TCL

Hi! Let’s Get Started.



Ductless Mini Split

Installation and User Manual

This manual contains the installation instructions and user information for the following TCL ductless mini split models.



Indoor unit	Outdoor unit
TH09SVH23BWE	TH09SVH23BWC
TH12SVH23BWE	TH12SVH23BWC
TH12SVH23XWE	TH12SVH23XWC
TH18SVH22XWE	TH18SVH22XWC
TH24SVH21XWE	TH24SVH21XWC

This instruction manual contains important information and recommendations that we would ask you to comply with to obtain the best results from the air conditioner.

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* The design and specifications are subject to change without prior notice for product improvement. Consult with the sales agency or manufacturer for details.
* The shape and position of buttons and indicators may vary according to the model, but their function are the same.

SAFETY PRECAUTIONS

SAFETY RULES AND RECOMMENDATIONS FOR THE INSTALLER

1. It is necessary to read this guide in its entirety before beginning installation.

2. Installation must be completed in accordance with all local, state, or federal laws and regulations. Please note that in many jurisdictions it is illegal for HVAC installation to be completed by anyone other than a licensed contractor.

3. Prior to beginning any electrical work, it is necessary to turn off the main circuit breaker and to ensure that there is no power flowing through the electrical system. Failure to do so can result in severe injury or death.

4. It is important to take steps to make sure that refrigerant leakage does not occur. Refrigerant leakage can be extremely dangerous, with the possibility of explosion or poisoning. Keep gas-burning appliances, electric heaters, and any other heat or flame sources away from the location where HVAC work is occurring. Under no circumstances should installers smoke during installation. If refrigerant comes into contact with a flame, poisonous gases will be released. If any refrigerant leakage does occur, immediately stop all work and ventilate the room.

5. All electrical work must be performed by a qualified technician according to local laws and regulations and the instructions given in this manual. Do not use intermediate connection of the electric wires. Use only specified cables for wiring. The wiring connections must be made securely with no tension applied to the terminal connections. Also, never splice the cables for wiring (unless otherwise indicated in this document). Failure to observe these instructions may result in overheating or a fire.

6. Only use the specified refrigerant written on outdoor unit to charge the refrigerant lines. Do not mix it with any other refrigerant and do not allow air to remain in the lines. If air is mixed with the refrigerant, then an explosion can occur.

7. During the installation of the indoor and outdoor units, access to the working area should be forbidden for children. Unforeseeable accidents could happen.

8. During the installation of the indoor and outdoor units, access to the working area should be forbidden for children. Unforeseeable accidents could happen.

9. Make sure that the base of the outdoor unit is firmly fixed.

10. Check that air cannot enter the refrigerant system and check for refrigerant leaks when moving the air conditioner.

11. Carry out a test cycle after installing the air conditioner and record the operating data.

12. Protect the indoor unit with a fuse of suitable capacity for the maximum input current or with another overload protection device.

13. Ensure that the mains voltage corresponds to that stamped 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.

14. Check that the socket is suitable for the plug, otherwise have the socket changed.

SAFETY PRECAUTIONS

SAFETY RULES AND RECOMMENDATIONS FOR THE INSTALLER

15. The appliance must be fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under "over voltage category III conditions" and these means must be incorporated in the fixed wiring in accordance with the wiring rules.

16. The air conditioner must be installed by professional or qualified persons.

17. Do not install the appliance at a distance of less than 50cm from inflammable substances (alcohol, etc.) or from pressurized containers (e.g. spray cans).

18. If the appliance is used in areas without the possibility of ventilation, precautions must be taken to prevent any leaks of refrigerant gas from remaining in the environment and creating a danger of fire.

19. The packaging materials are recyclable and should be disposed of in the separate waste bins. Take the air conditioner at the end of its useful life to a special waste collection center for disposal.

20. Only use the air conditioner 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.

21. The appliance must be installed in accordance with applicable local, state and national laws and regulations.

22. Before accessing the terminals, all the power circuits must be disconnected from the power supply.

23. The appliance shall be installed in accordance with local, state and national laws and regulations according NEC code.

24. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or a lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children should not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

25. Do not try to install the conditioner alone, always contact specialized technical personnel.

26. Cleaning and maintenance must be carried out by specialized technical personnel. In any case disconnect the appliance from the mains electricity supply before carrying out any cleaning or maintenance.

27. Ensure that the mains voltage corresponds to that stamped 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.

28. Do not pull out the plug to switch off the appliance when it is in operation, since this could create a spark and cause a fire, etc.

29. This appliance has been made for air conditioning domestic environments and must not be used for any other purpose, such as for drying clothes, cooling food, etc.

SAFETY PRECAUTIONS

SAFETY RULES AND RECOMMENDATIONS FOR THE INSTALLER

30. Always use the appliance with the air filter mounted. The use of the conditioner without air filter could cause an excessive accumulation of dust or waste on the inner parts of the device with possible subsequent failures.

31. The user is responsible for having the appliance installed by a qualified technician, who must check that earthing/grounding is done in accordance with current legislation and insert a thermos magnetic circuit breaker.

32. The batteries in the remote controller must be recycled or disposed of properly. For disposal of scrap batteries, please discard the batteries as sorted municipal waste at the accessible collection point.

33. Never remain directly exposed to the flow of cold air for a long 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.

34. If the appliance gives off smoke or there is a smell of burning, immediately cut off the power supply and contact the Service Provider.

35. The prolonged use of the device in such conditions could cause fire or electrocution.

36. Have repairs carried out only by an authorized Service Provider of the manufacturer. Incorrect repair could expose the user to the risk of electric shock, etc.

37. Unhook the automatic switch if you foresee not using the device for a long time. The airflow direction must be properly adjusted.

38. The flaps must be directed downwards in the heating mode and upwards in the cooling mode.

39. 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.

40. Selecting the most suitable temperature can prevent damage to the appliance.

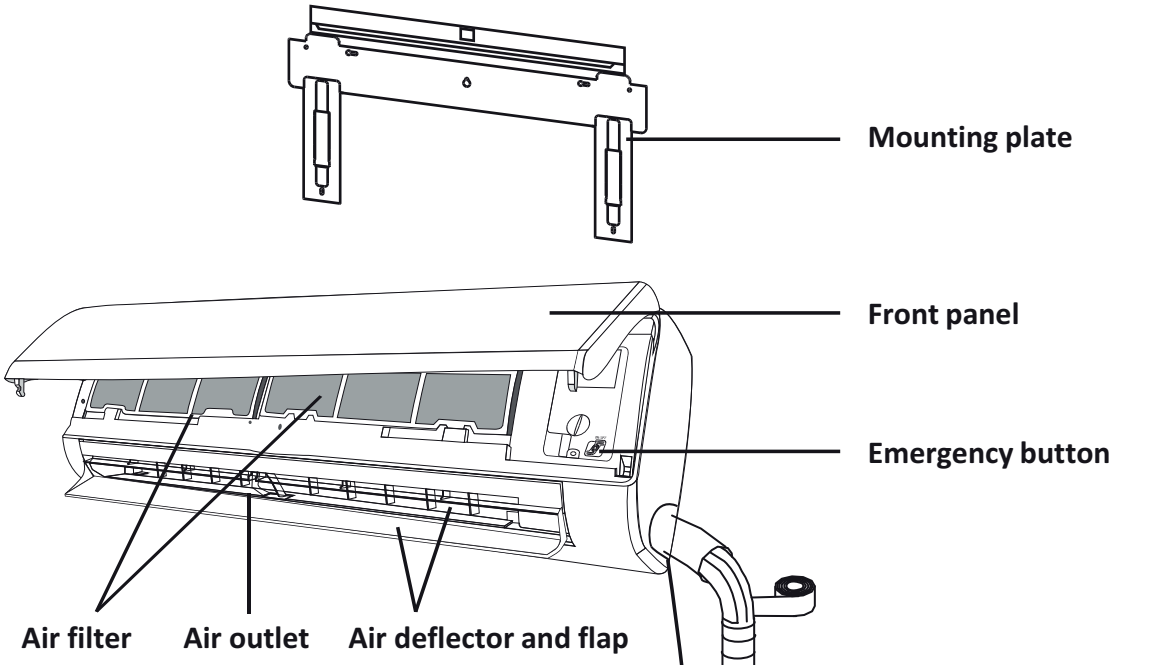
SAFETY PRECAUTIONS

SAFETY RULES AND PROHIBITIONS

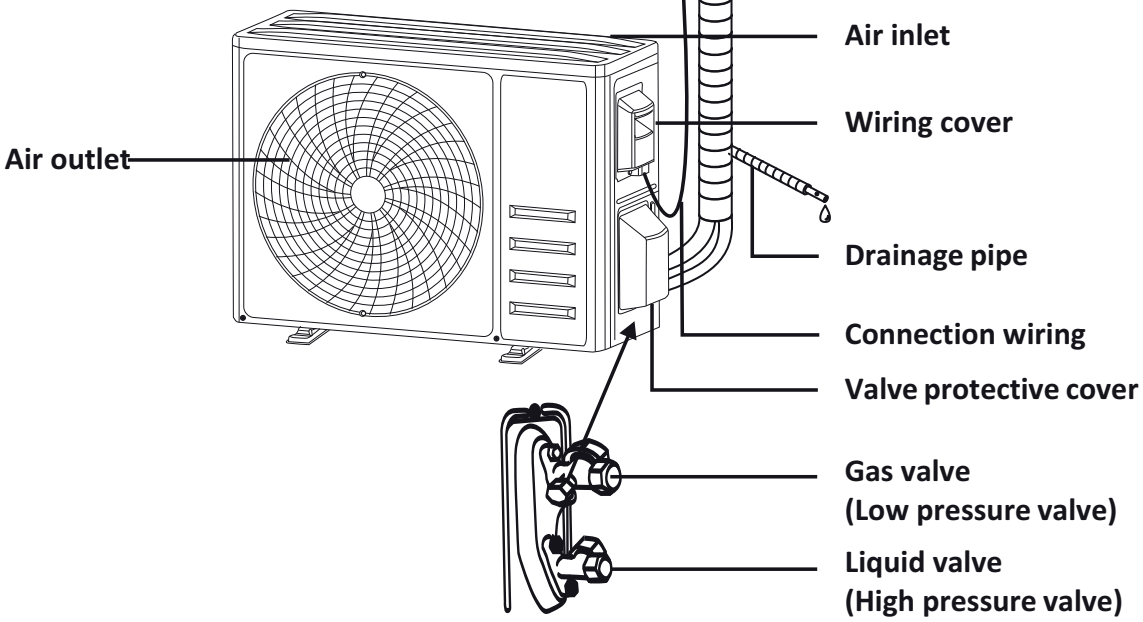
1. Do not bend, tug or compress the power cord since this could damage it. Electrical shocks or fire are probably due to a damaged power cord. Specialized technical personnel only must replace a damaged power cord.
2. Do not use power strips, extension cords, or multi-plug adapters
3. Do not touch the 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. The obstruction of these openings causes a reduction in the operative efficiency of the conditioner with possible consequent failures or damages.
5. In no way alter the characteristics of the appliance.
6. Do not install the appliance in environments where the air could contain gas, oil or sulphur or near sources of heat.
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 periods when the air conditioner is operating.
10. Do not direct the airflow onto plants or animals.
11. A long direct exposition to the flow of cold air of the conditioner could have negative effects on plants and animals.
12. Do not put the conditioner in contact with water. The electrical insulation could be damaged and thus causing electrocution.
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. 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

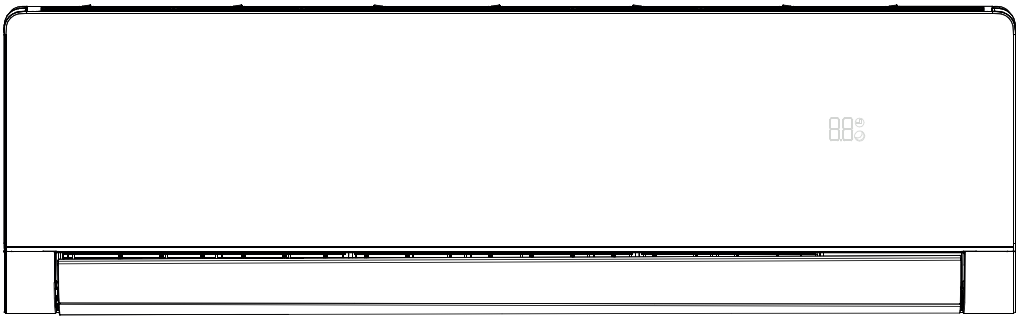


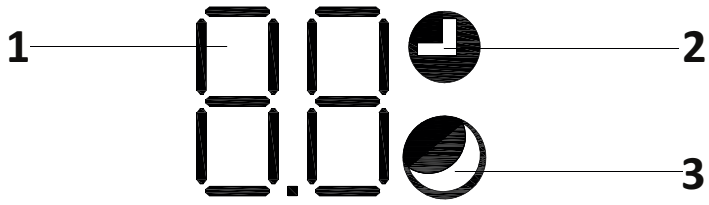
With the protective cover removed

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

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

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

Remote controller buttons

No.	Buttons	Function
1	⏻	To turn on/off the air conditioner
2	TURBO	To switch on/off the TURBO mode
3	MODE	To select the operation mode: AUTO, COOL, DRY, FAN, HEAT.
4	∧ (TEMP UP)	To increase the setting temperature, lengthen the time in TIMER setting.
5	∨ (TEMP DN)	To decrease the setting temperature, reduce the time in TIMER setting.
6		To adjust the air flow direction vertically(optional).
7		To adjust the air flow direction horizontally.
8	FAN	To adjust the fan speed: auto, mute, low, mid-low, mid, mid-hign, high. Turbo
9	ECO	To switch on/off the ECO mode
10	GENTLE WIND	To activate the GENTLE WIND mode
11	DISPLAY	To switch on/off the led DISPLAY mode
12	TIMER / SLEEP	To switch on/off the TIMER function / To switch on/off the SLEEP mode
13	I FEEL / MUTE	To activate the I FEEL/MUTE function
14	HEALTH / CLEAN	To activate the HEALTH/CLEAN function
15	(∧ + ∨)	To activate the function of Child Lock, press ∧ and ∨ buttons together for more than 3 seconds.

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

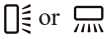
⚠ *The shape and position of buttons and indicators may vary according to the model, but their function is the same.*

⚠ *The unit confirms the correct reception of each button with a beep.*

⚠ *There might some functions not fit for your air conditioner, you will hear a beep when you press these buttons, but air conditioner do not response, we express our apologies.*

REMOTE CONTROL

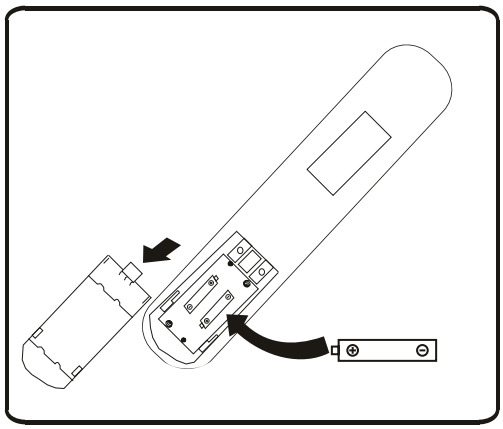
Remote controller DISPLAY, meaning of symbols on the liquid crystal display

No.	Symbols	Meaning
1		AUTO MODE indicator
2		COOLING MODE indicator
3		DRY MODE indicator
4		FAN MODE indicator
5		HEATING MODE indicator
6		BATTERY indicator
7		TEMPERATURE/ CLOCK indicator
8		FLAP SWING (Air flow) indicator
9		MUTE indicator
10		FAN SPEED indicator
11		AUTO FAN indicator
12		TURBO indicator
13		CHILD LOCK indicator
14		I FEEL indicator
15		ECO indicator
16		TIMER indicator
17		SLEEP MODE indicator
18		DISPLAY LIGHT indicator
19		HEALTH/CLEAN function indicator
20		GENTLE WIND indicator

REMOTE CONTROL

Replacement of Batteries

Remove the battery cover plate from the rear of the remote controller, by sliding it in the direction of the arrow. Install the batteries according the direction (+ and -) shown on the remote controller. Reinstall the battery cover by sliding it into place.



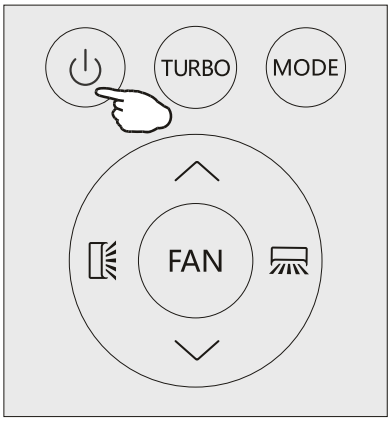
⚠ Use 2 LRO 3 AAA (1.5V) batteries . Do not use rechargeable batteries. Replace the old batteries with new ones of the same type when the display is no longer legible. Do not dispose batteries as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.

Recommendations for locating and using the remote controller holder (if present). The remote controller be kept in a wall-mounted holder.

REMOTE CONTROL

Turn ON / Turn OFF the air conditioner

Press the button  to turn on or turn off the air conditioner.



COOLING MODE



The cooling function allows the air conditioner to cool the room and at the same time reduces Air humidity.

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

With the button ⌄ or ⌃ set a temperature lower than that of the room.



HEATING MODE



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 ⌃ set a temperature higher than that of the room.

⚠

In HEATING operation, the appliance can automatically activate a defrost cycle, which is essential to clean the frost on the condenser so as to recover its heat exchange function. This procedure usually lasts for 2-10 minutes. During defrosting, indoor unit fan stop operation. After defrosting, it resumes to HEATINGNG mode automatically.



REMOTE CONTROL

DRY MODE

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. An automatic function of pre-setting is activated.



FAN MODE (Not FAN button)

Fan mode, air ventilation only.

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

AUTO MODE

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.

REMOTE CONTROL

TURBO FUNCTION



To activate turbo function, press the TURBO button, and will appear on the display.

Press again to cancel this function.

In COOL or HEAT mode, when you select TURBO feature, the appliance will operate the fast cooling/ fast heating with the highest fan speed.



CHANGE THE FAN SPEED

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

Flashing





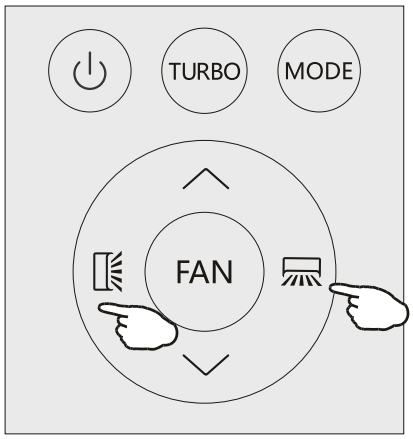
AIR FLOW CONTROL

1. Normal 4 way airflow (vertical and horizontal):

(1) Press to activate the horizontal flaps to swing from up to down. Press again to stop the swing movement at the current angle.

(2) Press to active the vertical deflectors to swing from left to right. Press again to stop the swing movement at the current angle.

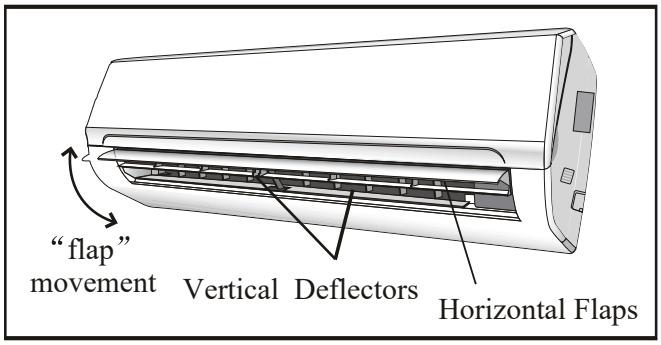
2. If the vertical deflectors are positioned manually which placed under the flaps, they are allowed to move the air flow direct to rightward or leftward.



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

⚠ *Never Position Flaps manually, the delicate mechanism might be seriously damaged!*

⚠ *Never poke fingers, sticks or other objects in the air inlet or outlet vents. Such contact with moving parts might cause unforeseeable damage or injury.*



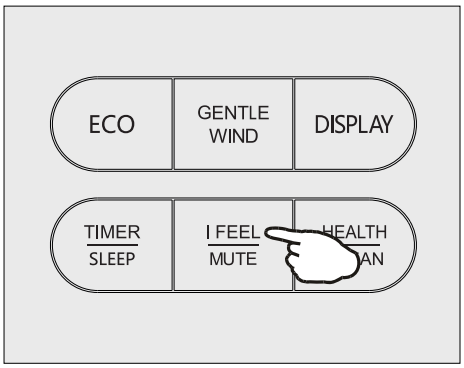
REMOTE CONTROL

I FEEL function

I FEEL

Press I FEEL button to active the 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 ensure the comfort.



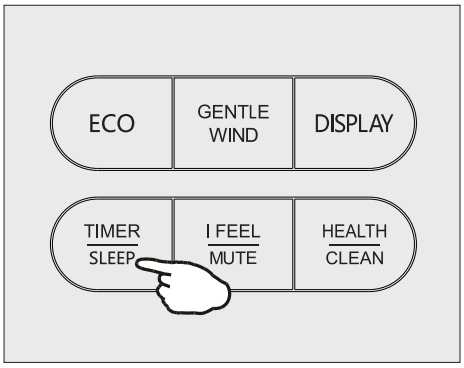
SLEEP MODE

Pre-setting automatic operating program.

Press SLEEP button to activate the sleep mode, a appears on the display.
Press again to cancel this mode.

In sleep mode, the air conditioner will automatically adjust the temperature and fan speed to make the room more comfortable during the night.

After 10 hours running in sleep mode, the air conditioner will change to the previous setting mode.

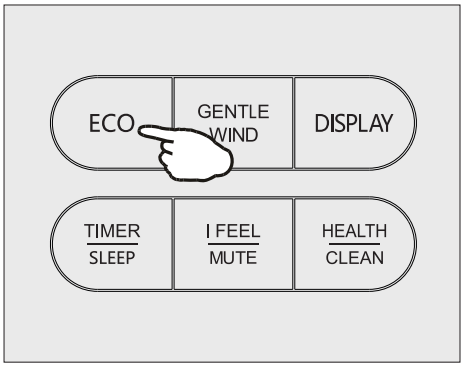


ECO MODE

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.



REMOTE CONTROL

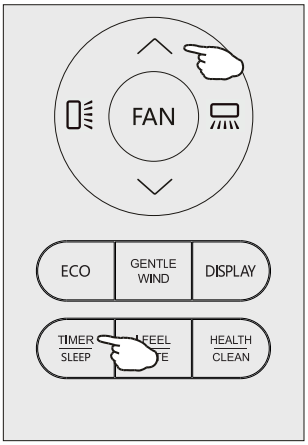
TIMER MODE-SET TIMER OFF

TIMER

To set the air conditioner switching-off automatically.

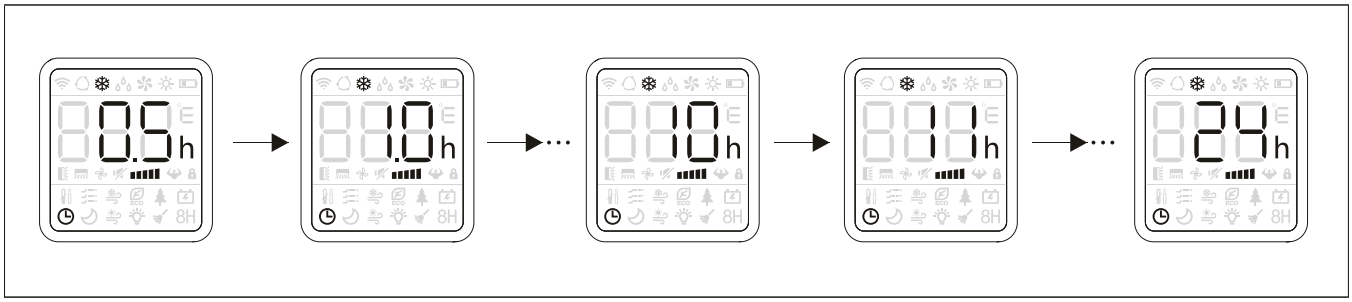
With the AC on, press the Timer button then use the ∧ and ∨ buttons to set the length of time before the AC will turn off. Press the timer button again to start the countdown.





Note:: To cancel the set function, press the TIMER button again.

Note:: In case of power off, it is necessary to set TIMER OFF again



TIMER MODE----SET TIMER ON

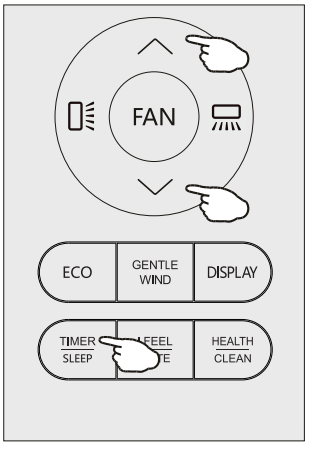
TIMER

To set the air conditioner switching-on automatically.

With the AC off, press the Timer button and use the ∧ and ∨ buttons to set the desired amount of time before the AC turns on. Press the timer button again to start the countdown.



When the timer setting was done, you can set the operation mode, fan speed, desired temperature, air flow when air conditioner star to run.



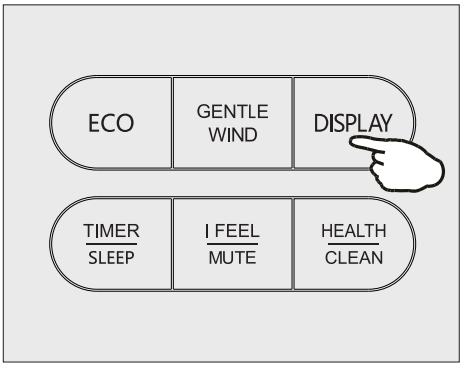
Note:: To cancel the timer function ,press the TIMER button again.

Note:: In case of power off, it is necessary to set TIMER ON again

REMOTE CONTROL

LED display light ON/OFF

Press DISPLAY button to turn on/off the indoor LED display light.

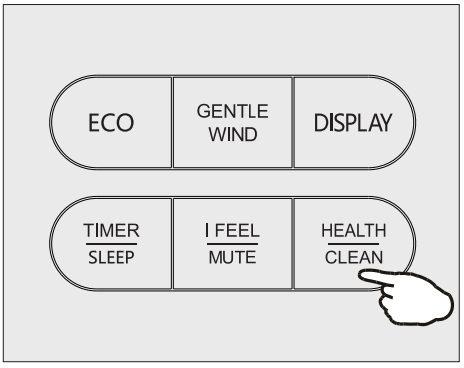


SELF-CLEAN function (Optional)

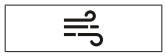
1. This function help carry away the accumulated dirt, bacteria, etc from the evaporator.
2. Turn off the air conditioner, press "CLEAN" button to enter this function and it will show "CL" on the display of indoor unit.
3. This function will run about 30 minutes, and it will exit automatically.You will hear 2 beeps when it's finished or cancelled.
4. It's normal if there are some noise during this function process, as plastic materials expand with heat and contract with cold.
5. We suggest operate this function as the following ambient condition to avoid certain safety protection features.

Indoor unit	Temp<30℃
Outdoor unit	5℃<Temp<30℃

6. We suggest operate this function once every 3 months.

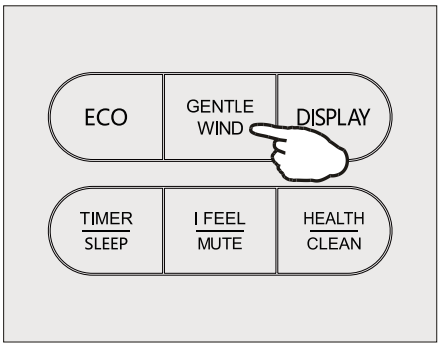


ENTLE WIND (Optional)



1. Turn on the indoor unit, and change to COOL mode, then press GENTLE WIND button to active this function, will appear on the display.
Do it again to deactivate it.

2. This function will auto close the vertical flaps, and give you the comfortable gentle wind feeling.

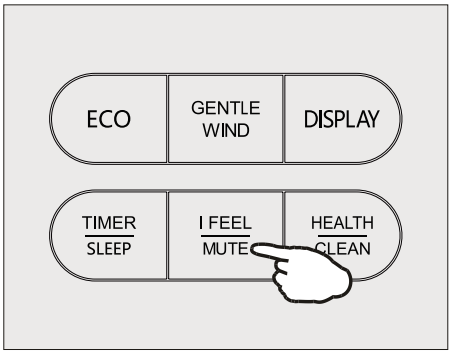


Mute Mode



Long press the I FEEL / MUTE button to active this function, and  will appears on the remote display. Do it again to deactivate this function.

When FAN / TURBO button is pressed, the MUTE function will be canceled. MUTE function can not be activated under dry mode.



OPERATION INSTRUCTIONS

CAUTION: The HVAC System is designed to operate in the following temperature ranges. Operation in temperatures outside of the below ranges can damage the system and may trigger a shut down of the system to protect it from damage.
IMPORTANT: If you live in a location where temperatures are reached outside of these ranges, you should consider adding supplemental heating or cooling as protection for these conditions. TCL accepts no liability in the event that the system shuts down during conditions in these ranges.

Inverter air conditioner:

MODE / Temperature	Heating	Cooling	Dry
Room temperature	32°F ~ 86°F	62.6°F ~ 89.6°F	
Outdoor temperature	-4°F ~ 86°F	5°F ~ 127°F	

With the power supply connected, restart the air conditioner after shutdown, or switch it to other mode during operation, and the air conditioner protection device will start. The compressor will resume operation after 3 minutes.

Characteristics of heating operation (applicable to Heat pump models)

Preheating:

When the heating function is enabled, the indoor unit will take 2~5 minutes for preheating, after that the air conditioner will start heating and blows warm air.

Defrosting:

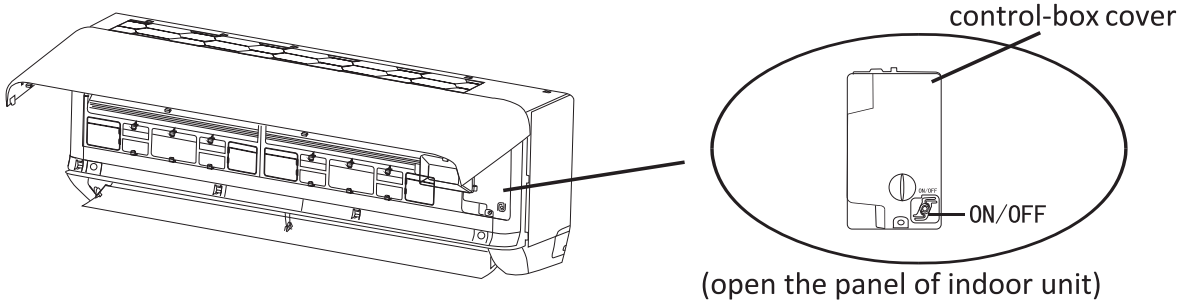
During heating, when the outdoor unit frosted, the air conditioner will enable the automatic defrosting function to improve the heating effect. During defrosting, the indoor and outdoor fans stop running. The air conditioner will resume heating automatically after defrosting finish.

Reset utton:

In the event of an operational issue or if the remote isn't working, open the panel and find the Reset Button labeled "On/OFF."

CAUTION: Care should be used in pressing the on/off button to avoid damaging the electrical equipment, which could cause injury. The "on/off" button should only be depressed using a tool with electrical insulation to avoid electrical shock.

Current status	Operation	Respond	Enter mode
Standby	Press the reset button once.	It beeps briefly once.	Cooling mode
Standby (Only for Heat pump models)	Press the reset button TWICE within 3 seconds.	It beeps briefly twice.	Heating mode
Running	Press the reset button once.	It keeps beeping for a while	Off mode



(open the panel of indoor unit)

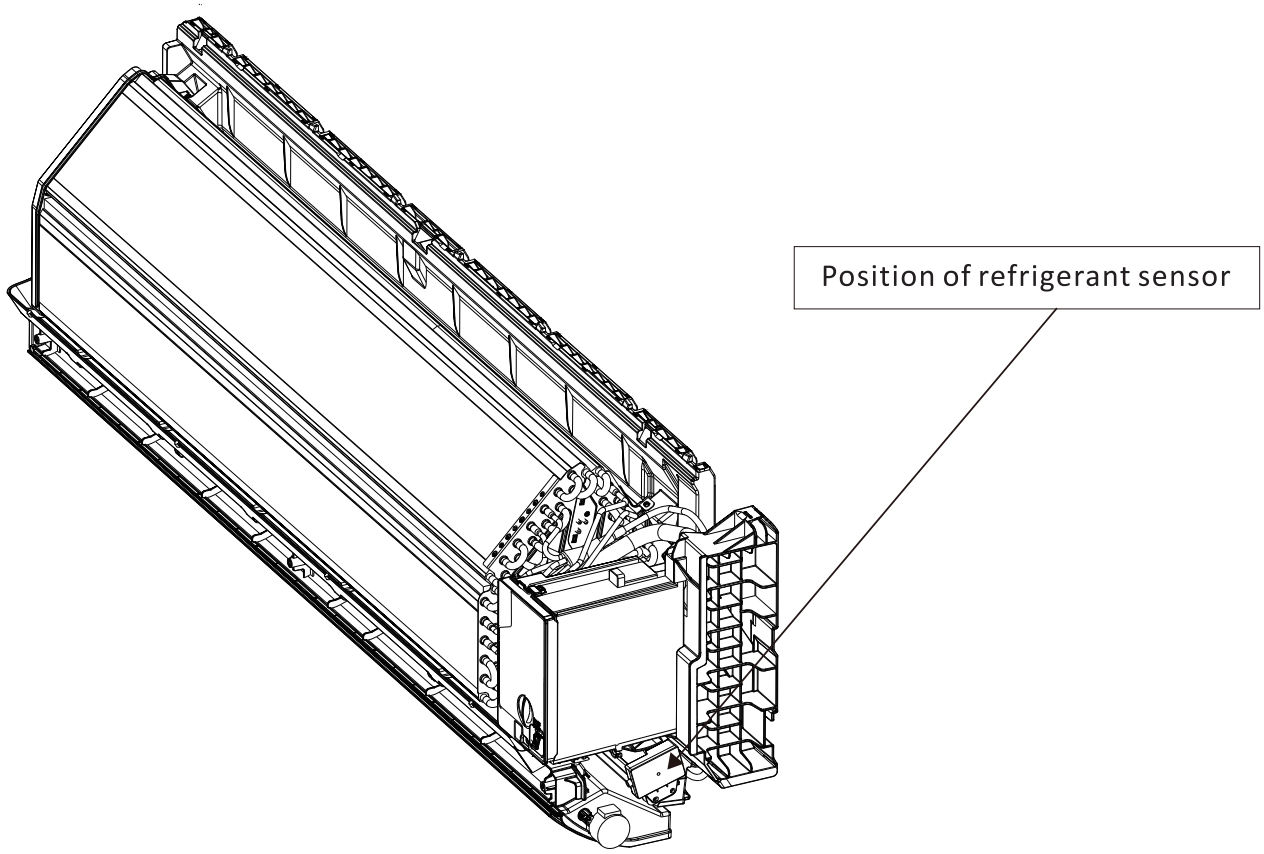
REFRIGERANT SENSOR (OPTIONAL)

Important Notes:

1. Replacement and maintenance of the refrigerant sensor must only be done by a licenses HVAC professional and only with a replacement sensor as recommended by the manufacturer. Replacement with a non-recommended sensor will void your warranty.
2. The design life of the refrigerant sensor is 15 years, please replace the sensor within the range of the service life.
3. The refrigerant sensor automatically detects the condition of the machine while in operation, and will automatically start the circulating air flow and stop the compressor when the concentration reaches the alarm range.
4. The alarm signal of the refrigerant sensor is as follows table：

	Error Code
Refrigerant Leak Protection	Display “Hd”
The communication of the refrigerant sensor is abnormal	Display “Fd”

5. The installation position of the refrigerant sensor is shown in the figure below (for example, the appearance of different cabinets may be different).



6. This unit is equipped with a refrigerant leak detector for safety. To be effective, the unit must be electrically powered at all times after installation, other than when servicing.
7. This refrigerant sensor shall only be replaced with manufacturer approved sensor.
8. The Leak Detection system will only operate when the unit is powered on.

INSTRUCTIONS FOR SERVCING(R32)

Work with refrigerant must **ONLY** be conducted by a licensed HVAC professional. Installation by an unlicensed individual may violate local, state of federal law or regulations or building codes. **DO NOT ATTEMPT** to work with refrigerant unless you are a licensed HVAC contractor.

1. Check the information in this manual to find out the dimensions of space needed for proper installation of the device, including the minimum distances allowed compared to adjacent structures.
2. Appliance shall be installed, operated and stored in a room with a floor area larger than $4m^2$.
3. The installation of pipe-work shall be kept to a minimum.
4. The pipe-work shall be protected from physical damage, and shall not be installed in an unventilated space if the space is smaller than $4m^2$.
5. Installation and use of refrigerant MUST be done in compliance with all local, state, and federal laws and in compliance with all building codes and environmental regulations.
6. The mechanical connections shall be accessible for maintenance purposes.
7. Follow all local, state, and federal laws and regulations and the instructions on this manual regarding the storage, handling, installation, maintenance, and disposal of the refrigerant.
8. Make sure ventilation openings are clear of any obstruction.
9. **Notice**: The servicing shall be performed only as recommended 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).
    CAUTION: Under no circumstances should you ever smoke while installing HVAC equipment.
12. The appliance shall be stored so as to prevent mechanical damage from occurring.
13. It is appropriate that anyone who is called upon to work on a refrigerant circuit should hold a valid and up-to-date certificate from an assessment authority accredited by the industry and recognizing their competence to handle refrigerants, in accordance with the assessment specification recognized in the industrial sector concerned. 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 use any means to accelerate the defrosting process or clean the frost on your own. Follow the recommended guidelines from 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.
    * Be aware that refrigerants may not contain an odor.

CAUTION- Only the refrigerant specified in this manual should be utilized. Use of any other refrigerant is DANGEROUS and may cause injury and will VOID the warranty.



Caution: Risk of fire





Read operator's manual



Operating instructions



Read technical manual

INSTRUCTIONS FOR SERVICING(R32)

16. Information on servicing:

1) Checks to the area

Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repair to the refrigerating system, the following precautions shall be complied with prior to conducting work on the system.

2) 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.

3) General work area

All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material

4) 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.

5) 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 available to hand. Have a dry powder or CO_2 fire extinguisher adjacent to the charging area.

6) No ignition sources

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

7) 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.

8) 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.

INSTRUCTIONS FOR SERVICING(R32)

The following checks shall be applied to installations using flammable refrigerants:

-- The charge size is in accordance with the room size within which the refrigerant containing parts are installed;

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

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

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

-- 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.

9) Checks to electrical devices

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

Initial safety checks shall include:

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

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

-- That there is continuity of earth bonding.

17. **Repairs to sealed components**

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

2) Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected. This shall include damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc. Ensure that apparatus is mounted securely. Ensure that seals or sealing materials have not degraded such that they no longer serve the purpose of preventing the ingress of flammable atmospheres. Replacement parts shall be in accordance with the manufacturer's specifications.

NOTE: The use of silicone sealant may inhibit the effectiveness of some types of leak detection equipment. Intrinsically safe components do not have to be isolated prior to working on them.

18. **Repair to intrinsically safe components**

Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use. Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere. The test apparatus shall be at the correct rating. Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

INSTRUCTIONS FOR SERVICING(R32)

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 in the searching for or detection of 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 % 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 pipe-work. If a leak is suspected, all naked flames shall be removed/ extinguished. If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. 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 inflammability 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 pipe-work 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 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.

24. **Labeling**

Equipment shall be labeled stating that it has been de-commissioned 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. **Recover**

When removing refrigerant from a system, either for servicing or decommissioning, it is MANDATORY that all refrigerants are removed safely and in compliance with local, state, and federal laws and regulations, manufacturer instructions, and industry standard best practices.

WARNIN : Failure to do so may result in injury, death or property damage.

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 recover 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 system, it shall be carried out safely.

INSTRUCTIONS FOR SERVICING(R32)

26. **WARNING**

-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 pierce or burn.

-Be aware that refrigerants may not contain an odour.

27. **Statement**

a) Please use the flammable gas detector to check before unload and open the container.

b) No fire source and smoking.

c) That pipe-work 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;

d) It is important that all local, state, and federal laws and regulations related to refrigerant storage, use, and disposal be observed at all times. Failure to do so may result in injury, death or property damage.

e) that mechanical connections made in accordance with 22.118 shall be accessible for maintenance purposes;

f) That pipe-work 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, or CSA B52. All field joints shall be accessible for inspection prior to being covered or enclosed;

g) 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;

h) The appliance shall be stored so as to prevent mechanical damage from occurring.

i) Working personnel for maintenance, service and repair operations.

Every working procedure that affects safety means shall only be carried out by competent persons according to Annex HH.

Examples for such working procedures are:

. breaking into the refrigerating circuit;

. opening of sealed components;

. opening of ventilated enclosures.

INSTRUCTIONS FOR SERVICING(R32)

1.Minimum installation height, minimum room area (operating or storage) refer to installation manual.

2.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.

3.Mount with the lowest moving parts at least 2.5m (8ft) above floor or grade 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 Used. To Be Repaired Only By Trained Service Personnel. Do Not Puncture Refrigerant Tubing.

6.Risk Of Fire. Dispose Of Properly In Accordance With Federal Or Local Regulations.Flammable Refrigerant Used.

7.Risk Of Fire. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service This Product.All Safety Precautions Must Be Followed.

8.Risk Of Fire. Due to Flammable Refrigerant Used.Follow Handling Instructions Carefully in Compliance with National Regulations.

INSTRUCTIONS FOR SERVICING(R32)

Important Considerations

1. The air conditioner 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. CAUTION - Refrigerant is volatile, flammable, and combustible. When charging the system with refrigerant, it is IMPORTANT to follow all instructions, HVAC best practices, local, state, and federal laws and regulations, and requirements in these instructions to avoid serious injury, death, or property damage.
3. A leak test must be done after the installation completed.
4. Prior to any work being done on the system, a full safety check of the system must be completed, including checking for any refrigerant leaks.
5. It is necessary to operate the machine under a controlled procedure in order to ensure that any risk arising from the combustible gas or vapor during the operation is reduced to minimum.
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)

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,R32 LFL is 0.306 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 $(A)^{1/2}$, **not to exceed M_{max}=SF x LFL x h_0 x A**

The required minimum floor area Amin to install an appliance with refrigerant charge

M(kg) shall be in accordance with following:

A_{min} = $(M/ (2.5 \times (LFL)^{(5/4)} \times h_0))^2$, **not less than A_{min}=M/(SF x LFL x h_0)**

Refrigerant Charge and RoomArea Limitations

In UL/CSA 60335-2-40, R32 refrigerant is classified as a class A2L, which is mildy flammable.

Therefore, R32 refrigerant is suitable for systems needing additional refrigerant charge and which will limit the area of the rooms being served by the system.Similarly, the total amount of refrigerant in the system shall be less than or equal to the allowable maximum refrigerant charge. The allowable maximum refrigerant charge depends on the area of the rooms being served by the system.

NOTE:

The nouns in this section are explained as follows:

Mc: The actual refrigerant charge in the system.

A: the actual room area where the appliance is installed.

Amin: The required minimum room area.

Mmax:The allowable maximum refrigerant charge in a room.

Qmin: The minimum circulation airflow.

Anvmin: The minimum opening area for connected rooms.

INSTALLATION PRECAUTIONS(R32)

1.The room area calculation requirements

CAUTION:
The space considered shall be any space which contains refrigerant-containing parts or into which refrigerant could be release.
The room area (A) of the smallest, enclosed. occupied space shall be used in the determination of the refrigerant quantity limits.

For determination of room area (A) when used to calculate the refrigerant charge limit, the following shall apply.

The room area (A) shall be defined as the room area enclosed by the projection to the base of the walls, partitions and doors of the space in which the appliance is installed.

Spaces connected by only drop ceilings,ductwork, or similar connections shall not be considered a single space.

Units mounted higher than 70-55/64 inches and spaces divided by partition walls that are no higher than62-63/64 inches shall be considered a single space.

Rooms on the same floor and conected by an open passageway between the spaces can be considered a single room when determining compliance to Amin, if the passageway complies with all of the following.

1. It is a permanent opening.
2. It extends to the floor.
3. It is intended for people to walk through.

The area of the connected rooms,on the same floor,connected by permanent opening in the walls and/or doors between occupied spaces, including gaps between the wall and the floor can be considered a single room when determining compliance to Amin,provided all of the following conditions are met as fig. 2-1.

1. Low level opening
   1) The opening shall not be less than Anvmin in Table 2-1.
   2) The area of any openings above 11-13/16 inches from the floor shall not be considered in determining compliance with Anvmin.
   3) At least 50% of the opening area of Anvmin shall be below 7-7/8 inches from the floor.
   4) The bottom of the opening is not more than 3-15/16 inches from the floor.
   5) The opening is a permanent opening that cannot be closed.
   6) For openings extending to the floor the height shall not be less than 25/32 inches above the surface of the floor covering.

2. High level opening
   1) The opening shall not be less than 50% of Anvmin in Table2-1.
   2) The opening is a permanent opening that cannot be closed.
   3) The opening shall be at least 59 inches above the floor.
   4) The height of the opening is not less than 25/32 inches.

NOTE:
The requirement for the second opening can be met by drop ceilings, ventilation ducts, or similar arrangements that provide an airflow path between the connected rooms.

INSTALLATION PRECAUTIONS(R32)

The minimum opening for natural ventilation (Anvmin) in connected rooms is related to the room area (A). the actual refrigerant charge of refrigerant in the system (Mc), and the allowable MAXIMUM REFRIGERANT CHARGE in the system (Mmax),Anmin can be determined according to Table 2-1.

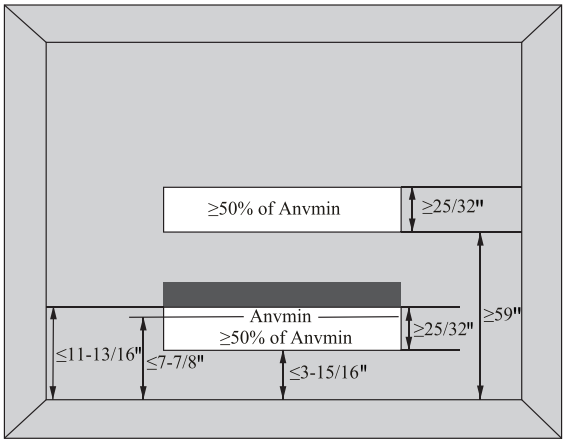


Fig.2-1 Opening Conditions for Connected Rooms

The minimum opening area for connected rooms.
Note:Take the Mc=1.59kg Anvmin(m2)=0

When the unit detects a refrigerant leak, the minimum airflow of the indoor unit is as follows:

Model	Minimum airflow	Model	Minimum airflow
9K	81m^3/h	12K	103m^3/h
18K	113m^3/h	24K	161m^3/h

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
R32	0.306	2.5	1.53	2.68	3.83	5.74	7.65	11.48	19.13
		2.8	1.71	3.00	4.28	6.43	8.57	12.85	21.42
		3.0	1.84	3.21	4.59	6.89	9.18	13.77	22.95

For R32 refrigerant charge amount and minimum room area:
The machine you purchased may be one of the types in the table below. The indoor and outdoor units are designed to be used together. Please check the machine you purchased. The indoor unit should be installed at least 8.2ft /2.5m above from the floor, and the minimum room area of operating or storage should be as specified in the following table:

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)						
			0.55	0.77	0.87	1.00	1.27	1.50	2.00
R32	0.306	2.5	1.44	2.01	2.27	2.61	3.32	2.92	5.23
		2.8	1.28	1.80	2.03	2.33	2.96	3.50	4.67
		3.0	1.20	1.68	1.90	2.18	2.77	3.27	4.36

INSTALLATION PRECAUTIONS(R32)

Installation Safety Principles

1. Site Safety





Open Flames Prohibited



Ventilation Necessary

2. Operation Safety



Avoid Static Electricity



Must wear protective clothing and anti-static gloves



Don`t use mobile phone

INSTALLATION PRECAUTIONS(R32)

3. Installation Safety

- Refrigerant Leak Detector
- Appropriate Installation Location

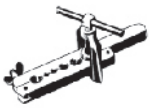


The left picture is the schematic diagram of a refrigerant leak detector.

Please note that:

1. The installation site should be well-ventilated.
2. The sites for installing and maintaining an air conditioner using Refrigerant R454B should be free from open fire or welding, smoking, drying oven or any other heat source higher than 548 which easily produces open fire.
3. When installing an air conditioner, it is necessary to take appropriate anti-static measures such as wear anti-static clothing and/or gloves.
4. It is necessary to choose the site convenient for installation or maintenance wherein the air inlets and outlets of the indoor and outdoor units should be not surrounded by obstacles or close to any heat source or combustible and/or explosive environment.
5. If the indoor unit suffers refrigerant leak during the installation, it is necessary to immediately turn off the valve of the outdoor unit and all the personnel should go out till the refrigerant leaks completely for 15 minutes. If the product is damaged, it is a must to carry such damaged product back to the maintenance station and it is prohibited to weld the refrigerant pipe or conduct other operations on the user's site.
6. It is necessary to choose the place where the inlet and outlet air of the indoor unit is even.
7. It is necessary to avoid the places where there are other electrical products, power switch plugs and sockets, kitchen cabinet, bed, sofa and other valuables right under the lines on two 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

Pipe Length and Additional Refrigerant

Inverter Models Capacity (tu/h)	K-12K	18K-24K
Length of pipe with standard charge (if applicable)	5m/16ft	5m/16ft
Maximum distance between indoor and outdoor unit	25m/49ft	25m/66ft
Additional refrigerant charge	15g/m	15g/m
Max. diff. in level between indoor and outdoor unit	10g/m	10g/m
Type of refrigerant	R32	R32

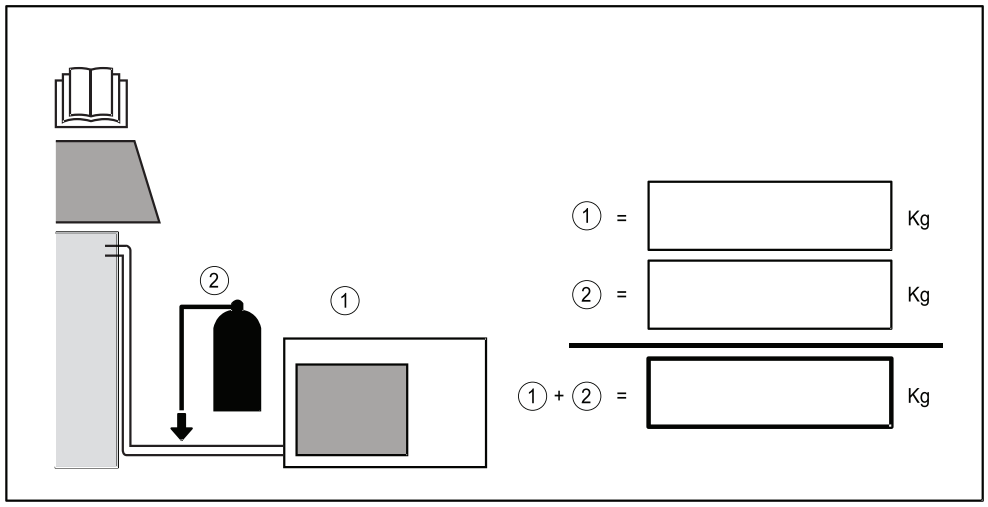
Torque Parameters

PIPE Size	Newton meter[N x m]	Pound-force foot (Ibf-ft)	Kilogram-force meter (kgf-m)
1/4 "(ϕ6.35)	15 - 20	11.1 - 14.8	1.5 - 2.0
3/8 "(ϕ9.52)	31 - 35	22.9 - 25.8	3.2 - 3.6
1/2 "(ϕ12)	45 - 50	33.2 - 36.9	4.6 - 5.1
5/8 "(ϕ15.88)	60 - 65	44.3 - 48.0	6.1 - 6.6

INSTALLATION PRECAUTIONS

Dedicated Distribution Device and Wire for Air Conditioner

Wiring material ampacities	AWG
4	22
7	20
10	18
13	16
18	14
25	12
30	10
40	8
55	6
70	4



su3098 IEC

Key

Example 1 REFRIGERANT CHARGE of the precharged part of the appliance

Example 2 REFRIGERANT CHARGE added during installation

⚠ **Note: This table is only for reference, the installation shall meet the requirements of local, state and federal laws and regulations.**

INDOOR UNIT INSTALLATION STEP 1

Step1: Select Installation location

1.1 Ensure the installation complies with the instllation 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.

1.2 Air inlet and outlet will be clear of obstructions, ensuring proper airflow throughout the room.

1.3 Condensate can be easily and safely drained.

1.4 All connections can be easily made to outdoor unit.

1.5 Indoor unit is out of reach of children.

1.6 A mounting wall strong enough to withstand four times the full weight and vibration of the unit.

1.7 Filter can be easily accessed for cleaning.

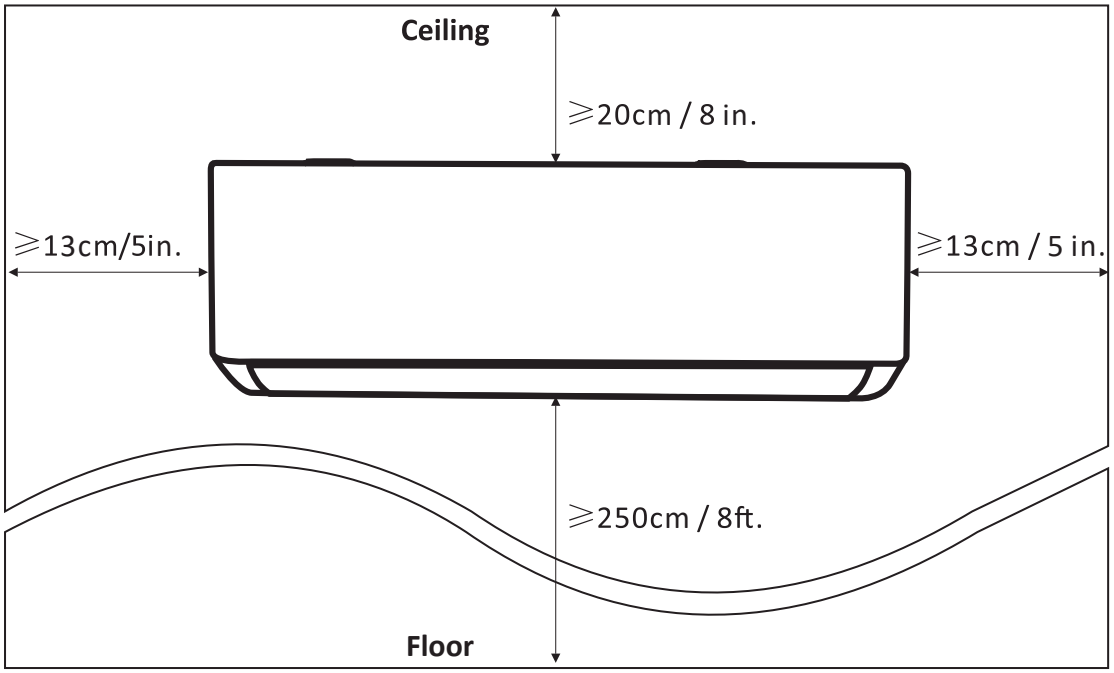
1.8 Leave enough free space to allow access for routine maintenance.

1.9 Install at least 10 ft. (3 m) away from the antenna of TV set or radio. 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.

1.10 Do not mount in any corrosive environment, including, but not limited to laundry rooms, near swimming pools, grow rooms, mortuaries, facilities where chemicals are used, or similar locations.

1.11 For ETL certification area, Caution: Mount with the lowest moving parts at least 8 ft. (2.4 m) above Floor or grade level.

Minimum Indoor Clearances



Step2: Install Mounting Plate

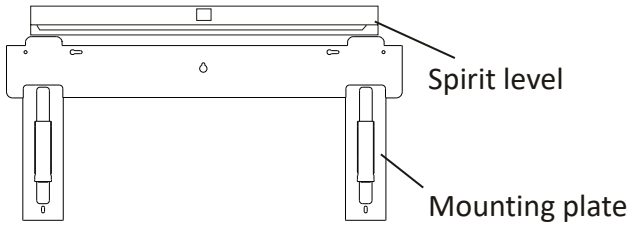
2.1 **DO NOT ATTEMPT TO INSTALL THIS UNIT ALONE.** Installation should only be conducted by a minimum of two people.

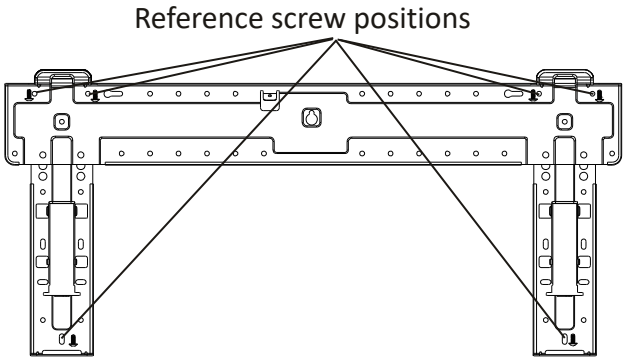
2.2 Installation should only occur on a flat/level wall. If the wall is not flat or level, the wall needs to be fixed prior to installation. Failure to do so can result in damage to the wall and the unit, possible injury, deficient operation, leakage and mold growth, and/or excessive vibration and noise from the unit.

2.3 Adjust the mounting plate to a horizontal state with a spirit level, then mark out the screw hole positions on the wall.

2.4 Put down the mounting plate and drill holes in the marked positions with drill.

2.5 Insert expansion plastic anchors into the holes, then hang the mounting plate and affix 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 object, please take the latter as the standard.

Step3: Drill Wall Hole

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

3.1 Determine the location of wall holebase onthe position of mounting plate.

3.2 The hole should be have a 70mmdiameter at least and a small oblique angle to facilitate drainage.

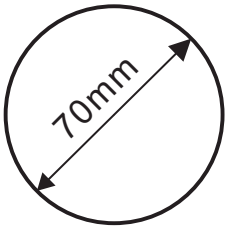
It is ESSENTIAL that the drain hole be drilled in a location that allows for a continuous downward slope from the unit to the external discharge point. The hose needs to also be run in a way that prevents kinking. At no point in the running of the hose should the hose's angle change such that it creates any amount of upward slope. Failure to do so, can result in significant property damage and health risks from leakage and/or mold/ mildew growth.

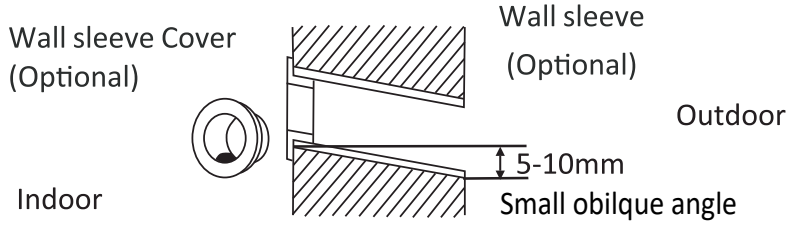
3.3 Drill the wall hole with 70mm core drill and with small oblique angle lower than the indoor end about 5mm to 10mm.

3.4 Place the wall sleeve and wall sleeve cover(both are optional parts) to protect the connection parts.

Caution:

When drill the wall hole, maker sure to avoid wires, plumbing and other sensitive components.

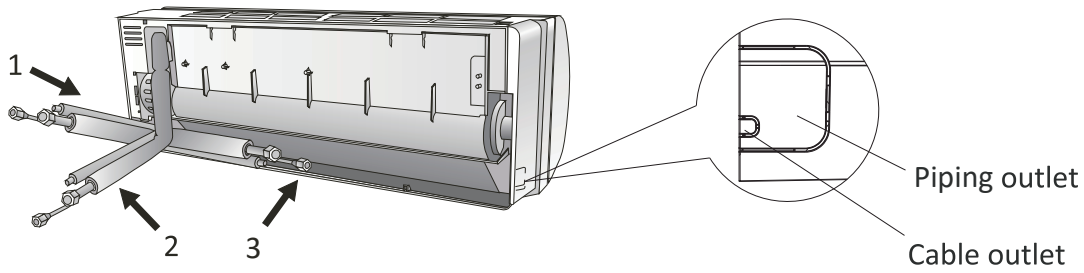




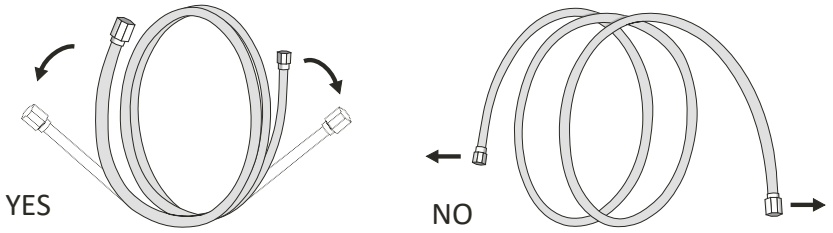
Step4: Connecting Refrigerant Pipe

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 off the plastic sheet at the outlet, the cut should be trimmed to smooth.



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



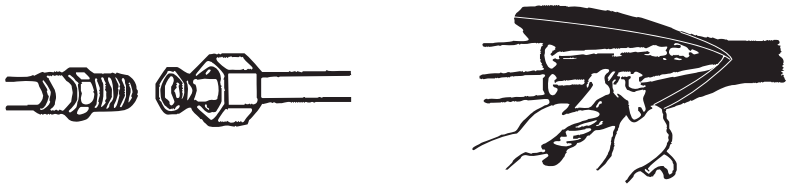
4.3 Take off the plastic cover in the pipe ports and take off the protective cover on the end of piping connectors.

4.4Check whether there is any sundry on the port of the connecting pipe and make ensure the port is clean.

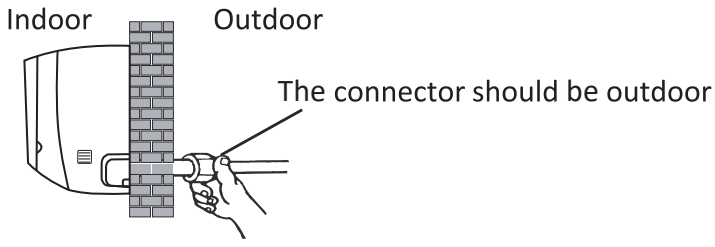
4.5 After align the center, rotate the nut of the connecting pipe to tighten the nut as tightly as possible by hand.

4.6 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 **INSTALLATION PRECAUTIONS**)

4.7 Wrap the joint with the insulation pipe.



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



Step5: Connect Drainage Hose

5.1 Adjust the drainage hose(if applicable)

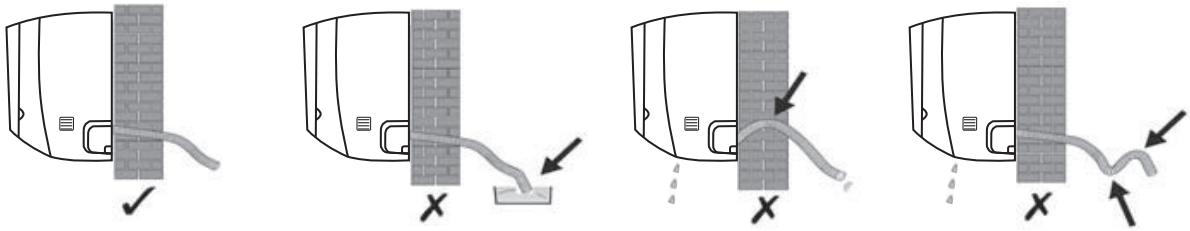
In some model, both sides of the indoor unit are provided with drainage ports, you can choose one of them to attach the drainage hose. And plug the unused drain port with the rubber attached in one of the ports.



5.2 Connect the drainage hose to the drainage port, ensure the joint is firm and the sealing effect is good.

5.3 Wrap the joint firmly with teflon tape to ensure no leaks.

Note: Make sure there is no twists or dents, and the pipes should be placed obliquely downward to avoid blockage, to ensure proper drainage.



Step6: Connect Wiring

CAUTION: Prior to beginning any electrical work make sure that all electrical is shut off to the wires being connected. Failure to do so can result in serious injury or death.

6.1 Choose the right cables size determined by the maximum operating current on the nameplate. (Check the cables size refer to section **INSTALLATION PRECAUTIONS)**

6.2 Open the front panel of indoor unit.

6.3 Use a screwdriver, open the electric control box cover, to reveal the terminal block.

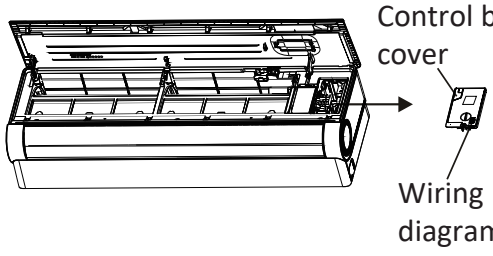
6.4 Unscrew the cable clamp.

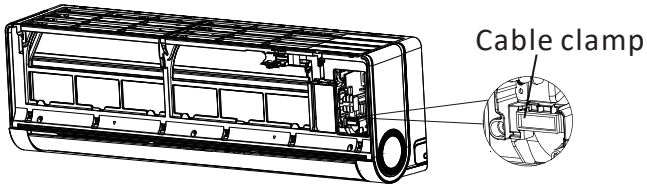
6.5 Insert one end of the cable into the position of control box from the back of the right end of the indoor unit.

6.6 Connect the wires to corresponding terminal according to the wiring diagram on the electric control box cover. And 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.

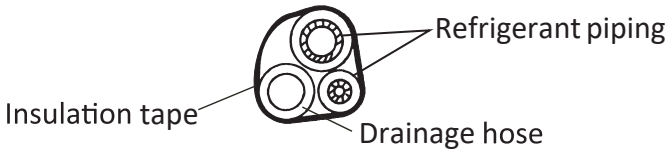




Step7: Wrap Piping and Cable

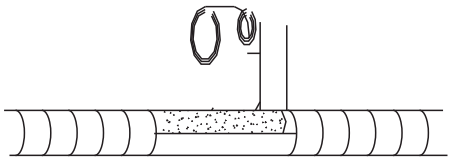
After installing the refrigerant and drainage pipes, bundle them with insulating tape to save space, protect them, and provide insulation before passing them through the wall hole.

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



Note: (I) Make sure the drainage hose is at the bottom.
(II) Avoid crossing and bending of parts.
(III) Failure to use insulation tape may result in condensation forming on the lines resulting in corrosion to the pipes and/or water damage.

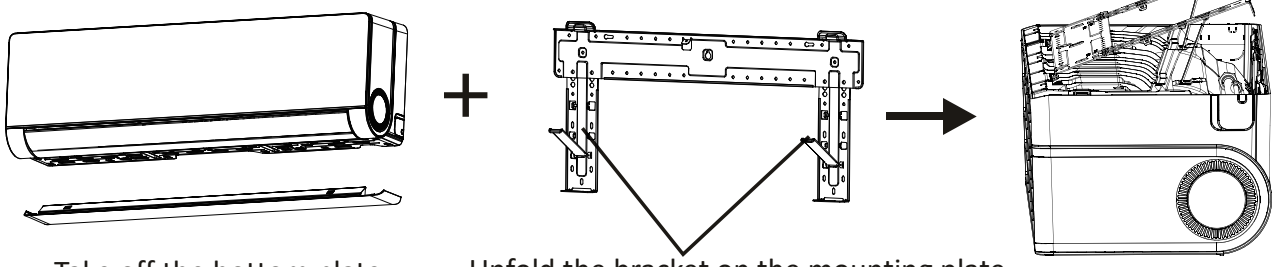
7.2 Using the insulating tape wrap the refrigerant pipes, connecting wires and drainage hose together tightly.



Step8: Mount Indoor Unit

8.1 Slowly pass the refrigerant pipes, connecting wires and drainage hose wrapped bundle through the wall hole.
8.2 Hook the top of indoor unit on the mounting plate.
8.3 Apply slight pressure to the left and right sides of the indoor unit, make sure the indoor unit's hooked firmly.
8.4 Push down the bottom of indoor unit to let the snaps onto the hooks of the mounting plate, and make sure it's hooked firmly.

(I) Grab both ends of the bottom plate, apply a little outward force to take off the bottom plate.
(II) Hook the top of the indoor unit on the mounting plate without piping and wiring.
(III) Lift the indoor unit opposite the wall, unfold the bracket on the mounting plate, and use this bracket to prop up the indoor unit, there will be a big space for operation.
(IV) Do the refrigerant piping, wiring, connect drainage hose, and wrap them as **Step 4 to 7**.
(V) Replace the bracket of mounting plate.
(VI) Push down the bottom of indoor unit to let the snaps onto the bottom hooks of the mounting plate, and make sure it is hooked firmly.
(VII) Replace the bottom plate of the indoor unit.



Take off the bottom plate

Unfold the bracket on the mounting plate

OUTDOOR UNIT INSTALLATION STEPS 1, 2 AND 3

Step1: Select Installation Location

Select a site that allows for the following:

1.1 Do not install the outdoor unit near sources of heat, steam or flammable gas.

1.2 Do not install the unit in too windy or dusty places.

1.3 Do not install the unit where people often pass. Select a place where the air discharge and operating sound will not disturb the neighbors.

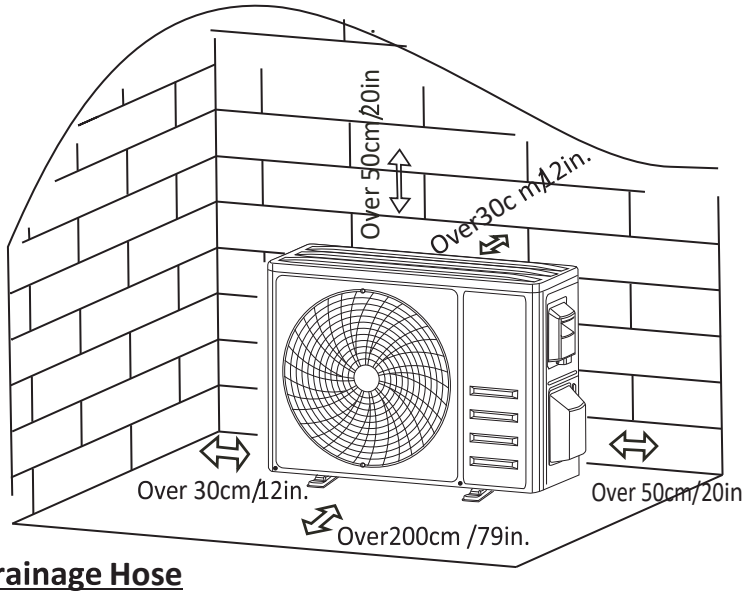
1.4 Avoid installing the unit where it will be exposed to direct sunlight (other wise use a protection, if necessary, that should not interfere with the air flow).

1.5 Reserve the spaces as shown in the picture for the air to circulate freely.

1.6 Install the outdoor unit in a safe and solid place.

1.7 If the outdoor unit is subject to vibration, place rubber blankets onto the feet of the unit.

1.8 Install in a location where there are minimal vermin, lizards, or reptiles that can cause damage to the unit and where there is minimal plant growth that will interfere with unit operation.

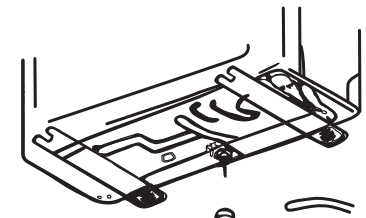


Step2: Install Drainage Hose

2.1 This step only for heat pump models or RCACs.

2.2 Insert the drainage joint to the hole at the bottom of the outdoor unit.

2.3 Connect the drainage hose to the joint and make the connection well enough.



Drainage joint Drainage hose

Step3: Fix Outdoor Unit

3.1 According to the outdoor unit installation dimensions to mark the installation position for expansion bolts .

3.2 Drill holes and clean the concrete dust and place the bolts .

3.3 If applicable install 4 rubber insulators in the holes before placing the outdoor unit. (Optional) This will reduce vibrations and noise.

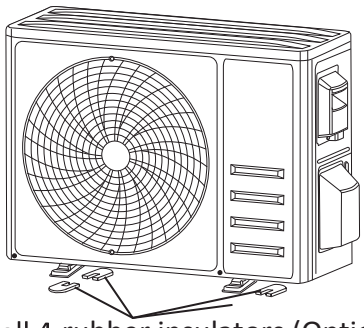
3.4 Place the outdoor unit base on the bolts and pre-drilled holes.

3.5 Use wrench to fix the outdoor unit firmly with bolts.

Note:

The outdoor unit can be fixed on a wall-mounting bracket. Follow the instruction of the wall-mounting bracket 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 4 times of the weight of outdoor unit.

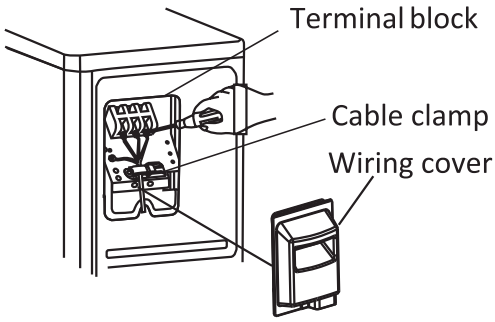


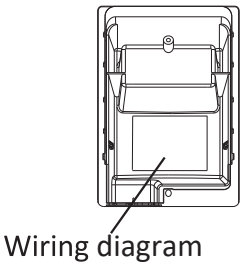
Install 4 rubber insulators (Optional)

Step 4: Install Wiring-*Qualified Licensed Professional Steps*

CAUTION: Prior to beginning any electrical work make sure that all electrical is shut off to the wires being connected. Failure to do so can result in serious injury or death.

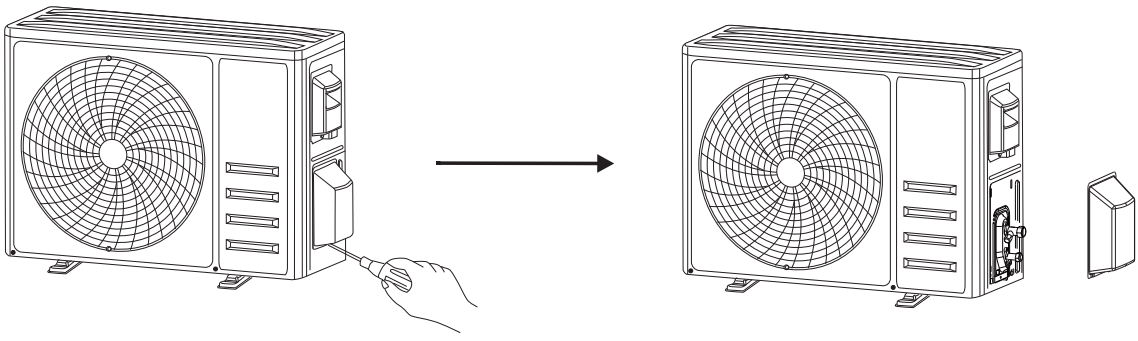
4.1 Use a phillips screwdriver to unscrew wiring cover,grasp and press it down gently to take it down.
4.2 Unscrew the cable clamp and take it down.
4.3 According to the wiring diagram pasted inside the wiring cover, connect the connecting wires to the corresponding terminals, and ensure all connections are firm and secure.
4.4 Reinstall the cable clamp and wiring cover.
Note: When connecting the wires of indoor and outdoor units, the power should be cut off.





Step5:Connecting Refrigerant Pipe

5.1 Unscrew the valve cover, grasp and press it down gently to take it down(if the valve cover is applicable).
5.2 Remove the protective caps from the end of valves.
5.3 Take off the plastic cover in the pipe ports and check whether there are any contaminants on the port of the connecting pipe and make ensure the port is clean.
5.4 After aligning the center, rotate the flare nut of the connecting pipe to tighten the nut as tightly as possible by hand.
5.5 Use a spanner to hold the body of the valve and use a torque wrench to tighten the flare nut according to the torque values in the torque requirements table.
(Refer to the torque requirements table on section **INSTALLATION PRECAUTIONS**)





OUTDOOR UNIT INSTALLATION -PRO STEP STEP 6

Step6: Vacuum Pumping ***-DANGER-MUST only be performed by licensed HVAC professional***

6.1 Use a spanner to take down the protective caps from the service port, low pressure valve and high pressure valve of the outdoor unit.

6.2 Connect the pressure hose of manifold gauge to the service port on the outdoor unit low pressure valve.

6.3 Connect the charge hose from the manifold gauge to the vacuum pump.

6.4 Open the low pressure valve of the manifold gauge and close the high pressure valve.

6.5 Turn on the vacuum pump to vacuum the system.

6.6 The vacuum time should not be less than 15 minutes, or make sure the compound gauge indicates -0.1 MPa (-76 cmHg)

6.7 Close the low pressure valve of the manifold gauge and turn off the vacuum.

6.8 Hold the pressure for 5 minutes, make sure that the rebound of compound gauge pointer does not exceed 0.005 MPa.

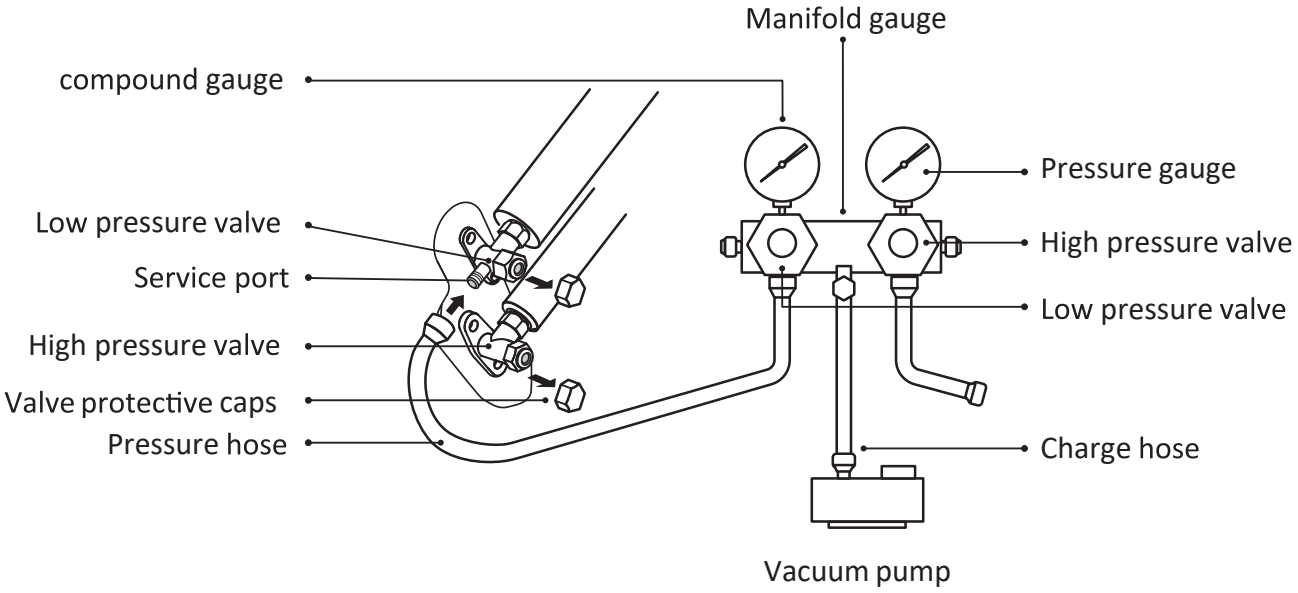
6.9 Open the low pressure valve counterclockwise for 1/4 turn with hexagonal wrench to let a little refrigerant fill in the system, and close the low pressure valve after 5 seconds and quickly remove the pressure hose.

6.10 Check all indoor and outdoor joints for leakage with soapy water or leak detector.

6.11 Fully open the low pressure valve and high pressure valve of the outdoor unit with hexagonal wrench.

6.12 Reinstall the protective caps of the service port, low pressure valve and high pressure valve of the outdoor unit.

6.13 Reinstall the valve cover.



TEST OPERATION *-Qualified Licensed Professional Recommended*

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 whether there is any wrong or missing connection 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. • Complete installation of indoor unit air inlet grille and panel.
Refrigerant leakage detection	• Potential leakage points include the piping joints, the connectors on the outdoor unit s two valves, the valve spools, and the welding ports. • 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, indicates that the leakage detection result is safe. • Leak detector method: Use a professional leak detector and read the instruction of operation, detect at the position where leakage may occur. • 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 OPERATION *-Qualified Licensed Professional Recommended*

Test Run Instruction

1. Turn on 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 the mode COOLING and HEATING.
   In each mode set as below:
   COOLING -Set the lowest temperature
   HEATING-Set the highest temperature
4. Run the system for approximately 8 minutes in each mode and verify that all functions operate correctly and respond to the remote controller. Functions check as recommended:
   4.1 If the outlet air temperature responds to the cooling and heating modes
   4.2 If the water drains properly from the drainage hose.
   4.3 If the louver and deflectors (optional) rotate properly.
5. Observe the test run state of the air conditioner at least 30 minutes.
6. After the 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:

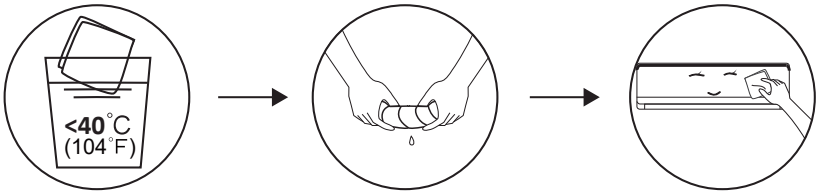
If the ambient temperature exceeds the range mentioned in the section **OPERATION INSTRUCTIONS**, and it can not run COOLING or HEATING mode, lift the front panel and refer to the reset button operation to run the COOLING and HEATING mode.

MAINTENANCE

⚠ Warning

- When cleaning, you must shut down the machine 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 filter screen regularly to avoid dust covering which will affect the filter screen effect. When the operating environment is dusty, the cleaning frequency should be increased appropriately.
- After removing the filter screen, do not touch the fins of the indoor unit to avoid scratching.

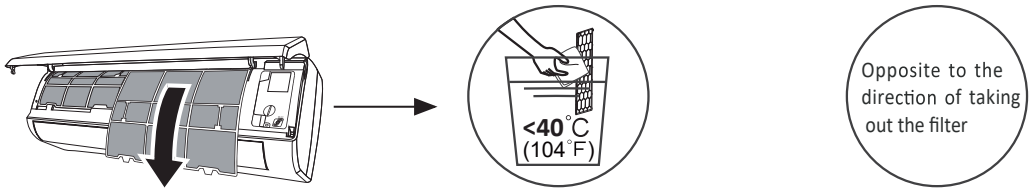
Clean the unit



Wet towel, wring the towel dry and gently wipe down the unit

Tip: Wipe frequently to keep air conditioner clean and good appearance .

Clean the filter



Take out the filter from the unit

Clean the filter with soapy water and air dry it

Replace the Filter

NOTE: Failure to keep filters clean will result in improper operation of the HVAC unit, may damage the unit, will void the warranty, and can promote mold growth and an unhealthy environment, Do not put wet filter back in unit. Ensure filter is dry before reinstalling.

Service and maintenance

- When the air conditioner is not in use for a long time, do the following work:
  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:
  1. Clean the unit and filter screen;
  2. Check whether there are obstacles at the air inlet and outlet of indoor and outdoor units;
  3. 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
	Damaged indoor/outdoor unit fan motor.
	Faulty compressor thermomagnetic circuit breaker.
	Faulty protective device or fuses.
	Loose connections
	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	Back flow of liquid in the refrigerant circulation.
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 set at 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 shown the following error codes:

Display	Description ofthe 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 appliance contains refrigerant and other potentially hazardous materials. Removal of the system should only be done by a licensed HVAC installer. Failure to do so properly can be a violation of law and can result in significant injury, property damage, and/or death. 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.
- Disposing of this appliance in the forest or other natural surroundings endangers your health and is bad for the environment. Hazardous substances may leak into the ground water and enter the food chain.



TCL NORTH AMERICA LIMITED WARRANTY STATEMENT
Ductless Mini-Split Residential Air Conditioner and Heat Pump Systems

Covered Models: TH09SVH23BWE, TH09SVH23BWC, TH12SVH23BWE, TH12SVH23BWC, TH12SVH23XWE, TH12SVH23XWC, TH18SVH22XWE, TH18SVH22XWC, TH24SVH21XWE, TH24SVH21XWC, TH36SVH19XWE, TH36SVH19XWC, TH36SEH19XWC, TH36SEH19XWE

Coverage Territory: United States and Canada (the "Territories")

Limited Warranty Statement Effective Date: June 10, 2025 (the "Effective Date")

Subject to all terms and conditions of this Limited Warranty Statement (the "Limited Warranty"), TTE Technology, Inc. dba TCL North America ("TCL") warrants to the original purchaser that the Product shall be free of defects in materials or workmanship for the time periods set forth below under normal use and maintenance and provided that the Product was properly installed pursuant to all product requirements, instructions, best HVAC installation practices, and local, state, and federal law within the Territories. For the avoidance of doubt, any damage to the product caused by installation is specifically excluded from warranty coverage. If a part or component fails due to defect during the applicable warranty period, TCL will provide a new or remanufactured part or component of like kind and quality, as determined in TCL's discretion. Any replacement part or component shall be warranted for the remainder of the original warranty period or 90 days, whichever is longer. Defective parts or components become TCL's property and must be returned on request or there will be a charge for the unreturned part or component.

1) Standard Limited Warranty Coverage

a. Parts: If any parts prove defective due to improper workmanship or material for a period of **five (5) years from the date of purchase**, TCL will replace the defective part without charge for the part.

b. Compressor: If the compressor proves defective due to improper workmanship or material for a period of **five (5) years from the date of installation**, TCL will replace the defective compressor without charge for the compressor. TCL will cover the freight costs for the return of the defective compressor.

c. Remote Control: If the remote control proves defective due to improper workmanship or material for a period of **five (5) years from the date of installation**, TCL will replace the defective remote control without charge for the remote control.

CONDITIONS AND EXCLUSIONS

1) TO OBTAIN WARRANTY PARTS:

a. Contact the Authorized TCL Inspire Pro who installed the Product, another licensed TCL Dealer or Distributor, or visit the TCL website at www.TCL.com within the applicable warranty period. Inspire Pro Dealers, Authorized Distributors, and other Dealers are independently owned and operated with no affiliation to TCL or any of its subsidiaries or affiliates.

b. Present the sales receipt or other document establishing proof of purchase and date of installation by a licensed HVAC contractor, and upon request by TCL, provide proof of maintenance in accordance with TCL's schedule or instructions. In the absence of acceptable proof of purchase and date of installation, the date of installation shall be deemed to be 120 days after the date of manufacture stamped on the Product.

c. This Limited Warranty applies only to Products that are installed in accordance with (i) all applicable building codes and permits; (ii) local, state, and federal regulations and laws, (ii) TCL installation and operation instructions; and (iii) good trade practices. This Limited Warranty applies only to Products installed and/or used in a residential setting, use is for personal comfort, and operation and care is normal and in accordance with TCL's instructions. The term "original purchaser" as used in this Limited Warranty means any individual or entity that purchases a new Product or is the first purchaser of a residence in which a new Product is installed (subject to Section 7 below).

2) THIS LIMITED WARRANTY DOES NOT COVER: property damage, malfunction, or failure of the Product or related system, or personal injury caused by or resulting from:

a. Misuse, abuse, neglect, accident, negligence, normal wear and tear, cosmetic damage, mishandling, faulty installation, inadequate wireless signal reception, or inadequate electrical wiring or service;

b. Operating the Product in incomplete or unfinished structures;

c. Installation, alteration, repair or service by anyone other than a licensed HVAC contractor or other than pursuant to TCL's instructions;

d. Improper matching of the Product with other system components;

e. Improper sizing, selection or specification of the Product;

f. Improper or deferred maintenance contrary to TCL's schedule or instructions;

g. Operating the Product in a corrosive or wet environment, including those containing chlorine, fluorine or any other hazardous or harmful chemicals or environmental factors, including sea- or salt-water, including but not limited to corrosion to any Product installed within 2 miles of seacoast;

h. Operating the Product in environments with excessive or harmful volatile organic compounds (VOCs), improper air makeup or supply, or with inadequate ventilation;

i. Physical abuse or misuse of the Product (including failure to perform any scheduled maintenance as described in the Product documentation such as air filter cleaning, or any Product damaged by excessive physical or electrical stress);

j. Products used in any manner contrary to the Product documentation;

k. Shipment, transit, storage, onsite construction, installation, repair, service, or maintenance;

l. Use of incompatible accessories or components; or

m. Events of force majeure or damage caused by other external factors such as earthquakes, fires, lightning, hail, wind, freezing, flooding, standing, pooling, or ponding water, power surges, fluctuations in or interruptions of electrical power, rodents, vermin, insects, or other animal- or pest-related issues.

3) THIS LIMITED WARRANTY ALSO EXCLUDES:

- **a.** Labor or any other costs incurred for service, maintenance, repair, removing, replacing, installing, complying with local building and electrical codes, or shipping or handling of defective or replacement Products or parts (except as expressly provided in Section 1.b. above);
- **b.** Consumable items, such as air filters and refrigerant;
- **c.** Service calls where no defect is found;
- **d.** Product installation, set-up, and related adjustments;
- **e.** Adjustments of user controls (consult the Product documentation or your Authorized Inspire Pro Dealer for information regarding proper user controls);
- **f.** Products purchased or installed outside of the Territories or purchased from any person, entity, or source not expressly authorized by TCL;
- **g.** Products with missing or unreadable original factory serial numbers or that have had the original factory serial number or any part thereof changed, altered, defaced, removed, or otherwise modified in any manner; and
- **h.** Peripheral third party components connected to the Product, such as refrigerant piping, electrical wiring, pumps, valves, controls, accessories, etc.

4) EXCEPT AS OTHERWISE PROVIDED IN THIS LIMITED WARRANTY, TCL MAKES NO OTHER WARRANTIES OF ANY KIND WHATSOEVER REGARDING THE PRODUCT. NO VERBAL OR WRITTEN INFORMATION GIVEN BY TCL, ITS AGENTS, OR EMPLOYEES SHALL CREATE A GUARANTY OR IN ANY WAY INCREASE OR MODIFY THE SCOPE OF THIS WARRANTY. NO ONE IS AUTHORIZED TO CHANGE THIS LIMITED WARRANTY IN ANY RESPECT OR TO CREATE ANY OTHER OBLIGATION OR LIABILITY FOR TCL IN CONNECTION WITH THE PRODUCT. TCL DISCLAIMS AND EXCLUDES ALL WARRANTIES NOT EXPRESSLY PROVIDED HEREIN AND ALL REMEDIES WHICH, BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION OR OPERATION OF LAW. ANY AND ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY LIMITED TO A TERM EQUAL TO THE TERM OF THIS LIMITED WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MIGHT NOT APPLY TO YOU. TCL DISCLAIMS ALL LIABILITY FOR THE ACTS, OMISSIONS, AND CONDUCT OF ALL THIRD PARTIES (INCLUDING BUT NOT LIMITED TO THE INSTALLING OR SERVICING CONTRACTOR, ANY DISTRIBUTOR, OR DEALER) IN CONNECTION WITH OR RELATED TO THE PRODUCT.

5) UNDER NO CIRCUMSTANCES SHALL TCL BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, INFRINGEMENT OF THIRD PARTY RIGHTS, LOST GOODWILL, LOST REVENUES OR PROFITS, WORK STOPPAGE, PRODUCT FAILURE, IMPAIRMENT OF OTHER GOODS, COSTS OF REMOVAL AND REINSTALLATION OF THE PRODUCT, LOSS OF USE, INJURY TO PERSONS OR PROPERTY ARISING OUT OF OR RELATED TO THE PRODUCT WHETHER BASED ON BREACH OF WARRANTY, BREACH OF CONTRACT, TORT OR OTHERWISE, EVEN IF TCL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. IN NO EVENT SHALL TCL'S LIABILITY EXCEED THE ACTUAL PURCHASE PRICE OF THE PRODUCT WITH RESPECT TO WHICH ANY CLAIM FOR THE PRODUCT IS MADE.

6) SOME STATES OR PROVINCES DO NOT ALLOW LIMITATIONS ON WARRANTIES OR EXCLUSIONS OR LIMITATION OF DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE OR PROVINCE TO PROVINCE.

7) This Limited Warranty is not transferable to subsequent purchasers or anyone else who may acquire an interest in the Product unless the original purchaser is a resident of Texas or Florida and complies with this provision. Residents of Texas and Florida may transfer the rights under this Limited Warranty ONLY if the Product is transferred to a subsequent purchaser as part of an agreement between the original purchaser and a subsequent purchaser of the sale of the entire residence in which the Product was first installed. This provision does not in any way extend or modify the length of time this Limited Warranty applies, and the subsequent purchaser's warranty duration shall match that of the original purchaser.

8) If any term or provision of this Limited Warranty is invalid, illegal, or unenforceable in any jurisdiction, such invalidity, illegality, or unenforceability shall not affect any other term or provision of this Limited Warranty or invalidate or render unenforceable such term or provision in any other jurisdiction .

9) TCL reserves the right to amend or modify this Limited Warranty from time to time without notice. Please visit www.TCL.com to view the most current version of this Limited Warranty.

If you purchased your Product outside of the Territories or seek warranty service coverage outside of the Territories, this Warranty Statement does not apply. Contact your local dealer for warranty information.

CONTACT INFORMATION:

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TCL