

## 12. External input and output (30-54 models)

With using external input and output functions, this product can be operated inter-connectedly with an external device.

| Connector | Input          | Output            | Remarks   |
|-----------|----------------|-------------------|---|
| P580      | Low noise mode | —                 | See external input/output settings for details. |
| PA580     | Peak cut mode  | —                 |   |
| P590      | —              | Error status      |   |
| PA590     | —              | Compressor status |   |

### 12-1. External input

With using external input function, on/off status of “Low noise mode” and “Peak cut mode” can be specified by the external signal.

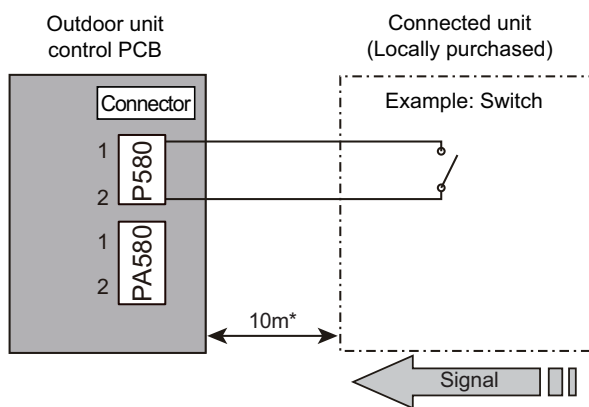
#### ■ Low noise mode

In following condition, the operating noise of the outdoor unit reduces comparing from the one in normal operating condition:

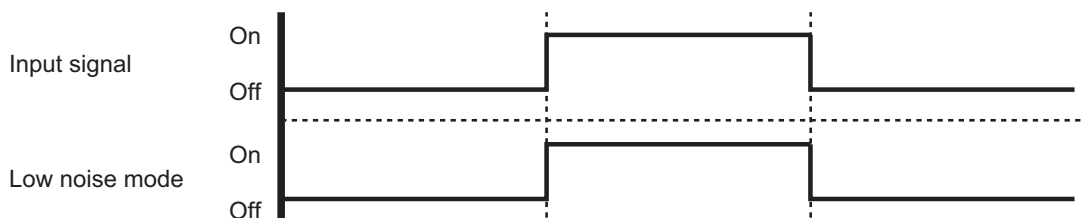
The air conditioner is set to the “Low noise mode” when closing the contact input of a commercial timer or on/off switch to a connector on the control PCB of the outdoor unit.

**NOTE:** Product performance may drop depending on some conditions such as the outdoor temperature.

#### • Circuit diagram example



- Contact capacity: DC 24 V or more, 10 mA or more.
- \*: Make the distance from the PCB to the connected unit within 10 m.
- Construct a circuit as shown in this figure with using optional parts mentioned below.
- Input signal: On in “Low noise mode”
- Input signal: Off in normal operation
- To set the level of “Low noise mode”, refer to “Low noise mode” on page 94.



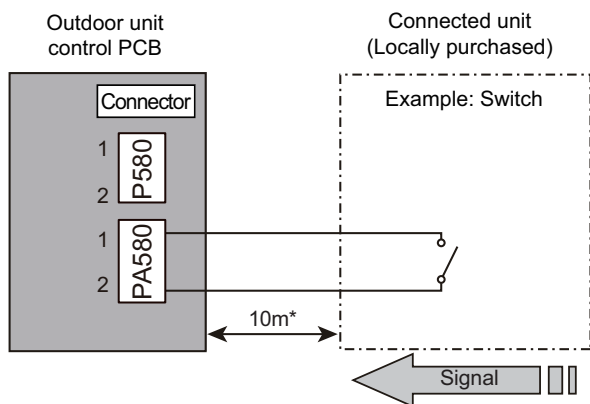
#### • Optional part

| Part name            | Model name | Exterior                |
|----------------------|------------|-------------------------|
| External connect kit | UTY-XWZXZ3 | External input wire<br> |

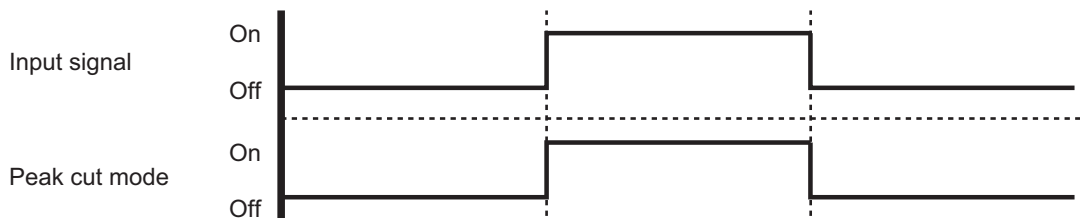
## ■ Peak cut mode

By performing following on-site work, operation that suppresses the current value can be enabled: The air conditioner is set to the “Peak cut mode” when closing the contact input of a commercial timer or on/off switch to a connector on the control PCB of the outdoor unit.

### • Circuit diagram example



- Contact capacity: DC 24 V or more, 10 mA or more.
- \*: Make the distance from the PCB to the connected unit within 10 m.
- Construct a circuit as shown in this figure with using optional parts mentioned below.
- Input signal: On in “Peak cut mode”
- Input signal: Off in normal operation
- To set the level of “Peak cut mode”, refer to [“Peak cut mode”](#) on page 95.



### • Optional part

| Part name            | Model name | Exterior   |
|----------------------|------------|--|
| External connect kit | UTY-XWZXZ3 | External input wire<br> |

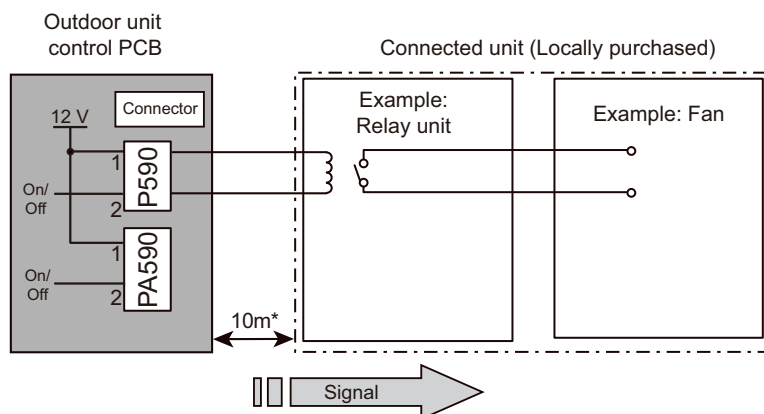
## 12-2. External output

With using external output function, some status signals are transmitted to the control PCB, and the related LED lamp indicates the status of this product.

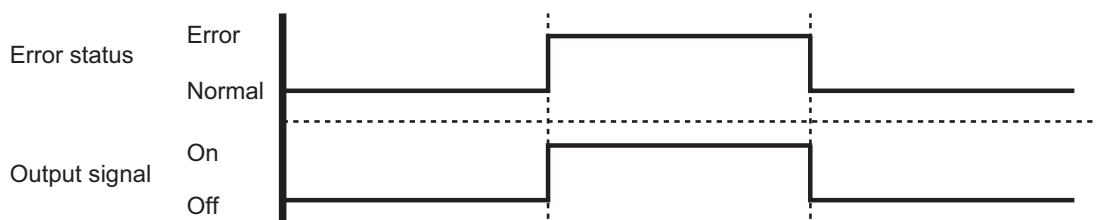
### ■ Error status output

Signal on air conditioner error status is generated when a malfunction occurs.

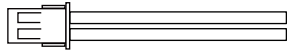
#### • Circuit diagram example



- Output voltage (Vcc): DC 12 V  
50 mA or less
- \*: Make the distance from the PCB to the connected unit within 10 m.



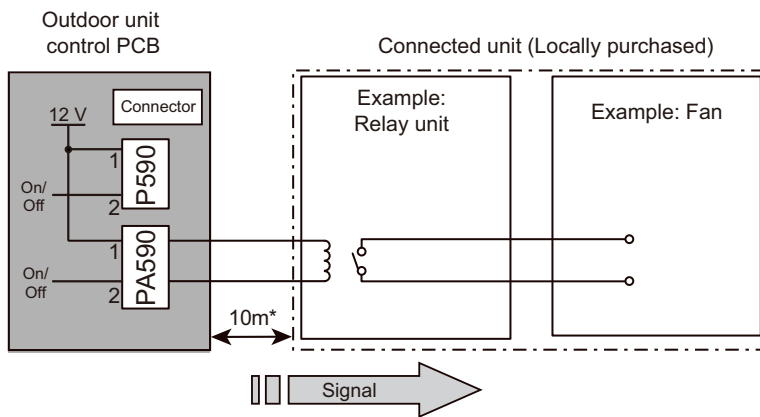
#### • Optional part

| Part name            | Model name | Exterior  |
|----------------------|------------|---|
| External connect kit | UTY-XWZXZ3 | External output wire<br> |

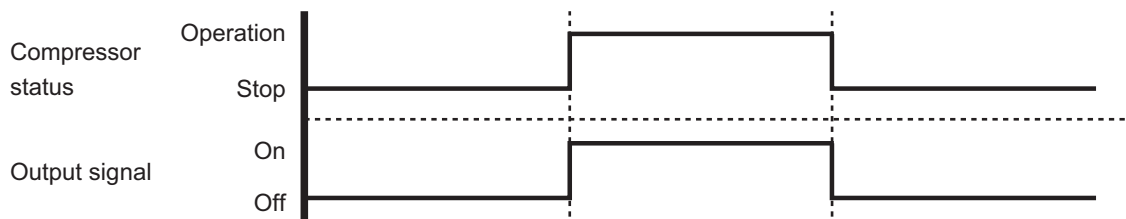
## Compressor status output

Signal on compressor operation status is generated when the compressor is running.

### Circuit diagram example



- Output voltage (Vcc): DC 12 V  
50 mA or less
- \*: Make the distance from the PCB to the connected unit within 10 m.



### Optional part

| Part name            | Model name | Exterior  |
|----------------------|------------|---|
| External connect kit | UTY-XWZXZ3 | External output wire<br> |

## 13. Function settings (30-54 models)

Perform appropriate function setting locally according to the installation environment.

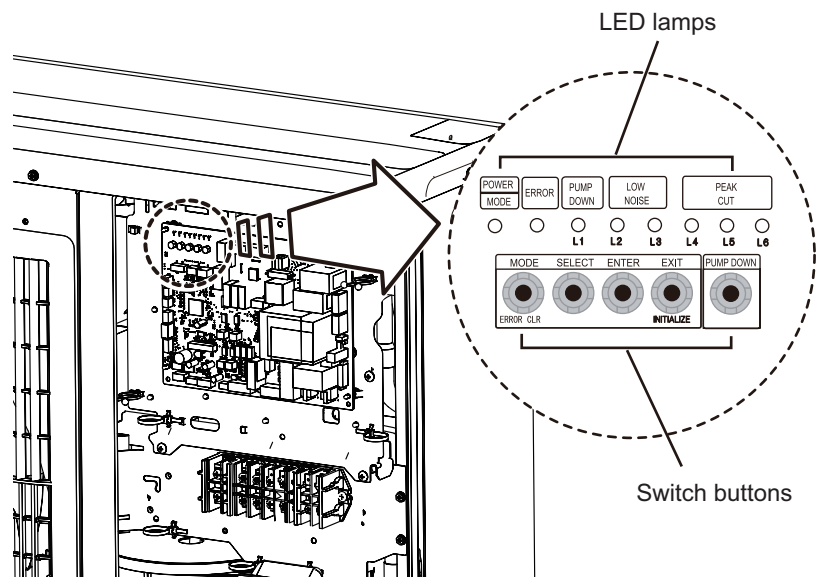
**NOTE:** Incorrect settings can cause a product malfunction.

### ⚠ CAUTION

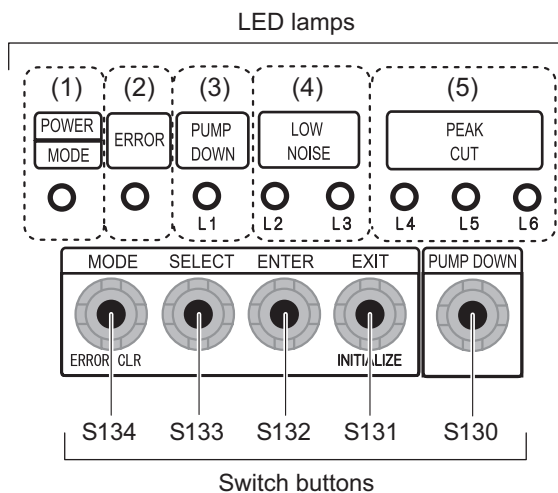
- Before setting up the switch buttons, discharge the static electricity from your body.
- Never touch the terminals or the patterns on the parts that are mounted on the PCB.

### 13-1. Control PCB and switch buttons location

Control PCB of the outdoor unit is located as shown in the following figure.



## Switch buttons and the functions



| LED lamp |                                |        | Function or operation method   |
|----------|--------------------------------|--------|--|
| (1)      | POWER/MODE                     | Green  | Lights on while power on.<br>Local setting in outdoor unit or error code is displayed with blink.                                |
| (2)      | ERROR                          | Red    | Blinks during error operation.   |
| (3)      | PUMP DOWN (L1)                 | Orange | Lights on during pump down operation.  |
| (4)      | LOW NOISE MODE (L2 and L3)     | Orange | Lights on during "Low noise mode" when local setting is activated. (Lighting pattern of L2 and L3 indicates low noise level.)    |
| (5)      | PEAK CUT MODE (L4, L5, and L6) | Orange | Lights on during "Peak cut mode" when local setting is activated. (Lighting pattern of L4, L5, and L6 indicates peak cut level.) |

| Switch button |           | Function or operation method  |
|---------------|-----------|---|
| S134          | MODE      | Switches between "Local setting" and "Error code display".                      |
| S133          | SELECT    | Switches between the individual "Local settings" and the "Error code displays". |
| S132          | ENTER     | Switches between the individual "Local settings" and the "Error code displays". |
| S131          | EXIT      | Returns to "Operation status display".  |
| S130          | PUMP DOWN | Starts the pump down operation.   |

## 13-2. Local setting procedure

**NOTE:** Before performing the function setting, be sure to stop the operation of the air conditioner.

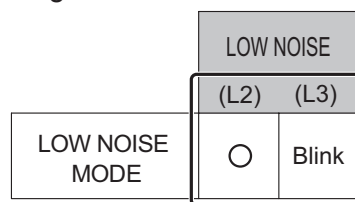
### Low noise mode

1. Press the MODE switch button (S134) for 3 seconds or more to switch to "Local setting mode".
2. After confirming the LED lamp of POWER/MODE blinks 9 times, press the ENTER switch button (S132).

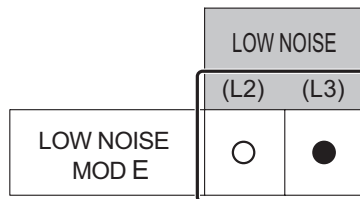
| POWER<br>MODE       | ERROR | PUMP<br>DOWN<br>(L1) | LOW NOISE<br>(L2) (L3) |   | PEAK CUT<br>(L4) (L5) (L6) |   |   |
|---------------------|-------|----------------------|------------------------|---|----------------------------|---|---|
| Blinks<br>(9 times) | ○     | ○                    | ○                      | ○ | ○                          | ○ | ○ |

Sign "○": Lights off

3. Press the SELECT switch button (S133), and adjust the LED lamp as shown below. Then the LED lamp indicates the current setting.

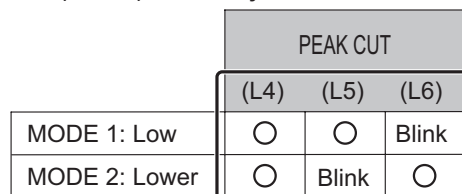


4. Press the ENTER switch button (S132).

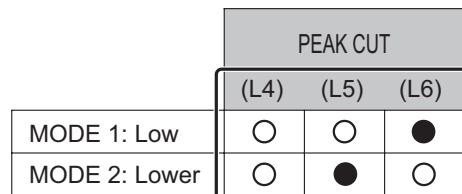


Sign "●": Lights on

5. Press the SELECT switch button (S133), and adjust the LED lamps as shown below.



6. Press the ENTER switch button (S132) and fix it.



7. To return to "Operating status display (Normal operation)", press the EXIT switch button (S131).

#### In case of missing how many times you pressed the SELECT and ENTER switch buttons:

1. To return to "Operation status display (Normal operation)", press the EXIT switch button once.
2. Restart from the beginning of setting procedure.

**NOTE:** In case of missing how many times you pressed the SELECT and ENTER switch buttons, you must redo the setting procedure. Return to "Operation status display (Normal operation)" by pressing the EXIT switch button once, and restart from the beginning of the setting procedure.

## ■ Peak cut mode

1. Press the MODE switch button (S134) for 3 seconds or more to switch to “Local setting mode”.
2. After confirming the LED lamp of POWER/MODE blinks 9 times, press the ENTER switch button (S132).

| POWER<br>MODE       | ERROR | PUMP<br>DOWN<br>(L1) | LOW NOISE |      | PEAK CUT |      |      |
|---------------------|-------|----------------------|-----------|------|----------|------|------|
|                     |       |                      | (L2)      | (L3) | (L4)     | (L5) | (L6) |
| Blinks<br>(9 times) | ○     | ○                    | ○         | ○    | ○        | ○    | ○    |

Sign “○”: Lights off

3. Press the SELECT switch button (S133), and adjust the LED lamp as shown below. Then the LED lamp indicates the current setting.

| PEAK CUT<br>MODE | LOW NOISE |      |
|------------------|-----------|------|
|                  | (L2)      | (L3) |
|                  | Blink     | ○    |

4. Press the ENTER switch button (S132).

| PEAK CUT<br>MODE | LOW NOISE |      |
|------------------|-----------|------|
|                  | (L2)      | (L3) |
|                  | ●         | ○    |

Sign “●”: Lights on

5. Press the SELECT switch button (S133), and adjust the LED lamps as shown below.

|                            | PEAK CUT |       |       |
|----------------------------|----------|-------|-------|
|                            | (L4)     | (L5)  | (L6)  |
| 100 % of rated input ratio | ○        | ○     | Blink |
| 75 % of rated input ratio  | ○        | Blink | ○     |
| 50 % of rated input ratio  | ○        | Blink | Blink |
| 0 % of rated input ratio   | Blink    | ○     | ○     |

6. Press the ENTER switch button (S132) and fix it.

|                            | PEAK CUT |      |      |
|----------------------------|----------|------|------|
|                            | (L4)     | (L5) | (L6) |
| 100 % of rated input ratio | ○        | ○    | ●    |
| 75 % of rated input ratio  | ○        | ●    | ○    |
| 50 % of rated input ratio  | ○        | ●    | ●    |
| 0 % of rated input ratio   | ●        | ○    | ○    |

7. To return to “Operating status display (Normal operation)”, press the EXIT switch button (S131).

**NOTE:** When pressed number is lost during setting, you must redo the setting procedure. Return to “Operation status display (Normal operation)” by pressing the EXIT switch button once, and restart from the beginning of the setting procedure.