Nortek Global HVAC, LLC

Multi Variable Heat Pump Console Type Indoor Unit

Owner's Manual

Heat Pump

Models:

BDCO-2.2(07)-AK

BDCO-2.8(09)-AK

BDCO-3.6(12)-AK

BDCO-5.0(18)-AK

- Please read this owner's manual carefully before operation and retain it for future reference
- Specifications & illustrations subject to change without notice or incurring obligations

Preface

For correct installation and operation, please read all instructions carefully. Before reading the instructions, please be aware of the following items:

⚠	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible personal injury or death.
⚠WARNING	DANGER: Failure to comply may result in severe personal injury, property damage and/or death.
⚠CAUTION	CAUTION: Failure to comply may result in personal injury and/or property damage.
NOTICE	NOTICE is used to address practices not related to personal injury.

⚠ WARNING

(1)	Instructions for installation and use of this product are provided by the manufacturer.
(2)	Installation must be performed in accordance with the requirements of NEC and CEC by authorized personnel only.
(3)	For the safe operation of this unit, please read and follow the instructions carefully.
(4)	During operation, total capacity of indoor units should not exceed the total capacity of outdoor units. Otherwise, poor cooling or heating performance may result.
(5)	Direct operators or maintainers should keep this manual for future reference.
(6)	If this unit malfunctions, please contact a qualified contractor as soon as possible and provide the following information: a) Content on the nameplate (model number, cooling capacity, serial number, and manufacture date. b) Malfunction details (before and after the malfunction occurred).
(7)	Each unit has been strictly tested and proved before shipment. In order to prevent units from being damaged or malfunctioning because of improper service, please do not disassemble the unit by yourself. If you need mainteance or service, please contact a qualified contractor.
(8)	All illustrations in this manual are for your reference only. Manuals are subject to change by manufacturer without prior notice.
(9)	This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.Children are not allowed to play on or near the appliance.

USER NOTICE

DISPOSAL: Do not dispose this product as unsorted household waste.
Special treatment is required. Dispose or recyle responsibly..

Content

1 Safety Precautions

	⚠ WARNING
(1)	Follow this instruction to complete the installation work. Please read this manual carefully before unit startup and service.
(2)	Wire size of power cord should be sized correctly. The damaged power cord and connection wire should be replaced by specialized cable.
(3)	After connecting the power cord, please affix the electric box cover properly.
(4)	Never fail to comply with the nitrigen charge requirements.Charge nitrogen when welding pipes.
(5)	Never short-circiut or cancel the pressure switch to prevent unit damage.
(6)	Connect the wired controller before energization; otherwise wired controller could be damaged.
(7)	Before using the unit, please check if the piping and wiring are correct to avoid water leakage, refrigerant leakage, electric shock, or fire etc.
(8)	Do not insert fingers or objects into air outlet/inlet grille.
(9)	Open the door and window and keep good ventilation in the room to avoid oxygen deficit when the gas/oil heating equipment is used.
(10)	Never start up or shut off the air conditioner by plugging or unplugging the power cord.
(11)	Let the unit run for at least five minutes after startup; otherwise it will affect oil return of the compressor.
(12)	Do not allow children operate this unit.
(13)	Do not operate this unit with wet hands.
(14)	Turn off the unit or cut off the power supply before cleaning, otherwise electric shock or injury may occur.
(15)	Never spray or flush water towards unit, otherwise malfunction or electric shock may occur.
(16)	Do not expose the unit to the wet or corrosive circumstances.
(17)	Under cooling mode, please don't set the room temperature too low. Keep the temperature difference between indoor and outdoor unit within 5°C (9°F).
(18)	User is not allowed to repair the unit. Faulty service may cause electric shock or fire. Please contact a qualified service technician for help.
(19)	Before installation, please check if the power supply matches the requirements specified on the nameplate.
(20)	Installation should be conducted by dealer or qualified personnel. Please do not attempt to install the unit by yourself. Improper handling may result in water leakage, electric shock or fire etc..
(21)	Be sure to use the appropriate accessories and parts to prevent the water leakage, electric shock and fire.
(22)	Make sure the unit can be grounded properly and securely to avoid electric shock. Please do not connect the ground wire to gas pipe, water pipe, lightning rod or telephone line.
(23)	Connect power to the unit 8 hours before operation. Do not cut off the power when it will not be used for a short period of time, i.e. overnight (to protect the compressor).

2 Installation of Indoor Unit

◆ Selection of Installation location.

(1). Select a place where cool air can be distributed throughout the room.

(2). Condensation water should easily drained out.

(3). The supporting structure to be used must have a sufficient load carrying capacity to support the weight of the unit.

(4). The unit should be easily accessible for maintenance.

(5). The appliance shall not be installed in a laundry room.

◆ There are 2 styles of installation.

(1). Wall mounted;

(2). Floor type.

The following conditions should be followed for both wall mounted and floor type units:

2.1 Indoor Unit

The indoor unit should be located in a place where:

(1). Proper clearances (see below) are available for service access.

(2). Both intake and exhaust air have clear paths.

(3). The unit is not in direct sunlight.

(4). The unit is away from the sources of heat or steam.

(5). There is no source of machine oil vapor (this may shorten indoor unit life).

(6). Cool (warm) air can be circulated throughout the room.

(7). The unit is away from electronic ignition type fluorescent lamps (inverter or rapid start type) as they may affect the remote controller range.

(8). The unit is at least 1 metre (3 ft.) away from any television or radio set (unit may cause interference with the picture or sound).
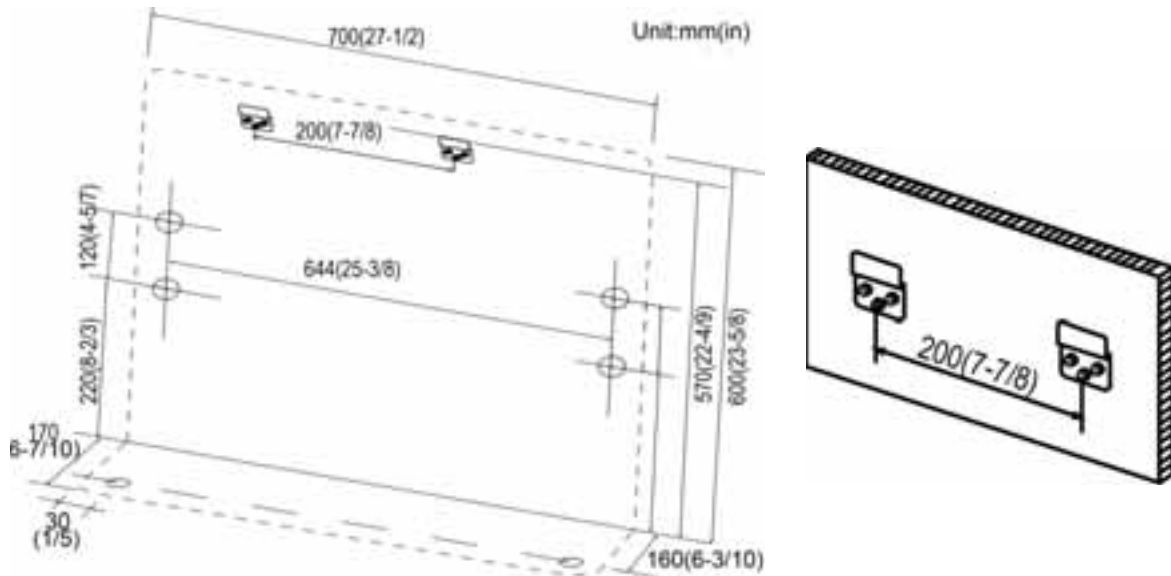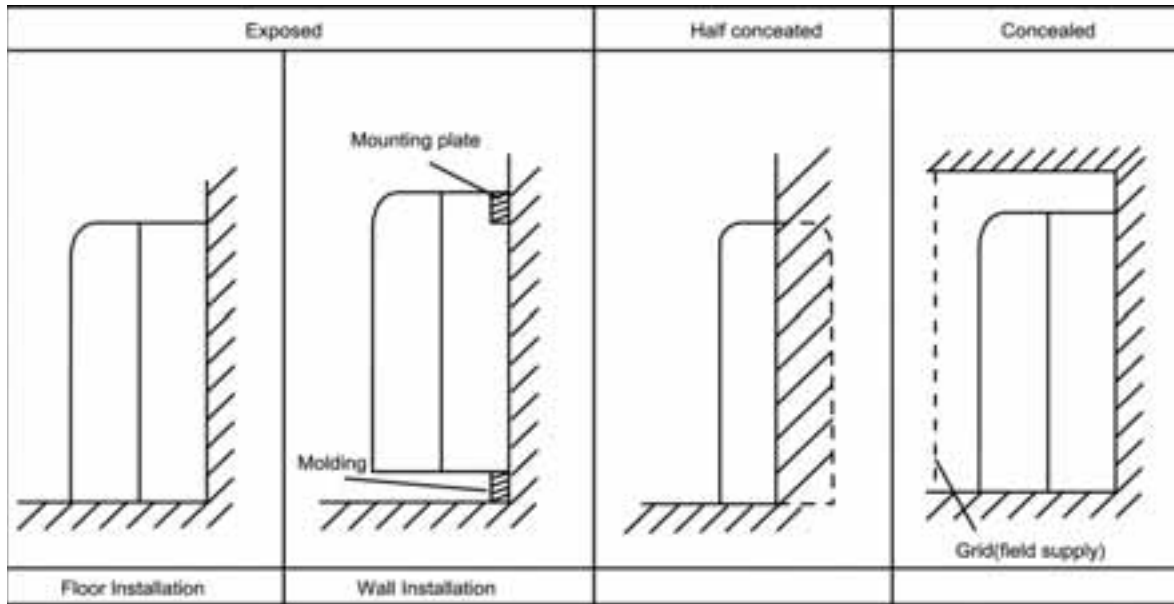
Air conditioner should not be installed where the following conditions are found:.

・ Where there high oil vapor.

・ Where there is acid base area or highly corrosive fumes.

・ Where there is undependable electrical supply.
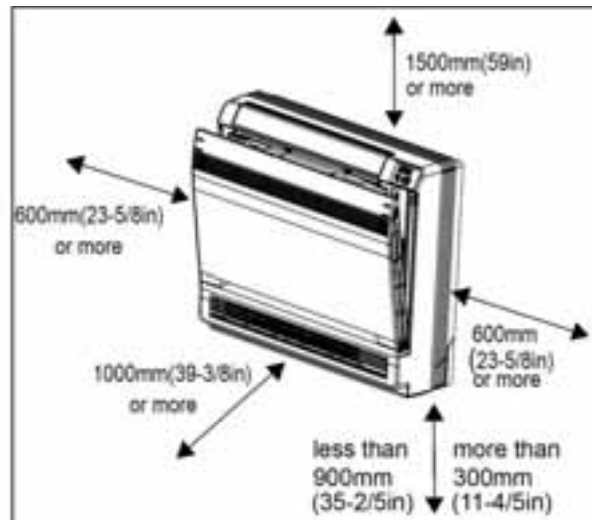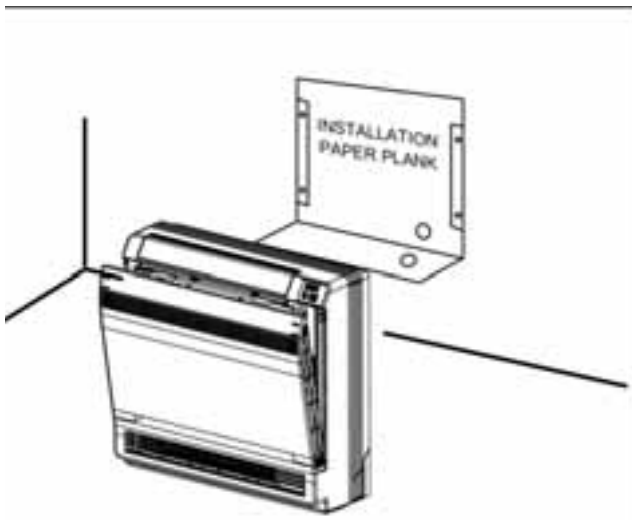
Indoor Unit Installation Drawings

The indoor unit may be mounted in any of the three styles shown here.

Exposed		Half conceated	Concealed

Mounting plate

Molding

Grid(field supply)

| Floor Installation | Wall Installation | | |

Unit:mm(in)

700(27-1/2)

200(7-7/8)

120(4-5/7)

644(25-3/8)

220(8-2/3)

570(22-4/9)

600(23-5/8)

170
(6-7/10)

30
(1/5)

160(6-3/10)

200(7-7/8)

Location for securing the installation pane

Schematic drawing of hooks.

INSTALLATION PAPER PLANK

1500mm(59in) or more

600mm(23-5/8in) or more

600mm(23-5/8in) or more

1000mm(39-3/8in) or more

less than 900mm (35-2/5in)

more than 300mm (11-4/5in)

2.2 Refrigerant Piping

(1). Drill a hole (65mm (2-9/16 in.) in diameter) in the spot indicated in the illustration ad below.

(2). The location of the hole will different depending on which side the pipe is taken.

(3). For piping, see connecting the refrigerant pipe, under Indoor Unit Installation.

(4). Allow space around the pipe for easier pipe connection.
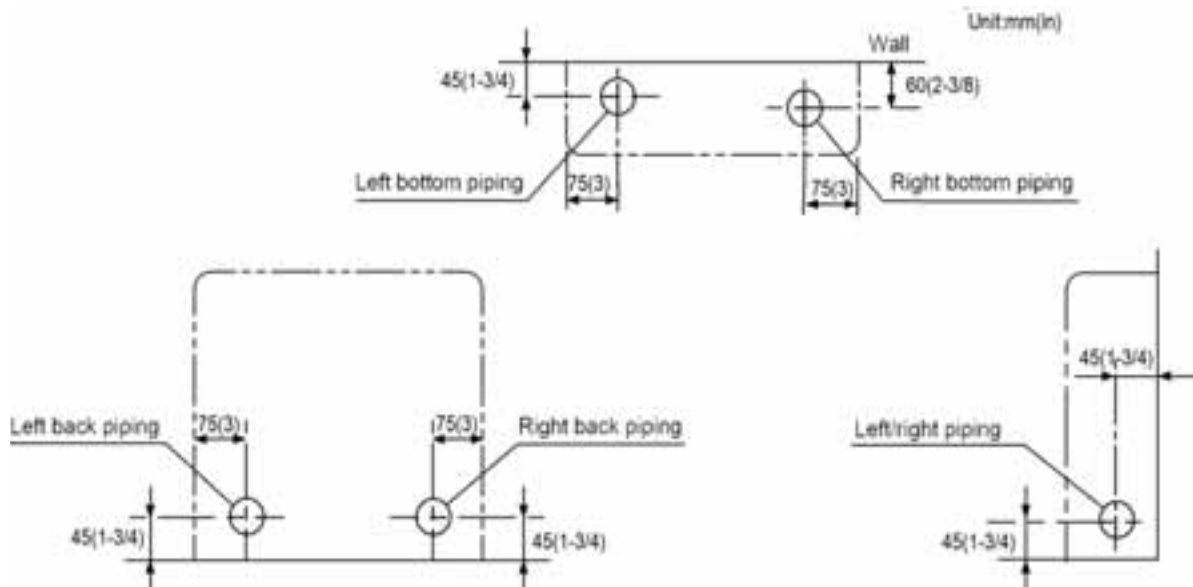
NOTICE! **The suggested shortest pipe length is 2.5m (8 ft),in order to avoid noise from the outdoor unit and vibration.**

Mechanical noise and vibration may occur depending on how the unit is installed and the environment in which it is used.
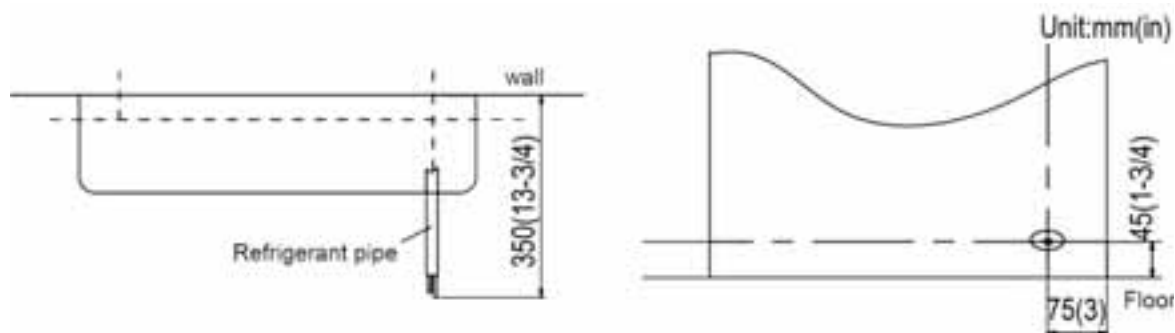

Boring a wall hole and installing wall embedded pipe

For walls containing metal frame or metal board, be sure to use a wall embedded pipe and wall cover in the feed-through hole.

Be sure to caulk the gaps around the pipes with caulking material to prevent water leakage.

(1). Bore a feed-through hole of 65mm (2-1/2 in.) in the wall so it has a down slope toward the outside.

(2). Insert a wall pipe into the hole.

(3). Insert a wall cover into wall pipe.

(4). After completing refrigerant piping, wiring, and drain piping, caulk gap with putty.
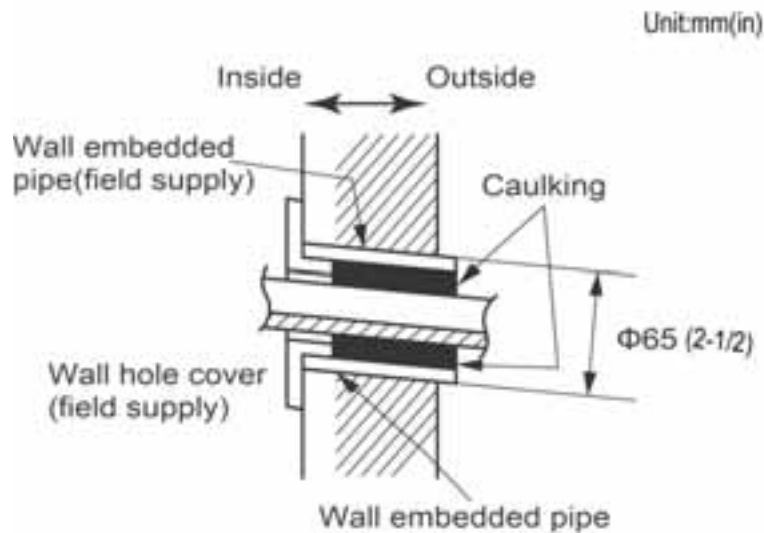
2.3 Drain Piping

(1). Use commercial rigid polyvinyl chloride pipe general VP 20 pipe, outer diameter 26mm (1in), inner diameter 20mm (3/4in) for the drain pipe.

(2). The drain hose (outer diameter 18mm(11/16 in.) at connecting end, 220mm(8-11/16 in) long)is supplied with the indoor unit. Prepare the drain pipe as shown below.

(3). The drain pipe should be inclined downward so that water will flow smoothly without any trap.

(4). Insert the drain hose to depth shown so it won't be pulled out of the drain pipe.

(5). Insulate the indoor drain pipe with 10mm (3/8 in.) or more of insulation material to prevent condensation.

(6). Remove the air filters and pour some water into the drain pan to check that the water flows smoothly.
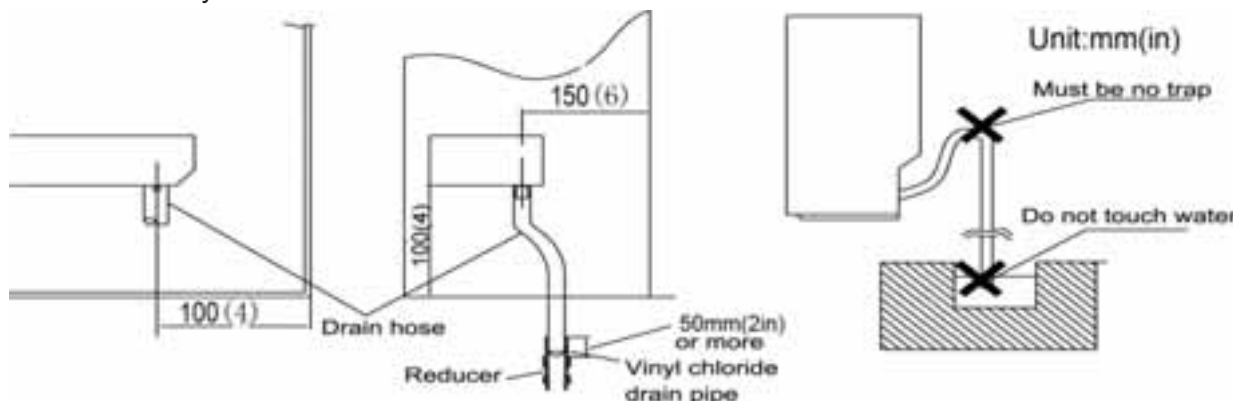
2.4 Installing Indoor Unit

2.4.1 Preparation

(1). Open the front panel, remove the 4 screws, and remove the front grille by pulling it forward.

(2). Follow the arrows to disengage the clasps on the front case to remove it.

(3). Follow the procedure below when removing the slit portions.
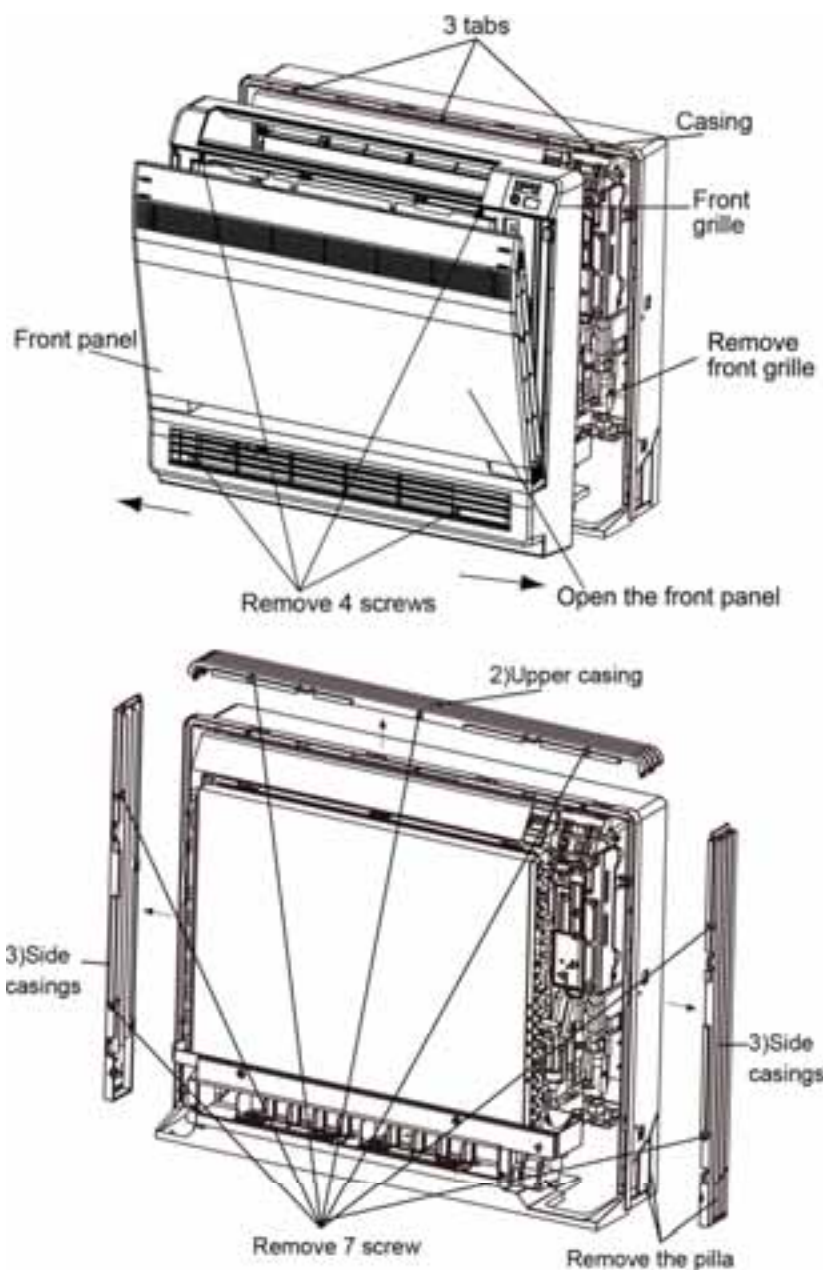
For Moldings:

Remove the pillars. (Remove the slit portions on the bottom frame using snips.)

For Side Piping:

Remove the pillars.

(1). Remove the 7screws.

(2). Remove the upper casing (2 tabs).

(3). Remove the left and right casings (2 tabs on each side).

(4). Remove the slit portions on the bottom frame and casings using snips.

(5). Replace by following the steps in reverse order (3>2>1).
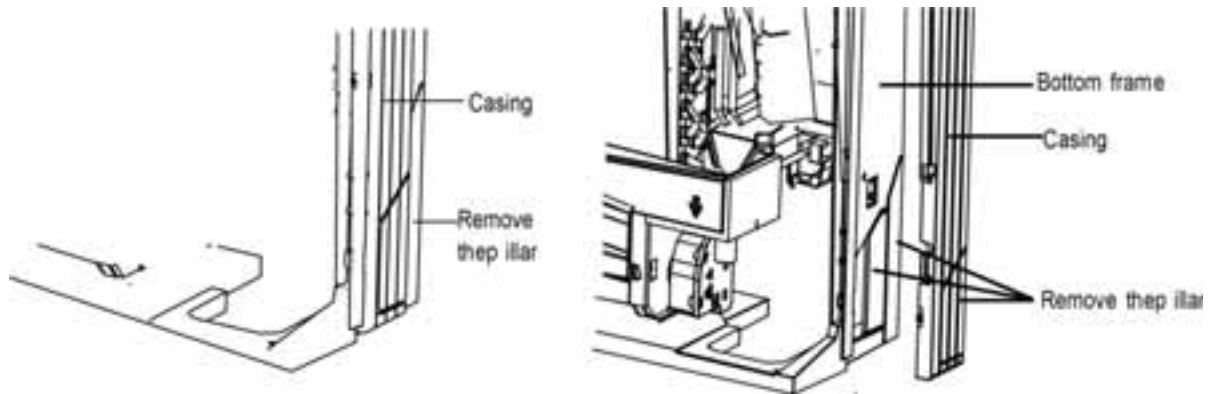
2.4.2 Installation

Secure using 6 screws for floor installations. (Do not forget to secure to the rear wall.)

For wall installations, secure the mounting plate using 5 screws and the indoor unit using 4 screws.

The mounting plate should be installed on a wall which can support the weight of the indoor unit.

(1). Temporarily secure the mounting plate to the wall. Make sure that the panel is level, and mark the drill points on the wall.

(2). Secure the mounting plate to the wall with screws.
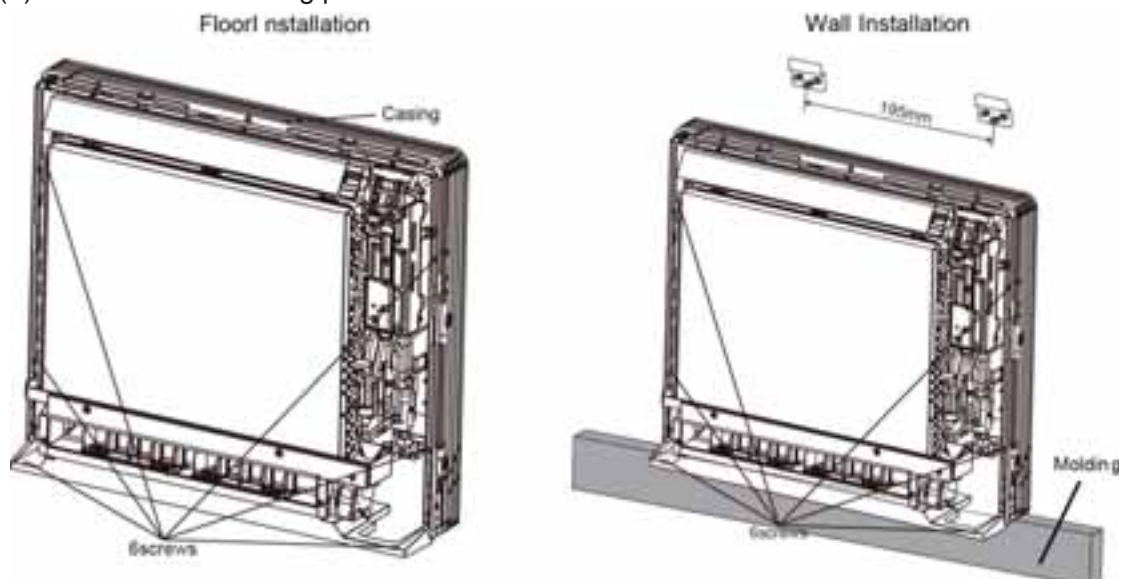
(3). Once refrigerant piping and drain piping connections are complete, fill in the gap of the hole with putty. A gap can lead to condensation on the refrigerant pipe, and drain pipe, and the entry of insects into the pipes.

(4). Attach the front panel and front grille in their original positions once all connections are complete.

◆ Flaring the pipe end

(1). Cut the pipe end with a pipe cutter.

(2). Remove burrs with the cut surface facing downward so that the chips do not enter the pipe.

(3). Fit the flare nut on the pipe.

(4). Flare the pipe.

(5). Check that the flaring is properly made.

⚠ WARNING
(1) Do not use mineral spirits on flared part.
(2) Prevent mineral spirits from getting into the system as this would reduce the lifetime of the units.
(3) Never use piping which had been used for previous installations. Only use parts which are delivered with the unit.
(4) Do not install a drier to this R410A unit.
(5) The drying material may dissolve and damage the system.
(6) Incomplete flaring may cause refrigerant gas leakage.
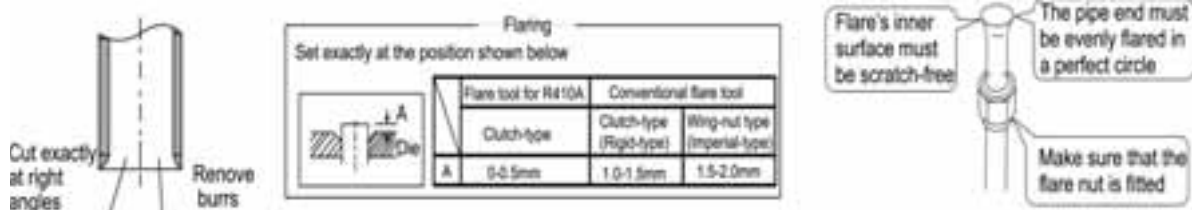
◆ Connecting the refrigerant pipe:

(1). Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and gas leaks.
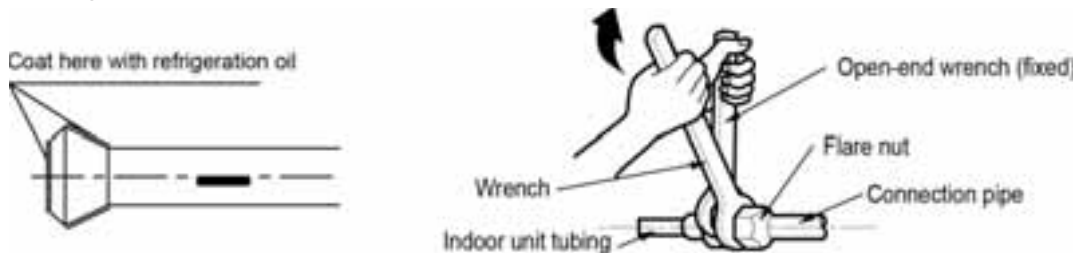
(2). Align the centers and tighten the flares nuts 3 or 4 turns by hand. Then tighten them fully with the torque wrenches.

(3). To prevent gas leakage, apply refrigeration oil on both inner and outer surfaces in the flare. (Use refrigeration oil for R410A.)

Flarenut tightening torque		
Gas side		Liquid side
28/36 class	50 class	28/36/50 class
3/8 inch	1/2 inch	1/4 inch
32.7-39.9 N.m (333-407kfg.cm)	49.5-60.3 N.m (505-615kfg.cm)	14.2-17.2 N.m (144-175kfg.cm)

◆ Caution for piping handling:

(1). Keep dust and moisture out of the open end of the pipe.

(2). Be careful when bending pipe. Use a pipe bender.

(Bending radius should be 30 to 40mm (1-1/5in to 1-4/7in) or larger.)

◆ Selection of copper and heat insulation materials:

When using commercial copper pipes and fittings, observe the following:

(1). Insulation material: Polyethylene foam

Heat transfer rate: 0.041 to 0.052W/mK (0.035 to 0.045kca/(mh°C)

Refrigerant gas pipe's surface temperature reaches 110°C（230°F） max.

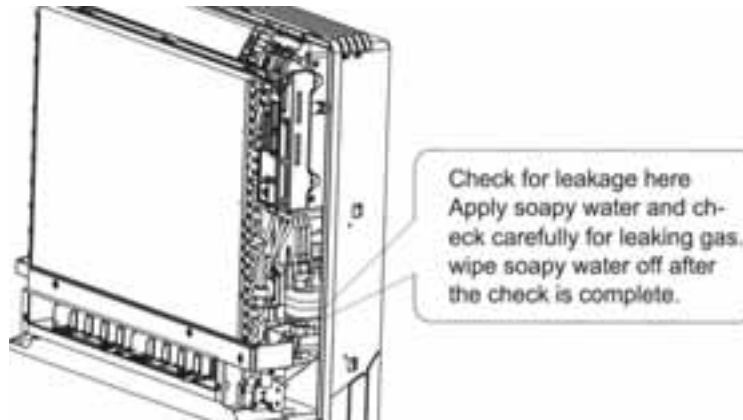Choose heat insulation materials that will withstand this temperature.

(2). Be sure to insulate both the gas and liquid piping to insulation dimensions as below.

Gas side		Liquid side	Gas pipe thermal insulation		Liquid pipe thermal insulation
28/36 class	50 class	-	28/36 class	50 class	-
O.D.9.55mm (3/8in)	O.D.12.7mm (1/2in)	O.D.6.4mm (1/4in)	I.D.12-15mm (1/2 - 19/32in)	I.D.14-16mm (9/16 -5/8in)	I.D.8-10mm (5/16- 13/32in)
Thickness 0.8mm(1/32in)			Thickness 10mm(13/32in) Min.		

◆　　　Use separate thermal insulation for gas and liquid refrigerant pipes.

◆ Checking for gas leakage

(1). Check for gas leakage after air purging

(2). See the sections on air purges and gas leak checks in the installation manual for the outdoor unit.

Check for leakage here Apply soapy water and check carefully for leaking gas. wipe soapy water off after the check is complete.

◆ Attaching the connection pipe

Attach the pipe after checking for gas leakage, described above.

(1). Cut the insulated portion of the on-site piping, matching it up with the connecting portion.

(2). Secure the slit on the refrigerant piping side with the butt joint on the auxiliary piping using tape, making sure there are no gaps.

(3). Wrap the slit and butt joint with the included insulation sheet, making sure there are no gaps.
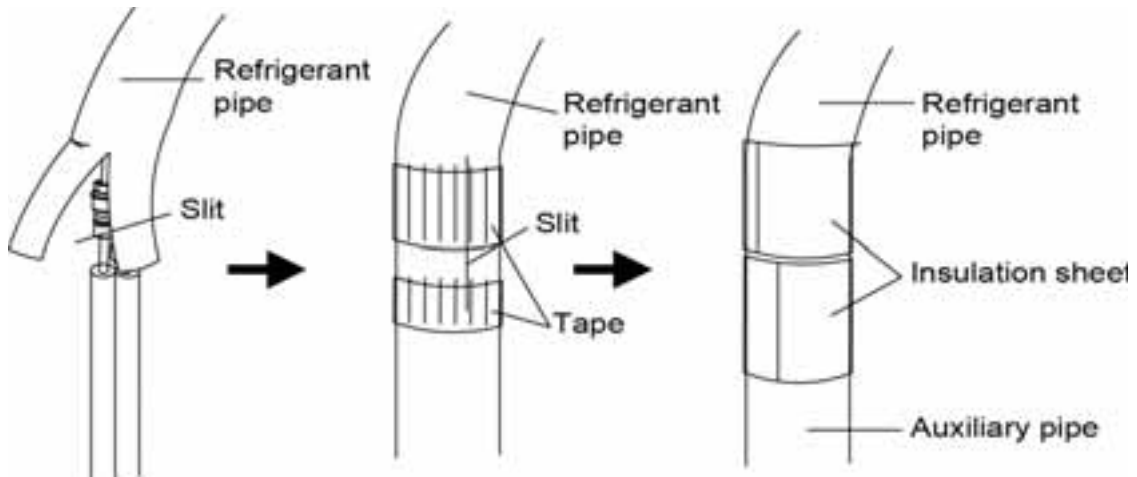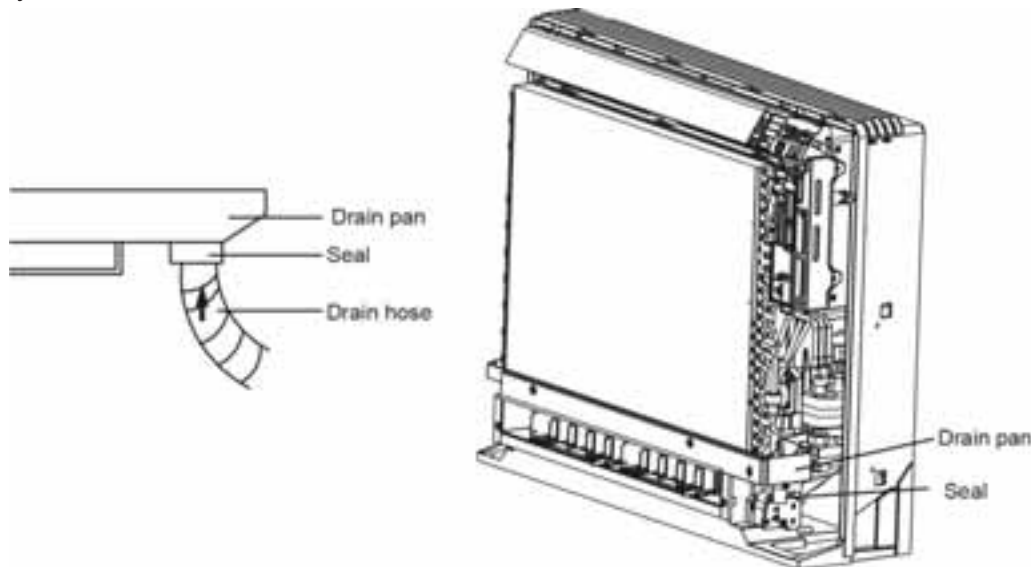
NOTICE
(1) Insulate the joint of the pipes securely.Incomplete insulation may lead to water leakage.
(2) Push the pipe inside so it does not place undue force on the front grille.

Connecting the drain hose

Insert the supplied C drain hose into the socket of the drain pan.

Fully insert the drain hose until it adheres to the seal of the socket.

With a multi indoor unit arrangement, install as described in the installation manual supplied with the outdoor unit.

Lift the sensor securing plate, remove the front metal plate cover, and connect the wire to the therminal board.

(1). Open the cover of electric box of indoor unit.

(2). Lead the communication line through the rubber ring.

(3). Connect the communication line to terminal D1 and D2 on the wiring board of indoor unit.

(4). Secure the communication line with the wire clamp on the electric box. Pull wires to make sure that they are secure, then fasten wires with wire retainer.
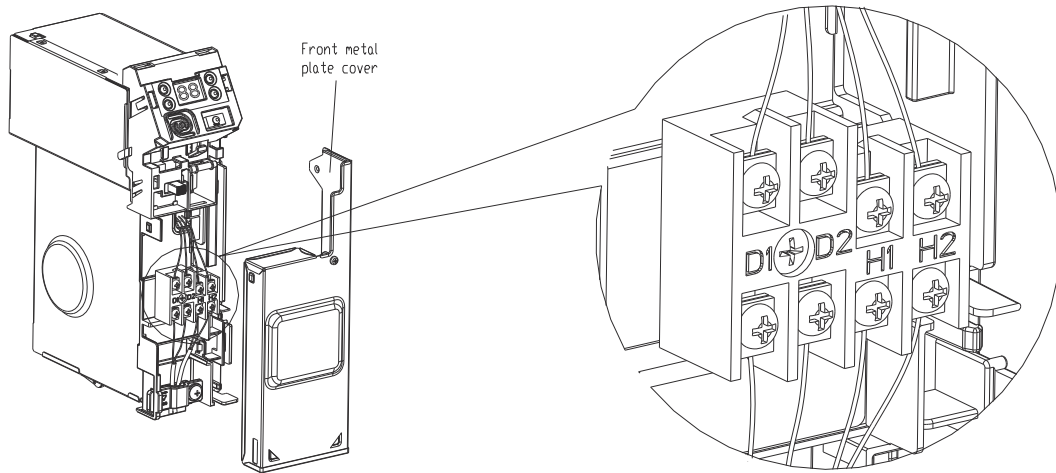
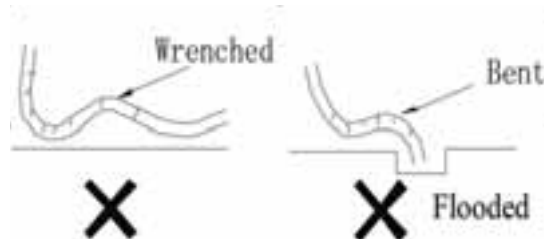| ⚠ **WARNING** |
|---|
| (1) All indoor units must have dedicated power supply so that they can be powered ON/OFF at the same time. |
| (2) Do not use tapped wires, stranded wires, extensioncords, or starburst connections, as they may cause overheating,electrical shock, or fire. |
| (3) Do not branch the power for the drain pump, etc, from the terminal block. Doing so may cause electric shock or fire. |

(1). The power connection cord have been inserted on the mainboard through the piping hole of the chassis. Please connect the power connection cord with the breaker. If the power cord is not long enough, please extend it with terminal block.
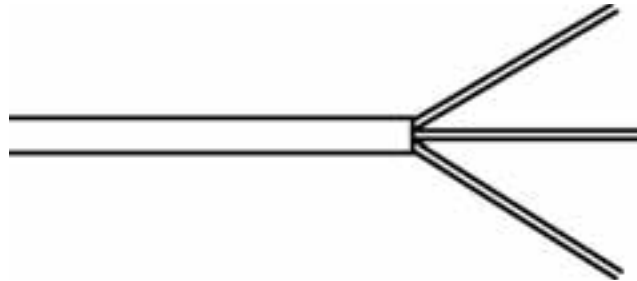
(2). Replace the wiring box cover and tighten the bolt;

(3). Replace the surface panel.

Install the drainage pipe

(1). For proper draining, the drain hose should be placed at a downward slope.

(2). Do not wrench or bend the drain hose or flood the end by water.

(3). Wrap drain hose with heat resistant material when connecting to a longer drainage tube.
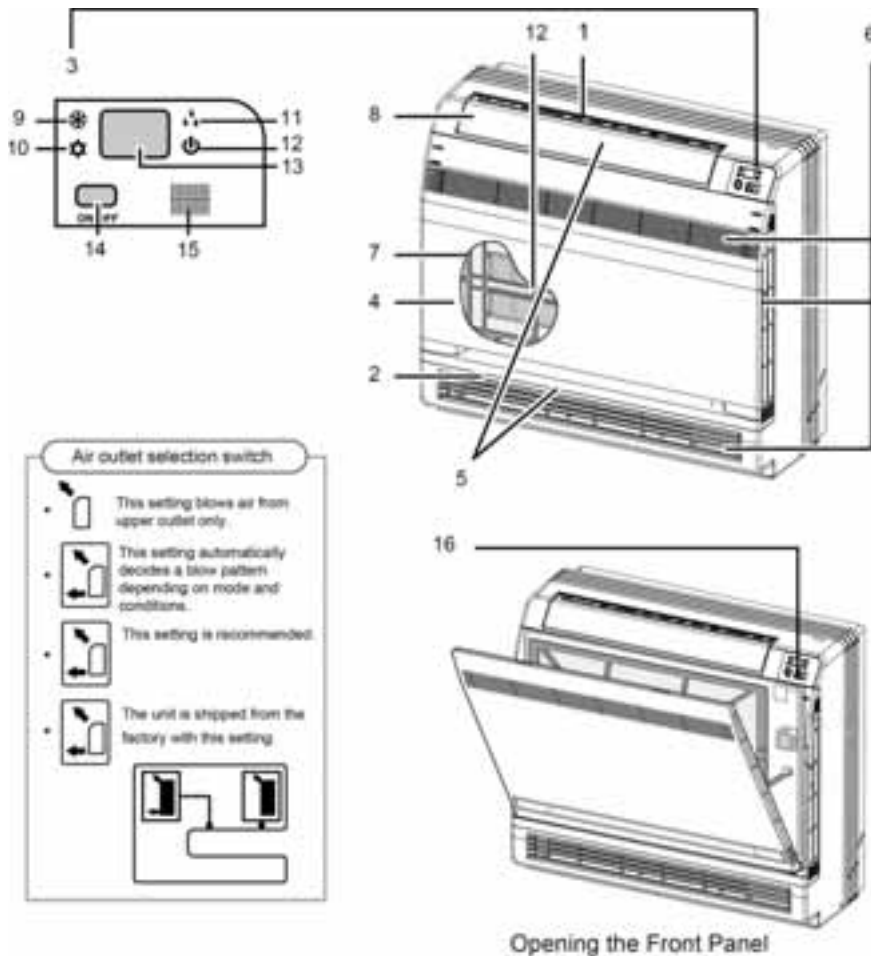
Install the connection pipes

Connect the connection pipes with the appropriate leading pipes. Secure connection nut tightly.

⚠ WARNING
（1）Be careful when bending the connection pipes, or you could damage them.
（2）Do not over tighten the connection nut or it could be damaged and cause a refrigerant leak..

3 Identification of Indoor Unit Parts

Opening the Front Panel

(1). Titanium Apatite Photocatalytic

Air-Purifying Filter:

These filters are attached to the inside of the air filters.

(2). Air outlet

(3). Display

(4). Front panel

(5). Louvers (vertical blades)

The louvers are inside of the air outlet.

(6). Air inlet

(7). Air filter

(8). Flap (horizontal blade)

(9). Cool mode lamp

(10).Heat mode lamp

(11).Dry mode lamp

(12).Run lamp

(13).LED display

(14).Indoor Unit ON/OFF switch:

· Push this switch once to start operation.

· Push again to stop it.

· The operation mode refers to the following table.

Model	Mode	Temperature seting	Air flow rate
HEAT PUMP	AUTO	26°C(78.8°F)	AUTO

· This switch is useful when the remote controller is missing.

(15).Signal receiver:

· It receives signals from the remote controller.

· When the unit receives a signal, you will hear a short beep.

· Settings changed beep.

(16).Air outlet selection switch.

⚠ WARNING

| |
|---|
| （1）Before opening the front panel, be sure to stop the operation and turn the breaker OFF. |
| （2）Do not touch the metal parts on the inside of the indoor unit. |
| （3）If the supply cord is damaged, it must be replaced by a qualified person in order to avoid a hazard. |
| （4）The appliance shall be installed in accordance with national wiring regulations. |
| （5）An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected. |

4 Working Temperature Range

	Indoor state		Outdoor state	
	Dry bulb temp℃(℉)	Wet bulb temp℃(℉)	Dry bulb temp℃(℉)	Wet bulb temp℃(℉)
Rated Cooling	27(80.6)	19(66.2)	35(95)	24(75.2)
Max. cooling	32(89.6)	23(73.4)	43(109.4)	26(78.8)
Min. cooling	21(69.8)	15(59)	18(59)	—
Rated Heating	20(68)	15(59)	7(44.6)	(42.8)
Max. heating	27(80.6)	—	24(75.2)	18(64.4)
Min. heating	20(68)	15(59)	-15(5)	-16(3.2)

5 Remote Controller RC

5.1 Button name and function introduction

No.	Button name	Function
1	ON/OFF	Turn on or turn off the unit
2	TURBO	Set turbo function
3	MODE	Set operation mode
4	≋I	Set up&down swing status
5	I FEEL	Set I FEEL function
6	TEMP	Switch temperature display setting
7	≇/☌	Set health function and air function
8	LIGHT	Set light function
9	X-FAN	Set X-FAN function
10	SLEEP	Set sleep function
11	CLOCK	Set clock
12	TOFF	Set timer off function
13	TON	Set timer on function
14	☷	Set left&right swing status
15	FAN	Set fan speed
16	∧/∇	Set temperature and time

5.2 Preparation before operation

When using the remote controller for the first time or after replacing the batteries, please set the system clock according to current time as follows:

(1). Pressing CLOCK button, 🕒 will blink.

(2). Pressing and hold △or ▽ button, the clock time will increase or decrease rapidly.

(3). Press CLOCK button again to confirm the time and return to display current time.

5.3 Introduction of operation functions

（1）Selecting operation mode

In unit on status, press MODE button to select operation mode. Modes will alternate in the following sequence:
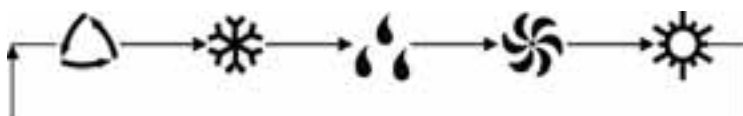
（2）Setting temperature

In unit on status, press △ button to increase setting temperature and press ▽ button to decrease setting temperature. The range of temperature is from 16℃ to 30℃（from 61℉ to 86℉）.

Note: Under auto mode, manual adjustment of temperature is not needed.

（3）Adjusting fan speed

In unit on status, press FAN button to adjust fan speed in following sequence:
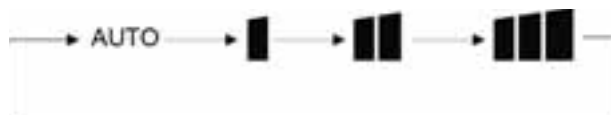
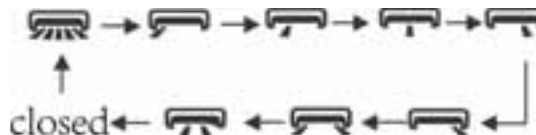
When operation mode changes, fan speed is saved;

Under dry mode, fan defaults to low speed and can not be adjusted.
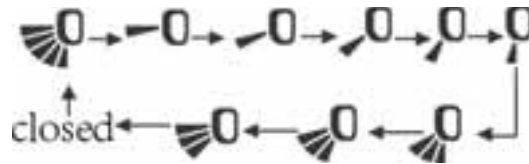
（4）Setting swing function

◆ Setting left&right swing

1). Under simple swing status, press ⬛ button to adjust left&right swing status;

2). Under fixed-angle swing status, press ⬛ button to adjust left&right swing angle in the following sequence:

◆ **Note:** left&right swing will operate continuously for 2 seconds. Swing states will change according to above-mentioned order, or switch closed state.

◆ Setting up&down swing

1). Under simple swing status, press ⬛ button to adjust up&down swing status;

2). Under fixed-angle swing status, press ⬛ button to adjust up&down swing angle in the following sequence:

Note: left&right swing will operate continuously for 2 seconds. Swing states will change according to above-mentioned order, or switch closed state;

（5）Setting turbo function

Under cool or heat mode, press TURBO button to set turbo function.

When ▨ is displayed, turbo function is on.

When ▨ is not displayed, turbo function is off.

When turbo function is on, the unit operates in super high speed to achieve quick cooling or heating. When turbo function is off, the unit operates in seelcted fan speed.

（6）Setting light function

The light on the receiver light board will display current operation status. If you want to turn off the light, please press LIGHT button. Press this button again to turn on the light.

（7）Viewing ambient temperature

In unit on status, receiver light board or wired controller displays temperature setting by default. Press TEMP button to view indoor or outdoor ambient temperature.

When ▣ is displayed, the temperature setting is displayed .

When ▣ is displayed, the indoor ambient temperature is displayed .

When ▣ is displayed, the outdoor ambient temperature is displayed .

Note: setting temperature is always displayed on Remote Controller.

（8）Setting X-FAN function

In cool or dry mode, press X-FAN button to set X-FAN function.

When ✥ is displayed, X-FAN function is on.

When ✥ is not displayed, X-FAN function is off.

When X-FAN function is on, the fan will blow away water on the evaporator to avoid mildew.

（9）Setting health function

In unit on status, press ✦/▣ button to set health function.

When ✦ is displayed, health function is on.

When ✦ is not displayed, health function is off.

Health function is available when the unit is equipped with anion generator. When health function is on, the anion generator will start operation adsorbing the dusts and killing the bacteria in the air.

（10）Setting air function

Press and hold ✦/▣ button until ▣ is displayed, then air function is turned on.

Press and hold ✦/▣ button until ▣ is disappeared, then air function is turned off.

When the indoor unit is equipped with a fresh air valve, air function setting can control the fresh air volume to improve the air quality inside the room.

（11）Setting sleep function

In unit on status, press SLEEP button to turn on or turn off sleep function.

◆ When ![sleep icon] is displayed, sleep function is on.

◆ When ![sleep icon] is not displayed, sleep function is off.

Notes:

①. Sleep function can not be set in auto or fan mode;

②. When turning off the unit or switching modes, sleep function is cancelled;

（12）Setting I FEEL function

In unit on status, press I FEEL button to turn on or turn off I FEEL function.

When ![ifeel icon] is displayed, I FEEL function is on.

When ![ifeel icon] is not displayed, I FEEL function is off.

When I FEEL function is turned on, the unit will adjust temperature according to the temperature detected by the remote controller to achieve the best air-conditioning effect. The remote controller must be within the receiving range of the air conditioner.

（13）Setting timer

You can set the operation time of unit as needed. You can also set timer on and timer off in combination.

Before setting, check that the system time setting is the current time. If not, please adjust to current time.

1). Setting timer off

①. Pressing TOFF button, "OFF" will blink. The time displayed will be the time of last setting.

②. Press ▲ or ▼ button to adjust the timer.

③. Press TOFF button again to confirm setting. OFF is displayed and current time is once again displayed.

④. Press TOFF button again to cancel timer.OFF will not be displayed.

2). Setting timer on

①. Pressing TON button, "ON" wil blink. The time displayed will be the time of last setting.

②. Press ▲ or ▼ button to adjust the timer.

③. Press TON button again to confirm setting. ON is displayed and current time is once again displayed.

④. Press TON button again to cancel timer, and ON will not be displayed.

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5.4 Introduction of special functions

(1). Setting child lock

Press ⬛ and ⬛ button simultaneously to lock the buttons on remote controller and ⬛ is displayed.

Press ⬛ and ⬛ button simultaneously again to unlock the buttons on remote controller and is not displayed.

If the buttons are locked, ⬛ blinks 3 times when pressing any button and any operation will not engage.

(2). Switching temperature scale

In unit off status, press MODE button and ⬛ button simultaneously to switch temperature scale between ℃ and ℉.

(3). Setting energy-saving function

In unit on status and under cool mode, press CLOCK and TEMP button simultaneously to enter energy-saving mode.

◆ When ⬛ is displayed, energy-saving function is on.

◆ When ⬛ is not displayed, energy-saving function is off.

If you want to turn off the energy-saving function, press CLOCK and TEMP button simultaneously again and ⬛ will not be displayed.

Note: energy-saving function is only available in cooling mode. It will be automatically exited when switching to heat mode or setting sleep function.

(4). Absence function

In unit on status and under heat mode, press CLOCK and TEMP button simultaneously to enter absence function. Temperature displaying zone displays 8 and ⬛ is displayed.

Press CLOCK and TEMP button simultaneously again to exit absence function. Temperature displaying zone resumes previous display and is not displayed.

NOTICE
（1）In winter, absence function can keep the indoor ambient temperature above 0℃(32℉) to avoid freezing.
（2）Absence function is only available in heating mode and it will be exited when switching mode.

5.5 Replacing batteries in remote controller and notes

(1). Lift the cover along the direction of the arrow (as shown in Fig 1①).

(2). Take out the original batteries (as shown in Fig 1②).

(3). Place two AAA 1.5V dry batteries in the controller. Check that "+"and "-"is correct (as shown in Fig 2③).

(4). Reinstall the cover (as shown in Fig 2④).

Fig.1   Fig.2

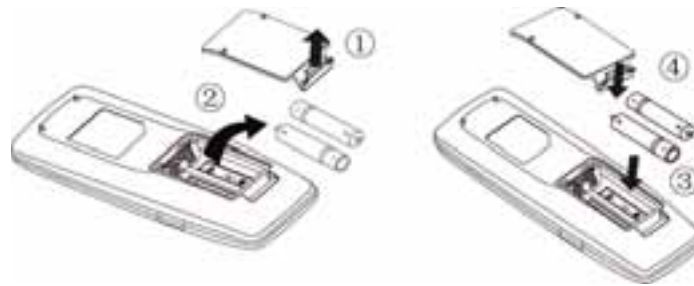| **NOTICE** |
|---|
| (1) The remote controller should be placed 1m(3 ft) away from TV set or stereo. |
| (2) The remote controller will only work within its operational receiving range. |
| (3) If you need to control the main unit, please point the remote controller at the signal receiving window of the main unit for better reception. |
| (4) When the remote controller is sending a signal, " 📶 " icon will blink for 1 second. When the main unit receives valid remote control signal, it will give out a sound. |
| (5) If the remote controller malfunctions, take the batteries out and reinsert them after 30 seconds. If it still won't operate properly, replace the batteries. |
| (6) When replacing the batteries, do not use old or different types of batteries. |
| (7) When you won't use the remote controller for a long time, take out the batteries. |

6 Maintenance Method

⚠ **WARNING**
Before inspection and maintenance of the unit. Please set power switch to "OFF" and turn off the power supply.

6.1 Units

Indoor unit, Outdoor unit and Remote controller

Wipe them with dry soft cloth.

6.2 Front Panel

(1). Open the front panel.

(2). Remove the air filter.

Slide the two stoppers on the left and right sides inward until they click.

(3). Remove the front panel.

• Remove the string.

• Allowing the front panel to fall forward will enable you to remove it.

(4). Clean the front panel.

• Wipe it with a soft, damp cloth dipped in water.

• Only mild detergent may be used.

• When washing the front panel with water, dry it with a cloth or dry it in the shade.

(5). Attach the front panel.

- Insert the front panel into the grooves of the unit (3 places).

- Attach the string to the right, inner-side of the front grille.

- Close the panel slowly.

⚠CAUTION
(1)   Don't touch the metal parts of the indoor unit.
(2)   When removing or attaching the front panel, use a ladder or other stable platform.
(3)   Handle the front panel carefully to prevent it from falling.
(4)   For cleaning, do not use hot water above 40°C(104℉), benzine, gasoline, paint thinner, or other volatile oils, polishing compound, scrubbing brushes.
(5)   After cleaning, make sure that the front panel is securely fastened.
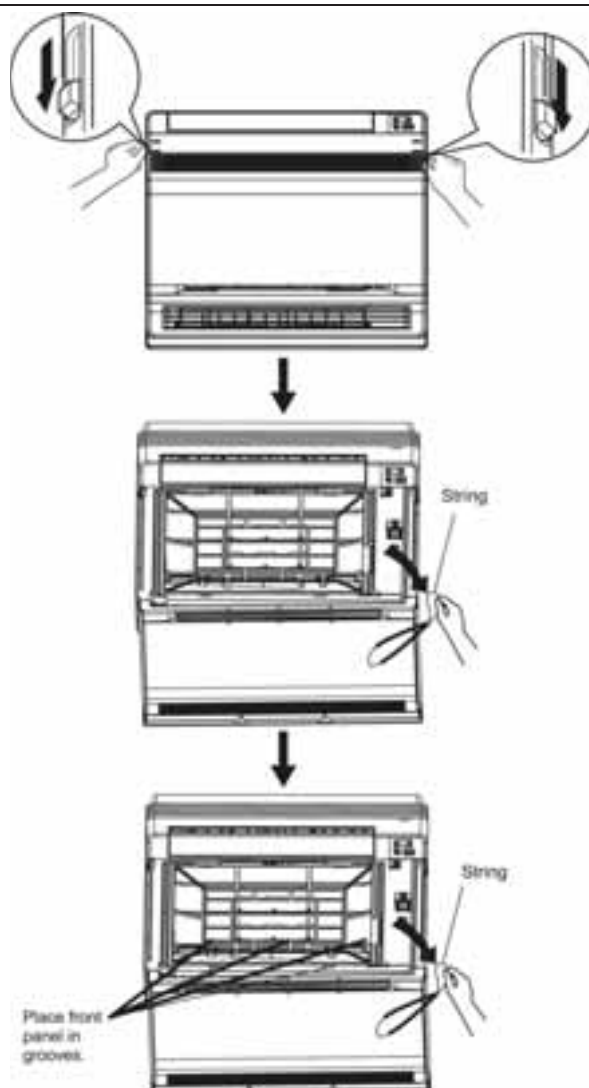
6.3 Filters

(1). Open the front panel.

(2). Remove the air filter.

　・ Press the claws on the right and left of the air filter down slightly, then pull upward.

(3). Take off the Titanium Apatite Photocatalytic Air-Purifying Filter.

　・ Hold the tabs of the frame, and remove the claws in 4 places.

(4). Clean or replace each filter.

Titanium Apatite Photocatalytic Air-Purifying Filter
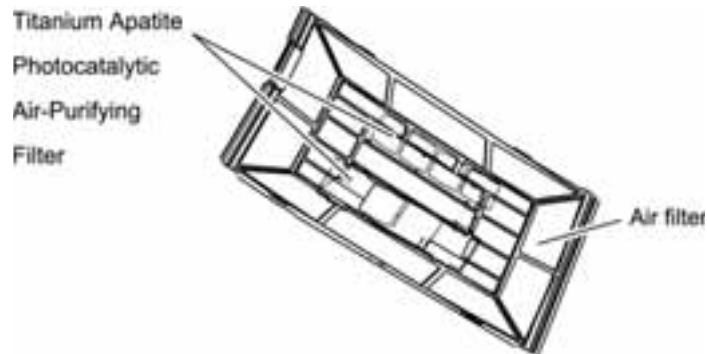
Air filter

(5). Reset the air filter and Titanium Apatite Photocatalytic

　Replace Air-Purifying Filter as they were and close the front panel.

　・ Operation without air filters may result in troubles as dust will accumulate inside the indoor unit.

(6). Wash the air filters with water or clean them with vacuum cleaner

　・ If the dust does not come off easily, wash them with mild detergent thinned with lukewarm water, and then dry them up in the shade.

　・ It is recommended to clean the air filters every week.
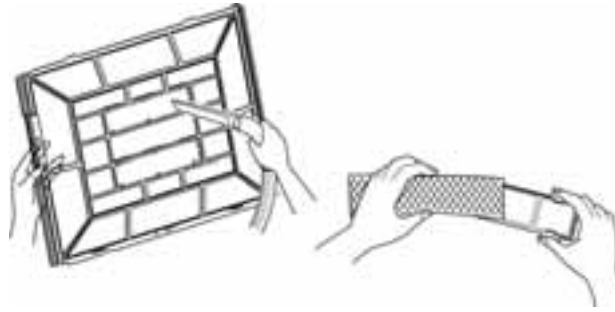
6.4 Titanium Apatite Photocatalytic

Air-Purifying Filter

The Titanium Apatite Photocatalytic Air-Purifying Filter can be cleaned by washing it with water once every 6 months. We recommend replacing it once every 3 years.

(1). Vacuum dust, and soak in warm water for about 10 to 15 minutes if dirt is heavy.

(2). Do not remove filter from frame when washing with water.

(3). After washing, shake off remaining water and dry in the shade.

(4). Since the material is made out of paper, do not wring out the filter when removing water from it.

6.5 Replacement

Remove the tabs on the filter frame and replace with a new filter.

• Dispose of the old filter as flammable waste.

Notes:

Operation with dirty filters:

①. Cannot deodorize the air.

②. Cannot clean the air.

③. Results in poor heating or cooling.

④. May cause odour.

⚠ **WARNING**
(1) If no water is seen from the condensate drain, water may be leaking from the indoor unit. Stop operation and consult the service shop if this is the case.
(2) Check that the base, stand and other fittings of the outdoor unit are not decayed or corroded.
(3)Check that nothing blocks the air inlets and the outlets of the indoor and the outdoor units.
(4)Check that the unit drains smoothly during COOL or DRY operation.

6.6 If the unit will be off for an extended period of time

(1). Operate the "FAN only" for several hours on a fine day to dry out the inside.

• Press "MODE" button and select "FAN" operation.

• Press "ON/OFF" button and start operation.

(2). After operation stops, turn off power at the breaker for the room air conditioner.

(3). Clean the air filters and reset them again.

(4). Take out batteries from the remote controller.

⚠ **WARNING**
When a multiple indoor units are connected, make sure the heating operation is not being used at another room before you use the fan operation.

7 Function Description of Functional Dial Switch S7

(1). The 3-bit dial switch must be set before energizing the main board as it determines running state of indoor unit.

(2). Function is as follow:

Dial switch Silk screen	Function	Dial ON	Dial OFF
1(S / R)	Selection of memory mode: A. Election between reset mode and standby mode after energizing; B. This function is available without wired controller.	Standby after energizing	Reset after energizing
2(L / I)	Selection between manual controller and receiver: A. If manual controller is selected, remote-control function of receiver will be shielded; B. If receiver is selected, wired controller will be non-effective.	Selecting wired controller	Selecting receiver joint
3(M / S)	Setting of main and slave indoor units: A. For resolution of conflict among the modes; B. This function is available without wired controller.	Main indoor unit	Slave indoor unit

8 Troubleshooting

⚠ **WARNING**
Do not repair air conditioner by yourself. Faulty repair could lead electric shock or fire. Please contact service center. Check the following before calling for service help.

Malfunction	Troubleshooting
The air conditioner won't start up just after turned off	The over load protect switch of the unit requires a 3 min. delay
Odor emitted when the unit is first turned on	These may be odors or cigarette smoke from the room that was sucked in is discharged again.
Slight clicking heard when the unit is running	This is the sound of refrigerant flowing
Mist come from air outlet vent when cooling	Indoor air is cooled rapidly
Creak sound is heard when running or after run	The ticking sound caused by expansion of panel and other parts from the change of temperature.
The air conditioner cannot run	Is power out? Is the power supply connected ? Is the circuit breaker tripped? Is the voltage too high or too low ? Has the TIMER been set in wireless remote controller ?
The cooling (heating) effect of the air conditioner is poor	Is the thermostat temp. set correctly ? Is the inlet, outlet vent of outdoor unit blocked ? Is the air filter too dirty causing blockage ? Are windows and doors closed ? Is air quantity set to Low speed ? Are there other heating sources in room ?
Wireless remote controller won't work	When batteries are changed, sometimes the wireless remote controller will seem not to work. Take off the back cover and press "ACL" button. The air conditioner may be receiving false signals from other electromagnetic sources. Or, too many signals have been sent too rapidly from the wireless controller. Try turning off main power and turn back on after a few seconds. Is the controller within the receiving area? Or is there an obstacle in the path?

8.1 Service Center

Under the following conditions, please stop operating immediately, turn off main power supply and contact service center.

· Harsh sound heard when running;

· The fuse or circuit breaker trips frequently;

· Substance or water pulled in the unit involuntary;

· Water leakage in room;

· Over heat of power cord;

· Odor is given out when running;

8.2 After-sales Service

When having quality or other problems when purchasing air conditioner, please contact your local service center.

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