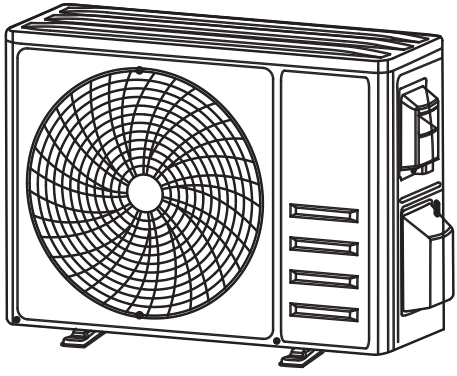
Comfort Temps

MINI SPLIT AIR CONDITIONER
ELITE SERIES

USER MANUAL



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* The design and specifications are subject to change without prior notice for the purpose of product improvement. For further details, please consult the sales agency or manufacturer.

* The shape and position of buttons and indicators may vary depending on the model, but their function remain the same.

SAFETY PRECAUTIONS

SAFETY RULES AND RECOMMENDATIONS FOR THE INSTALLER

1. Carefully read this guide before installing and using the appliance.
2. During the installation of the indoor and outdoor units, access to the work area should be restricted to prevent children from entering, as unforeseen accidents may occur.
3. Ensure that the base of the outdoor unit is securely fixed in place.
4. Check that air cannot enter the refrigerant system and check for refrigerant leaks when moving the heat pump.
5. Carry out a test cycle after installing the heat pump and record the operating data.
6. Protect the indoor unit with a fuse of appropriate capacity for the maximum input current, or with alternative overload protection device.
7. Ensure that the mains voltage matches the value indicated on the rating plate. Keep the switch or power plug clean. Insert the power plug correctly and firmly into the socket, thereby avoiding the risk of electric shock or fire due to insufficient contact.
8. Verify that the socket is compatible with the plug; if not, replace the socket.
9. The appliance must be equipped with a means of disconnection from the power supply, featuring contact separation in all poles to ensure complete disconnection under "overvoltage category III conditions." These disconnection means must be integrated into the fixed wiring in accordance with the applicable wiring regulations.
10. The mini split must be installed by professional or qualified persons.
11. Do not install the appliance closer than 50 cm of any substances such as alcohol or pressurized containers (e.g. spray cans).
12. If the appliance is used in areas lacking ventilation, measures must be taken to prevent refrigerant gas leaks from accumulating in the environment, as this could pose a fire hazard.
13. The packaging materials are recyclable and should be disposed of in the appropriate waste bins. At the end of its service life, take the heat pump to a designated waste collection center for proper disposal.
14. Only use the heat pump as instructed in this booklet. 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 compliance with the relevant national regulations.
16. Before accessing the terminals, all the power circuits must be disconnected from the power supply.
17. The appliance shall be installed in accordance with national wiring regulations.
18. This appliance can be used by children aged 8 years and older, as well as individuals with reduced physical, sensory, or mental capabilities, or those lacking experience and knowledge, provided they have received supervision or instruction on its safe use and understand the associated risks. Children should not play with the appliance. Cleaning and maintenance should not be performed by children without supervision.

SAFETY PRECAUTIONS

SAFETY RULES AND RECOMMENDATIONS FOR THE INSTALLER

19. Do not attempt to install the heat pump yourself; always seek the assistance of qualified technical personnel.
20. Cleaning and maintenance must be performed by qualified technical personnel. In all cases, disconnect the appliance from the power supply before conducting any cleaning or maintenance.
21. Make sure the mains voltage matches the value indicated on the rating plate. Keep the power switch or plug clean. Insert the power plug securely and correctly into the socket to prevent the risk of electric shock or fire caused by poor contact.
22. Do not unplug the appliance to turn it off while it is in operation, as this could create a spark and potentially cause a fire.
23. This appliance has been made for heating/cooling domestic environments and must not be used for any other purposes, such as for drying clothes, cooling food, etc.
24. Always use the appliance with the air filter installed. Operating the air conditioner without the filter may lead to excessive dust or debris buildup inside the unit, potentially causing malfunctions.
25. The user is responsible for ensuring that the appliance is installed by a qualified technician. The technician must verify that the grounding/earthing is in compliance with current regulations and install a thermal magnetic circuit breaker.
26. The batteries in the remote controller must be recycled or disposed of properly. For the disposal of scrap batteries, please dispose of them as sorted municipal waste at an appropriate collection point.
27. Never remain directly exposed to the flow of cold air for a long period of time. The direct and prolonged exposition to cold air could be dangerous for your health. Particular care should be taken in the rooms where there are children, old or sick people.
28. If the appliance emits smoke or a burning smell, immediately disconnect the power supply and contact the Service Center. Prolonged use under these conditions may pose a risk of fire or electric shock.
29. Repairs should only be performed by an authorized service center of the manufacturer. Improper repairs may expose the user to the risk of electric shock and other hazards.
30. Disconnect the automatic switch if you plan not to use the device for an extended period. Ensure that the airflow direction is properly adjusted.
31. The flaps should be directed downwards in the heating mode and upwards in the cooling mode.
32. Make sure the appliance is disconnected from the power supply when it will be inactive for an extended period and before performing out any cleaning or maintenance.
33. Choosing the appropriate temperature can help prevent damage to the appliance.

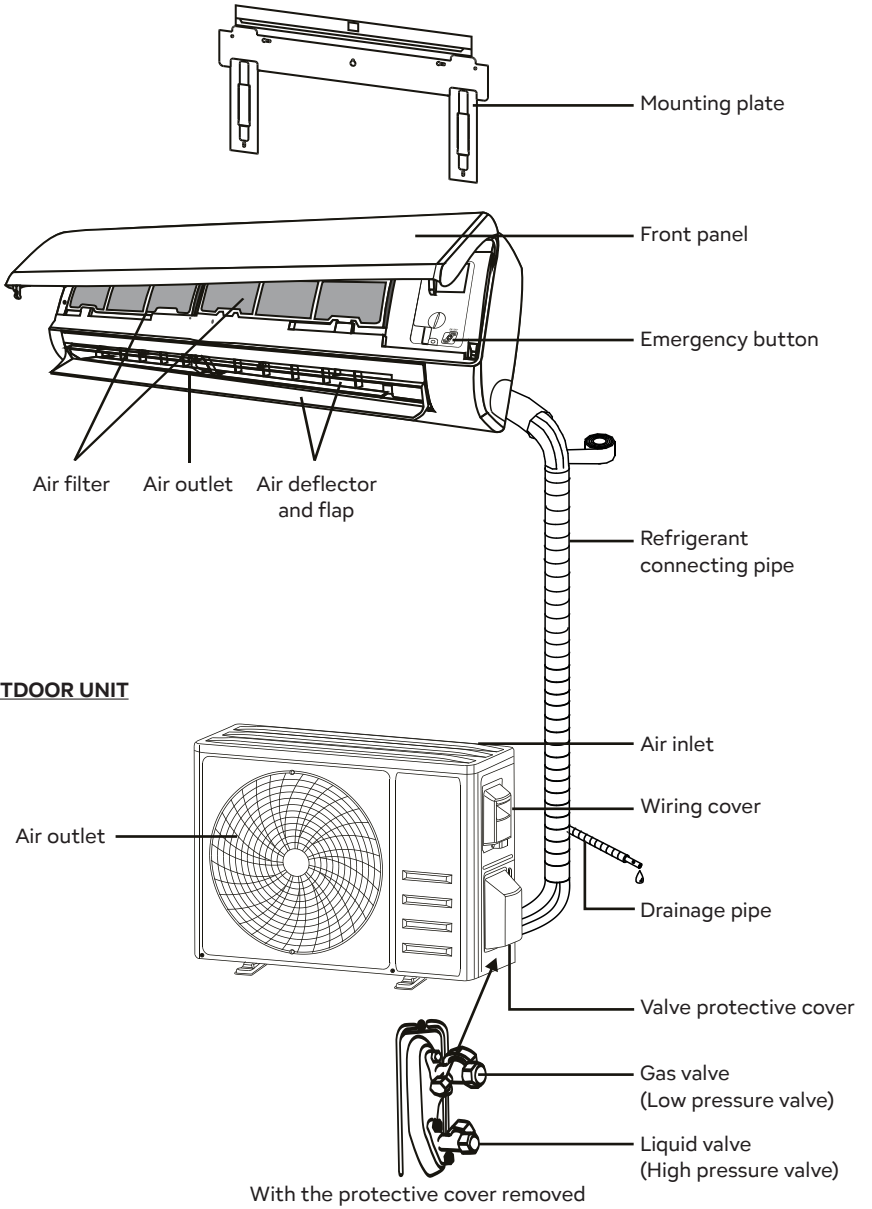
SAFETY PRECAUTIONS

SAFETY RULES AND PROHIBITIONS

1. Do not bend, pull, or pinch the power cord, as this could damage it. Electrical shocks or fires are often caused by a damaged power cord. Only qualified technical personnel should replace a damaged power cord.
2. Do not use extensions or multi-outlet adapters.
3. Do not touch the appliance when barefoot or when any part of your body is wet or damp.
4. Do not block the air inlet or outlet of either the indoor or outdoor unit. Obstructing these openings can reduce the air conditioner's efficiency and may lead to potential malfunctions or damage.
5. Under no circumstances should you alter the appliance's characteristics.
6. Do not install the appliance in environments where the air may contain gas, oil or sulphur or near heat sources.
7. This appliance is not intended for use by individuals (including children) with reduced physical, sensory or mental capabilities, or those lacking experience and knowledge, unless they have been supervised or instructed on its use 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 extended periods while the appliance is operating.
10. Avoid directing the airflow towards plants or animals.
11. A prolonged direct exposure to the cold air flow from the appliance.
12. Do not allow the appliance to come into contact with water, as it could damage the electrical insulation and pose a risk of electrocution.
13. Do not climb on or place any objects on the outdoor unit.
14. Never insert a stick or any similar object into the appliance as it could cause injury.
15. Children should be supervised to ensure they do not play with the appliance. If the power cord is damaged, it must be replaced by the manufacturer, a service agent or another qualified professional to prevent any hazards.

UNIT PARTS

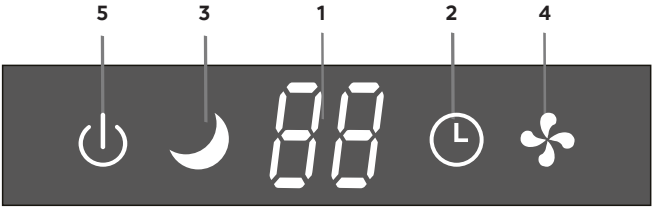
INDOOR UNIT



Note: This figure shown may be different from the actual object. Please refer to the latter as the standard.

UNIT PARTS

INDOOR DISPLAY



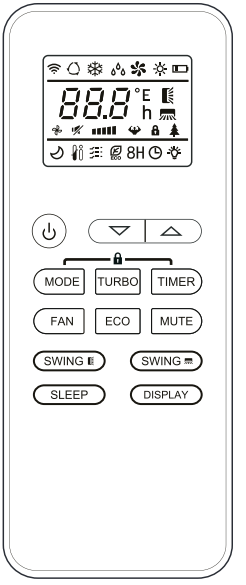
No.	LED	Function
1		Indicator for Timer, temperature and Error codes.
2		Lights up during Timer operation.
3		SLEEP mode
4		The symbol appears when the unit is turned on, and disappears when the unit is turned off.
5		The symbol appears when power is on.

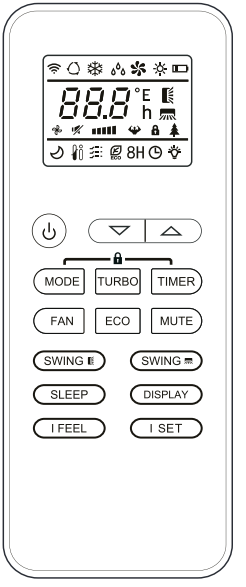
The shape and position of switches and indicators may be different depending on the model, but their function remain the same.

REMOTE CONTROL

REMOTE CONTROL DISPLAY

No.	Symbols	Function
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		I FEEL function
17	8H	8 heating function
18		Signal indicator
19		Child-Lock
20		Display ON/OFF





The display and some functions of the remote control may vary depending on the model.

REMOTE CONTROL

REMOTE CONTROL DISPLAY

No.	Symbols	Function
1	⏻	To turn on/off the appliance.
2	∧	To increase temperature, or Timer setting hours.
3	∨	To decrease temperature, or Timer setting hours.
4	MODE	To select the operation mode (AUTO, COOL, DRY, FAN, HEAT).
5	ECO	To activate/deactivate the ECO function.
6	8H	Press and hold to activate/deactivate the 8°C heating function.
7	TURBO	To activate/deactivate the TURBO function.
8	FAN	To select the fan speed: Auto, Low, Medium, or High.
9	TIMER	To set the time for timer on/off.
10	SLEEP	To turn the SLEEP function on or off.
11	DISPLAY	To turn the LED display on or off.
12	SWING	To stop or start the movement of the horizontal flap louvers or set the desired air flow direction (up or down).
13	SWING	To stop or start the movement of the vertical flap louvers or set the desired air flow direction (left or right).
14	I FEEL	To turn the I FEEL function on or off.
15	MUTE	To turn the MUTE function on or off.
16	MODE + TIMER	To activate/deactivate the CHILD-LOCK function.
17	SWING + SWING	To activate/deactivate the SELF-CLEAN function.
18	I SET	To save the desired temperature, mode, and fan speed settings.

The display and some functions of the remote control may vary depending on the model.

The shape and position of buttons and indicators may vary depending on the model, but their function remain the same.

The unit confirms the successful reception of each button press with a beep.

REMOTE CONTROL

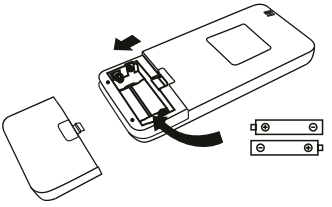
BATTERIES REPLACEMENT

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

Install the batteries according to the direction (+ and -) shown on the Remote Control.

Reinstall the battery cover by sliding it back in place.

⚠ Use two LRO3 AAA (1.5V) batteries.
Do not use rechargeable batteries.
Replace the old batteries with new ones of the same type when the display becomes illegible.
Do not dispose of batteries with regular household waste.
Separate collection of this waste for specialized treatment is essential.



⚠ For certain models, when inserting the batteries into the remote control for the first time, you can select either the Cooling-only or Heating pump control mode. Once the batteries are inserted, turn off the remote control and follow the instructions below.

1. Press and hold the MODE button, until the (❄) icon flashes to set the Cooling only type.

2. Press and hold the MODE button, until the (☀) icon flashes to set the Heat pump type.

   Note: If the remote control is set to cooling mode, the heating function cannot be activated on units with a heat pump. To reset, remove the batteries and reinstall them.

⚠ For certain models of the remote controller, you can program the temperature display between °C and °F.

1. Press and hold the TURBO button over 5 seconds to get into the change mode;
2. Press and hold the TURBO button, until it switches to °C and °F;
3. Then, release the pressure and wait for 5 seconds for the function to be selected.

Note:
1. Direct the remote control toward the indoor unit.
2. Check that there are no objects between the remote control and the Signal receptor in the indoor unit.
3. Never leave the remote control exposed to direct sunlight.
4. Keep the remote control at a distance of at least 1m from the television or other electrical appliances.

REMOTE CONTROL

COOLING MODE

COOL ❄ The cooling function allows the air conditioner to cool the room and reduce air humidity at the same time.

To activate the cooling function (COOL), press the MODE button until the symbol ❄ appears on the display.

Use the button ⌄ or ⌃ to set a temperature lower than the current room temperature.

FAN MODE (NOT FAN BUTTON)

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 in the air to make the room more comfortable.

To set the DRY mode, press MODE until appears on the display. An automatic function of pre-setting is activated.

AUTO MODE

AUTO Automatic mode.

To set the AUTO mode, press MODE until appears on the display.

In AUTO mode the run mode will be set automatically according to the room temperature.

HEATING MODE

HEAT ☼ The heating function allows the appliance to heat the room.

To activate the heating function (HEAT), press the MODE button until the symbol ☼ appears on the display.

Use the button ⌄ or ⌃ to set a temperature higher than the current room temperature.

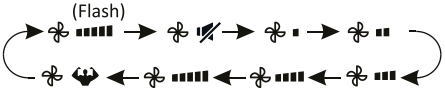
⚠ During HEATING operation, the appliance can automatically initiate a defrost cycle, which is crucial for removing frost from the condenser to restore its heat exchange function. This procedure usually lasts for 2-10 minutes. During defrosting, indoor unit fan stops operating. After defrosting, it resumes to HEATING mode automatically.

⚠ **(For North American market)**
If needed, you can press the ECO button 10 times within 8 seconds while in heating mode to initiate a forced defrost. This will accelerate the defrosting of outdoor ice.

FAN SPEED FUNCTION (FAN BUTTON)

FAN Change the operating fan speed.

Press FAN button to set the running fan speed, it can be set to AUTO/ MUTE/ LOW/ LOW-MID/ MID/ MID-HIGH/ HIGH/ TURBO speed circularly.



CHILD-LOCK FUNCTION

1. Press and hold MODE and TIMER button together to active this function, and repeat to deactivate this function.
2. Under this function, no button will be active.

REMOTE CONTROL

TIMER FUNCTION ---- TIMER ON

TIMER To automatically switch on the appliance.

When the unit is turned off, you can set the TIMER ON.

To set the automatic switch-on time, follow the steps below:

1. Press **TIMER** button first time to set the switch-on, and [60h] will appear on the remote display and flash.
2. Press ⌄ or ⌃ to 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.
3. Press **TIMER** button a second time to confirm.
4. After Timer-on setting, set the needed mode (Cool/ Heat/ Auto/ Fan/ Dry), by pressing the **MODE** button. And set the needed fan speed, by pressing the **FAN** button. And press or to set the needed operation temperature.

CANCEL it by presssing the **TIMER** button.

TIMER FUNCTION ---- TIMER OFF

TIMER To automatically switch off the appliance.

When the unit is switched-on, you can set the TIMER OFF.

To set the time of automatic switch-off, as below:

1. Confirm the appliance is ON.
2. Press the **TIMER** button at first time to set the switch-off.
   Press ⌄ or ⌃ to set the needed timer.
3. Press **TIMER** button at the second time to confirm.

CANCEL it by presssing the **TIMER** button.

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

SWING FUNCTION

SWING SWING

1. Press the button SWING to activate the louver,
   1.1 Press SWING to activate the horizontal flaps to swing from up to down, the will appear on the remote display. Press again to stop the swing movement at the current angle.
   1.2 Press SWING to activate the vertical deflectors 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 deflectors are manually positioned beneath the flaps, they allow the airflow to be directed either to the right or to the left.
3. For some inverter heating models, press horizontal SWING and vertical SWING SWING + SWING buttons together at the same time, it will activate the Self-Clean function.

⚠ This adjustment must be done while the appliance is turned off.

⚠ Never position Flaps manually, the delicate mechanism might get seriously damaged!

⚠ Never put fingers, sticks or other objects into the air inlet or outlet vents. Such accidental contact with live components could result in unpredictable damage or injury.

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 the TURBO feature is selected, the appliance will switch to quick COOL or quick HEAT mode and operate at the highest fan speed to generate a strong airflow.

REMOTE CONTROL

MUTE FUNCTION

1. Press **MUTE** button to activate this function, and will appear on the remote display.
   Do it again to deactivate this function.
2. When the MUTE function is activated, the remote controller will display the auto fan speed, and the indoor unit will operate at the lowest fan speed to ensure a quiet and comfortable environment.
3. When the FAN/TURBO button is pressed, the MUTE function will be canceled.
   The MUTE function cannot be activated in dry mode.

SLEEP FUNCTION

Pre-setting automatic operating program.

Press **SLEEP** button to activate the SLEEP function, and appears on the display.
Press again to cancel this function.

After 10 hours running in sleep mode, the appliance will change to the previously set mode.

I FEEL FUNCTION

Press **I FEEL** button to active the function, the will appear on the remote display.
Repeat to deactivate this function.

This function enables the remote control to measure the temperature at its current location, and send this signal to the appliance to optimize the temperature around you and ensure comfort.

It will automatically deactivate after 8 hours (2 hours for some models).

ECO FUNCTION

In this mode, the appliance automatically sets the operation to save energy.

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)

Turn the LED display on/off on the panel.

Press **DISPLAY** button to switch off the LED display on the panel. Press again to switch on the LED display.

REMOTE CONTROL

SELF-CLEAN FUNCTION

Only on some heating pump inverter appliance.
To active this function, turn off the indoor unit first, then press SWING and SWING button at the same time towards the indoor unit, until the beep sound. [AC] will appear on the remote controller display and the indoor LED display.

1. This function helps remove accumulated dirt, bacteria, and other particles from the indoor evaporator.
2. This function will run for 30 minutes, and it will return to the pre-setting mode. You can press ⏻ button to cancel this function during the process.
   You will hear 2 beeps when the process is complete or canceled.

⚠ It is normal to hear some noise during this function process, as plastic materials expand with heat and contract with cold.

⚠ We recommend using this function under the following ambient conditions to prevent triggering certain safety protection features.

Indoor unit	Temp < 86°F (30°C)
Outdoor unit	41°F (5°C) < Temp < 86°F (30°C)

⚠ It is suggested to utilize this function every 3 months.

8°C HEATING FUNCTION

1. Press and hold ECO button over 3 seconds to activate this function, and [8°C] ([46°F]) will appear on the remote display.
   Repeat to deactivate this function.
2. This function will auto start the heating mode when the room temperature is lower than 8°C (46°F), and it will return to standby if the temperature reaches 9°C (48°F).
3. If the room temperature is higher than 18°C (64°F), the appliance will cancel this function automatically.

I SET FUNCTION

Remember your favorite setting and run into it by press One button.

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 controller display, it indicates that the remote controller has saved your favorite settings.

* Press any button to exit, and you can reset it by repeating steps 1 and 2.

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

OPERATION INSTRUCTIONS

Using the appliance outside the specified temperature range may activate its protection device, preventing it from operating properly. Therefore, it is recommended to use the appliance within the following temperature conditions.

Fixed mini split air conditionner

Temperature / MODE	Heating	Cooling	Dry
Room temperature	0℃ ~27℃ (32℉ ~80℉)	17℃ ~32℃ (63℉ ~90℉)	
Outdoor temperature	-7℃ ~24℃ (19℉ ~75℉)	T1 climate: 15℃ ~43℃ (59℉ ~109℉)	
		T3 climate: 15℃ ~52℃ (59℉ ~125℉)	

Inverter mini split air conditionner

Temperature / MODE	Heating	Cooling	Dry
Room temperature	0℃ ~27℃ (32℉ ~80℉)	17℃ ~32℃ (63℉ ~90℉)	
Outdoor temperature	-7℃ ~24℃ (19℉ ~75℉) (Low temperature heating: -7℃ ~24℃ (19℉ ~75℉))	T1 climate: 15℃ ~50℃ (59℉ ~122℉) (Low temperature cooling: -7℃ ~50℃ (19℉ ~122℉))	
		T3 climate: 15℃ ~55℃ (59℉ ~131℉)	

When the power supply is connected, if the air conditioner is restarted after being shut down or switched to another mode during operation, the protection device will activate. The compressor will resume operation after 3 minutes.

Characteristics of heating operation (applicable to Heat pump models)

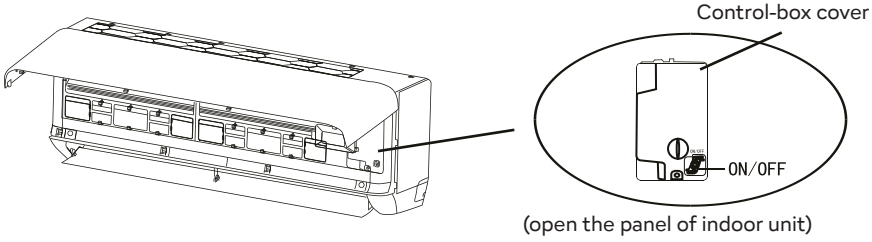
Preheating: When the heating function is activated, the indoor unit will take 2 to 5 minutes to preheat. Afterward, the appliance will begin heating and blow warm air.

Defrosting: During heating, if frost forms on the outdoor unit, the appliance will activate the automatic defrosting function to improve heating performance. During defrosting, both the indoor and outdoor fans will stop running. The heat pump will automatically resume heating once the defrosting process is complete.

Emergency button:

If the remote controller fails, open the panel and locate the emergency button on the electronic control box. (Always press the emergency button with insulating material.)

Current status	Operation	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 once	Heating mode
Running	Press the emergency button once	It keeps beeping for a while	Off mode



(open the panel of indoor unit)

INSTRUCTIONS FOR SERVICING (R454B)

1. Refer to the information in this manual to determine the required space dimensions for proper installation of the device, including the minimum distances to be maintained from adjacent structures.
2. The appliance must be installed, operated, and stored in a room with a floor area greater than 4 m^2.
3. Minimize the installation of pipework.
4. The pipework should be protected from physical damage and must not be installed in an unventilated space if the space is smaller than 4 m^2.
5. Compliance with national gas regulations must be ensured.
6. Mechanical connections must remain accessible for maintenance.
7. Follow the instructions in this manual for handling, installing, cleaning, maintaining, and disposing of the refrigerant.
8. Ensure that ventilation openings are free of obstructions.
9. **Note:** Servicing should only be performed as recommended by the manufacturer.
10. **Warning:** The appliance should be stored in a well-ventilated area with a room size that corresponds to the specified room area for operation.
11. **Warning:** The appliance must be stored in a room without continuously operating open flames (e.g., an operating gas appliance) or ignition sources (e.g., an operating electric heater).
12. The appliance must be stored in a way that prevents mechanical damage.
13. Anyone working on a refrigerant circuit should hold a valid, up-to-date certificate from an accredited assessment authority, demonstrating their competence to handle refrigerants in accordance with industry standards. Service operations should be carried out only as per the manufacturer's recommendations. Maintenance and repair work that requires additional qualified personnel must be supervised by someone competent in handling flammable refrigerants.
14. All safety-related work procedures should be performed only by competent individuals.
15. **Warnings:**
    - Do not attempt to accelerate the defrosting process or clean frost on your own. Always follow the manufacturer's recommended guidelines.
    - The appliance should be stored in a room free of continuously operating ignition sources (e.g., open flames, an operating gas appliance, or an operating electric heater).
    - Do not pierce or burn the appliance.
    - Be aware that refrigerants may be odorless.

Caution: Risk of fire

A2L

Read operator's manual

Operating instructions

Read technical manual

INSTRUCTIONS FOR SERVICING (R454B)

16. **Servicing Information:**
    1. **Area Checks**
       Before beginning work on systems containing flammable refrigerants, safety checks are essential to minimize the risk of ignition. The following precautions must be observed before starting repairs to the refrigeration system.
    2. **Work Procedure**
       Work must be carried out following a controlled procedure to minimize the risk of flammable gases or vapors being present during the work.
    3. **General Work Area**
       All maintenance personnel and others in the vicinity must be informed about the nature of the work being performed. Work in confined spaces should be avoided. The area around the workspace should be sectioned off, and conditions should be made safe by controlling any flammable materials.
    4. **Checking for the Presence of Refrigerant**
       Before and during work, the area should be checked with a suitable refrigerant detector to ensure that technicians are aware of any potentially flammable atmospheres. Ensure that the leak detection equipment used is appropriate for flammable refrigerants, meaning it is non-sparking, properly sealed, or intrinsically safe.
    5. **Presence of Fire Extinguisher**
       If any hot work is to be performed on the refrigeration equipment or related parts, ensure that appropriate fire extinguishing equipment is readily available. Keep a dry powder or CO2 fire extinguisher near the charging area.
    6. **No Ignition Sources**
       No one working on the refrigeration system, particularly when exposing pipes, should use ignition sources that could lead to the risk of fire or explosion. All potential ignition sources, including smoking, should be kept a safe distance from the installation, repair, removal, or disposal site where refrigerant may be released into the surrounding area. Before beginning work, inspect the area to ensure that no flammable hazards or ignition risks are present. “No Smoking” signs should be prominently displayed.
    7. **Ventilated Area**
       Ensure that the area is either open or adequately ventilated before opening the system or conducting any work that generates heat. Ventilation should continue throughout the work period. The ventilation should safely disperse any released refrigerant, ideally expelling it outdoors into the atmosphere.
    8. **Refrigeration Equipment**
       Checks When changing electrical components, ensure they are suitable for the task and meet the correct specifications. Always follow the manufacturer’s maintenance and service guidelines. If unsure, consult the manufacturer’s technical department for assistance.

INSTRUCTIONS FOR SERVICING (R454B)

The following checks must be conducted for installations using flammable refrigerants:

- The refrigerant charge size must match the room size where the refrigerant containing components are installed.
- The ventilation system and outlets must be functioning properly and free from obstructions.
- If an indirect refrigerating circuit is used, the secondary circuit must be checked for the presence of refrigerant.
- Equipment markings must remain visible and legible; any illegible markings or signs must be corrected.
- Refrigeration pipes or components should be installed in a way that minimizes exposure to substances that could corrode the refrigerant-containing parts, unless these parts are made from materials that are naturally resistant to corrosion or are adequately protected.

9. **Checks for Electrical Devices:**
   Repairs and maintenance of electrical components should include initial safety checks and component inspections. If a fault is identified that could compromise safety, the electrical supply to the circuit must be disconnected until the issue is resolved. If the fault cannot be immediately corrected but continued operation is necessary, a suitable temporary solution should be implemented, and the equipment owner should be informed.
   Initial safety checks must include:
   - Ensuring capacitors are discharged safely to avoid sparks.
   - Ensuring no live electrical components or wiring are exposed during charging, recovery, or purging of the system.
   - Verifying continuity of the earth bonding.

17. **Repairs to Sealed Components**
    1. Before working on sealed components, all electrical supplies must be disconnected from the equipment. If it is essential to maintain electrical supply during servicing, a permanently operating leak detection system should be installed at the most critical point to alert of potential hazards.
    2. Special care must be taken to avoid damaging the casing or altering its protective level. This includes ensuring cables are not damaged, avoiding excessive connections, ensuring terminals are in their original specification, and ensuring seals are intact and effective. The equipment should be securely mounted, and seals or sealing materials must not have deteriorated. Replacement parts must match the manufacturer's specifications.

Note: The use of silicon sealant may interfere with certain leak detection systems. Intrinsically safe components do not need to be isolated during maintenance.

18. **Repairs to Intrinsically Safe Components**
    Do not apply permanent inductive or capacitive loads to the circuit unless it does not exceed the permissible voltage and current for the equipment. Intrinsically safe components are the only type that can be worked on while live in the presence of a flammable atmosphere. The test equipment must match the correct rating. Only replace components with parts specified by the manufacturer, as using unauthorized parts could ignite refrigerant in the event of a leak.

INSTRUCTIONS FOR SERVICING (R454B)

19. **Cabling**
    Ensure that cables are protected from potential damage such as wear, corrosion, excessive pressure, vibration, sharp edges, or any other adverse environmental factors. This check should also consider the effects of aging and continuous vibration from sources like compressors or fans.
20. **Detection of Flammable Refrigerants**
    Under no circumstances should potential ignition sources be used when searching for or detecting refrigerant leaks. Halide torches or any other flame-based detectors should not be used.
21. **Leak Detection Methods**
    The following leak detection methods are acceptable for systems using flammable refrigerants:
    Electronic leak detectors may be used to detect flammable refrigerants, although their sensitivity may require recalibration. Detection equipment must be calibrated in a refrigerant-free area. Ensure the detector is not a potential ignition source and is suitable for the refrigerant in use. The equipment should be set to detect a percentage of the Lower Flammability Limit (LFL) of the refrigerant, with a maximum sensitivity of 25%. Calibration should match the refrigerant and the correct gas percentage. Leak detection fluids are generally safe for use with most refrigerants, but detergents containing chlorine should be avoided, as chlorine can react with the refrigerant and damage copper piping. If a leak is suspected, all open flames should be extinguished. If refrigerant leakage is found and brazing is necessary, the entire refrigerant charge must be recovered or isolated in a part of the system away from the leak using shut-off valves. Oxygen-free nitrogen (OFN) should then be purged through the system before and during the brazing process.
22. **Removal and Evacuation**
    When accessing the refrigerant circuit for repairs or other purposes, follow standard procedures. However, due to the risk of flammability, best practices must be adhered to. The following steps should be followed:
    - Remove the refrigerant.
    - Purge the circuit with inert gas.
    - Evacuate the system.
    - Purge again with inert gas.
    - Open the circuit by cutting or brazing.

    The refrigerant should be recovered into the appropriate recovery cylinders, and the system should be flushed with OFN to ensure safety. This process may need to be repeated several times. Compressed air or oxygen should never be used for this task.
    Flushing is done by breaking the system's vacuum with OFN, filling until the working pressure is reached, venting to the atmosphere, and then pulling the system back to a vacuum. This cycle should be repeated until all refrigerant is removed. Once the final OFN charge is used, the system should be vented to atmospheric pressure to allow for further work. This step is critical if brazing operations are planned on the pipework.
    Ensure that the vacuum pump outlet is not near any ignition sources and that there is adequate ventilation.
23. **Decommissioning**
    Before carrying out decommissioning, the technician must be thoroughly familiar with the equipment and its details. It is recommended to recover all refrigerants safely. Before starting, an oil and refrigerant sample should be taken for analysis, should the reclaimed refrigerant need to be reused. Electrical power must be available before beginning the task.

INSTRUCTIONS FOR SERVICING (R454B)

a) Familiarize yourself with the equipment and its operation.
b) Isolate the system electrically.
c) Before beginning the procedure, ensure that:
- Mechanical handling equipment is available, if necessary, for moving refrigerant cylinders.
- All required personal protective equipment (PPE) is available and being used correctly.
- The recovery process is supervised at all times by a competent person.
- Recovery equipment and cylinders meet the appropriate standards.

d) If possible, pump down the refrigerant system.
e) If a vacuum cannot be achieved, create a manifold to remove refrigerant from various parts of the system.
f) Ensure the cylinder is placed on scales before starting the recovery process.
g) Start the recovery machine and operate it according to the manufacturer's instructions.
h) Do not overfill cylinders (limit the liquid charge to no more than 80% of the cylinder's volume).
i) Never exceed the maximum working pressure of the cylinder, even temporarily.
j) After the cylinders are correctly filled and the process is complete, promptly remove the cylinders and equipment from the site, and ensure all isolation valves on the equipment are closed.
k) Recovered refrigerant should not be recharged into another refrigeration system unless it has been properly cleaned and checked.

24. **Labeling**

The equipment must be labeled to indicate it has been decommissioned and emptied of refrigerant. The label should be dated and signed. Additionally, labels should clearly state that the equipment contains flammable refrigerant.

25. **Recovery**

When removing refrigerants from a system, whether for servicing or decommissioning, it is best practice to ensure all refrigerants are removed safely.
When transferring refrigerant into cylinders, ensure that only appropriate recovery cylinders are used. Ensure enough cylinders are available to hold the total system charge. All cylinders should be designated for the recovered refrigerant and labeled accordingly (i.e., special cylinders for refrigerant recovery). Cylinders must be equipped with pressure-relief valves and shut-off valves in good working order. Empty recovery cylinders should be evacuated and, if possible, cooled before recovery begins.
Recovery equipment must be in good working condition, with clear instructions available for use. It should be suitable for recovering all applicable refrigerants, including flammable refrigerants, when required. Additionally, calibrated weighing scales should be available and in proper working order. Hoses must be equipped with leak-free disconnect couplings and be in good condition. Before using the recovery machine, ensure it is in satisfactory working order, has been properly maintained, and that any electrical components are sealed to prevent ignition in the event of refrigerant release. If in doubt, consult the manufacturer. Recovered refrigerant should be returned to the refrigerant supplier in the correct recovery cylinders, and a waste transfer note should be arranged. Do not mix different refrigerants in recovery units or cylinders.
If compressors or compressor oils need to be removed, ensure they are evacuated to an acceptable level to prevent flammable refrigerant from remaining in the lubricant. The evacuation process should be completed before returning the compressor to the supplier. Only electric heating should be used to accelerate this process. When draining oil from the system, it must be done safely.

INSTRUCTIONS FOR SERVICING (R454B)

1. Minimum installation height and minimum room area (for operation or storage) are specified in the installation manual.
2. Risk of Fire: Auxiliary devices that could be ignition sources must not be installed in the ductwork, except for auxiliary devices listed for use with the specific appliance. Refer to the instructions.
3. Mount the unit with the lowest moving parts at least 2.5 meters (8 feet) above the floor or ground level.
4. Risk of Electric Shock: Can cause injury or death. Disconnect all remote electric power supplies before servicing.
5. Risk of Fire: Flammable refrigerant is used. Repairs must only be carried out by trained service personnel. Do not puncture the refrigerant tubing.
6. Risk of Fire: Dispose of properly in accordance with federal or local regulations. Flammable refrigerant is used.
7. Risk of Fire: Flammable refrigerant is used. Consult the repair manual or owner's guide before attempting to service this product. All safety precautions must be followed.
8. Risk of Fire: Due to the use of flammable refrigerant. Follow handling instructions carefully in compliance with national regulations.

INSTALLATION PRECAUTIONS (R454B)

IMPORTANT CONSIDERATIONS

1. The mini split air conditionner must be installed by professional personnel and the Installation manual is used only for the professional installation personnel! The installation specifications should be subject to our after-sale service regulations.
2. When handling combustible refrigerant, any improper operation may result in serious injury to people or damage to property.
3. A leak test must be performed after the installation is completed.
4. A safety inspection must be conducted before maintaining or repairing an appliance that uses combustible refrigerant to minimize the risk of fire.
5. The machine must be operated following a controlled procedure to ensure that any risks from combustible gas or vapor during operation are minimized.
6. The requirements for the total weight of the refrigerant charge and the room area for installing a heat pump are provided in Tables GG.1 and GG.2 below.

THE MAXIMUM CHARGE AND THE REQUIRED MINIMUM FLOOR AREA

m_1 = (6 m^3) x LFL , m_2 = (52 m^3)) x LFL, m_3 = (260 m^3) x LFL

Where LFL is the lower flammable limit in kg/m^3, R454B LFL is 0.301 kg/m^3.

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 x $(LFL)^{(5/4)}$ x h_0 x $(A)^{1/2}$

The required minimum floor area Amin to install an appliance with refrigerant charge M (kg) shall be in accordance with following: A_{min} = $(M/ (2.5 x (LFL)^{(5/4)} x h_0))^2$

Where:

Table GG.1 - Maximum charge (kg)

Category	LFL (kg/m^3)	h_0(m)	Floor area (m^2)						
			4	7	10	15	20	30	50
R454B	0.301	1	0.3	0.5	0.8	1.1	1.5	2.3	3.8
		1.8	0.54	0.95	1.4	2	2.7	4.1	6.8
		2.2	0.7	1.2	1.7	2.5	3.3	5	8.3

Table GG.2 - Minimum room area (m^2)

Category	LFL (kg/m^3)	h_0(m)	Charge amount (M) (kg) Minimum room area (m^2)						
			1 kg	1.2 kg	1.4 kg	1.6 kg	1.8 kg	2.0 kg	2.2 kg
R454B	0.301	1	13.29	15.95	18.60	21.26	23.92	26.58	29.24
		1.8	7.38	8.86	10.34	11.81	13.29	14.77	16.24
		2.2	6.04	7.25	8.46	9.66	10.87	12.08	13.29

Principles of Safe Installation

1. Site Safety

Open Flames Prohibited

Ventilation Necessary

2. Operation Safety

Mind Static Electricity

Must wear protective clothing and anti-static gloves

Do not use mobile phone

INSTALLATION PRECAUTIONS (R454B)

3. Installation Safety

• Refrigerant Leak Detector

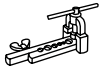
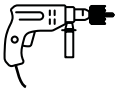
• Appropriate Installation Location

The picture is the schematic diagram of a refrigerant leak detector.

Please note that:

1. The installation site should be well-ventilated.
2. The sites for installing and maintaining an appliance using Refrigerant R454B should be free from open fire or welding, smoking, drying oven or any other heat source higher than 548 Celsius which easily produces open fire.
3. When installing a mini split air conditionner, it is necessary to take appropriate anti-static measures such as wearing anti-static clothing and/or gloves.
4. It is essential to select a location that is convenient for installation and maintenance, where the air inlets and outlets of both the indoor and outdoor units are not obstructed, and are away from heat sources or combustible and/or explosive environments.
5. If a refrigerant leak occurs in the indoor unit during installation, the valve of the outdoor unit must be turned off immediately, and all personnel should evacuate the area for at least 15 minutes until the refrigerant has fully dissipated. If the product is damaged, it must be returned to the maintenance station. Welding the refrigerant pipes or performing any other repairs on-site is strictly prohibited.
6. It is important to select a location where the airflow to and from the indoor unit remains balanced and unobstructed.
7. It is important to avoid locations where electrical devices, power switches, plugs, sockets, kitchen cabinets, beds, sofas, or other valuable items are positioned directly beneath the lines extending from both sides of the indoor unit.

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			

INSTALLATION PRECAUTIONS (R454B)

PIPE LENGTH AND ADDITIONAL REFRIGERANT

Inverter Models Capacity (Btu/h)	9K-12K		18K-24K		30K-36K	
Length of pipe with standard charge	5 m/16 ft.					
Length of pipe with standard charge (Like: North American, etc.)	7.5 m/24 ft.					
Maximum distance between indoor and outdoor unit	15 m/49 ft.		20 m/65 ft.		30 m/98 ft.	
Additional refrigerant charge	20 g/m	10 g/m	30 g/m	10 g/m	30 g/m	10 g/m
Max. diff. in level between indoor and outdoor unit	10 m/32 ft.		15 m/48 ft.		20 m/65 ft.	
Type of refrigerant	R22/R410A	R454B	R22/R410A	R454B	R22/R410A	R454B

TORQUE PARAMETERS

PIPE Size	Newton meter [N x m]	Pound-force foot (lbf-ft.)	Kilogram-force meter (kgf-m)
1/4" (Φ 6.35)	15 - 20	11.1 - 14.8	1.5 - 2.0
3/8" (Φ 9.52)	31 - 35	22.9 - 25.8	3.2 - 3.6
1/2" (Φ 12)	45 - 50	33.2 - 36.9	4.6 - 5.1
5/8" (Φ 15.88)	60 - 65	44.3 - 48.0	6.1 - 6.6

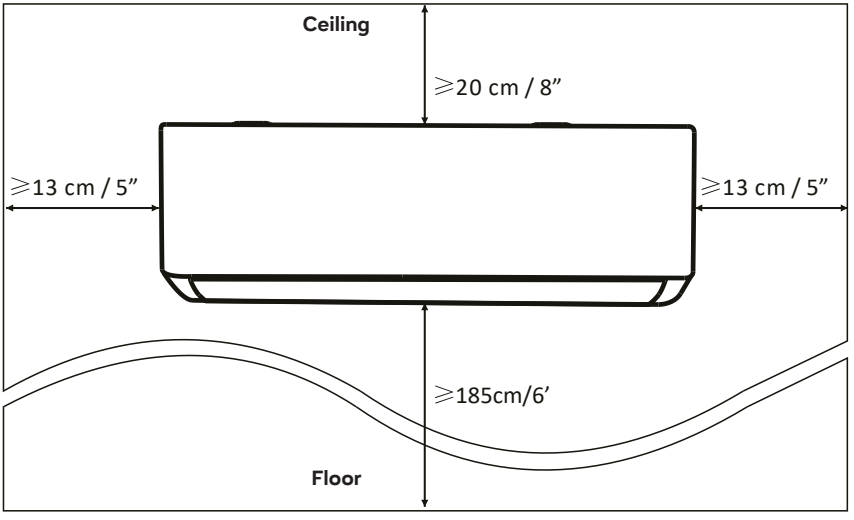
⚠ **Note:** This table is for reference only; the installation must comply with local laws and regulations.

INDOOR UNIT INSTALLATION

STEP 1: SELECT INSTALLATION LOCATION

1.1 Ensure the installation meets the minimum dimensions specified (outlined below) and adheres to the required minimum and maximum piping length, as well as the maximum allowable elevation change, as defined in the System Requirements section.
1.2 Ensure that both the air inlet and outlet are free from obstructions to allow proper airflow throughout the room.
1.3 Ensure that the condensate can be easily and safely drained.
1.4 Ensure that all connections to the outdoor unit can be easily made.
1.5 Ensure the indoor unit is installed out of the reach of children.
1.6 Ensure the mounting wall is strong enough to support four times the full weight and vibration of the unit.
1.7 Ensure the filter is easily accessible for cleaning.
1.8 Allow sufficient free space for routine maintenance access.
1.9 Install the unit at least 10 feet (3 meters) away from the antenna of a TV or radio. The operation of the air conditioner may interfere with radio or TV reception in areas with weak signals. An amplifier may be necessary for affected devices.
1.10 Do not install the unit in a laundry room or near a swimming pool due to the corrosive environment.
1.11 For ETL certification: Caution—Mount the unit with the lowest moving parts at least 6 feet (1.85 meters) above the floor or ground level.

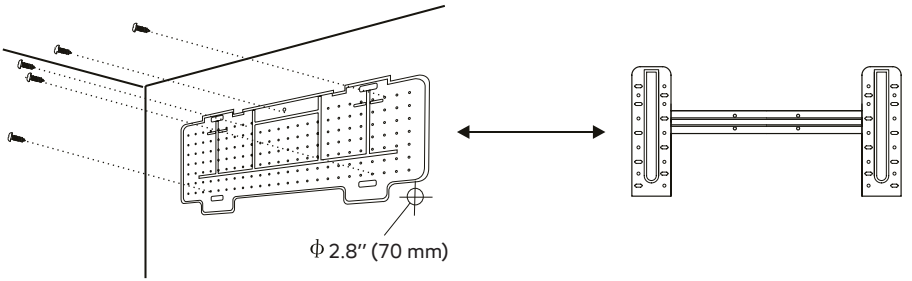
Minimum Indoor Clearances



INDOOR UNIT INSTALLATION

STEP 2: INSTALL MOUNTING PLATE

2.1 Remove the mounting plate from the back of the indoor unit.
2.2 Ensure that the minimum installation dimension requirements from Step 1 are met. Based on the size of the mounting plate, determine its position and attach it to the wall.
2.3 Use a spirit level to adjust the mounting plate horizontally, then mark the positions for the screw holes on the wall.
2.4 Set the mounting plate aside and drill holes at the marked positions.
2.5 Insert the expansion rubber plugs into the drilled holes, then hang the mounting plate and secure it with screws.



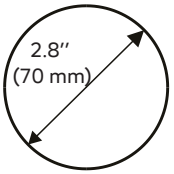
Note:
(I) Ensure that the mounting plate is securely attached and lies flat against the wall after installation.
(II) The figure shown may differ from the actual object; please refer to the latter as the standard.

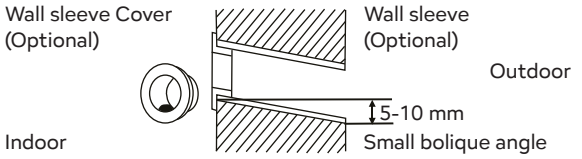
STEP 3: DRILL WALL HOLE

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

3.1 Determine the location of the wall hole based on the position of the mounting plate.
3.2 The hole should have a minimum diameter of 70 mm and a slight downward angle to facilitate drainage.
3.3 Drill the hole using a 70 mm core drill at a slight downward angle, ensuring the indoor end is 5 mm to 10 mm lower.
3.4 Install the wall sleeve and wall sleeve cover (optional components) to protect the connection areas.

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



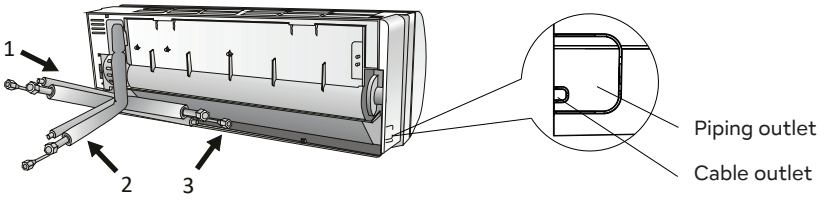


INDOOR UNIT INSTALLATION

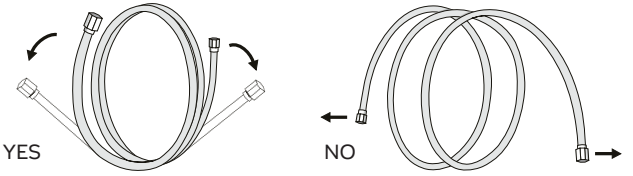
STEP 4: CONNECTING REFRIGERANT PIPE

4.1 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.

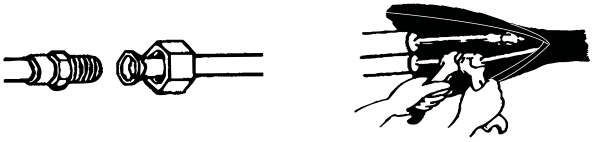
Note: When cutting the plastic sheet at the outlet, the edges should be trimmed to a smooth finish.



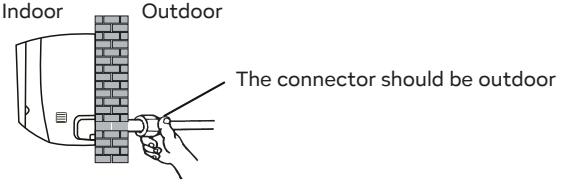
4.2 Bend the connecting pipes with the port facing up as shown in the figure.



4.3 Remove the plastic cover from the pipe ports and take off the protective cover from the ends of the piping connectors.
4.4 Check for any debris on the port of the connecting pipe and ensure the port is clean.
4.5 After aligning the center, rotate the nut of the connecting pipe and tighten it as much as possible by hand.
4.6 Use a torque wrench to tighten it according to the torque values in the specified torque requirements table; (Refer to the torque requirements table on section **INSTALLATION PRECAUTIONS**)
4.7 Wrap the joint with the insulation pipe.

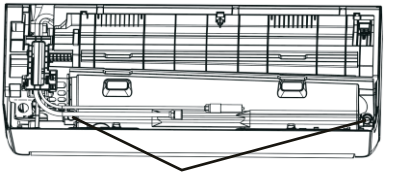


Note: When flared joints are reused indoors, the flared section shall be re-fabricated.



INDOOR UNIT INSTALLATION

STEP 5: CONNECT DRAINAGE HOSE



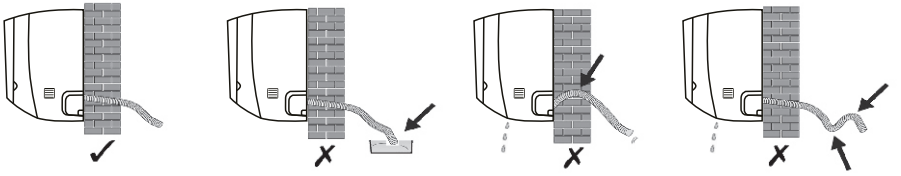
Drainage ports

5.1 Adjust the drainage hose (if applicable).
In some model, both sides of the indoor unit are provided with drainage ports, you can choose one of them to attache the drainage hose. And plug the unused drain port with the rubber attached in one of the ports.

5.2 Connect the drainage hose to the drainage port, ensuring the connection is secure and the seal is effective.

5.3 Secure the joint tightly with Teflon tape to prevent any leaks.

Note: Ensure that the pipes are free from any twists or dents, and are installed with a downward slope to prevent blockages and guarantee proper drainage.



STEP 6: CONNECT WIRING

6.1 Select the appropriate cable size based on the maximum operating current specified on the nameplate. Verify the cable size by referring to the **INSTALLATION PRECAUTIONS** section.

6.2 Open the indoor unit front panel.

6.3 Use a screwdriver to remove the cover of the electrical control box, exposing the terminal block.

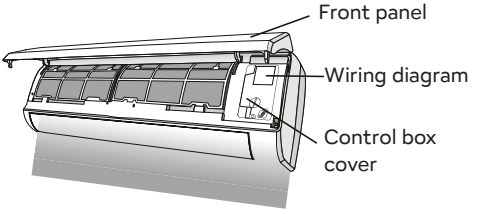
6.4 Unscrew the cable clamp.

6.5 Insert one end of the cable into the control box through the right rear side of the indoor unit.

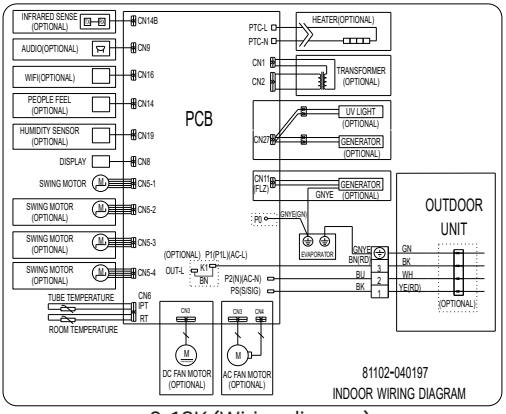
6.6 Connect the wires to corresponding terminalaccording to the wiring diagram on the electric control box cover. Make sure that they are well connected.

6.7 Screw the cable clamp to fasten the cables.

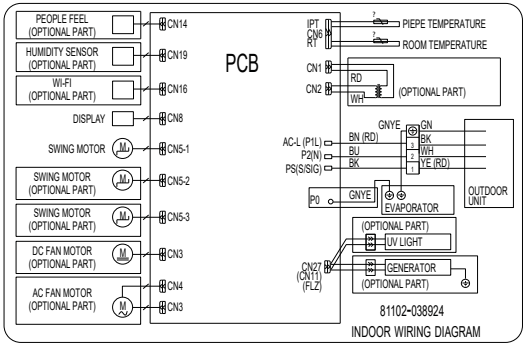
6.8 Reinstall the electric control box cover and front panel.



INDOOR UNIT INSTALLATION



9-18K (Wiring diagram)



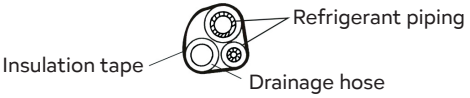
24-36K (Wiring diagram)

INDOOR UNIT INSTALLATION

STEP 7: WRAP PIPING AND CABLE

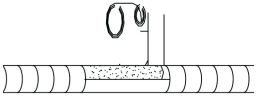
Once the refrigerant pipes, connecting wires, and drainage hose are installed, bundle them with insulating tape to save space, protect, and insulate them before passing them through the wall hole.

7.1 Arrange the pipes, cables and drainage hose well the following picture.



Note:

(I) Make sure the drainage hose is at the bottom.
(II) Avoid crossing and bending the parts.



7.2 Use insulating tape to tightly bundle the refrigerant pipes, connecting wires, and drainage hose together.

STEP 8: MOUNT INDOOR UNIT

8.1 Carefully pass the bundled refrigerant pipes, connecting wires, and drainage hose through the wall hole.
8.2 Hook the top of indoor unit on the mounting plate.
8.3 Gently apply pressure to both the left and right sides of the indoor unit to ensure it is securely hooked in place.
8.4 Push down on the bottom of the indoor unit to allow the snaps to engage with the hooks on the mounting plate, ensuring it is securely hooked in place.

If the refrigerant pipes are already embedded in the wall, or if you need to connect the pipes and wires along the wall, follow the steps below:

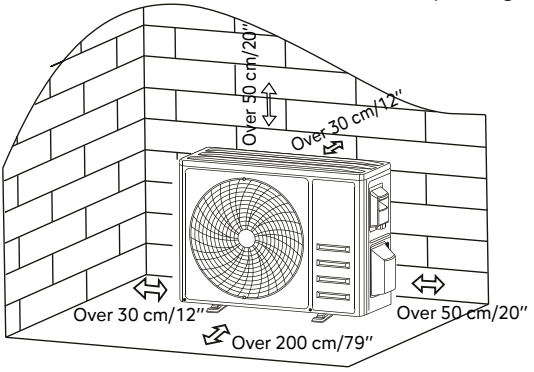
(I) Hold both ends of the bottom plate and apply a slight outward force to remove it.
(II) Hang the top of the indoor unit on the mounting plate, ensuring no piping or wiring is attached yet.
(III) Lift the indoor unit away from the wall, unfold the bracket on the mounting plate, and use this bracket to support the indoor unit, creating ample space for easier operation.
(IV) Complete the refrigerant piping, wiring, and drainage hose connections, and secure them as described in Steps 4 to 7.
(V) Reattach the bracket to the mounting plate.
(VI) Lower the bottom of the indoor unit to snap it onto the bottom hooks of the mounting plate, ensuring a secure fit.
(VII) Finally, replace the bottom plate of the indoor unit.

OUTDOOR UNIT INSTALLATION

STEP 1: SELECT INSTALLATION LOCATION

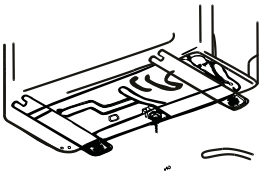
Choose a location that meets the following criteria:

1.1 Do not install the outdoor unit near heat sources, steam, or flammable gases.
1.2 Avoid installing the unit in areas with high wind or dust.
1.3 Do not install the unit in high-traffic areas. Select a location where the airflow and operating noise will not disturb neighbors.
1.4 Avoid placing the unit in direct sunlight. If this is unavoidable, use protection (if necessary) that does not obstruct airflow.
1.5 Ensure there is sufficient space for air circulation as shown in the diagram.
1.6 Install the outdoor unit on a secure, stable surface.
1.7 If the unit is subject to vibration, place rubber mats beneath its feet to minimize movement.



STEP 2: INSTALL DRAINAGE HOSE

2.1 This step applies only to heat pump models or RCACs.
2.2 Insert the drainage joint into the hole at the bottom of the outdoor unit.
2.3 Connect the drainage hose to the joint, ensuring a secure and proper connection.

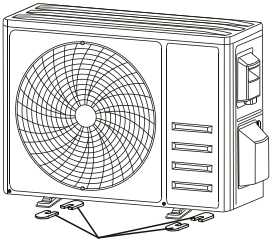


Drainage joint Drainage hose

STEP 3: FIX OUTDOOR UNIT

3.1 The outdoor unit can be mounted on a wall-mounting bracket. Follow the instructions provided with the bracket. The wall-mounting bracket must be capable of supporting at least four times the weight of the outdoor unit. Use the installation dimensions of the outdoor unit to mark the position for the expansion bolts.
3.2 Drill the necessary holes, clean off any concrete dust, and place the bolts.
3.3 If desired, install 4 rubber blankets in the holes before placing the outdoor unit. This step is optional but helps reduce vibrations and noise.
3.4 Position the outdoor unit's base onto the bolts and pre-drilled holes.
3.5 Use a wrench to securely fasten the outdoor unit with the bolts.

Note:
The outdoor unit can be mounted on a wall-mounting bracket. Follow the instructions provided with the bracket to securely attach it to the wall, then fasten the outdoor unit to the bracket, ensuring it remains level. The wall-mounting bracket must be capable of supporting at least four times the weight of the outdoor unit.



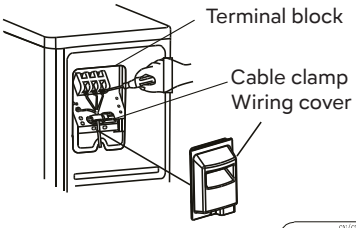
Install 4 rubber blankets (Optional)

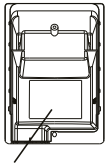
OUTDOOR UNIT INSTALLATION

STEP 4: INSTALL WIRING

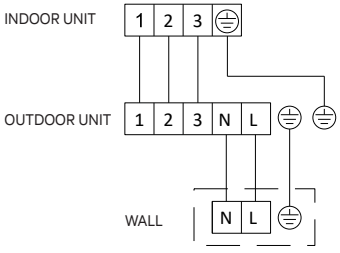
4.1 Use a Phillips screwdriver to remove the wiring cover. Gently grasp it and press down to detach it.
4.2 Unscrew and remove the cable clamp.
4.3 Refer to the wiring diagram inside the wiring cover to connect the wires to the corresponding terminals, ensuring all connections are secure and firm.
4.4 Reinstall the cable clamp and wiring cover.

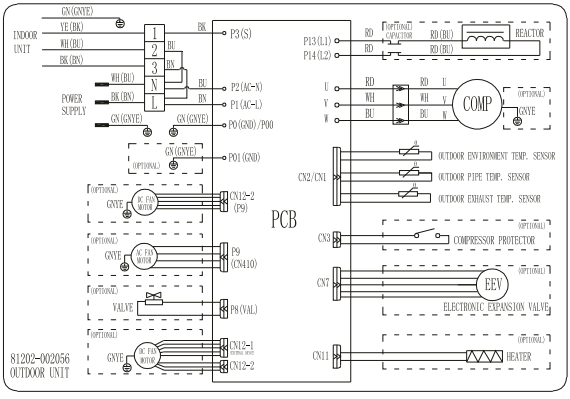
Note: Ensure the power is turned off when connecting the wires between the indoor and outdoor units.



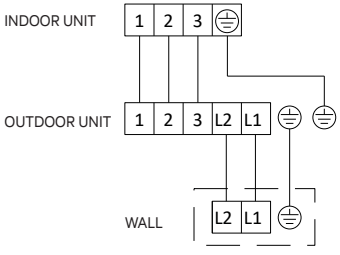


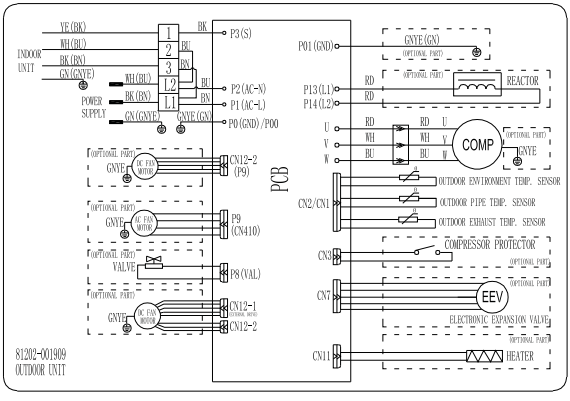
Wiring diagram





9-12K (115V) Wiring diagram





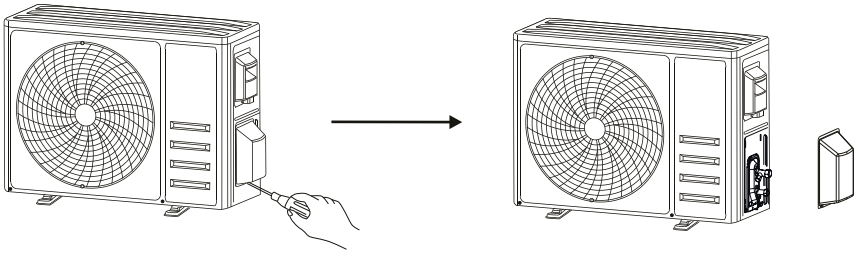
18-36K (115V) / 9K-36K (230V) Wiring diagram

OUTDOOR UNIT INSTALLATION

Unit	Fuse type and rating	Unit	Fuse type and rating
9K-230V indoor unit	4A 250V	18K indoor unit	4A 250V
9K-230V outdoor unit	15A/250V	18K outdoor unit	25A/250V
9K-115V indoor unit	4A 250V	24K indoor unit	30A/250V
9K-115V outdoor unit	25A/250V	24K outdoor unit	4A 250V
12K-230V indoor unit	4A 250V	24K outdoor unit	3.15A/250VAC
12K-230V outdoor unit	15A/250V	36K indoor unit	30A/250V
12K-115V indoor unit	4A 250V	36K outdoor unit	4A 250V
12K-115V outdoor unit	25A/250V	36K outdoor unit	3.15A/250VAC

STEP 5: CONNECTING REFRIGERANT PIPE

5.1 Unscrew the valve cover, then gently grasp and press it down to remove it (if applicable).
5.2 Remove the protective caps from the ends of the valves.
5.3 Check the connection port for any debris and ensure it is clean.
5.4 Align the center, then hand-tighten the flare nut of the connecting pipe as securely as possible.
5.5 Use a spanner to hold the valve body and then use a torque wrench to tighten the flare nut according to the torque specifications in the torque requirements table.
(Refer to the torque requirements table in the **INSTALLATION PRECAUTIONS** section.)

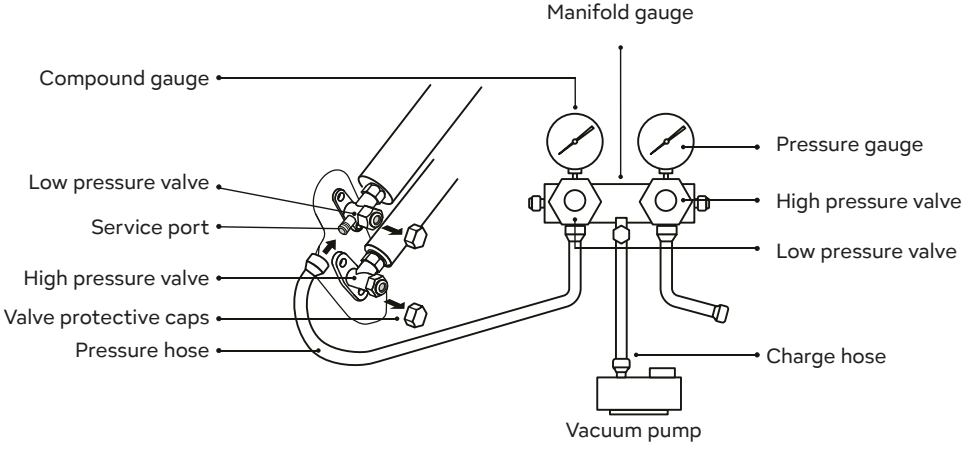


Take down the valve cover

OUTDOOR UNIT INSTALLATION

STEP 6: VACUUM PUMPING

6.1 Use a spanner to remove the protective caps from the service port, low-pressure valve, and high-pressure valve on the outdoor unit.
6.2 Connect the pressure hose from the manifold gauge to the service port on the outdoor unit's low-pressure valve.
6.3 Connect the charge hose from the manifold gauge to the vacuum pump.
6.4 Open the low-pressure valve on the manifold gauge and close the high-pressure valve.
6.5 The vacuuming process should take no less than 15 minutes or ensure the compound gauge reads -0.1 MPa (-76 cmHg).
6.7 Close the low-pressure valve on the manifold gauge and turn off the vacuum.
6.8 Hold the pressure for 5 minutes, ensuring the compound gauge pointer does not rebound by more than 0.005 MPa.
6.9 Open the low-pressure valve counterclockwise for 1/4 turn using a hexagonal wrench to allow a small amount of refrigerant to enter the system, then close the valve after 5 seconds and quickly remove the pressure hose.
6.10 Check all indoor and outdoor connections for leaks using soapy water or a leak detector.
6.11 Fully open both the low-pressure and high-pressure valves on the outdoor unit using a hexagonal wrench.
6.12 Reinstall the protective caps on the service port, low-pressure valve, and high-pressure valve of the outdoor unit.
6.13 Reinstall the valve cover.



TEST OPERATION

INSPECTIONS BEFORE TEST RUN

Perform the following checks before conducting the test run.

Description	Inspection method
Electrical safety inspection	• Verify that the power supply voltage meets the specified requirements. • Ensure that there are no incorrect or missing connections between the power lines, signal lines, and earth wires. • Check that the earth resistance and insulation resistance are in compliance with the required standards.
Installation safety inspection	• Verify the direction and smoothness of the drainage pipe. • Ensure that the refrigerant pipe joint is properly installed. • Check the safety of the outdoor unit, mounting plate, and indoor unit installation. • Confirm that the valves are fully open. • Ensure that no foreign objects or tools are left inside the unit. • Complete the installation of the indoor unit's air inlet grille and panel.
Refrigerant leakage detection	• Check the piping joints, the connectors of the two valves on the outdoor unit, the valve spool, the welding ports, and other areas where leakage may occur. • **Foam Detection Method:** Apply soapy water or foam evenly to the areas where leakage might occur and observe if bubbles form. If no bubbles appear, it indicates that the leakage test result is safe. • **Leak Detector Method:** Use a professional leak detector, following the manufacturer's instructions, to check the areas where leakage may occur. • Leak detection should last for at least 3 minutes per position. • If leakage is detected, tighten the nut and retest until no leakage is found. • Once the leak detection is complete, wrap the exposed pipe connectors of the indoor unit with thermal insulation material and secure them with insulation tape.

TEST OPERATION

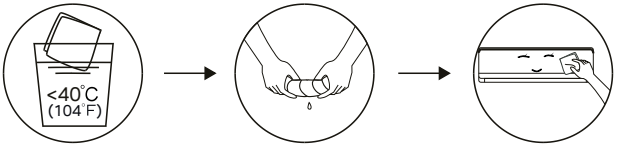
TEST RUN INSTRUCTION

1. Turn on the power supply.
2. Press the ON/OFF button on the remote control to turn on the appliance.
3. Press the Mode button to switch between COOLING and HEATING modes.
   a. In COOLING mode, set the temperature to the lowest setting.
   b. In HEATING mode, set the temperature to the highest setting.
4. Run the unit for approximately 8 minutes in each mode and check that all functions are operating properly and responding to the remote control. The functions to check include:
   4.1 Ensure the outlet air temperature corresponds to the cooling and heating modes.
   4.2 Verify that water drains properly from the drainage hose.
   4.3 Confirm that the louver and deflectors (if applicable) rotate correctly.
5. Observe the mini split's performance for at least 30 minutes during the test run.
6. After a successful test run, return the settings to normal and press the ON/OFF button on the remote control to turn off the unit.
7. Advise the user to read the manual carefully before use, and demonstrate how to operate the appliance, the necessary service and maintenance procedures, and the proper storage of accessories.

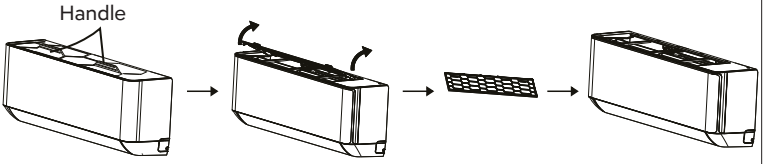
Note:

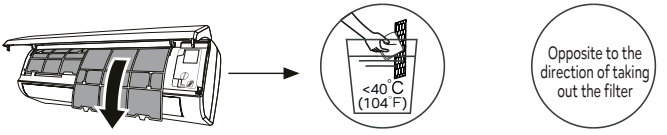
If the ambient temperature exceeds the range specified in the OPERATION INSTRUCTIONS section, and the unit cannot run in COOLING or HEATING mode, lift the front panel and refer to the emergency button for operating the COOLING and HEATING modes.

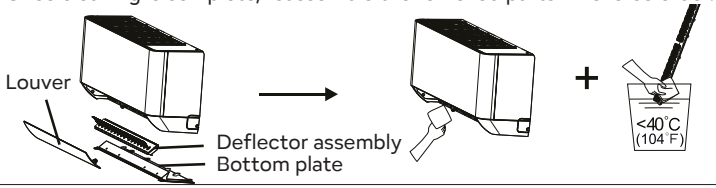
MAINTENANCE

Description	Inspection method
⚠ Warning	• Before cleaning, always turn off the unit and disconnect the power supply for at least 5 minutes. • Under no circumstances should the appliance be rinsed with water. • Avoid using volatile liquids (such as thinner or gasoline) as they can damage the appliance. Only use a soft, dry cloth or a damp cloth with a mild detergent to clean the unit. • Regularly clean the filter screen to prevent dust buildup, which can reduce its effectiveness. If the operating environment is particularly dusty, increase the cleaning frequency accordingly. • When removing the filter screen, avoid touching the fins of the indoor unit to prevent scratching.
Clean the unit	 Wring out the cloth and gently wipe the surface of the unit. Tip: Clean the indoor unit regularly to maintain its appearance and ensure it stays in good condition.

MAINTENANCE

<table>
<tr><th>Description</th><th>Inspection method</th></tr>
<tr><td>Disassembly and assembly of filter</td><td>
• Grasp the raised handle on the filter and pull it out in a direction away from the unit, so that the upper edge of the filter is detached from the unit. The filter can then be removed by lifting it upward.
• To install the filter, first insert the lower end of the filter into the designated slot on the unit, then press the upper end of the filter into its corresponding locking position on the unit.


</td></tr>
<tr><td>Clean the filter</td><td>


Take out the filter from the unit
Clean the filter with soapy water and air dry it
Replace the filter
Tip: If you notice dust buildup on the filter, be sure to clean it promptly to maintain the air conditioner's cleanliness, efficiency, and proper functioning.
</td></tr>
<tr><td>Indoor Unit Cleaning</td><td>
• First, loosen the knob in the middle of the louver and bend it outward to remove it.
• Next, grasp both sides of the bottom plate and push downward to detach it.
• Finally, release the buckle on the deflector assembly with your thumb and remove it.
• Wipe the air duct and fan assembly with a clean, wrung-out wet cloth.
• Clean the removed parts using soapy water and allow them to air dry.
• Once cleaning is complete, reassemble the removed parts in reverse order.


</td></tr>
<tr><td>Service and maintenance</td><td>
When the appliance has been out of use for an extended period, please follow these steps:
1. Remove the batteries from the remote control and disconnect the appliance 's power supply.
Before using the appliance after a long period of inactivity, please ensure the following:
1. Clean both the unit and the filter screen.
2. Check for any blockages in the air inlet and outlet of both the indoor and outdoor units.
3. Verify that the drain pipe is clear and unobstructed.
4. Reinsert the remote control batteries and confirm that the power is on.
</td></tr>
</table>

TROUBLESHOOTING

Malfunction	Possible causes
The appliance is not functioning	• Power failure/plug pulled out. • Damaged indoor/outdoor unit fan motor. • Faulty compressor thermomagnetic circuit breaker. • Faulty protective device or fuses. • Loose connections or plug pulled out. • It may occasionally stop operating to protect the appliance. • Voltage outside the specified range. • Active TIMER-ON function. • Damaged electronic control board.
Strange odor	Dirty air filter.
Flowing water noise	Back flow of liquid in the refrigerant circulation.
A fine mist is emitted from the air outlet	This happens when the room air becomes very cold, such as in the COOLING or DEHUMIDIFYING/DRY modes.
An unusual noise may be heard	This noise is caused by the expansion or contraction of the front panel due to temperature changes and does not signify a problem.
Insufficient airflow either hot or cold	• Inappropriate temperature setting. • Obstructed air conditioner intakes and outlets. • Dirty air filter. • Fan speed set at minimum. • Other sources of heat in the room. • No refrigerant.
The appliance does not respond to instructions	• Remote control is too far from the unit. • The remote control batteries need to be replaced. • Obstructions between the remote control and signal receiver on indoor unit.
The display is off	• Activate the DISPLAY function. • Power failure.
Immediately turn off the appliance and disconnect 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. • Intense odors emanating from the appliance.

TROUBLESHOOTING

ERROR CODE ON THE DISPLAY

In the event of an error, the display on the indoor unit will show the following error:

Display	Description of the trouble
E1	Indoor room temperature sensor fault
E2	Indoor pipe temperature sensor fault
E3	Outdoor pipe temperature sensor fault
E4	Refrigerant system leakage or fault
E6	Malfunction of indoor fan motor
E7	Outdoor ambient temperature sensor fault
E0	Indoor and outdoor communication fault
E8	Outdoor discharge temperature sensor fault
E9	Outdoor IPM module fault
EA	Outdoor current detect fault
EE	Outdoor PCB EEPROM fault
EF	Outdoor fan motor fault
EH	Outdoor suction temperature sensor fault

DISPOSAL GUIDELINE

This air conditionner contains refrigerant and other potentially hazardous materials. By law, special collection and treatment are required when disposing of it. **DO NOT** dispose of this product with household waste or unsorted municipal waste.

You have the following disposal options:

- Take the air conditionner to a designated municipal electronic waste collection facility.
- When purchasing a new air conditionner, the retailer could accept the old one for disposal free of charge.
- Sell the appliance to certified scrap metal dealers.

Disposing of this air conditionner in forests or other natural areas poses a health risk and harms the environment. Hazardous substances may leak into the groundwater and enter the food chain.

WARRANTY AND TROUBLESHOOTING

This product comes with a limited 5-year warranty on parts and the compressor, starting from the date of purchase. For full warranty coverage details, please refer to our website. Remember to keep your proof of professional installation (for the gas balance portion), as it may be required for warranty purposes.

If you experience any issues with the product, we suggest referring to the troubleshooting section of this guide for potential solutions.

Should you require further assistance or have any questions, please do not hesitate to reach out to our Customer Service team, we will be happy to assist you.

To ensure a smooth and efficient experience when reaching out to our Customer Service team, we kindly recommend having the following information readily available. This will help expedite the process and allow us to assist you more quickly and effectively.

- Purchase reference number
- Product model number
- Serial number

For contact details and further information, visit our website.

www.comforttemps.com

www.comforttemps.ca

We hope this guide helps ensure a smooth experience with your product. If you have any questions or need further assistance, please reach out to us.

We're here to help!