Ceiling Type
INSTALLATION INSTRUCTION SHEET

(PART NO. 9374318278)

For authorized service personnel only.

⚠ CAUTION
R410A REFRIGERANT
This Air Conditioner contains and operates with refrigerant R410A and Polyol Ester oil.

THIS PRODUCT MUST ONLY BE INSTALLED OR SERVICED BY QUALIFIED PERSONNEL.

Refer to Commonwealth, State, Territory and local legislation, regulations, codes, installation & operation manuals, before the installation, maintenance and/or service of this product.

⚠ DANGER	This mark indicates procedures which, if improperly performed, are most likely to result in the death of or serious injury to the user or service personnel.
⚠ WARNING	This mark indicates procedures which, if improperly performed, might lead to the death or serious injury of the user.
⚠ CAUTION	This mark indicates procedures which, if improperly performed, might possibly result in personal harm to the user, or damage to property.

⚠ DANGER

Never touch electrical components immediately after the power supply has been turned off. Electrical shock may occur. After turning off the power, always wait 5 minutes or more before touching electrical components.

This air conditioner uses new refrigerant HFC (R410A).

The basic installation work procedures are the same as conventional refrigerant models.
However, pay careful attention to the following points:

① **Since the working pressure is 1.6 times higher than that of conventional refrigerant models, some of the piping and installation and service tools are special. (See the table below.)**
Especially, when replacing a conventional refrigerant model with a new refrigerant R410A model, always replace the conventional piping and flare nuts with the R410A piping and flare nuts.

② **Models that use refrigerant R410A have a different charging port thread diameter to prevent erroneous charging with conventional refrigerant and for safety. Therefore, check beforehand. [The charging port thread diameter for R410A is 1/2 UNF 20 threads per inch.]**

③ **Be more careful that foreign matter (oil, water, etc.) does not enter the piping than with refrigerant models. Also, when storing the piping, securely seal the openings by pinching, taping, etc.**

④ **When charging the refrigerant, take into account the slight change in the composition of the gas and liquid phases, and always charge from the liquid phase side whose composition is stable.**

Special tools for R410A

Tool name	Contents of change
Gauge manifold	Pressure is high and cannot be measured with a conventional gauge. To prevent erroneous mixing of other refrigerants, the diameter of each port has been changed. It is recommended the gauge with seals –0.1 to 5.3 MPa (–76 cmHg to 53 kgf/cm²) for high pressure. –0.1 to 3.8 MPa (–76 cmHg to 38 kgf/cm²) for low pressure.
Charge hose	To increase pressure resistance, the hose material and base size were changed.
Vacuum pump	A conventional vacuum pump can be used by installing a vacuum pump adapter.
Gas leakage detector	Special gas leakage detector for HFC refrigerant R410A.

Copper pipes

It is necessary to use seamless copper pipes and it is desirable that the amount of residual oil is less than 40 mg/10 m. Do not use copper pipes having a collapsed, deformed or discolored portion (especially on the interior surface). Otherwise, the expansion valve or capillary tube may become blocked with contaminants.
As an air conditioner using R410A incurs pressure higher than when using conventional refrigerant, it is necessary to choose adequate materials.
Thicknesses of copper pipes used with R410A are as shown in the table.
Never use copper pipes thinner than that in the table even when it is available on the market.

Thicknesses of Annealed Copper Pipes (R410A)

Pipe outside diameter	Thickness
6.35 mm (1/4 in.)	0.80 mm
9.52 mm (3/8 in.)	0.80 mm
12.70 mm (1/2 in.)	0.80 mm
15.88 mm (5/8 in.)	1.00 mm
19.05 mm (3/4 in.)	1.20 mm

STANDARD PARTS

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

INDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application
Drain hose insulation	1	Adhesive type 70 × 230
VT wire	1	For fixing the drain hose L 280 mm
Coupler heat insulator (large)	2	For indoor side pipe joint (Gas pipe)
Coupler heat insulator (small)	1	For indoor side pipe joint (Liquid pipe)
Nylon fastener	Large 4 Small 4	For fixing the coupler heat insulator
Special nut A (large flange)	4	For installing indoor unit
Special nut B (small flange)	4	For installing indoor unit
Installation template	1	For positioning the indoor unit
Auxiliary pipe assembly	1	For connecting the piping
Remote control unit	1	Use for air conditioner operation
Battery (penlight)	2	For remote control unit
Remote control unit holder	1	Use as remote control unit holder
Tapping screw (ø3 × 12)	2	For remote control unit holder installation

OPTIONAL PARTS

The following options are available.
- DRAIN PUMP UNIT: UTR-DPB241 (P/N 9034087001)
- ROUND DUCT: UTD-RF204 (P/N 9093160004)
- WIRED REMOTE CONTROLLER: UTB-*UD

INSTALLATION PROCEDURE

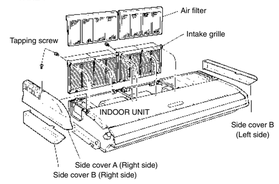
1 PREPARING INDOOR UNIT INSTALLATION

REMOVE THE INTAKE GRILLE AND SIDE COVER

(1) Remove the two Air filters.
(2) Remove the two Intake grilles.
- For ② Left rear drain and ③ Left drain: Remove air filters and intake grilles at three places. (Refer to "5 INDOOR UNIT INSTALLATION".)

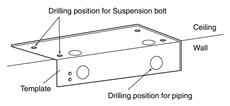
(3) Remove the Side cover A (Right side) and Side cover B (Right and Left side).
- For ③ Left drain: Remove both the Side cover A (Right and Left side). (Refer to "5 INDOOR UNIT INSTALLATION".)

(4) This air conditioner can be set up to intake fresh air. For information about how to install for fresh-air intake, refer to "6 FRESH-AIR INTAKE".

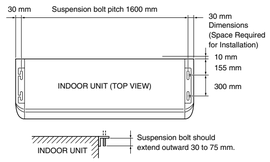


2 INDOOR UNIT INSTALLATION

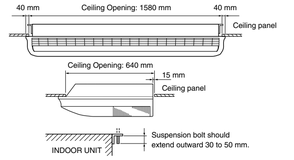
You can use the accessory template to help you install the indoor unit. The template helps you determine the appropriate locations for suspension bolts and pipe opening (drain pipe and connection cord).



1. LOCATION OF CEILING SUSPENSION BOLTS

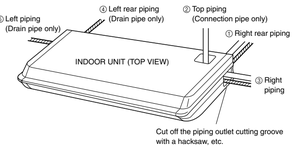


[For Half-Concealed Installation]
- Suspension-bolt pitch should be as shown in the figure.

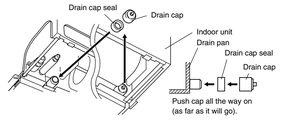


2. SELECT PIPING DIRECTION

Select connection piping and drain piping directions.



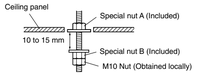
[FOR ④ Left rear piping, ⑤ Left piping]
- Transfer the Drain cap and Drain cap seal.



3. DRILLING THE HOLES AND ATTACHING THE SUSPENSION BOLTS

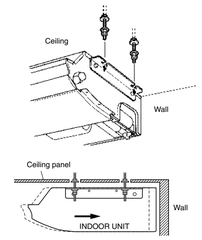
(1) Drill ø25 mm holes at the suspension-bolt locations.
(2) Install the bolts, then temporarily attach Special nuts A and B and a normal M10 nut to each bolt. (The two special nuts are provided with the unit. The M10 nut must be obtained locally.) Refer to the figure.

Bolt Strength	980 to 1470 N (100 to 150 kgf)



4. INSTALLING THE INDOOR UNIT

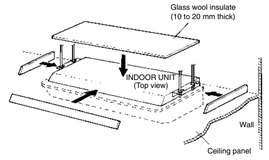
(1) Lift unit so that suspension bolts pass through the suspension fittings at the sides (four places), and slide the unit back.



(2) Fasten the indoor unit into place by tightening-up the special "B" bolts and the M10 nuts. Make sure that unit is secure and will not shift back and forth.

[For Half-Concealed Installation]

When installing the indoor unit in a semi-concealed orientation, make sure to reinforce the insulation of the unit on all sides. Drops of water may fall from the unit if it is not thoroughly insulated.



⚠ CAUTION

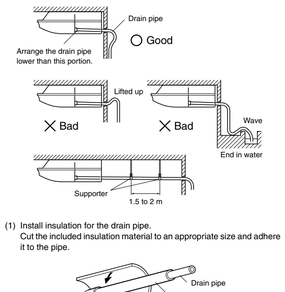
In order to check the drainage, be sure to use a level during installation of the indoor unit. If the installation site of the indoor unit is not level, water leakage may occur.

5. DRAIN PIPING

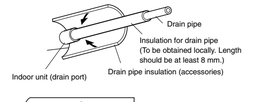
⚠ CAUTION

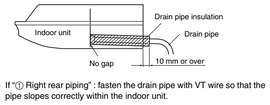
Install the drain pipe in accordance with the instructions in this installation instruction sheet and keep the area warm enough to prevent condensation. Problems with the piping may lead to water leaks.

- Install the drain pipe with downward gradient (1/50 to 1/100) and so there are no rises or traps in the pipe.
- Use general hard polyvinyl chloride pipe (VP25) [outside diameter 38 mm].
- During installation of the drain pipe, be careful to avoid applying pressure to the drain port of the indoor unit.
- When the pipe is long, install supporters.
- Do not perform air bleeding.
- Always heat insulate (8 mm or over thick) the indoor side of the drain pipe.

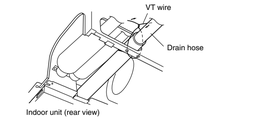


(1) Install insulation for the drain pipe.
Cut the included insulation material to an appropriate size and adhere it to the pipe.

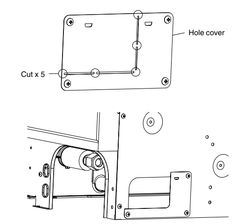




(2) If "① Right rear piping" : fasten the drain pipe with VT wire so that the pipe slopes correctly within the indoor unit.



(3) If the drain hose will not be connected to the right rear piping, cut the hole cover at the points indicated in Fig. (a), and attach it to the piping hole as shown in Fig. (b).



3 CONNECTING THE PIPE

⚠ CAUTION

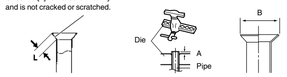
① **Do not use mineral oil on flared part. Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.**

② **While welding the pipes, be sure to blow dry nitrogen gas through them.**

1. FLARING

(1) Cut the connection pipe to the necessary length with a pipe cutter.
(2) Hold the pipe downward so that cuttings will not enter the pipe and remove the burrs.
(3) Insert the flare nut (always use the flare nut attached to the indoor and outdoor units respectively) onto the pipe and perform the flare processing with a flare tool.
Use the special R410A flare tool, or the conventional flare tool.

Check if [L] is flared uniformly and is not cracked or scratched.



Pipe outside diameter	Dimension A (mm) Flare tool for R410A, clutch type
6.35 mm (1/4 in.)	0 to 0.5
9.52 mm (3/8 in.)	
12.70 mm (1/2 in.)	
15.88 mm (5/8 in.)	
19.05 mm (3/4 in.)	

Pipe outside diameter	Dimension B ⁰₋₄ (mm)
6.35 mm (1/4 in.)	9.1
9.52 mm (3/8 in.)	13.2
12.70 mm (1/2 in.)	16.6
15.88 mm (5/8 in.)	19.7
19.05 mm (3/4 in.)	24.0

When using conventional flare tools to flare R410A pipes, the dimension A should be approximately 0.5 mm more than indicated in the table (for flaring with R410A flare tools) to achieve the specified flaring. Use a thickness gauge to measure the dimension A.

Pipe outside diameter	Width across flats of Flare nut
6.35 mm (1/4 in.)	17 mm
9.52 mm (3/8 in.)	22 mm
12.70 mm (1/2 in.)	26 mm
15.88 mm (5/8 in.)	29 mm
19.05 mm (3/4 in.)	36 mm

CONNECTION PIPE REQUIREMENT

⚠ CAUTION

The maximum/minimum lengths of this product, refer to the installation instruction sheet supplied with the outdoor unit. If the units are further apart than this, correct operation can not be guaranteed.

Diameter	
Liquid	Gas
9.52 mm (3/8 in.)	15.88 mm (5/8 in.)

- Use pipe with water-resistant heat insulation.

⚠ CAUTION

Install heat insulation around both the gas and liquid pipes. Failure to do so may cause water leaks.
Use heat insulation with heat resistance above 120 °C. (Reverse cycle model only)
In addition, if the humidity level at the installation location of the refrigerant piping is expected to exceed 70%, install heat insulation around the refrigerant piping. If the expected humidity level is 70-80%, use heat insulation that is 15 mm or thicker and if the expected humidity exceeds 80%, use heat insulation that is 20 mm or thicker.
If heat insulation is used that is not as thick as specified, condensation may form on the surface of the insulation.
In addition, use heat insulation with heat conductivity of 0.045 W/(m-K) or less (at 20 °C).

ELECTRICAL REQUIREMENT

- Electric wire size:

Connection cord (mm²)	
MAX.	MIN.
2.5	1.5

- Use conformed cord with Type 245 IEC57.
- Install all electrical works in accordance to the standard.
- Install the disconnect device with a contact gap of at least 3 mm in all poles nearby the units. (Both indoor unit and outdoor unit)

SELECTING THE MOUNTING POSITION

Decide the mounting position with the customer as follows:

⚠ WARNING

Select installation locations that can properly support the weight of the indoor and outdoor units. Install the units securely so that they do not topple or fall.

⚠ CAUTION

① **Do not install where there is the danger of combustible gas leakage.**

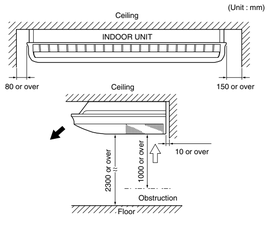
② **Do not install the unit near heat source of heat, steam, or flammable gas.**

③ **If children under 10 years old may approach the unit, take preventive measures so that they cannot reach the unit.**

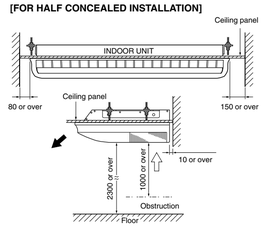
INDOOR UNIT

(1) Install the indoor unit level on a strong wall which is not subject to vibration.
(2) The inlet and outlet ports should not be obstructed : the air should be able to blow all over the room.
(3) Do not install the unit where it will be exposed to direct sunlight.
(4) Install the unit where connection to the outdoor unit is easy.
(5) Install the unit where the drain pipe can be easily installed.
(6) Take servicing, etc., into consideration and leave the spaces shown in the figure. Also install the unit where the filter can be removed.

(Unit : mm)



[FOR HALF CONCEALED INSTALLATION]



2. BENDING PIPES

The pipes are shaped by your hands. Be careful not to collapse them. Do not bend the pipes in an angle more than 90°.
When pipes are repeatedly bend or stretched, the material will harden, making it difficult to bend or stretch them any more. Do not bend or stretch the pipes more than three times.

⚠ CAUTION

① **To prevent breaking of the pipe, avoid sharp bends. Bend the pipe with a radius of curvature of 150 mm or over.**

② **If the pipe is bent repeatedly at the same place, it will break.**

3. CONNECTION PIPES

Indoor unit

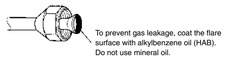
(1) Detach the caps and plugs from the pipes.

⚠ CAUTION

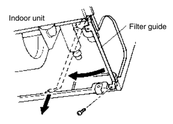
① **Be sure to apply the pipe against the port on the indoor unit correctly. If the centering is improper, the flare nut cannot be tightened smoothly. If the flare nut is forced to turn, the threads will be damaged.**

② **Do not remove the flare nut from the indoor unit pipe until immediately before connecting the connection pipe.**

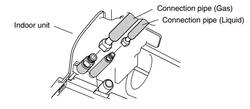
(2) Centering the pipe against port on the indoor unit, turn the flare nut with your hand.



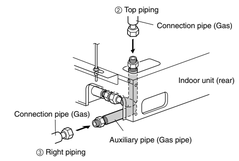
(3) Remove the filter guide.



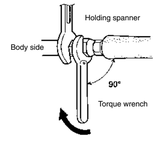
(4) Attach the connection pipe.



- For ② Top piping and ③ Right piping connections, use the Auxiliary pipe (Gas pipe) provided.



(5) When the flare nut is tightened properly by your hand, use a torque wrench to finally tighten it.



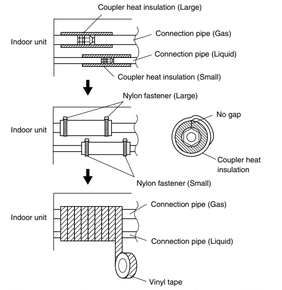
⚠ CAUTION

Hold the torque wrench at its grip, keeping it in the right angle with the pipe, in order to tighten the flare nut correctly.

Flare nut	Tightening torque
6.35 mm (1/4 in.) dia.	16 to 18 N·m (160 to 180 kgf·cm)
9.52 mm (3/8 in.) dia.	30 to 42 N·m (300 to 420 kgf·cm)
12.70 mm (1/2 in.) dia.	49 to 61 N·m (490 to 610 kgf·cm)
15.88 mm (5/8 in.) dia.	63 to 75 N·m (630 to 750 kgf·cm)
19.05 mm (3/4 in.) dia.	90 to 110 N·m (900 to 1100 kgf·cm)

4. HEAT INSULATION ON THE PIPE JOINTS (INDOOR SIDE ONLY)

After checking for gas leaks, insulate by wrapping insulation around the two parts (Gas and Liquid) of the indoor unit coupling, using the coupler heat insulation.
After installing the coupler heat insulation, wrap both ends with vinyl tape so that there is no gap.
Secure both ends of the heat insulation material using nylon fasteners.
And finally fix connection pipe (Liquid) to connection pipe (Gas) by rolling vinyl tape over coupler heat insulation (Gas) and coupler heat insulation (Liquid).



- When using an auxiliary pipe, make sure that the fastener used is insulated in the same way.

⚠ CAUTION

There should be no gaps between the insulation and the product.

4 ELECTRICAL WIRING

⚠ WARNING

① **Before starting work, check that power is not being supplied to the indoor unit and outdoor unit.**

② **Match the terminal board numbers and connection cord colors with those of the outdoor unit. Erroneous wiring may cause burning of the electric parts.**

③ **Connect the connection cords firmly to the terminal board. Imperfect installation may cause a fire.**

④ **Always fasten the outside covering of the connection cord with the cord clamp. (If the insulator is chafed, electric leakage may occur.)**

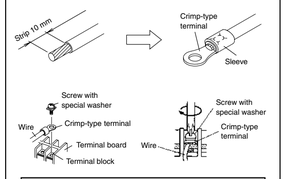
⑤ **Always connect the ground wire.**

⑥ **Install the remote controller wires so as not to be direct touched with your hand.**

HOW TO CONNECT WIRING TO THE TERMINALS

For strand wiring

(1) Use crimp-type terminals with insulating sleeves as shown in the figure below to connect to the terminal block.
(2) Securely crimp the crimp-type terminals to the wires using an appropriate tool so that the wires do not come loose.
(3) Use the specified wires, connect them securely, and fasten them so that there is no stress placed on the terminals.
(4) Use an appropriate screwdriver to tighten the terminal screws. Do not use a screwdriver that is too small, otherwise, the screw heads may be damaged and prevent the screws from being properly tightened.
(5) Do not tighten the terminal screws too much, otherwise, the screws may break.
(6) See the table below for the terminal screw tightening torques.



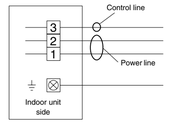
Tightening torque	
M4 screw	1.2 to 1.8 N·m (12 to 18 kgf·cm)

⚠ WARNING

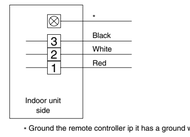
Use crimp-type terminals and tighten the terminal screws to the specified torques, otherwise, abnormal overheating may be produced and possibly cause heavy damage inside the unit.

1. CONNECTION DIAGRAMS

Connection cord (to outdoor unit)



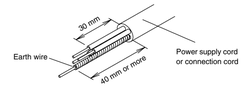
Wired remote controller cord (option)



- Ground the remote controller ip it has a ground wire

2. CONNECTION CORD PREPARATION

Keep the earth wire longer than the other wires.



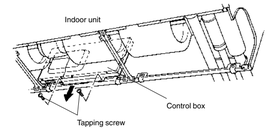
- Use a 4-core wire cord.

3. INDOOR UNIT

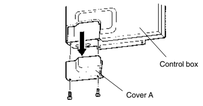
⚠ CAUTION

Use care not to mistake the power supply cord and connection wires when installing.

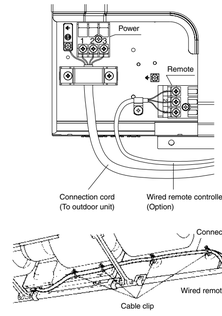
(1) Remove the two tapping screws and pull the control box downward.



(2) Remove the Cover A and install the Connection cord.
(3) Reattach Cover A. Then fasten the control box back into its original position using the two tapping screws.



(4) After wiring is complete, clamp the Connection cord with the Cord clamp.
(5) Attach the connection cord and cable clips. Make sure that they are positioned so that they will not interfere with opening and closing of the intake grille or with removal and installation of the air filters.

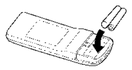


- Continued on back -

5 REMOTE CONTROLLER SETTING

1. LOAD BATTERIES (R03/LR03 × 2)

① Press and slide the battery compartment lid on the reverse side to open it.
Slide in the direction of the arrow while pressing the ▼ mark.
② Insert batteries.
Be sure to align the battery polarities (⊕/⊖) correctly.
③ Close the battery compartment lid.



⚠ CAUTION

① Take care to prevent infants from accidentally swallowing batteries.

② When not using the Remote Control Unit for an extended period, remove the batteries to avoid possible leakage and damage to the unit.

③ If leaking battery fluid comes in contact with your skin, eyes, or mouth, immediately wash with copious amounts of water, and consult your physician.

④ Dead batteries should be removed immediately and disposed of properly, either in a battery collection receptacle or to the appropriate authority.

⑤ Do not attempt to recharge dry batteries.

i NOTES

- Never mix new and used batteries, or batteries of different types.
- Batteries should last about one year under normal use. If the Remote Control Unit's operating range becomes appreciably reduced, replace the batteries and press the RESET button with the tip of a ballpoint pen or other small object.

2. REMOTE CONTROL UNIT HOLDER INSTALLATION

⚠ CAUTION

① Check that the indoor unit correctly receives the signal from the remote control unit, then install the remote control unit holder.

② Select the remote control unit holder selection site by paying careful attention to the following:
Avoid places in direct sunlight.
Select a place that will not be affected by the heat from a stove, etc.

- Install the remote control unit with a distance of 7 m between the remote control unit and the photocell as the criteria. However, when installing the remote control unit, check that it operates positively.
- Install the remote control unit holder to a wall, pillar, etc. with the tapping screw.

① **Mount the Holder.**

② **Set the Remote Control Unit.**

③ **To remove the Remote Control Unit (when use at hand).**

6 FUNCTION SETTING

- 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 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 or Setting Value.
- Settings will not be changed if invalid numbers or setting values are selected.

Entering the Function Setting Mode

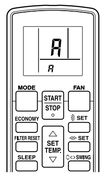
- While pressing the FAN button and SET TEMP. (▲) simultaneously, press the RESET button to enter the function setting mode.

STEP 1

Selecting the Remote Control Unit Signal Code

Use the following steps to select the signal code of the remote control unit. (Note that the air conditioner cannot receive a signal code if the air conditioner has not been set for the signal code.)
The signal codes that are set through this process are applicable only to the signals in the FUNCTION SETTING. For details on how to set the signal codes through the normal process, refer to SELECTING THE REMOTE CONTROL UNIT SIGNAL CODE.

① Press the SET TEMP. (▲) (▼) button to change the signal code between A→b→C→d.
Match the code on the display to the air conditioner signal code. (initially set to A)
(If the signal code does not need to be selected, press the MODE button and proceed to STEP 2.)
② Press the TIMER MODE button and check that the indoor unit can receive signals at the displayed signal code.
③ Press the MODE button to accept the signal code, and proceed to STEP 2.



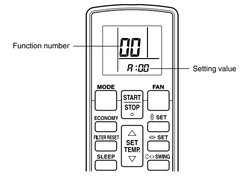
The air conditioner signal code is set to A prior to shipment.
Contact your retailer to change the signal code.

The remote control unit resets to signal code A when the batteries in the remote control unit are replaced. If you use a signal code other than signal code A, reset the signal code after replacing the batteries.
If you do not know the air conditioner signal code setting, try each of the signal codes (A→b→C→d) until you find the code which operates the air conditioner.

STEP 2

Selecting the Function Number and Setting Value

① Press the SET TEMP. (▲) (▼) buttons to select the function number. (Press the MODE button to switch between the left and right digits.)
② Press the FAN button to proceed to setting the value.
(Press the FAN button again to return to the function number selection.)
③ Press the SET TEMP. (▲) (▼) buttons to select the setting value. (Press the MODE button to switch between the left and right digits.)
④ Press the TIMER MODE button, and START/STOP button, in the order listed to confirm the settings.
⑤ Press the RESET button to cancel the function setting mode.
⑥ After completing the FUNCTION SETTING, be sure to turn off the power and turn it on again.



⚠ CAUTION

After turning off the power, wait 10 seconds or more before turning on it again.
The FUNCTION SETTING doesn't become effective if it doesn't do so.

Setting the Ceiling Height

- Select the setting values in the table below according to the height of the ceiling. (The unit is factory-set to "00".)

Setting Description	Function Number	Setting Value
Standard (2.3 m to 3.0 m)	20	00
High ceiling (3.0 m or more)		01

Setting the Filter Sign

- The indoor unit has a sign to inform the user that it is time to clean the filter.
- Select the time setting for the filter sign display interval in the table below according to the amount of dust or debris in the room. (The unit is factory-set to "00".)
- If you do not wish the filter sign to be displayed, select the setting value for "No indication".

Setting Description	Function Number	Setting Value
Standard (2,500 hours)	11	00
Long interval (4,400 hours)		01
Short interval (1,250 hours)		02
No indication		03

Setting the Cooler Room Temperature Correction

- Depending on the installed environment, the room temperature sensor may require a correction. The settings may be selected as shown in the table below. (The unit is factory-set to "00".)

Setting Description	Function Number	Setting Value
Standard	30	00
Lower control		01

Setting the Heater Room Temperature Correction

- Depending on the installed environment, the room temperature sensor may require a correction. The settings may be changed as shown in the table below. (The unit is factory-set to "00".)

Setting Description	Function Number	Setting Value
Standard	31	00
Lower control		01
Slightly warmer control		02
Warmer control		03

Setting Other Functions

- The following settings are also possible, depending on the operating conditions. (The unit is factory-set to "00".)

Auto Restart

Setting Description	Function Number	Setting Value
Yes	40	00
No		01

Indoor Room Temperature Sensor Switching Function (Wired remote controller only)

Setting Description	Function Number	Setting Value
No	42	00
Yes		01

- If setting value is "00", room temperature is controlled by the indoor unit temperature sensor.
- If setting value is "01", room temperature is controlled by either indoor unit temperature sensor or remote control unit sensor.

Setting record

- Record any changes to the settings in the following table.

Setting	Setting Value
Ceiling height	
Filter sign	
Cooler room temperature correction	
Heater room temperature correction	
Auto restart	
Indoor room temperature sensor switching function	

After completing the FUNCTION SETTING, be sure to turn off the power and turn it on again.

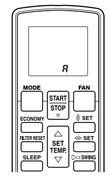
7 SELECTING THE REMOTE CONTROL UNIT SIGNAL CODE

When two or more air conditioners are installed in a room and the remote control unit is operating an air conditioner other than the one you wish to set, change the signal code of the remote control unit to operate only the air conditioner you wish to set (four selections possible).
When two or more air conditioners are installed in a room, please contact your retailer to set the individual air conditioner signal codes.
- Confirm the setting of the remote control unit signal code and the printed circuit board setting.
  If these are not confirmed, the remote control unit cannot be used to operate for the air conditioner.

Selecting the Remote Control Unit Signal Code

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

① Press the START/STOP button until only the clock is displayed on the remote control unit display.
② Press the MODE button for at least five seconds to display the current signal code (initially set to A).
③ Press the SET TEMP. (▲) (▼) button to change the signal code between A→b→C→d.
Match the code on the display to the air conditioner signal code.
④ Press the MODE button again to return to the clock display. The signal code will be changed.



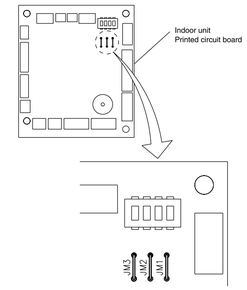
If no buttons are pressed within 30 seconds after the signal code is displayed, the system returns to the original clock display. In this case, start again from step 1.

The air conditioner signal code is set to A prior to shipment.
Contact your retailer to change the signal code.

The remote control unit resets to signal code A when the batteries in the remote control unit are replaced. If you use a signal code other than signal code A, reset the signal code after replacing the batteries.
If you do not know the air conditioner signal code setting, try each of the signal codes (A→b→C→d) until you find the code which operates the air conditioner.

Indoor unit setting

Jumper wire		Remote control unit signal code
JM1	JM2	
Connect	Connect	A (Primary setting)
Disconnect	Connect	B
Connect	Disconnect	C
Disconnect	Disconnect	D



8 TEST RUN

CHECK ITEMS

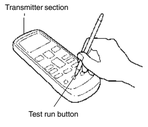
(1) Is operation of each button on the remote control unit normal?
(2) Does each lamp light normally?
(3) Do not air flow direction louvers operate normally?
(4) Is the drain normal?
(5) Is there any abnormal noise and vibration during operation?

- Do not operate the air conditioner in the running state for a long time.
- Test running

When the air conditioner is run by pressing the remote control unit test run button, the OPERATION and TIMER lamps flash slowly at the same time.

[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 control unit while the air conditioner is running. (Point the transmitter section of the remote control unit toward the air conditioner and press the test run button with the tip of a ball-point pen, etc.)

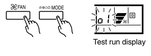


- To end test operation, press the remote control unit START/STOP button. (When the air conditioner is run by pressing the test run button, the OPERATION indicator lamp and TIMER indicator lamp will simultaneously flash slowly.)

[Using the wired remote control] (Option)

- For the operation method, refer to the operating manual.

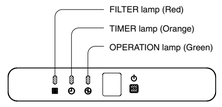
(1) Stop the air conditioner operation.
(2) Press the master control button and the fan control button simultaneously for 2 seconds or more to start the test run.



(3) Press the start/stop button to stop the test run.

Troubleshooting

(Troubleshooting with the indoor display)
Troubleshooting at the display is possible either on the wired or wireless remote control.



The OPERATION, TIMER and FILTER lamp operate as follows table according to the error contents.

Error contents	OPERATION lamp (GREEN)	TIMER lamp (ORANGE)	FILTER lamp (RED)
Indoor signal error	×	○	×
Wired remote controller abnormal	×	(8 times) ○	×
Indoor room temperature sensor error	(2 times) ○	(2 times) ○	×
Indoor heat exchanger temperature sensor (middle) error	(2 times) ○	(3 times) ○	×
Indoor heat exchanger temperature sensor (inlet) error	(2 times) ○	(4 times) ○	×
Float switch operated	(2 times) ○	(6 times) ○	×
Outdoor discharge pipe temperature sensor error	(3 times) ○	(2 times) ○	×
Outdoor heat exchanger temperature sensor (outlet) error	(3 times) ○	(3 times) ○	×
Outdoor temperature sensor error	(3 times) ○	(4 times) ○	×
Heat sink thermistor error	(3 times) ○	(7 times) ○	×
Compressor temperature sensor error	(3 times) ○	(8 times) ○	×
2-way valve temperature sensor error	(3 times) ○	×	(2 times) ○
3-way valve temperature sensor error	(3 times) ○	×	(3 times) ○
Outdoor heat exchanger temperature sensor (middle) error	(3 times) ○	×	(4 times) ○
Indoor manual auto switch abnormal	(4 times) ○	(2 times) ○	×
Power supply frequency detection error	(4 times) ○	(4 times) ○	×
IPM protection	(5 times) ○	(2 times) ○	×
CT error	(5 times) ○	(3 times) ○	×
Compressor location error	(5 times) ○	(5 times) ○	×
Outdoor fan error	(5 times) ○	(6 times) ○	×
Connected indoor unit abnormal	(5 times) ○	(7 times) ○	×
Outdoor unit computer communication error	(5 times) ○	(8 times) ○	×
Indoor fan abnormal	(6 times) ○	(2 or 3 times) ○	×
Discharge temperature error	(7 times) ○	(2 times) ○	×
Excessive high pressure protection on cooling	(7 times) ○	(3 times) ○	×
4-way valve abnormal	(7 times) ○	(4 times) ○	×
Pressure switch abnormal	(7 times) ○	(5 times) ○	×
Compressor temperature error	(7 times) ○	(6 times) ○	×
Active filter abnormal	(8 times) ○	(2 or 3 times) ○	×
PFC circuit error	(8 times) ○	(4 times) ○	×

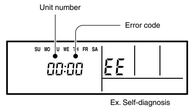
○: 0.5s ON/0.5s OFF (Flash) ×: OFF

[Troubleshooting at the remote control LCD]

This possible only on the wired remote control. (Option)

[SELF-DIAGNOSIS]

This possible only on the wired remote control. (Option)
If an error occurs, the following display will be shown.
("EE" will appear in the set room temperature display.)



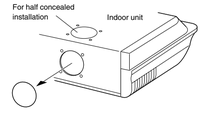
Error code	Error contents
01 13 26 27	Indoor signal error
00	Wired remote controller abnormal
02	Indoor room temperature sensor error
04	Indoor heat exchanger temperature sensor (middle) error
28	Indoor heat exchanger temperature sensor (inlet) error
09	Float switch operated
0C	Outdoor discharge pipe temperature sensor error
06	Outdoor heat exchanger temperature sensor (outlet) error
0A	Outdoor temperature sensor error
0E	Heat sink thermistor error
15	Compressor temperature sensor error
1d	2-way valve temperature sensor error
1E	3-way valve temperature sensor error
29	Outdoor heat exchanger temperature sensor (middle) error
20	Indoor manual auto switch abnormal
2A	Power supply frequency detection error
17	IPM protection
18	CT error
1A	Compressor location error
1b	Outdoor fan error
1F	Connected indoor unit abnormal
1c	Outdoor unit computer communication error
12	Indoor fan abnormal
0F	Discharge temperature error
24	Excessive high pressure protection on cooling
2c	4-way valve abnormal
16	Pressure switch abnormal
2b	Compressor temperature error
19	Active filter abnormal
25	PFC circuit error

If "CO" appears in the unit number display, there is a remote controller error.

Unit number	Error code	Content
C0	1d	Incompatible indoor unit is connected
C0	1c	Indoor unit ↔ remote controller communication error

9 FRESH-AIR INTAKE

(1) Open up the knockout hole for the fresh-air intake, as shown in the figure. (If using half-concealed installation, open up the top knockout hole instead.)

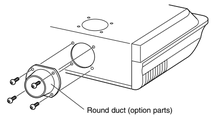


⚠ CAUTION

① When removing the cabinet (iron plate), be careful not to damage the indoor unit internal parts and surrounding area (outer case).

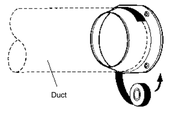
② When processing the cabinet (iron plate), be careful not to injure yourself with burrs, etc.

(2) Fasten the round flange (optional) to the fresh-air intake, as shown in the figure. (If using half-concealed installation, attach to the top.)



[After completing "2 INDOOR UNIT INSTALLATION"...]

(3) Connect the duct to the round flange.
(4) Seal with a band and vinyl tape, etc. so that air does not leak from the connection.



10 SPECIAL INSTALLATION METHODS

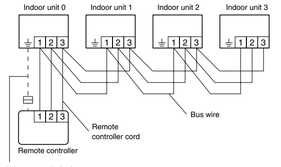
⚠ CAUTION

① When setting DIP switches, do not touch any other parts on the circuit board directly with your bare hands.

② Be sure to turn off the main power.

1. GROUP CONTROL SYSTEM

A number of indoor units can be operated at the same time using a single remote controller.
(1) Wiring method (indoor unit to remote controller)

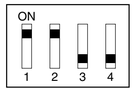


(2) DIP switch setting (indoor unit)
Set the unit number of each indoor unit using DIP switch on the indoor unit circuit board. (See following table and figure.)
DIP switch is normally set to make unit number No. 0.

Indoor unit

Unit number	DIP SWITCH No.			
	1	2	3	4
0	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF
3	ON	ON	OFF	OFF
4	OFF	OFF	ON	OFF
5	ON	OFF	ON	OFF
6	OFF	ON	ON	OFF
7	ON	ON	ON	OFF
8	OFF	OFF	OFF	ON
9	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON
11	ON	ON	OFF	ON
12	OFF	OFF	ON	ON
13	ON	OFF	ON	ON
14	OFF	ON	ON	ON
15	ON	ON	ON	ON

Example : No. 3



11 CUSTOMER GUIDANCE

Explain the following to the customer in accordance with the operating manual:

(1) Starting and stopping method, operation switching, temperature adjustment, timer, air flow switching, and other remote control unit operations.
(2) Air filter removal and cleaning, and how to use the air louvers.
(3) Give the operating and installation manuals to the customer.
(4) If the signal code is changed, explain to the customer how it changed (the system returns to signal code A when the batteries in the remote control unit are replaced).

*(4) is applicable to using wireless remote control.

PART NO. 9374318278