

MITSUBISHI ELECTRIC

Air-Conditioners For Building Application

Remote ON/OFF <input> signal adapter PAC-SC36NA-E

Installation Manual

This installation manual describes only the connection of the Remote ON/OFF <output> signal adapter to the outdoor unit of PAC air conditioner series.



This part is a wiring member to connect the external circuit (locally procured) to the board on the outdoor unit. Depending on the connection, low level sound priority, power consumption, ON/OFF functions can be controlled.

For details of compatible models, connection method and setting method, refer to the outdoor unit service manual

For your safety, be sure to read firstly “(1) Safety Precaution” described below thoroughly and then install the PAC-SC36NA-E.

1 Safety Precaution

- The following two symbols are used to denote dangers that may be caused by incorrect use.

 WARNING	This symbol denotes what could lead to serious injury or death if you misuse the PAC-SC36NA-E.
 CAUTION	This symbol denotes what could lead to a personal injury or property damage if you misuse the PAC-SC36NA-E.

- After reading this instruction manual, keep it in a place where the end user can find it anytime he or she wants to it. When someone moves, repairs or uses the PAC-SC36NA-E, make sure that this manual is forwarded to the final user.

WARNING

- **Ask your dealer or technical representative to install the unit.**
Any deficiency caused by your own installation may result in an electric shock or fire.
- **Ensure that installation work is done correctly following this instruction manual.**
Any deficiency caused by installation may result in an electric shock or fire.
- **Firmly connect the wiring using the specified cables.**
Carefully check that the cables do not exert any forces on the terminals.
Improper wiring connections may produce heat and possibly a fire.
- **Never modify or repair the PAC-SC36NA-E.**
Any deficiency caused by your modification or repair may result in an electric shock or fire. Consult with your dealer about repair.
- **All electrical work must be performed by a licensed technician, according to local regulations and the instructions given in this manual.**
Any lack of electric circuit or any deficiency caused by installation may result in an electric shock or fire.
- **Do not move and re-install the PAC-SC36NA-E yourself.**
Any deficiency caused by installation may result in an electric shock or fire. Ask your distributor or special vendor for moving and installation.
- **Stop the operation if any malfunction occurs.**
If malfunction occurs (burning smell, etc.) stop the operation and turn off the power supply. Contact your dealer or technical representative. If the controller continues to operate after a malfunction occurs, this may cause damage, electric shock or fire.
- **Do not turn on the main power until installation has been completed.**
Doing so may result in electric shock or fire.

CAUTION

- **Do not install in any place exposed to flammable gas leakage.**
Flammable gases accumulated around the body of PAC-SC36NA-E may cause an explosion.
- **Do not use in any special environment.**
Using in any place exposed to oil (including machine oil), steam and sulfuric gas may deteriorate the performance significantly or give damage to the component parts.
- **Wire so that it does not receive any tension.**
Tension may cause wire breakage, heating or fire.
- **Do not install in any place at a temperature of more than 40 °C (104 °F) or less than 0 °C (32 °F) or exposed to direct sunlight.**
- **Do not install in any place where acidic or alkaline solution or special spray are often used.**
Doing so may cause an electric shock or malfunction.
- **Do not install in any steamy place such a bathroom or kitchen.**
Avoid any place where moisture is condensed into dew.
Doing so may cause an electric shock or malfunction.
- **Use standard wires in compliance with the current capacity.**
A failure to this may result in an electric leakage, heating or fire.
- **Do not wash with water.**
Doing so may cause an electric shock or malfunction.

2 Parts list

Make sure that the following items are included in the package.

- Remote ON/OFF <input> signal adapter 3 m (9-3/4 ft) 1 pcs.

3 Connection to the Outdoor Unit

Connect the connector side of the Remote ON/OFF <input> signal adapter to the connector CNDM of the outdoor unit control board as necessary. The connector can only be connected in one direction only, do not force the connection.

4 Locally Procured Parts

All parts other than the Remote ON/OFF <input> signal adapter (PAC-SC36NA-E) are procured locally. The items required will depend on the connection method. Refer to the example of use shown below. (Example)

- ① External timer No voltage contact out put timer (with separate circuits for power supply and switch).
- ② Switch Single pole, single action swich.

⚠ CAUTION: Choose the parts for the contact for minute electric current.

The timer and the contact of the switch will require degrees of 5 VDC, 12 V or 1 mA load. Choosing the wrong parts may cause stoppage of the adapter.

- ③ Transit relay When the wiring work as described in 6. *Wiring Restrictions* is required, this relay is used.
- ④ Control cable The length of the electrical wiring for the PAC-SC37SA is 3 meters (9-3/4 ft).
To extend this length, use sheathed 2-core cable
Control cable type: CVV, CVS, CPEV or equivalent
Cable size: 0.5 mm² ~ 1.25 mm² (16 to 22 AWG)
Don't extend the cable more than 10 meters (32 ft).

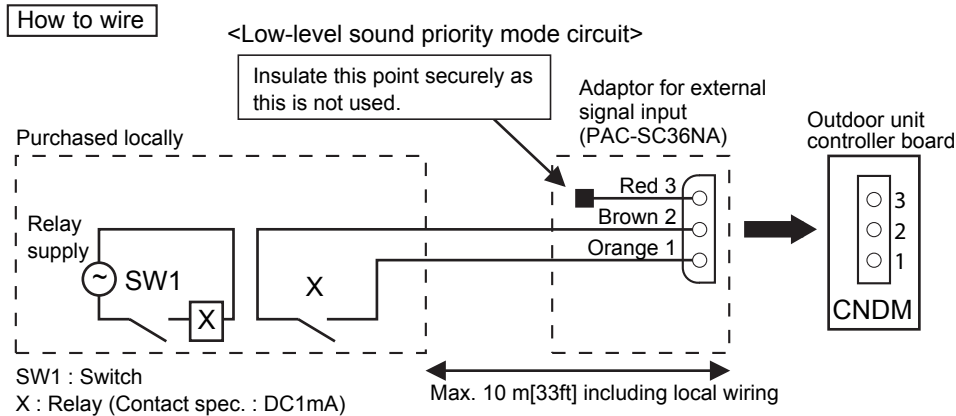
⚠ CAUTION:

- 1. **Wiring should be covered by insulation tube with supplementary insulation.**
- 2. **Use relays or switches with IEC or equivalent standard.**
- 3. **The electric strength between accessible parts and control circuit should have 2750 V or more.**

Special function

(a) **Low-level sound priority mode** (Local wiring)

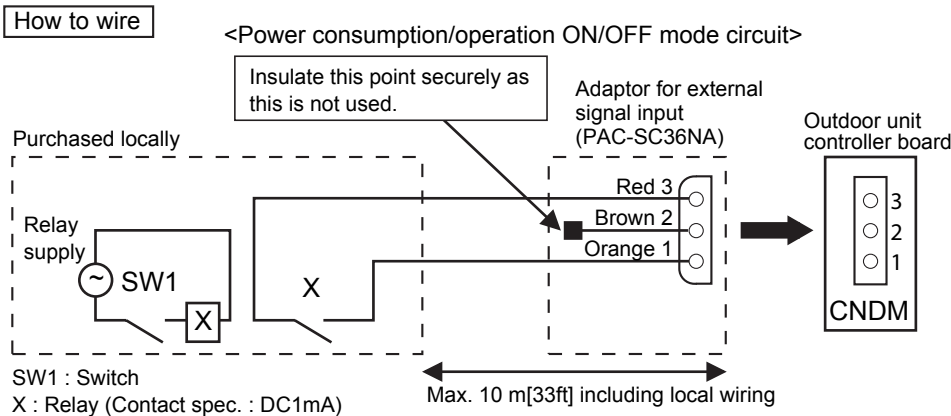
Unit enters into Low-level sound priority mode by external signal input setting. Inputting external signals to the outdoor unit decreases the outdoor unit operation sound 3 to 4 dB lower than that of usual. Adding a commercial timer or on-off switch contactor setting to the CNDM connector which is optional contactor for demand input located on the outdoor controller board enables to control compressor operation frequency. The performance depends on the load of conditioned outdoor temperature.



- 1) Make the circuit as shown above with Adaptor for external signal input(PAC-SC36NA).
- 2) Turn SW1 to on for Low-level sound priority mode.
Turn SW1 to off to release Low-level sound priority mode and normal operation.

(b) **Demand control, ON/OFF Operation** (Local wiring)

Demand control is available by external input. In this mode, power consumption is decreased within the range of usual 0~100%.



Connect SW 1 which is procured locally between Orange and Red(1 and 3) of the Adaptor (PAC-SC36NA), for external signal input and insulate the tip of the brown lead wire.

It is possible to set it to the following power consumption (compared with ratings) by setting the SW7-1, 2.

SW7-1	SW7-2	Power consumption (with SW1 on)
OFF	OFF	0% (Operation stop)
ON	OFF	50%
OFF	ON	75%

Note:

When SW7-1 and SW7-2 is set to the OFF position and SW1 is closed, operation will stop (compressor and condensing fan stops operation) the indoor fan will continue operation base on user settings of fan speed. This function does not prohibit the functions of the wired controller.