

BULLETPROOF AC

BUILT TO PERFORM. PROVEN TO LAST.

R-32 MINI SPLIT

INSTALLATION & SERVICE MANUAL

MODEL SIZES: 1, 1.5, AND 1 TONS



FL LOCAL INVENTORY
AND SUPPORT



PROVEN RELIABLE
PERFORMANCE



CONTRACTOR-FRIENDLY
DESIGN

WWW.BULLETPROOFAC.COM
941-599-8999



A MESSAGE FROM

BULLETPROOF AC

BUILT TO PERFORM. PROVEN TO LAST.

At BulletProof AC, we're not just another HVAC brand — we're Florida born and Florida built. For over 25 years, our team has lived and worked in the same heat, humidity, and unpredictable weather that challenge your systems every day. That's why we engineer every product with one goal in mind: to outperform and outlast in the toughest conditions.

We take pride in crafting top-of-the-line HVAC equipment that combines durability, performance, and efficiency. Each unit is designed, tested, and refined right here in Florida to meet the highest standards of quality and reliability. Because when it comes to comfort, we know there's no room for compromise.

At the end of the day, we care about the people behind the systems — the technicians, contractors, and homeowners who rely on us to keep Florida cool. From our family to yours, thank you for trusting BulletProof AC to deliver HVAC products that truly live up to their name.

Sincerely,

The BulletProof AC Team

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SAFETY PRECAUTIONS

SAFETY RULES AND RECOMMENDATIONS FOR THE INSTALLER

1. Read this manual carefully before operating the unit
2. Keep children away from the work area during installation. Serious injury or equipment damage may occur.
3. Make sure that the base of the outdoor unit is firmly fixed.
4. Do not allow air or other non-condensables to enter the refrigerant circuit. After installation or relocation, check the system for refrigerant leaks.
5. Carry out a test cycle after installing the air conditioner and record the operating data.
6. Protect the indoor unit with a properly rated fuse or circuit breaker sized for the unit's maximum input current.
7. Verify that the supply voltage matches the unit nameplate rating. If the unit is cord-connected, make sure the plug is fully inserted into a properly rated receptacle. If the unit is hardwired, install it in accordance with the wiring diagram and all applicable codes.
8. If the unit is cord-connected, use only a properly rated receptacle. If the receptacle is not suitable, have a qualified electrician replace it.
9. Provide an all-pole disconnect in the fixed wiring as required by local code.
10. Installation and service must be performed by qualified personnel in accordance with national and local codes.
11. Do not install the unit within 20 in. (50 cm) of flammable materials or pressurized containers such as aerosol cans.
12. If the unit is installed in an area with inadequate ventilation, take precautions to prevent leaked refrigerant from accumulating and creating a fire hazard.
13. The packaging materials are recyclable and should be disposed of in the separate waste bins. At the end of its service life, dispose of the unit through an authorized recycling or hazardous-waste collection facility, as required by local regulations.
14. Use this air conditioner only as described in this manual. These instructions are not intended to cover every possible condition and situation. As with any electrical household appliance, common sense and caution are therefore always recommended for installation, operation and maintenance.
15. The appliance must be installed in accordance with applicable national regulations.
16. Disconnect all power supplies before accessing electrical terminals.
17. The appliance shall be installed in accordance with national wiring regulations.
18. This appliance can be used by children aged from 8 years and above and persons with reduced physical,

sensory or mental capabilities or lack of experience and knowledge unless they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

19. Do not attempt to install this air conditioner yourself. Installation must be performed by a qualified HVAC technician.
20. Cleaning and maintenance must be performed by qualified service personnel. In all cases, disconnect power to the unit before cleaning or maintenance.
21. Do not disconnect power by removing the plug while the unit is operating.
22. This unit is designed for residential comfort cooling and heating applications only and must not be used for any other purpose, such as for drying clothes, cooling food, etc.
23. Operating the air conditioner without the air filter installed could cause an excessive accumulation of dust and debris on internal components with possible subsequent failures.
24. The unit must be installed by a qualified technician, who must verify proper grounding and provide a properly sized circuit breaker in accordance with code.
25. The batteries in the remote controller must be recycled or disposed of properly. Do not dispose of batteries with household trash. Dispose of used batteries in accordance with local regulations.
26. Do not remain in the direct path of cold airflow for extended periods. Extended direct exposure to cold airflow may be harmful, especially for children, older adults, and individuals in poor health.
27. If the unit emits smoke or a burning odor, disconnect power immediately and contact an authorized service technician.
28. Continued operation after smoke or a burning odor is detected may result in fire or electric shock.
29. Repairs must be performed only by the manufacturer or an authorized service provider. "Improper repairs may result in electric shock, fire, or equipment damage.
30. Turn off the disconnect or circuit breaker if the unit will not be used for an extended period. Adjust the louvers for proper airflow distribution during operation.
31. Adjust the louvers downward in heating mode and upward in cooling mode.
32. Ensure that the appliance is disconnected from the power supply when it will remain inoperative for a long period and before carrying out any cleaning or maintenance.
33. Set the temperature within the recommended operating range.

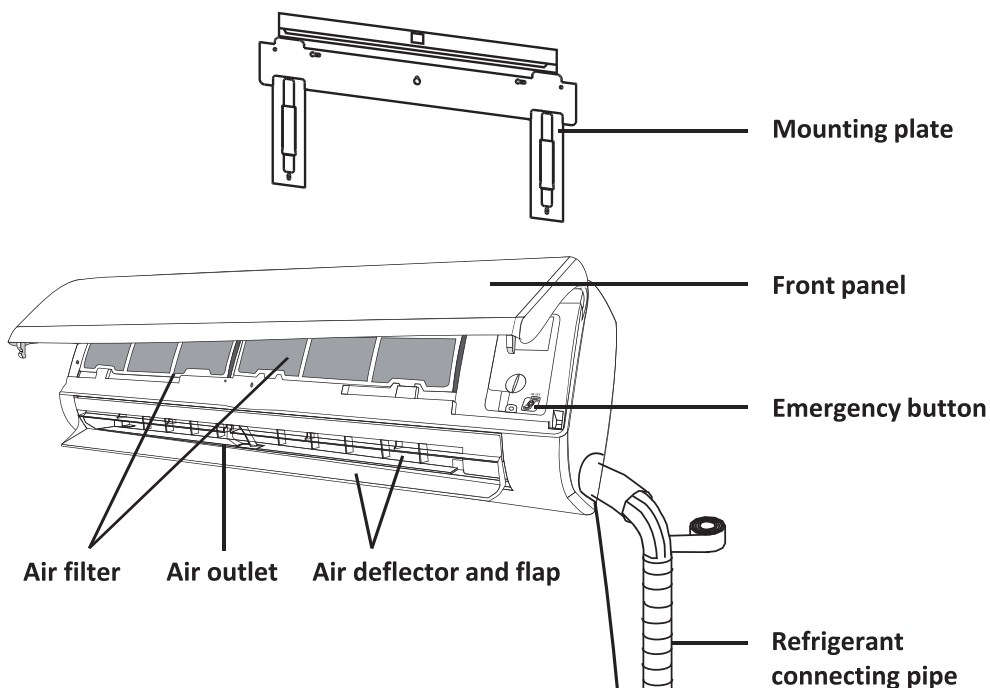
SAFETY PRECAUTIONS

SAFETY RULES AND PROHIBITIONS

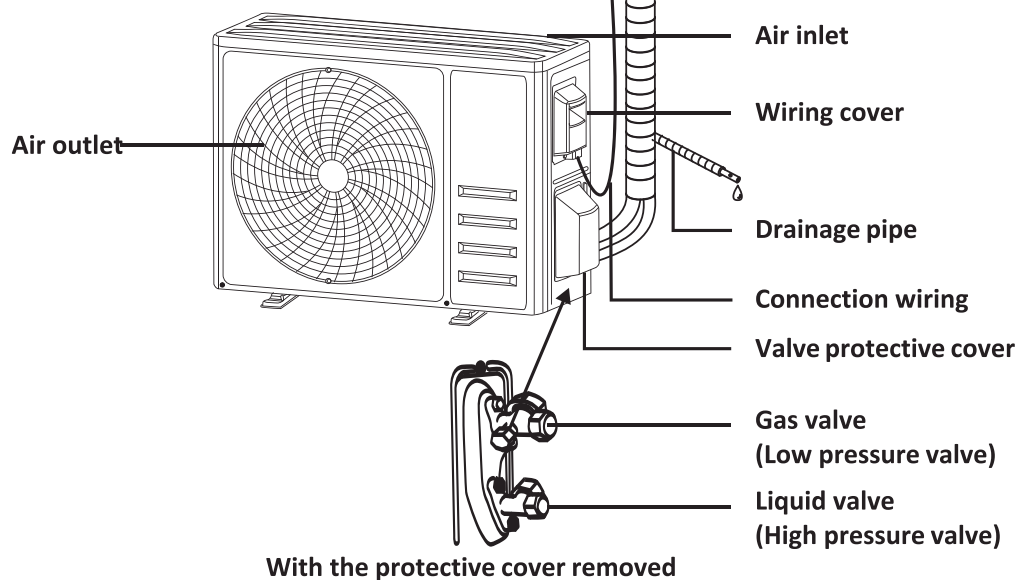
1. Do not bend, tug or compress the power cord since this could damage it. A damaged power cord can cause electric shock or fire. A damaged power cord must be replaced only by qualified service personnel.
2. Do not use extension cords, power strips, or plug adapters.
3. Do not touch the appliance when barefoot or parts of the body are wet or damp.
4. Do not obstruct the air inlet or outlet of the indoor or the outdoor unit. Blocking these openings reduces operating efficiency and may cause malfunction or damage.
5. Do not modify the unit.
6. Do not install the unit in areas containing combustible gas, oil mist, sulfur compounds, or other corrosive contaminants.
7. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
8. Do not climb onto or place any heavy or hot objects on top of the appliance.
9. Do not leave windows or doors open for long when the air conditioner is operating.
10. Do not direct the airflow onto plants or animals.
11. Prolonged direct exposure to cold airflow of the air conditioner could have negative effects on plants and animals.
12. Do not allow the air conditioner to come into contact with water. The electrical insulation could be damaged, which may result in electric shock.
13. Do not climb onto or place any objects on the outdoor unit.
14. Never insert a stick or similar object into the appliance. It could cause injury.
15. Children should be supervised to ensure that they do not play with the appliance.
16. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

NAME OF PARTS

INDOOR UNIT



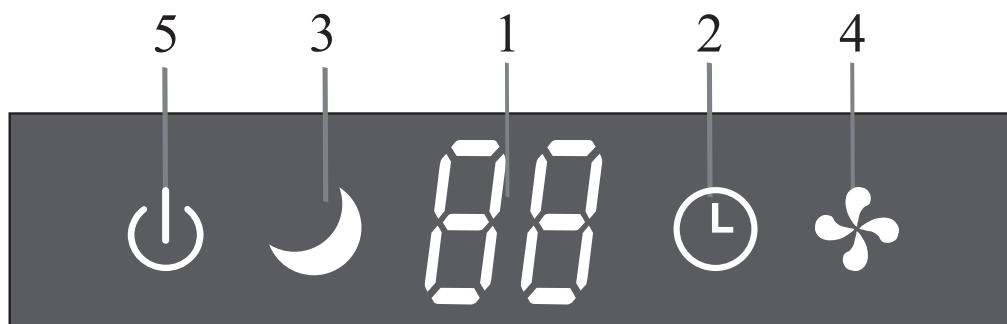
OUTDOOR UNIT



NOTE: The actual product may differ slightly from this illustration. Refer to the actual unit.

NAME OF PARTS

INDOOR DISPLAY



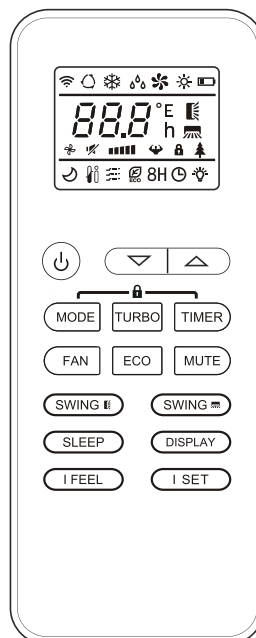
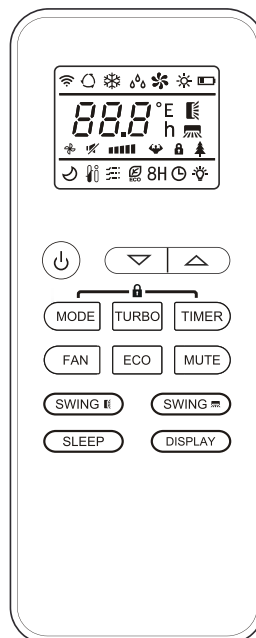
No.	LED	Function
1		Indicator for Timer, temperature and Error codes.
2	 	Lights up during Timer operation.
3		SLEEP mode
4		The symbol appears when the unit is turned on, and disappear when the unit is turned off.
5		The symbol appears when power on.

 The shape and position of switches and indicators may be different according to the model, but their function is the same.

REMOTE CONTROL

REMOTE CONTROL DISPLAY

No.	Symbols	Meaning
1		Battery indicator
2		Auto Mode
3		Cooling Mode
4		Dry Mode
5		Fan only Mode
6		Heating Mode
7		ECO Mode
8		Timer
9		Temperature indicator
10		Fan speed: Auto/ low/ low-mid/ mid/ mid-high/ high
11		Mute function
12		TURBO function
13		Up-down auto swing
14		Left-right auto swing
15		SLEEP function
16		Health function
17		I FEEL function
18	8H	8°C heating function
19		Signal indicator
20		Gentle wind
21		Child-Lock
22		Display ON/OFF



The display and some functions of the remote control may vary according to the model.

REMOTE CONTROL

NO.	BUTTON	FUNCTION
1		To turn on/off the air conditioner.
2	^	To increase temperature, or Timer setting hours.
3	v	To decrease temperature, or Timer setting hours.
4	MODE	To select the mode of operation (AUTO, COOL, DRY, FAN, HEAT).
5	ECO	To activate/deactivate the ECO function.
		Long press to activate/deactivate the 8°C heating function (depending on model).
6	TURBO	To activate/deactivate the TURBO function.
7	FAN	Selects fan speed: Auto, Low, Medium, or High.
8	TIMER	To set the time for timer on/off.
9	SLEEP	Turns Sleep mode on or off.
10	DISPLAY	To turn the LED display on or off
11	SWING 	To stop or start horizontal louver swing to set the desired air flow direction.
12	SWING 	To stop or start vertical louver swing to set the desired air flow direction.
13	I FEEL	Turns the I FEEL function on or off
14	MUTE	Turns the MUTE function on or off
		Long press to activate/deactivate the GEN function (depending on model).
15	MODE + TIMER	To activate/deactivate the CHILD-LOCK function.
16	SWING + SWING  + 	To activate/deactivate the SELF-CLEAN function (depending on models).
17	FAN + MUTE	To activate/deactivate the GENTLE WIND function (depending on models).
18	SLEEP + DISPLAY	To activate/deactivate the HEALTH function (depending on models).
19	I SET	To save the current temperature, mode, and fan settings.

 The display and some functions of the remote control may vary according to the model.

 The shape and position of buttons and indicators may vary according to the model, but their function is the same.

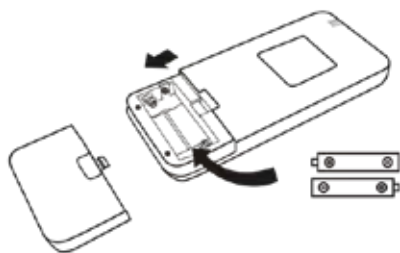
REPLACEMENT OF BATTERIES

Slide the battery cover off the back of the remote control in the direction of the arrow.

Install the batteries according to the polarity markings (+/–) shown in the battery compartment.

Reinstall the battery cover by sliding it into place.

- ⚠ Use two AAA LR03 1.5 V batteries. Do not use rechargeable batteries. Replace the old batteries with new ones of the same type when the display is no longer legible. Do not dispose of batteries with household trash. Recycle or dispose of them in accordance with local regulations.



- ⚠ On some models, when batteries are installed for the first time, the remote can be set for cooling-only or heat-pump operation. After installing the batteries, turn the remote off and follow the steps below.
1. Press and hold the MODE button, until the (✱) icon flashes, to set the Cooling-only mode.
 2. Press and hold the MODE button, until the (☀) icon flashes, to set the Heat pump mode.

NOTE: If you set the remote control in cooling mode, it will not be possible to activate the heating function in units with a heat pump. To reset the remote, remove the batteries and reinstall them.

- ⚠ For some models of the remote controller, you can set the temperature display to °C or °F.
1. Press and hold the TURBO button for more than 5 seconds to enter temperature unit selection mode;
 2. Press and hold the TURBO button until the display changes between °C and °F.
 3. Then release the button and wait for 5 seconds, the selected temperature unit will be saved automatically.

NOTE:

Direct the remote control toward the air conditioner.

Check that there are no objects between the remote control and the signal receiver in the indoor unit.

Do not leave the remote control in direct sunlight.

Keep the remote control at least 3 ft (1 m) away from televisions and other electrical appliances.

REMOTE CONTROL

COOLING MODE

COOL ❄️

Cooling mode lowers the room temperature and removes moisture from the air. To activate the cooling function (COOL), press the MODE button until the symbol ❄️ appears on the display. Use the ^ or v button to set the temperature.

FAN MODE

FAN 🌀

Fan mode, air ventilation only. To set the FAN mode, press MODE until 🌀 appears on the display.

DRY MODE

DRY 💧

This function reduces the humidity of the air to make the room more comfortable. To set the DRY mode, press MODE until 💧 appears in the display. The unit will automatically select the preset operating conditions.

AUTO MODE

AUTO 🔄

To set the AUTO mode, press MODE until 🔄 appears on the display. In AUTO mode the operating mode is selected automatically according to the room temperature.

HEATING MODE

HEAT ☀️

The heating function allows the air conditioner to heat the room. To activate the heating function (HEAT), press the MODE button until the symbol ☀️ appears on the display. With the button ^ or v set a temperature higher than that of the room.



During heating operation, the system may enter a defrost cycle. During defrost, the indoor fan stops. When defrost is complete, the unit automatically returns to heating mode.



In heating mode, press the ECO button 10 times within 8 seconds to start a forced defrost cycle. This function accelerates defrosting of frost or ice on the outdoor coil.

FAN SPEED FUNCTION (FAN BUTTON)

FAN 🌀

Press the FAN button to set the fan speed. The fan speed cycles through AUTO / MUTE / LOW / LOW-MID / MID / MID-HIGH / HIGH / TURBO.



CHILD-LOCK FUNCTION

1. Press and hold the MODE and TIMER buttons together to activate this function.
2. Press and hold the buttons again to turn the function off.
3. When this function is enabled, all buttons are locked.

TIMER FUNCTION - TIMER ON

TIMER

To automatically switch on the appliance. When the unit is off, you can set the TIMER ON. To set the time of automatic turn on as below:

- Press the TIMER button once to set the switch-on,  and [6:00] will appear on the remote display and will flash.
- Press ^ or v button to set desired 'Timer-on' time. Each time you press the button, the time increases/decreases by half an hour between 0 and 10 hours and by one between 10 and 24 hours.
- Press the TIMER button a second time to confirm.
- After setting TIMER ON, select the desired operating mode (Cool/Heat/Auto/Fan/Dry), by pressing the MODE button. And set the fan speed, by pressing the FAN button. And press ^ or v to set the temperature.
- CANCEL it by pressing the TIMER button.

TIMER FUNCTION - TIMER OFF

TIMER

To automatically switch off the appliance. When the unit is turned on, you can set the TIMER OFF. To set the automatic shutoff time:

- Confirm the appliance is ON.
- Press the TIMER button once to set TIMER OFF. Press ^ or v to set the needed timer.
- Press the TIMER button a second time to confirm.
- CANCEL it by pressing the TIMER button.

Note: All programming should be operated within 5 seconds, otherwise the setting will be canceled.

SWING FUNCTION



1. Press the SWING button to start louver swing.
 - Press  to activate the horizontal louvers to swing up and down, the  will appear on the remote display. Press again to stop the swing movement at the current angle.
 - Press  to activate the vertical louvers to swing from left to right, the  will appear on the remote display. Press again to stop the swing movement at the current angle.
2. If the vertical air vanes below the horizontal louver are adjustable by hand, you may direct airflow left or right manually.
3. For some inverter heating models, press horizontal SWING and vertical SWING buttons together at the same time, it will activate the Self-Clean function.



Make this adjustment only when the unit is turned off.



Do not move the louvers by hand. Doing so may damage the louver mechanism.



Never put fingers, sticks or other objects into the air inlet or outlet vents. Accidental contact with internal components may cause injury or equipment damage.

REMOTE CONTROL

TURBO FUNCTION

TURBO 

To activate turbo function, press the TURBO button, and  will appear on the display. Press again to cancel this function. In COOL/ HEAT mode, when you select TURBO feature, the unit will enter rapid cooling or rapid heating mode, and operate at the highest fan speed for rapid cooling or heating.

MUTE FUNCTION

MUTE 

Press the MUTE button to activate this function, and  will appear on the remote display. Do it again to deactivate this function.

2. When MUTE is enabled, the remote controller will display the auto fan speed, and the indoor unit will operate at the lowest fan speed for quieter operation

3. If you press the FAN or TURBO button, the MUTE function will be canceled. MUTE mode cannot be activated in DRY mode.

SLEEP FUNCTION

SLEEP 

Activates the preset sleep program. Press SLEEP button to activate the SLEEP function, and appears  on the display. Press again to cancel this function. After 10 hours of operation in SLEEP mode, the air conditioner will change to the previously set mode.

I FEEL FUNCTION (OPTIONAL)

I FEEL 

Press the I FEEL button to activate this function, the  will appear on the remote display. Do it again to deactivate this function. This function enables the remote control to measure the temperature at its current location, and send this signal to the air conditioner to optimize the temperature around you and improve comfort around the remote's location. The I FEEL function will automatically deactivate after 8 hours.

ECO FUNCTION

ECO 

In this mode the appliance automatically adjusts operation to reduce energy consumption. Press the ECO button, the  appears on the display, and the appliance will run in ECO mode. Press again to cancel it. Note: The ECO function is available in both COOLING and HEATING modes.

DISPLAY FUNCTION (INDOOR DISPLAY)

DISPLAY

Turn the indoor-unit LED display on or off. Press DISPLAY button to switch off the LED display on the panel. Press again to switch on the LED display.

GEN FUNCTION (OPTIONAL)

1. Turn on the indoor unit, then press and hold the MUTE button for 3 seconds to activate. Do it again to deactivate this function.
2. Under this function, short press MUTE button to select GEN mode level L3, L2, L1, or OFF.
3. Select OFF and wait 2 seconds to exit.

NOTE: If the indoor unit displays "0A", use the remote to increase the GEN mode level, and the compressor will restart after stopping for 3 minutes.

SELF-CLEAN FUNCTION (OPTIONAL)

This function is available only on certain inverter heat pump models. To activate this function, first turn off the indoor unit and then press  and  button at the same time toward the indoor unit, until you hear a beep, and [AC] will appear on the remote controller display and the indoor LED display.

1. This function helps clean and dry the indoor evaporator coil by removing accumulated moisture and debris.
2. This function runs for about 30 minutes. It will return to the previous operating mode. You can press  button to cancel this function during the process. You will hear 2 beeps when it's finished or canceled.

 It's normal if there is some noise during this process, as plastic materials expand with heat and contract with cold.

 We suggest operating this function at the following ambient conditions to avoid protective shutdowns.

Indoor unit	Temp < 86°F
Outdoor unit	41°F < Temp < 86°F

 We recommend running this function every 3 months.

46°F HEATING FUNCTION (OPTIONAL)

1. Press and hold the ECO button over 3 seconds to activate this function, and 46°F will appear on the remote display. Do it again to deactivate this function.
2. This function will automatically start heating mode when the room temperature is lower than 46°F, and it will return to standby if the temperature reaches 48°F.
3. If the room temperature is higher than 64°F, the appliance will cancel this function automatically.

GENTLE WIND FUNCTION (OPTIONAL)

1. Turn on the indoor unit, and change to COOL mode, then press and hold FAN and MUTE buttons together 3 seconds to activate this function,  will appear on the display. Do it again to deactivate it.
2. This function automatically closes the vertical louvers to provide softer, less direct airflow.

HEALTH FUNCTION (OPTIONAL)

1. First, turn on the indoor unit. Long press SLEEP and DISPLAY buttons together 3 seconds to activate this function,  will appear on the display. Do it again to deactivate it.
2. When the HEALTH function is enabled, the unit activates the available air-treatment feature for that model, such as the ionizer, plasma device, bipolar ionizer, or UVC light.

I SET FUNCTION (OPTIONAL)

Remember your favorite setting and recall it with one button press. Remember the favorite setting:

1. In each mode (COOLING/ HEATING/ FAN/ DRY), long press " I SET " button over 3 seconds to remember it;
2. When 'AU' flashes on the remote display, the setting has been saved.

* Press any button to quit, and Repeat Steps 1 and 2 to overwrite the saved setting.

To recall the favorite setting:

1. In each mode (COOLING/ HEATING/ FAN/ DRY), press the I SET button once to activate the saved setting.
2. The appliance will run as your favorite setting and you will see [AU] flashing on the remote controller;
3. Press it again or other buttons to cancel this function.

OPERATING GUIDE

- ⚠ Operating the unit outside the temperature range below may activate protection mode and prevent operation. Operate the unit only within the temperature ranges listed below.

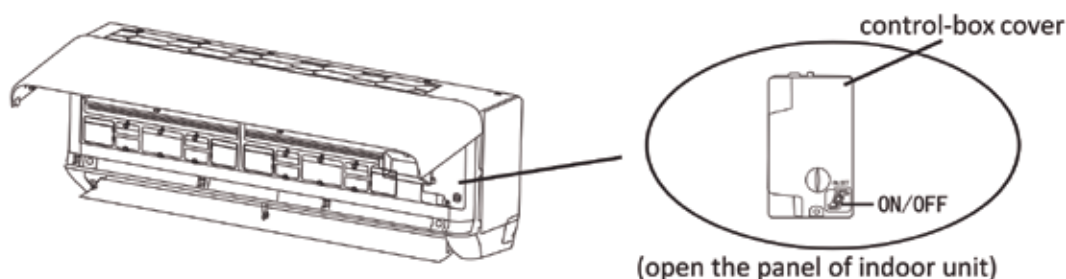
Inverter air conditioner:

TEMPERATURE / MODE	HEATING	COOLING	DRY
Room Temperature	32°F ~ 80°F	63°F ~ 90°F	
Outdoor Temperature	5°F ~ 75°F (Low temperature heating: 5°F ~ 75°F)	T1 climate: 54°F ~ 122°F	
		T3 climate: 54°F ~ 122°F	

The unit includes compressor protection that prevents immediate restart. After shutdown or a mode change, the compressor may not restart for up to 3 minutes.

- ⚠ **Characteristics of heating operation (applicable to heat pump models)**
Preheating: When heating starts, the indoor unit may delay airflow for 2 to 5 minutes during preheat. Warm air will be delivered after preheating is complete.
Defrosting: During heating, when the outdoor unit frosts, the system automatically enters defrost mode to maintain heating performance. During defrosting, the indoor and outdoor fans stop running. The air conditioner will resume heating automatically after defrosting is complete.
- ⚠ **Emergency button:**
 Open the front panel and locate the emergency button in the control box. Press the emergency button only with an insulated tool.

Current Status	Operation	Unit Response	Enter Mode
Standby	Press the emergency button once	It beeps briefly once	Cooling Mode
Standby (Only for Heat pump models)	Press the emergency button twice in 3 seconds	It beeps briefly twice	Heating Mode
Running	Press the emergency button once	It beeps continuously	Off mode



SERVICE GUIDE

1. Check the information in this manual to find out the clearance requirements for proper installation of the unit, including the required clearances from adjacent walls and structures.
2. The unit shall be installed, operated, and stored in a room larger than 4 m² (43.1 ft²).
3. Keep refrigerant piping as short as possible.
4. The pipework shall be protected from physical damage, and shall not be installed in an unventilated space if the space is smaller than 4 m² (43.1 ft²).
5. Comply with all applicable national and local gas and mechanical codes.
6. The mechanical connections shall be accessible for maintenance purposes.
7. Follow the instructions given in this manual for handling, installing, cleaning, maintaining and disposing of the refrigerant.
8. Make sure ventilation openings are clear of any obstruction.
9. Service the unit only as directed by the manufacturer.
10. Warning: The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
11. Warning: The appliance shall be stored in a room without continuously operating open flames (for example an operating gas appliance) and ignition sources (for example an operating electric heater).
12. The appliance shall be stored so as to prevent mechanical damage from occurring.
13. Anyone servicing the refrigerant circuit must be properly trained and certified to handle flammable refrigerants. Service operations should only be carried out in accordance with the recommendations of the equipment manufacturer. Maintenance and repair operations that require the assistance of other qualified persons must be conducted under the supervision of the person competent for the use of flammable refrigerants.
14. Every working procedure that affects safety means shall only be carried out by competent persons.
15. Warning:

Do not attempt to remove frost by any means other than those recommended by the manufacturer.

The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).

Do not pierce or burn refrigerant tubing. Refrigerant may be odorless.
16. Information on servicing:
 - Area checks: Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repair of the refrigerant system, the following precautions shall be complied with prior to conducting work on the system.

SERVICE GUIDE



Caution: Risk of fire

A2L



Caution: Risk of fire

A2L



Read operator's manual



Operating instructions



Read technical manual

- Work procedure: Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapor being present while the work is being performed.
- General work area: All personnel working in the immediate area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by removing or controlling flammable materials in the area.
- 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 flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.
- Presence of fire extinguisher: If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be readily available. Keep a dry chemical or CO2 fire extinguisher nearby during charging or hot work.
- No ignition sources: Anyone working on the refrigerant system must keep all ignition sources away from the work area. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repair, removal, 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.
- Ventilated area: Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any work that will produce heat. 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.
- Checks to the refrigeration 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:

- Verify that the refrigerant charge is permitted for the room size where the unit is 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.
 - Refrigeration 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.
- 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.
 - Verify continuity of equipment grounding.
17. Repairs to sealed components: Sealed electrical components shall be replaced.
 18. Repairs to intrinsically safe components: Replace intrinsically safe components only with approved replacement parts.
 19. 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.
 20. Detection of flammable refrigerants: Under no circumstances shall potential sources of ignition be used for searching for or detecting refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.
 21. Leak detection methods: The following leak detection methods are deemed acceptable for systems containing flammable refrigerants. Electronic leak detectors shall be used to detect flammable refrigerants, but 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

SERVICE GUIDE

% maximum) is confirmed. Leak detection fluids are 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 pipework. If a leak is suspected, all naked flames shall be removed/extinguished. If a refrigerant leak is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shutoff valves) in a section of the system isolated away from the leak. Oxygen-free nitrogen (OFN) shall then be purged through the system both before and during the brazing process.

22. Removal and evacuation: When breaking into the refrigerant circuit to make repairs or for any other purpose conventional procedures shall be used. However, it is important that best practice is followed since flammability is a consideration. The following procedure shall be adhered to:

- Remove refrigerant;
- Purge the circuit with inert gas;
- Evacuate;
- Purge again with inert gas;
- Open the circuit by cutting or brazing.

The refrigerant charge shall be recovered into the correct recovery cylinders. The system shall be flushed with OFN to render the unit safe. This process may need to be repeated several times. Compressed air or oxygen shall not be used for this task. Flushing shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum. This process shall be repeated until no refrigerant is within the system. When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place. This operation is absolutely vital if brazing operations on the pipework are to take place. Ensure that the outlet for the vacuum pump is not close to any ignition sources and there is ventilation available.

23. 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 reclaimed 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 the 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 the cylinder is situated on the scales before recovery takes place.

g) Start the recovery machine and operate in accordance with manufacturer's 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 refrigeration system unless it has been cleaned and checked.

24. Labeling: Equipment shall be labeled stating that it has been decommissioned and emptied of refrigerant. The label shall be dated and signed. Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

25. 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 are available. All cylinders to be used are designated for the recovered refrigerant and labeled 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 all appropriate refrigerants including, when applicable, flammable refrigerants. 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. Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt. The recovered refrigerant shall be returned to the refrigerant supplier 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 evacuation process shall be carried out prior to returning the compressor to the suppliers. Only electric heating to the compressor body shall be employed to accelerate this process. When oil is drained from a

SERVICE GUIDE

system, it shall be carried out safely.

26. Warning:

- For minimum installation height and minimum room area for operation or storage, refer to the installation manual.
- Risk of fire. Auxiliary devices which may be ignition sources shall not be installed in the ductwork, other than auxiliary devices listed for use with the specific appliance. See instructions.
- Mount with the lowest moving parts at least 2.5 m (8 ft) above floor or grade level.
- Risk of electric shock. Can cause injury or death. Disconnect all remote electric power supplies before servicing.
- Risk of fire. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Puncture Refrigerant Tubing.
- Risk of fire. Dispose Of Properly In Accordance With Federal Or Local Regulations. Flammable Refrigerant Used.
- Risk of fire. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service This Product. All Safety Precautions Must Be Followed.
- Risk of fire. Due to Flammable Refrigerant Used. Follow Handling Instructions Carefully in Compliance with National Regulations.
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Do not puncture refrigerant tubing.
- Be aware that refrigerants may not contain an odor.

27. Statement:

- Before unloading or opening the container, use a flammable gas detector to verify the area is safe.
- No open flames or smoking permitted
- That pipework shall be protected from physical damage and, in the case of FLAMMABLE REFRIGERANTS, shall not be installed in an unventilated space, if that space is smaller than Amin in Annex GG, except for A2L REFRIGERANTS where the installed pipes comply with 22.116. In case of field charge, the effect on REFRIGERANT CHARGE caused by the different pipe length has to be quantified;
- That compliance with national gas regulations shall be observed;

- That mechanical connections made in accordance with 22.118 shall be accessible for maintenance purposes;
- That pipework including piping material, pipe routing, and installation shall include protection from physical damage in operation and service, and be in compliance with national and local codes and standards, such as ASHRAE 15, ASHRAE 15.2, IAPMO Uniform Mechanical Code, ICC International Mechanical Code, and CSA B52. All field joints shall be accessible for inspection prior to being covered or enclosed;
- That after completion of field piping for split systems, the field pipework shall be pressure tested with an inert gas and then vacuum tested prior to refrigerant charging, according to the following requirements;
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- Any procedure that affects a safety-related component must be performed only by qualified personnel. Examples for such working procedures are:
 - Breaking into the refrigerating circuit;
 - Opening of sealed components;
 - Opening of ventilated enclosures.

Important Considerations

1. This installation manual is intended for qualified HVAC installation personnel only. Installation and service must comply with the manufacturer's requirements and all applicable codes.
2. Improper handling of flammable refrigerant can result in serious injury or property damage.
3. A leak test must be performed after installation is complete.
4. A safety inspection must be performed before servicing or repairing any air conditioner using flammable refrigerant.
5. All service work must follow a controlled procedure to minimize the Risk of fire. or vapor ignition.
6. Requirements for the total weight of filled refrigerant and the area of a room to be equipped with an air conditioner (are shown as in the following Tables GG.1 and GG.2)

SERVICE GUIDE

The maximum charge and the required minimum floor area

$$m_1 = (6 \text{ m}^3) \times \text{LFL}, m_2 = (52 \text{ m}^3) \times \text{LFL}, m_3 = (260 \text{ m}^3) \times \text{LFL}$$

Where LFL is the lower flammable limit in kg/m³, R32 LFL is 0.306 Kg/m³.

For the appliances with a charge amount $m_1 < M = m_2$:

The maximum charge in a room shall be in accordance with the following:

$$M_{\max} = 2.5 \times (\text{LFL})^{(5/4)} \times h_o \times A^{(1/2)}, \text{ not to exceed } SF \times \text{LFL} \times h_o \times A$$

The required minimum floor area $A_{\min}$ to install an appliance with refrigerant charge M (kg)

Shall be in accordance with following: $A_{\min} = (M / (2.5 \times (\text{LFL})^{(5/4)} \times h_o))^2$ not less than $A_{\min} =$

$$M / (SF \times \text{LFL} \times h_o) \text{ (GG.4DV)}$$

Where:

Table GG.1 - Maximum charge (kg)

Category	LFL (kg/m ³)	h _o (m)	Floor area (m ²)						
			4	7	10	15	20	30	50
R32	0.306	1.8	1.10	1.93	2.75	3.97	4.58	5.61	7.24
		2.5	1.53	2.68	3.83	5.51	6.36	7.79	10.06
		2.8	1.71	3.00	4.28	6.17	7.12	8.73	11.27

Table GG.2 - Minimum room area (m²)

Category	LFL (kg/m ³)	h _o (m)	Charge amount (M)(kg) / Minimum room area (m ²)						
			0.5kg	0.67kg	1kg	1.04kg	1.59kg	1.8kg	2kg
R32	0.306	1.8	1.82	2.43	3.63	3.78	5.77	6.54	7.26
		2.5	1.31	1.75	2.61	2.72	4.16	4.71	5.23
		2.8	1.17	1.56	2.33	2.43	3.71	4.20	4.67

Model	WYT012ALUI17RL	WYT012GLUI17RL	WYT018GLUI17RL	WYT024GLUI17RL	WYT036GLUI17RL
Minimum floor area (ft ² /m ²) (Standard pipe 7.5m and height 1.8m)	19.59/1.82	19.59/1.82	26.16/2.43	40.69/3.78	62.11/5.77

Model	12K	17K	23K	35K
R32(g)Standard	500	670	1040	1590
R32(g)Max	575	745	1165	1815

BEFORE YOU INSTALL

INSTALLATION SAFETY PRINCIPLES

1. SITE SAFETY



OPEN FLAMES PROHIBITED



NO NEARBY HEAT SOURCES



VENTILATION NECESSARY

2. OPERATION SAFETY



PROTECTIVE CLOTHING REQUIRED



USE ANTI-STATIC GLOVES



DON'T USE MOBILE PHONES

3. INSTALLATION SAFETY

- Refrigerant Leak Detector
- Appropriate Installation Location



The image to the left shows a refrigerant leak detector.

Observe the following installation requirements:

1. The installation site should be well-ventilated.
2. Do not install or service an R32 system near open flames, welding operations, smoking materials, drying equipment, or other ignition sources.
3. Use appropriate anti-static precautions, including anti-static clothing and gloves.
4. Choose a location that allows proper installation and service access and keeps the indoor and outdoor air inlets and outlets clear of obstructions, heat sources, and combustible or explosive materials.
5. If a refrigerant leak occurs during installation, immediately close the outdoor unit service valves if it is safe to do so, disconnect ignition sources, evacuate the area, and ventilate the space thoroughly before resuming work. If the unit is damaged, do not braze or repair the refrigerant piping at the jobsite unless proper flammable-refrigerant service procedures are followed.
6. Choose a location where the indoor unit air inlet and outlet are unobstructed and airflow can circulate freely through the room.

BEFORE YOU INSTALL

- Do not install the indoor unit above electrical equipment, receptacles, switches, beds, sofas, cabinets, or other valuables.

SUGGESTED TOOLS

Tool	Picture	Tool	Picture	Tool	Picture
Standard Wrench		Pipe Cutter		Vacuum Pump	
Adjustable/ Crescent Wrench		Screw drivers (Phillips & Flat blade)		Safety Glasses	
Torque Wrench		Manifold and Gauges		Work Gloves	
Hex Keys or Allen Wrenches		Level		Refrigerant Scale	
Drill & Drill Bits		Flaring tool		Micron Gauge	
Hole Saw		Clamp on Amp Meter			

PIPE LENGTH AND ADDITIONAL REFRIGERANT

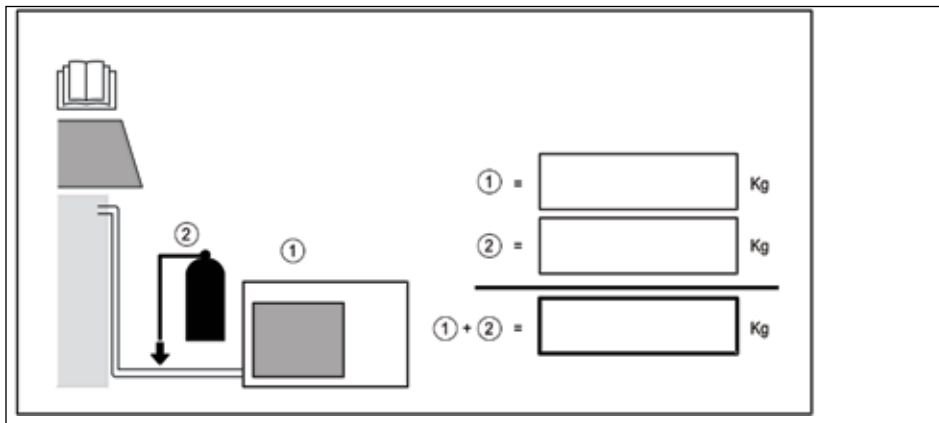
INVERTER MODELS CAPACITY (BTU/h)	12K	18K	24K	36K
Length of pipe with standard charge	25 ft	25 ft	25 ft	25 ft
Maximum distance between indoor and outdoor unit	49 ft	49 ft	65 ft	98 ft
Additional refrigerant charge	10g/m	10g/m	10g/m	10g/m
Max elevation difference between indoor and outdoor unit	33 ft	33 ft	49 ft	65 ft
Type of refrigerant	R32			

TORQUE PARAMETERS

PIPE SIZE	TORQUE (N·M)	TORQUE (LBF·FT)	KILOGRAM-FORCE METER (kgf-m)
1/4" (ø 6.35)	15 - 20	11.1 - 14.8	1.5 - 2.0
3/8" (ø 9.52)	31 - 35	22.9 - 25.8	3.2 - 3.6
1/2" (ø 12)	45 - 50	33.2 - 36.9	4.6 - 5.1
5/8" (ø 15.88)	60 - 65	44.3 - 48.0	6.1 - 6.6

DEDICATED CIRCUIT PROTECTION AND WIRE SIZING

WIRING MATERIAL AMPACITIES	AWG
4	22
7	20
10	18
13	16
18	14
25	12
30	10
40	8
55	6
70	4



KEY

Example 1: REFRIGERANT CHARGE of the precharged part of the appliance

Example 2: REFRIGERANT CHARGE added during installation

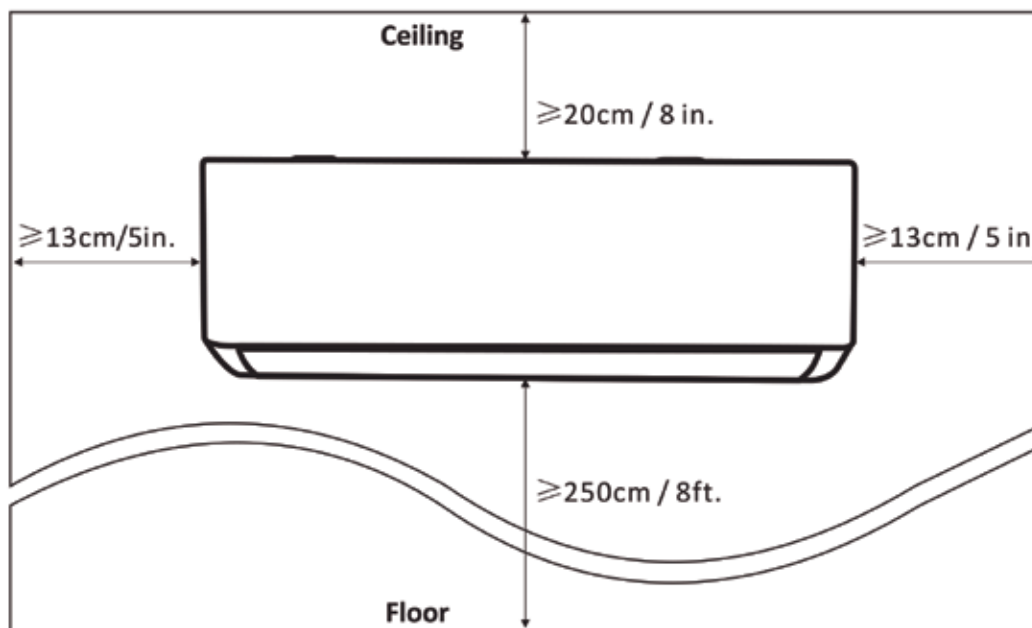
 **NOTE:** This table is for reference only. Installation must comply with all applicable local codes and regulations.

INDOOR UNIT INSTALL

STEP 1: SELECT INSTALLATION LOCATION

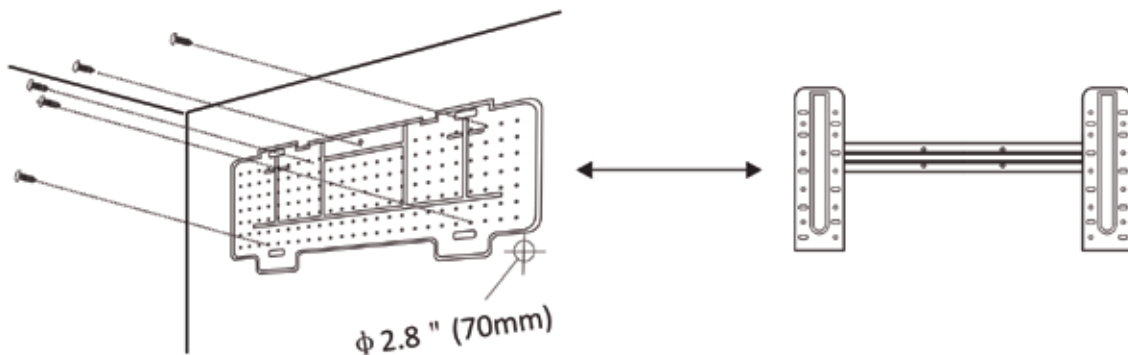
1. Ensure the installation complies with the installation minimum dimensions (defined below) and meets the minimum and maximum connecting piping length and maximum change in elevation as defined in the System Requirements section.
2. The air inlet and outlet must be clear of obstructions, ensuring proper airflow throughout the room.
3. Condensate can be easily and safely drained.
4. All connections can be made easily to the outdoor unit.
5. Install the indoor unit out of reach of children.
6. The mounting wall must be able to support at least four times the weight of the unit and withstand operating vibration.
7. Filter can be easily accessed for cleaning.
8. Leave enough free space to allow access for routine maintenance.
9. Install at least 10 ft. (3 m) away from the TV or radio antenna. Operation of the air conditioner may interfere with radio or TV reception in areas where reception is weak. An amplifier may be required for the affected device.
10. Do not install in a laundry room or by a swimming pool due to the corrosive environment.
11. For ETL listed installations, mount with the lowest moving parts at least 8 ft. (2.4 m) above floor or grade level.

Minimum Indoor Clearances



STEP 2: INSTALL MOUNTING PLATE

1. Take the mounting plate from the back of indoor unit.
2. Ensure the installation meets the minimum clearance requirements, according to the size of mounting plate, determine the mounting location and hold the mounting plate against the wall.
3. Level the mounting plate with a spirit level, then mark out the screw hole positions on the wall.
4. Put down the mounting plate and drill holes in the marked positions with a drill.
5. Insert expansion rubber plugs into the holes, then hang the mounting plate and fix it with screws.



NOTE:

- I. Make sure the mounting plate is firm enough and flat against the wall after installation.
- II. This figure shown may be different from the actual unit.

STEP 3: DRILL WALL HOLE

A hole in the wall should be drilled for refrigerant piping, the drainage pipe, and connecting cables.

1. Determine the wall opening location based on the position of the mounting plate.
2. The wall opening must be at least 70 mm (2.76 inches) in diameter and sloped slightly downward toward the outdoors to facilitate drainage.
3. Drill the wall hole with 70mm core drill and with a downward slope of 5–10 mm toward the exterior.
4. Place the wall sleeve and wall sleeve cover (both are optional parts) to protect the connection parts.

CAUTION: When drilling the wall hole, make sure to avoid wires, plumbing and other sensitive components.

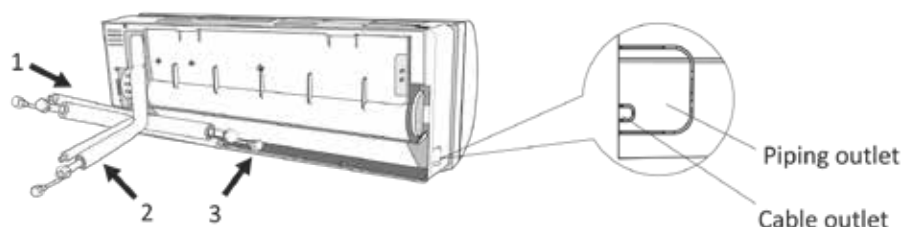


INDOOR UNIT INSTALL

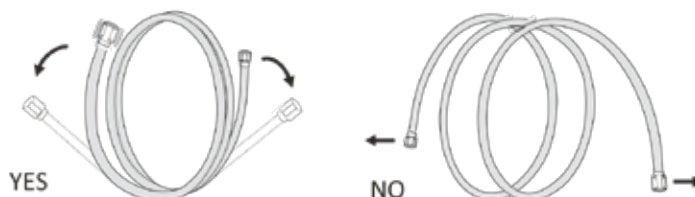
STEP 4: CONNECT REFRIGERANT PIPING

1. According to the wall hole position, select the appropriate piping mode. There are three optional piping modes for indoor units as shown in the figure below: In Piping Mode 1 or Piping Mode 3, a notch should be made by using scissors to cut the plastic sheet of piping outlet and cable outlet on the corresponding side of the indoor unit.

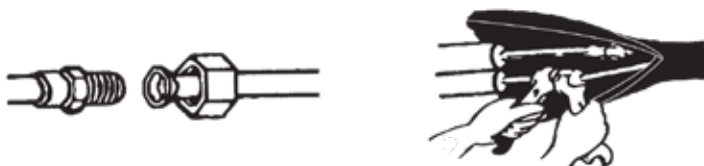
NOTE: When cutting off the plastic sheet at the outlet, the cut should be trimmed to smooth.



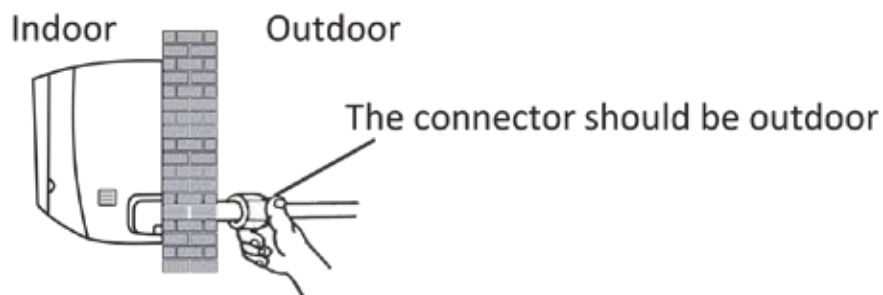
2. Bend the connecting pipes with the flare ends facing upward, as shown.



3. Take off the plastic cover in the pipe ports and take off the protective cover on the end of piping connectors.
4. Inspect the flare connection and port for dirt or debris. Make sure the sealing surfaces are clean.
5. Hand-tighten the flare nut first, then tighten to the specified torque with a torque wrench.
6. Use a torque wrench to tighten it according to the torque values in the torque requirements table; (Refer to the torque requirements table on section BEFORE YOU INSTALL)
7. Wrap and insulate the joint with the supplied insulation material.

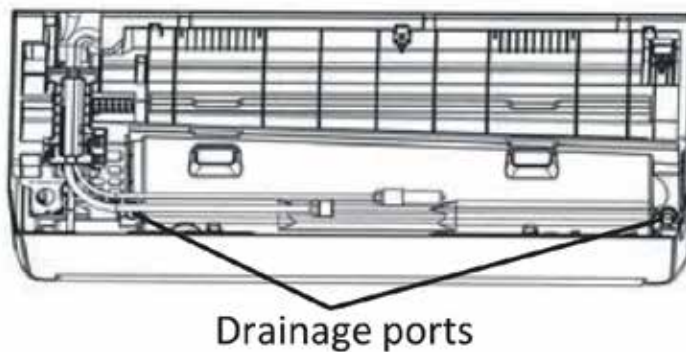


NOTE: When flared joints are reused indoors, the flare part shall be re-fabricated.



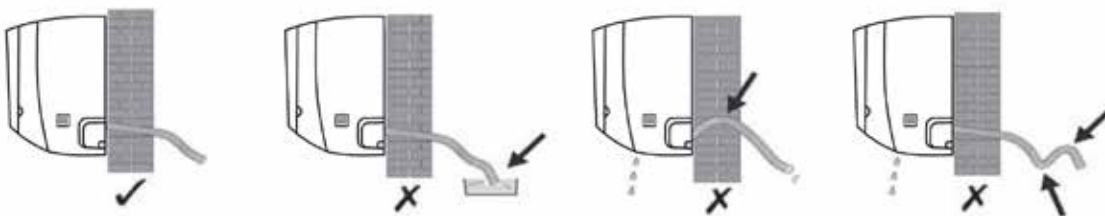
STEP 5: CONNECT DRAINAGE HOSE

1. Adjust the drain hose (if applicable). In some models, both sides of the indoor unit are provided with drain ports, you can choose one of them to attach the drainage hose. Plug the unused drain port with the rubber attached in one of the ports.



2. Connect the drainage hose to the drainage port, make sure the connection is secure and properly sealed.
3. Secure and seal the drain-hose connection in accordance with the installation design. Verify that it is leak-free.

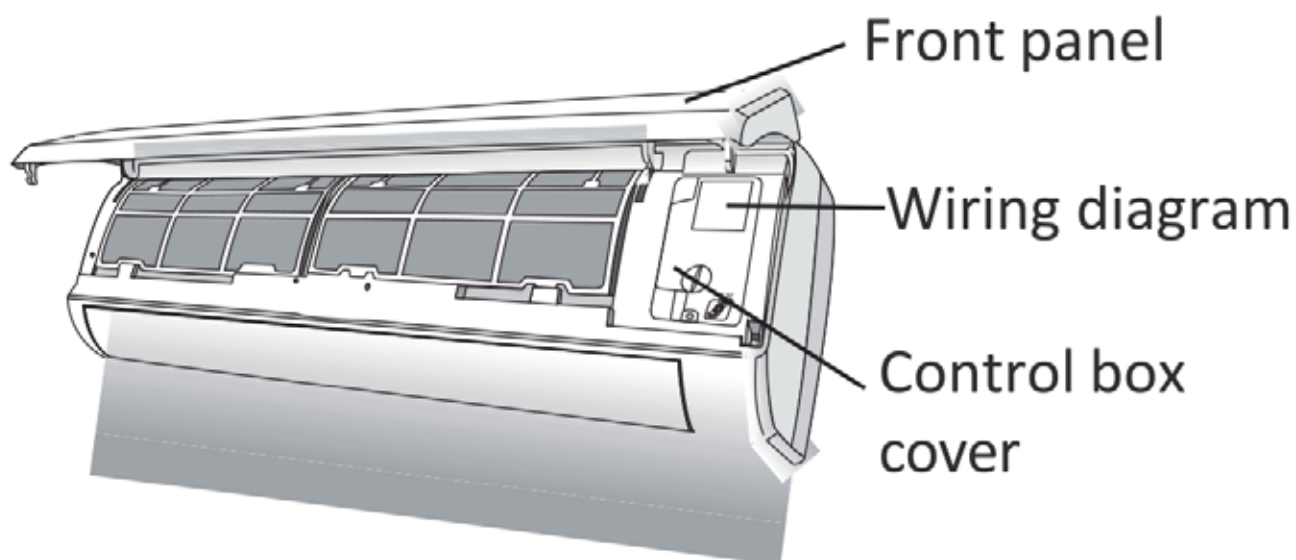
NOTE: Ensure there are no twists or dents, and the pipes should be routed with a continuous downward slope to avoid blockage, to ensure proper drainage.

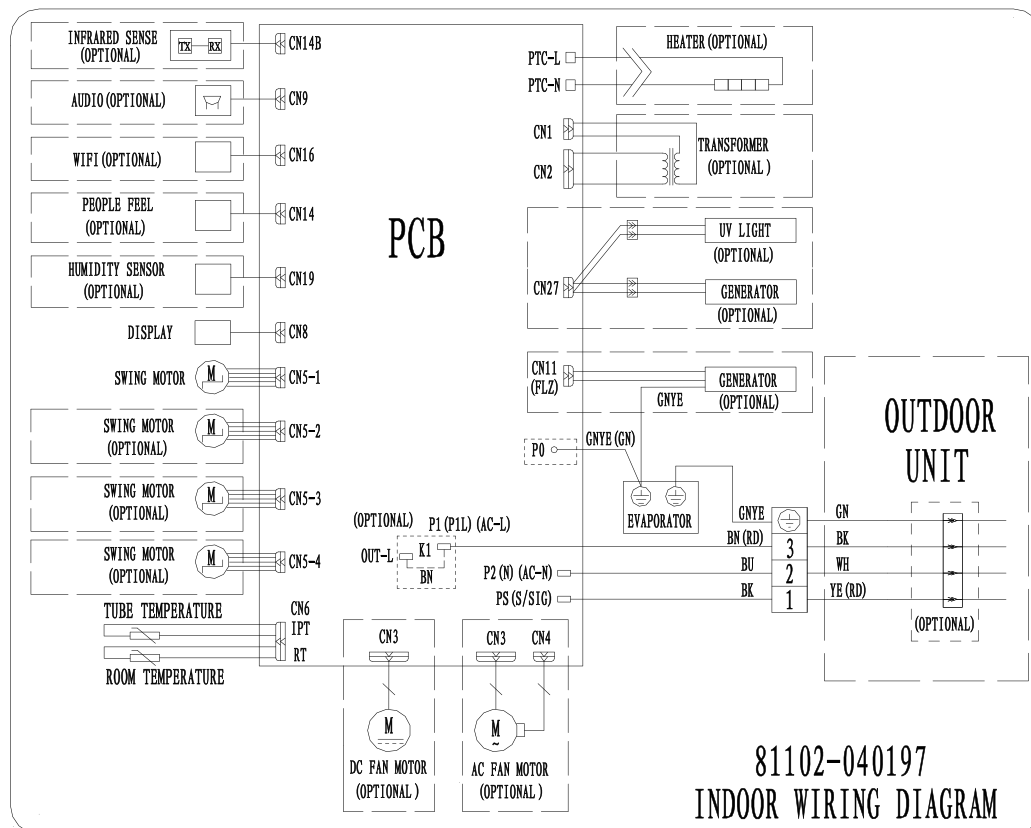


INDOOR UNIT INSTALL

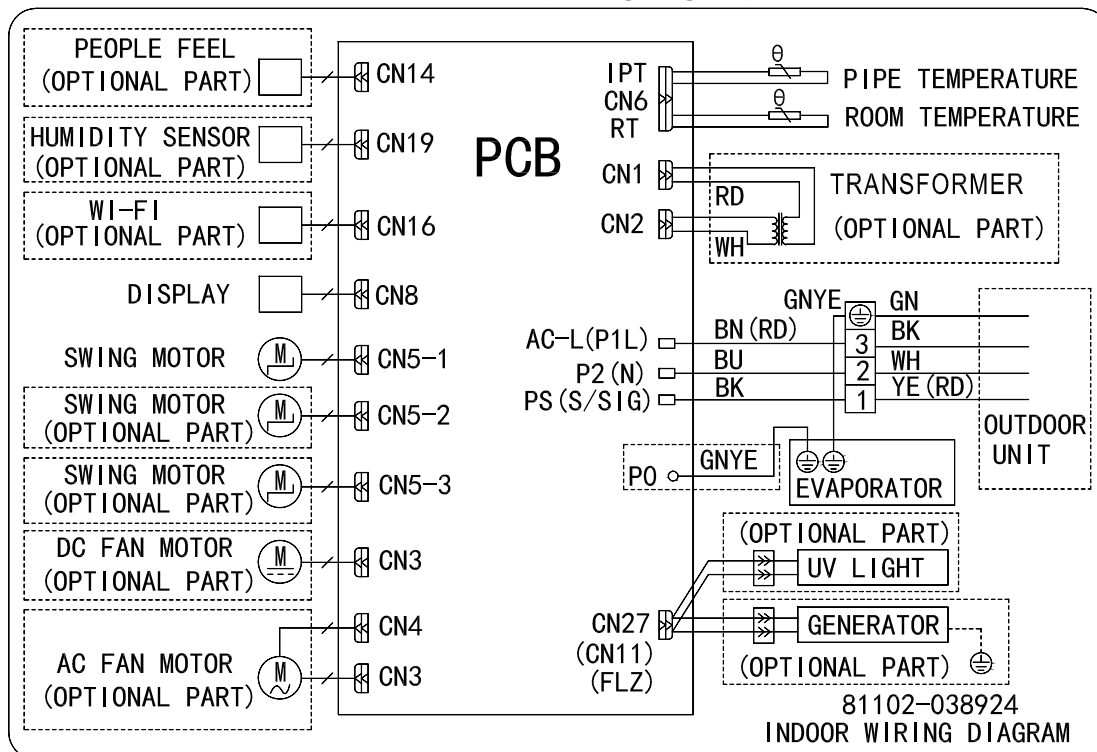
STEP 6: CONNECT WIRING

1. Select cable size based on the maximum operating current listed on the nameplate. (Refer to the BEFORE YOU INSTALL section for cable sizing.)
2. Open the front panel of the indoor unit.
3. Use a screwdriver to remove the electrical control box cover to reveal the terminal block.
4. Unscrew the cable clamp.
5. Route the cable into the electrical control box through the cable entry opening of the indoor unit.
6. Connect the wires to the corresponding terminals according to the wiring diagram on the control box cover, and make sure all terminals are tightened securely.
7. Screw the cable clamp to fasten the cables.
8. Reinstall the electrical control box cover and front panel.





12K/18K/24K(Wiring diagram)



36K (Wiring diagram)

INDOOR UNIT INSTALL

STEP 7: WRAP PIPING AND CABLE

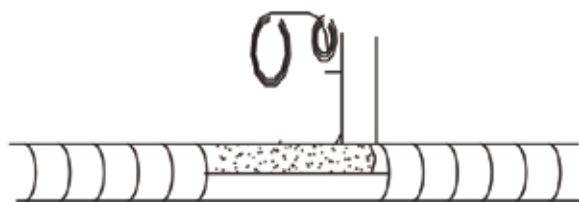
To save space and protect the assembly, bundle and insulate the piping, wiring, and drain hose before routing them through the wall opening.

1. Arrange the pipes, cables, and drain hose as shown.



NOTE:

- (I) Make sure the drainage hose is at the bottom.
 - (II) Avoid crossing and bending of parts.
2. Using the insulating tape wrap the refrigerant pipes, connecting wires and drainage hose together tightly.



STEP 8: MOUNT INDOOR UNIT

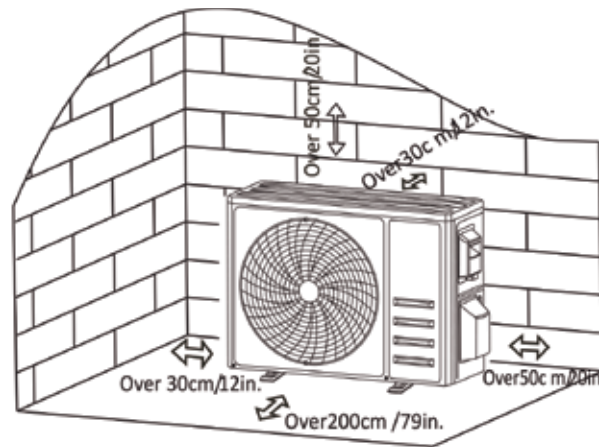
1. Slowly pass the refrigerant pipes, connecting wires and drainage hose bundled assembly through the wall hole.
2. Hook the top of indoor unit on the mounting plate.
3. Apply slight pressure to the left and right sides of the indoor unit, make sure the indoor unit is hooked firmly.
4. Push down the bottom of indoor unit to engage the bottom clips with the mounting plate hooks of the mounting plate, and make sure it is hooked firmly.
5. Sometimes, if the refrigerant pipes were already embedded in the wall, or if you want to connect the pipes and wires on the wall, follow these instructions:
 - (I) Hook the top of the indoor unit on the mounting plate without piping and wiring.
 - (II) Lift the indoor unit opposite the wall, unfold the bracket on the mounting plate, and use this bracket to prop up the indoor unit, this provides additional working space.
 - (III) Do the refrigerant piping, wiring, connect drainage hose, and wrap them as Step 4 to 7.

OUTDOOR UNIT INSTALL

STEP 1: SELECT INSTALLATION LOCATION

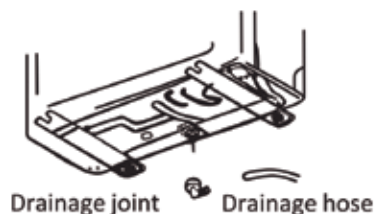
Select a site that allows for the following:

1. Do not install the outdoor unit near sources of heat, steam or flammable gas.
2. Do not install the unit in excessively windy or dusty locations.
3. Choose a location where discharge air and operating noise will not disturb nearby occupants.
4. Avoid installing the unit where it will be exposed to direct sunlight. If necessary, install a weather shield that does not restrict airflow.
5. Reserve the spaces as shown in the picture for the air to circulate freely.
6. Install the outdoor unit in a safe and solid place.
7. If the outdoor unit is subject to vibration, place vibration pads onto the feet of the unit.



STEP 2: INSTALL DRAINAGE HOSE

1. This step applies only to heat pump models or reverse-cycle air conditioners (RCACs).
2. Insert the drain joint into the hole at the bottom of the outdoor unit.
3. Connect the drain hose to the drain joint and secure the drain connection and verify that it is leak-free.



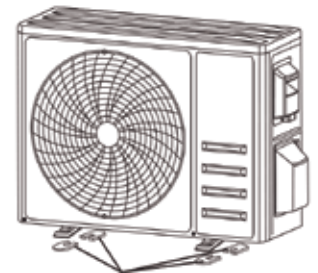
OUTDOOR UNIT INSTALL

STEP 3: FIX OUTDOOR UNIT

1. Use the outdoor unit mounting dimensions to mark the anchor-bolt locations.
2. Drill the mounting holes, remove concrete dust, and install the anchor bolts.
3. If used, place four vibration pads over the mounting holes before setting the outdoor unit in place.
4. Place the outdoor unit base on the bolts and predrilled holes.
5. Use a wrench to fix the outdoor unit firmly with bolts.

NOTE:

The outdoor unit can be fixed on a wall-mounting bracket. Follow the wall-mount bracket manufacturer's instructions to fix the wall-mounting bracket on the wall, and then fasten the outdoor unit on it and keep it horizontal. The wall-mounting bracket must be able to support at least four times the weight of the outdoor unit.

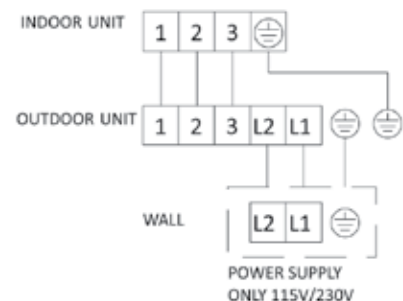
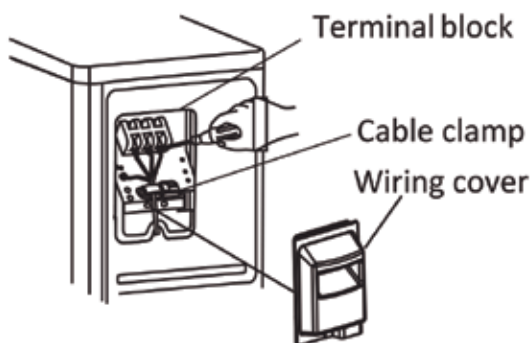


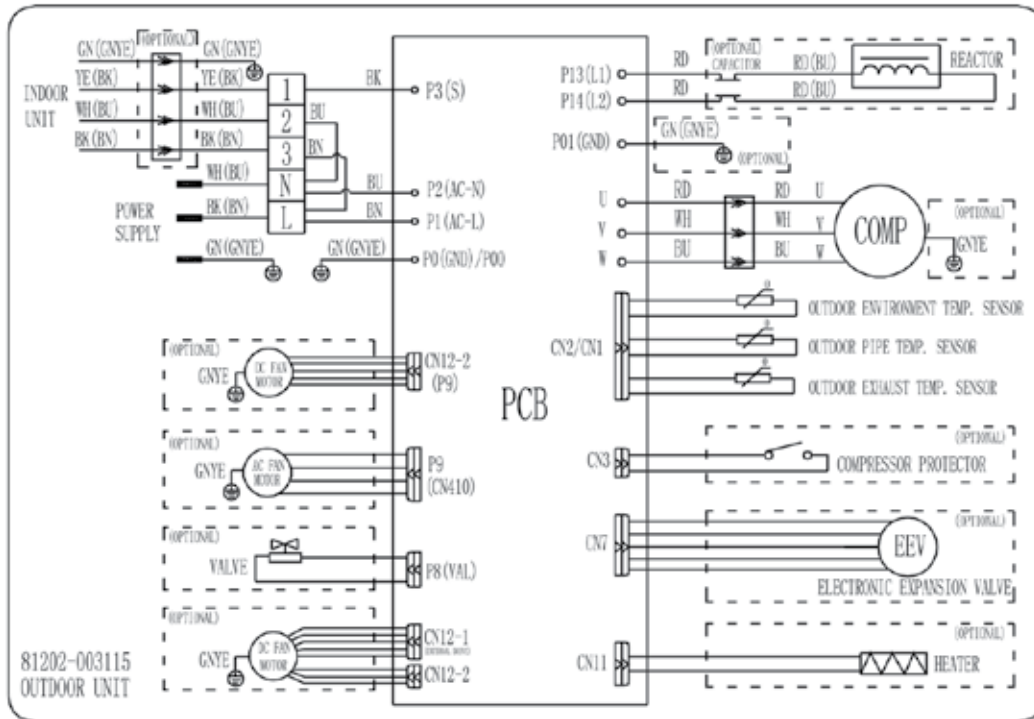
Install 4 vibration pads (optional)

STEP 4: INSTALL WIRING

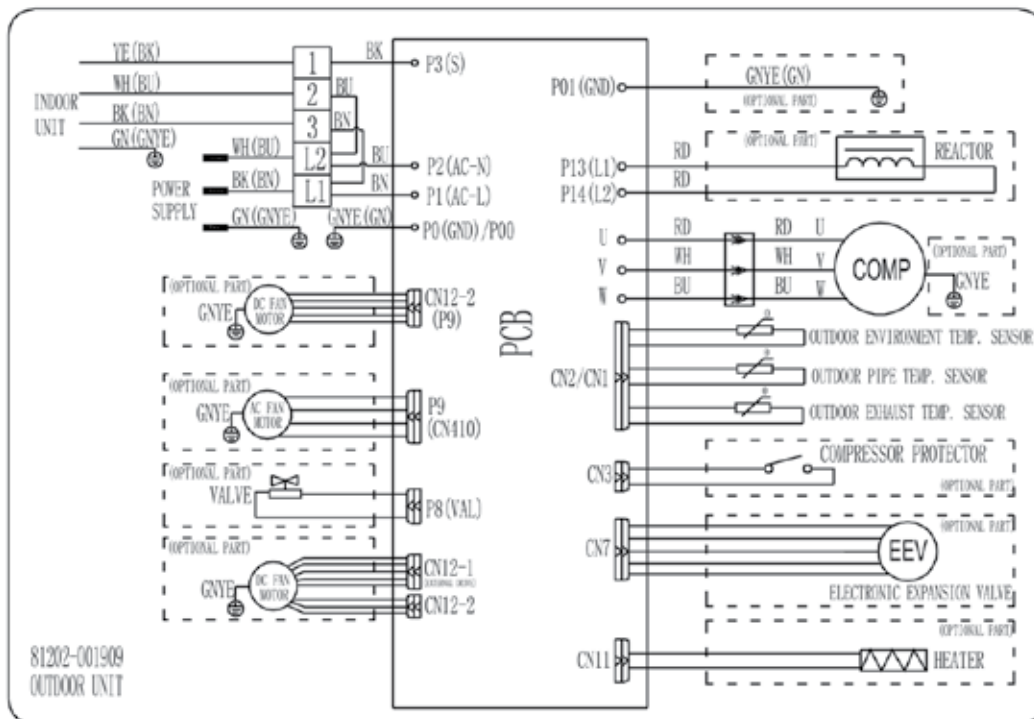
1. Use a Phillips screwdriver to unscrew wiring cover, grasp the cover and pull it downward carefully to remove it.
2. Unscrew the cable clamp and take it down.
3. According to the wiring diagram pasted inside the wiring cover, connect the connecting wires to the corresponding terminals, and ensure all connections are secure.
4. Reinstall the cable clamp and wiring cover.

NOTE: Disconnect power before connecting indoor and outdoor wiring.





12K-115V (Wiring diagram)



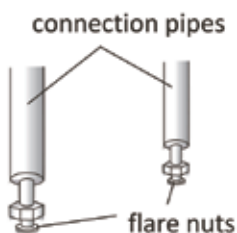
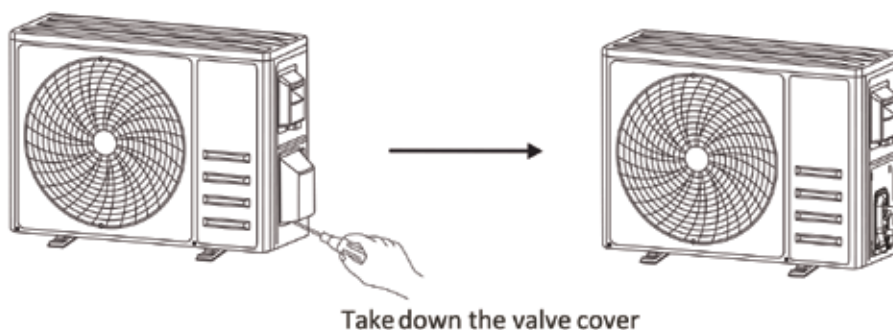
12K-36K (Wiring diagram)

OUTDOOR UNIT INSTALL

POWER SUPPLY			
MODEL	VOLTAGE	MCA	BREAKER
12K - COOLING ONLY	115V	17	25
12K - COOLING ONLY	208/230V	11	15
18K - COOLING ONLY	208/230V	13	20
24K - COOLING ONLY	208/230V	17	25
12K - HEAT PUMP	115V	17	25
12K - HEAT PUMP	208/230V	11	15
18K - HEAT PUMP	208/230V	12	20
24K - HEAT PUMP	208/230V	17	25
36K - HEAT PUMP	208/230V	23	35

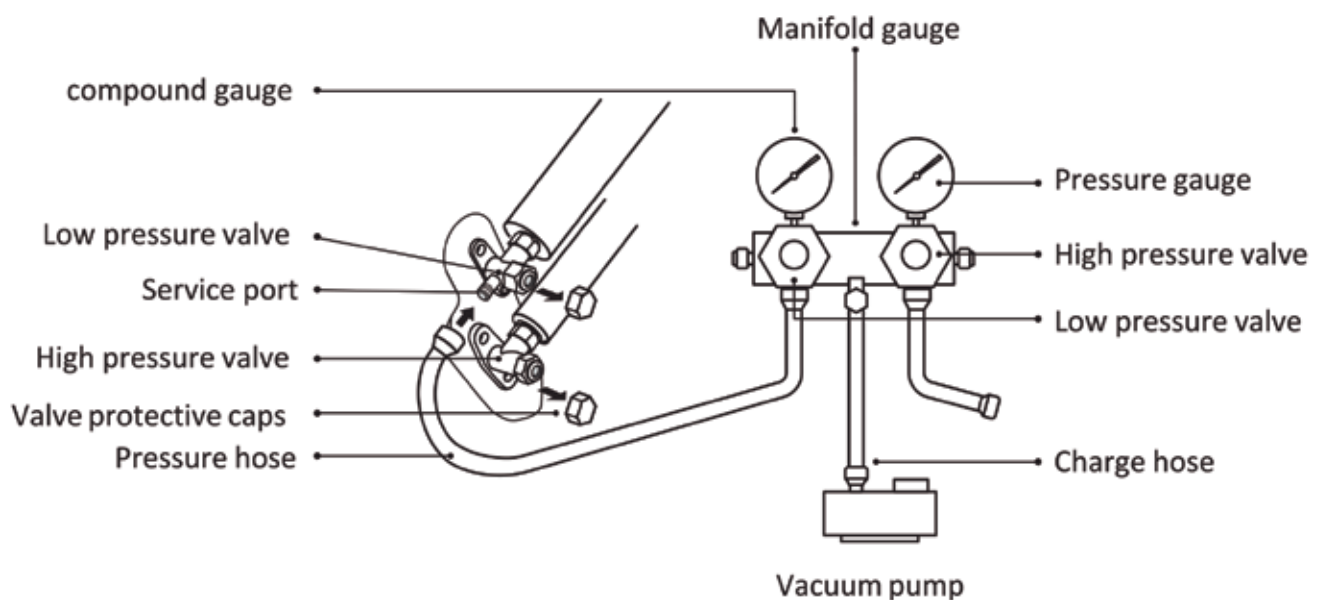
STEP 5: CONNECT THE REFRIGERANT PIPING

1. Unscrew the valve cover, grasp and press it down gently to take it down (if the valve cover is applicable).
2. Remove the protective caps from the end of valves.
3. Remove the protective caps from the pipe ports. Check the pipe port for debris or foreign material and make sure the port is clean.
4. Align the tubing and fitting, then thread the flare nut by hand until snug. Then tighten it to the specified torque using a torque wrench.
5. Use a spanner to hold the body of the valve and use a torque wrench to tighten the flare nut to the values listed in the torque table. (Refer to the torque requirements table on section INSTALLATION PRECAUTIONS)



STEP 6: VACUUM PUMPING

1. Use a spanner to take down the protective caps from the service port, low pressure valve and high pressure valve of the outdoor unit.
2. Connect the pressure hose of manifold gauge to the service port on the outdoor unit low pressure valve.
3. Connect the charge hose from the manifold gauge to the vacuum pump.
4. Open the low pressure valve of the manifold gauge and close the high pressure valve.
5. Turn on the vacuum pump to vacuum the system.
6. The vacuum time should not be less than 15 minutes, or make sure the compound gauge indicates -0.1 MPa (-76 cmHg).
7. Close the low pressure valve of the manifold gauge and turn off the vacuum.
8. Hold the pressure for 5 minutes, make sure that the rebound of compound gauge pointer does not exceed 0.005 MPa.
9. Open the low pressure valve counterclockwise for 1/4 turn with hexagonal wrench to let a little refrigerant fill in the system, and close the low pressure valve after 5 seconds and quickly remove the pressure hose
10. Check all indoor and outdoor joints for leakage with soapy water or leak detector.
11. Fully open the low pressure valve and high pressure valve of the outdoor unit with hexagonal wrench.
12. Reinstall the protective caps of the service port, low pressure valve and high pressure valve of the outdoor unit.
13. Reinstall the valve cover.



TEST RUN

INSPECTIONS BEFORE TEST RUN

Do the following checks before test run.

DESCRIPTION	INSPECTION METHOD
Electrical safety inspection	• Check whether the power supply voltage complies with specification. • Check for any incorrect or missing wiring connections between the power lines, signal line and earth wires. • Check whether the earth resistance and insulation resistance comply with requirements.
Installation safety inspection	• Confirm the direction and smoothness of drainage pipe. • Confirm that the joint of refrigerant pipe is installed completely. • Confirm the safety of outdoor unit, mounting plate and indoor unit installation. • Confirm that the valves are fully open. • Confirm that there are no foreign objects or tools left inside the unit. • Confirm that the indoor unit air inlet grille and front panel are fully installed.
Refrigerant leakage detection	• The piping joint, the connector of the two valves of the outdoor unit, the valve spool, the welding port, etc., where leaks may occur. • Foam detection method: Apply soapy water or foam evenly on the parts where leakage may occur, and observe whether bubbles appear or not, if not, it indicates that the leakage detection result is safe. • Leak detector method: Use a professional leak detector and follow the manufacturer's operating instructions. • The duration of leak detection for each position should last for 3 minutes or more; If the test result shows that there is leakage, the nut should be tightened and tested again until there is no leakage; After the leak detection is completed, wrap the exposed pipe connector of indoor unit with thermal insulation material and wrap with insulation tape.

TEST RUN INSTRUCTIONS

1. Turn off the power supply.
2. Press the ON/OFF button on the remote controller to turn on the air conditioner.
3. Press the Mode button to switch between COOLING and HEATING modes.

In each mode set as below:

COOLING - Set the lowest temperature

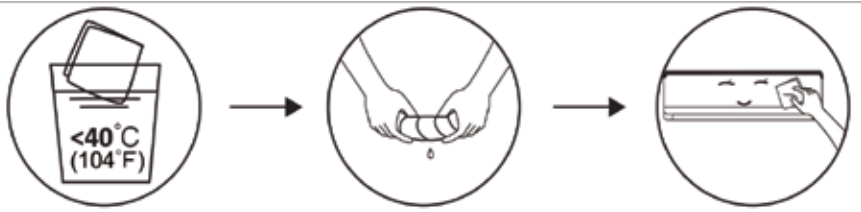
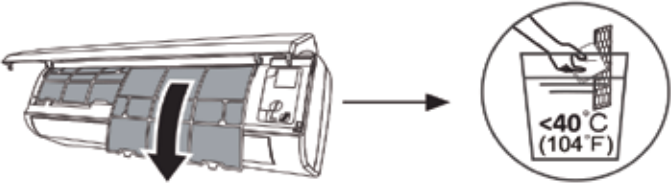
HEATING - Set the highest temperature

4. Run the unit for about 8 minutes in each mode and verify that all functions operate correctly and respond to the remote controller. Functions check as recommended.
 - If the outlet air temperature responds to the cooling and heating modes
 - If the water drains properly from the drainage hose
 - If the louver and deflectors (optional) rotate properly
5. Observe the test run state of the air conditioner for at least 30 minutes.
6. After a successful test run, return the normal setting and press ON/OFF button on the remote controller to turn off the unit.
7. Inform the user to read this manual carefully before use, and demonstrate to the user how to use the air conditioner, the necessary knowledge for service and maintenance, and the reminder for storage of accessories.

NOTE:

If the ambient temperature is outside the operating range listed in the Operating Guide, the unit may not run in COOLING or HEATING mode. Lift the front panel and refer to the emergency button operation to run the COOLING and HEATING mode.

MAINTENANCE

DESCRIPTION	INSPECTION METHOD
WARNING	- When cleaning, you must turn off the unit and cut off the power supply for more than 5 minutes. - Under no circumstances should the air conditioner be flushed with water. - Volatile liquid (e.g. thinner or gasoline) will damage the air conditioner, so only use soft dry cloth or wet cloth dipped with neutral detergent to clean the air conditioner. - Pay attention to cleaning the air filter regularly to avoid dust covering which will affect the airflow and filtration performance. When the operating environment is dusty, the cleaning frequency should be increased appropriately.
CLEAN THE UNIT	 Wring it dry and gently wipe the surface of the unit. Tip: Wipe frequently to keep air conditioner clean and good appearance.
CLEAN THE FILTER	 Tip: When you find accumulated dust in the filter, please clean the filter in time to ensure the clean, healthy and efficient operation inside the air conditioner.
SERVICE AND MAINTENANCE	- When the air conditioner is not in use for a long time, perform the following steps: Take out the batteries of the remote controller and disconnect the power supply of the air conditioner. - When starting to use after long-term shutdown: - Clean the unit and air filter; - Check whether there are obstacles at the air inlet and outlet of indoor and outdoor units; - Check whether the drain pipe is unobstructed; Install the batteries of the remote controller and check whether the power is on.

TROUBLESHOOTING

MALFUNCTION	POSSIBLE CAUSES
The appliance does not operate	Power failure/plug pulled out.
	Damaged indoor/outdoor unit fan motor.
	Tripped or faulty compressor overcurrent protection device.
	Faulty protective device or fuses.
	Loose connections or plug pulled out.
	It sometimes stops operating to protect the appliance.
	Voltage higher or lower than the voltage range.
	Active TIMER-ON function.
	Damaged electronic control board.
Strange odor	Dirty air filter.
Noise of running water	Refrigerant flow or equalization noise is normal in some operating conditions.
A fine mist comes from the air outlet	This occurs when the air in the room becomes very cold, for example in the "COOLING" or "DEHUMIDIFYING/DRY" modes.
A strange noise can be heard	This noise is made by the expansion or contraction of the front panel due to variations in temperature and does not indicate a problem.
Insufficient airflow, either hot or cold	Unsuitable temperature setting.
	Obstructed air conditioner intakes and outlets.
	Dirty air filter.
	Fan speed at a minimum.
	Other sources of heat in the room.
	No refrigerant.
The appliance does not respond to commands	Remote control is not close enough to indoor unit.
	The batteries of remote control need to be replaced.
	Obstacles between remote control and signal receiver in indoor unit.
The display is off	Active DISPLAY function.
	Power failure.
Switch off the air conditioner immediately and cut off the power supply in the event of:	Strange noises during operation.
	Faulty electronic control board.
	Faulty fuses or switches.
	Spraying water or objects inside the appliance.
	Overheated cables or plugs.
	Very strong smells coming from the appliance.

TROUBLESHOOTING

ERROR CODE ON THE DISPLAY

In case of error, the display on the indoor unit shows the following error codes:

DISPLAY	FAULT DESCRIPTION
<i>E1</i>	Indoor room temperature sensor fault
<i>E2</i>	Indoor pipe temperature sensor fault
<i>E3</i>	Outdoor pipe temperature sensor fault
<i>E4</i>	Refrigerant system leakage or fault
<i>E6</i>	Malfunction of indoor fan motor
<i>E7</i>	Outdoor ambient temperature sensor fault
<i>E0</i>	Indoor and outdoor communication fault
<i>EB</i>	Outdoor discharge temperature sensor fault
<i>E9</i>	Outdoor inverter power module (IPM) fault
<i>EA</i>	Outdoor current sensing fault
<i>EE</i>	Outdoor PCB EEPROM fault
<i>EF</i>	Outdoor fan motor fault
<i>EH</i>	Outdoor suction temperature sensor fault

DISPOSAL GUIDELINES

This appliance contains refrigerant and other potentially hazardous materials. When disposing of this appliance, the law requires special collection and treatment. DO NOT dispose of this product as household waste or unsorted municipal waste.

When disposing of this appliance, you have the following options:

- Dispose of the appliance at designated municipal electronic waste collection facility.
- When buying a new appliance, the retailer will take back the old appliance free of charge.
- The manufacturer will also take back the old appliance free of charge.
- Sell the appliance to certified scrap metal dealers.
- Disposing of this appliance in the forest or other natural surroundings endangers your health and is harmful to the environment. Hazardous substances may leak into the groundwater and enter the food chain.



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