

INSTALLATION MANUAL

For authorized service personnel only.

Let the customer keep this installation manual because it is needed when the air conditioner or IR receiver kit is serviced or moved.

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 it as outlined in this installation manual.

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

Do not turn on the power until all installation work is complete.

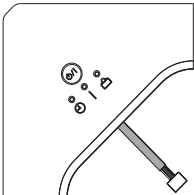


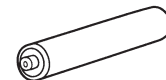
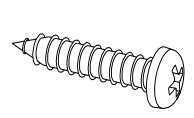

CAUTION Indicates a potentially hazardous situation that may result in minor or moderate injury or damage to property.

Do not wire the IR receiver kit wire together with or parallel to the connection cables, transmission cords, remote controller cords, bus wire and power supply cords of the indoor and outdoor units. It may cause erroneous operation.

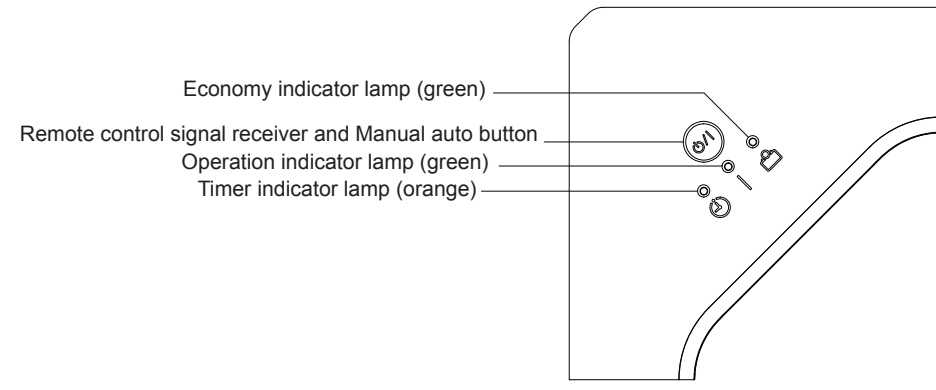
Do not install the IR receiver kit wire near a source of electromagnetic waves.

1 PARTS AND ACCESSORIES

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

Name and shape	Q'ty	Application	Name and shape	Q'ty	Application
IR receiver unit 	1	For receiving the signal from the remote controller	Remote controller 	1	Use for air conditioner operation
Strap 	1	Prevent receiver kit from falling down	Battery 	2	For remote controller
Screw (ø3) 	2	For installing remote controller holder to wall	Remote controller holder 	1	Use as remote controller holder

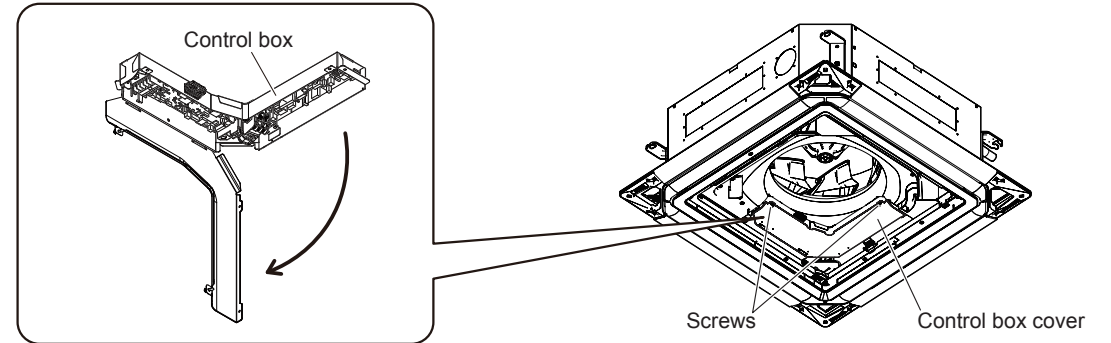
2 CONTROL PANEL



3 INSTALLING THE IR RECEIVER UNIT

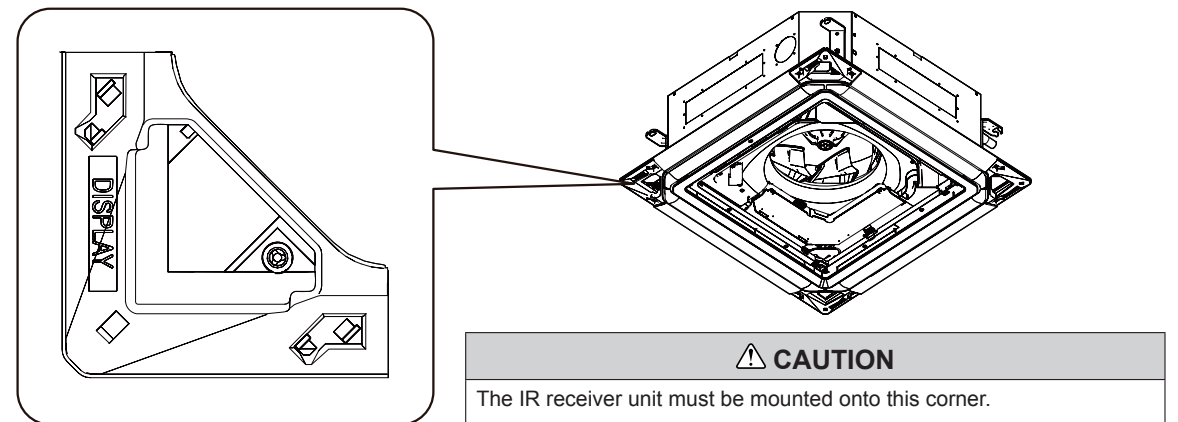
3-1. REMOVING THE CONTROL BOX COVER

- Loosen the screws (2 places)
- The control box cover will come off in the direction of the arrow.



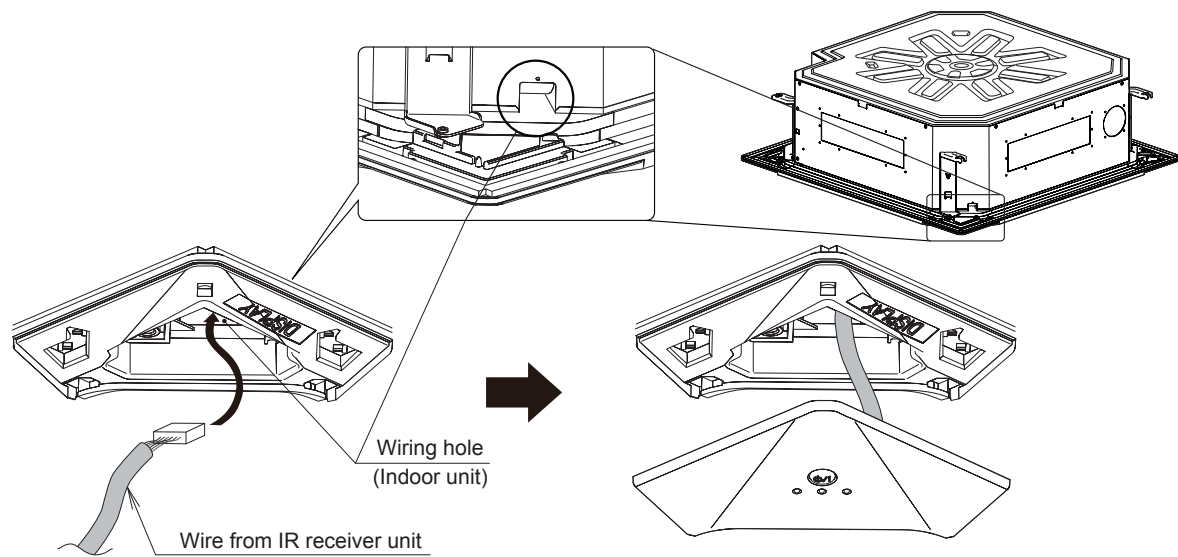
3-2. INSTALLING THE IR RECEIVER UNIT

- Mount onto the IR receiver unit the corner (figure to the drainpipe) of the decoration panel that has the "DISPLAY" mark.

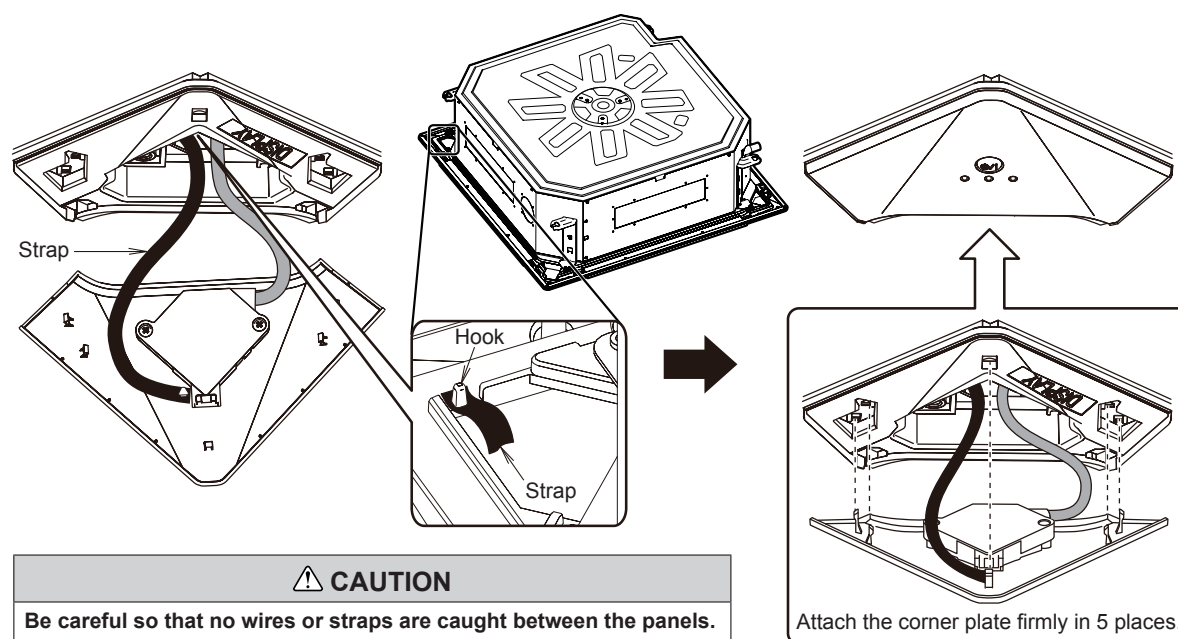


CAUTION
The IR receiver unit must be mounted onto this corner.

- Insert the wire from the IR receiver unit into the wiring hole as shown in the figure below and pull it into the Decoration panel.



- Hang the strap on the hook of the Decoration panel. After that, mount the IR receiver unit onto the Decoration panel.



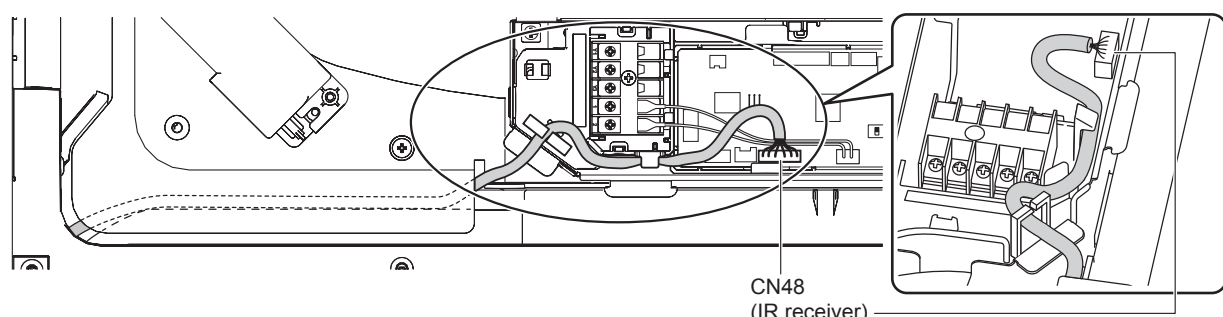
CAUTION

Be careful so that no wires or straps are caught between the panels.

Attach the corner plate firmly in 5 places.

3-3. WIRING

- Connect the connector to the board in the control box.
- Attach the IR receiver unit wire as shown in the figure below.



3-4. INSTALLING THE CONTROL BOX COVER

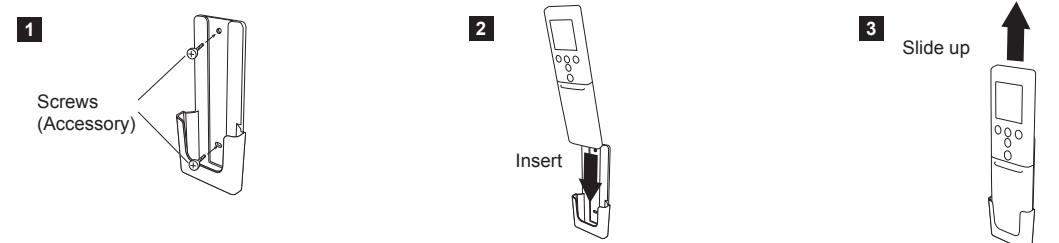
- Secure the control box cover in the procedure that is reverse to the steps in "3-1. REMOVING THE CONTROL BOX COVER".

4 TURNING ON THE BREAKER

- Turn on the breaker.
- Make sure that the operation lamp and timer lamp are slowly flashing alternately.
 - If the auto restart function has been set, the air conditioner will operate with the settings immediately before the power supply was turned off.
 - If an error has occurred, the lamps on the receiver unit will flash quickly to indicate the error code. (See "9. ERROR CODES")

5 REMOTE CONTROLLER SETTING

5-1. REMOTE CONTROLLER HOLDER INSTALLATION



WARNING

Take care to prevent infants and young children from accidentally swallowing the batteries.

CAUTION

Do not attempt to recharge dry batteries.

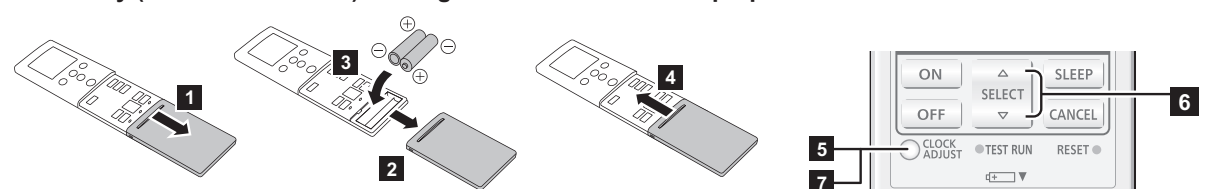
Do not use dry batteries that has been recharged.

When not using the remote controller for an extended period, remove the batteries to avoid possible leakage and damage to the unit.

If leaking battery fluid comes in contact with your skin, eyes, or mouth, immediately wash with copious amounts of water, and consult your physician.

Dead batteries should be removed immediately and disposed of properly, either in a battery collection receptacle or to the appropriate authority.

5-2. Battery (R03/LR03/AAA × 2) loading and remote controller preparation



- Press "CLOCK ADJUST" button to start clock setting.

- Set the time by pressing "SELECT (Δ▽)" button. (By pressing the "TEMP. (ΛV)" buttons, the time indicator can be changed from a 24-hour to a 12-hour clock.)

Pressing Δ or ▽ changes the value by the minute. Pressing down on Δ or ▽ changes the value by 10 minutes.

- To complete, press the "CLOCK ADJUST" button again close to the indoor unit. Settings may not be properly sent if pressed from a distance.

NOTES

- Use specified type of batteries only.
- Do not mix different types or new and used batteries together.
- Batteries can be used about 1 year in ordinary use.
- If the remote control range noticeably shortens, or the display is pale or difficult to see, replace the batteries, and press the "RESET" button as shown in the figure.



Perform the function setting according to the installation conditions using the remote controller.

CAUTION

- Confirm whether the wiring work for outdoor unit has been finished.
- Confirm that the cover for the electrical enclosure on the outdoor unit is in place.

- This procedure changes to the function settings used to control the indoor unit according to the installation conditions. Incorrect settings can cause the indoor unit to malfunction.
- After the power is turned on, perform the function setting according to the installation conditions using the remote controller.
- The settings may be selected between the following two: function number and setting value.
- Settings will not be changed if invalid numbers or setting values are selected.
- Refer to the installation manual enclosed with the remote controller when the wired remote controller (option) is used.

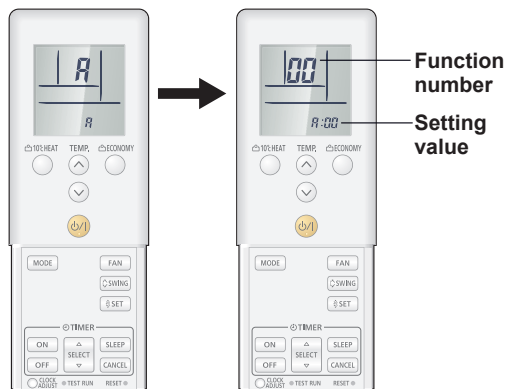
6-1. Entering the function setting mode

While pressing the "ECONOMY" button and "TEMP. (Λ)" button simultaneously, press the "RESET" button to enter the function setting mode.

Press the "10°C HEAT" button.

6-2. Selecting the function number and setting value

- Press the "TEMP. (Λ ∨)" buttons to select the function number. (Press the "10°C HEAT" button to switch between the left and right digits.)
- Press the "ECONOMY" button to proceed to setting value. (Press the "ECONOMY" button again to return to the function number selection.)
- Press the "TEMP. (Λ ∨)" buttons to select the setting value. (Press the "10°C HEAT" button to switch between the left and right digits.)
- Press the "MODE" button once to send the function setting information. Please confirm the beeping sound.
- Next, please press start/stop (⏻/⏷) button once to fix the function setting. Please confirm the beeping sound.
- Press the "RESET" button to cancel the function setting mode.
- After completing the function setting, be sure to turn off the power and turn it on again.



CAUTION

After turning off the power, wait 30 seconds or more before turning it on again. The function setting does not become active unless the power is turned off then on again.

Filter sign

Select appropriate intervals for displaying the filter sign on the indoor unit according to the estimated amount of dust in the air of the room.

If the indication is not required, select "No indication" (03). (Factory setting)

Function number	Setting value	Setting description
11	00	Standard (2500 hours)
	01	Long interval (4400 hours)
	02	Short interval (1250 hours)
	03	No indication

Ceiling height

Select the appropriate ceiling height according to the place of installation.

(Factory setting)

Function number	Setting value	Setting description
20	00	Standard (3.2m)
	01	High ceiling (4.2m)
	02	Low ceiling (2.7m)

The ceiling height values are for the 4-way outlet. Do not change this setting in the 3-way outlet mode.

Outlet directions

Select the appropriate number of outlet directions according to the installation conditions.

(Factory setting)

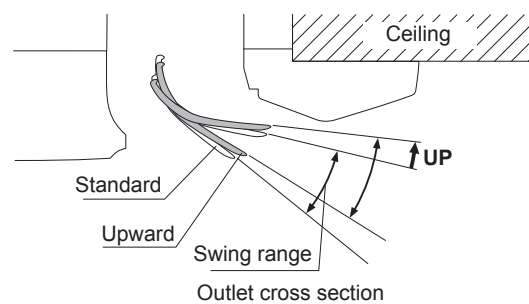
Function number	Setting value	Setting description
22	00	4-way
	01	3-way

Vertical wind direction adjustment range

To prevent draft, change the setting to "Upward" (01). Note that the airflow in certain usage conditions may leave the ceiling dirty. In such cases, the use of the optional "PANEL SPACER KIT" is recommended.

(Factory setting)

Function number	Setting value	Setting description
23	00	Standard
	01	Upward



Room temperature control for indoor unit sensor

Depending on the installed environment, correction of the room temperature sensor may be required. Select the appropriate control setting according to the installed environment.

The temperature correction values show the difference from the Standard setting "00" (manufacturer's recommended value). (Factory setting)

Function number	Setting value	Setting description
30 (For cooling)	00	Standard setting
	01	No correction 0.0 °C (0 °F)
	02	-0.5 °C (-1 °F)
	03	-1.0 °C (-2 °F)
	04	-1.5 °C (-3 °F)
	05	-2.0 °C (-4 °F)
	06	-2.5 °C (-5 °F)
	07	-3.0 °C (-6 °F)
	08	-3.5 °C (-7 °F)
	09	-4.0 °C (-8 °F)
	10	+0.5 °C (+1 °F)
	11	+1.0 °C (+2 °F)
	12	+1.5 °C (+3 °F)
	13	+2.0 °C (+4 °F)
	14	+2.5 °C (+5 °F)
	15	+3.0 °C (+6 °F)
	16	+3.5 °C (+7 °F)
17	+4.0 °C (+8 °F)	

Auto restart

Enable or disable automatic restart after a power interruption. (Factory setting)

Function number	Setting value	Setting description
40	00	Enable
	01	Disable

* Auto restart is an emergency function such as for power outage etc. Do not attempt to use this function in normal operation. Be sure to operate the unit by remote controller or external device.

Remote controller custom code

(Only for wireless remote controller) The indoor unit custom code can be changed. Select the appropriate custom code.

(Factory setting)

Function number	Setting value	Setting description
44	00	A
	01	B
	02	C
	03	D

External input control

"Operation/Stop" mode or "Forced stop" mode can be selected. (Factory setting)

Function number	Setting value	Setting description
46	00	Operation/Stop mode 1
	01	(Setting prohibited)
	02	Forced stop mode
	03	Operation/Stop mode 2

Indoor unit fan control for energy saving for cooling

Enables or disables the power-saving function by controlling the indoor unit fan rotation when the outdoor unit is stopped during cooling operation.

(Factory setting)

Function number	Setting value	Setting description
49	00	Disable
	01	Enable
	02	Remote controller

00: When the outdoor unit is stopped, the indoor unit fan operates continuously following the setting on the remote controller.
01: When the outdoor unit is stopped, the indoor unit fan operates intermittently at a very low speed.
02: Enable or disable this function by remote controller setting.

*When using a 3-wire remote controller, the setting cannot be made by using the remote controller. Set to "00" or "01".

Switching functions for external output terminal

Functions of the external output terminal can be switched. (Factory setting)

Function number	Setting value	Setting description
60	00	Operation status
	09	Error status
	10	Indoor unit fan operation status
	11	External heater

Setting record

Record any changes to the settings in the following table.

Function number	Setting	Setting Value
11	Filter sign	
20	Ceiling height	
22	Outlet directions	
23	Vertical wind direction adjustment range	
30	Room temperature control for	Cooling
31	indoor unit sensor	Heating
40	Auto restart	
44	Remote controller custom code	
46	External input control	
49	Indoor unit fan control for energy saving for cooling	
60	Switching function for external outlet terminal	

After completing the function setting, be sure to turn off the power and turn it on again.

SELECTING THE REMOTE CONTROLLER CUSTOM CODE

When two or more air conditioners are installed in a room and the remote controller is operating an air conditioner other than the one you wish to set, change the custom code of the remote controller to operate only the air conditioner you wish to set (4 selections possible).

When two or more air conditioners are installed in a room, please contact your retailer to set the individual air conditioner custom codes.

Selecting the Remote controller custom code

Use the following steps to select the custom code of the remote controller. (Note that the air conditioner cannot receive a custom code if the air conditioner has not been set for the custom code.)

- Press the start/stop (⏻/⏷) button until only the clock is displayed on the remote controller display.
- Press the "MODE" button for at least 5 seconds to display the current custom code (initially set to A).
- Press the "TEMP. (Λ ∨)" buttons to change the custom code between A → B → C → D. Match the code on the display to the air conditioner custom code.
- Press the "MODE" button again to return to the clock display. The custom code will be changed.



If no buttons are pressed within 30 seconds after the custom code is displayed, the system returns to the original clock display. In this case, start again from step (1).

If you do not know the air conditioner custom code setting, try each of the custom codes (A → B → C → D) until you find the code which operates the air conditioner.

TEST RUN

[OPERATION METHOD]

- For the operation method, refer to the operating manual.
- The outdoor unit may not operate depending on the room temperature. In this case, press the "TEST RUN" button on the remote controller while the air conditioner is running. (Point the transmitter section of the remote controller toward the air conditioner and press the "TEST RUN" button as shown in NOTES of "5. REMOTE CONTROLLER SETTING" with the tip of a ball-point pen, etc.)
- To end test operation, press the remote controller "START/STOP" button.

When the air conditioner is run by pressing the remote controller "TEST RUN" button, the operation and timer lamps flash slowly at the same time.

[CHECK ITEMS]

- Is operation of each button on the remote controller normal?
 - Does each lamp light normally?
 - Is the drain normal?
 - Is there any error noise and vibration during operation?
- Do not operate the air conditioner in the Test run for a long time.

ERROR CODES

If you use a wireless remote controller, the lamp on the photo detector unit will output error codes by way of blinking patterns. If you use a wired type remote controller, error codes will appear on the remote controller display. See the lamp blinking patterns and error codes in the table. An error display is displayed only during operation.

Error display	Wired remote controller Error code	Description		
OPERATION lamp (green) ● (1)	TIMER lamp (orange) ● (1)	ECONOMY lamp (green) ◇	11	Serial communication error
● (1)	● (2)	◇	12	Wired remote controller communication error
● (1)	● (5)	◇	15	Check run unfinished
● (1)	● (6)	◇	16	Peripheral unit transmission PCB connection error
● (1)	● (8)	◇	18	External communication error
● (2)	● (1)	◇	21	Unit number or Refrigerant circuit address setting error (Simultaneous Multi)
● (2)	● (2)	◇	22	Indoor unit capacity error
● (2)	● (3)	◇	23	Combination error
● (2)	● (4)	◇	24	Connection unit number error (indoor secondary unit) (Simultaneous Multi) Connection unit number error (indoor unit or branch unit) (Flexible Multi)
● (2)	● (6)	◇	26	Indoor unit address setting error
● (2)	● (7)	◇	27	Primary unit, secondary unit setup error (Simultaneous Multi)
● (2)	● (9)	◇	29	Connection unit number error in wired remote controller system
● (3)	● (1)	◇	31	Power supply interruption error
● (3)	● (2)	◇	32	Indoor unit PCB model information error
● (3)	● (5)	◇	35	Manual auto switch error
● (3)	● (10)	◇	3A	Indoor unit communication circuit (wired remote controller) error
● (4)	● (1)	◇	41	Room temp. sensor error
● (4)	● (2)	◇	42	Indoor unit Heat Ex. Middle temp. sensor error
● (4)	● (4)	◇	44	Human sensor error
● (5)	● (1)	◇	51	Indoor unit fan motor error
● (5)	● (3)	◇	53	Drain pump error
● (5)	● (7)	◇	57	Damper error
● (5)	● (15)	◇	5U	Indoor unit error
● (6)	● (1)	◇	61	Outdoor unit reverse/missing phase and wiring error
● (6)	● (2)	◇	62	Outdoor unit main PCB model information error or communication error
● (6)	● (3)	◇	63	Inverter error
● (6)	● (4)	◇	64	Active filter error, PFC circuit error
● (6)	● (5)	◇	65	Trip terminal L error
● (6)	● (10)	◇	6A	Display PCB microcomputers communication error
● (7)	● (1)	◇	71	Discharge temp. sensor error
● (7)	● (2)	◇	72	Compressor temp. sensor error
● (7)	● (3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
● (7)	● (4)	◇	74	Outdoor temp. sensor error

Error display	Wired remote controller Error code	Description		
● (7)	● (5)	◇	75	Suction Gas temp. sensor error
● (7)	● (6)	◇	76	2-way valve temp. sensor error 3-way valve temp. sensor error
● (7)	● (7)	◇	77	Heat sink temp. sensor error
● (8)	● (2)	◇	82	Sub-cool Heat Ex. gas inlet temp. sensor error Sub-cool Heat Ex. gas outlet temp. sensor error
● (8)	● (3)	◇	83	Liquid pipe temp. sensor error
● (8)	● (4)	◇	84	Current sensor error
● (8)	● (6)	◇	86	Discharge pressure sensor error Suction pressure sensor error High pressure switch error
● (9)	● (4)	◇	94	Trip detection
● (9)	● (5)	◇	95	Compressor rotor position detection error (permanent stop)
● (9)	● (7)	◇	97	Outdoor unit fan motor 1 error
● (9)	● (8)	◇	98	Outdoor unit fan motor 2 error
● (9)	● (9)	◇	99	4-way valve error
● (9)	● (10)	◇	9A	Coil (expansion valve) error
● (10)	● (1)	◇	A1	Discharge temp. error
● (10)	● (3)	◇	A3	Compressor temp. error
● (10)	● (4)	◇	A4	High pressure error
● (10)	● (5)	◇	A5	Low pressure error
● (13)	● (2)	◇	J2	Branch boxes error (Flexible Multi)

Display mode ● : 0.5s ON / 0.5s OFF
◇ : 0.1s ON / 0.1s OFF
() : Number of flashing

[Troubleshooting with the IR receiver unit display]

