AIR CONDITIONER OPTIONAL PARTS

PART No. 9378626133

IR Receiver Kit

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.

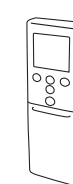| For the air conditioner to operate satisfactorily, install it as outlined in this installation manual. |
|---|
| Installation work must be performed in accordance with national wiring standards by authorized personnel only. |
| Do not turn on the power until all installation work is complete. |
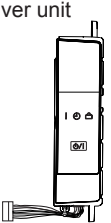
⚠ CAUTION	Indicates a potentially hazardous situation that may result in minor or moderate injury or damage to property.

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.

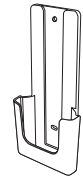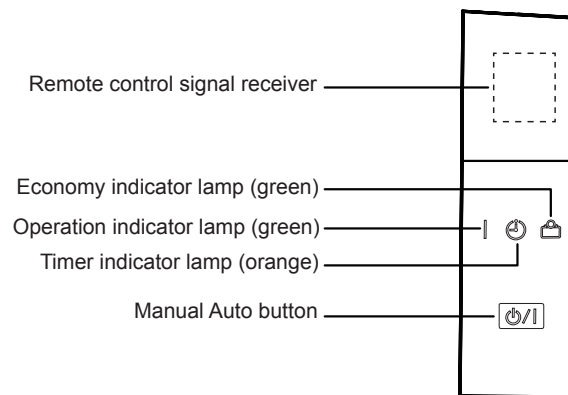| Name and shape	Q'ty	Application
Operation manual	1	—
Installation manual	1	(this book)
IR receiver unit	1	For receiving the signal from the remote controller
Cable	1	For connecting to IR receiver unit

Name and shape	Q'ty	Application
Remote controller	1	Use for air conditioner operation
Battery	2	For remote controller
Remote controller holder	1	For holding the remote controller
Screw (ø3)	2	For installing remote controller holder to wall
Cable tie	1	For connection IR receiver cable fixing

2　CONTROL PANEL

- Remote control signal receiver
- Economy indicator lamp (green)
- Operation indicator lamp (green)
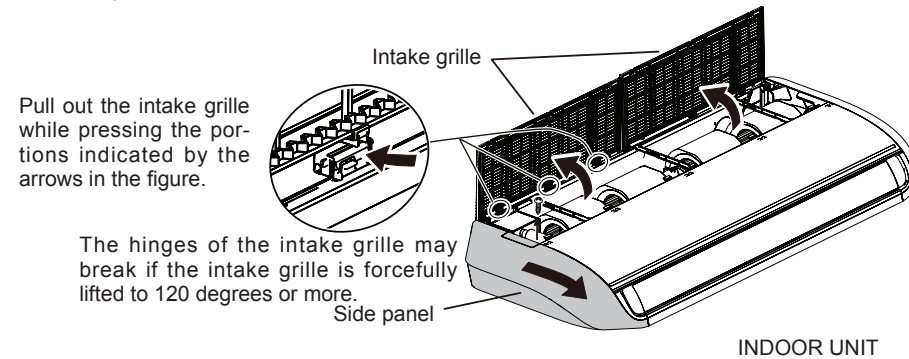- Timer indicator lamp (orange)
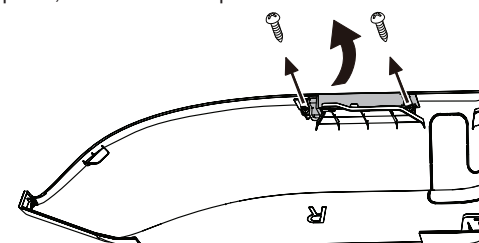- Manual Auto button

3　INSTALLING THE IR RECEIVER UNIT

3-1. INSTALLING THE IR RECEIVER UNIT

(1) As shown in the picture, open the intake grille and remove one screw.
    Then, remove the side panel.

Intake grille

Pull out the intake grille while pressing the portions indicated by the arrows in the figure.

The hinges of the intake grille may break if the intake grille is forcefully lifted to 120 degrees or more.

Side panel

INDOOR UNIT

(2) Remove two screws from the side panel, and take off the part.

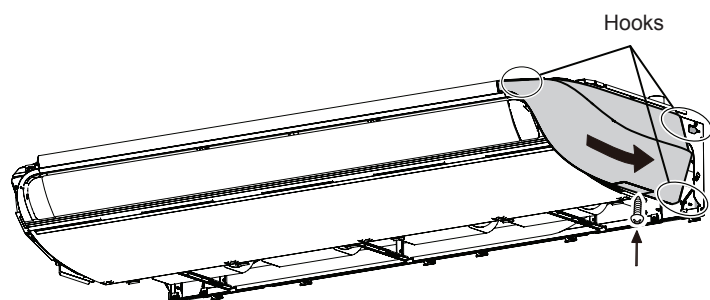(3) Attach the IR receiver unit and fix it with two screws.

IR receiver unit
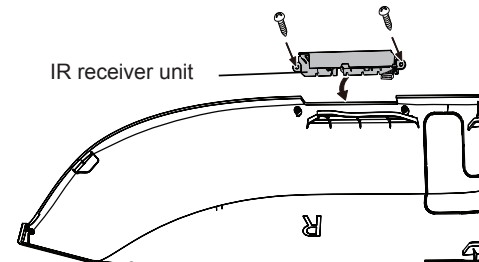
3-2. WIRING

(1) As shown in the picture, connect the cable (accessory) to the CN48 on the circuit board.

Cable tie
(Peripheral cables and fixing)
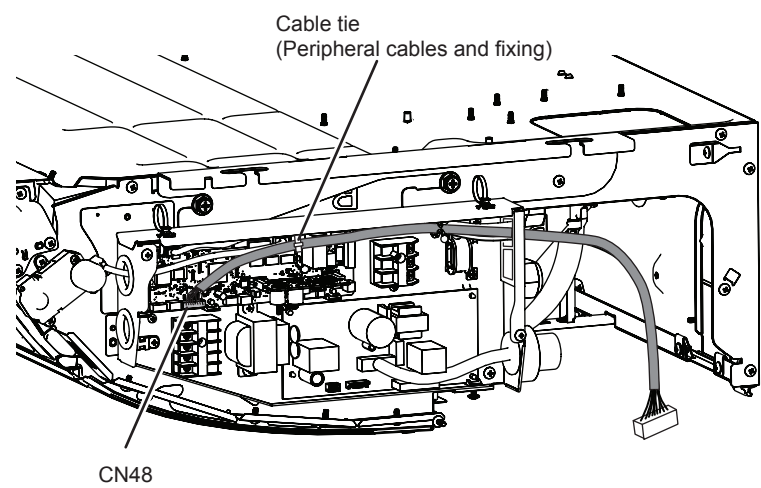
CN48

(2) Attach the side panel by hooking it on three hooks of the indoor unit. Then, fix it with the screws.

Hooks

(3) Connecting cables
    Connect the cable connected to the IR receiver unit to the cable that you connected to CN48 in the previous step.

(4) Fix the intake grille.
    For detailed procedure, refer to the installation manual.

4　TURNING ON THE BREAKER

(1) Turn on the breaker.
(2) Make sure that the Operation indicator lamp and Timer indicator 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 IR receiver unit will flash quickly to indicate the error code. (See "9. ERROR CODES")

5　REMOTE CONTROLLER SETTING

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

5-1. Battery (R03/LR03/AAA × 2) loading and remote controller preparation
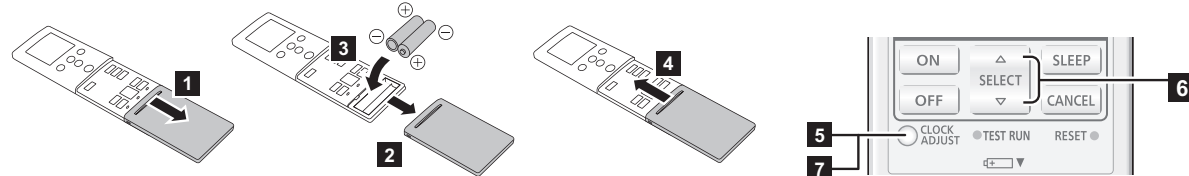
5 Press "CLOCK ADJUST" button to start clock setting.

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

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

7 To complete, press the "CLOCK ADJUST" button again.

ⓘ 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.

RESET ⊙
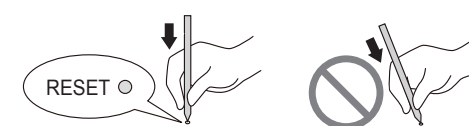
5-2. REMOTE CONTROLLER HOLDER INSTALLATION
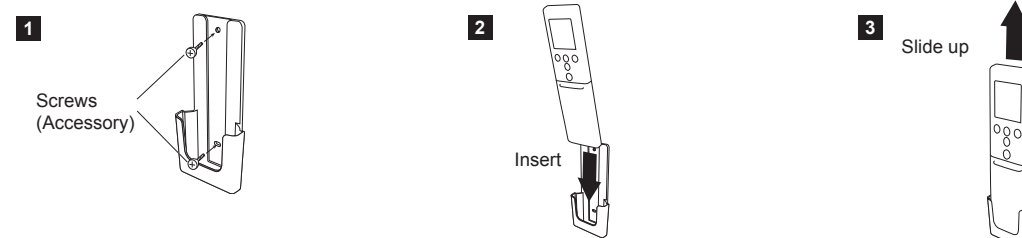
Screws
(Accessory)

Insert

Slide up

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 is used.

6-1. Entering the function setting mode

While pressing the "ECONOMY" button and "TEMP. (∧)" 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

(1) Press the "TEMP. (∧ ∨)" buttons to select the function number. (Press the "10°C HEAT" button to switch between the left and right digits.)
(2) Press the "ECONOMY" button to proceed to setting value. (Press the "ECONOMY" button again to return to the function number selection.)
(3) Press the "TEMP. (∧ ∨)" buttons to select the setting value. (Press the "10°C HEAT" button to switch between the left and right digits.)
(4) Press the "MODE" button once to send the function setting information. Please confirm the beeping sound.
(5) Press the Start/Stop (⏻) button once to fix the function setting. Please confirm the beeping sound.
(6) Press the "RESET" button to cancel the function setting mode.
(7) After completing the function setting, be sure to turn off the power and turn it on again.

Function number

Setting value

⚠ CAUTION

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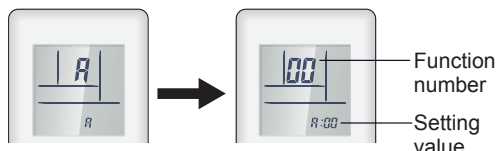
Filter sign

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 (2.7 m : 18/22/24/30 type) (3.5 m : 36/45/54 type)
	01	High ceiling (3.5 m : 18/22/24/30 type) (4.3 m : 36/45/54 type)

The ceiling height values are for the 4-way outlet.

Do not change this setting in the 3-way outlet mode.

Horizontal louver direction switching for dew condensation prevention

Automatically switches the position of the horizontal louver if the airflow direction is set at lower than the dew condensation limit position in cooling or drying operation.
Select suitable adjustment position according to the customer's preference.

(♦... Factory setting)

Function number	Setting value	Setting description
28	00	Adjust to dew condensation limit position ♦
	01	Adjust to cooling standard position

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)	31 (For heating)	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)	More cooling less heating
		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)	Less cooling more heating
		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)

Room temperature control for wired remote controller sensor

Select the appropriate control setting according to the installed environment.
To change this setting, set Function 42 to Both "01".
Ensure that the Thermo Sensor icon is displayed on the remote controller screen.

(♦... Factory setting)

Function number	Setting value	Setting description	
35 (For cooling)	36 (For heating)	00	No correction ♦
		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)	More Cooling Less Heating
		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)	Less cooling more heating
		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.

Room temperature sensor switching

(Only for wireless remote controller)
When using the Wired remote controller temperature sensor, change the setting to "Both" (01).

(♦... Factory setting)

Function number	Setting value	Setting description
42	00	Indoor unit ♦
	01	Both

00: Sensor on the indoor unit is active.
01: Sensors on both indoor unit and wired remote controller are active.
*Remote controller sensor must be turned on by using the remote controller

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

Room temperature sensor switching (Aux.)

To use the temperature sensor on the wired remote controller only, change the setting to "Wired remote controller" (01). This function will only work if the function setting 42 is set at "Both" (01)

(♦... Factory setting)

Function number	Setting value	Setting description
48	00	Both ♦
	01	Wired remote controller

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	
28	Vertical airflow direction dew condensing prevention air flow direction switch	
30	Room temperature control for indoor unit sensor — Cooling	
31	Room temperature control for indoor unit sensor — Heating	
35	Room temperature control for wired remote controller sensor — Cooling	
36	Room temperature control for wired remote controller sensor — Heating	
40	Auto restart	
42	Room temperature sensor switching	
44	Remote controller custom code	
46	External input control	
48	Room temperature sensor switching (Aux.)	
49	Indoor unit fan control for energy saving for cooling	
60	Switching functions for external outlet terminal	

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

7 SELECTING THE REMOTE CONTROLLER CUSTOM CODE

When two or more units are attached, set the custom code of the remote controller (4 selections possible).

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 signal if the air conditioner has not been set for the matching custom code.)
(1) Press the Start/Stop (⏻) button until only the clock is displayed on the remote controller display.
(2) Press the "MODE" button for at least 5 seconds to display the current custom code (initially set to A).
(3) Press the "TEMP. (∧ ∨)" buttons to change the custom code between A↔B↔C↔D.

  Match the code on the display to the air conditioner custom code.

(4) 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.

8 TEST RUN

[OPERATION METHOD]

- To conduct Test run, 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 "Parts and buttons" of the operating manual with the tip of a ball-point pen, etc.)
- To end the Test run mode, 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 indicator lamps flash slowly at the same time.

[CHECK ITEMS]

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

9 ERROR CODES

If you use a wireless remote controller, the lamps on the IR receiver unit will output error codes by way of blinking patterns. If you use a wired 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)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(1)	●(1)	◇	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)	●(9)	◇	39	Indoor unit communication circuit (wired remote controller) 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)	●(8)	◇	68	Outdoor unit rush current limiting resister temp. rise 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

Error display			Wired remote controller Error code	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(7)	●(4)	◇	74	Outdoor temp. sensor error
●(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

[IR receiver indicators]

Economy indicator lamp (green)

Operation indicator lamp (green)

Timer indicator lamp (orange)