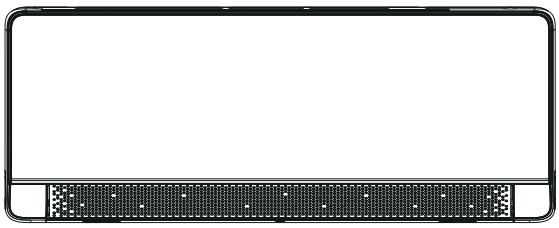
waykar

USER MANUAL

Split Air Conditioner



This manual applies to the following dehumidifier models:

- ASHWM115-12K-I/O
- ASHWM230-12K-I/O
- ASHWM230-18K-I/O
- ASHWM230-24K-I/O

Please read this manual carefully before operating the device and keep it for future reference.

Message from WAYKAR

Thank you for choosing Waykar. Established with a commitment to protecting indoor climates, Waykar has grown into a leading brand in the HVAC industry, known for premium products that prioritize comfort and health in your indoor space.

Before you start exploring this product, read this manual carefully for necessary instructions first. It's advised to keep it for future reference.

24/7 Full-Time Response

Upon receipt of the mini split air conditioner, kindly inspect the package contents immediately for any potential missing or damaged parts. In case of issues, we would appreciate your prompt contact with Waykar support for solutions before initiating a return. Send us an email or scan the QR code to start a live chat.

support@waykar.com

Important: Please Read Before Usage

Ensure the mini split air conditioner is always kept in an upright position to avoid internal damage. After unwrapping the dehumidifier, please set it upright and let it sit for **24 HOURS** before plugging it in.

We may not be superheroes for life—but we can be your HERO for this dehumidifier. Just reach out anytime.

Not collecting water? Missing parts?
Need setup help or missed the return window?
No worries – we've got your back!

Waykar Customer Support – Available 24/7

support@waykar.com (213)-895-4871

100% Covered for Defects

2 YEARS WARRANTY

Note: The product diagrams in this manual are for illustration purposes only. The actual products may vary slightly in shape and appearance.

Table of Contents

To help prevent injury, property damage, or damage to the mini split air conditioner, follow all safety instructions in this manual. Safety precautions are classified by the following symbols according to the level of risk involved:

⚠ WARNING
Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠ CAUTION
Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury, or property damage.

SAFETY PRECAUTIONS

Electrical Safety Requirements

This manual applies to the following models: ASHWM115-12K-I/O, ASH-WM230-12K-I/O, ASHWM230-18K-I/O, and ASHWM230-24K-I/O.

Note: For electrical safety, install a dedicated circuit breaker or residual current device (RCD).

Use only the rated power supply voltage and a dedicated circuit for the air conditioner. Use only the supplied power cable. If the power cable is lost or damaged, contact the manufacturer or an authorized service technician for a replacement.

This mini-split air conditioner is designed to operate safely within a supply voltage range of 90% to 110% of the local nominal voltage. WARNING: Operating outside this voltage range may cause equipment failure, electrical shock, or fire. In areas with unstable voltage, install a voltage regulator to ensure the supply remains within the specified range.

Maintain a minimum clearance of 5 ft (1.5 m) from combustible materials around the air conditioner units to prevent fire hazards.

The air conditioner must be properly grounded. Incomplete or improper grounding creates a risk of electric shock. Never connect the ground wire to a gas line, water pipe, or lightning rod.

Electrical Safety Warning

Do not operate the air conditioner during lightning storms. Disconnect the power supply immediately to prevent electrical damage and safety hazards.

Do not pull, yank, or strain the power cable. Damage to the power cord can cause severe electric shock.

Don't let the air conditioner blow against the heater appliance. Otherwise it will lead to incomplete combustion, thus causing poisoning.

An earth leakage breaker with rated capacity must be installed to avoid possible electric shocks.

The air conditioner must be installed in full compliance with all applicable national and local electrical wiring codes and regulations.

SAFETY PRECAUTIONS

General Safety Precaution

Warning

- ✓ Always turn off the unit and disconnect the power supply before performing any maintenance or cleaning. Failure to do so may result in electric shock or damage.
- ✓ Keep the remote control and indoor unit dry. Avoid getting them wet, as this may cause a short circuit.
- ✓ Ducts connected to the unit must not contain any ignition sources.
- ✓ Do not install the air conditioner near flammable gases or liquids. Maintain a minimum distance of 1 meter. Otherwise, it may cause fire or explosion.
- ✓ Do not use liquid or corrosive cleaning agents on the air conditioner, and do not spray water or other liquids on the unit. This may cause electric shock or damage.
- ✓ Do not attempt to repair the air conditioner yourself. Improper repairs may cause fire or explosion. Contact a qualified service technician for all service requirements.
- ✓ Do not use the air conditioner during thunderstorms. Disconnect the power supply to prevent potential hazards.
- ✓ Do not insert hands or objects into the air inlets or outlets. This may cause personal injury or damage to the unit.
- ✓ Ensure that the installed stand or support is stable and secure. A damaged or unstable stand may cause the unit to fall, resulting in injury.
- ✓ Do not block the air inlet or outlet. Blocking airflow may reduce cooling or heating efficiency and may cause the system to stop operating.
- ✓ Children aged 8 and above, as well as individuals with reduced physical, sensory, or mental capabilities, should operate the device only under supervision. Children under 8 should not tamper with it.

Caution

1. Do not leave windows or doors open for extended periods while the air conditioner is running. Doing so may reduce cooling or heating efficiency.

2 . Do not stand on the outdoor unit or place heavy objects on it. This may cause personal injury or damage the unit.

3 . Do not use the air conditioner for purposes other than cooling or heating, such as drying clothes or storing food.

4. Avoid directing cold air onto your body for prolonged periods. This may affect your health.

SAFETY PRECAUTIONS

5. Set an appropriate temperature. It is recommended that the indoor-outdoor temperature difference is not too large. Proper temperature settings can prevent unnecessary energy consumption.

6. If your air conditioner does not come with a supply cord and plug, a certified all-pole switch with a minimum contact separation of 3.0 mm (0.12 in) must be installed in the fixed wiring.

PACKAGE CONTENTS

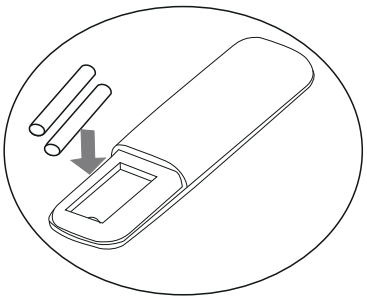
Packing list of the indoor unit

Name	Quantity	Unit
Indoor Unit	1	Set
Remote Controller(*)	1	PC
Plastic Strap(*)	1	ROLL
Drain pipe (*)	1	PC

Packing list of the outdoor unit

Name	Quantity	Unit
Outdoor Unit	1	Set
Connecting pipe(*)	2	PC
Pipe Protection Ring(*)	1	PC
Luting (putty) (*)	1	PACKET

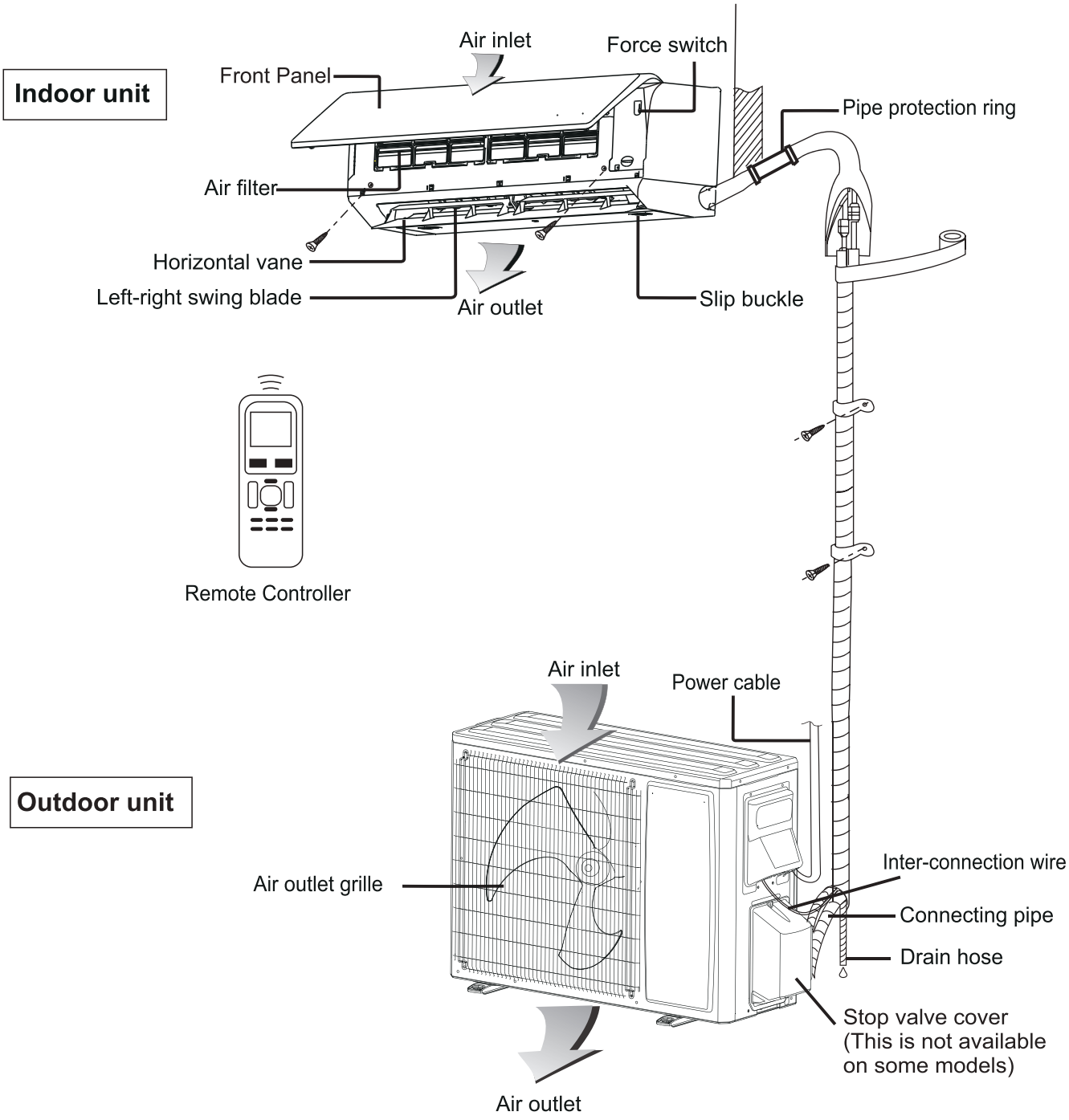
Use 2 pieces
LR03 AAA (1.5V) batteries
for the remote control.



- Point the remote control toward the indoor unit when operating. The effective operating range is up to 26 ft (8 m).
- Do not expose the remote control to water, direct sunlight, or excessive heat.
- Remove the batteries if the remote control will not be used for an extended period.

Note: Batteries are NOT included for the remote control.

NAME OF PARTS



Note:

1.All the illustrations in this manual are for explanation purpose only.

2.Your air conditioner may be slightly di erent. The actual shape may vary.

3.They are subject to change without notice for future improvement.

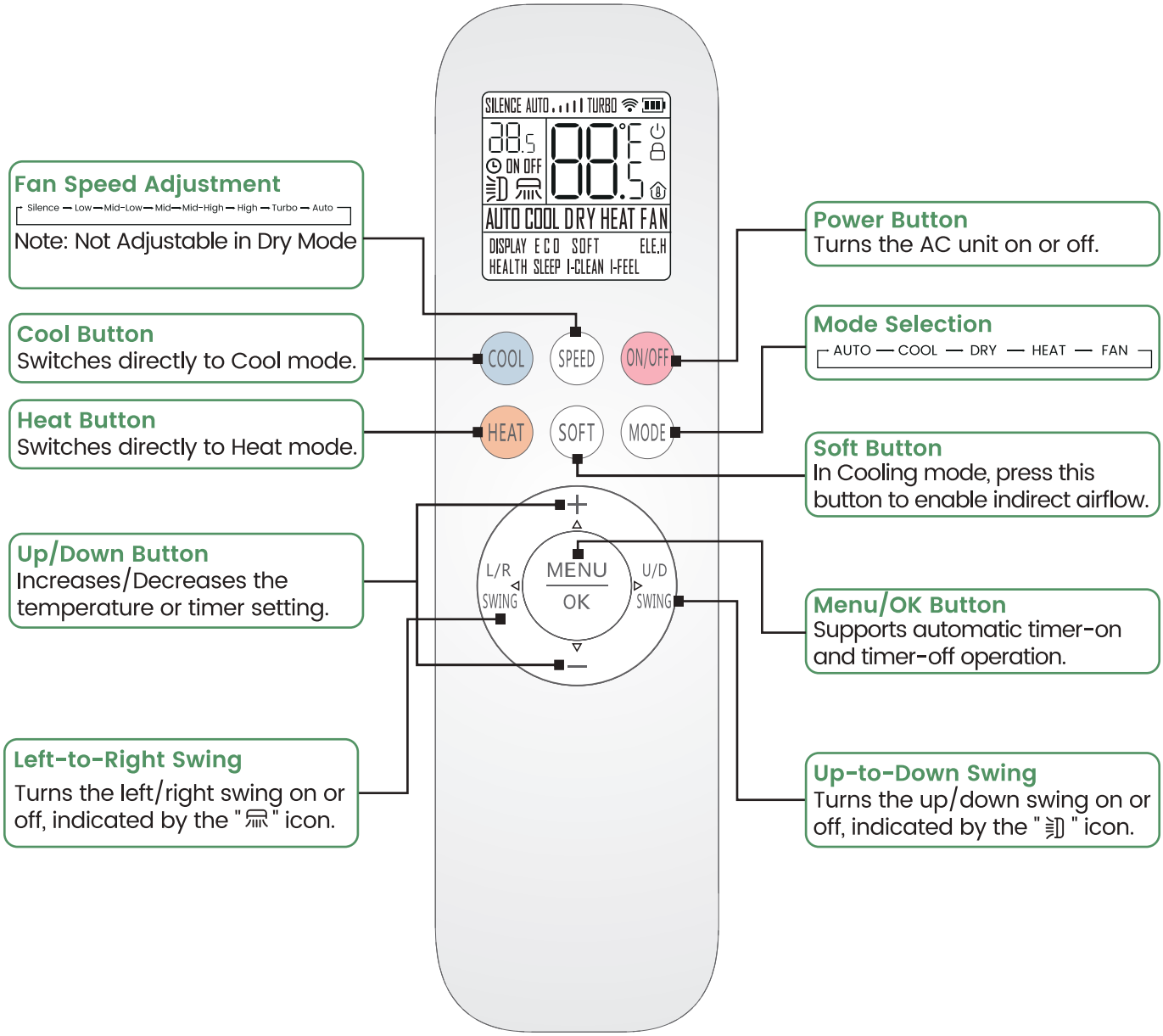
REMOTE CONTROL

Celsius/Fahrenheit Conversion

Hold down COOL & HEAT Button for 3 Seconds.
Range: 16°C (60°F)–32°C(90°F)

Remote Control Battery Icon

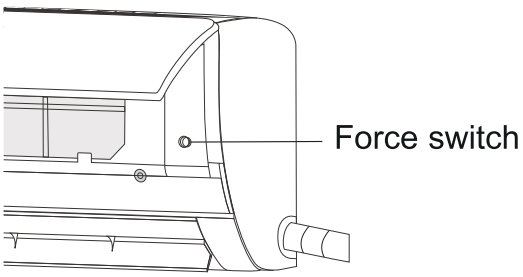
Displays the battery level on the screen, with a flashing icon indicating low power.



FUNCTION OVERVIEW

Emergency operation

* If the remote controller is lost or broken, use force switch button to operate the air conditioner.
* If this button is pushed with the unit OFF, the air conditioner will operate in Auto mode.
* If this button is pushed with the unit ON, the air conditioner will stop running.



FUNCTION OVERVIEW

Child-lock

Press the “HEAT” and “MODE” buttons at the same time and hold for at least 3 seconds to activate or deactivate the child-lock function.

When the child-lock is activated, the " 🔒" icon will light up on the remote.

Wi-Fi Connection Supported

This mini split air conditioner supports Wi-Fi control. Refer to the included Wi-Fi Connection Instruction Manual for setup and connection instructions.

Auto Defrosting

The AC unit features an automatic defrost function to improve operating efficiency when frost buildup is detected. The system will automatically heat the outdoor coil to remove frost. No user operation is required. The unit will resume normal operation once defrosting is completed.

To manually start defrosting, press and hold the "Heat" button and the "+" button simultaneously for 3 seconds.

I-FEEL Function

When the unit is on, press “MENU”, then use △ (+), ▽ (−), ◀ (L/R SWING), and ▷ (U/D SWING) to select “I-FEEL”. Press “OK” to activate or deactivate I-FEEL mode (icon lights when active).

In this mode, the remote control senses the surrounding temperature and sends signals to optimize room comfort.

I-CLEAN

The unit can automatically clean the evaporator by removing dust and drying internal moisture to prevent mold and odors.

When the unit is off, press “MENU”, then use △ (+), ▽ (−), ◀ (L/R SWING), and ▷ (U/D SWING) to select “I-CLEAN”. Press “OK” to start or stop the self-cleaning function.

The cleaning cycle runs automatically and completes within approximately 1 hour.

FUNCTION OVERVIEW

Buzzer Mute

Press and hold the L/R SWING and MODE buttons simultaneously for 3 seconds to turn the operation sound (buzzer) on or off.

ECO Mode Function

In Cooling mode, the inverter air conditioner can enter ECO mode to reduce energy consumption. The unit operates in a low-power state and automatically exits ECO mode after 8 hours.

ECO mode is not available on fixed-speed models. Changing the mode or turning off the remote controller will cancel ECO mode.

To activate ECO mode:

1. Press “MENU”.
2. Use △ (+), ▽ (−), ◀ (L/R SWING), and ▷ (U/D SWING) to select “ECO” (icon will blink).
3. Press “OK” to activate or deactivate ECO mode (icon is highlighted when active).

Note: Energy savings vary depending on ambient temperature and room conditions. ECO mode may be less effective in large spaces or high temperatures.

SLEEP Mode Function

When the unit is on, press “MENU”, then use △ (+), ▽ (−), ◀ (L/R SWING), and ▶ (U/D SWING) to select “SLEEP”. Press “OK” to activate or deactivate Sleep mode (icon is highlighted when active).

The unit exits Sleep mode automatically after 10 hours and restores previous settings.

Sleep mode is not available in Fan or Auto mode. In Sleep mode, the indoor display turns off to reduce light disturbance.

ELE.H (Auxiliary Electric Heating)

When the unit is on, press “MENU”, then use △ (+), ▽ (−), ◀ (L/R SWING), and ▶ (U/D SWING) to select “ELE.H”. When the icon blinks, press “OK” to activate or deactivate auxiliary electric heating.

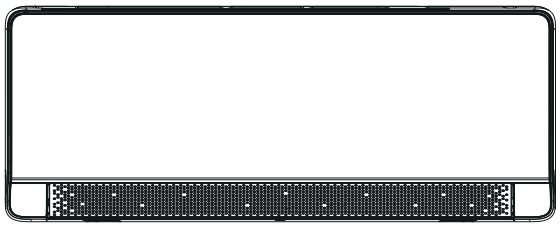
The auxiliary heater automatically operates based on ambient temperature to enhance heating performance and speed up warm-up.

DISPLAY On/Off

Press “MENU”, then use △ (+), ▽ (−), ◀ (L/R SWING), and ▷ (U/D SWING) to select “DISPLAY”. Press “OK” to turn the indoor display on or off.

Turn the AC unit On or Off

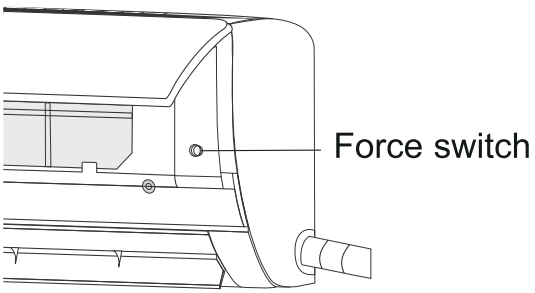
After properly installing the indoor and outdoor units, connect the AC unit to a power source using the included 4 m (13 ft) power cable. The indoor unit's power indicator will illuminate and the unit will beep to indicate that power is connected.



Next, press the Power button on the remote control to turn on the AC unit. The air vent will open automatically.

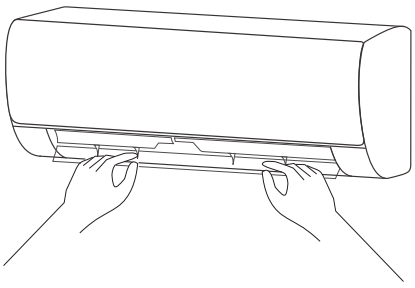
If the remote control is unavailable, you can use the Force Switch to operate the unit:

- When the unit is **OFF**: Pressing the Force Switch starts the air conditioner in Auto mode.
- When the unit is **ON**: Pressing the Force Switch turns the air conditioner off.



Airflow direction adjustment

1. Use up-down swing and left-right swing buttons on the remote controller to adjust the airflow direction. Refer to the operation manual of the remote controller for detail.
2. The unit supports four-way automatic swing. Use the Up/Down Swing and Left/Right Swing buttons on the remote control to adjust the airflow direction. You can also manually adjust the louvers to set your desired angle.



Note: Move the air vents before the unit is in operation, or your finger might be injured. Never place your hand into the air inlet or outlet when the air conditioner is in operation.

Indirect Airflow (SOFT) Button

In Cooling mode, press this button to enable indirect airflow.

This function reduces direct airflow, creating a softer and more comfortable cooling experience. The vertical airflow is fixed to avoid blowing air directly on occupants.

The function is canceled when the unit is turned off, the mode is changed, or the button is pressed again.

OPERATION INSTRUCTIONS

Mode Selection

Press the Mode button to cycle through AUTO, COOL, DRY, HEAT and FAN modes.

Mode	AUTO	COOL	DRY	HEAT	FAN
Purpose	Auto selects heating or cooling operation	Cools the room to the set temperature	Reduces humidity	Heats the room to the set temperature	Circulates air without heating or cooling
Temperature	Not Adjustable	16°C–32°C (60°F–90°F)	16°C–32°C (60°F–90°F)	16°C–32°C (60°F–90°F)	Not Adjustable
Fan Speed	Silence, Low, Mid-Low, Mid, Mid-High, High, Auto(No Turbo)	Silence, Low, Mid-Low, Mid, Mid-High, High, Turbo, Auto	Not Available	Silence, Low, Mid-Low, Mid, Mid-High, High, Turbo, Auto	Silence, Low, Mid-Low, Mid, Mid-High, High, Turbo (No Auto)
Sleep Mode	Not Available	Available	Available	Available	Not Available

Temperature Setting

- In COOL, DRY, or HEAT mode, press Up or Down to enter temperature setting.
- Press the + button to increase the set temperature by 1°C (1°F) each time.
- Press the – button to decrease the set temperature by 1°C (1°F) each time.
- The temperature can be set within the range of **16°C to 32°C** (60°F to 90°F).

Timer Setting

With the unit on or off, press **OK** to enter the timer setting. The timer icon "🕒" and **ON/OFF** symbol will appear on the remote control screen, and the timer length will flash on the display.

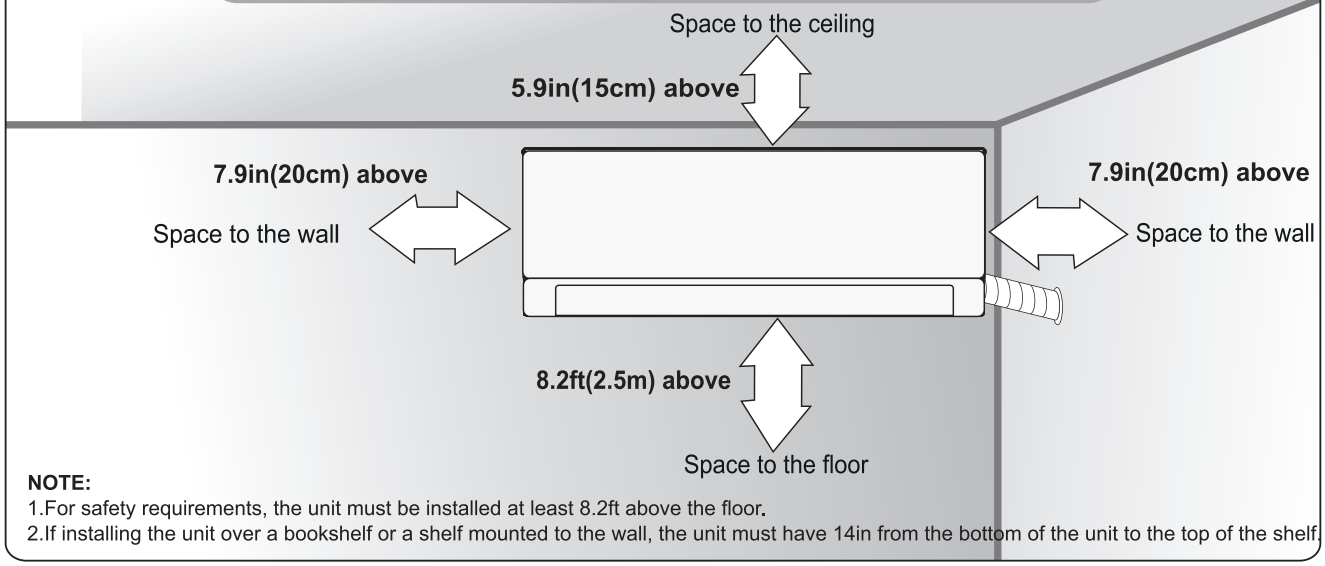
Use the △ (+) or ▽ (–) buttons to set the desired time (0.5–24 hours) for the unit to turn on or off. Press **OK** again to confirm. The display will stop flashing and return to normal operation.

To cancel the timer, press **OK** again or press the **ON/OFF** button before the set time is reached.

If no button is pressed within 10 seconds, the timer setting will exit automatically.

INSTALLATION GUIDE

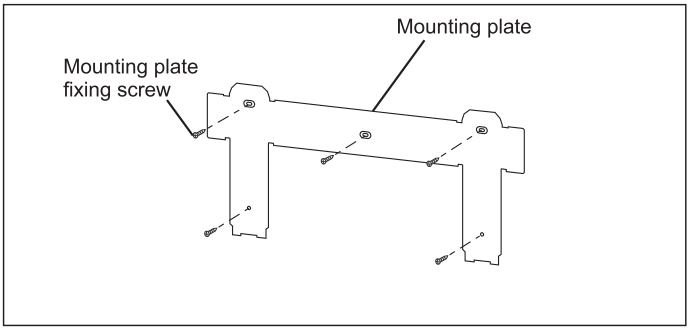
Dimension Drawing of Indoor Unit Installation



NOTE:
1.For safety requirements, the unit must be installed at least 8.2ft above the floor.
2.If installing the unit over a bookshelf or a shelf mounted to the wall, the unit must have 14in from the bottom of the unit to the top of the shelf.

Mounting Installation Plate

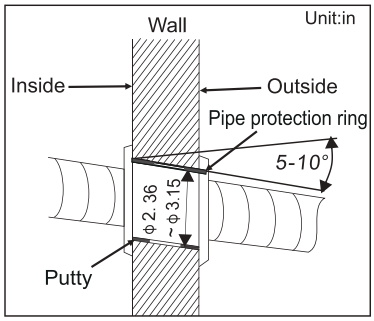
1. Ensure that the wall is strong enough to withstand the weight of the unit. Otherwise, it is necessary to reinforce the wall with plates, beams or pillars.
2. Use the "+" Phillips type screws in at least 5 suitable screws holes to fasten the plate to the wall.
3. Make sure the plate is horizontally level on the wall and there is enough room from the plate to the wall and ceiling to mount the unit.
4. Pull the mounting plate by hand after the installation, to confirm whether it is solid.
5. Use the installation dimensions to locate and punch holes (see figure)



Wall-through Hole

1. Once a suitable location has been determined, drill hole with an outwardly slant of 5°-10° to ensure proper drainage.
2. Be sure to protect the piping and cables from damaged while running through the wall by using a pipe protecting ring or other field supplied protective device.
3. Use the supplied putty to seal the piping penetration to prevent mold buildup, rodents, and cold/hot air from entering the space.

Note:
Usually, the wall hole is Φ2.36in~Φ3.15in(Φ60mm~Φ80mm).
Avoid pre-buried power wire and hard wall when making the hole.



INSTALLATION GUIDE

Route of Pipeline

1. The refrigerant piping can be routed out of the indoor unit a number of ways. For left, right, or bottom routing, use the cut-out holes on the casing of the unit. Bend the pipes carefully to the required position in order to align it with the hole.
2. For back routing, be sure to drill the hole in the proper place according the mounting bracket.
3. Wrap the inter-unit wire, refrigerant pipes, and drain hose together with insulation tape. (see Fig 1)

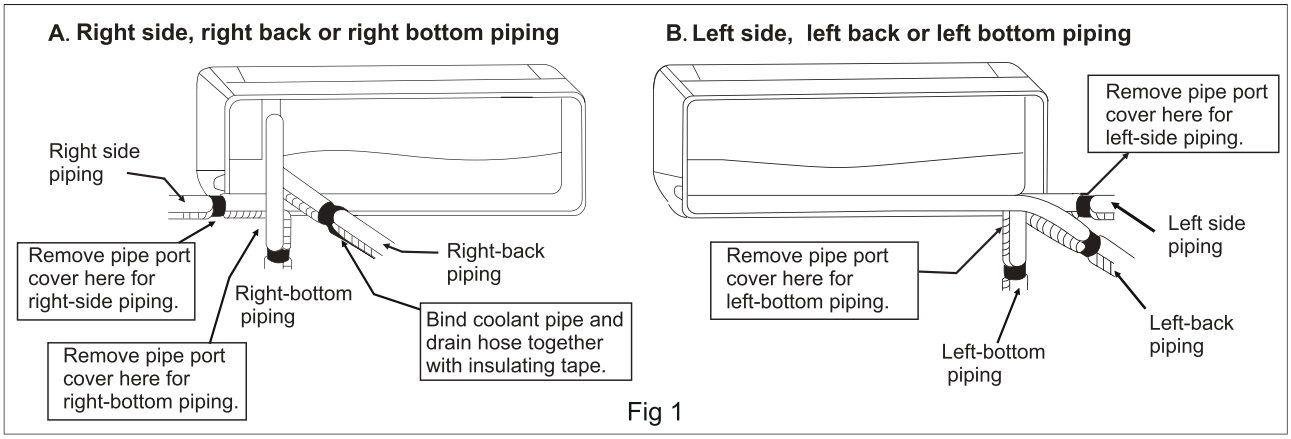


Fig 1

4. Bottom or side piping (see Fig 2)
a. Cut o pipe port cover with a copping saw.
b. Apply the blade of the copping saw to the notch, and cut o the pipe port cover along the uneven inner surface.
c. After cutting o the pipe cover, use a file to smooth the edges.

NOTE:
Bottom piping only applys to some units.

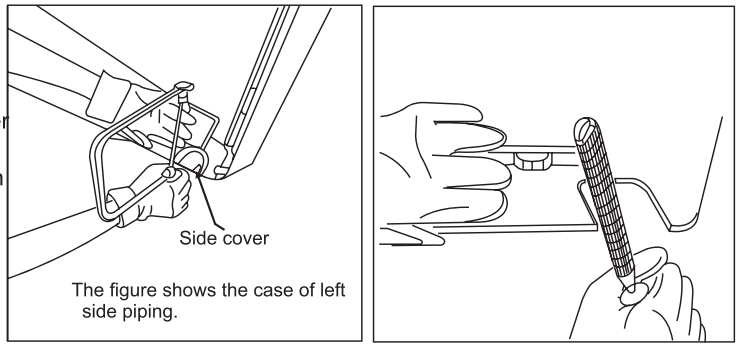


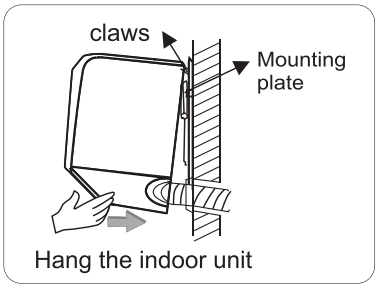
Fig 2

Mount the Indoor Unit

1.Mount the unit onto the installation plate

Hook the indoor unit onto the upper portion of the installation plate (Engage the two hooks at the rear top of the indoor unit with the upper edge of the installation plate). Ensure that the hooks are properly seated on the installation plate by moving it to the left and right.

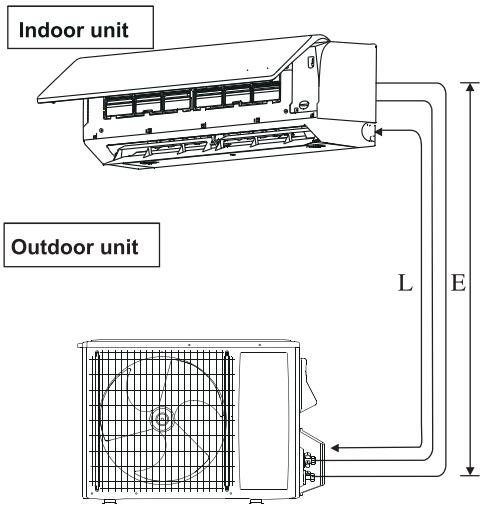
2.Then connect the pipes of indoor unit as follows:



Install the Refrigerant Piping

Allowable Piping Length

If the pipe is too long, both the capacity and reliability of the unit will drop. As the number of bends increases, resistance to the flow of refrigerant system increases, thus lowering cooling capacity. As a result, the compressor may become defective. Always choose the shortest path and follow the recommendations as tabulated below:



Model	Indoor	09	12	18	24	36
	outdoor	09	12	18	24	36
Min. Allowable Length (L), ft/(m)		9.84' (3)		9.84' (3)		
Max. Allowable Length (L), ft/(m)		65.6' (20)		98.4' (30)		
Max. Allowable Elevation (E), ft/(m)Gas		49.2' (15)		65.6' (20)		
Pipe Size, in/(mm)		3/8" (9.52)		1/2" (12.70)	5/8" (15.88)	
Liquid Pipe Size, in/(mm)		1/4" (6.35)		1/4" (6.35)		

* Be sure to add the proper amount of additional refrigerant. Failure to do so may result in reduced performance. (See table on page 16 for additional refrigerant amounts)

Remark:

The refrigerant pre-charged in the outdoor unit is for piping lengths up to 25ft (7.6m).

Piping Works And Flaring Technique

- Do not use contaminated or damaged copper tubing. If the evaporator, condenser, or any piping has been open and exposed to the atmosphere for 15 seconds or more, the system must be vacuumed. Do not remove plastic plugs or brass nuts from piping connections until the connections are ready to be made.
- If any brazing work is required, ensure that a nitrogen gas purge is utilized to prevent soot formation on the inside wall of copper tubing. Failure to do so may cause damage to the unit and void warranty.
- Cut the pipe as straight as possible (See Fig 1.). Make sure to use a deburring tool to remove any burrs. Hold the pipe with opening facing down to prevent metal chips from entering the pipe (See Fig2.).
- This will avoid unevenness on the flare faces which will cause gas leak.
- Insert the flare nuts, mounted on the connection parts of both the indoor unit and outdoor unit, into the copper pipes.
- The exact length of pipe protruding from the top surface of the swaging block is determined by the flaring tool. See Fig 3.
- Fix the pipe firmly on the swaging block. Match the centers of both the swaging block and the flaring punch, then tighten the flaring punch fully.
- The refrigerant pipe connection are insulated by closed cell polyurethane.

Fig 1.

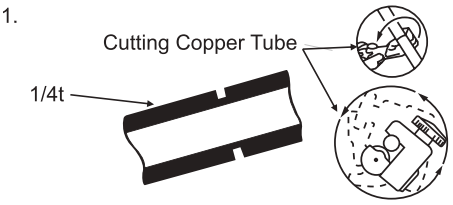


Fig 2.

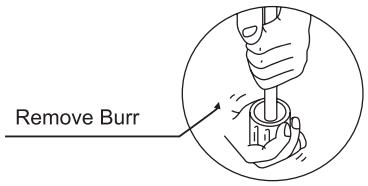
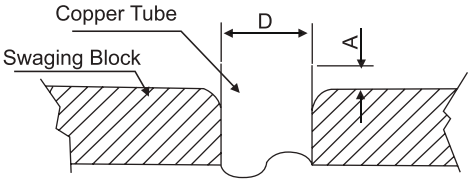


Fig 3.



Ø Tube, D		A(Inch/mm)	
inch	mm	Imperial (Wing-nut Type)	Rigid (Clutch Type)
1/4"	6.35	0.051" (1.3)	0.028" (0.7)
3⁄8 "	9.52	0.063 " (16)	0.039 " (10)
1/2"	12.70	0.075 " (19)	0.051 " (13)
5/8"	15.88	0.087" (2.2)	0.067" (1.7)
3/4"	19.05	0.098" (2.5)	0.079" (2.0)

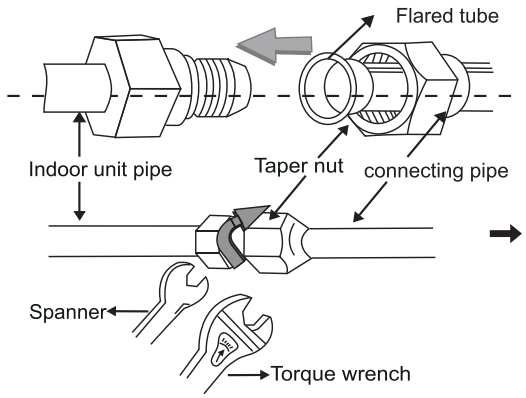
Install the connection pipe

- Apply a slight amount of POE oil to the inside of the flare to prevent binding.
- Align the center of the piping and tighten the flare nut suciently with fingers. See Fig 4.
- Adjust the torque wrench to the proper torque settings according to the table. Finally, tighten the flare nut with torque wrench until the wrench clicks. When tightening the flare nut with the torque wrench, ensure that the tightening direction follows the arrow indicated on the wrench.

INSTALLATION GUIDE

Install the Refrigerant Piping

Fig 4.



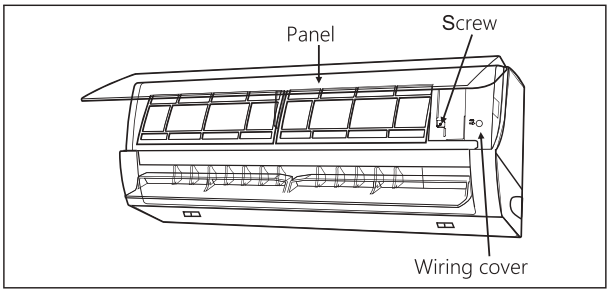
Tightening torque table

The size of pipe ,in(mm)	Torque,ft-lb(N·m)
Ø1/4″ (Ø6.35)	11.0-18.4 (15-25)
Ø3/8″ (Ø9.52)	25.8-29.5 (35-40)
Ø1/2″ (Ø12.7)	33.2-44.3 (45-60)
Ø5/8″ (Ø15.88)	53.9-57.6 (73-78)
Ø3/4″ (Ø19.05)	55.3-59.0 (75-80)

Electrical Wiring Connection

● Connect interconnection wire of indoor unit

1. Open the front panel of the unit and remove the screw on the wiring cover to access the unit wiring terminals.
2. Pull the wire through the cable-cross hole at the back of indoor unit and then pull it out from the front side of the unit with enough length to make the connections.
3. Remove the wire clip; connect the interconnection wires to the correct terminals according to the wiring diagram; Tighten the screw, and then fix the interconnection wire with wire clip.
4. Put wiring cover back and then tighten the screw.
5. Close the front panel.

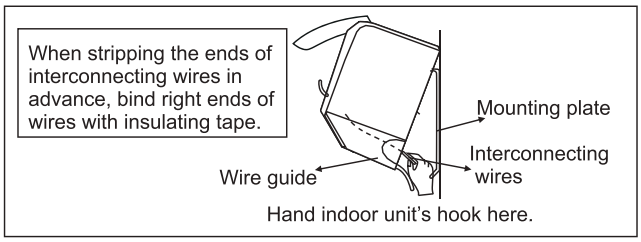


Electrical Wiring Connection

NOTE:

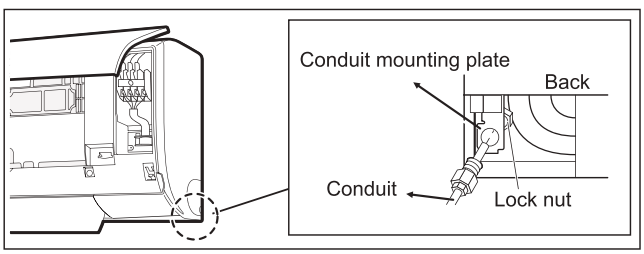
※This manual usually includes the wiring mode for the di erent kind of air conditioner. We cannot exclude the possibility that some special type of wiring diagrams are not included.

※The diagram are for reference only. If the entity is di erence with this wiring diagram, please refer to the detailed wiring diagram adhered on the unit which you purchased.



● After installation check

1. Make sure that the screws are tight and there is no risk of the wiring coming loose.
2. Verify that all wiring is tucked into unit nicely and there is no risk of wires being smashed by cover or touching the control board.
3. Inspect control box cover to verify proper installation.



Note:

Take care to ensure that all wiring between indoor unit and outdoor unit has a consistent connection. Any splices or breaks can cause communication errors and failure to start.

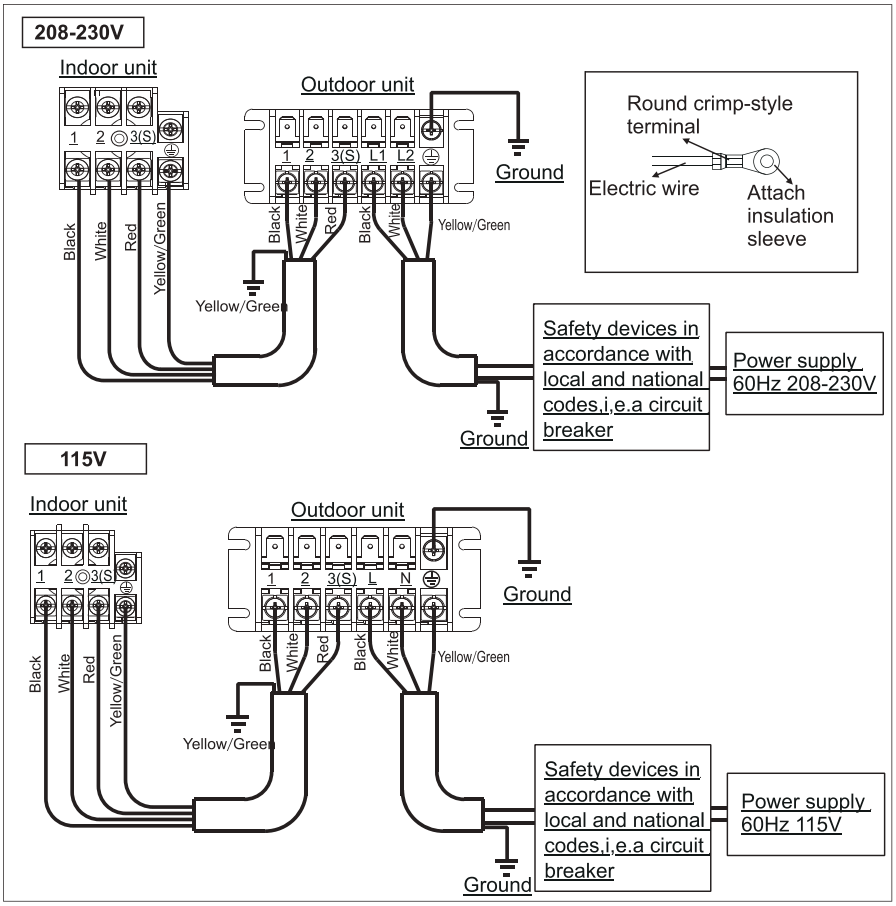
INSTALLATION GUIDE

Electrical Wiring Connection

● **Entire PCB replacement required if fuse failure occurs.**

All wires must be firmly connected.

1. Make sure that none of the wring is grounded to piping or compressor. Make sure no external pressure is applied to the terminal connectors and wires. Make sure all the covers are properly fixed to avoid any gaps. Use round crimp-style terminal connectors for connecting wires to the power supply terminal block. Connect the wires by matching the indication marks on the terminal block. (Refer to the wiring diagram attached on the unit).
2. Use the correct screwdriver for tightening the terminal screws. Unsuitable screwdrivers can damage the screw head. Over tightening can damage the terminal screws.
3. Do not connect wires of di erent gauge to same terminal.
4. Keep wiring in an orderly manner.
5. Prevent the wiring from obstructing other parts and the terminal box cover from closing.



Power: 60Hz 208-230V

Recommended Wire Mode

Model(Btu)	Power line(AWG)	Power connection line(AWG)
9000	3 Core*14AWG or 3Core*16AWG	4 Core*18AWG
12000		
18000		
24000		
> 24000		

Power: 60Hz 115V

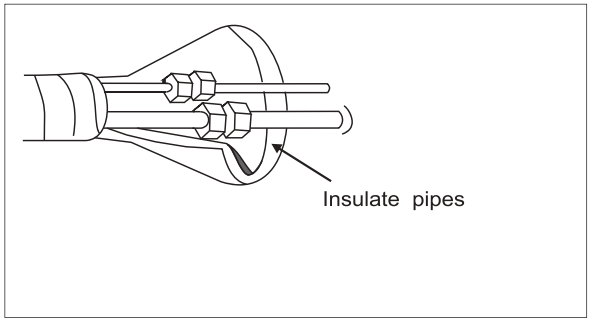
Recommended Wire Mode

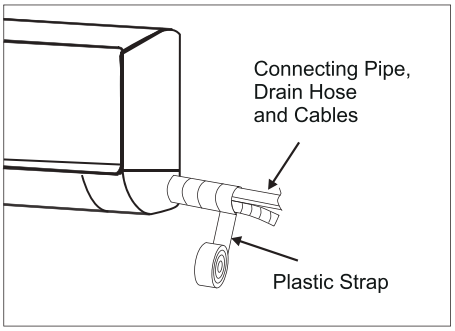
Model(Btu)	Power line(AWG)	Power connection line(AWG)
9000	3 Core*14 AWG	4 Core*18 AWG
12000		

INSTALLATION GUIDE

Wrap the Piping

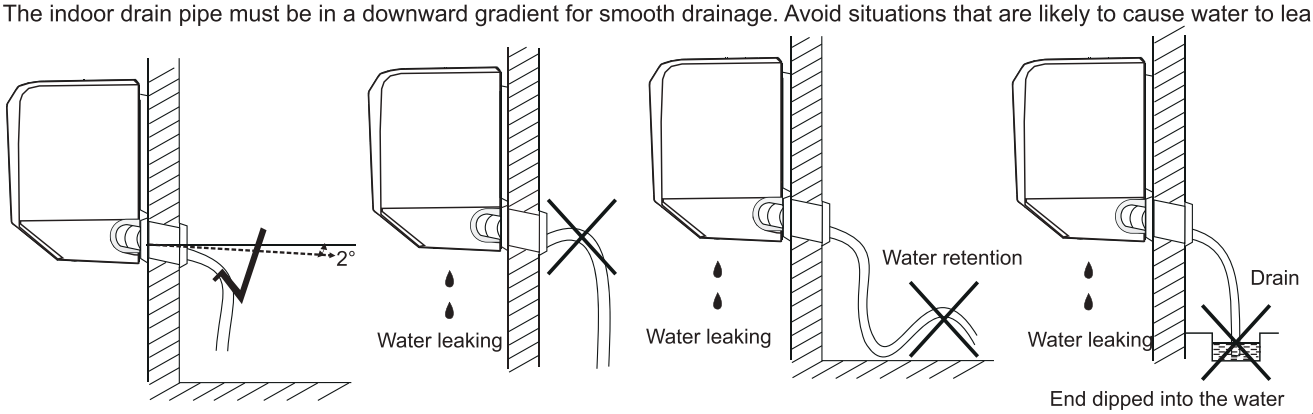
1. Use the insulation sleeve to wrap the joint part the indoor unit and the connection pipe, and then use insulating material to pack and seal insulation pipe, to prevent generation of condensate water on the joint part.
2. Connect the water outlet with drain pipes, and make the connection pipe, cables, and the drain hose straight.
3. Use plastic cable ties to wrap the connecting pipes, cables and drain hose. Run the pipe sloping downward.





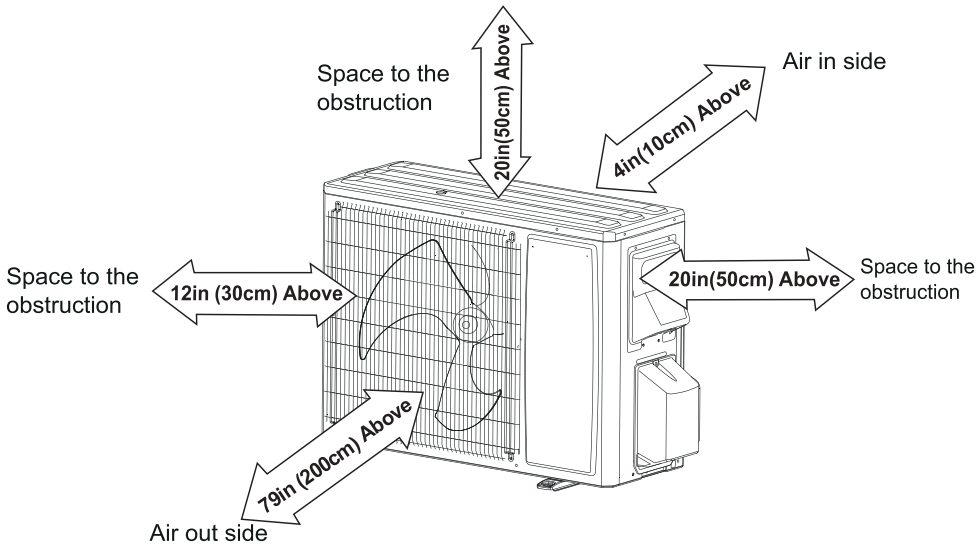
Water Drainage Piping

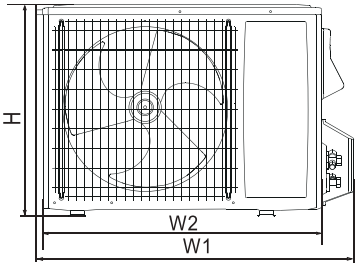
The indoor drain pipe must be in a downward gradient for smooth drainage. Avoid situations that are likely to cause water to leak.

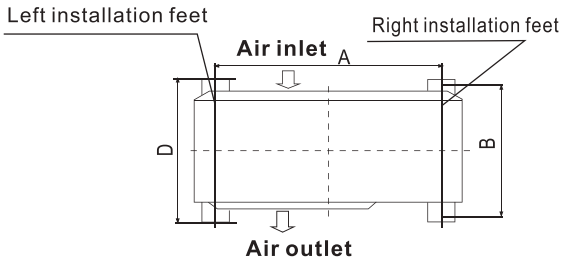


INSTALLATION GUIDE

Dimension Drawing of Outdoor Unit Installation







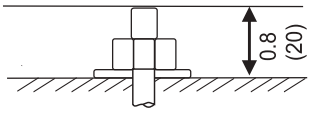
Installation outdoor unit bolt

Outdoor Unit Size of Shape W1 (W2)*H*D), in (mm)	A, in (mm)	B, in (mm)
28.7(25.6)x18.0x11.0 730(651)×456×278	18.9 (480)	10.0(253)
31.7(28.0)×21.2×12.2 805(712)×538×309	18.9 (480)	11.1 (283)
34.7(31.0)×21.9×13.9 880(787)×557×353	21.5 (546)	12.4 (316)
36.0(32.6)×25.9×14.6 913(827)×657×370	21.3(540)	13.1(334)
38.6(35.3)×27.6×15.3 980(897)×700×388	24.9 (632)	13.9 (352)
41.3(38.4)×31.6×18.0 1049(975)×803×455	26.6(675)	15.4(390)

Installation:

1.Install a drainage channel to allow the condensate to flow smoothly away.
2.During installation please ensure that the foundations are secure and level to avoid vibration and noise
3.Please bolt(M8 or M10) the outdoor unit down securely.
4.The bolts for connecting the outdoor unit should protrude 0.8in(20mm) above the surface of the base.
5.Do not just use the four comers as a foundation to support the unit.

Unit:in(mm)

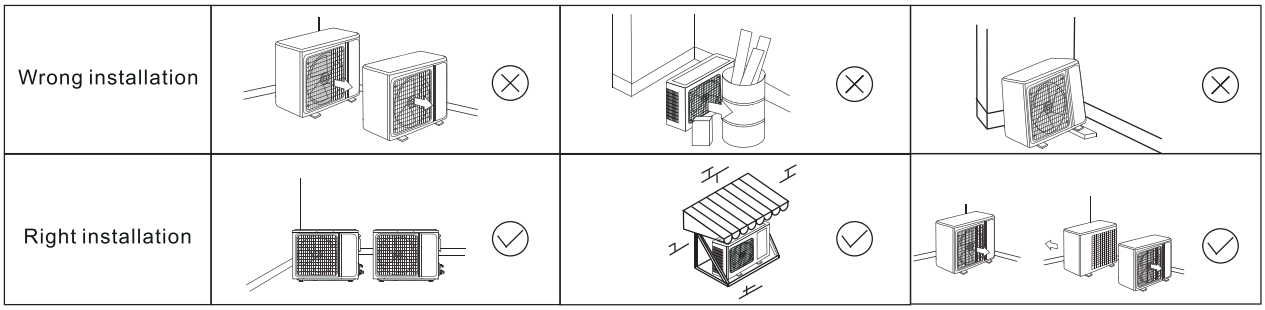


INSTALLATION GUIDE

Dimension Drawing of Outdoor Unit Installation

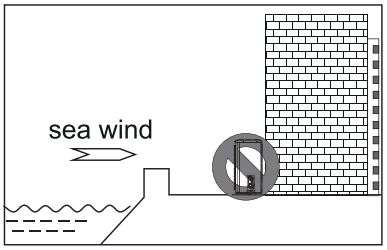
Where you install the outdoor unit will have a direct affect upon its performance.
In order for the outdoor unit to operate at its best you should carefully follow these instructions. In particular its important to prevent discharge air to return to the rear of the unit. This should be avoided as this will significantly reduce the cooling and heating performance.
1.The discharge air which is expelled from the front of the unit should not be allowed to immediately enter the return inlet of the back of the unit.
2.Ensure there is ample space in front of the unit will help prevent this from happening.
3.Ensure the unit is installed on a level surface and that there is plenty of room to service the equipment. Do not allow a slope of more than 5°.

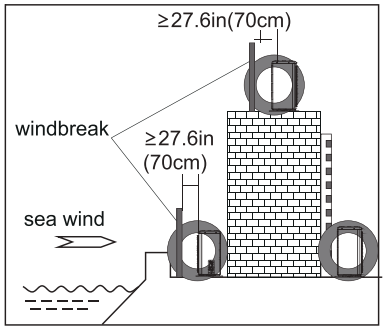
The following figures show the right installation and wrong installation :



Installation Guide at the Seaside

1. Air conditioners should not be installed in areas where corrosive gases, such as acid alkaline gas, are produced.
2.Do not install the product where it could be exposed to direct salt air.
Sea air exposure can result in corrosion on the unit. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction, inefficient performance, and refrigerant leaks.
3.If the outdoor unit is installed close to the seaside, it should avoid direct exposure to the sea wind. Otherwise, it may need additional anti corrosion treatment.
● Selecting the location (outdoor unit)
- The windbreak should be strong enough like concrete to prevent the sea wind from hitting the unit. The height and width should be more than 150% of the outdoor unit.
4.Select a well-drained place. Install the outdoor unit on the opposite side of the direction of the sea wind, or set up a windbreak to avoid exposed to the sea wind. Seaside applications will require more frequent maintenance checks and cleaning. Be sure to keep the system free of salt build up by washing the unit with clean water at low pressure.
- The unit should be kept more than 27.6in (70cm) from the windbreak for easy air flow.
● The mounting rack of the outdoor unit shall be fastened with expansion bolts or as the manufacture recommends.
● If installing on a wall, ensure the secure installation regardless of the type of to prevent potential dropping that could damage the unit or cause injury.



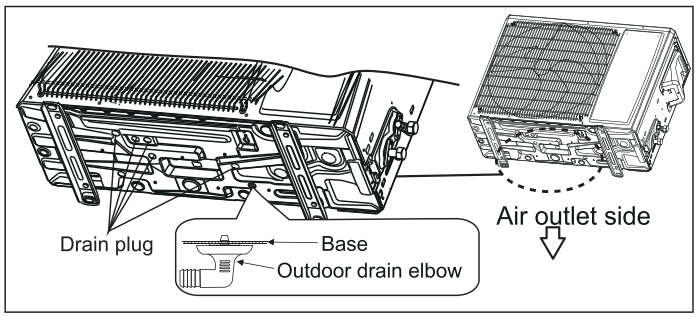


Outdoor Condensation Drainage(Heat pump type only)

When the unit is in heating mode, the outdoor unit can generate water that will drip from the bottom of the unit. To control the flow of that water, please use the provided drain elbow.

Installation:

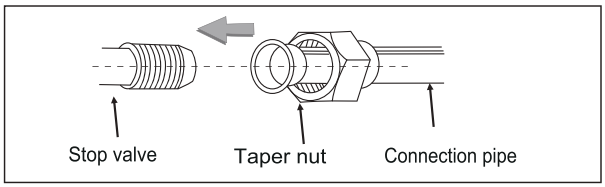
1).Install the drain elbow in the1in(Φ25mm) hole on the bottom of the base plate, and connect the drain hose to the elbow. Route the hose to a location so that the water formed in the outdoor unit can be drained out to a proper location.
2).In cold areas, do not use a the drain elbow or drain plugs on the outdoor unit. Plugging the holes will cause ice to buildup in the base pan which could result in damage to the unit. In cold climates, make sure the unit has plenty of space to drain and avoid snow drifts.

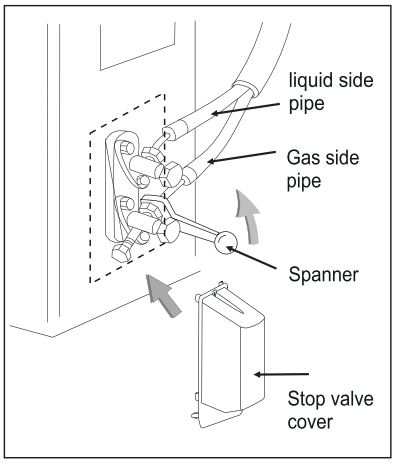


INSTALLATION GUIDE

Install the Connection Pipe

Additional refrigerant may be required based on the length of the refrigerant pipe. The chart below shows the requirements of refrigerant needed based of the piping length.
The additional refrigerant is required to ensure proper performance and prevent damage to the unit.
Apply thin layer of refrigeration oil to seating surfaces of flare being cautious not to get oil on the threads of the flare.





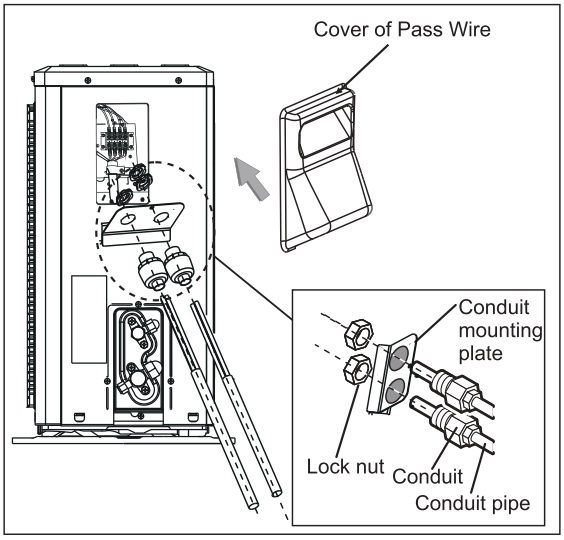
Size of unit	Length of connection pipe	Added refrigerant
All	9.8-25ft (3-7.6m)	Not needed
07K,9K, &12K	25-65.6ft (7.6-20m)	add 0.172oz/ft(16g/m)
18K, 24K, & 36K	25-98.4ft (7.6-30m)	add 0.258oz/ft(24g/m)

Note:
1.The flares shall not be reused. It is important to always re-flare pipes upon their removal and reinstallation.
2.After installation, check the stop valve cover for proper installation.

Wiring Connection

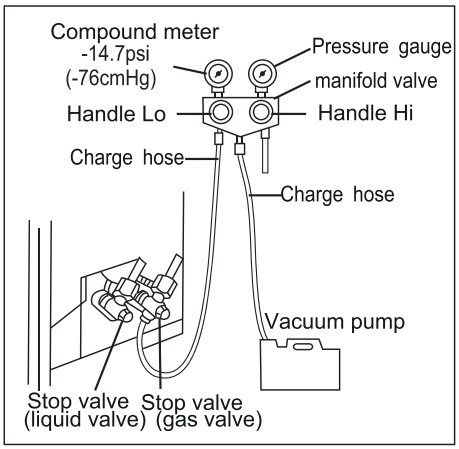
1.Loosen the screws and remove the E-parts cover from the unit.
2.Connect the cables respectively to the corresponding terminals of the terminal board of the outdoor unit (see the wiring diagram), using ring connectors.
3.Ground wire: Remove the grounding screw out of the electric bracket, connect the grounding wire end onto the grounding screw and screw it into the grounding hole.
4.Fix the cable securely with ring connectors
5.Put the E-parts cover back in its original place and fasten it with screws.

NOTE:
● This manual usually includes the wiring mode for the different kind of air conditioner. We cannot exclude the possibility that some special types of wiring diagrams are not included.
● The diagrams are for reference only. Please refer to the detailed wiring diagram adhered on the unit which you purchased.



Vacuuming

The refrigerant of R32 model must be evacuated (R410A vacuum pump can be used).
Before working on the air conditioner, remove the cover of the stop valve (gas and liquid valves, be sure to re-tighten it afterward to prevent the potential air leakage).
1. To prevent air leakage, make sure all flares are properly connected and torqued.
2. Connect the stop valve, charge hose, manifold valve, and vacuum pump to the unit.
3. Fully open the handle of the manifold valve and apply vacuum for at least 15 minutes and check that the compound vacuum gauge reads -14.7psi (-76cmHg).
4. After applying vacuum, fully open the stop valve with a hex wrench.
5. Check that both indoor and outdoor connections are free of air leakage.



INSTALLATION GUIDE

Check After Installation

● Electrical Safety Check
1. If the supply voltage is within tolerance.(90%~110% of the rated voltage)
2. If the indoor and outdoor units are properly wired.
3. If the grounding wire of the air conditioner is securely grounded.

● Installation Safety Check
1. If the unit is mounted properly and securely.
2. If the water drains smoothly from indoor unit to outdoor drain.
3. If the wiring and piping are correctly installed and free of leaks.
4. Check that no foreign matter or tools are left inside the unit.
5. Check the refrigerant pipeline and connections are properly insulated.

● Leak test of the refrigerant
Depending on the installation method, the following methods may be used to check for suspect leak,
on areas such as the connections of the outdoor unit and the cores of the cut-o valves and t-valves:
1.Bubble method: Apply of spray a uniform layer of soap water over the suspected leak spot and observe carefully for bubble.
2.Instrument method: Checking for leak by pointing the probe of the leak detector according to the instruction to the suspect points of leak.

Note:
Make sure that the ventilation is good before checking.

Test Operation

● Test Operation preparation:
1. Verify that all piping and wiring is properly connected.
2. Confirm that the valve at the gas side and the liquid-side are fully open.
3. Verify that power is turned on to the unit.
4. Install batteries in the remote control.

Note:
Make sure that the ventilation is good before testing.

● Test Operationmethod:
1. Turn on the power and push the ON/OFF switch button of the remote controller to start the air conditioner.
2. Select COOL or HEAT, adjust the SWING and other operation modes with the remote controller to verify proper operation.

● Attention:
1. For maintenance or scrap, please contact authorized service contractors.
2. Maintenance by unqualified person may cause injury or death.
3. Charge the air conditioner with R32 refrigerant, and maintain the air conditioner in strict accordance with manufacturer's requirements. The chapter is mainly focused on special maintenance requirements for appliance with R32 refrigerant.
4. Ask repairer to read after-sales technical service handbook for detailed information.

TROUBLESHOOTING

⚠ CAUTION

* Do not repair the air conditioner by yourself as wrong maintenance may cause electric shock or fire or explode, please contact the authorized service center and let the professionals conduct the maintenance, and checking the following items prior to contacting for maintenance can save your time and money.

Phenomenon	Troubleshooting
The air conditioner does not work.	● There might be power outages.→ Wait until power is restored. ● Power plug may be loose out from the socket. →The plug in the plug tightly. ● Power switch fuse may blow.→ Replace the fuse. ● The time for timing boot is yet to come. →Wait or cancel the timer settings.
The air conditioner can't run after the immediate start-up after it is shut down.	● If the air conditioner is turned on immediately after it is turned off, the protective delay switch will delay the operation for 3 to 5 minutes.
The air conditioner stops running after it starts up for a while.	● May have reached the setting temperature. → It is a normal function phenomenon. ● May be at a defrosting state. → It will automatically restore and run again after defrosting. ● Shutdown Timer may be set. → If you continue to use, please turn it on again.
The wind blows out, but the cooling/ heating effect is not good.	● Excessive accumulation of dust on filter, blocking at air inlet and outlet, and the excessively small angle of the louver blades all will affect the cooling and heating effect. → Please clean the filter, remove the obstacles at the air inlet and outlet and regulate the angle of the louver blades. ● Poor cooling and heating effect caused by doors and windows opening, and unclosed exhaust fan. →Please close the doors, windows, the exhaust fan, etc. ● Auxiliary heating function is not turned on while heating, which may lead to poor heating effect. →Turn on the auxiliary heating function. (only for models with auxiliary heating function) ● Mode setting is incorrect, and the temperature and wind speed settings are not appropriate. →Please re-select the mode, and set the appropriate temperature and wind speed.
The indoor unit blows out odor.	● The air conditioner itself does not have undesirable odor. If there is odor, it may be due to accumulation of the odor in the environment. →Clean the air filter or activate the cleaning function.

TROUBLESHOOTING

There is sound of running water during the running of air conditioner.	● When the air conditioner is started up or stopped, or the compressor is started up or stopped during the running, sometimes the "hissing" sound of running water can be heard. → This is the sound of the flow of the refrigerant, not a malfunction.
A slight "click" sound is heard at the of start-up or shut-down.	● Due to temperature changes, panel and other parts will swell, causing the sound of friction. → This is normal, not a fault.
The indoor unit makes abnormal sound.	● The sound of fan or compressor relay switched on or off. ● When the defrosting is started or stop running, it will create sound. →That is due to the refrigerant flows to reverse direction. They are not malfunctions. ● Too much dust accumulation on the air filter of the indoor unit may result in fluctuation of the sound. → Clean the air filters in time. ● Too much air noise when "Strong wind" is turned on. →This is normal, if feeling uncomfortable, please deactivate the "Strong wind" function.
There are water drops over the surface of the indoor unit.	● When ambient humidity is high, water drops will be accumulated around the air outlet or the panel, etc. →This is a normal physics phenomenon. ● Prolonged cooling run in open space produces water drops. →Close the doors and windows. ● Too small opening angle of the louver blades may also result in water drops at the air inlet. →Increase the angle of the louver blades.
During the cooling operation, the indoor unit outlet sometimes will blow out mist.	● When the indoor temperature and humidity are high, it happens sometimes. →This is because the indoor air is cooled rapidly. After it runs for some time, the indoor temperature and humidity will be reduced and the mist will disappear.

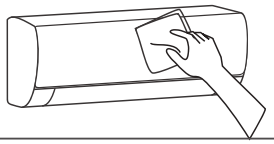
⚠ Immediately stop all operations and cut off the power supply , contact our Service center locally in following situations.

▲ Hear any harsh sound or smell any awful odor during running.
▲ Abnormal heating of power cable and plug occurs.
▲ The unit or remote controller has any impurity or water.
▲ Air switch or leakage protection switch is often disconnected.

MAINTENANCE & CLEANING

Clean the Panel

When the panel of the indoor unit is dirty, clean it with soft dry cloth or a cloth that is slightly dampened with water.



Clean the Air Filter

■ Remove the air filter

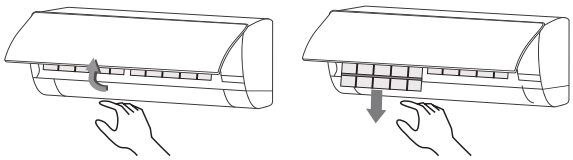
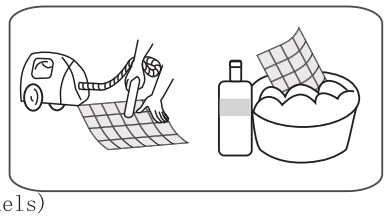


Fig A

1. Use both hands to open the front panel to gain access to the filters.
2. Gently release the air filter from the slot and remove.

■ **Clean the Air Filter**

Use a vacuum cleaner or water to rinse the filter clean. If the filter is very dirty (for example, with greasy dirt), clean it with warm water (below 113℉ (45℃)) with a mild detergent. Put the filter in a shady area to dry in the air.

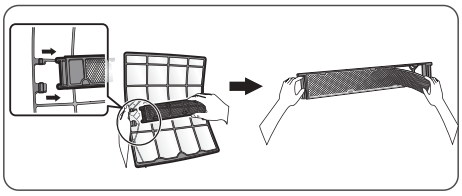


■ Clean or replacement the Activated carbon filter screen(Only for some models)

1.Cleaning: you can clean with the Air Filter;
2.Replacement: remove the filter from the filter frame and attach a new one.

Note:

1. Do not throw away the filter frame.
2. Reuse the filter frame when replacing the activated carbon filter screen. When attaching the filter, check that the filter is properly set in the tabs. Dispose of the old filter as non-flammable waste.



■ **Mount the Filter**

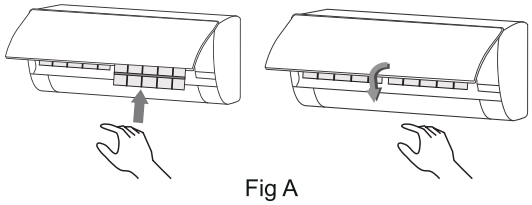


Fig A

Reinstall the dried filter in reverse order of removal, then gently close the front cover and lock the panel.

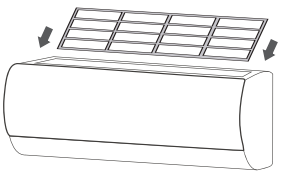


Fig B

Reinstall the dried filter in reverse order of removal.

Check Before Using

1. Make sure that all the air inlets and outlets of the units are unblocked.
2. Check whether the indoor unit drains properly.
3. Check the ground wire is securely grounded.
4. Check whether the remote-control batteries are installed and in proper operating condition.
5. Very that the outdoor unit is securely mounted and free from damage. If any issues, please contact our local contractor for inspection.

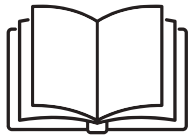
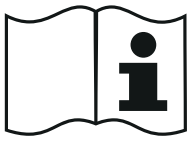
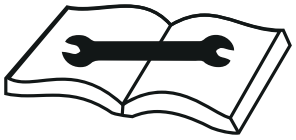
Maintain After Using

1. Turn off the power source of the air conditioner at the outdoor unit.
2. Clean the indoor unit panel and filter.
3. Remove the dust and debris from the outdoor unit.
4. Very that the outdoor unit is securely mounted and free from damage. If any issues, please contact our local contractor for inspection.

GENERAL SAFETY PRECAUTIONS

- Do not tilt the device to prevent spilled water from damaging it.
- Always empty the water tank before moving or lifting the unit.
- Children aged 8 and above, as well as individuals with reduced physical, sensory, or mental capabilities, should operate the device only under supervision. Children under 8 should not tamper with it.
- Use soft cloth for cleaning and avoid splashing water directly on it.
- Neutral detergents are recommended for cleaning the dehumidifier. Alcohol, gas, benzene, and other chemical solvents are prohibited for cleaning purposes.

WARNING
Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
Risk of Fire—Store in a well-ventilated room without continuously operating flames or other potential ignition. Do not pierce or burn.
Be aware that refrigerants may not contain an odour.


- WARNING – Risk of Fire. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Puncture Refrigerant Tubing.
- WARNING – Risk of Fire. Dispose of Properly In Accordance With Federal Or Local Regulations. Flammable Refrigerant Used.
- WARNING – Risk of Fire. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service This Product. All Safety Precautions Must Be Followed.
- WARNING – Risk of Fire due to Flammable Refrigerant Used. Follow Handling Instructions Carefully in Compliance with National Regulations.
- WARNING – Risk of Fire – Store in a Well-Ventilated Room Without Continuously Operating Flames or Other Potential Ignition Sources.
- WARNING – Risk of Fire – The Appliance Shall Be Installed, Operated, and Stored in a Room With a Floor Area Larger Than 4 m^2 (43 ft^2).

GENERAL SAFETY INSTRUCTIONS

Transportation, marking and storage for units that employ flammable refrigerants

1. General

The following information is provided for units that employ FLAMMABLE REFRIGERANTS.

2. Transport of equipment containing flammable refrigerants

Attention is drawn to the fact that additional transportation regulations may exist with respect to equipment containing flammable gas. The maximum number of pieces of equipment or the configuration of the equipment permitted to be transported together will be determined by the applicable transport regulations.

3. Marking of equipment using signs

Signs for similar appliances used in a work area are generally addressed by local regulations and give the minimum requirements for the provision of safety and/or health signs for a work location. All required signs are to be maintained and employers should ensure that employees receive suitable and sufficient instruction and training on the meaning of appropriate safety signs and the actions that need to be taken in connection with these signs.

The effectiveness of signs should not be diminished by too many signs being placed together. Any pictograms used should be as simple as possible and contain only essential details.

4. Disposal of equipment using flammable refrigerants

See national regulations.

5. Storage of equipment/appliances

The storage of the appliance should be in accordance with the applicable regulations or instructions,whichever is more stringent.

6. Storage of packed (unsold) equipment

Storage package protection should be constructed in such a way that mechanical damage to the equipment inside the package will not cause a leak of the REFRIGERANT CHARGE.

The maximum number of pieces of equipment permitted to be stored together will be determined by local regulations.

Requirements for operation,service and installation manuals of appliances using flammable refrigerants

Qualification of workers

The manual shall contain specific information about the required qualification of the working personnel for maintenance, service and repair operations. Every working procedure that affects safety means shall only be carried out by competent persons.

Examples for such working procedures are:

• breaking into the refrigerating circuit;

• opening of sealed components;

Competence of service personnel

1. General

Information of procedures additional to usual information for refrigerating appliance installation, repair, maintenance and decommission procedures is required when an appliance with FLAMMABLE REFRIGERANT is affected.

The training of these procedures is carried out by national training organisations or manufacturers that are accredited to teach the relevant national competency standards that may be set in legislation.

The achieved competence should be documented by a certificate.

2. Information and training

2.1) The training should include the substance of the following.

2.2) Information about the explosion potential of FLAMMABLE REFRIGERANTS to show that flammables may be dangerous when handled without care.

2.3) Information about POTENTIAL IGNITION SOURCES, especially those that are not obvious, such as lighters, light switches, vacuum cleaners, electric heaters.

2.4) Information about the different safety concepts:

- Unventilated-Safety of the appliance does not depend on ventilation of the housing.
- Switching off the appliance or opening of the housing has no significant effect on the safety.
- Nevertheless, it is possible that leaking refrigerant may accumulate inside the enclosure and flammable atmosphere will be released when the enclosure is opened.
- Ventilated enclosure-Safety of the appliance depends on ventilation of the housing.
- Switching off the appliance or opening of the enclosure has a significant effect on the safety.
- Care should be taken to ensure sufficient ventilation before.
- Ventilated room -Safety of the appliance depends on the ventilation of the room.
- Switching off the appliance or opening of the housing has no significant effect on the safety.
- The ventilation of the room shall not be switched off during repair procedures.

2.5) Information about refrigerant detectors:

- Principle of function, including influences on the operation.
- Procedures, how to repair, check or replace a refrigerant detector or parts of it in a safe way.
- Procedures, how to disable a refrigerant detector in case of repair work on the refrigerant carrying parts.

2.6) Information about the concept of sealed components and sealed enclosures according to IEC60079-15:2010.

2.7) Information about the correct working procedures:

a) Commissioning

- Ensure that the floor area is sufficient for the REFRIGERANT CHARGE or that the ventilation duct is assembled in a correct manner.
- Connect the pipes and carry out a leak test before charging with refrigerant.
- Check safety equipment before putting into service.

b) Maintenance

- Portable equipment shall be repaired outside or in a workshop specially equipped for servicing units with FLAMMABLE REFRIGERANTS.
- Ensure sufficient ventilation at the repair place.
- Be aware that malfunction of the equipment may be caused by refrigerant loss and a refrigerant leak is possible.
- Discharge capacitors in a way that won't cause any spark. The standard procedure to short circuit the capacitor terminals usually creates sparks.
- Reassemble sealed enclosures accurately. If seals are worn, replace them.
- Check safety equipment before putting into service.

c) Repair

- Portable equipment shall be repaired outside or in a workshop specially equipped for servicing units with FLAMMABLE REFRIGERANTS.
- Ensure sufficient ventilation at the repair place.
- Be aware that malfunction of the equipment may be caused by refrigerant loss and a refrigerant leak is possible.

• Discharge capacitors in a way that won't cause any spark.
• When brazing is required, the following procedures shall be carried out in the right order:
Remove the refrigerant. If the recovery is not required by national regulations, drain the refrigerant to the outside. Take care that the drained refrigerant will not cause any danger. In doubt, one person should guard the outlet. Take special care that drained refrigerant will not float back into the building.
--Evacuate the refrigerant circuit.
--Purge the refrigerant circuit with nitrogen for 5 min (not required for A2L REFRIGERANTS).
--Evacuate again (not required for A2L REFRIGERANTS).
--Remove parts to be replaced by cutting, not by flame.
--Purge the braze point with nitrogen during the brazing procedure.
--Carry out a leak test before charging with refrigerant.
• Reassemble sealed enclosures accurately. If seals are worn, replace them.
• Check safety equipment before putting into service.
d) Disposal
• Ensure sufficient ventilation at the working place.
• Remove the refrigerant. If the recovery is not required by national regulations, drain the refrigerant to the outside. Take care that the drained refrigerant will not cause any danger. In doubt, one person should guard the outlet. Take special care that drained refrigerant will not float back into the building.
• When flammable refrigerants are used,
--evacuate the refrigerant circuit.
--purge the refrigerant circuit with oxygen free nitrogen.
--evacuate again. (not required for A2L refrigerants);
--cut out the compressor and drain the oil.

Information on servicing

1. General

The manual shall contain specific information for service personnel according.

2. Checks to the area

Prior to beginning work on systems containing FLAMMABLE REFRIGERANTS, safety checks are necessary to ensure that the risk of ignition is minimised.
For repair to the REFRIGERATING SYSTEM

3. Work procedure

Work shall be undertaken under a controlled procedure so as to minimise the risk of a flammable gas or vapour being present while the work is being performed.

4. General work area

All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided.

5. Checking for presence of refrigerant

The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i. e. non-sparking, adequately sealed or intrinsically safe.

6. Presence of fire extinguisher

If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO2 fire extinguisher adjacent to the charging area.

a) Commissioning

- Ensure that the floor area is sufficient for the REFRIGERANT CHARGE or that the ventilation duct is assembled in a correct manner.
- Connect the pipes and carry out a leak test before charging with refrigerant.
- Check safety equipment before putting into service.

b) Maintenance

- Portable equipment shall be repaired outside or in a workshop specially equipped for servicing units with FLAMMABLE REFRIGERANTS.
- Ensure sufficient ventilation at the repair place.
- Be aware that malfunction of the equipment may be caused by refrigerant loss and a refrigerant leak is possible.
- Discharge capacitors in a way that won't cause any spark. The standard procedure to short circuit the capacitor terminals usually creates sparks.
- Reassemble sealed enclosures accurately. If seals are worn, replace them.
- Check safety equipment before putting into service.

c) Repair

- Portable equipment shall be repaired outside or in a workshop specially equipped for servicing units with FLAMMABLE REFRIGERANTS.
- Ensure sufficient ventilation at the repair place.
- Be aware that malfunction of the equipment may be caused by refrigerant loss and a refrigerant leak is possible.
- Discharge capacitors in a way that won't cause any spark.
- When brazing is required, the following procedures shall be carried out in the following order:

--Safely remove the refrigerant following local and national regulations. If the recovery is not required by national regulations, drain the refrigerant to the outside. Take care that the drained refrigerant will not cause any danger. In doubt, one person should guard the outlet. Take special care that drained refrigerant will not float back into the building;

d) Decommissioning

- If the safety is affected when the equipment is putted out of service, the REFRIGERANT CHARGE shall be removed before decommissioning.
- Ensure sufficient ventilation at the equipment location.
- Be aware that malfunction of the equipment may be caused by refrigerant loss and a refrigerant leak is possible.
- Discharge capacitors in a way that won't cause any spark.
- Remove the refrigerant. If the recovery is not required by national regulations, drain the refrigerant to the outside. Take care that the drained refrigerant will not cause any danger. In doubt,one person should guard the outlet. Take special care that drained refrigerant will not float back into the building.
- When FLAMMABLE REFRIGERANTS except A2L REFRIGERANTS are used,

--Evacuate the refrigerant circuit.

7. No ignition sources

No person carrying out work in relation to a REFRIGERATING SYSTEM which involves exposing any pipe work shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

8. Ventilated area

Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

9. Checks to the refrigerating equipment

Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance.
The following checks shall be applied to installations using.

FLAMMABLE REFRIGERANTS:

--the actual REFRIGERANT CHARGE is in accordance with the room size within which the refrigerant containing parts are installed;

--the ventilation machinery and outlets are operating adequately and are not obstructed;

--if an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant;

--marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected;

--refrigerating pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

10. Checks to electrical devices

Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used. This shall be reported to the owner of the equipment so all parties are advised.

Initial safety checks shall include:

• that capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;

• that no live electrical components and wiring are exposed while charging, recovering or purging the system;

• that there is continuity of earth bonding.

11. Repairs to sealed components

1) During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc. If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.

2) Sealed electrical components shall be replaced.

12. Repair to intrinsically safe components

Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use. Intrinsically safe components must be replaced.

Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

13. Cabling

Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

14. Detection of flammable refrigerants

Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used. The following leak detection methods are deemed acceptable for all refrigerant systems. Electronic leak detectors may be used to detect refrigerant leaks but, in the case of FLAMMABLE REFRIGERANTS, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.)

Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.

Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25 % maximum) is confirmed.

Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

If a leak is suspected, all naked flames shall be removed/extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. Removal of refrigerant shall be according to Removal and evacuation.

15. Removal and evacuation

When breaking into the refrigerant circuit to make repairs -or for any other purpose- conventional procedures shall be used. However, for flammable refrigerants it is important that best practice be followed, since flammability is a consideration.

The following procedure shall be adhered to:
--safely remove refrigerant following local and national regulations;
--purge the circuit with inert gas(optional for A2L);
--evacuate(optional for A2L);
-- continuously flush or purge with inert gas when using flame to open circuit ; and
--open the circuit.
The refrigerant charge shall be recovered into the correct recovery cylinders if venting is not allowed by local and national codes. For appliances containing flammable refrigerants, the system shall be purged with oxygen-free nitrogen to render the appliance safe for flammable refrigerants. This process might need to be repeated several times. Compressed air or oxygen shall not be used for purging refrigerant systems. For appliances containing flammable refrigerants, refrigerants purging shall be achieved by breaking the vacuum in the system with oxygen-free nitrogen and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum (optional for A2L). This process shall be repeated until no refrigerant is within the system (optional for A2L). When the final oxygen-free nitrogen charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.
The outlet for the vacuum pump shall not be close to any potential ignition sources, and ventilation shall be available.

16. Charging procedures

In addition to conventional charging procedures, the following requirements shall be followed.

- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them.
- Cylinders shall be kept in an appropriate position according to the instructions.
- Ensure that the REFRIGERATING SYSTEM is earthed prior to charging the system with refrigerant.
- Label the system when charging is complete (if not already).
- Extreme care shall be taken not to overfill the REFRIGERATING SYSTEM. Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

17. Decommissioning

Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant.
It is essential that electrical power is available before the task is commenced.
a) Become familiar with the equipment and its operation.
b) Isolate system electrically.
c) Before attempting the procedure, ensure that:

- Mechanical handling equipment is available, if required, for handling refrigerant cylinders;
- All personal protective equipment is available and being used correctly;
- The recovery process is supervised at all times by a competent person;
- Recovery equipment and cylinders conform to the appropriate standards.

d) Pump down refrigerant system, if possible.
e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
f) Make sure that cylinder is situated on the scales before recovery takes place.
g) Start the recovery machine and operate in accordance with instructions.
h) Do not overfill cylinders (no more than 80 % volume liquid charge).
i) Do not exceed the maximum working pressure of the cylinder, even temporarily.
j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
k) Recovered refrigerant shall not be charged into another REFRIGERATING SYSTEM unless it has been cleaned and checked.

18. Labelling

Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant. The label shall be dated and signed. For appliances containing FLAMMABLE REFRIGERANTS, ensure that there are labels on the equipment stating the equipment contains FLAMMABLE REFRIGERANT.

19. Recovery

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely. When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i. e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure-relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.
The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of the flammable refrigerant. If in doubt, the manufacturer should be consulted. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition.
The recovered refrigerant shall be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.
If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant.
The compressor body shall not be heated by an open flame or other ignition sources to accelerate this process. When oil is drained from a system, it shall be carried out safely.

WARRANTY & CONTACT

We're Here to Support You

At Waykar, your satisfaction matters. If you have questions about your product, need assistance, or require replacement parts, our customer support team is ready to help.
Email: support@waykar.com | Phone: (213) 895-4871

Manufacturer's Warranty

All Waykar products are covered by a 12-month limited manufacturer's warranty from the date of purchase. This warranty applies to products purchased directly from Waykar or through authorized retailers. An order invoice or proof of purchase may be required when requesting service.

Extend Your Warranty by 1 Year

Register your product on our official website to enjoy an additional 12 months of warranty coverage—at no extra cost.

How to register:

Visit www.waykar.com and complete the product registration form. Please include your Order ID and Date of Purchase, if applicable.

What Is Not Covered

The warranty does not cover damage resulting from improper use or handling, including but not limited to:

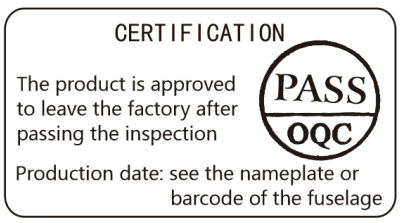
1. Failing to follow the instructions in the manual.
2. Purposeful mishandling of the device.
3. Damaging the device through violent impact.
4. Exposing the device to liquids or infiltrating foreign particles.
5. Unauthorized modification or overhauling of the device.
6. Damage from placing the device upside down.

Normal wear and tear is not covered under warranty.

WAYKAR Office

- 221 York Rd, Blacksburg, SC 29702 USA
- Email: **support@waykar.com**
- Tel: **(213)-895-4871**
- Live Chat: **www.waykar.com**
- 24/7 Full-Time Response

*Have your Order Number ready before contacting customer support.



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Feel free to tag us when you share a snap on your social media.