Duct Type
SPLIT TYPE AIR CONDITIONER
INSTALLATION INSTRUCTION SHEET
(PART NO. 9374318285)

⚠ 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.

Indoor unit is an appliance not accessible to the general public.

For authorized service personnel only.

⚠ 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/10m. 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

⚠ WARNING

① For the air conditioner to operate satisfactorily, install it as outlined in this installation instruction sheet.
② Connect the indoor unit and outdoor unit with the air conditioner piping and cords available standards parts. This installation instruction sheet describes the correct connections using the installation set available from our standard parts.
③ Installation work must be performed in accordance with national wiring standards by authorized personnel only.
④ If refrigerant leaks while work is being carried out, ventilate the area. If the refrigerant comes in contact with a flame, it produces a toxic gas.
⑤ Do not use an extension cord.
⑥ Do not turn on the power until all installation work is complete.

⚠ CAUTION

This installation instruction sheet describes how to install the indoor unit only.
To install the outdoor unit, refer to the installation instruction sheet included with the outdoor unit.

- **Be careful not to scratch the air conditioner when handling it.**
- **After installation, explain correct operation to the customer, using the operating manual.**
- **Let the customer keep this installation instruction sheet because it is used when the air conditioner is serviced or moved.**

SELECTING THE MOUNTING POSITION

⚠ WARNING

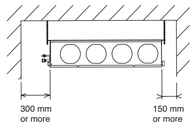
Install at a place that can withstand the weight of the indoor and outdoor units and install positively so that the units will not topple or fall.

⚠ CAUTION

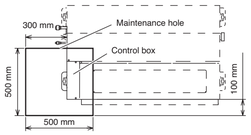
① Do not install where there is the danger of combustible gas leakage.
② Do not install the unit near heat source of heat, steam, or flammable gas.
③ If children under 10 years old may approach the unit, take preventive measures so that they cannot reach the unit.
④ Take precautions to prevent the unit from falling.

Decide the mounting position with the customer as follows:

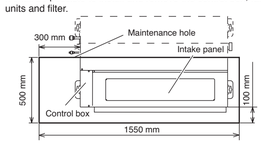
INDOOR UNIT
(1) Install the indoor unit on a place having a sufficient strength so that it withstand against the weight of the indoor unit.
(2) The inlet and outlet ports should not be obstructed; the air should be able to blow all over the room.
(3) Leave the space required to service the air conditioner.
(4) Install the unit where the drain pipe can be easily installed.
(5) Providing as much space as possible between the indoor unit and the ceiling will make work much easier.
(6) If installing in a place where its humidity exceeds 80%, use heat insulation to prevent condensation.



Maintenance hole dimension
It shall be possible to install and remove the control box.



It shall be possible to install and remove the control box, fan units and filter.



INSTALLATION PROCEDURE
Install the air conditioner as follows:

1 INDOOR UNIT INSTALLATION

⚠ WARNING

Install the air conditioner in a location which can withstand a load of at least five times the weight of the main unit and which will not amplify sound or vibration.
If the installation location is not strong enough, the indoor unit may fall and cause injuries.

⚠ CAUTION

For installation, refer to the technical data.

1. INSTALLING THE HANGERS

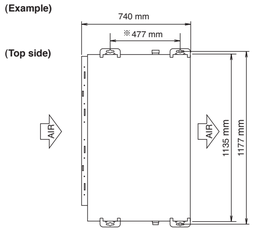
⚠ WARNING

When fastening the hangers, make the bolt positions uniform.

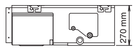
Hanging bolt installation diagram.

(Example)

(Top side)

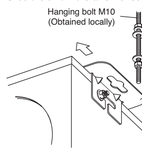


(Left side)



The distance of ※ is adjustable according to the place of the hanging bolts.
(MAX : 550 mm, MIN : 410 mm)

Slide the unit in the arrow direction and fasten it.

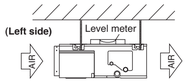


Bolt Strength	9.81 to 14.71 N·m (100 to 150 kgf·cm)

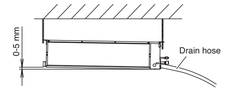
⚠ WARNING

Fasten the unit securely with special nuts A and B.

2. LEVELING
Base vertical direction leveling on the unit (right and left).

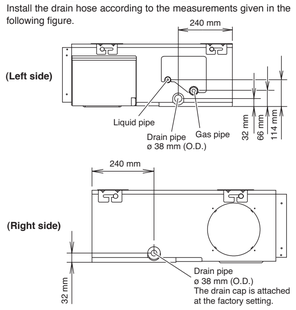


Base horizontal direction leveling on top of the unit.



Give a slight tilt to the side to which the drain hose is connected. The tilt should be in the range of 0 mm to 5 mm.

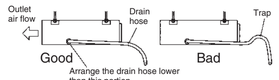
3. INSTALLING DRAIN HOSE
Install the drain hose according to the measurements given in the following figure.

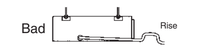


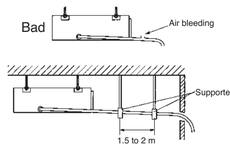
⚠ CAUTION

Install the drain hose 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.

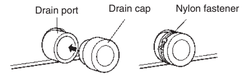
NOTE: INSTALL THE DRAIN HOSE
- Install the drain hose with downward gradient (1/50 to 1/100) and so there are no rises or traps in the hose.
- Use general hard polyvinyl chloride pipe (VP25) [outside diameter 38 mm] and connect it with adhesive (polyvinyl chloride) so that there is no leakage.
- When the hose is long, install supporters.
- Do not perform air bleeding.
- Always heat insulate the indoor side of the drain hose.







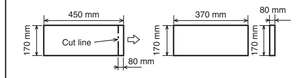
- When the unit is shipped from the factory, the drain port is on the left side (control box side).
- When using the drain port on the right side of the unit, reinstall the drain cap to the left side drain port.

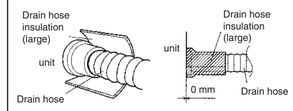


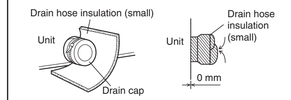
⚠ CAUTION

Always check that the drain cap is installed to the unused drain port and is fastened with the nylon fastener.
If the drain cap is not installed, or is not sufficiently fastened by the nylon fastener, water may drip during the cooling operation.

- Cut the drain hose insulation at a position approximately 80 mm from the end with cutters, etc.
- Stick the large drain hose insulation at the drain hose installation side.
- Stick the small drain hose insulation at the drain cap side.







- Cover the drain cap with the drain hose insulation.

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

INDOOR UNIT ACCESSORIES

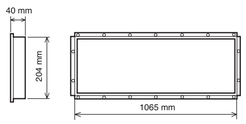
Name and Shape	Q'ty	Application
Hanger	4	For suspending the indoor unit from ceiling
Drain hose insulation	1	Insulates the drain hose and vinyl hose
Binder	(Small) 1	For remote controller and remote controller cord binding
	(Large) 1	For fixing the drain hose
Remote controller	1	For air conditioner operation
Remote controller cord (*1)	1	For connecting the remote controller
Tapping screw (ø4 × 16)	2	For installing the remote controller

Name and Shape	Q'ty	Application
Coupler heat insulation (large)	1	For indoor side pipe joint (gas)
Coupler heat insulation (small)	1	For indoor side pipe joint (liquid)
Special nut A (large flange)	4	For suspending the indoor unit from ceiling
Special nut B (small flange)	4	

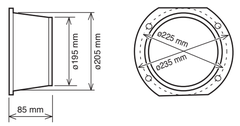
(*1) Not supplied for ART series

OPTIONAL PARTS
When connecting the square duct and round duct, use the optional square flange or round flange and flexible duct.

Square flange
Model name : UTD–SF045T (P/N 9098180007)

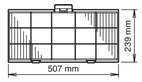


Round flange
Model name : UTD–RF204 (P/N 9093160004)



Flexible duct
Model name : UTD–RD202 (P/N 9074165004)

Long-life filter
Model name : UTD–LF25NA (P/N9079892004)



Remote sensor
Model name : UTD–RS100 (P/N 9072619004)

External control set
Model name : UTD–ECS5A (P/N 9077359004)

CONNECTING PIPE REQUIREMENT

⚠ CAUTION

Refer to the installation instruction sheet of the outdoor unit for description of the length of connecting pipe or for difference of its elevation.

MODEL		24000 BTU/h model	30000/36000/45000 BTU/h model
Diameter	Liquid	6.35 mm (1/4 in.)	9.52 mm (3/8 in.)
	Gas	15.88 mm (5/8 in.)	15.88 mm (5/8 in.)

- **Use pipe with water-resistant heat insulation.**

⚠ CAUTION

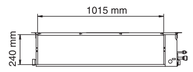
Install heat insulation around both the gas and liquid pipes. Failure to do so may cause water leaks.
Use heat insulation with heat resistance above 120 °C. (Reverse cycle model only)
In addition, if the humidity level at the installation location of the refrigerant piping is expected to exceed 70%, 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

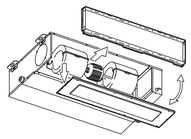
Connection cord (mm²)	
MAX.	MIN.
2.5	1.5

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

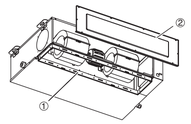
4. INTAKE DUCT CONNECTION
Follow the procedure in the following figure to the ducts.



The air inlet duct can be changed by replacing the intake grille and flange.



For the bottom air intake, follow the procedure of ① → ② for installation.
(The factory setting is back air intake.)

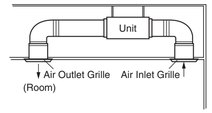


⚠ CAUTION

When air is taken in from the bottom side, the operating sound of the product will easily enter the room. Install the product and intake grilles where the affect of the operating sound is small.

⚠ CAUTION

① If an intake duct is installed, take care not to damage the temperature sensor.
② Be sure to install the air inlet grille and the air outlet grille for air circulation. The correct temperature cannot be detected.



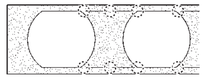
③ Grills must be fixed so that man cannot touch indoor unit fan, and cannot be removed by only hand operation without tool.
④ Be sure to install the air filter in the air inlet. If the air filter is not installed, the heat exchanger may be clogged and its performance may decrease.

5. OUTLET DUCT CONNECTION
Duct installation pattern (■ CUT PART)

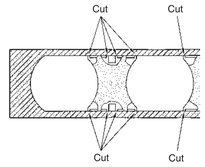
(1) Square duct

(2) Round duct outlet ×4 (This is the factory setting.)

When using as a square duct
(1) Cut the slit seam ⋯ with a cutter.

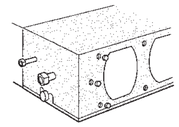


(2) Turn up the insulation around the points to be cut according to the outlet port shape working points so that the insulation does not stick out at the ////// part.

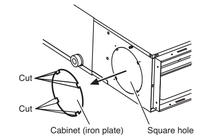


(3) Cut with nippers and remove the sheet metal.

(4) Since there is a slit in the insulation, use radio pliers, tweezers, etc. to stretch the screw hole part used when installing the round flange and square flange when connecting the duct.



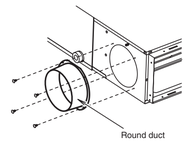
6. FRESH AIR INTAKE
(Processing before use)
(1) When taking in fresh air, cut a slit shaped cabinet in the left side of the outer case with nippers.



⚠ CAUTION

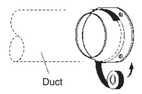
① When removing the cabinet (iron plate), be careful not to damage the indoor unit internal parts and surrounding area (outer case).
② When processing the cabinet (iron plate), be careful not to injure yourself with burrs, etc.

(2) Install the round flange (option parts) to the fresh air intake.



(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.



(Continued to the next page.)

2 CONNECTING THE PIPE

⚠ CAUTION

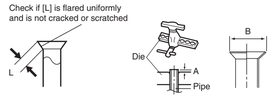
① Do not use mineral oil on flared part. Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.

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

③ The maximum lengths of this product are shown in the table. If the units are further apart than this, correct operation cannot be guaranteed.

1. FLARING

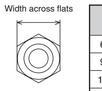
(1) Cut the connection pipe to the necessary length with a pipe cutter.
(2) Hold the pipe downward so that cuttings will not enter the pipe and remove the burrs.
(3) Insert the flare nut (always use the flare nut attached to the indoor and outdoor units respectively) onto the pipe and perform the flare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



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 $^{0}_{-0.4}$ (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

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 bent 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

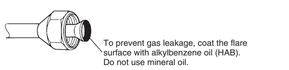
(1) Detach the caps and plugs from the pipes.

⚠ 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.

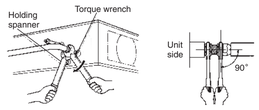
(2) Centering the pipe against port on the indoor unit, turn the flare nut with your hand.



⚠ 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.

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



Flare nut tightening torque

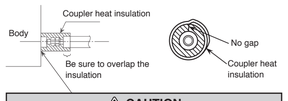
Flare nut	Tightening torque
6.35 mm (1/4 in.) dia.	16 to 18 N·m (160 to 180 kgf·cm)
9.52 mm (3/8 in.) dia.	30 to 42 N·m (300 to 420 kgf·cm)
12.70 mm (1/2 in.) dia.	49 to 61 N·m (490 to 610 kgf·cm)
15.88 mm (5/8 in.) dia.	63 to 75 N·m (630 to 750 kgf·cm)
19.05 mm (3/4 in.) dia.	90 to 110 N·m (900 to 1,100 kgf·cm)

⚠ CAUTION

Be sure to connect the gas pipe after connecting the liquid pipe completely.

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.



⚠ CAUTION

Must fit tightly against body without any gap.

3 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.)

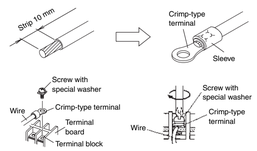
⑤ Always connect the ground wire.

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.



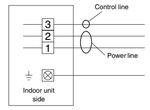
Tightening torque	
M4 screw	1.2 to 1.8 N·m (12 to 18 kgf·cm)

⚠ WARNING

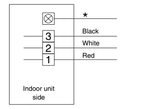
Use crimp-type terminals and tighten the terminal screws to the specified torques, otherwise, abnormal overheating may be produced and possibly cause heavy damage inside the unit.

1. CONNECTION DIAGRAMS

Connection cord (to outdoor unit)



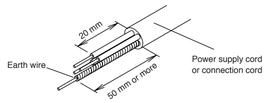
Wired remote controller cord



* Ground the remote controller ip it has a ground wire

2. CONNECTION CORD PREPARATION

Keep the earth wire longer than the other wires.



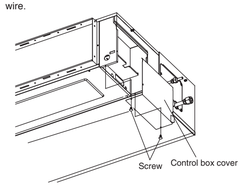
• Use a 4-core wire cord.

3. INDOOR UNIT SIDE

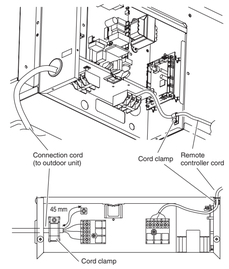
⚠ CAUTION

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

(1) Remove the control box cover and install each connection wire.



(2) After wiring is complete, secure the remote controller cord, connection cord, and power cord with the cord clamps.



⚠ CAUTION

① Tighten the indoor unit connection cord (to the outdoor unit) and power supply indoor and outdoor unit terminal board connections firmly with the terminal board screws. Faulty connection may cause a fire.

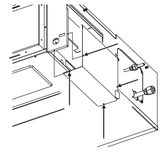
② If the indoor unit connection cord (to the outdoor unit) and power supply are wired incorrectly, the air conditioner may be damaged.

③ Wire the indoor unit connection cord (to the outdoor unit) by matching the numbers of the outdoor and indoor units terminal board numbers as shown in terminal label.

④ Ground both the indoor and outdoor units by attaching a ground wire.

⑤ Unit shall be grounded in compliance with the applicable local and national codes.

(3) Install control box cover.



Adjust the position of the screws for control box cover according to the installation.

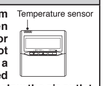
⚠ CAUTION

Do not bundle the remote controller cord, or wire the remote controller cord in parallel, with the indoor unit connection wire (to the outdoor unit) and the power supply cord. It may cause erroneous operation.

4 REMOTE CONTROLLER SETTING

⚠ CAUTION

① In order to detect the room temperature correctly when using the temperature sensor of the remote controller, do not install the remote controller in a place where it will be exposed to direct sunlight or directly below the air outlet of the indoor unit.



② Do not touch the remote controller PC board and PC board parts directly with your hands.

③ Do not wire the remote controller cord and the bus wire together with or parallel to the connection cables, transmission cords, and power supply cords of the indoor and outdoor units. It may cause erroneous operation.

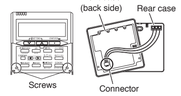
④ When installing the bus wire near a source of electromagnetic waves, use shielded wire.

⑤ Do not set the DIP switches, either on the air conditioner or the remote controller, in any way other than indicated in this sheet or the manual that is supplied with the air conditioner. Doing so may result in an accident.

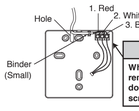
1. INSTALLING THE REMOTE CONTROLLER

Open the operation panel on the front of the remote controller, remove the two screws indicated in the following figure, and then remove the front case of the remote controller.

When installing the remote controller, remove the connector from the front case. The wires may break if the connector is not removed and the front case hangs down.
When installing the front case, connect the connector to the front case.



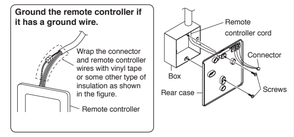
When remote controller cord is embedded
(1) Embed the remote controller cord and box.
(2) Pass the remote controller cord through the hole in the rear case and connect the remote controller cord to the remote controller terminal board specified in the figure.
(3) Clamp the remote controller cord sheath with the binder as shown in the figure.
(4) Cut off the excess binder.
(5) Install the rear case to the wall, box, etc., with two screws.

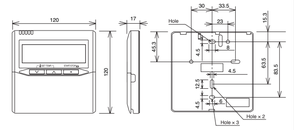


⚠ CAUTION

When connecting the remote controller wires, do not overtighten the screws.

[Example]





Unit : mm

⚠ CAUTION

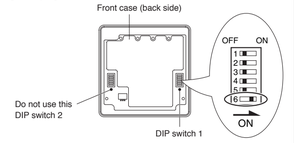
① Install the remote controller wires so as not to be direct touched with your hand.

② Do not touch the remote controller PC board and PC board parts directly with your hands.

2. SETTING THE DIP SWITCHES

Set the remote controller DIP switches.

[Example]



	NO.	SW state OFF	SW state ON	Detail
DIP switch 1	1	★		Cannot be used. (Do not change)
	2	★		Dual remote controller setting *Refer to 2. DUAL REMOTE CONTROLLERS in 3 SPECIAL INSTALLATION METHODS.
	3	Follow the selection in FUNCTION SETTING	Invalidity	Filter reset operation and filter display
	4	★		Cannot be used. (Do not change)
	5	★		Cannot be used. (Do not change)
	6	★ Invalidity	Validity	Memory backup setting *Set to ON to use batteries for the memory backup. If batteries are not used, all of the settings stored in memory will be deleted if there is a power failure.

(★ Factory setting)

3. TURNING ON THE POWER

1. Check the remote controller wiring and DIP switch settings.
2. Install the front case.
* When installing the front case, connect the connector to the front case (in 1 REMOTE CONTROLLER SETTING).
3. Check the indoor and outdoor unit wiring and circuit board switch settings, and then turn on the indoor and outdoor units. After "88" has flashed on the set temperature display for several seconds, the clock display will appear in the center of the remote controller display.The clock display will appear in the center of the remote controller display.

4. SETTING THE ROOM TEMPERATURE DETECTION LOCATION

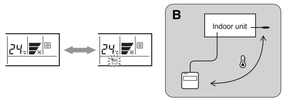
The detection location of the room temperature can be selected from the following two examples. Choose the detection location that is best for the installation location.

A. Indoor unit setting (factory setting)
The room temperature is detected by the indoor unit temperature sensor.

(1) When the THERMO SENSOR button is pressed, the lock display flashes because the function is locked at the factory.

B. Indoor unit/remote controller setting (room temperature sensor selection)
The temperature sensor of the indoor unit or the remote controller can be used to detect the room temperature.

(1) Enable the room temperature sensor selection in FUNCTION SETTING, which will be described later.
(2) Press the THERMO SENSOR button for 5 seconds or more to select the temperature sensor of the indoor unit or the remote controller.



NOTES

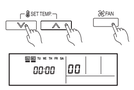
If the function to change the temperature sensor is used as shown in examples A (other than example B), be sure to lock the detection location. If the function is locked, the lock display will flash when the THERMO SENSOR button is pressed.

5 FUNCTION SETTING

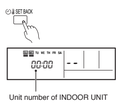
- This procedure changes to the function settings used to control the indoor unit according to the installation conditions. Incorrect settings can cause the indoor unit malfunction.
- After the power is turned on, perform the "FUNCTION SETTING" according to the installation conditions using the remote 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.

Operation Method

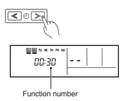
(1) Press the set temperature buttons (∨) (∧) and fan control button simultaneously for more than 5 seconds to enter the function setting mode.



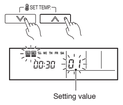
(2) Press the SET BACK button to select the indoor unit number.



(3) Press the set time buttons to select the function number.



(4) Press the set temperature buttons (∨) (∧) to select the setting value.
The display flashes as shown to the right during setting value selection.



(5) Press the SET button to confirm the setting.
Press the SET button for a few seconds until the setting value stops flashing.
If the setting value display changes or if "- -" is displayed when the flashing stops, the setting value has not been set correctly.
(An invalid setting value may have been selected for the indoor unit.)

(6) Repeat steps 2 to 5 to perform additional settings.
Press the set temperature buttons (∨) (∧) and fan control button simultaneously again for more than 5 seconds to cancel the function setting mode.
In addition, the function setting mode will be automatically canceled after 1 minute if no operation is performed.

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

Setting the Static Pressure

Setting Description	Function Number	Setting Value
Normal	21	00
High static pressure 1		01
High static pressure 2		02
High static pressure 3		03

Determine the wind volume in each mode i.e., applicable range of static pressure, refering to [7] STATIC PRESSURE CHARACTERISTICS. (The unit is factory-set to "00".)

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
Static pressure	
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.

6 TEST RUNNING

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.

[OPERATION METHOD]

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

(1) If the operation lamp is on, press the Start/Stop button to turn it off.
(2) Press the Master Control Button and Fan Control Button at the same time for more than two seconds to start the test operation.
The operation lamp will light up and "01" will be displayed on the set temperature display.
* Perform the test operation for 60 minutes.

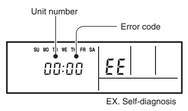
(3) Press the start/stop button to stop the test running.

[Troubleshooting at the remote control LCD]

This is possible only on the wired remote control.

[SELF-DIAGNOSIS]

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
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	Exessive 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

7 STATIC PRESSURE CHARACTERISTIC

⚠ CAUTION

If the applicable static pressure does not match the static pressure mode, the static pressure mode may be changed to another mode automatically.

RECOMMENDED RANGE OF EXTERNAL STATIC PRESSURE

30Pa to 150Pa

1. STATIC PRESSURE MODE

It is necessary to set up a static pressure mode for each usage of static pressure.
Determine the applicable range of static pressure in each mode and wind volume, referring to the TECHNICAL MANUAL.

2. MODE SETTING

It is possible to change the setting of static pressure mode. Refer to [5] FUNCTION SETTING.

8 SPECIAL INSTALLATION METHODS

⚠ CAUTION

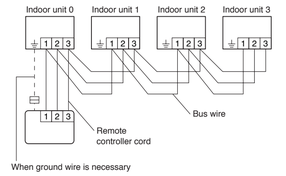
① When setting DIP switches, do not touch any other parts on the circuit board directly with your bare hands.

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.
- Depending on the model, some indoor units cannot be connected for group control.
- Some functions may become unusable, depending on the combination of the indoor units that are connected in a group.

(1) Wiring method (indoor unit to remote controller)

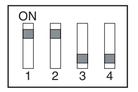


(2) DIP switch setting (Indoor unit)
Set the unit number of each indoor unit using DIP switch on the indoor unit circuit board. (See following table and figure.)
DIP switch is normally set to make unit number No. 0.

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

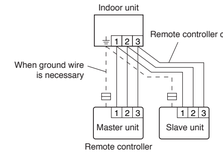
Example : No. 3



2. DUAL REMOTE CONTROLLERS

- Two separate remote controllers can be used to operate the indoor units.
- The timer and self-diagnosis functions cannot be used on the slave units.

(1) Wiring method (indoor unit to remote controller)



(2) Remote controller DIP switch 1 setting
Set the remote controller DIP switch 1 No. 2 according to the following table.

Number of remote controllers	Master unit DIP SW 1 No. 2	Slave unit DIP SW 1 No. 2
1 (Normal)	OFF	-
2 (Dual)	OFF	ON

9 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.
(3) Give the operating and installation manuals to the customer.

PART NO. 9374318285