Cassette Type
SPLIT TYPE AIR CONDITIONER
INSTALLATION INSTRUCTION SHEET

(PART NO. 9370937039-02)

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.

IMPORTANT!
Please Read Before Starting

This air conditioning system meets strict safety and operating standards. As the installer or service person, it is an important part of your job to install or service the system so it operates safely and efficiently.

For safe installation and trouble-free operation, you must:

- Carefully read this instruction booklet before beginning.
- Follow each installation or repair step exactly as shown.
- Observe all local, state, and national electrical codes.
- Pay close attention to all danger, warning, and caution notices given in this manual.

WARNING: This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.

CAUTION: This symbol refers to a hazard or unsafe practice which can result in personal injury and the potential for product or property damage.

- Hazel alerting symbols

Electrical

Safety/alert

If Necessary, Get Help

These instructions are all you need for most installation sites and maintenance conditions. If you require help for a special problem, contact our sales/service outlet or your certified dealer for additional instructions.

In Case of Improper Installation

The manufacturer shall in no way be responsible for improper installation or maintenance service, including failure to follow the instructions in this document.

SPECIAL PRECAUTIONS

When Wiring

ELECTRICAL SHOCK CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. ONLY A QUALIFIED, EXPERIENCED ELECTRICIAN SHOULD ATTEMPT TO WIRE THIS SYSTEM.

- Do not supply power to the unit until all wiring and tubing are completed or reconnected and checked.
- Highly dangerous electrical voltages are used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause accidental injury or death.
- Ground the unit following local electrical codes.
- Connect all wiring tightly. Loose wiring may cause overheating at connection points and a possible fire hazard.

When Transporting

Be careful when picking up and moving the indoor and outdoor units. Get a partner to help, and bend your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut your fingers.

When Installing...

...In a Ceiling or Wall
Make sure the ceiling/wall is strong enough to hold the unit's weight. It may be necessary to construct a strong wood or metal frame to provide added support.

...In a Room
Properly insulate any tubing run inside a room to prevent "sweating" that can cause dripping and water damage to walls and floors.

...In Moist or Uneven Locations
Use a raised concrete pad or concrete blocks to provide a solid, level foundation for the outdoor unit. This prevents water damage and abnormal vibration.

...In an Area with High Winds
Securely anchor the outdoor unit down with bolts and a metal frame. Provide a suitable air baffle.

...In a Snowy Area (for Heat Pump-type Systems)
Install the outdoor unit on a raised platform that is higher than drifting snow. Provide snow vents.

When Connecting Refrigerant Tubing

- Keep all tubing runs as short as possible.
- Use the flare method for connecting tubing.
- Apply refrigerant lubricant to the matching surfaces of the flare and union tubes before connecting them, then tighten the nut with a torque wrench for a leak-free connection.
- Check carefully for leaks before starting the test run.

NOTE:
Depending on the system type, liquid and gas lines may be either narrow or wide. Therefore, to avoid confusion the refrigerant tubing for your particular model is specified as either "small" or "large" rather than as "liquid" or "gas".

When Servicing

- Turn the power OFF at the main circuit breaker panel before opening the unit to check or repair electrical parts and wiring.
- Keep your fingers and clothing away from any moving parts.
- Clean up the site after you finish, remembering to check that no metal scraps or bits of wiring have been left inside the unit being serviced.
- After installation, explain correct operation to the customer, using the operating manual.

STANDARD PARTS

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

INDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application
Coupler heat insulation	2	For indoor side pipe joint
Special nut A (large flange)	4	For installing indoor unit
Special nut B (small flange)	4	For installing indoor unit
Template	1	For ceiling hole cutting
Blower cover insulation	2	For discharged air
Hook wire	2	For installing intake grille.
Binder (small)	1	For fixing the remote controller cord
Remote controller	1	
Tapping screw (flush heads)	2	For installing the remote controller
Remote controller cord	1	For connecting the remote controller

INSTALLATION PROCEDURE

Install the air conditioner as follows:

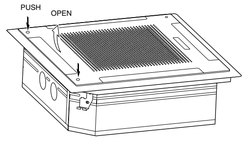
1 INDOOR UNIT INSTALLATION

⚠ WARNING

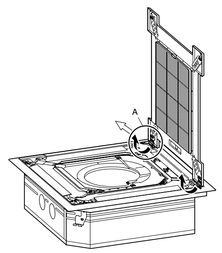
- **Install the air conditioner in a location which can withstand a load do at least five times the weight of the main unit and which will not amplify sound or vibration. If the installation location is not strong enough, the indoor unit may fall and cause injuries.**
- **If the job is done with the panel frame only, there is a risk that the unit will come loose. Please take care.**

REMOVING THE INTAKE GRILLE

(1) Push the intake grille pushbuttons (two places).
(2) Open the intake grille.

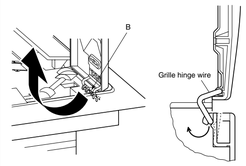


(3) Remove the grille hinge wire.



- Pull up while pressing the B section.

Part A detail view **Part A section view**

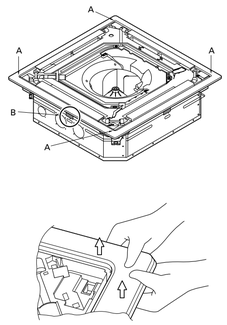


(4) Remove the intake grille.

REMOVING THE PANEL FRAME

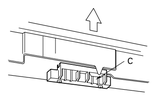
- Pull up the corner sections (A) of the panel frame as shown in figure (4 locations).

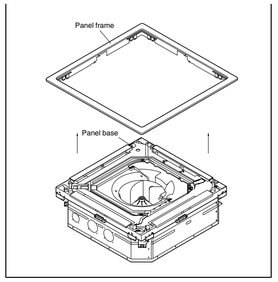
Part A detail view



- Pull up in the direction of the arrow while holding down the C section of figure (4 locations).

Part B detail view

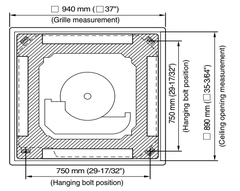




⚠ CAUTION

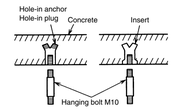
Always remove the panel frame after removing the intake grille.

1. POSITION THE CEILING HOLE AND HANGING BOLTS

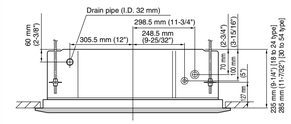


2. HANGING PREPARATIONS

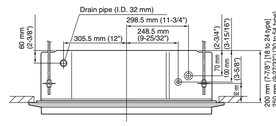
- Firmly fasten the hanging bolts as shown in figure or by another method.
- Install the hanging bolts at a place where they would be capable of holding a weight of at least 50 kgf per bolt.



(A) Standard setting



(B) Slender setting

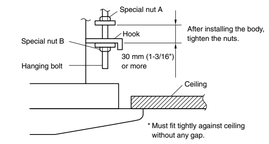


3. BODY INSTALLATION

As for the dimension of the ceiling rear hight is above figure or more.
(1) Install special nut A, then special nut B onto the hanging bolt.
(2) Raise the body and mount its hooks onto the hanging bolt between the special nuts.
(3) Turn special nut B to adjust the height of the body.
(4) Leveling
Using a level, or vinyl hose filled with water, fine adjust so that the body is level.

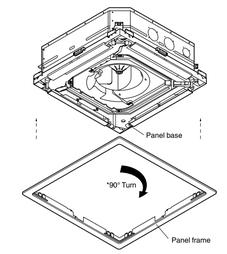
⚠ WARNING

Perform final tightening by tightening the double nut firmly.



* Allowable space between the unit and the ceiling 5 mm (3/16") or less

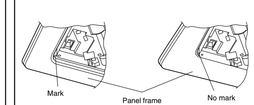
INSTALLING THE PANEL FRAME



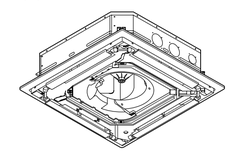
* With slender setting, turn the panel frame 90° as shown in the diagram above.

Grille setting method has been changed at the marked positions on the panel frame and panel base.

(A) Standard setting **(B) Slender setting**



(Example)



* Appearance of slender setting

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 (0.0315 in.)
9.52 mm (3/8 in.)	0.80 mm (0.0315 in.)
12.70 mm (1/2 in.)	0.80 mm (0.0315 in.)
15.88 mm (5/8 in.)	1.00 mm (0.0394 in.)

⚠ WARNING

① **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.**

② **Do not use an extension cable.**

③ **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.**

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.

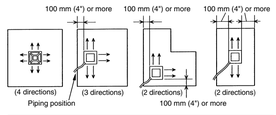
⚠ CAUTION

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

② **Do not install near heat sources.**

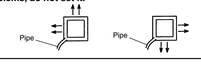
③ **If children under 10 years old may approach the unit, take preventive measures so that they cannot reach the unit.**

Especially, the installation place is very important for the split type air conditioner because it is very difficult to move from place to place after the first installation.
Decide the mounting position together with the customer as follows:
The discharge direction can be selected as shown below.



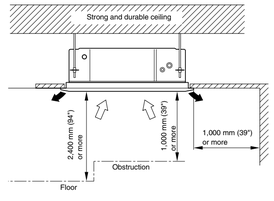
⚠ CAUTION

Since 2-way outlet as shown below causes performance problems, do not set it.



INDOOR UNIT

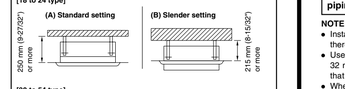
(1) Install the indoor unit on a place having a sufficient strength so that it withstands against the weight of the indoor unit.
(2) The inlet and outlet ports should not be obstructed; the air should be able to blow all over the room.
(3) Leave the space required to service the air conditioner.
(4) The ceiling rear height as shown in figure.
(5) A place from where the air can be distributed evenly throughout the room by the unit.
(6) A place from where drainage can be extracted outdoors easily.
(7) Install the unit where noise and vibrations are not amplified.



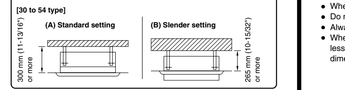
This mechanism enables the cassette body to move 35 mm (1-3/8") downward and realizes installation to the space of 215 or 265 mm (8-15/32" or 10-15/32"). No special works and option is needed.

You can select 2-way setting

[18 to 24 type]



[30 to 54 type]



CONNECTION PIPE REQUIREMENT

GENERAL

This INSTALLATION INSTRUCTION SHEET briefly outlines where and how to install the air conditioning system. Please read over the entire set of instructions for the indoor and outdoor units and make sure all accessory parts listed are with the system before beginning.

MODEL		14000, 18000 BTU/h model	24000, 36000, 42000 BTU/h model
Diameter	Liquid	6.35 mm (1/4 in.)	9.52 mm (3/8 in.)
	Gas	12.70 mm (1/2 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 248 °F. (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 (19/32") or thicker and if the expected humidity exceeds 80%, use heat insulation that is 20 mm (3/4") 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 68 °F).**

ELECTRICAL REQUIREMENT

- Electric wire size:

Connection cord (mm²)	MAX.	2.5
	MIN.	1.5

- Install all electrical works in accordance to the standard.
- Install the disconnect device with a contact gap of at least 3 mm (1/8") in all poles nearby the units. (Both indoor unit and outdoor unit)
- Install the circuit breaker nearby the units.

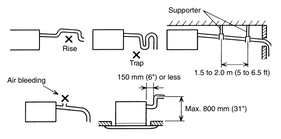
2 INSTALLING DRAIN PIPE

⚠ 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.

NOTE: Install the drain pipe.

- 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 32 mm (1-1/4")] and connect it with adhesive (polyvinyl chloride) so that there is no leakage.
- When the pipe is long, install supporters.
- Do not perform air bleeding.
- Always heat insulate the indoor side of the drain pipe.
- When desiring a high drain pipe height, rise it up to 800 mm (31") or less from the ceiling within a range of 150 mm (6") from the body. A rise dimension over this range will cause leakage.



3 CONNECTING THE PIPING

⚠ CAUTION

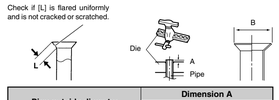
① **Do not use mineral oil on flared part.
Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.**

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 Flare tool for R410A, clutch type
6.35 mm (1/4 in.)	0 to 0.5 mm (0 to 0.0197 in.)
9.52 mm (3/8 in.)	
12.70 mm (1/2 in.)	
15.88 mm (5/8 in.)	

Pipe outside diameter	Dimension B
6.35 mm (1/4 in.)	9.1 mm (0.3583 in.)
9.52 mm (3/8 in.)	13.2 mm (0.5197 in.)
12.70 mm (1/2 in.)	16.6 mm (0.6536 in.)
15.88 mm (5/8 in.)	19.7 mm (0.7756 in.)

When using conventional flare tools to flare R410A pipes, the dimension A should be approximately 0.5 mm (1/32") 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 (0.6693 in.)
9.52 mm (3/8 in.)	22 mm (0.8661 in.)
12.70 mm (1/2 in.)	26 mm (1.0236 in.)
15.88 mm (5/8 in.)	29 mm (1.1417 in.)

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 (6") or over.**

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

3. CONNECTION PIPES

Indoor unit

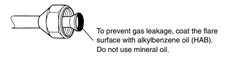
(1) Detach the caps and plugs from the pipes.

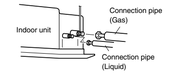
⚠ CAUTION

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.**

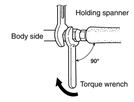
② **Do not remove the flare nut from the indoor unit pipe until immediately before connecting the connection pipe.**

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





(3) 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.	139 to 156 in.lbs (160 to 180 kgf-cm)
9.52 mm (3/8 in.) dia.	260 to 365 in.lbs (300 to 420 kgf-cm)
12.70 mm (1/2 in.) dia.	425 to 529 in.lbs (490 to 610 kgf-cm)
15.88 mm (5/8 in.) dia.	547 to 651 in.lbs (630 to 750 kgf-cm)

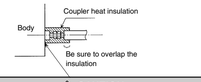
Do not remove the cap from the connection pipe before connecting the pipe.

⚠ CAUTION

Be sure to connect the large pipe after connecting the small pipe completely.

4 INSTALLING THE COUPLER HEAT INSULATION

After checking for gas leaks, insulate by wrapping insulation around the two parts (large and small) 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.

- Continued on back -

5 ELECTRICAL WIRING

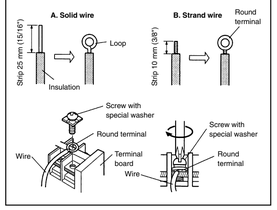
HOW TO CONNECT WIRING TO THE TERMINALS

A. For solid core wiring

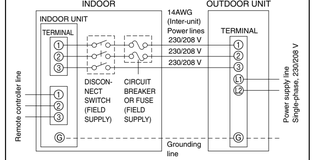
(1) Cut the wire end with a wire cutter or wire-cutting pliers, then strip the insulation to about 25 mm (15/16") of expose the solid wire.
(2) Using a screwdriver, remove the terminal screw(s) on the terminal board.
(3) Using pliers, bend the solid wire to form a loop suitable for the terminal screw.
(4) Shape the loop wire properly, place it on the terminal board and tighten securely with the terminal screw using a screwdriver.

B. For strand wiring

(1) Cut the wire end with a wire cutter or wire-cutting pliers, then strip the insulation to about 10 mm (3/8") of expose the strand wiring.
(2) Using a screwdriver, remove the terminal screw(s) on the terminal board.
(3) Using a round terminal fastener or pliers, securely clamp a round terminal to each stripped wire end.
(4) Position the round terminal wire, and replace and tighten the terminal screw using a screwdriver.



1. WIRING SYSTEM DIAGRAM



⚠ WARNING

Disconnect switch and circuit breaker for over current protection given in the table below is to be installed between the indoor unit and the outdoor unit.

Disconnect switch	Circuit breaker (or Fuse)
15A	240 V - 5A

⚠ CAUTION

① **Be sure to refer the above diagram and do correct field wiring.**
Wrong wiring causes malfunction of the unit.

② **Check local electrical codes and also any specific wiring instructions or limitation.**

2. INDOOR UNIT SIDE

⚠ WARNING

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

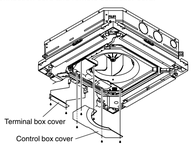
② **Match the terminal board numbers and connection cord colors with those of the outdoor unit.**
Erroneous wiring may cause burning of the electric parts.

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

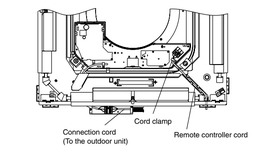
④ **Always fasten the outside covering of the connection cord with the cord clamp. (If the insulator is chafed, electric leakage may occur.)**

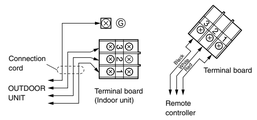
⑤ **Always connect the ground wire.**

(1) Remove the control box cover and terminal box cover and install the connection cord and remote controller cord.



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

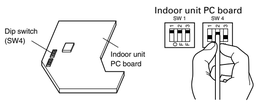




Ceiling height setting

Set the DIP switch for the ceiling height according to the table below.

Ceiling height		DIP-SW4		
		1	2	3
2.5-3.0 m (8.2-9.8 ft)	Normal	–	OFF	OFF
3.0-3.5 m (9.8-11.5 ft)	High ceiling 1	–	ON	OFF
More than 3.5 m (More than 11.5 ft)	High ceiling 2	–	OFF	ON
Less than 2.5 m (Less than 8.2 ft)	Low ceiling	–	ON	ON



⚠ CAUTION

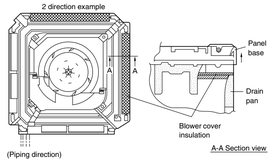
① **If the setting for a low ceiling is selected, the capacity of the air conditioner decreases slightly.**

② **Do not set any switches other than those specified in this sheet. The air conditioner may not operate correctly if any switches other than those specified are changed.**

6 GRILLE INSTALLATION

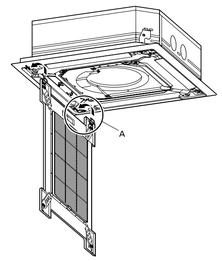
BLOWER COVER INSULATION

Install the blower cover insulation only when the outlet direction is not specified.
Two blower cover insulations are packed with the indoor unit.
Install the blower cover insulation at the diffuser position shown in figure.
At this time, use the piping position as the criteria.



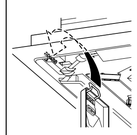
INSTALLING THE INTAKE GRILLE

(1) Mount the grille hinge wire to the hook shaft as shown in figure.

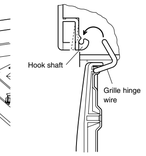


• Latch the grille hinge wire to the hook shaft, and fasten.

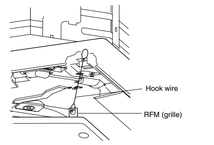
Part A detail view



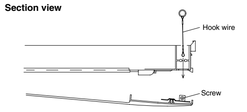
Part A section view



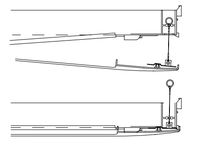
(2) Install the hook wire.
• Pass the hook wire through the panel base from the rear side as shown in figure, and fasten to the reinforced metal fitting of the intake grille using a screw.



Section view



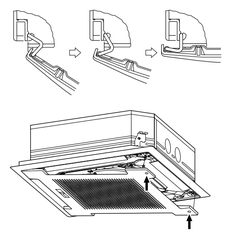
(3) Loosen the screw, put the loop of the hook wire over it, and tighten the screw again.



⚠ CAUTION

Install the intake grille hook wire to the grille assembly. If it falls, it may cause injuries.

(4) Bring up the intake grille by pushing it up at an angle as shown in figures, and fasten.



7 REMOTE CONTROLLER SETTING

⚠ CAUTION

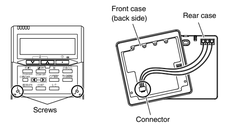
① **When detecting the room temperature using the remote controller, please set up the remote controller according to the following conditions.**
If the remote controller is not well set, the correct room temperature will not be detected, and thus the abnormal conditions like "not cooled" or "not heated" will occur even if the air conditioner is running normally.
- **A location with an average temperature for the room being airconditioned.**
- **Not directly exposed to the outlet air from the air-conditioner.**
- **Out of direct sunlight.**
- **Away from the influence of other heat sources.**

② **When installing the remote controller and cord near a source of electromagnetic waves, separate the remote controller from the source of the electromagnetic waves and use shielded cord.**

③ **Do not touch the remote controller PC board and PC board parts directly with your hands.**

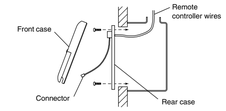
1. INSTALLING THE REMOTE CONTROLLER

(1) 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.

(2) Install the rear case to the wall, etc. with the two tapping screws.
Refer to the following information to install the remote controller wires.

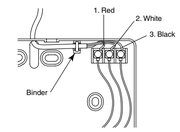


Install the remote controller wire so as not to be direct touched with your hand.

2. ROUTING THE REMOTE CONTROLLER WIRES

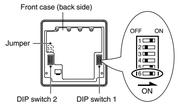
(1) Install the remote controller wires to the terminals on the top of the rear case as shown in the following figure.
(2) Fasten the wires with the binder.

(Example)



3. SETTING THE DIP SWITCHES

When using a battery (memory backup)



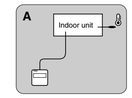
Change the DIP switch setting to use batteries. (The DIP switch is not set to use batteries at the factory.)
Change DIP switch 1 No. 6 from OFF to ON.
If batteries are not used, all of the settings stored in memory will be deleted if there is a power failure.

4. SETTING THE ROOM TEMPERATURE DETECTION LOCATION

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

A. Indoor unit setting (factory setting)

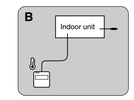
The room temperature is detected by the indoor unit temperature sensor.



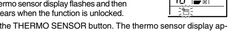
When the THERMO SENSOR button is pressed, the lock display flashes because the function is locked at the factory.

B. Remote controller setting

The room temperature is detected by the remote controller temperature sensor.



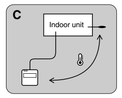
(1) Press the THERMO SENSOR button for 5 seconds or more to unlock the function.
The thermo sensor display flashes and then disappears when the function is unlocked.



(2) Press the THERMO SENSOR button. The thermo sensor display appears.
(3) Press the THERMO SENSOR button again for 5 seconds or more to lock the function. The thermo sensor display flashes and then remains on when the function is locked.
(4) Make sure that the function is locked.

C. 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) Press the THERMO SENSOR button for 5 seconds or more to unlock the function. The thermo sensor display flashes and then disappears when the function is unlocked.
(2) Press the THERMO SENSOR button to select the temperature sensor of the indoor unit or the remote controller.

⚠ CAUTION

① **When select the "Remote controller setting", if the detected temperature value between the temperature sensor of the indoor unit and the temperature sensor of the remote controller varies significantly, it is likely to return to the control status of temperature sensor of the indoor unit temporarily.**

② **As the temperature sensor of remote controller detects the temperature near the wall, when there is a certain difference between the room temperature and the wall temperature, the sensor will not detect the room temperature correctly sometimes.**
Especially when the outer side of the wall on which the sensor is positioned is exposed to the open air, it is recommended to use the temperature sensor of the indoor unit to detect the room temperature when the indoor and outdoor temperature difference is significant.

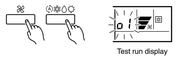
③ **The temperature sensor of the remote controller is not only used when there is a problem in the detection of the temperature sensor of the indoor unit.**

ℹ NOTES

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

8 TEST RUN

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



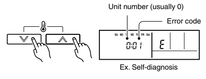
(3) Press the START/STOP button to stop the test run.

[SELF-DIAGNOSIS]

When the error indication "E:EE" is displayed, follow the following items to perform the self-diagnosis. "E:EE" indicates an error has occurred.

1. REMOTE CONTROLLER DISPLAY

(1) Stop the air conditioner operation.
(2) Press the SET TEMP. buttons ∧/∨ simultaneously for 5 seconds or more to start the self-diagnosis.
Refer to the following tables for the description of each error code.

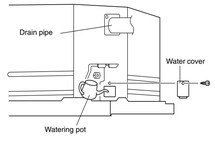


(3) Press the SET TEMP. buttons ∧/∨ simultaneously for 5 seconds or more to stop the self-diagnosis.

Error code	Error contents
00	Communication error (indoor unit ⟷ remote controller)
01	Communication error (indoor unit ⟷ outdoor unit)
02	Room temperature sensor open
03	Room temperature sensor short-circuited
04	Indoor heat exchanger temperature sensor open
05	Indoor heat exchanger temperature sensor short-circuited
06	Outdoor heat exchanger temperature sensor
08	Power source connection error
09	Float switch operated
0A	Outdoor temperature sensor
0C	Discharge pipe temperature sensor
11	Model error
12	Indoor fan error
13	Outdoor signal error
14	Excessive outdoor pressure (permanent stop)
15	Compressor temperature sensor
16	Pressure switch error
17	IPM error
18	CT error
19	Active filter module (AFM) error
1A	Compressor does not operate
1b	Outdoor unit fan error
1C	Communication error (inverter ⟷ multicontroller)
1d	2 way valve sensor error
1E	Expansion valve error
1F	Connection indoor unit error

2. CHECKING DRAINAGE

To check the drain, remove the water cover and fill with 2 to 3 ℓ of water as shown in figure.
The drain pump operates when operating in the cooling mode.



9 SPECIAL INSTALLATION METHODS

⚠ CAUTION

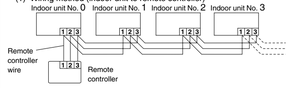
① **When setting the rotary switch and DIP switches, do not touch any other parts on the circuit board directly with your bare hands.**

② **Be sure to turn off the main power.**

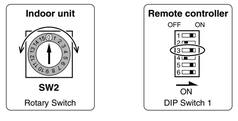
1. GROUP CONTROL SYSTEM

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)



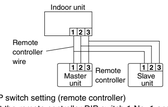
(2) Rotary switch setting (indoor unit)
Set the unit number of each indoor unit using the rotary switch on the indoor unit circuit board.
The rotary switch is normally set to 0.
(3) DIP switch setting (remote controller)
Change DIP switch 1 No. 3 on the remote controller from OFF to ON.



2. DUAL REMOTE CONTROLLERS (OPTIONAL)

Two separate remote controllers can be used to operate the indoor units.

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



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

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

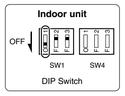
Number of remote controllers	Slave unit	
	DIP-SW 1 No. 1	DIP-SW 1 No. 2
1 (Normal)	–	–
2 (Dual)	ON	ON

3. AUTO RESTART

• When the air conditioner power was temporarily turned off by a power failure etc., it restarts automatically after the power recovers. (Operated by setting before the power failure)

The auto restart function can be canceled.

(1) DIP switch setting (indoor unit)
Change the DIP switch (SW1-1) on the indoor unit circuit board from ON to OFF. The auto restart function will be canceled.



[DIP-SWITCH SETTING]

● **Indoor unit**

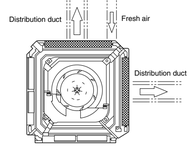
	NO.	SW state OFF	SW state ON	Detail
DIP-Switch 1	1	Invalidity	Validity ★	Auto restart setting
	2	—	— ★	Temperature correction setting
	3	—	— ★	
DIP-Switch 4	1	— ★	—	Remote controller setting
	2	— ★	—	Air flow setting
	3	— ★	—	

● **Remote controller**

	No.	SW state OFF	SW state ON	Detail
DIP-switch 1	1		★	Dual remote controller setting
	2	★		
	3	★ One unit	Multiple units	Group control setting
	4	★ Heat & cool model	Cooling only model	Model setting
	5	Invalidity	★ Validity	AUTO changeover setting
	6	★ Invalidity	Validity	Memory Backup setting
DIP-switch 2	1	★ Validity	Invalidity	THERMO SENSOR button setting
	2	★ Validity	Invalidity	ENERGY SAVE button setting
	3	Validity	★ Invalidity	Horizontal airflow direction and swing button setting
	4	★ Validity	Invalidity	Vertical airflow direction and swing button setting
	5	★ Fixed at OFF		Cannot be used.
	6	★ Fixed at OFF		Cannot be used.

(★: Factory setting)

10 OPENING THE DUCT CONNECTION HOLE



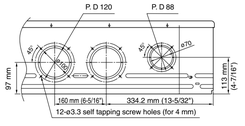
⚠ CAUTION

① **When performing hole opening work, be careful not to damage the drain pan.**

② **When connecting the distribution duct, to make the air flow easily, block the outlet port with the blower cover insulation as shown by the hatched lines in the figure. For the blocking direction, refer to blower cover insulation figure.**

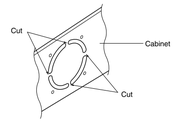
1. DIMENSION

Screw position and connection hole which are fresh air duct and distribution duct.

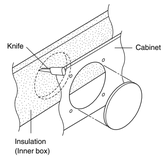


2. DISTRIBUTION DUCT AND FRESH AIR DUCT HOLE PROCESSING

Use the distribution duct hole and fresh air duct hole by removing the insulation material as shown below.



• Cut off the part (Cabinet) indicated by the arrow in the figure with nippers, needle nose pliers, etc.



• Open the holes and cut the insulation with a knife.
* Be careful not to damage the internal parts.
* Be careful not to cut yourself on the cutout in the metal plate.
* Please remove the insulation (inner box) left over after cutting.
• Connect the distribution duct.
* When mounting the duct, block the gap so that there is no cold air leakage.
* Insulate the duct and cut connection.

⚠ CAUTION

The air conditioner cannot take in fresh air by itself. When connecting a fresh air duct, always use a duct fan.

PART NO. 9370937039-02