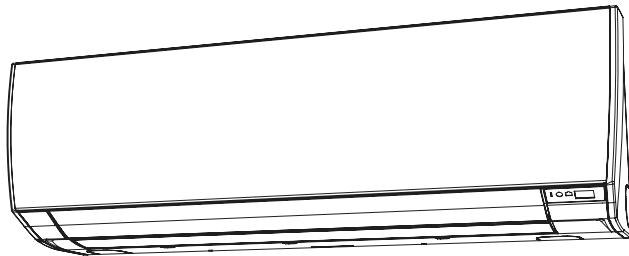


AIR CONDITIONER

Wall Mounted Type



For authorized service personnel only.

1. SAFETY PRECAUTIONS

- Be sure to read this Manual thoroughly before installation.
- The warnings and precautions indicated in this Manual contain important information pertaining to your safety. Be sure to observe them.
- Hand this Manual, together with the Operating Manual, to the customer. Request the customer to keep them on hand for future use, such as for relocating or repairing the unit.

⚠ WARNING

Indicates a potentially or imminently hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

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

⚠ WARNING

- Installation of this product must be done by experienced service technicians or professional installers only in accordance with this manual. Installation by non-professional or improper installation of the product might cause serious accidents such as injury, water leakage, electric shock, or fire. If the product is installed in disregard of the instructions in this manual, it will void the manufacturer's warranty.
- Do not turn on the power until all work has been completed. Turning on the power before the work is completed can cause serious accidents such as an electric shock or a fire.
- If refrigerant leaks when you are working, ventilate the area. If the leaking refrigerant is exposed to a direct flame, it may produce a toxic gas.
- Installation must be performed in accordance with regulations, codes, or standards for electrical wiring and equipment in each country, region, or the installation place.

⚠ CAUTION

- Read carefully all of safety information written in this manual before you install or use the air conditioner.
- Install the unit by following local codes and regulations in force at the place of installation, and the instructions provided by the manufacturer.
- This unit is part of a set constituting an air conditioner. The unit must not be installed alone or be installed with non-authorized device by the manufacturer.
- Always use a separate power supply line protected by a circuit breaker operating on all wires with a distance between contact of 3 mm for this unit.
- To protect the persons, earth (ground) the unit correctly, and use the power cable combined with an Earth Leakage Circuit Breaker (ELCB).
- The units are not explosion proof, and therefore should not be installed in explosive atmosphere.
- To avoid getting an electric shock, never touch the electrical components soon after the power supply has been turned off. After turning off the power, always wait 5 minutes or more before you touch the electrical components.
- This unit contains no user-serviceable parts. Always consult experienced service technicians for repairing.
- When moving or relocating the air conditioner, consult experienced service technicians for disconnection and reinstallation of the unit.
- Do not place any other electrical products or household belongings under indoor unit or outdoor unit. Condensation dripping from the unit might get them wet, and may cause damage or malfunction of your property.

INSTALLATION MANUAL

PART No. 9333005096

English

中國語

Contents

1. SAFETY PRECAUTIONS.....	1
2. ABOUT THE UNIT.....	1
3. GENERAL SPECIFICATION.....	2
4. ELECTRICAL REQUIREMENT.....	2
5. SELECTING THE MOUNTING POSITION.....	2
6. INSTALLATION WORK.....	3
7. ELECTRICAL WIRING.....	5
8. FINISHING.....	6
9. FRONT PANEL REMOVAL AND INSTALLATION.....	6
10. TEST RUN.....	7
11. REMOTE CONTROLLER INSTALLATION.....	7
12. FUNCTION SETTING.....	7
13. CUSTOMER GUIDANCE.....	8
14. ERROR CODES.....	8

2. ABOUT THE UNIT

2.1. Precautions for using R410A refrigerant

The basic installation work procedures are the same as conventional refrigerant (R22) models.

However, pay careful attention to the following points:

Since the working pressure is 1.6 times higher than that of conventional refrigerant (R22) models, some of the piping and installation and service tools are special. (See the following table.)

Especially, when replacing a conventional refrigerant (R22) model with a new refrigerant R410A model, always replace the conventional piping and flare nuts with the R410A piping and flare nuts.

Models that use refrigerant R410A have a different charging port thread diameter to prevent erroneous charging with conventional refrigerant (R22) and for safety. Therefore, check beforehand. [The charging port thread diameter for R410A is 1/2 inch.]

Be more careful that foreign matter (oil, water, etc.) does not enter the piping. Also, when storing the piping, securely seal the opening by pinching, taping, etc.

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 where refrigerant composition is stable.

2.2. Special tools for R410A

Tool name	Contents of change
Gauge manifold	Pressure is high and cannot be measured with a conventional (R22) 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 (-1 to 53 bar) for high pressure. -0.1 to 3.8 MPa (-1 to 38 bar) 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 value or capillary tube may become blocked with contaminants.

As an air conditioner using R410A incurs pressure higher than when using R22, it is necessary to choose adequate materials.



WARNING

Do not use the existing (for R22) piping and flare nuts.

If the existing materials are used, the pressure inside the refrigerant cycle will rise and cause failure, injury, etc. (Use the special R410A materials.)

When installing and relocating the air conditioner, do not mix gases other than the specified refrigerant (R410A) to enter the refrigerant cycle.

If air or other gas enters the refrigerant cycle, the pressure inside the cycle will rise to an abnormally high value and cause failure, injury, etc.

2.3. For authorized service personnel only



WARNING

- For appropriate working of the air conditioner, install it as written in this manual.
- To connect indoor unit and outdoor unit, use air conditioner piping and cables available through your local distributor. This manual describes proper connections using such installation set.
- Do not turn on the power until all work has been completed.



CAUTION

This installation manual describes how to install the indoor unit only.

To install the outdoor unit, refer to the installation manual included in each product.

- Be careful not to scratch the air conditioner when handling it.
- After installation, explain correct operation to the customer, using the operating manual.

2.4. Accessories

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

Name and Shape	Q'ty	Name and Shape	Q'ty
Operating Manual	1	Cloth tape	1
Installation Manual (This manual)	1	Tapping screw (M4 × 25 mm)	5
Wall hook bracket	1	Tapping screw (M3 × 12 mm)	2
Remote controller	1	Air cleaning filter	2
Battery	2	Filter holders	2
Remote controller holder	1		

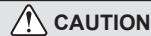
The following items are necessary to install this air conditioner. (The items are not included with the air conditioner and must be purchased separately.)

Name	Q'ty	Name	Q'ty
Connection pipe assembly	1	Wall cap	1
Connection cable (4-conductor)	1	Saddle	1 set
Wall pipe	1	Drain hose	1
Decorative tape	1	Tapping screws	1 set
Vinyl tape	1	Sealant	1

3. GENERAL SPECIFICATION

This INSTALLATION MANUAL 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.

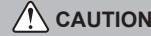
3.1. Type of copper pipe and insulation material



CAUTION

For appropriate pipe length and height difference, refer to the installation manual for the outdoor unit.

Gas pipe size (thickness) [mm]	Liquid pipe size (thickness) [mm]
Ø 9.52 (0.8)	Ø 6.35 (0.8)



CAUTION

- Wrap heat insulation around both of the gas pipe and the liquid pipe. No heat insulation work or incorrect heat-insulation work may cause water leaks.
- In a reverse cycle model, use heat insulation with heat resistance above 120 °C.
- If expected humidity of the installation location of refrigerant pipes is higher than 70 %, wrap the heat insulation around the refrigerant pipes. If the expected humidity is between 70 % and 80 %, use heat insulation that has thickness of 15 mm or more. If the expected humidity is higher than 80 %, use heat insulation that has thickness of 20 mm or more.
- Using of thinner heat insulation than specified above may cause a condensation on the surface of the insulation.
- Use heat insulation with thermal conductivity of 0.045 W/(m·K) or less, at 20 °C.

3.2. Additional materials required for installation

- Refrigeration (armored) tape
- Insulated staples or clamps for connecting wire (See your local electrical codes.)
- Putty
- Refrigeration lubricant
- Clamps or saddles to secure refrigerant piping

4. ELECTRICAL REQUIREMENT

The indoor unit is powered from the outdoor unit. Do not power indoor unit from separate power source.



WARNING

Standard for electrical wiring and equipment differs in each country or region. Before you start electrical working, confirm related regulations, codes, or standards.

Cable	Cable size	Remarks
Connection cable	Type 60245 IEC 57 (1.5 mm ²)	3 cable + Earth (Ground), 1 Ø 220 V

Max. Cable Length: Limit voltage drop to less than 2%. Increase cable gauge if voltage drop is 2% or more.

5. SELECTING THE MOUNTING POSITION

Decide the mounting position with the customer as follows:

5.1. Indoor unit

- Install the indoor unit level on a strong wall which is not subject to vibration.
- The inlet and outlet ports should not be obstructed: the air should be able to blow all over the room.
- Install the unit a dedicated electrical branch circuit.
- Do not install the unit where it will be exposed to direct sunlight.
- Install the unit where connection to the outdoor unit is easy.
- Install the unit where the drain pipe can be easily installed.
- Take servicing, etc. into consideration and leave the spaces shown in "6.1. Installation dimensions". Also install the unit where the filter can be removed.

Correct initial installation location is important because it is difficult to move unit after it is installed.



WARNING

Install the unit where is capable to support the weight of the unit. Secure the unit firmly so that the unit does not topple or fall.

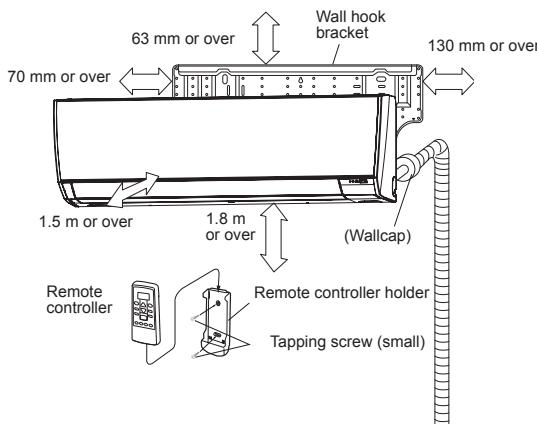
CAUTION

Do not install the unit in the following areas:

- Area with high salt content, such as at the seaside. It will deteriorate metal parts, causing the parts to fail or the unit to leak water.
- Area filled with mineral oil or containing a large amount of splashed oil or steam. It will deteriorate plastic parts, causing the parts to fail or the unit to leak water.
- Area that generates substances that adversely affect the equipment, such as sulfuric gas, chlorine gas, acid, or alkali. It will cause the copper pipes and brazed joints to corrode, which can cause refrigerant leakage.
- Area that can cause combustible gas to leak, contains suspended carbon fibers or flammable dust, or volatile inflammables such as paint thinner or gasoline.
- If gas leaks and settles around the unit, it can cause a fire.
- Area where animals may urinate on the unit or ammonia may be generated.
- Do not use for preservation of food, plants, animals, precision equipment, art work, or other objects. This may cause quality deterioration of those items.
- Install the unit where drainage does not cause any trouble.
- Install the indoor unit, outdoor unit, power supply cable, transmission cable, and remote control cable at least 1 m away from a television or radio receivers. The purpose of this is to prevent TV reception interference or radio noise.
(Even if they are installed more than 1 m apart, you could still receive noise under some signal conditions.)
- If children may approach the unit, take preventive measures so that they cannot reach the unit.
- Install the indoor unit on the wall where the height from the floor is more than 1.8 m.

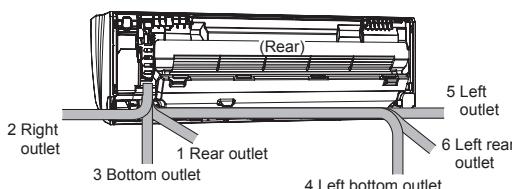
6. INSTALLATION WORK

6.1. Installation dimensions



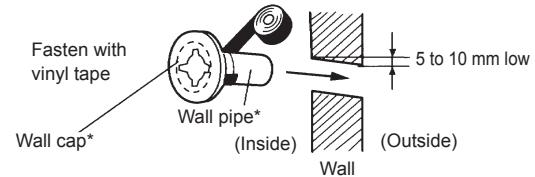
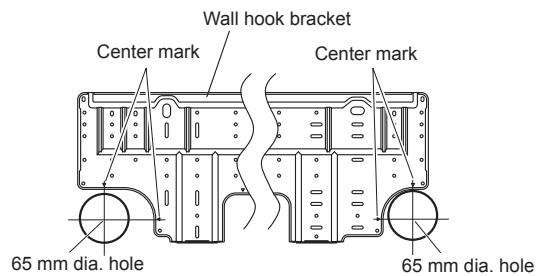
6.2. Indoor unit piping direction

The piping can be connected in the 6 directions indicated in the following.
When the piping is connected in direction 2, 3, 4 or 5, cut along the piping groove in the side of the front cover with a hacksaw.



6.3. Cutting the hole in the wall for the connecting piping

- (1) Cut a 65 mm diameter hole in the wall at the position shown in the following.
- (2) Cut the hole so that the outside end is lower (5 to 10 mm) than the inside end.
- (3) Always align the center of the wall hole. If misaligned, water leakage will occur.
- (4) Cut the wall pipe to match the wall thickness, stick it into the wall cap, fasten the cap with vinyl tape, and stick the pipe through the hole.
- (5) For left piping and right piping, cut the hole a little lower so that drain water will flow freely.

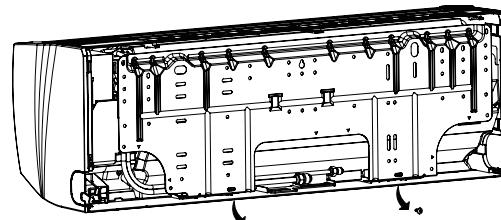


*Field supplied

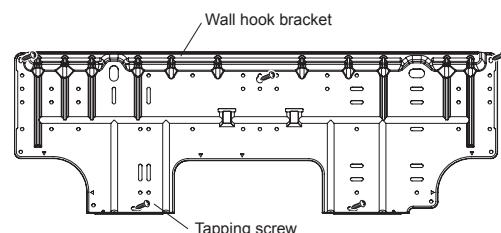
WARNING

Always use the wall pipe. If the wall pipe is not used, the cable that is connected between the indoor unit and the outdoor unit may touch metal, and cause an electric discharge.

6.4. Installing the wall hook bracket



- Remove the wall hook bracket from the indoor unit. (Remove 2 screws).
- (1) Install the wall hook bracket so that it is correctly positioned horizontally and vertically.
If the wall hook bracket is tilted, water will drip to the floor.
- (2) Install the wall hook bracket so that it is strong enough to support the weight of the unit.
 - Fasten the wall hook bracket to the wall with 5 or more screws through the holes near the outer edge of the bracket.
 - Check that there is no rattle at the wall hook bracket.



CAUTION

Install the wall hook bracket both horizontally and vertically aligned. Misaligned installation may cause water leakage.

6.5. Forming the drain hose and pipe

[Rear piping, Right piping, Bottom piping]

- Install the indoor unit piping in the direction of the wall hole and bind the drain hose and pipe together with vinyl tape.
- Install the piping so that the drain hose is at the bottom.
- Wrap the pipes of the indoor unit that are visible from the outside with decorative tape.

[For Left rear piping, Left piping]

Interchange the drain cap and the drain hose.

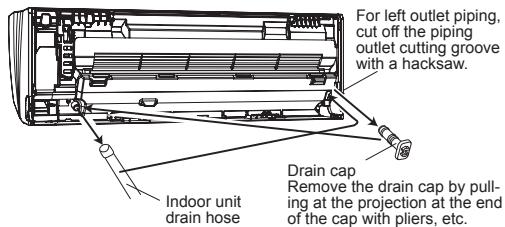
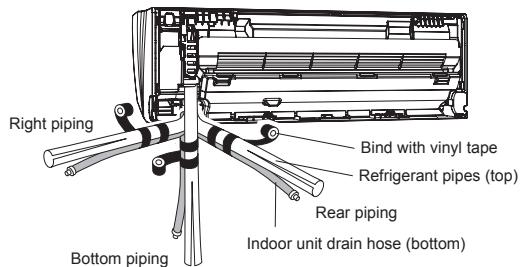
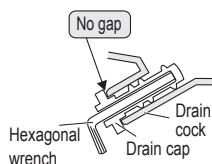
! CAUTION

- Insert drain hose and drain cap securely. Drain should slope down to avoid water leakage.
- When inserting the drain hose, no other material than water should be applied. Application of other material than water will cause deterioration of the hose, and may cause water leakage.
- After you remove the drain hose, be sure to attach the drain cap.
- When you secure the piping and drain hose with tape, arrange the drain hose so that it is at the bottom of the piping.
- For drain hose piping in low temperature environment, you need to apply freeze protection to prevent a frozen drain hose.

After cooling operation is performed in low temperature environment, (when outdoor temperature is under 0 °C,) water in the drain hose could be frozen. Frozen drain water will block the water flow in the hose, and may cause water leakage at the indoor unit.

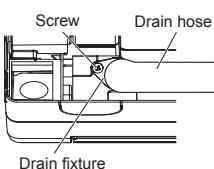
Installation method of Drain cap

Use a hexagonal wrench 4 mm at opposite side to insert the drain cap, till the drain cap contacts the tip of drain cock.



Removing the drain hose

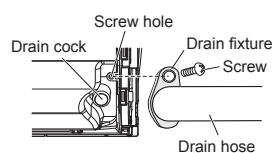
Remove the screw at the left of drain hose and pull out drain hose.



Installing the drain hose

Vertically insert the drain hose toward the inside, so that the drain fixture (white) can accurately align with the screw hole around the drain cock.

After inserting and before replacing, please reinstall and fix the removed screws.

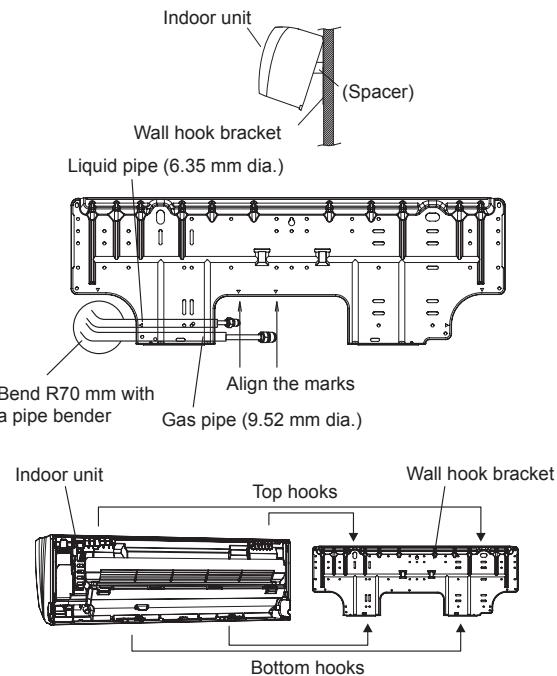


- Please hold around the joint of the drain hose during work.
- As the screw is inside, be sure to use screwdriver treated with magnet.

- For left piping and left rear piping, align the marks on the wall hook bracket and shape the connection pipe.
- Bend the connection piping at a bend radius of 70 mm or more and install no more than 35 mm from the wall.
- After passing the indoor piping and drain hose through the wall hole, hang the indoor unit on the hooks at the top and bottom of the wall hook bracket.

[Installing the indoor unit]

- Hang the indoor unit from the hooks at the top of the wall hook bracket.
- Insert the spacer, etc. between the indoor unit and the wall hook bracket and separate the bottom of the indoor unit from the wall.



After hooking the indoor unit to the top hook, hook the fittings of the indoor unit to the 2 bottom hooks while lowering the unit and pushing it against the wall.

6.6. Flare connection (Pipe connection)

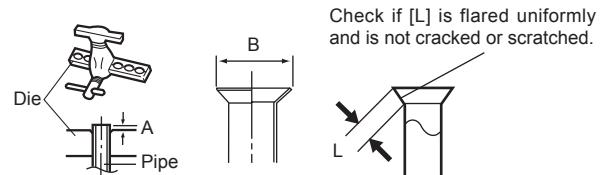
! CAUTION

Tighten the nut with a torque wrench as specified. Overtightened nut could break after a prolonged period, and may cause a refrigerant leakage. If the leaking refrigerant is exposed to a direct flame, it may produce a toxic gas.

6.6.1. Flaring

Use special pipe cutter and flare tool exclusive for R410A.

- (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 any burrs.
- (3) Insert the flare nut (always use the flare nut attached to the indoor unit(s) and outdoor unit respectively) onto the pipe and perform the flare processing with a flare tool. Use the special R410A flare tool, or the conventional flare tool. Leakage of refrigerant may result if other flare nuts are used.
- (4) Protect the pipes by pinching them or with tape to prevent dust, dirt, or water from entering the pipes.



Pipe outside diameter [mm (in.)]	Dimension A [mm] Flare tool for R410A, clutch type	Dimension B [mm]
6.35 (1/4)		9.1
9.52 (3/8)		13.2
12.70 (1/2)	0 to 0.5	16.6
15.88 (5/8)		19.7
19.05 (3/4)		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.

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

6.6.2. 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 3 times.

CAUTION

- To prevent breaking of the pipe, avoid sharp bends.
- If the pipe is bent repeatedly at one point, it will break.

6.6.3. Pipe connection

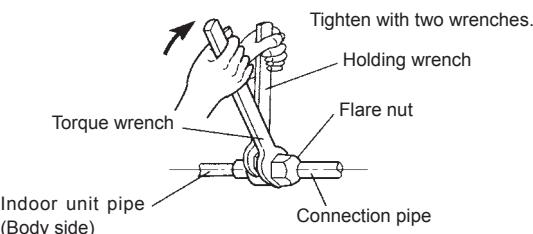
CAUTION

- Be sure to install the pipe against the port on the indoor unit correctly. If the centering is improper, the flare nut cannot tighten smoothly. If the flare nut is forced to turn, the threads will be damaged.
- Do not remove the flare nut from the indoor unit pipe until immediately before connecting the connection pipe.
- Hold the torque wrench at its grip, keeping it in the right angle with the pipe, in order to tighten the flare nut correctly.
- Tighten the flare nuts with a torque wrench using the specified tightening method. Otherwise, the flare nuts could break after a prolonged period, causing refrigerant to leak and generate hazardous gas if the refrigerant comes into contact with a flame.

CAUTION

- Connect the piping so that the control box cover can easily be removed for servicing when necessary.
- In order to prevent water from leaking into the control box, make sure that the piping is well insulated.

When the flare nut is tightened properly by your hand, hold the body side coupling with a wrench, then tighten with a torque wrench. (See the table below for the flare nut tightening torques.)



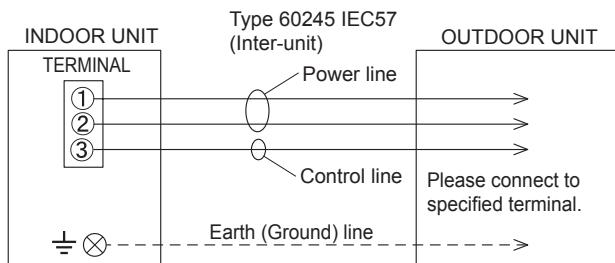
Flare nut [mm (in.)]	Tightening torque [N·m (kgf·cm)]
6.35 (1/4) dia.	16 to 18 (160 to 180)
9.52 (3/8) dia.	32 to 42 (320 to 420)
12.70 (1/2) dia.	49 to 61 (490 to 610)
15.88 (5/8) dia.	63 to 75 (630 to 750)
19.05 (3/4) dia.	90 to 110 (900 to 1,100)

7. ELECTRICAL WIRING

7.1. Wiring system diagram

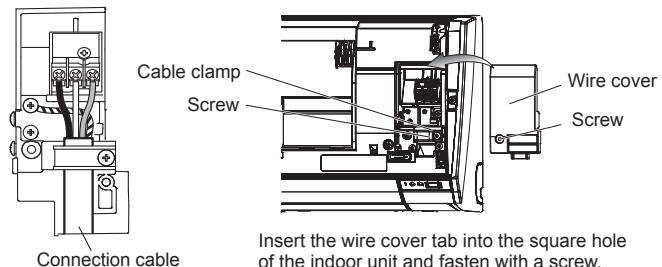
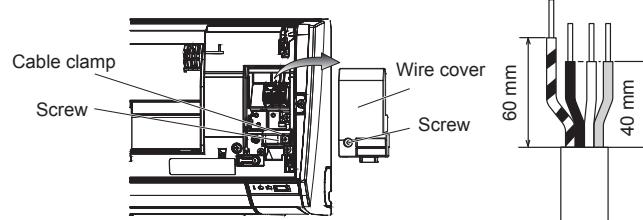
WARNING

- Every wire must be connected firmly.
- No wire should be allowed to touch refrigerant tubing, the compressor or any moving part.
- Loose wiring may cause the terminal to overheat or result in unit malfunction. A fire hazard may also exist. Therefore, be sure all wiring is tightly connected.
- Connect wires to the matching numbers of terminals.



7.2. Indoor unit wiring

- Remove the wire cover. (Remove 1 screw.)
- Remove the cable clamp.
- Bend the end of the connection cable as shown in the figure.
- Connect the end of the connection cable fully inserting into the terminal block.
- Fasten the connection cable with a cable clamp.



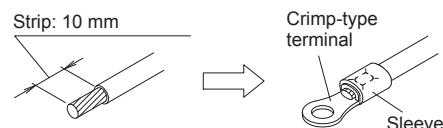
Insert the wire cover tab into the square hole of the indoor unit and fasten with a screw.

7.3. How to connect wiring to the terminals

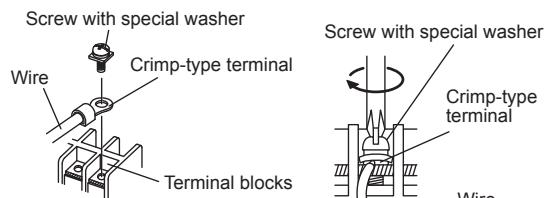
Caution when wiring cable

To strip off the insulation of a lead wire, always use a special tool such as a wire stripper. If there is no special tool available, carefully strip the insulation with a knife or other utensil.

- Use crimp-type terminals with insulating sleeves as shown in the figure below to connect to the wire.
- Securely clamp the crimp-type terminals to the wires using an appropriate tool so that the wires do not come loose.



- Connect specified wires securely, and fasten them so that there is no stress applied to the terminals.
- Use a screwdriver with an appropriate bit size to tighten the terminal screws. Using of screwdriver with inappropriate bit size will damage the screw heads, and the screws will not be tightened properly.
- Do not overtighten the terminal screw. Otherwise, the screws may break.



- See the following table for the terminal screw tightening torques.

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

CAUTION

- Match the terminal block numbers and connection cable colors with those of the outdoor unit. Incorrect wiring may cause a fire.
- Connect the connection cables firmly to the terminal block. Imperfect installation may cause a fire.
- When fixing the connection cable with the cable clamp, always fasten the cable at the plastic jacket portion, but not at the insulator portion. If the insulator is chafed, electric leakage may occur.
- Always connect the earth (ground) wire. Improper earthing (grounding) work can cause electric shocks.
- Do not use the earth (ground) screw for the indoor unit to the outdoor unit unless it is specified.

8. FINISHING

(1) Insulate between pipes.

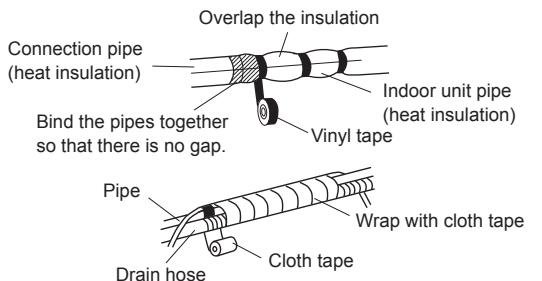
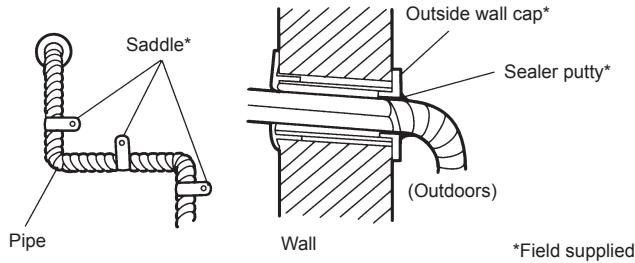
- Insulate suction and discharge pipes separately.
- For rear, right, and bottom piping, overlap the connection pipe heat insulation and indoor unit pipe heat insulation and bind them with vinyl tape so that there is no gap.
- For left and left rear piping, butt the connection pipe heat insulation and indoor unit pipe heat insulation together and bind them with vinyl tape so that there is no gap.
- For left and left rear piping, wrap the area which accommodates the rear piping housing section with cloth tape.
- For left and left rear piping, bind the connection cable to the top of the pipe with vinyl tape.
- For left and left rear piping, bundle the piping and drain hose together by wrapping them with cloth tape over the range within which they fit into the rear piping housing section.

(2) Temporarily fasten the connection cable along the connection pipe with vinyl tape. (Wrap to about 1/3 the width of the tape from the bottom of the pipe so that water does not enter.)

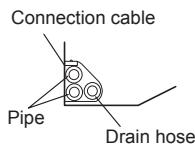
(3) Fasten the connection pipe to the outside wall with a saddle, etc.

(4) Fill the gap between the outside wall pipe hole and the pipe with sealer so that rain water and wind cannot blow in.

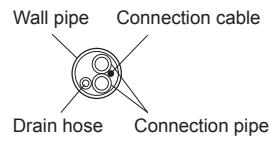
(5) Fasten the drain hose to the outside wall, etc.



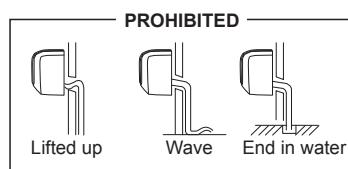
Left piping



For connection from the left rear

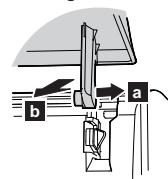


Check the following:

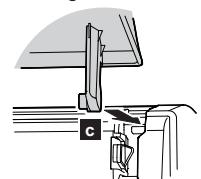


9. FRONT PANEL REMOVAL AND INSTALLATION

Intake grill removal



Intake grill installation



While holding the grille horizontal, set the left and right mounting shafts into the pillow blocks at the top of the panel "c".

To latch each shaft properly, insert the shaft until it snaps.

Press 4 places on the intake grille to close it completely.

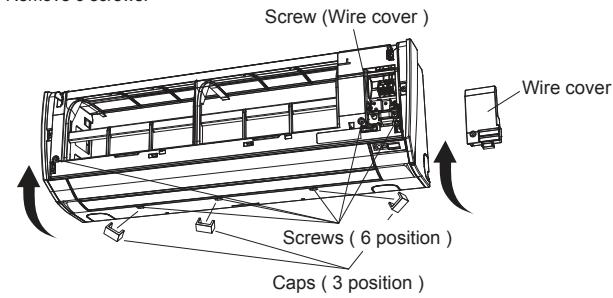
9.1. Front panel removal

(1) Remove intake grille (See "Intake grille removal".)

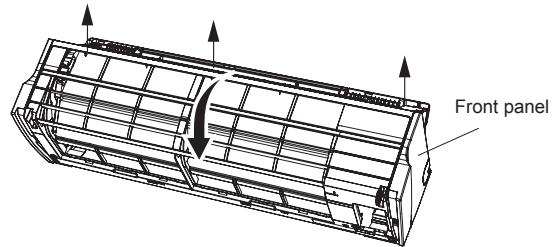
(2) Remove 3 caps.

(3) Remove 1 screw and the wire cover.

(4) Remove 6 screws.

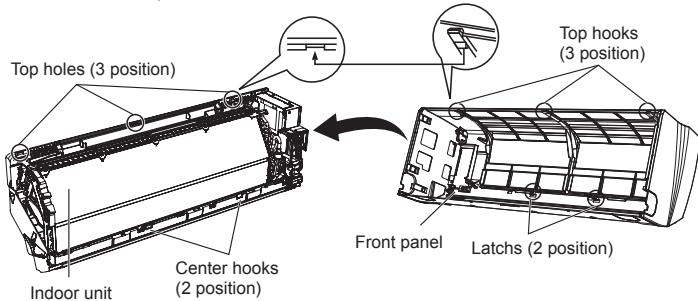


(5) The front panel is pulled to the front, raising the upper surface, and a front panel is removed.



9.2. Front panel installation

(1) First, fit the lower part of the front panel, and insert top and bottom hooks. (3 top sides, 2 center)



(2) Attach the 6 screws.

(3) Attach the wire cover with 1 screw.

(4) Attach the 3 caps.

(5) Attach the intake grille.

CAUTION

Install the front panel and intake grille securely. If installation is imperfect, the front panel or intake grille may fall off and cause injury.

10. TEST RUN

Check items

- (1) Is operation of each button on the remote control unit normal?
- (2) Does each lamp light normally?
- (3) Do airflow direction louvers operate normally?
- (4) Is the drain normal?
- (5) Does the unit have an abnormal noise and vibration during operation?
- Do not operate the air conditioner in test run for a long time.

[Operation method]

- For the operation method, refer to the operating manual.
- The outdoor unit, may not operate, depending on the room temperature. In this case, keep on pressing the MANUAL/AUTO button of the indoor unit for more than 10 seconds. The operation indicator lamp and timer indicator lamp will begin to flash simultaneously during cooling test run. Then, heating test run will begin in about 3 minutes when HEAT is selected by the remote control operation. (Please follow the operating manual for remote control operation.)
- To end test operation, press the remote controller START/STOP button. (When the air conditioner is running by pressing the test run button, the OPERATION Lamp and TIMER Lamp will simultaneously flash slowly.)

11. REMOTE CONTROLLER INSTALLATION

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

CAUTION

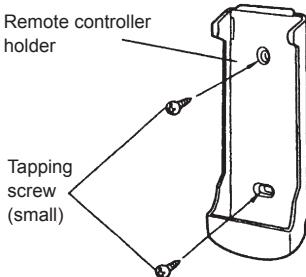
Do not install the remote controller holder in the following conditions:

- Any places exposed in direct sunlight
- Positions affected by the heat from a stove or heater

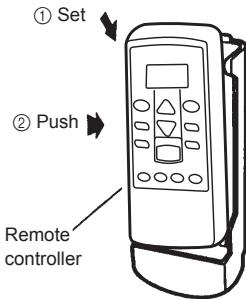
11.1. Remote controller holder installation

- Install the remote controller a maximum distance of 7 m from the remote control receiver. After installing the remote controller, check that it operates correctly.
- Install the remote controller holder to a wall, pillar, etc. with the tapping screw.

remote controller holder fixing



remote controller mounting



12. FUNCTION SETTING

Perform the Function Setting according to the installation conditions using the remote controller.

CAUTION

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

- This procedure changes to the function settings used to control the indoor unit according to the installation conditions. Incorrect settings can cause the indoor unit to malfunction.
- After the power is turned on, perform the Function Setting according to the installation conditions using the remote controller.
- The settings may be selected between the following two: Function Number and Setting Value.
- Settings will not be changed if invalid numbers or setting values are selected.

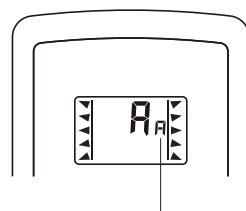
Entering the Function Setting Mode

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

STEP 1

Setting the Remote controller Custom Code

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



- 1 Press the SET TEMP. (▲) (▼) button to change the custom code between **A** → **B** → **C** → **D**. Match the code on the display to the air conditioner custom code. (initially set to **A**) (If the custom code does not need to be selected, press the MODE button and proceed to STEP 2.)

- 2 Press the MODE button to accept the custom code, and proceed to STEP 2

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

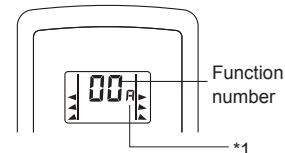
The remote controller resets to custom code **A** when the batteries in the remote controller are replaced. If you use a custom code other than custom code **A**, reset the custom code after replacing the batteries.

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

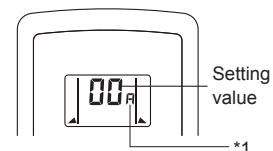
STEP 2

Setting the Remote controller Custom Code

- 1 Press the SET TEMP. (▲) (▼) buttons to select the function number. (Press the MODE button to switch between the left and right digits.)



- 2 Press the FAN button to proceed to setting the value. (Press the FAN button again to return to the function number selection.)



- 3 Press the SET TEMP. (▲) (▼) buttons to select the setting value. (Press the MODE button to switch between the left and right digits.)

- 4 Press the SLEEP button, then after you hear the beep emitted from the indoor unit, press the START/STOP button to confirm the settings.

- 5 Press the RESET button to cancel the function setting mode.

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

CAUTION

After turning off the power, wait 10 seconds or more before turning on it again.

The Function Setting does not become active unless the power is turned off then on again.

Filter sign

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

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

(♦... Factory setting)

Setting Description	Function Number	Setting Value
Standard (400 hours)	11	00
Long interval (1,000 hours)		01
Short interval (200 hours)		02
No indication		03

Room temperature control for cooling

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

(♦... Factory setting)

Setting Description	Function Number	Setting Value
Standard	30	00
Slightly lower control		01
Lower control		02
Higher control		03

Room temperature control for heating [Reverse cycle model only]

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

(♦... Factory setting)

Setting Description	Function Number	Setting Value
Standard	31	00
Lower control		01
Slightly higher control		02
Higher control		03

Auto restart

Enable or disable automatic restart after a power interruption.

(♦... Factory setting)

Setting Description	Function Number	Setting Value
Enable	40	00
Disable		01

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

Remote controller custom code

(Only for wireless remote controller)

The indoor unit custom code can be changed. Select the appropriate custom code.

(♦... Factory setting)

Setting Description	Function Number	Setting Value
A	44	00
B		01
C		02
D		03

Indoor unit fan control for energy saving for cooling

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

(♦... Factory setting)

Setting Description	Function Number	Setting Value
Disable	49	00
Enable		01

00: When the outdoor unit is stopped, the indoor unit fan operates continuously following the setting on the remote controller.

01: When the outdoor unit is stopped, the indoor unit fan operates intermittently at a very low speed.

Setting record

Record any changes to the settings in the following table.

Setting Description	Setting Value
Filter sign	
Room temperature control for cooling	
Room temperature control for heating	
Auto restart	
Remote controller custom code	
Indoor unit fan control for energy saving for cooling	

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

13.CUSTOMER GUIDANCE

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

- Starting and stopping method, operation switching, temperature adjustment, timer, air flow switching, and other remote control unit operations.
- Air filter removal and cleaning, and how to use the air louvers.
- Give the operating manual to the customer.

14.ERROR CODES

The lamp on the photo detector unit will output error codes by way of blinking patterns. See the lamp blinking patterns in the table. An error display is displayed only during operation.

Error display			Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)	
●(1)	●(1)	◇	Serial communication error
●(3)	●(2)	◇	Indoor unit PCB model information error
●(3)	●(5)	◇	Manual auto switch error
●(4)	●(1)	◇	Room temp. sensor error
●(4)	●(2)	◇	Indoor unit Heat Ex. Middle temp. sensor error
●(5)	●(1)	◇	Indoor unit fan motor error
●(6)	●(2)	◇	Outdoor unit main PCB model information error or communication error
●(6)	●(5)	◇	Trip terminal L error
●(7)	●(1)	◇	Discharge temp. sensor error
●(7)	●(3)	◇	Outdoor unit Heat Ex. liquid temp. sensor error
●(7)	●(4)	◇	Outdoor temp. sensor error
●(8)	●(4)	◇	Current sensor error
●(9)	●(4)	◇	Trip detection
●(9)	●(5)	◇	Compressor rotor position detection error
●(9)	●(7)	◇	Outdoor unit fan motor error
●(9)	●(9)	◇	4-way valve error
●(10)	●(1)	◇	Discharge temp. error

Display mode ● : 0.5s ON / 0.5s OFF

◇ : 0.1s ON / 0.1s OFF

() : Number of flashing

[Troubleshooting with the indoor unit display]



OPERATION indicator (green) —

TIMER indicator (orange) —

ECONOMY indicator (green) —