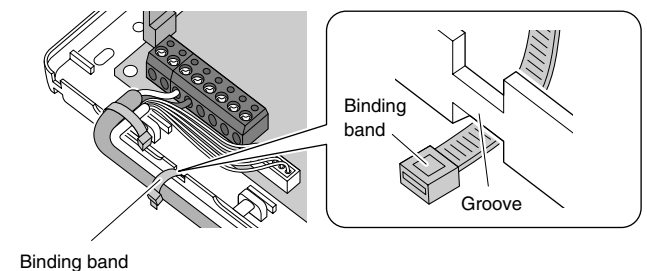


② Fixation of wiring

- (1) Insert the provided binding band under the pillar of the HA casing and secure the covers of the wiring with the binding band.



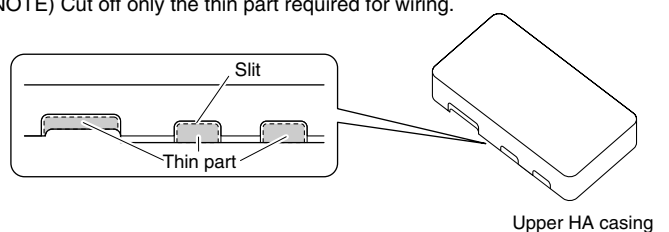
- (2) Insert the second binding band into the groove on the side of the HA casing and fix the wiring securely so that the wiring will not be disconnected.



A large number of wires

Make a slit with an appropriate tool, such as a cutter knife, on the thin part of the upper HA casing along the frame. Then cut the part with an appropriate tool, such as a pair of nippers.

(NOTE) Cut off only the thin part required for wiring.



2 Securing wires in the indoor unit

- The method for securing wire varies depending on the model of the air conditioner. See your air conditioner installation manual for details.

2. Automatic Reset After Power Failure

- This PCB stores the following data in the event of a power failure (the storage period is limitless).
- ① On/Off (see Note 1) ② Operation modes (see Note 2) ③ Temperature setting
- ④ Air flow rate ⑤ On/Off status of remote controller
- (Note 1 When SW1-2 is in Off mode, the unit will not be activated.)
- (Note 2 The following settings apply to the models below.)

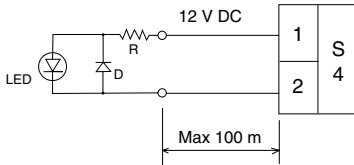
| | | |
|--|-------------|---------------|
| Mode before the power outage | COOLING | HEATING |
| Room air conditioner | | |
| Models with Humid heating and Reheating dehumidifying functions. | DRY COOLING | HUMID HEATING |
| Models with Reheating dehumidifying function. | | HEATING |

(Note 3 Not all settings will be saved (e.g., humidity or swing settings will not be saved)).

3. Monitor Signal Output (normal operation and malfunction)

- Maximum length of the wiring is 100 m. No external power supply is required.

1 Monitor signal output for LED

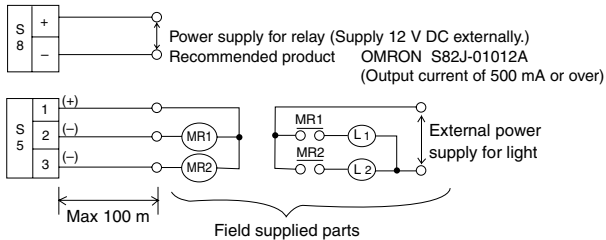


■ Locally procured parts

| Item | Manufacturer | Type |
|------|--------------|--------------|
| LED | Rohm | SLR-342 |
| D | Rohm | 1SS133 |
| R | | 510 ohm 1/4W |

2 Monitor signal output (normal operation and malfunction) using external relay contacts

- (L₁) : Operation light
- (L₂) : Malfunction light



■ Field procured parts (Recommended external relay contacts)

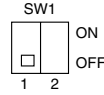
| Manufacturer | Type | Coil rated voltage | Coil resistance |
|--------------|----------|--------------------|-----------------|
| Omron | MY relay | 12 V DC | 160 ohm ± 10% |
| Panasonic | HC relay | 12 V DC | 160 ohm ± 10% |

4. Connection with Remote Controller

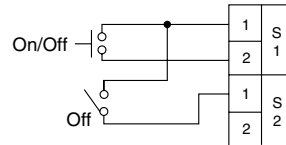
Example connections with three kinds of remote controllers are shown below. Note: These connections cannot be used in combination.

1 Remote control with switch (field supply)

- Set SW1-1 to Off and select Operation Mode 1.

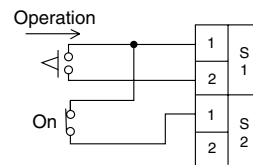


<Instantaneous Contact>



- The remote controller most recently used (local or air conditioner) takes precedence.
- Use a remote controller with a pulse width of 100 msec or more.

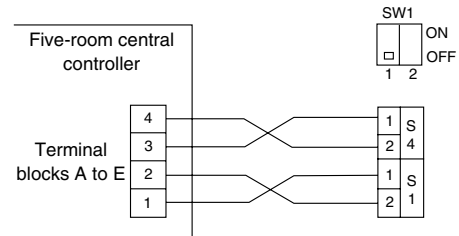
<Normal Contact>



- Power On/Off cannot be controlled from the unit's remote controller. (Three beeps for signal reception will be heard continuously when the wireless remote controller is operated.)
- When power is restored after a power failure in this mode, On or Off is determined according to the current settings of the remote controller.

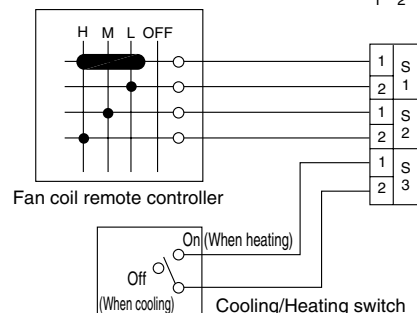
2 Five-room central controller (KRC72)

- Set SW1-1 to Off and select Operation Mode 1.
- The remote controller most recently used takes precedence.



3 Fan coil remote controller

- Set SW1-1 to On and select Operation Mode 2.
- Most settings (power On/Off, air flow rate, mode change) cannot be made using the air conditioner's remote controller.
- When power is restored after a power failure in this mode, On or Off is determined according to the current settings of the remote controller.
- When the Cooling/Heating mode is changed, use the air conditioner's remote controller to adjust the temperature.

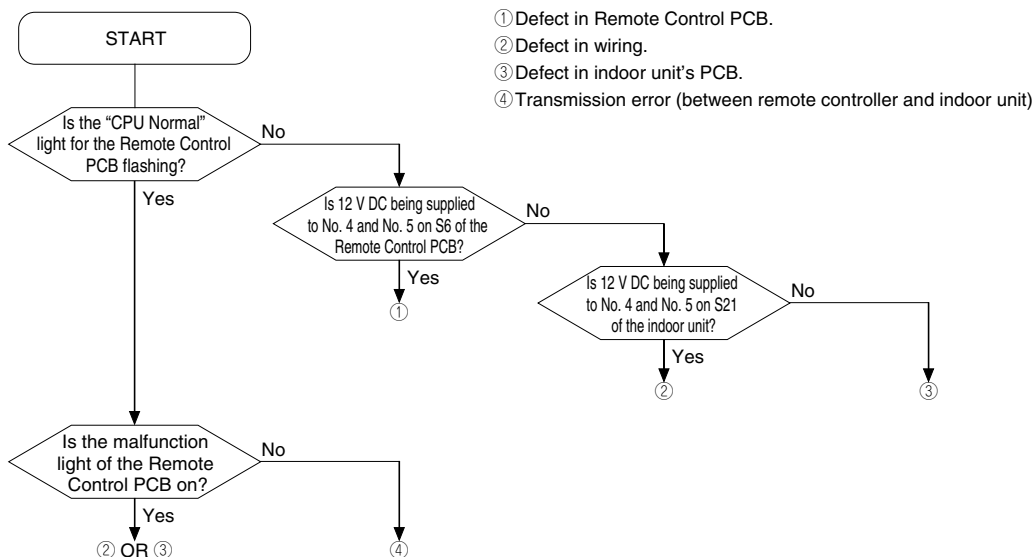


Test Operation and Confirmation

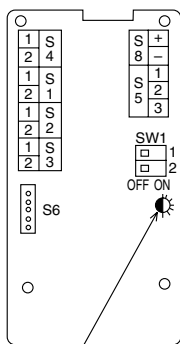
1. When the System is Not Working

- Is the air conditioner working properly?
- Are the connectors of the wiring properly connected?
- Are the remote controller and field wiring properly connected?
- Are all switch settings correct?
- If there is nothing apparently wrong, conduct a diagnostic check using the following procedure.

■ Diagnostic check



2. Switch Settings and Connection Terminals



CPU normal operation monitor
(Flashes when the operation is normal)

| | | | | | |
|----------------|---|--|--|-----------------------|---|
| SW1-1 | Selecting the operation mode | OFF | Operation mode 1 (Used with the exception of fan coil remote controller settings) | | |
| | | ON | Operation mode 2 (Used with fan coil remote controller settings) | | |
| SW1-2 | Selecting On/Off when power is restored after a power failure | OFF | Always Off | | |
| | | ON | Off if operation was in Off mode before power failure; On if operation was in On mode before power failure | | |
| S1 S2 S3 | SW1-1: OFF (Operation mode 1) | | | Instantaneous contact | Normal contact |
| | | S1 (1) - S2 (1) | OPEN | | CLOSE |
| | | S1 (1) - S1 (2) | Pulse input On/Off switching | | OPEN, Not activated CLOSE, Activated |
| | | S2 (2), S3 | Not used | | |
| | | S1, S2 OPEN | Not activated | | |
| | SW1-1: ON (Operation mode 2) | S1 (1) - S1 (2) CLOSE | On, airflow: L tap | | |
| | | S1 (1) - S2 (1) CLOSE | On, airflow: M tap | | |
| | | S1 (1) - S2 (2) CLOSE | On, airflow: H tap | | |
| | | S3 (With the remote controller only) | OPEN | Cooling | |
| | | | CLOSE | Heating | |
| S4 | (1) - (2) | Voltage on (12 V DC), normal operation light output | | | |
| S5 | (1) - (2) | Normal operation light output (power for light required) | | | |
| | (1) - (3) | Malfunction light output (power for light required) | | | |
| S6 connector | | Connect with connector S21 on the PCB of the indoor unit | | | |
| S8 | (+) - (-) | Relay 12 V DC power supply terminal (Field supplied parts) | | | |