



PACKAGED TYPE ROOM AIR CONDITIONER OPERATION MANUAL AND INSTALLATION MANUAL



HPU-18CYW-01

HPU-24CYW-01

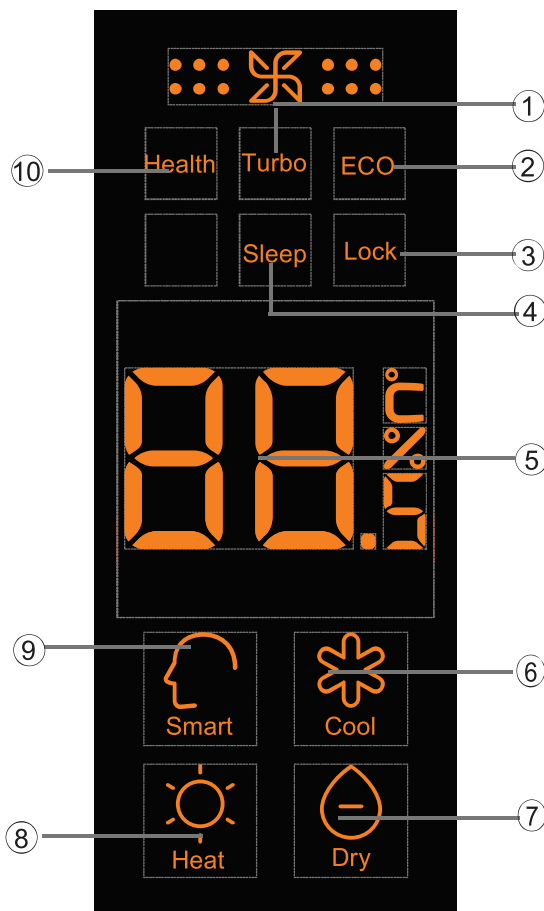
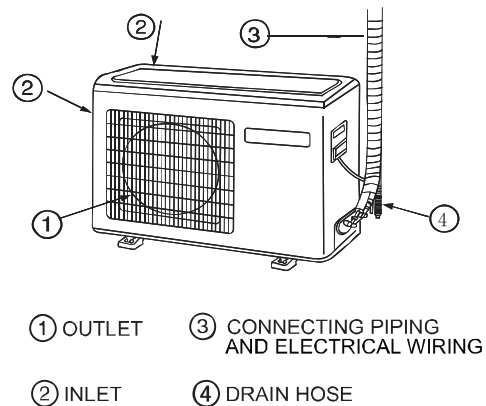
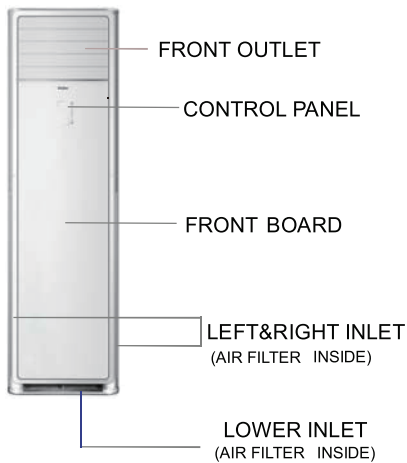
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■ Please read this manual before using this air conditioner .
Keep this manual for future reference.

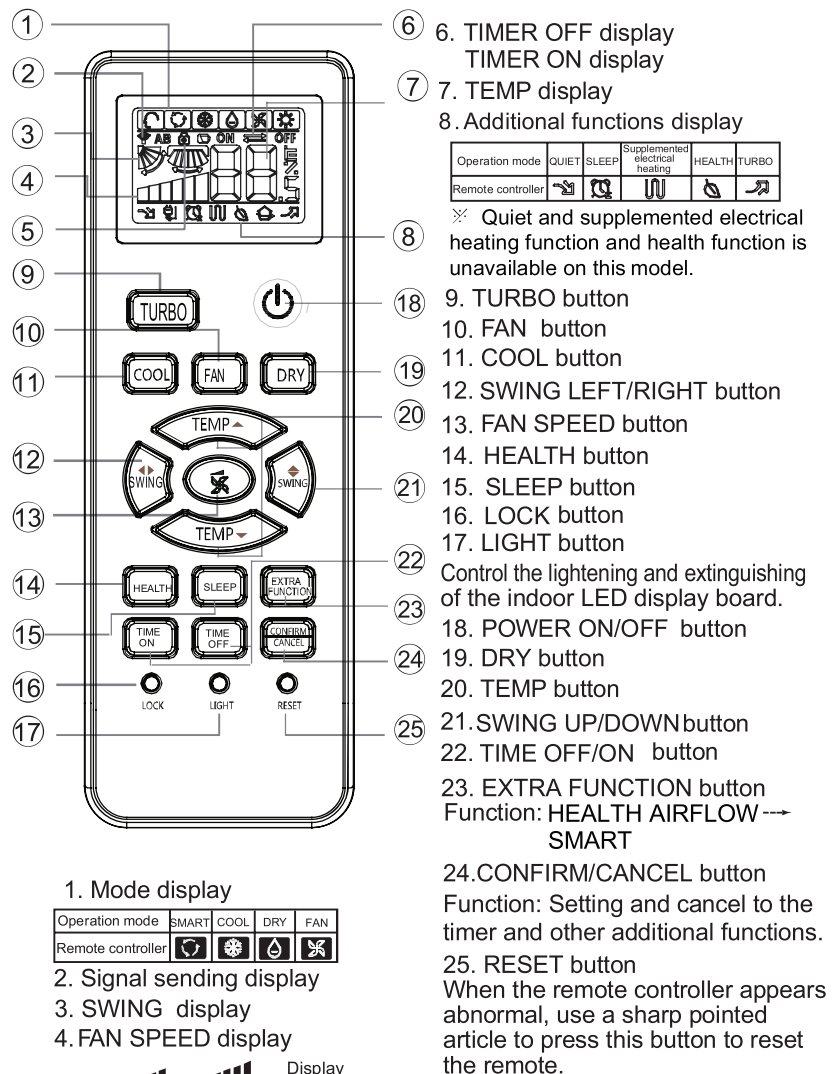
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Parts and Functions



- 1.TURBO display
- 2.ECO display
- 3.LOCK display
- 4.SLEEP display
- 5.TEMP display
- 6.COOL display
- 7.DRY display
- 8.HEAT display
- 9.SMART display
- 10.HEALTH display

▲ Heat, ECO and Health function is not available on this model



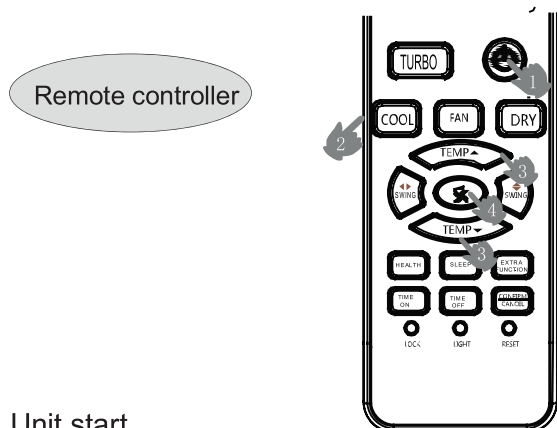
24. CONFIRM/CANCEL button
Function: Setting and cancel to the timer and other additional functions.

25. RESET button
When the remote controller appears abnormal, use a sharp pointed article to press this button to reset the remote.

Health function is not available on this model.

Operation

Base Operation



1. Unit start

Press ON/OFF on the remote controller, unit starts.

2. Select operation mode

COOL button: Cooling mode

FAN button: Fanning mode

DRY button: Dehumidify mode

3. Select temp. setting

Press TEMP▲ / TEMP▼ button

TEMP▲ Every time the button is pressed, temp. setting increase 1°C, if kept depressed, it will increase rapidly

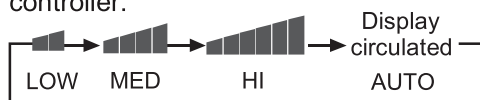
TEMP▼ Every time the button is pressed, temp. setting decrease 1°C, if kept depressed, it will decrease rapidly

Select a desired temperature.





4. Fan speed selection

For each press  button, fan speed changes as follows:

Remote controller:



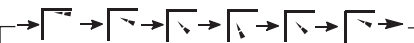
Air conditioner is running under displayed fan speed. When FAN is set to AUTO, the air conditioner automatically adjusts the fan speed according to room temperature.

Operation Mode	Remote Controller	Note
SMART		Under the mode of smart operation, air conditioner will automatically select operation mode according to room temperature. When FAN is set to AUTO the air conditioner automatically adjusts the fan speed according to room temperature.
COOL		Cooling only unit do not have displays and functions related with heating
DRY		In DRY mode, when room temperature becomes lower than temp. setting + 2°C, unit will run intermittently at LOW speed regardless of FAN setting.
FAN		In FAN operation mode, the unit will not operate in COOL mode but only in FAN mode, AUTO is not available in FAN mode. And temp. setting is disabled. In FAN mode, sleep operation is not available.

Air Flow Direction Adjustment

1. Status display of air flow

Vertical flap

Pos.1  (Auto swing)

Initial state

Pos.2 No initial state displayed on remote controller, the vertical flap will be fixed on the current position

2. Left and right air flow adjustment

For each press of SWING  button, remote controller displays as follows :

remote controller:



Cautions:

- Don't adjust the flap by hand.
- When humidity is high, condensate water might occur adjusted to left or at air outlet if all vertical louvers are right.
- It is advisable not to keep horizontal flap at downward position for a long time in COOL or DRY mode, otherwise, condensate water might occur.


Note:

When restart after remote controller is turned off, the remote controller will automatically memorize the previous set swing position.

TURBO Operation

TURBO Operation

When you need rapid cooling, you can use this function.

Press TURBO button, the remote controller will show , and then achieve to the turbo function. Press again this TURBO button, the turbo function will be cancelled.




Note :

During TURBO operation, in rapid COOL mode, the room will show inhomogeneous temperature distribution.

Operation

Sleep Operation

Before going to bed, you can simply press the SLEEP button and unit will operate in SLEEP mode and bring you a sound sleep.

Press  button, the remote controller will show , and then achieve to the sleep function. Press again this  button, the sleep function will be cancelled.


Operation Mode


1. When the sleeping signal is received, the air conditioner runs according to the system's preset sleep temperature curve.
2. After setting the SLEEP mode, if the setting temperature is adjusted manually, the temperature will be operated according to the manual setting.
3. In SMART mode
The unit operates in corresponding sleep mode adapted to the automatically selected operation mode
4. In FAN mode
It has no SLEEP function.
5. Set the SLEEP mode, the air conditioner will automatically shut down after 8 hours.

Timer On/Off On-Off Operation

1. After unit starts, select your desired operation mode.

2. Press  /  button to change TIMER mode.

Press  button "ON 0.5" will appear, after 10 seconds the time display will be blank.

Press  button "OFF 0.5" will appear, after 10 seconds the time display will be blank.

Then select your desired TIMER mode (TIMER ON or TIMER OFF). "ON" or "OFF" will flash.

3. Press  /  button to set time.

Press the button for each time, setting time in the first 12 hours increased by 0.5 hour every time, after 12 hours, increased by 1 hour every time.

4. Confirm timer setting

After adjust the time, press  button and confirm the time ON or OFF button will not flash any more.

5. Cancel timer setting

Press the  button the time display eliminated.

Hints:

After replacing batteries or a power failure happens, time setting should be reset.



Operation

Healthy airflow Operation

1. Press  to starting



Setting the comfort work conditions.

2. The setting of healthy airflow function

Press  button to enter additional options, Press this button continuously, the louvers location will cycle between in the following three locations, to choose the swing location what you needed, and then press  button to confirm.




3. The cancel of the healthy airflow function

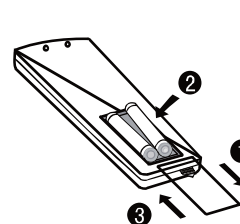
Press  button to enter additional options, Press this button continuously, the louvers location will cycle between in the following three locations again, and then press  button to cancel.

Notice: Do not direct the flap by hand. Otherwise, the grille will run incorrectly. If the grille is not run correctly, stop for a minute and then start, adjusting by remote controller.

Note:

1. After setting the healthy airflow function, the position grill is fixed.
2. In cooling, it is better to select the  mode.
3. In cooling and dry, using the air conditioner for a long time under the high air humidity, condensate water may occur at the grille.

Loading of the battery

- 
- 1 Remove the battery cover;
 - 2 Load the battery:
Be sure that the loading is in line with the “+/-” pole request as illustrated.
 - 3 Put on the cover again
 - 4 Confirm indicator
In disorder, Reload the batteries or load the new batteries after 6 mins.

Note: ● Remove the batteries in case that unit won't be in usage for a long period. If there are any display after taking-out just need to press reset key.

Remote controller's operation

- When in use, put the signal transmission head directly to the receiver hole on the indoor unit.
- The distance between the signal transmission head and the receiver hole should be within 7m without any obstacle as well
- Don't throw or knock the remote controller
- When electronic-started type fluorescent lamp or change-over type fluorescent lamp or wireless telephone is installed in the room, the receiver is apt to be disturbed in receiving the signals, so the distance to the indoor unit should be shorter.

NOTE

- Use two same typed batteries when loading.
- If the remote controller can't run normally during operation, please remove the batteries and reload several minutes later.
- False or unclear display during operation indicates the batteries have been used up. please change batteries.
- The waste battery should be disposed properly.

Installation Manual of Room Air Conditioner

- Read this manual before installation
- Explain sufficiently the operating means to the user according to this manual.

Necessary Tools for Installation

- | | | | |
|-----------------------------|------------------|--------------------------|---------------------|
| 1. Screw driver | 5. Torque wrench | 9. Nipper | 12. Reamer |
| 2. Hacksaw | 6. Pipe cutter | 10. Gas leakage detector | 13. Refrigerant oil |
| 3. 70mm dia.hole core drill | 7. Flaring tool | or soap water | |
| 4. Spanner | 8. Knife | 11. Measuring tape | |

Drawing for the installation of indoor and outdoor units

Power Source

Before inserting power into receptacle, check the voltage without fail.

The power supply is the same as the corresponding nameplate. Install an exclusive branch circuit of the power.

A receptacle shall be set up in a distance where the power cable can be reached. Do not extend the cable by cutting it.

Selection of Installation Place

Installation of indoor unit

Place, possible to drain easily, where piping can be connected with the outdoor unit.

Place away from heat source and with less direct sunlight.

Place where cool and warm air could be delivered evenly to every corner of the room.

Place near power supply socket. Leave enough space around the unit.

Place robust not causing vibration, where the body can be supported sufficiently.

Installation of outdoor unit

selection of installation place

Place strong enough to support the unit and will not cause vibration and noise.

Place where discharged wind and noise doesn't cause a nuisance to the neighbors.

Place where is less affected by rain or direct sunlight and is sufficiently ventilated, or to install a shield.

Place with enough space for smooth air flow.








Selection of pipe

	For 18K	For 24K
Liquid pipe (ϕ)	6.35mm(1/4")	6.35mm(1/4")
Gas pipe (ϕ)	12.7mm(1/2")	15.88mm(5/8")

- To this unit, both liquid and gas pipes shall be insulated as they become low temperature in operation.
- Use optional parts for piping set or pipes covered with equivalent insulation material.

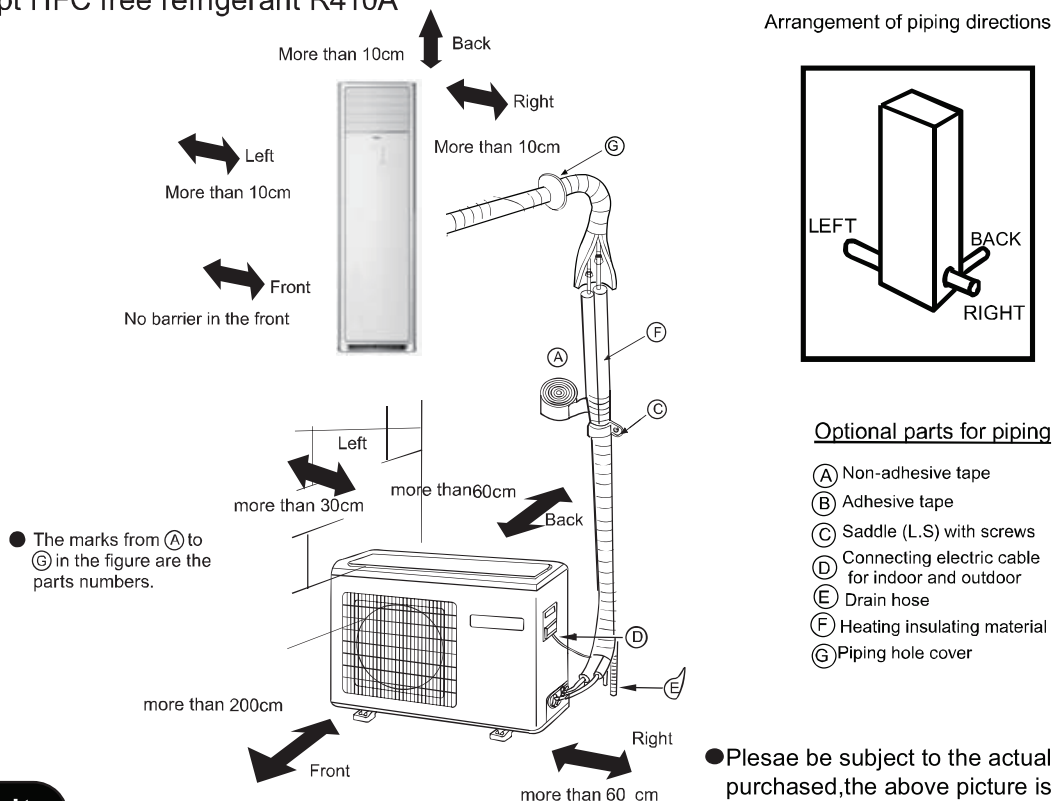
NOTE: The thickness of the pipe must be 0.8mm at least.

Accessory Parts

No.	Accessory Parts	QTY	UNIT
1	 Dry battery	2	EA
2	 Drain Pipe (optional)	1	EA
3	 Screw set	1	SET
4	 Wall hole cover (optional)	1	EA
5	User manual	1	EA
6	 wire clip	4	EA
7	Remote controller	1	EA
8	 prevent fall part	1	EA
9	 metal support	1	EA

Drawing for the Installation of Indoor and outdoor Unit

The models adopt HFC free refrigerant R410A



Indoor unit

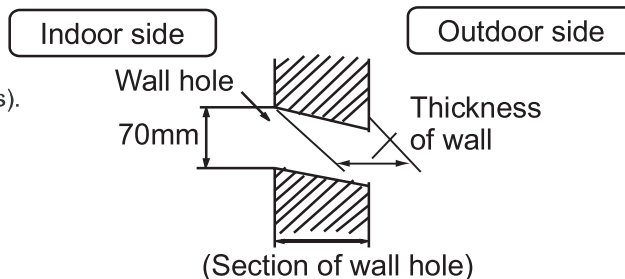
1. Making a Hole on the Wall and Fitting the Piping Hole Cover

● Position of the wall hole

Wall hole should be decided according to installation place and piping direction. (refer to installation drawings).

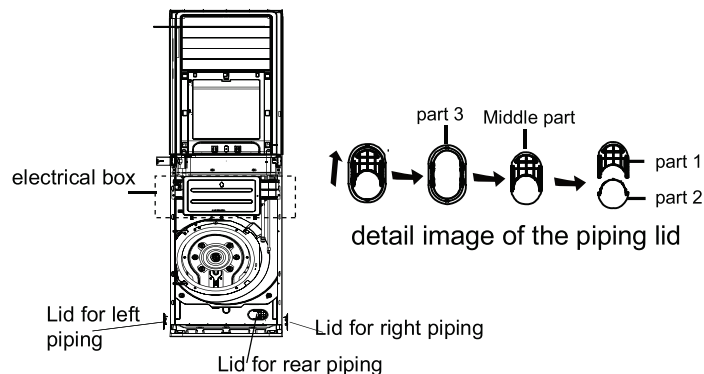
● Making a wall hole

Drill a hole of 70X70mm dia. with a little slope towards outside.



2. Piping connection of the indoor unit

- After opening the front board, you will see the electrical box and three lids for piping as shown in the picture. Remove blow-in-grill assy. for easy installation.
- Remove the middle part of the lid which is used for piping by holding the backside handle and pushing it.
- Insert the pipes and drain hose according to the piping direction and bend the pipes according to the position of the wall hole. When bending, be careful not to crash the pipes.
- Insert the indoor/outdoor electric cable, with union of the connecting pipe and pull them out on the front side then connect them. Cover the connection part with heat insulation materials closely, and make sure to fix them with adhesive tape.
- After finishing the piping connection, split the small round circle (part 2) and install the rest of the middle part (part 1) to the lid circle (part 3).



Note: Drain hose should be placed in the under place. There should be a slope when arrange drain hose. Avoid up and down waves in drain hose.

Indoor unit

Connecting the indoor/outdoor Electric Cable

Removing the wiring cover

- Remove terminal cover at the electrical box of indoor unit ,then take off wiring cover by removing its screws.

When connecting the cable after installing the indoor unit

- Insert from outside the room cable into left side of the wall hole, in which the pipe has already existed.
- Pull out the cable on the front side , and connect the cable making a loop

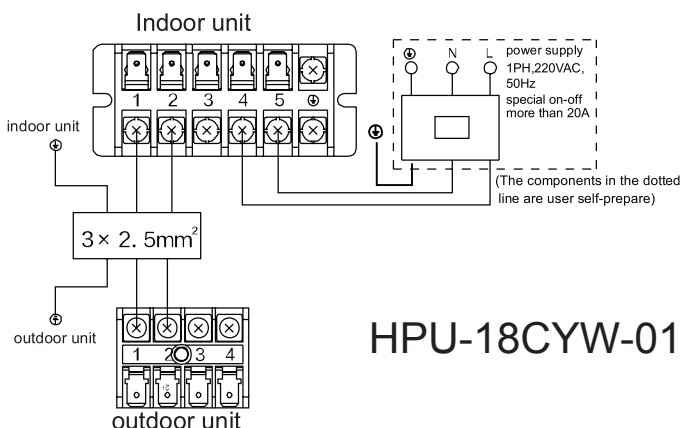
When connecting the cable before installing the indoor unit

- Insert the cable from the back side of the unit, then pull it out on the front side.
- Loosen the screws and insert the cable ends fully into terminal block,then tighten the screws.
- Pull the cable slightly to make sure the cables have been properly inserted and tightened.
- After the cable connection, never fail to fasten the connected cable with the wiring cove

Note When connecting the cable, confirm the terminal number of indoor and outdoor units carefully

If wiring is not correct,proper operation can not be carried out and will cause defect.

1. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similar qualified person.
2. If the fuse of indoor unit on PC board is broken, please change it with the type of T.3.15A/250V.
3. The wiring method should be in line with the local wiring standard.
4. A breaker should be incorporated with into wiring.The breaker should be all-pole switch and the distance between its two contacts should be not less than 3mm.

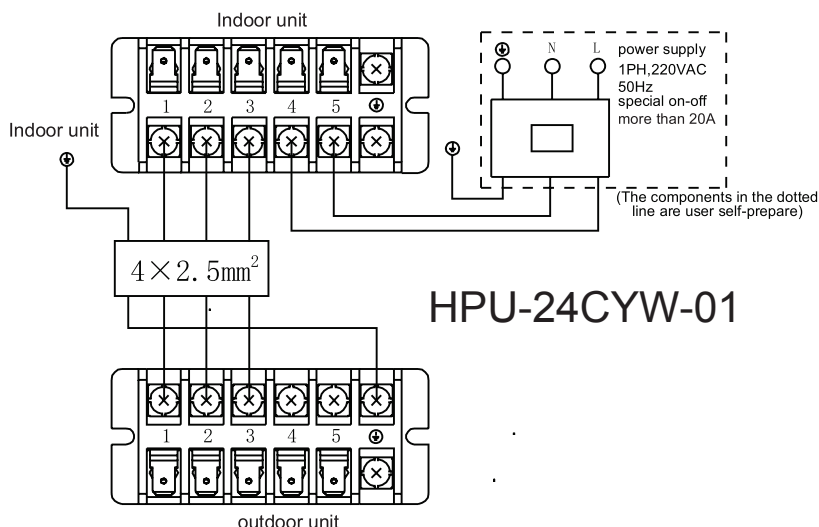


connecting wiring:

YZW: no less than 3*2.5mm²

power cable:

RVV: no less than 3*2.5mm²



connecting wiring:

YZW: no less than 4*2.5mm²

power cable:

RVV: no less than 3*2.5mm²

Outdoor unit

Outdoor unit

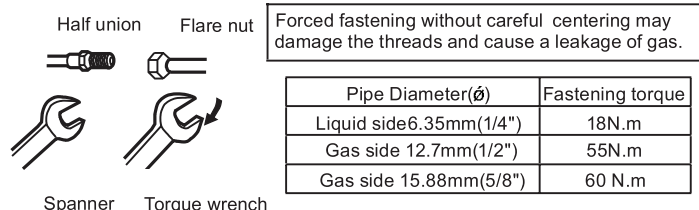
Outdoor unit

1 Installation of Outdoor Unit

Install according to Drawing for the installation of indoor and outdoor units

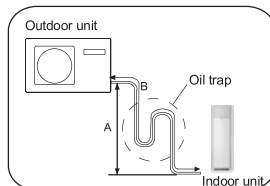
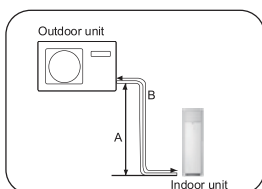
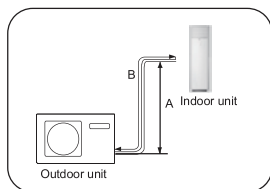
2 Connection of pipes

- To bend a pipe, give the roundness as large as possible not to crush the pipe, and the bending radius should be 30 to 40mm or longer.
- Connecting the pipe of gas side first makes working easier.
- The connection pipe is specialized for R410A.



Be careful that matters, such as wastes of sands, etc. shall not enter the pipe. The standard pipe length is 5m. If it is over 7m, the function of the unit will be affected. If the pipe has to be lengthened, the refrigerant should be charged, according to 20 g/m. But the charge of refrigerant must be conducted by professional air conditioner engineer. Before adding additional refrigerant, perform air purging from the refrigerant pipes and indoor unit using a vacuum pump, then charge additional refrigerant.

CAUTION



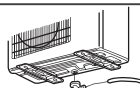
- Max. Elevation: Amax=15m
- In case the elevation A is more than 5m, oil trap should be installed every 5~7m
- Max. Length: Bmax=25m
- In case the pipe length B is more than 7m, the refrigerant should be charged, according to 20 g/m.

3 Connection

- Use the same method on indoor unit. Loosen the screws on terminal block and insert the plugs fully into terminal block, then tighten the screws.
- Insert the cable according to terminal number in the same manner as the indoor unit.
- If wiring is not correct, proper operation can not be carried out and controller may be damaged.
- Fix the cable with a clamp.

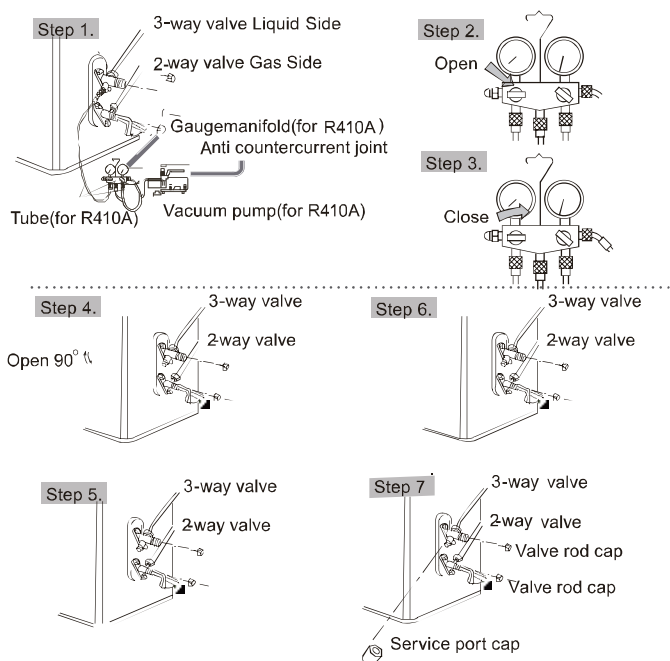
4 Attaching Drain-Elbow

- If the drain-elbow is used, please attach it as figure. (Note: Only for heat pump unit.)



5 Purging Method: To use vacuum pump

1. Detach the service port's cap of 3-way valve, the valve rod's cap for 2-way valve and 3-way's, connect the service port into the projection of charge hose (low) for gaugemanifold. Then connect the projection of charge hose (center) for gaugemanifold into vacuum pump.
2. Open the handle at low in gaugemanifold, operate vacuum pump. If the scale-moves of gauge (low) reach vacuum condition in a moment, check 1. again.
3. Vacuumize for over 15min. And check the level gauge which should read -0.1MPa (76 cm Hg) at low pressure side. After the completion of vacuumizing, close the handle 'Lo' in gaugemanifold and stop the operation of the vacuum pump. Check condition of the scale and hold it for 1-2min. If the scale-moves back in spite of tightening, make flaring work again, the return to the beginning of 3.
4. Open the valve rod for the 2-way valve to an angle of anticlockwise 90 degrees. After 6 seconds, close the 2-way valve and make the inspection of gas leakage.
5. No gas leakage?
In case of gas leakage, tighten parts of pipe connection. If leakage stops, then proceed 6. steps
If it does not stop gas leakage, discharge whole refrigerants from the service port. After flaring work again and vacuumize, fill up prescribed refrigerant from the gas cylinder.
6. Detach the charge hose from the service port, open 2-way valve and 3-way. Turn the valve rod anticlockwise until hitting lightly.
7. To prevent the gas leakage, turn the service port's cap, the valve rod's cap for 2-way valve and 3-way's a little more than the point where the torque increases suddenly.
8. After attaching the each caps, check the gas leakage around the caps.



CAUTION

- If the refrigerant of the air conditioner leaks, it is necessary to discharge all the refrigerant. Vacuumize first, then charge the liquid refrigerant into air conditioner according to the amount marked on the name plate.
- Please do not let other cooling medium, except specified one (R410A), or air enter into the cooling circulation system. Otherwise, there will be abnormal high pressure in the system to make it crack and lead to personal injuries.

1 Power Source Installation

- The power source must be exclusively used for air conditioner.
- In the case of installing an air conditioner in a moist place, please install an earth leakage breaker.
- For installation in other places, use a circuit breaker as far as possible.

2 Cutting and Flaring Work of Piping

- Pipe cutting is carried out with a pipe cutter and burs must be removed.
- After inserting the flare nut, flaring work is carried out.

Flare tool for R410A	Conventional flare tool	
	Clutch-type	Wing-nut type (Imperial-type)
A	0~0.5mm	1.5~2.0mm

Flare tooling die

1. Cut pipe

2. Remove burs

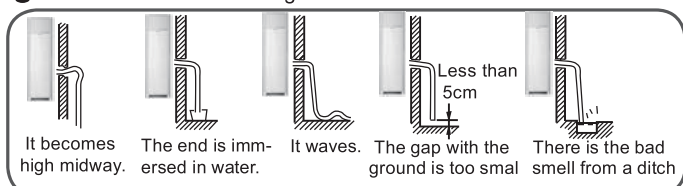
3. Insert the flare nut

4. Flare pipe

Correct	Incorrect				
	Lean	Damage of flare	Crack	Partial	Too outside

3 On Drainage

- Please install the drain hose so as to be downward slope without fail.
- Please don't do the drainage as shown below.



- Please pour water in the drain pan of the indoor unit, and confirm that drainage is carried out surely to outdoor.
- In case that the attached drain hose is in a room, please apply heat insulation to it without fail.

Refrigerant charge label

Contains fluorinated greenhouse gases covered by the Kyoto Protocol

R410A

1= kg

2= kg

1+2= kg

F E

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol. Do not vent into the atmosphere.

Refrigerant type: R410A

GWP* value: 2088

GWP=global warming potential

Please fill in with indelible ink,

- 1 the factory refrigerant charge of the product
- 2 the additional refrigerant amount charged in the field and
- 1+2 the total refrigerant charge

on the refrigerant charge label supplied with the product.

The filled out label must be adhered in the proximity of the product charging port (e.g. onto the inside of the stop valve cover).

A contains fluorinated greenhouse gases covered by the Kyoto Protocol

B factory refrigerant charge of the product: see unit name plate

C additional refrigerant amount charged in the field

D total refrigerant charge

E outdoor unit

F refrigerant cylinder and manifold for charging

Check for Installation and Test Run

- Please kindly explain to our customers how to operate through the instruction manual.






Check Items for Test Run

☐ Put check mark ☒ in boxes

- ☐ Gas leak from pipe connecting?
- ☐ Heat insulation of pipe connecting?
- ☐ Are the connecting wirings of indoor and outdoor firmly inserted to the terminal block?
- ☐ Is the connecting wiring of indoor and outdoor firmly fixed?
- ☐ Is drainage securely carried out?
- ☐ Is the earth line securely connected?
- ☐ Is the indoor unit securely fixed?
- ☐ Is power source voltage abided by the code?
- ☐ Is there any noise?
- ☐ Is the lamp normally lighting?
- ☐ Are cooling and heating (when in heat pump) performed normally?
- ☐ Is the operation of room temperature regulator normal?

Trouble shooting

Before asking for service, check the following first.

	Phenomenon	Cause or check points
Normal Performance inspection	The system does not restart immediately. 	<ul style="list-style-type: none"> When unit is stopped, it won't restart immediately until 3 minutes have elapsed to protect the system. When the electric plug is pulled out and reinserted, the protection circuit will work for 3 minutes to protect the air conditioner.
	Noise is heard 	<ul style="list-style-type: none"> During unit operation or at stop, a swishing or gurgling noise may be heard. At first 2-3 minutes after unit start, this noise is more noticeable (This noise is generated by refrigerant flowing in the system.) During unit operation, a cracking noise may be heard. This noise is generated by the casing expanding or shrinking because of temperature changes. Should there be a big noise from air flow in unit operation, air filter may be too dirty.
	Smells are generated.	<ul style="list-style-type: none"> This is because the system circulates smells from the interior air such as the smell of furniture, paint, cigarettes.
	Mist or steam are blown out. 	<ul style="list-style-type: none"> During COOL or DRY operation, indoor unit may blow out mist. This is due to the sudden cooling of indoor air.
	In dry mode, fan speed can't be changed.	<ul style="list-style-type: none"> In DRY mode, when room temperature becomes lower than temp. setting + 2°C, unit will run intermittently at LOW speed regardless of FAN setting.
Multiple check		<ul style="list-style-type: none"> Is power plug inserted? Is there a power failure? Is fuse blown out?
	Poor cooling 	<ul style="list-style-type: none"> Is the air filter dirty? Normally it should be cleaned every 15 days. Are there any obstacles before inlet and outlet? Is temperature set correctly? Are there some doors or windows left open? Is there any direct sunlight through the window during the cooling operation? (Use curtain) Are there too much heat sources or too many people in the room during cooling operation?

Cautions

The machine is adaptive in following situation

1. Applicable ambient temperature range:

Cooling	Indoor	Maximum: D.B / W.B Minimum: D.B / W.B	32°C/23°C 21°C/15°C
	Outdoor	Maximum: D.B Minimum: D.B	43°C/26°C 18°C

- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similar qualified person.
- If the fuse on PC board is broken please change it with a fuse type T. 3.15A/250V.
- The wiring diagram is attached inside the machine.
- The wiring method should be in line with the local wiring standard.
- After installation, the power plug should be easily reached.
- The used batteries should be disposed of properly.
- The appliance is not intended to use by young children or infirm persons without supervision.
- Young children should be supervised ensure that they do not play with the appliance.
- The appliance must be installed on a strong enough support.

Maintenance

- Setting of proper room temperature.
- Do not block the air inlet or outlet
- Close doors and windows during operation
- Use the timer effectively
- If the unit is not to be used for a long time, turn off the power supply main switch
- Use the louvers effectively

Remote Controller



Do not use water, wipe the controller with a dry cloth. Do not use glass cleaner or chemical cloth.

Indoor Body



Wipe the air conditioner by using a soft and dry cloth. For serious stains, use a neutral detergent diluted with water. Wring the water out of the cloth before wiping, then wipe off the detergent completely.

Do not use the following for cleaning



Gasoline, benzene, thinner or cleanser may damage the coating of the unit.



Hot water over 40°C (104°F) may cause discoloring or deformation.

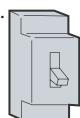
⚠ WARNING

Please call Sales/Service Shop for the Installation.

Do not attempt to install the air conditioner by yourself because improper works may cause electric shock, fire, water leakage.

⚠ WARNING

When abnormality such as burnt-smell found, immediately stop the operation button, cut off the power supply and contract sales shop. Do not try to repair or reconstruct by yourself.

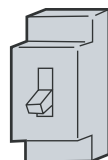


OFF

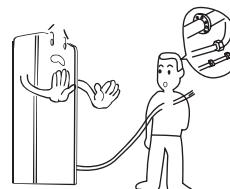


**STRICT
ENFORCEMENT**

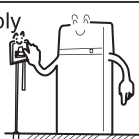
Use an exclusive power source with a circuit breaker



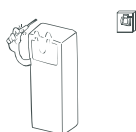
Ground wire should not be connected to gas pipelines, water pipelines, lightning arrester, telephone line.



Make sure the power supply socket equipped with the ground wire, in order to ensure the air conditioner through the power socket effective ground connection, ungrounded or grounded fully, likely to occur the risk of electric shock or fire.



Be sure to measure the insulation resistance after the installation

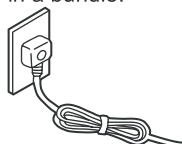


1. Do not use power supply cord extended or connected in halfway
2. Do not install in the place where there is any possibility of inflammable gas leakage around the unit.
3. Do not get the unit exposed to vapor or oil steam.



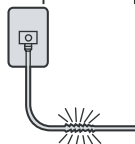
PROHIBITION

Do not use power supply cord in a bundle.



PROHIBITION

Take care not to damage the power supply cord.



PROHIBITION

Use fuse with specified capacity. Replacement with steel for copper wires are absolutely prohibited

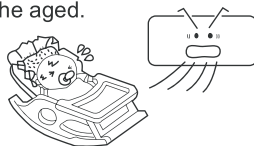


Be sure to operate the unit by the remote controller or the control panel.



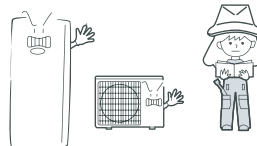
PROHIBITION

Do not channel the air flow directly at people, especially at infants or the aged.



PROHIBITION

Do not try to repair or reconstruct by yourself.



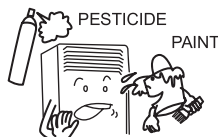
Do not insert objects into the air inlet or outlet



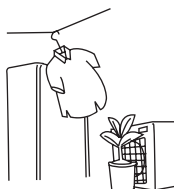
PROHIBITION

⚠ CAUTION

Do not let any paint or pesticide spraying on the surface of the unit.



Do not block the air inlet or outlet. Do not obstruct or cover the ventilation grille of the air conditioner.

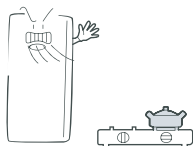


Do not operate the switch with wet hand



PROHIBITION

Do not install the unit near a fireplace or other heating apparatus



PROHIBITION

Air filter should be cleaned regularly, if blocked, the effect of cool or heat will become worse, even cause fault and drops of water in COOL mode while the power consumption will increase.

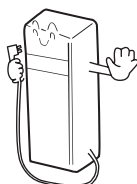


Do not pour water onto the unit for cleaning

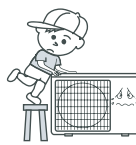


PROHIBITION

If the unit is not to be used for a long time, turn off the power supply main switch to avoid an electrical shock or fire.



Do not place any objects on or climb on the unit



PROHIBITION

Do not place flower vase or water containers on the top of the unit.



PROHIBITION

