



Operation & Installation Manual

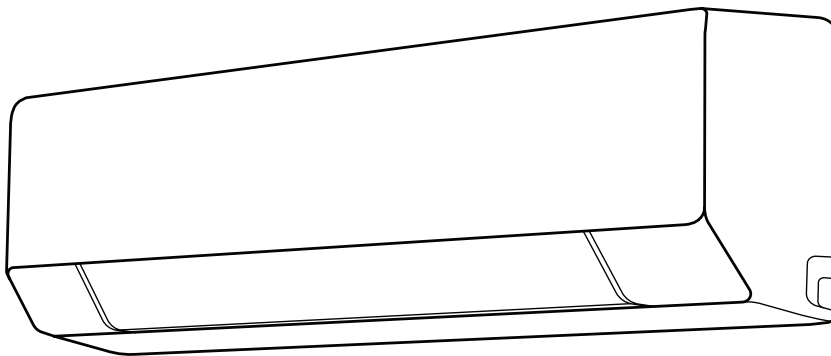
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IMPORTANT NOTE:



Read this manual carefully before installing or operating your new air conditioning unit. Make sure to save this manual for future reference.

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CUSTOMER CARE AND SERVICE

We recommend the use of original spare parts.

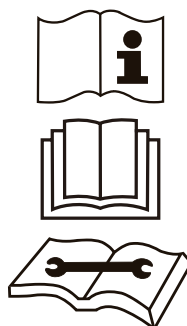
When contacting Service ensure you have the following information available, model number, PNC & serial number. These information can be found on the rating plate.

Subject to change without notice.



R32 Refrigerant Warning

This product uses R32 difluoromethane refrigerant, which is a mildly flammable gas class 2.2 according to AS/NZS 5149 and must be handled by a refrigeration mechanic with appropriate Australian refrigerant handling licence.



Safety Precautions

It's really important you read Safety Precautions before operation and installation. Incorrect installation due to ignoring instructions can cause serious damage or injury. The seriousness of potential damage or injuries is classified as either a **WARNING** or **CAUTION**.

Explanation of Symbols



WARNING

This symbol indicates the possibility of personnel injury or loss of life.



CAUTION

This symbol indicates the possibility of property damage or serious consequences.



Attention

The signal word indicates important information (e.g. damage to property), but not danger.

WARNING FOR PRODUCT USE

- Turn off the air conditioner and disconnect the power before performing any cleaning, installation or repairing. Failure to do so can cause electric shock.
- If an abnormal situation arises (like a burning smell), immediately turn off the unit and disconnect the power. Call your dealer for instructions to avoid electric shock, fire or injury.
- Do not insert fingers, rods or other objects into the air inlet or outlet. This may cause injury, since the fan may be rotating at high speeds.
- Do not use flammable sprays such as hair spray, lacquer or paint near the unit. This may cause fire or combustion.
- Do not operate the air conditioner in places near or around combustible gases. Emitted gas may collect around the unit and cause explosion.
- Do not operate your air conditioner in a wet room such as a bathroom or laundry room. Too much exposure to water can cause electrical components to short circuit.
- Do not expose your body directly to cool air for a prolonged period of time.
- Do not allow children to play with the air conditioner. Children must be supervised around the unit at all times.
- If the air conditioner is used together with burners or other heating devices, thoroughly ventilate the room to avoid oxygen deficiency.
- In certain functional environments, such as kitchens, server rooms, etc., the use of specially designed air-conditioning units is highly recommended.
- 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. Children should be supervised to ensure that they do not play with the appliance.

ELECTRICAL WARNINGS

- Only use the specified power cord. If the power cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The product must be properly grounded at the time of installation, or electric shock may occur.
- For all electrical work, follow all local and national wiring standards, regulations, and the Installation Manual.
- Connect cables tightly, and clamp them securely to prevent external forces from damaging the terminal. Improper electrical connections can overheat and cause fire, and may also cause shock.
- All electrical connections must be made according to the Electrical Connection Diagram located on the panels of the indoor and outdoor units.
- All wiring must be properly arranged to ensure that the control board cover can close properly. If the control board cover is not closed properly, it can lead to corrosion and cause the connection points on the terminal to heat up, catch fire, or cause electric shock.
- Disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.
- Do not pull power cord to unplug unit. Hold the plug firmly and pull it from the outlet. Pulling directly on the cord can damage it, which can lead to fire or electric shock.
- Do not modify the length of the power supply cord or use an extension cord to power the unit.
- Do not share the electrical outlet with other appliances. Improper or insufficient power supply can cause fire or electrical shock.
- Keep power plug clean. Remove any dust or grime that accumulates on or around the plug. Dirty plugs can cause fire or electric shock.
- If connecting power to fixed wiring, an all-pole disconnection device which has at least 3mm clearances in all poles, and have a leakage current that may exceed 10mA, the residual current device(RCD) having a rated residual operating current not exceeding 30mA, and disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

TAKE NOTE OF FUSE SPECIFICATIONS

The air conditioner's circuit board (PCB) is designed with a fuse to provide overcurrent protection. The specifications of the fuse are printed on the circuit board , such as : T3.15AL/250VAC, T5AL/250VAC, T3.15A/250VAC, T5A/250VAC, T20A/250VAC, T30A/250VAC,etc.

NOTE: For the units with R32 refrigerant , only the blast-proof ceramic fuse can be used.

WARNINGS FOR PRODUCT INSTALLATION

- Installation must be performed by appropriately accredited person. Defective installation can cause water leakage, electrical shock, or fire.
- Installation must be performed according to the installation instructions. Improper installation can cause water leakage, electrical shock, or fire.
- Contact an authorized service technician for repair or maintenance of this unit.
- This appliance shall be installed in accordance with national wiring regulations.
- Only use the included accessories, parts, and specified parts for installation. Using non-standard parts can cause water leakage, electrical shock, fire, and can cause the unit to fail.
- Install the unit in a firm location that can support the unit's weight. If the chosen location cannot support the unit's weight, or the installation is not done properly, the unit may drop and cause serious injury and damage.
- Install drainage piping according to the instructions in this manual. Improper drainage may cause water damage to your home and property.
- Do not install the unit in a location that may be exposed to combustible gas leaks. If combustible gas accumulates around the unit, it may cause fire.
- Do not turn on the power until all work has been completed.
- When moving or relocating the air conditioner, consult experienced service technicians for disconnection and reinstallation of the unit.
- How to install the appliance to its support, please read the information for details in "indoor unit installation" and "outdoor unit installation" sections.

CAUTION

- Turn off the air conditioner and disconnect the power if you are not going to use it for a long time.
- Turn off and unplug the unit during storms.
- Make sure that water condensation can drain unhindered from the unit.
- Do not operate the air conditioner with wet hands. This may cause electric shock.
- Do not use air conditioner for any other purpose than its intended use.
- Do not climb onto or place objects on top of the outdoor unit.
- Do not allow the air conditioner to operate for long periods of time with doors or windows open, or if the humidity is very high.

CLEANING AND MAINTENANCE WARNINGS

- Turn off the device and disconnect the power before cleaning. Failure to do so can cause electrical shock.
- Do not clean the air conditioner with excessive amounts of water.
- Do not clean the air conditioner with combustible cleaning agents. Combustible cleaning agents can cause fire or deformation.

NOTE ABOUT FLUORINATED GASSES

- This air-conditioning unit contains fluorinated greenhouse gasses. For specific information on the type of gas and the amount, please refer to the relevant label on the unit itself.
- Installation, service, maintenance and repair of this unit must be performed by a certified technician.
- Product uninstallation and recycling must be performed by a certified technician.

⚠ WARNING FOR USING R32 REFRIGERANT
(Applicable for units using R32 refrigerant only)

- When a flammable refrigerant is employed, appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specific for operation.
- Appliance shall be installed, operated and stored in a room with a floor area larger than $X \text{ m}^2$ (See chart showing corresponding room area based on the actual refrigerant charge amount and installation height where appliance will be installed.)

A_{min} (m²)	h (m)																	
m_c (kg)	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	≥2.3
≤1.836	No requirements																	
1.9	31.0	22.8	17.5	13.8	11.2	9.3	7.8	6.6	6.0	5.6	5.2	4.9	4.6	4.4	4.2	4.0	3.8	3.6
2.0	34.4	25.3	19.4	15.3	12.4	10.3	8.6	7.4	6.4	5.9	5.5	5.2	4.9	4.6	4.4	4.2	4.0	3.8
2.2	41.6	30.6	23.4	18.5	15.0	12.4	10.4	8.9	7.7	6.7	6.0	5.7	5.4	5.1	4.8	4.6	4.4	4.2
2.4	49.5	36.4	27.9	22.0	17.8	14.8	12.4	10.6	9.1	8.0	7.0	6.2	5.9	5.6	5.3	5.0	4.8	4.6
2.6	58.1	42.7	32.7	25.8	20.9	17.3	14.6	12.4	10.7	9.3	8.2	7.3	6.5	6.0	5.7	5.4	5.2	5.0
2.8	67.3	49.5	37.9	29.9	24.3	20.1	16.9	14.4	12.4	10.8	9.5	8.4	7.5	6.8	6.2	5.9	5.6	5.4
3.0	77.3	56.8	43.5	34.4	27.9	23.0	19.4	16.5	14.2	12.4	10.9	9.7	8.6	7.8	7.0	6.4	6.0	5.7
3.2	87.9	64.6	49.5	39.1	31.7	26.2	22.0	18.8	16.2	14.1	12.4	11.0	9.8	8.8	8.0	7.2	6.6	6.1
3.4	99.2	72.9	55.8	44.1	35.8	29.6	24.8	21.2	18.3	15.9	14.0	12.4	11.1	9.9	9.0	8.1	7.4	6.8
3.6	111.3	81.8	62.6	49.5	40.1	33.1	27.9	23.7	20.5	17.8	15.7	13.9	12.4	11.1	10.1	9.1	8.3	7.6
3.8	124.0	91.1	69.7	55.1	44.7	36.9	31.0	26.4	22.8	19.9	17.5	15.5	13.8	12.4	11.2	10.2	9.3	8.5
4.0	137.3	100.9	77.3	61.1	49.5	40.9	34.4	29.3	25.3	22.0	19.4	17.2	15.3	13.7	12.4	11.3	10.3	9.4
4.2	151.4	111.3	85.2	67.3	54.5	45.1	37.9	32.3	27.9	24.3	21.3	18.9	16.9	15.1	13.7	12.4	11.3	10.4
4.4	166.2	122.1	93.5	73.9	59.9	49.5	41.6	35.4	30.6	26.6	23.4	20.7	18.5	16.6	15.0	13.6	12.4	11.4
4.6	181.6	133.4	102.2	80.7	65.4	54.1	45.4	38.7	33.4	29.1	25.6	22.7	20.2	18.2	16.4	14.9	13.6	12.4
4.8	197.7	145.3	111.3	87.9	71.2	58.9	49.5	42.2	36.4	31.7	27.9	24.7	22.0	19.8	17.8	16.2	14.8	13.5
5.0	214.6	157.7	120.7	95.4	77.3	63.9	53.7	45.7	39.5	34.4	30.2	26.8	23.9	21.4	19.4	17.6	16.0	14.6
Area formula	A_{min} is the required minimum room area in m². m_c is the actual refrigerant charge in the system in kg. (m_c: the sum of the nameplate nominal charge and the additional charge during installation). h is the height of the bottom of the appliance relative to the floor of the room after installation. Note: If the refrigerant charge amount of the machine you purchased is between the two charging values in the table, the minimum room area corresponds to the value of the maximum refrigerant charge amount. For example, if the refrigerant charge amount of your machine is 2.1 kg, which is between 2.0kg and 2.2kg, then the minimum room area is the room area corresponding to 2.2 kg. For installation height, please refer to the actual installation height. For Floor standing units and other device with the installation height less than 0.6m, please refer to the room area corresponding to a height of 0.6m in the above table.																	

- Reusable mechanical connectors and flared joints are not allowed indoors.
- When mechanical connectors are reused indoors, sealing parts shall be renewed.
- When flared joints are reused indoors, the flare part shall be re-fabricated.
- 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 might not contain an odour.

Explanation of symbols displayed on the indoor unit or outdoor unit

	WARNING	This symbol shows that this appliance used a flammable refrigerant. If the refrigerant is leaked and exposed to an external ignition source, there is a risk of fire.
	CAUTION	This symbol shows that the operation manual should be read carefully.
	CAUTION	This symbol shows that a service personnel should be handling this equipment with reference to the installation manual.
	CAUTION	This symbol shows that information is available such as the operating manual or installation manual.

1. Installation (Space)

- That the installation of pipe-work shall be kept to a minimum.
Note: Refer to installation instructions and requirements.
- That pipe-work shall be protected from physical damage.
- Refrigerant pipes shall be compliant with national gas regulations.
- That mechanical connections shall be accessible for maintenance purposes.
- In cases that require mechanical ventilation, ventilation openings shall be kept clear of obstruction.
- Follow national regulations when disposing of the product.

2. Servicing

- Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorises their competence to handle refrigerants safely in accordance with an industry recognised assessment specification.

3. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.

4. Ensure that foreign matter (oil, water, etc.) does not enter piping. When storing piping, ensure ends are securely sealed.

5. All working procedure that affects safety means shall only be carried by competent persons.

6. Appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specific for operation.

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

8. Avoid excessive vibration or pulsation to refrigerating piping

9. Joints shall be tested with detection equipment with a capability of 5 g/year of refrigerant or better, with the equipment in standstill and under operation or under a pressure of at least these standstill or operation conditions after installation. Detachable joints shall NOT be used in the indoor side of the unit (brazed, welded joint could be used).

10. Servicing shall be performed only as recommended by the manufacturer.

11. When a FLAMMABLE REFRIGERANT is used, see the following requirements for installation
- that protection devices, piping, and fittings shall be protected as far as possible against adverse environmental effects, for example, the danger of water collecting and freezing in relief pipes or the accumulation of dirt and debris;
 - that precautions shall be taken to avoid excessive vibration or pulsation to refrigerating piping;
 - that piping in refrigeration systems shall be so designed and installed to minimize the likelihood of hydraulic shock damaging the system;
 - that provision shall be made for expansion and contraction of long runs of piping;
 - The indoor equipment and pipes shall be securely mounted and guarded such that accidental rupture of equipment cannot occur from such events as moving furniture or reconstruction activities;
 - Steel pipes and components shall be protected against corrosion with a rustproof coating before applying any insulation
 - Refrigerant flare joints should be tightened to specified torque as per the installation instructions.
 - Electrical components that can arc or spark, which are not considered ignition sources due to compliance with 22.116.1 points b), c), d), or f) of IEC 60335-2-40:2022, IEC 60335-2-40:2024 and EN IEC 60335-2-40:2024 shall only be replaced with parts specified by the appliance manufacturer. Replacement with other parts may result in the ignition of refrigerant in the event of a leak.
12. Unventilated areas
- For appliances containing flammable refrigerants is installed in an unventilated area, please make sure that it will not stagnate so as to create a fire or explosion hazard for any refrigerant leak.
 - The appliance shall be stored so as to prevent mechanical damage from occurring.
 - 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 or sparks during operation).
- 13 Qualification of workers
- only qualified personnel shall maintain, service or repair this product. Only certified and qualified personnel shall perform work on this product. The training of these procedures is carried out by national training organisations or manufacturers that are accredited to teach the relevant national competency standards that may be set in legislation. All training shall follow the ANNEX HH requirements of IEC 60335-2-40:2022, IEC 60335-2-40:2024 and EN IEC 60335-2-40:2024 Edition. Examples for such working procedures are:
- breaking into the refrigerating circuit;
 - opening of sealed components;
 - opening of ventilated enclosures.

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 minimised. For repair to the refrigerating system, the following precautions point 2 to point 6 shall be completed prior to conducting work on the system.

2. Work procedure

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

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.

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 toxic or flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

5. Presence of fire extinguisher

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

6. No ignition sources

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

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 hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

8. Checks to the refrigerating equipment

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

- the refrigerant charge is in accordance with the room size within which the refrigerant containing parts are installed;
- the ventilation machinery and outlets are operating adequately and are not obstructed;
- if an indirect refrigerating circuit is being used, the secondary circuits shall be checked for the presence of refrigerant;
- marking to the equipment continues to be visible and legible. Marking and signs that are illegible shall be corrected;

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

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.

10. Sealed electrical components

Sealed electrical components shall not be repaired.

11. 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.

12. Detection of flammable refrigerants

Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.

The following leak detection methods are deemed acceptable for all refrigerant systems. Electronic leak detectors may be used to detect refrigerant leaks but, in the case of FLAMMABLE REFRIGERANTS, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25% maximum) is confirmed.

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

NOTE Examples of leak detection fluids are

- bubble method,
- fluorescent method agents.

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. See the following instructions of removal of refrigerant.

13. Refrigerant removal and circuit evacuation

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

The following procedure shall be adhered to:

- safely remove refrigerant following local and national regulations;
- evacuate;
- purge the circuit with inert gas (optional for A2L);
- evacuate (optional for A2L);
- continuously flush or with inert gas when using flame to open circuit;
- open the circuit

The refrigerant charge shall be recovered into the correct recovery cylinders. The manufacturer shall specify the inert gases that can be used. Compressed air or oxygen shall not be used for purging refrigerant systems.

NOTE An example of an inert gas is dry nitrogen.

Purging of the refrigerant circuit shall be achieved by breaking the vacuum in the system with inert gas 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. The system shall be vented down to atmospheric pressure to enable work to take place.

Ensure that the outlet of the vacuum pump is not close to any potential ignition sources and that ventilation is available.

14. Charging procedures

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

- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them.
- Cylinders shall be kept in an appropriate position according to the instructions.
- Ensure that the refrigerating system is earthed prior to charging the system with refrigerant.
- Label the system when charging is complete (if not already labelled).
- Extreme care shall be taken not to overfill the refrigerating system.

Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

15. Decommissioning

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

a) Become familiar with the equipment and its operation.

b) Isolate system electrically.

c) Before attempting the procedure ensure that:

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

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

16. Labelling

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

17. Recovery

When removing refrigerant from a system, either for servicing or decommissioning, it is required to follow good practice so that all refrigerants are removed safely. When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e., special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure-relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.

The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of the flammable refrigerant. Consult manufacturer if in doubt. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition.

The recovered refrigerant shall be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that **flammable refrigerant** does not remain within the lubricant. The compressor body shall not be heated by an open flame or other ignition sources to accelerate this process. Draining of oil from a system shall be carried out safely

18. Transportation, marking and storage for units

1. Transport of equipment containing flammable refrigerants
Compliance with the transport regulations
2. Marking of equipment using signs
Compliance with local regulations
3. Disposal of equipment using flammable refrigerants
Compliance with national regulations

4. Storage of equipment/appliances

The storage of equipment should be in accordance with the manufacturer's instructions.

5. Storage of packed (unsold) equipment

Storage package protection should be constructed such that mechanical damage to the equipment inside the package will not cause a leak of the refrigerant charge.

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

ENVIRONMENTAL CONCERN

Recycle materials with the symbol . Put the packaging in relevant containers to recycle it. Help protect the environment and human health by recycling waste of electrical and electronic appliances.

Do not dispose appliances marked with the symbol  with the household waste. Return the product to your local recycling facility or contact your municipal office.

Product Information

i NOTE : Operating Temperature

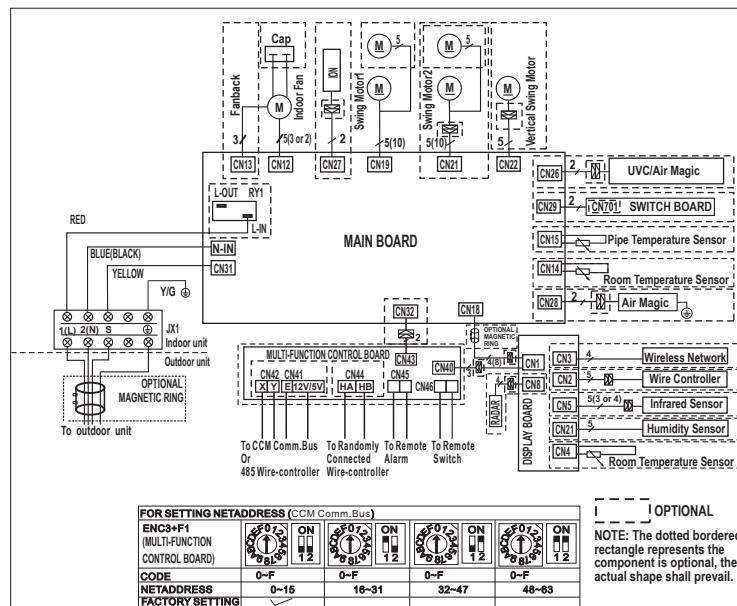
When your air conditioner is used outside of the following temperature ranges, certain safety protection features may activate and cause the unit to disable.

Inverter Split Type

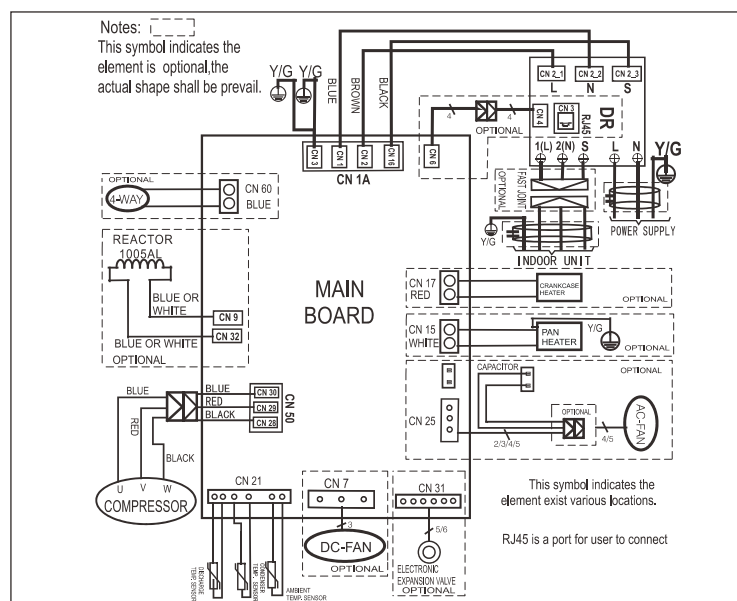
	COOL Mode	HEAT Mode	DRY Mode
Room Temp.	16°C~32°C(60°F~90°F)	0°C~30°C(32°F~86°F)	10°C~32°C(50°F~90°F)
Outdoor Temp.	-15°C~50°C(5°F~122°F)	-15°C~24°C(5°F~75°F)	0°C~50°C(32°F~122°F)

Wiring Diagrams

Indoor Unit:



Outdoor Unit:

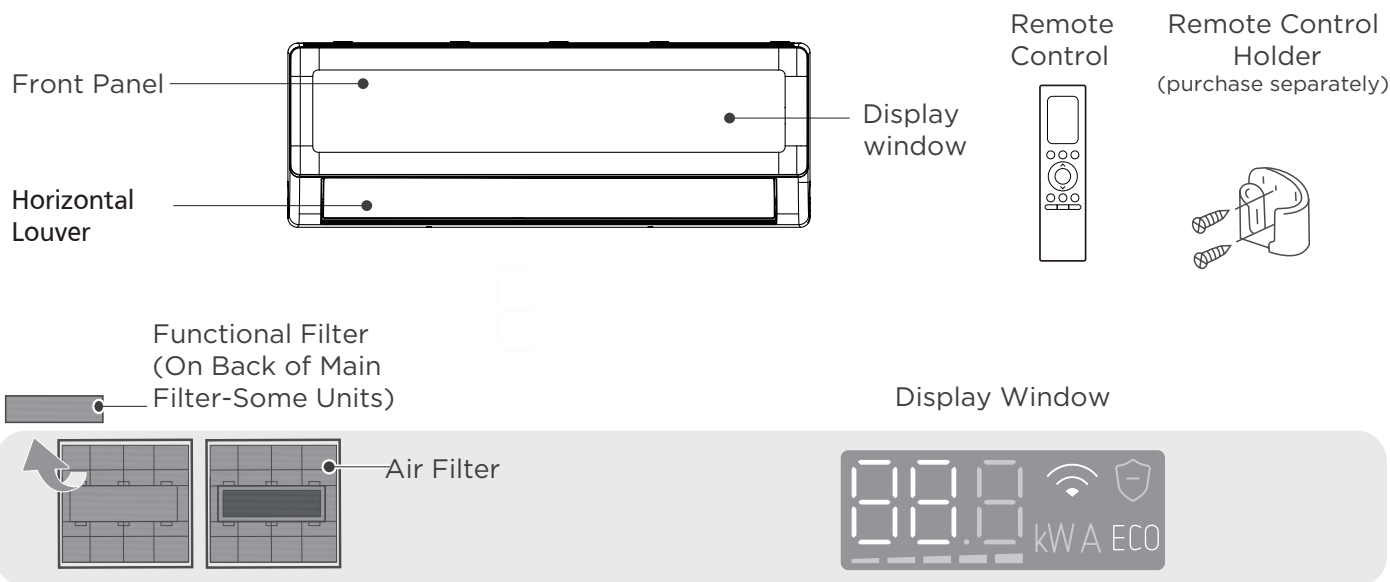


Product Description

i NOTE

- Different models have different front panel and display window. Not all the indicators describing below are available for the air conditioner you purchased. Please check the indoor display window of the unit you purchased.
- Illustrations in this manual are for explanatory purposes. The actual shape of your indoor unit may be slightly different. The actual shape shall prevail.

Indoor Unit Display



Display Code	Display Code Meanings
88	• Displays temperature, operation feature and error codes.
ECO	• When ECO+ feature is turned on.
Wi-Fi	• When Wireless Control feature is activated.
ON (for 3s when)	• Timer On is set (if the unit is OFF, “ON” remains on when Timer On is set). • Swing, Turbo , Diffuse or Silent function is turned on.
OF (for 3s when)	• Timer Off is set. • Swing, Turbo , Diffuse or Silent function is turned off.
CL	• When Active Clean feature is turned on.
dF	• When defrosting(for cooling & heating units).
FP	• When 8°C (46°F) heating feature is turned on(for cooling & heating units).

To further optimize the performance of your unit, do the following:

- Keep doors and windows closed.
- Limit energy usage by using TIMER ON and TIMER OFF functions.
- Do not block air inlets or outlets.
- Regularly inspect and clean air filters.

More features

NOTE

Not all the functions are available for the air conditioner you purchased, please check the indoor display and remote control of your unit.

- **Auto-Restart**

If the unit loses power, it will automatically restart with the prior settings once power has been restored.

- **Active Clean function**

-- The Active Clean Technology washes away dust when it adheres to the heat exchanger by automatically freezing and then rapidly thawing the frost. A “pi-pi” sound will be heard. The Active clean operation is used to produce more condensed water to improve the cleaning effect, and the cold air will blow out.

After cleaning, the internal wind wheel then keeps operating with hot air to blow-dry the evaporator, thus keeping the inside clean.

-- When this function is turned on, the indoor unit display window appears “CL”, after 20 to 130 minutes, the unit will turn off automatically and cancel Active Clean function.

-- For some units, the system will start hightemperature cleaning process that can cause the temperature at the air outlet to be very high. Please do not approach the air outlet. Hightemperature cleaning can also cause the room temperature to rise.

- **Louver Angle Memory**

When turning on your unit, the louver will automatically resume its former angle.

- **ECO function**

Under cooling/heating mode, the fan speed will change to Auto, the set temperature will remain unchanged which brings more comfortable feelings and power-saving, and reduces temperature fluctuations.

- **Wireless Control**

Wireless control allows you to control your air conditioner using your mobile phone and a wireless connection.

- **Diffuse Function**

-- Press the SET button on the remote control to activate the diffuse function avoiding direct air blowing on the body.

-- Under the diffuse function, the system will adjust the louver angles and fan speed automatically. You can also choose the fan speed by remote controller.

-- This function is only available under Cool, Dry or Fan mode.

Manual Operation(without remote)

⚠ **CAUTION :** For product use

The manual button is intended for testing purposes and emergency operation only.

Please do not use this function unless the remote control is lost and it is absolutely necessary. To restore regular operation, use the remote control to activate the unit.

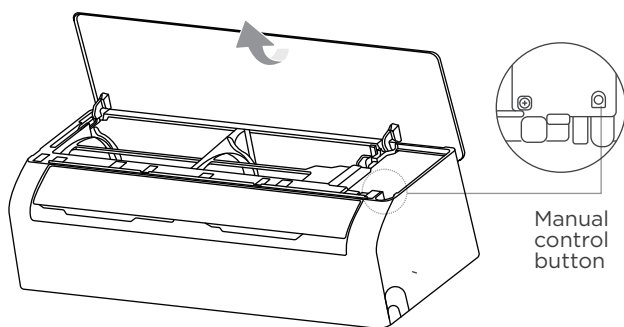
Unit must be turned off before manual operation.

Note: Contact service to replace lost remote control (at customer cost)

To operate your unit manually:

- Press down the buttons on both side of the panel, then lift the panel up until it clicks.
- Locate the **MANUAL CONTROL button** on the right-hand side of the electrical control box.
- Press the **MANUAL CONTROL button** one time to activate FORCED AUTO mode.
- Press the **MANUAL CONTROL button** again to activate FORCED COOLING mode.
- Press the **MANUAL CONTROL button** a third time to turn the unit off.
- Close the front panel.

Note: Use insulated tool to operate the button.



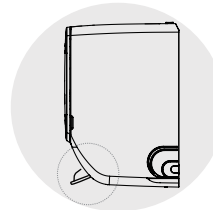
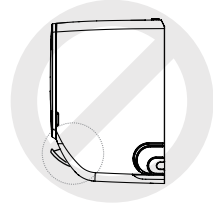
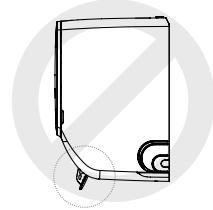
Setting Angle of Airflow

i NOTE : Setting up and down airflow(Remote control)

While the unit is on, use the SWING button on remote control to set the direction (up and down) of airflow. Please refer to the Remote Control operation for details.

Note on louver angles

- Do not set louver at too vertical an angle for long periods of time When using COOL or DRY mode. Condensation will form on the louver blade, which will drop on your floor or furnishings.
- Setting the louver at too small an angle when using COOL or HEAT mode, can reduce the performance of the AC due to restricted air flow.
- To achieve optimum air conditioner performance please set the horizontal louver as per the adjacent image.



i NOTE

Do not move louver by hand. If the louver is accidentally moved manually the louver position can be reset by turning the Air conditioner off and unplugging the Air conditioner.

Setting left and right air flow (Manual operation)

The left and right airflow must be set manually. Grip the deflector rod (See Fig.B) and manually adjust it to your preferred direction.

Note: Turn off the air conditioner before manually adjusting the left/right louver.

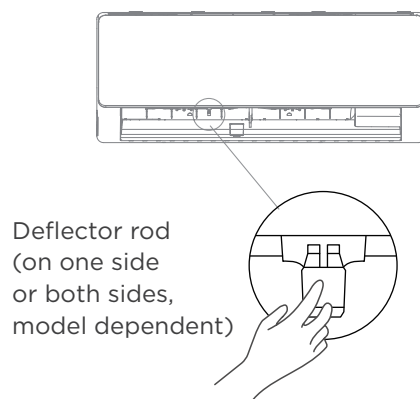
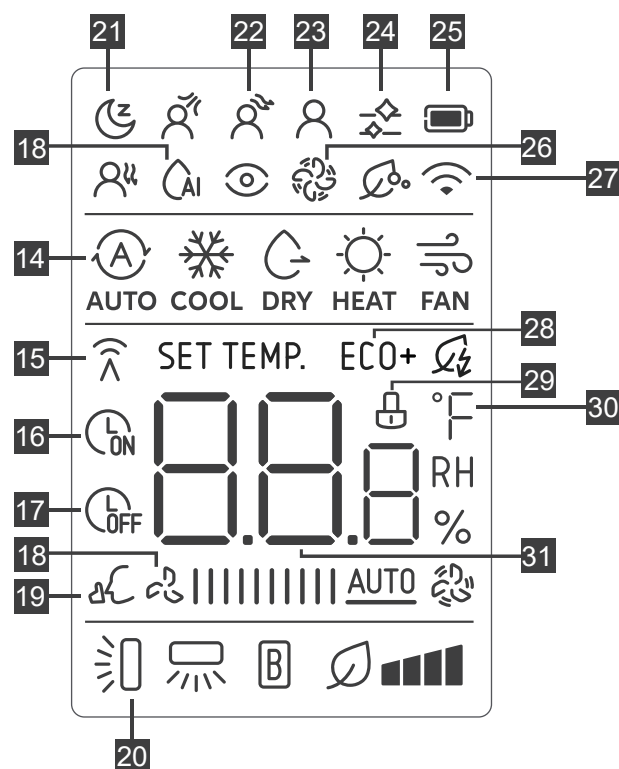
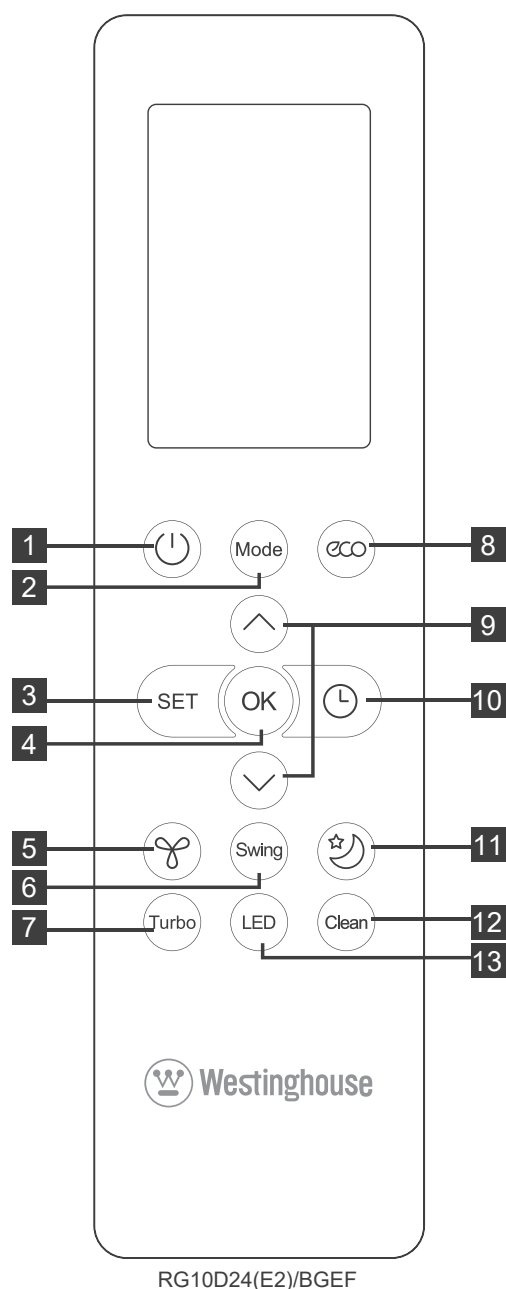


Fig. B

⚠ CAUTION

Do not put your fingers in or near the blower and suction side of the unit. The high-speed fan inside the unit may cause injury.

Remote Controller Description

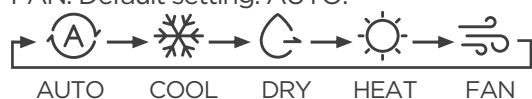


1. ON/OFF BUTTON

Press the button to switch on or off the unit.

2. MODE BUTTON

Press the button to set the operation mode: AUTO, COOL, DRY, HEAT and FAN. Default setting: AUTO.



- In AUTO mode, user can still set desired temperature.

3. SET BUTTON

Press the button to select some advance functions. The selected function symbol will flash on the display, press OK button to confirm it.

See section “How to use the remote controller” for the Set function description in details.

4. OK BUTTON

Press the button to confirm the function you have chosen in Set function.

5. FAN BUTTON

Press the button to set the fan speed: AUTO, LOW, MEDIUM and HIGH. Default setting: AUTO. In the AUTO and DRY mode, fan speed can not be set.

SILENT		1%-20%
LOW		21%-40%
MED		41%-60%
HIGH		61%-100%
AUTO		<u>AUTO</u>

6. SWING BUTTON

Press the button to stop or start vertical louver movement.

Default setting: OFF.

7. TURBO BUTTON

In COOL or HEAT mode, press the button to enable or disable the turbo function.

If the turbo function is enabled, the unit will operate at turbo speed to cool or heat rapidly so that the ambient temperature approaches the set temperature as soon as possible.

-  • To activate the turbo function, please make sure that the silent function is turned off.

8. ECO BUTTON

Press the button to activate the ECO energy efficient mode.

Default setting: OFF

9. TEMP BUTTON

Press the button to increase/decrease the temperature. Keep the button pressed for two seconds to accelerate the process.

Temperature range: 16-30°C.

In Timer function, use the button to set the timer adjustment.

10. TIMER BUTTON

Press the button to set the timer function for switching on/off the unit.

See section “How to use the remote controller“ for the Timer function description in details.

11. SLEEP BUTTON

Press the button to enable/disable the sleep function.

Default setting: OFF.

12. ACTIVE CLEAN BUTTON

Press the button to enable/disable the Active Clean function.

Default setting: OFF.

13. LED BUTTON

Press the button to switch the display of the indoor unit on or off.

Default setting: ON.

14. MODE DISPLAY

Displays the current selected mode. Including AUTO, COOL, DRY, HEAT and FAN.

15. TRANSMISSION INDICATOR

Displays when the remote controller transmits signals to the indoor unit.

16. TIMER-ON DISPLAY

Displays when the Timer-On function is enabled.

17. TIMER-OFF DISPLAY

Displays when the Timer-Off function is enabled.

18. FAN SPEED DISPLAY

Displays the selected fan speed: AUTO, LOW, MED and HIGH. When AUTO or DRY Mode is selected, the signal “AUTO” will be displayed.

19. SILENT DISPLAY

Displays when Silent function is activated. The unit will run with the lowest fan speed.

20. VERTICAL LOUVER SWING

Displays when Swing function is activated, display matched symbol if you select different up/down direction.

21. SLEEP DISPLAY

Displays when Sleep function is enabled.

22. DIFFUSE DISPLAY

Displays when Diffuse function is enabled.

23. FOLLOW ME DISPLAY

Displays when Follow Me function is enabled.

24. ACTIVE CLEAN FUNCTION

Displays when Active Clean function is enabled.

25. BATTERY DISPLAY

Displays the battery status of remote control, remind you to replace the battery.

26.TURBO DISPLAY

Displays when Turbo function is enabled.

27.WIRELESS CONTROL DISPLAY

Displays when Wireless Control function is enabled.

28. ECO DISPLAY

Displays when Eco function is enabled.

29.LOCK DISPLAY

Displays when Lock function is enabled.

30.°C/°F DISPLAY

°C/°F can be switched by pressing $\wedge$ and $\vee$ button at the same time for 3 seconds.

 • Some models do not have this function.

31. TEMPERATURE/TIMER/FAN SPEED DISPLAY

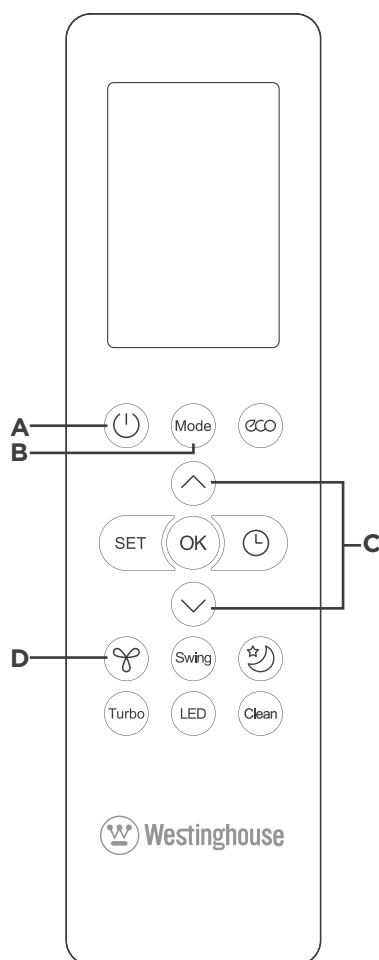
Displays the set temperature by default, or Timer setting when using Timer functions.

Timer setting range: 0-24 hours

This display is blank when operating in FAN mode.

How to Use the Remote Controller

1. Basic Operation



 Ensure the unit is plugged in and power is available. The OPERATION indicator on the display panel of the indoor unit illuminates.

1. Press the ON/OFF button **(A)** to start the air conditioner.
2. Press the Mode button **(B)** to select Auto, Cool, Dry, Heat or Fan mode.
3. Press the $\wedge$ / $\vee$ button **(C)** to set the desired temperature. The temperature can be set in 1°C increments. Keep the button pressed for two seconds to accelerate the process.
4. Press the FAN SPEED button **(D)** to select the fan speed.
5. Press the ON/OFF button **(A)** to turn the air conditioner off.

-  • In the Auto mode, the air conditioner can logically choose the mode of Cool, Fan, and Heat by sensing the difference between the actual ambient room temperature and the set temperature on the remote controller.
- In the Auto and Dry mode, the fan speed can not be switched.
 - In the Fan mode, you can not adjust the setting temperature.

2. Swing Operation



Vertical



Press Swing button. The air moves up and down. Press Swing button again to stop.

3. Timer Operation

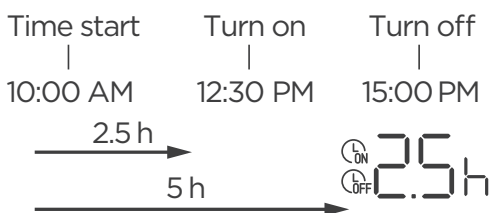
Timer On



Timer Off



Combined setting



Press the Timer button to set the auto-on time and the auto-off time of the unit.

Example of Timer on setting

1. Press the Timer button. The Timer on symbol and time will show on the display.
2. Press the $\wedge$ or $\vee$ button to set desired Timer on time to turn on the unit after 2.5 hours.
3. Point the remote controller to indoor unit and wait 1 second, then the Timer on function will be activated. The digital display on your remote controller will then return to the temperature display. The Timer on indicator remains on and this function is activated.

Example of Timer off setting

1. Press the Timer button till the Timer off symbol and time show on the display.
2. Press the $\wedge$ or $\vee$ button to set desired Timer off time to turn off the unit after 5 hours.
3. Point the remote controller to indoor unit and wait 1 second, then the Timer off function will be activated. The digital display on your remote controller will then return to the temperature display. The Timer off indicator remains on and this function is activated.



- When setting the Timer on or Timer off functions, up to 10 hours, the time will increase in 30 minute increments with each press. After 10 hours and up to 24, it will increase in 1 hour increments. The timer will revert to zero after 24 hours.
- You can cancel either function by setting its timer to "0.0h".

Example of Combined Timer Setting

It is 10:00 AM and you want to start the air conditioner after 2.5 hours and stop it after 5 hours.

1. Follow the Timer on setting to set the turn on time to 2.5 hours.
2. Continue press the Timer button to set the turn off time to 5 hours.
3. Both the Timer on and Timer off indicators display on the remote controller, the combined Timer setting is activated.
4. Then the unit will turn on at 12:30 PM and turn off at 15:00 PM.

3. Advanced Functions Operations

Button	Display
1 — Turbo	
2 — Clean	
3 — More than 2 seconds	
4 — 2 times in 1 seconds	FP
5 — eco	ECO+
6 —	
7 — Turbo More than 7 seconds	
8 — Turbo Clean	
9 — SET OK	

1. Turbo function

Press the Turbo button to enable or disable the turbo function. The Turbo function makes the unit work extra hard to reach your set temperature in the shortest time as soon as possible. When you need fast cool or heat, you can choose this function.

2. Active Clean function

The Active Clean Technology washes away dust, mold, and grease that may cause odors when it adheres to the heat exchanger by automatically freezing and then rapidly thawing the frost. When this function is turned on, the indoor unit display window appears “CL”, after 20 to 130 minutes, the unit will turn off automatically and cancel Active Clean function.

• You may hear “cracking” noise during the Active Clean function, this is normal.

3. Silent function

Keep pressing the Fan button for more than 2 seconds to activate or disable the Silent function. When the Silent function is enabled, the indoor unit fan speed remains adjustable, but only within the silent fan speed range. The maximum speed in the Silent fan speed range is lower than the normal low fan speed.

4. FP function

The unit will operate at high fan speed (while compressor on) with temperature automatically set to 8°C.

Press button 2 times during one second under HEAT mode with setting temperature of 16°C to activate FP function. The indoor unit will display “FP” on the display window. Press ON/OFF, Mode, FAN and Temp. button while operating will cancel this function.

• This function is only available when the unit is in HEAT mode.

5. ECO function

In COOL/HEAT mode, press ECO button to enter energy efficient mode.

Press this button when in COOL/HEAT mode, the fan speed will change to Auto, the set temperature will remain unchanged which brings more comfortable feelings and power-saving, and reduces temperature fluctuations.

• This function is only available when the unit is in COOL or HEAT mode.

6. Sleep function

Press the Sleep button to activate the Sleep function. The Sleep function is used to decrease energy use while you sleep.

The fan speed can be adjusted in Cool/Heat mode. In Auto mode, the fan speed is fixed.

After the sleep function is activated, the system will automatically remember the set temperature within 30 minutes. The next time it is activated, it will start running at the temperature of the last memory.

After the sleep function is activated, it will automatically be cancelled after 9 hours.

-  • The Sleep function is not available in FAN or DRY mode.

7. Follow Me function

Press and hold Turbo button for 7 seconds to start/stop the memory feature of the Follow Me function.

The Follow Me function enables the remote control to measure the temperature at its current location and send this signal to the air conditioner in 3 minute intervals. When using AUTO, COOL or HEAT modes, measuring ambient temperature from the remote control (instead of from the indoor unit itself) will enable the air conditioner to optimize the temperature around you and ensure maximum comfort.

-  • If the memory feature is activated, "ON" displays for 3 seconds on the screen.
- If the memory feature is inactivated, "OF" displays for 3 seconds on the screen.
- While the memory feature is activated, pressing the ON/OFF button, shifting the mode or a power failure will not cancel the Follow Me function.

8. Lock function

Press Turbo and Clean buttons at the same time for 5 seconds, you can lock the remote controller, and press Turbo and Clean buttons at the same time for 2 second to unlock it.

9. Set function

Press the SET button to enter the function selection, then press SET button or $\wedge$ and $\vee$ button to select the desired function.



The matched symbol will flash on the display area, press the OK button to confirm. To cancel the selected function just perform the same procedures as above.

-  • Diffuse function avoids direct air flow blowing on the body and makes you feel indulging in silky coolness. This function is available under COOL, FAN and DRY mode only.

10. Wireless function

Press the SET and OK button to select the wireless function. When the wireless network symbol starts blinking on the appliance, press the LED button to confirm the connection.

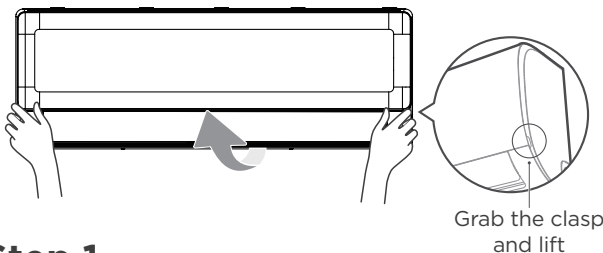
-  • For more about wireless connection, please refer to the "Connected Appliance Quick Start Guide".

Care and Maintenance

⚠ CAUTION

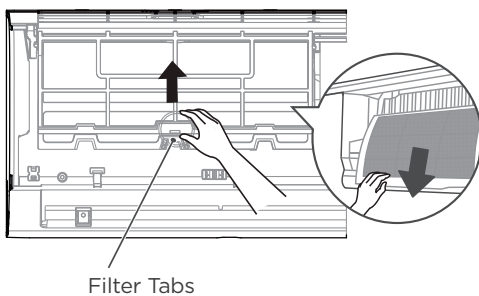
- The cooling efficiency of your Air conditioner and your health could be damaged if the filters are clogged. Make sure filters are cleaned every 2 weeks. More frequent cleaning may be required in some environments.
- Always **TURN OFF** your AC system and disconnect its power supply before cleaning or maintenance.
- Only use a soft, dry cloth to wipe the unit clean. You can use a cloth soaked in warm water to wipe it clean if the unit is especially dirty.
- Do not use chemicals or chemically treated cloths to clean the unit
- Do not use benzene, paint thinner, polishing powder or other solvents to clean the unit. They can cause the plastic surface to crack or deform.
- Do not use water hotter than 40°C (104°F) to clean the front panel. This can cause the panel to deform or become discolored.

Cleaning Your Indoor Unit, Air Filter



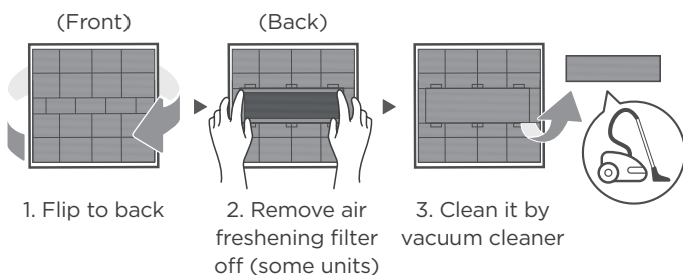
Step 1:

Lift the front panel of the indoor unit.



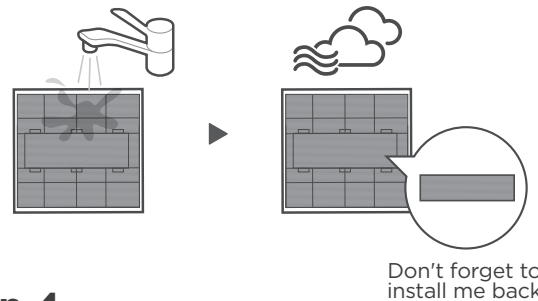
Step 2:

First press the tab on the end of filter to loosen the buckle, lift it up, then pull it towards yourself.



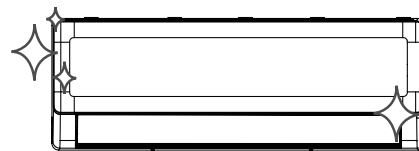
Step 3:

If your filter has a small air freshening filter, unclip it from the larger filter. Clean this air freshening filter with a hand-held vacuum.



Step 4:

Clean the large air filter with warm, soapy water. Be sure to use a mild detergent. Rinse the filter with fresh water, then shake off excess water. Dry it in a cool, dry place, and refrain from exposing it to direct sunlight.



Step 5:

When dry, re-clip the air freshening filter to the larger filter, then slide it back into the indoor unit. Finally, Close the front panel of the indoor unit.

CAUTION

- Before changing the filter or cleaning, turn off the unit and disconnect its power supply.
- When removing filter, do not touch metal parts in the unit. The sharp metal edges can cut you.
- Do not use water to clean the inside of the indoor unit. This can destroy insulation and cause electrical shock.
- Do not expose filter to direct sunlight when drying. This can shrink the filter.
- Any maintenance and cleaning of outdoor unit should be performed by an authorized dealer or a licensed service provider.
- Any unit repairs should be performed by an authorized dealer or a licensed service provider.

Maintenance your AC.

Maintenance – Long Periods of Non-Use

If you plan not to use your air conditioner for an extended period of time, do the following:



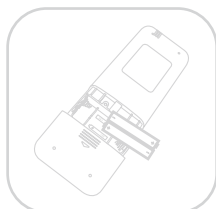
Clean all filters



Turn on FAN function until
unit dries out completely



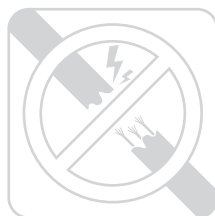
Turn off the unit and
disconnect the power



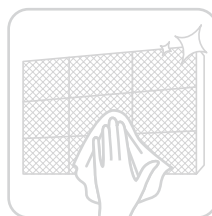
Remove batteries
from remote control

Maintenance – Pre-Season Inspection

After long periods of non-use, or before periods of frequent use, do the following:



Check for damaged wires



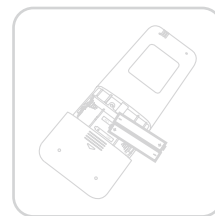
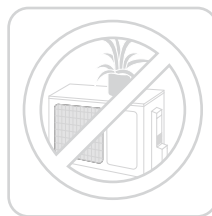
Clean all filters



Check for leaks



Make sure nothing is blocking
all air inlets and outlets



Replace batteries

Troubleshooting

CAUTION

If any of the following conditions occurs, turn off your unit immediately!

- The wire is damaged or abnormally warm
- You smell a burning odor
- The unit emits loud or abnormal sounds
- A power fuse blows or the circuit breaker frequently trips
- Water or other objects fall into or out of the unit

DO NOT ATTEMPT TO FIX THESE YOURSELF! CONTACT AN AUTHORIZED SERVICE PROVIDER IMMEDIATELY.

Common Issues

The following problems are not a malfunction and in most situations will not require repairs.

Issue	Possible Causes
Unit does not turn on when pressing ON/OFF button on remote control	The compressor has a 3-minute protection feature that prevents the unit from overloading. The unit cannot be restarted within three minutes of being turned off.
The unit changes from COOL/HEAT mode to FAN mode	The unit may change its setting to prevent frost from forming on the unit. Once the temperature increases, the unit will start operating in the previously selected mode again. The set temperature has been reached, at which point the unit turns off the compressor. The unit will continue operating when the temperature fluctuates again.
The indoor unit emits white mist	In humid regions, a large temperature difference between the room's air and the conditioned air can cause white mist.
Both the indoor and outdoor units emit white mist	When the unit restarts in HEAT mode after defrosting, white mist may be emitted due to moisture generated from the defrosting process.
The indoor unit makes noises	A rushing air sound may occur when the louver resets its position. A squeaking sound may occur after running the unit in HEAT mode due to expansion and contraction of the unit's plastic parts.
Both the indoor unit and outdoor unit make noises	Low hissing sound during operation: This is normal and is caused by refrigerant gas flowing through both indoor and outdoor units. Low hissing sound when the system starts, has just stopped running, or is defrosting: This noise is normal and is caused by the refrigerant gas stopping or changing direction. Squeaking sound: Normal expansion and contraction of plastic and metal parts caused by temperature changes during operation can cause squeaking noises.

Issue	Possible Causes
The outdoor unit makes noises	The unit will make different sounds based on its current operating mode.
Dust is emitted from either the indoor or outdoor unit	The unit may accumulate dust during extended periods of non-use, which will be emitted when the unit is turned on. This can be mitigated by covering the unit during long periods of inactivity.
	Please check the indoor filters.
The unit emits a bad odor	The unit may absorb odors from the environment (such as furniture, cooking, cigarettes, etc.) which will be emitted during operations.
	The unit's filters have become moldy and should be cleaned.
The fan of the outdoor unit does not operate	During operation, the fan speed is controlled to optimize product operation.
Operation is erratic, unpredictable, or unit is unresponsive	Interference from cell phone towers and remote boosters may cause the unit to malfunction.
	In this case, try the following: • Disconnect the power, then reconnect. • Press ON/OFF button on remote control to restart operation.

NOTE: If problem persists, contact a local dealer or your nearest customer service center. Provide them with a detailed description of the unit malfunction as well as your model number.

CAUTION

When troubles occur, please check the following points before contacting a repair company. Some situations will not require repairs.

Problem	Possible Causes	Solution
Poor Cooling Performance	Temperature setting may be higher than ambient room temperature	Lower the temperature setting
	The heat exchanger on the indoor or outdoor unit is dirty	Contact an authorized service center to clean the affected heat exchanger
	The air filter is dirty	Remove the filter and clean it according to instructions
	The air inlet or outlet of either unit is blocked	Turn the unit off, remove the obstruction and turn it back on
	Doors and windows are open	Make sure that all doors and windows are closed while operating the unit
	Excessive heat is generated by sunlight	Close windows and curtains during periods of high heat or bright sunshine
	Too many sources of heat in the room (people, computers, electronics, etc.)	Reduce amount of heat sources
	Low refrigerant due to leak or long-term use	Contact an authorized service center.
	SILENT function is activated (optional function)	SILENT function can lower product performance by reducing operating frequency. Turn off SILENT function.

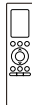
Problem	Possible Causes	Solution
The unit is not working	Power failure	Wait for the power to be restored
	The power is turned off	Turn on the power
	The fuse is burned out	Contact an authorized service center to replace the fuse
	Remote control batteries are dead	Replace batteries
	The Unit's 3-minute protection has been activated	Wait three minutes after restarting the unit
	Timer is activated	Turn timer off
The unit starts and stops frequently	There's too much or too little refrigerant in the system	Contact an authorized service center
	Incompressible gas or moisture has entered the system.	Contact an authorized service center
	The compressor is broken	Contact an authorized service center
	The voltage is too high or too low	Contact an authorized service center
Poor heating performance	The outdoor temperature is extremely low	Use auxiliary indoor heating device
	Cold air is entering through doors and windows	Make sure that all doors and windows are closed during use
	Low refrigerant due to leak or long-term use	Check for leaks, contact an authorized service center
Indicator lamps continue flashing	The unit may stop operation or continue to run safely. If the indicator lamps continue to flash or error codes appear, wait for about 10 minutes. The problem may resolve itself. If not, disconnect the power, then connect it again. Turn the unit on. If the problem persists, disconnect the power and contact your nearest customer service center.	
Error code appears and begins with the letters as the following in the window display of indoor unit: • E(x), P(x), F(x) • EH(xx), EL(xx), EC(xx) • PH(xx), PL(xx), PC(xx)		

NOTE: If your problem persists after performing the checks and diagnostics above, turn off your unit immediately and contact an authorized service center.

Get Start to Install the AC

Check over the accessories

The air conditioning system comes with the following accessories. Use all of the installation parts and accessories to install the air conditioner. Improper installation may result in water leakage, electrical shock and fire, or cause the equipment to fail. The items are not included with the air conditioner must be purchased separately.

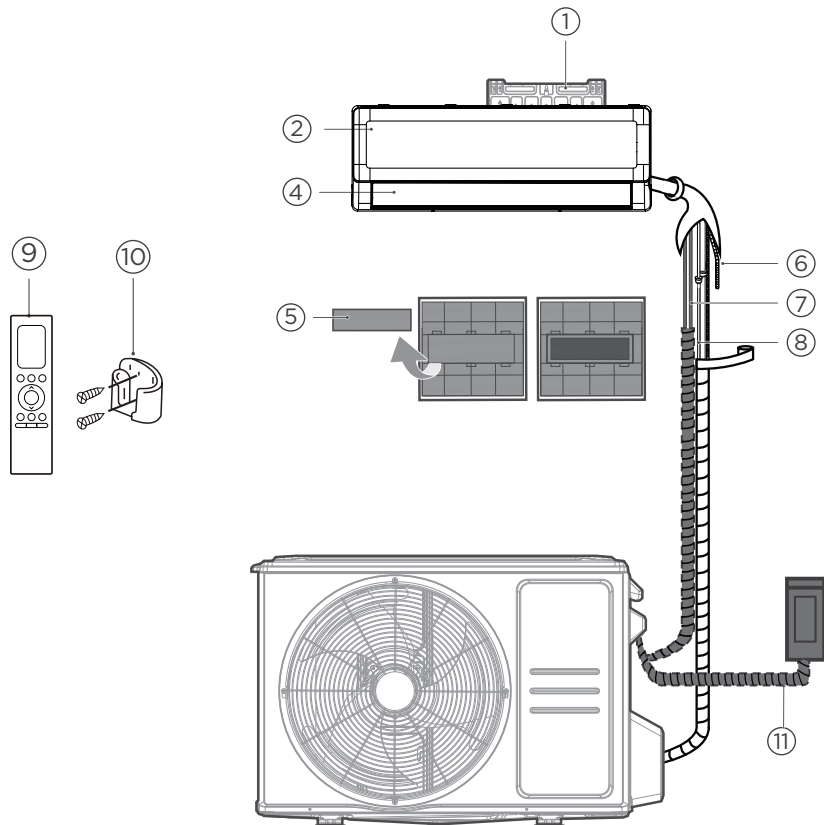
Name of Accessories	Q'ty(pc)	Shape	Name of Accessories	Q'ty(pc)	Shape
Manual	1-3		Remote Controller	1	
Drain joint (for cooling & heating models)	1		Battery	2	
Seal (for cooling & heating models)	1		Remote Controller Holder (purchase separately)	1	
Mounting Plate	1		Fixing Screw for Remote Controller Holder (purchase separately)	2	
Anchor	5-8 (depending on models)		Small Filter (Need to be installed on the back of main air filter by the authorized technician while installing the machine)	1-2 (depending on models)	
Mounting Plate Fixing Screw	5-8 (depending on models)				
Copper Nut (for some units) (Used to connect the connecting pipes between indoor and outdoor units.)	2		-	-	-

Name	Model	Liquid side	Gas side	Quantity(PC)
Connecting pipe assembly	WSD27HWC-I / WSD27HWC-E	Φ 6.35(1/4in)	Φ 9.52(3/8in)	Parts you must purchase separately. Consult the dealer about the proper pipe size of the unit you purchased.
	WSD35HWC-I / WSD35HWC-E	Φ 6.35(1/4in)	Φ 9.52(3/8in)	
	WSD51HWC-I / WSD51HWC-E	Φ 6.35(1/4in)	Φ 12.7(1/2in)	
	WSD70HWC-I / WSD70HWC-E	Φ 6.35(1/4in)	Φ 16(5/8in)	
	WSD79HWC-I / WSD79HWC-E	Φ 6.35(1/4in)	Φ 15.9(5/8in)	

Installation Overview

i NOTE ON ILLUSTRATIONS:

Illustrations in this manual are for explanatory purposes. The actual shape of your indoor unit may be slightly different. The actual shape shall prevail.



- | | | |
|---------------------------------|---|---|
| ① Wall Mounting Plate | ⑤ Functional Filter (On Back of Main Filter - Some Units) | ⑨ Remote Controller |
| ② Front Panel | ⑥ Drainage Pipe | ⑩ Remote controller Holder (some units) |
| ③ Power Cable (locally sourced) | ⑦ Signal Cable (locally sourced) | ⑪ Outdoor Unit Power Cable (some units) |
| ④ Louver | ⑧ Refrigerant Piping | |

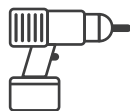
Required Tools & Equipment



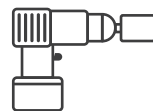
Gloves



Screwdriver & wrench



Hammer drill



Core drill



Goggles & masks



Vinyl tape

Installation Summary - Indoor Unit

- Select Installation Location
- Attach Mounting Plate
- Determine Wall Hole Position
- Drill Wall Hole
- Connect Piping
- Connect Wiring
- Prepare Drain Hose
- Wrap Piping and Cable
- Mount Indoor Unit

Install the Indoor Unit

1. Select installation location

NOTE : PRIOR TO INSTALLATION

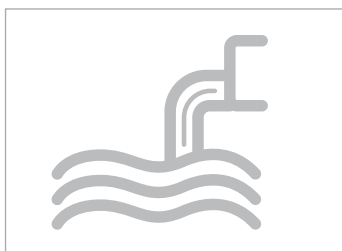
Before installing the indoor unit, refer to the label on the product box to make sure that the model number of the indoor unit matches the model number of the outdoor unit.

The following are standards that will help you choose an appropriate location for the unit.

Proper installation locations meet the following standards:



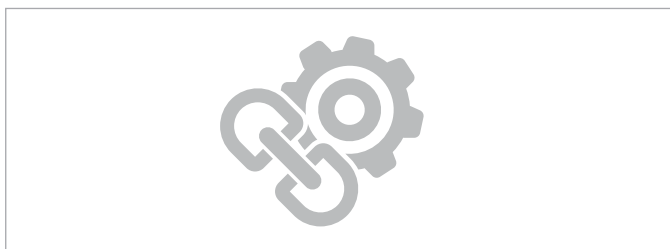
☒ Good air circulation



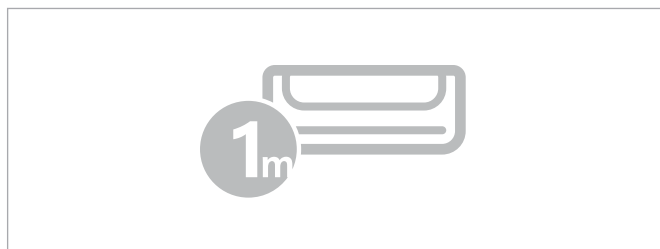
☒ Convenient drainage



☒ Noise from the unit will not disturb other people.



- ☒ Firm and solid—the location will not vibrate
- ☒ Strong enough to support the weight of the unit



- ☒ A location at least one meter from all other electrical devices (e.g., TV, radio, computer)

DO NOT install unit in the following locations:

- ☐ Near any source of heat, steam, or combustible gas
- ☐ Near any obstacle that might block air circulation
- ☐ Near flammable items such as curtains or clothing
- ☐ Near the doorway
- ☐ In a location subject to direct sunlight

NOTE: FOR PRODUCT INSTALLATION

If there is no fixed refrigerant piping:

While choosing a location, be aware that you should leave ample room for a wall hole (see Drill wall hole for connective piping step) for the signal cable and refrigerant piping that connect the indoor and outdoor units. The default position for all piping is the right side of the indoor unit (while facing the unit). However, the unit can accommodate piping to both the left and right.

2. Drill wall hole for connective piping

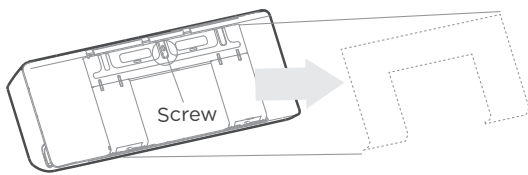
Determine Wall Hole Location

i NOTE : FOR CONCRETE OR BRICK WALLS

If the wall is made of brick, concrete, or similar material, drill 5mm-diameter (0.2in-diameter) holes in the wall and insert the sleeve anchors provided. Then secure the mounting plate to the wall by tightening the screws directly into the clip anchors.

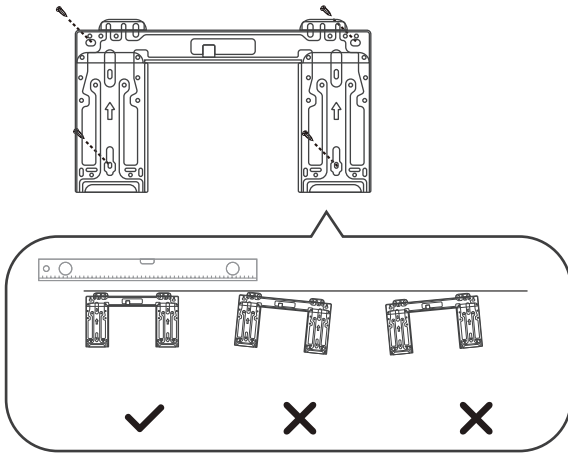
Step 1:

Remove the screw that attaches the mounting plate to the back of the indoor unit.



Step 2:

Secure the mounting plate to the wall with the screws provided. Make sure that mounting plate is flat against the wall.

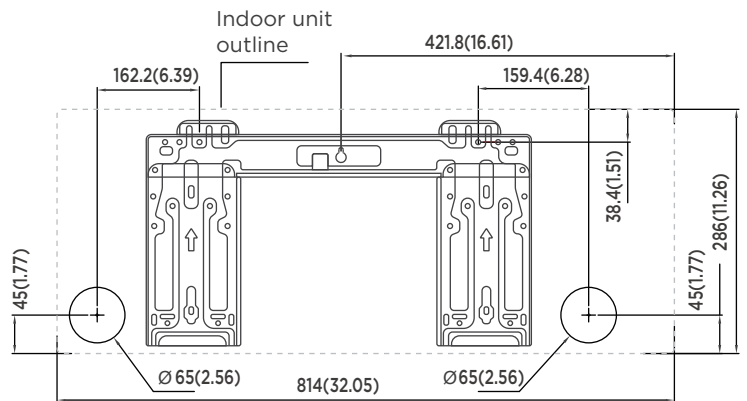


Correct orientation of Mounting Plate

Step 3:

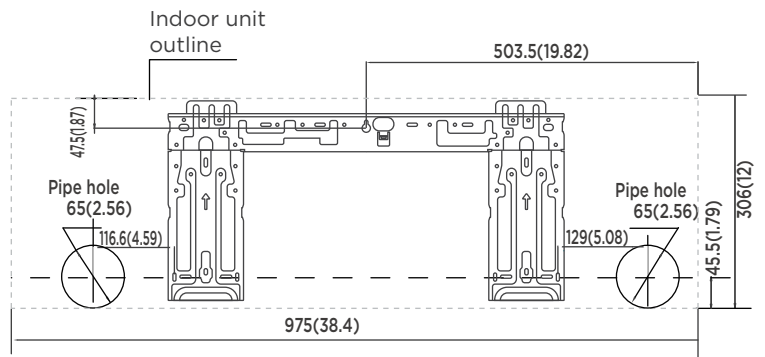
Confirm the mounting plate you own. Different models have different mounting plates. Refer to following mounting plate dimensions to help you determine the optimal position. The shape of the mounting plate may be lightly different, but the installation dimensions are the same.

Unit:mm(in)



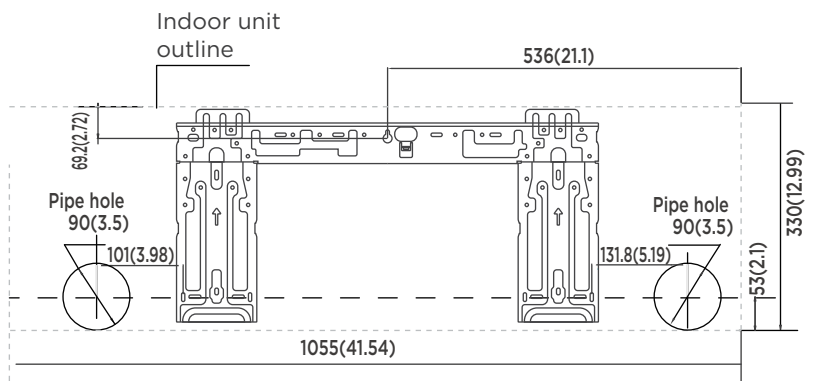
Model A

(for WSD27HWC-I / WSD35HWC-I)



Model B

(for WSD51HWC-I)



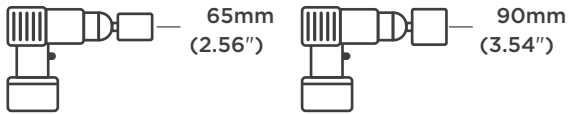
Model C

(for WSD70HWC-I / WSD79HWC-I)

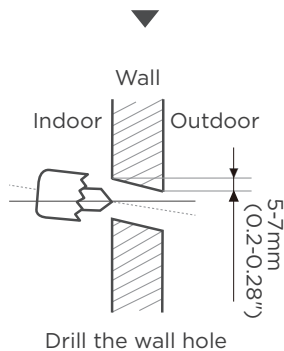
Drill Wall Hole

CAUTION

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

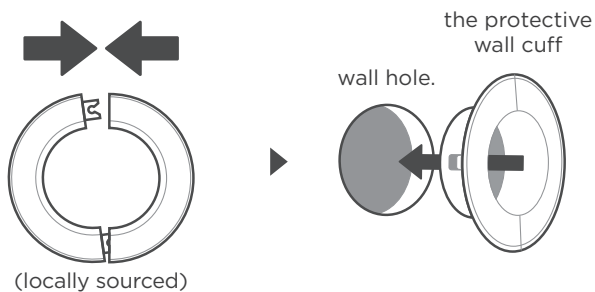


Using a 65mm (2.56") or 90mm(3.54")
core drill(dependent on models)



Step 1:

Using a 65mm (2.56") or 90mm(3.54") core drill(dependent on models), drill a hole in the wall. Make sure that the hole is drilled at a slight downward angle, so that the outdoor end of the hole is lower than the indoor end by about 5mm to 7mm (0.2-0.28"). This will ensure proper water drainage.



Place the protective wall cuff in the hole.

Step 2:

Place the protective wall cuff in the hole. This protects the edges of the hole and will help seal it when you finish the installation process.

NOTE : THE WALL HOLE SIZE

The size of the wall hole is determined by the connective pipes. When the pipe size of the gas side is $\Phi 16\text{mm}(5/8")$ or more, the wall hole should be 90mm(3.54in). When the pipe size of gas side is less than $\Phi 16\text{mm}(5/8")$, the wall hole should be 65mm(2.56in).

3. Install refrigerant pipe & drain hose

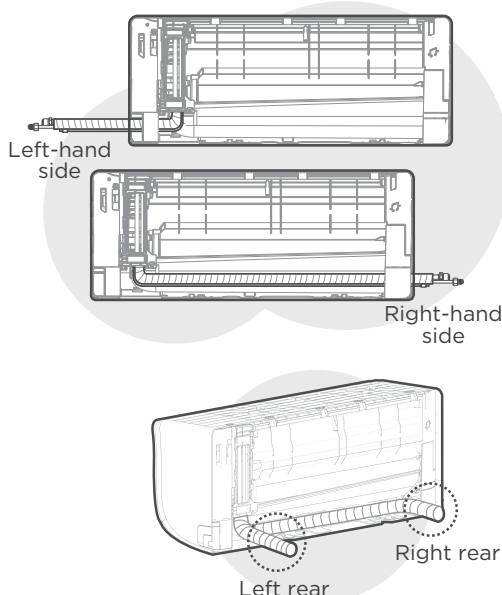
i NOTE

The refrigerant piping is inside an insulating sleeve attached to the back of the unit. You must prepare the piping before passing it through the hole in the wall. Refer to the Refrigerant Piping connection section of this manual for detailed instructions on pipe flaring and flare torque requirements, technique, etc.

Connect Refrigerant Piping

Four sides to exit the piping

Based on the position of the wall hole relative to the mounting plate, choose the side from which the piping will exit the unit. You have four options for the exit direction of the piping.



NOTE ON PIPING CONNECTING

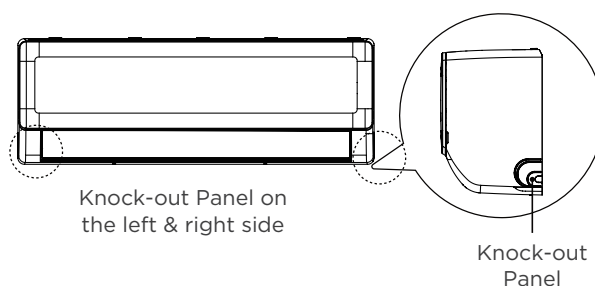
To ensure an enough space for the pipes running and the machine is against the wall after installation, It is recommended to attach the drain hose to the right-hand side (when you're facing the back of the unit).

When choose Left-hand side or Right-hand side piping, please make sure that the pipes come out horizontally so as not to affect the lower frame installation.

⚠ CAUTION

Be extremely careful not to dent or damage the piping while bending them away from the unit. Any dents in the piping will affect the unit's performance.

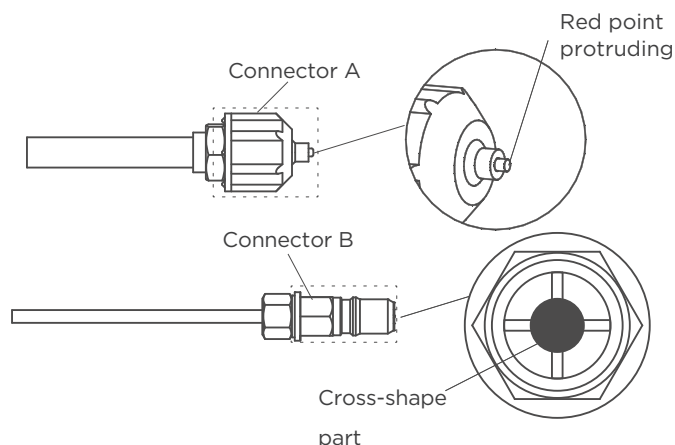
Connect refrigerant piping



1. If the wall hole is behind the unit, keep the knock-out panel in place. If the wall hole is to the side of the indoor unit, remove the plastic knock-out panel from that side of the unit. Use pliers or scissors if the plastic panel is too difficult to remove by hand.
2. Groove has been made in the knock-out panel in order to cut it conveniently. The size of the slot is determined by the diameter of piping.
- 3 . If existing connective piping is already embedded in the wall, proceed directly to the Connect Drain Hose step. If there is no embedded piping, connect the indoor unit's refrigerant piping to the connective piping that will join the indoor and outdoor units. Refer to the Refrigerant Piping Connection section of this manual for detailed instructions.

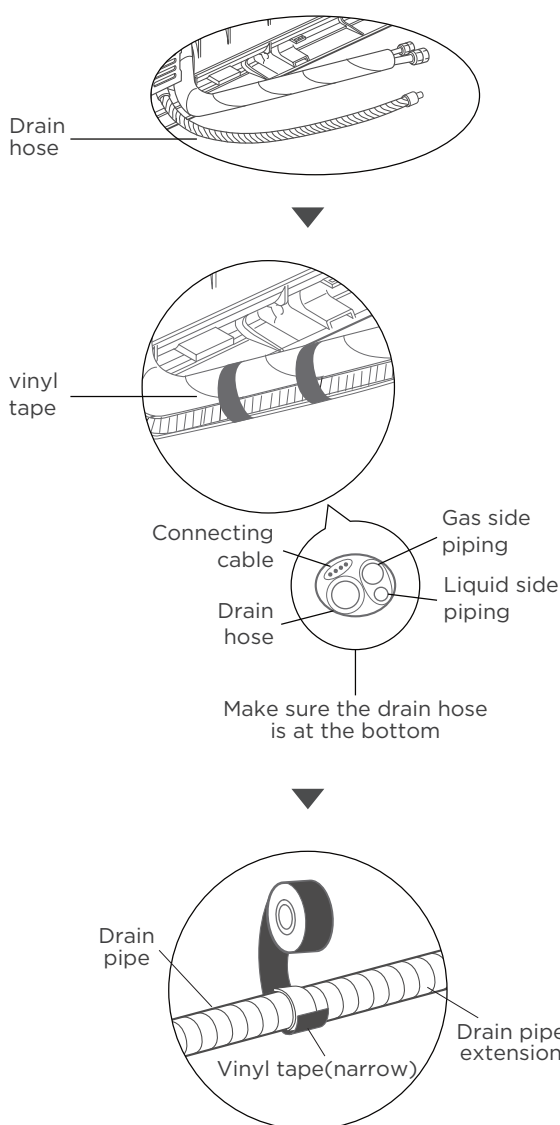
⚠ CAUTION

For pipe connectors, please perform piping work strictly in accordance with the following instructions.



- Before performing the refrigerant piping connection, always wear work gloves and goggles, and remember that the connectors A and B are not allowed to face people directly.
- Keep pressing the cross-shape part of connector B with a tool for about 5-10 seconds until the red protruding point of connector A retracts completely.
- Remove connectors A and B, then perform the refrigerant piping connection between indoor unit and outdoor unit.

Connect Drain Hose



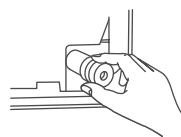
Step 1:

The drain hose can be attached to the left or right side. To ensure proper drainage, attach the drain hose on the same side that your refrigerant piping exits the unit. Attach drain hose extension (purchased separately) to the end of drain hose.

- Wrap the connection point firmly with Teflon tape to ensure a good seal and to prevent leaks.
- For the portion of the drain hose that will remain indoors, wrap it with foam pipe insulation to prevent condensation.
- Remove the air filter and pour a small amount of water into the drain pan to make sure that water flows from the unit smoothly.

⚠ CAUTION

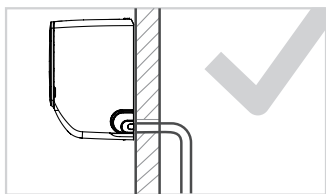
PLUG THE UNUSED DRAIN HOLE



To prevent unwanted leaks you must plug the unused drain hole with the rubber plug provided.

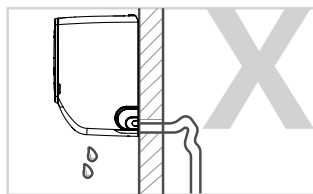
NOTE ON DRAIN HOSE PLACEMENT

Make sure to arrange the drain hose according to the following figures.



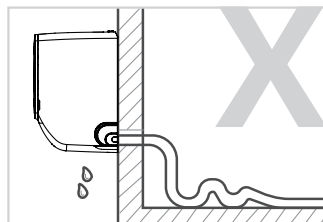
CORRECT

Make sure there are no kinks or dent in drain hose to ensure proper drainage.



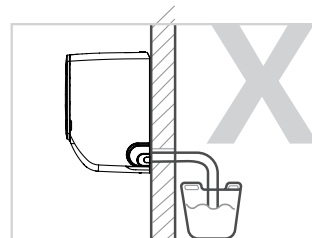
NOT CORRECT

Kinks in the drain hose will create water traps.



NOT CORRECT

Kinks in the drain hose will create water traps.



NOT CORRECT

Do not place the end of the drain hose in water or in containers that collect water. This will prevent proper drainage.

4. Electrical work preparation

WARNING

- **BEFORE PERFORMING ANY ELECTRICAL WORK, READ THESE REGULATIONS**
- **BEFORE PERFORMING ANY ELECTRICAL OR WIRING WORK, TURN OFF THE MAIN POWER TO THE SYSTEM.**

1. All wiring must comply with local and national electrical codes, regulations and must be installed by a licensed electrician.
2. All electrical connections must be made according to the Electrical Connection Diagram located on the panels of the indoor and outdoor units.
3. If there is a serious safety issue with the power supply, stop work immediately. Explain your reasoning to the client, and refuse to install the unit until the safety issue is properly resolved.
4. If connecting power to fixed wiring, a switch or circuit breaker that disconnects all poles and has a contact separation of at least 1/8in (3mm) must be incorporated in the fixed wiring. The qualified technician must use an approved circuit breaker or switch.
5. Only connect the unit to an individual branch circuit outlet. Do not connect another appliance to that outlet.
6. Make sure to properly ground the air conditioner.
7. Every wire must be firmly connected. Loose wiring can cause the terminal to overheat, resulting in product malfunction and possible fire.
8. Do not let wires touch or rest against refrigerant tubing, the compressor, or any moving parts within the unit.
9. To avoid getting an electric shock, never touch the electrical components soon after the power supply has been turned off. After turning off the power, always wait 10 minutes or more before you touch the electrical components.
10. Power voltage should be within 90-110% of rated voltage. Insufficient power supply can cause malfunction, electrical shock, or fire.

WARNING

All wiring must be performed strictly in accordance with the wiring diagram located on the back of the Indoor Unit's front panel.

Connect signal and power cables

The signal cable enables communication between the indoor and outdoor units. You must first choose the right cable size before preparing it for connection.

Cable Types

- Indoor Power Cable (if applicable): H05VV-F or H05V2V2-F
- Outdoor Power Cable: H07RN-F or H05RN-F
- Signal Cable: H07RN-F

Minimum Cross-Sectional Area of Power and Signal Cables (For reference)

Rated Current of Appliance (A)	Nominal Cross-Sectional Area (mm ²)
> 3 and ≤ 6	0.75
> 6 and ≤ 10	1
> 10 and ≤ 16	1.5
> 16 and ≤ 25	2.5
> 25 and ≤ 32	4
> 32 and ≤ 40	6

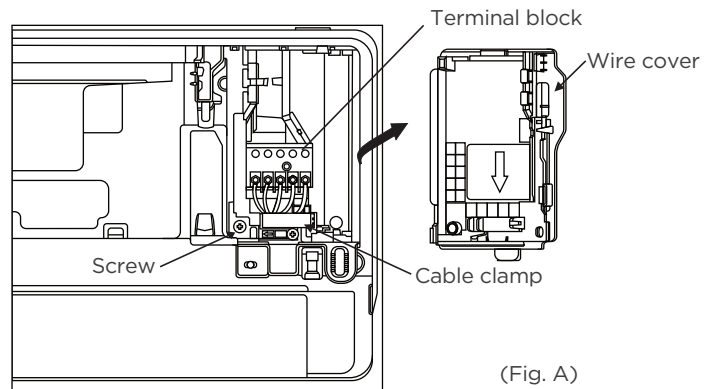
Note: Check the rated current on the appliance rating plate.

Choose The Right Cable Size

The size of the power supply cable, signal cable, fuse, and switch needed is determined by the maximum current of the unit. The maximum current is indicated on the nameplate located on the side panel of the unit. Refer to this nameplate to choose the right cable, fuse, or switch.

- Open front panel of the indoor unit.
- Using a screwdriver, open the wire box cover on the right side of the unit. This will reveal the terminal block.
- Unscrew the cable clamp below the terminal block and place it to the side. (Fig. A)
- Facing the back of the unit, remove the plastic panel on the bottom left-hand side.
- Feed the signal wire through this slot, from the back of the unit to the front.
- Facing the front of the unit, connect the wire according to the indoor unit's wiring diagram, connect the u-lug and firmly screw each wire to its corresponding terminal.
- After checking to make sure every connection is secure, use the cable clamp to fasten the signal cable to the unit. Screw the cable clamp down tightly.
- Replace the wire cover on the front of the unit, and the plastic panel on the back.

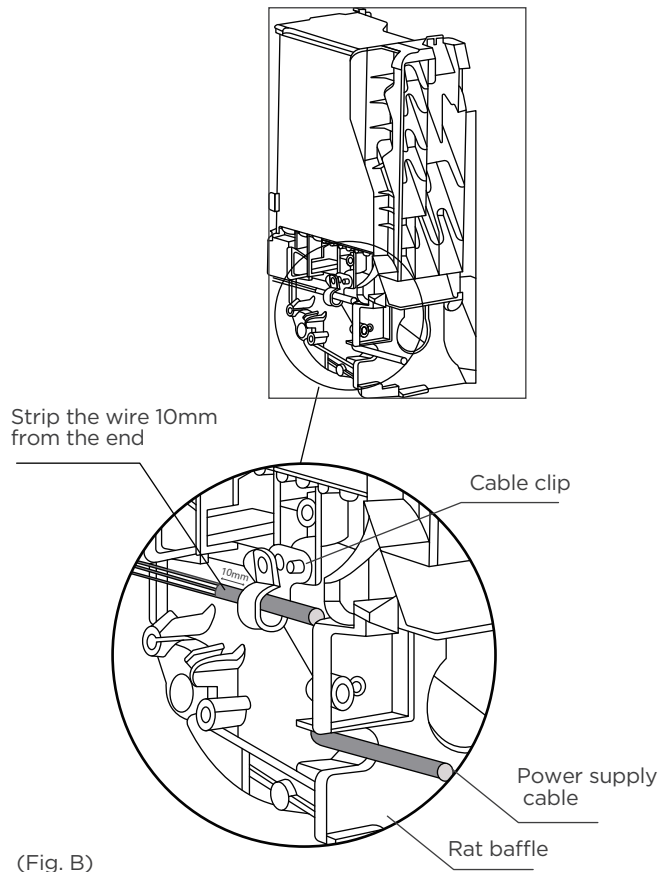
⚠ DO NOT MIX UP LIVE AND NULL WIRES
This is dangerous, and can cause the air conditioning unit to malfunction.

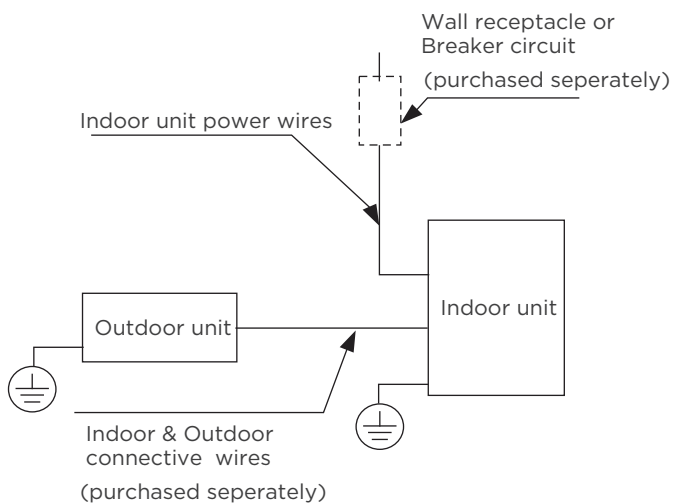


Note:

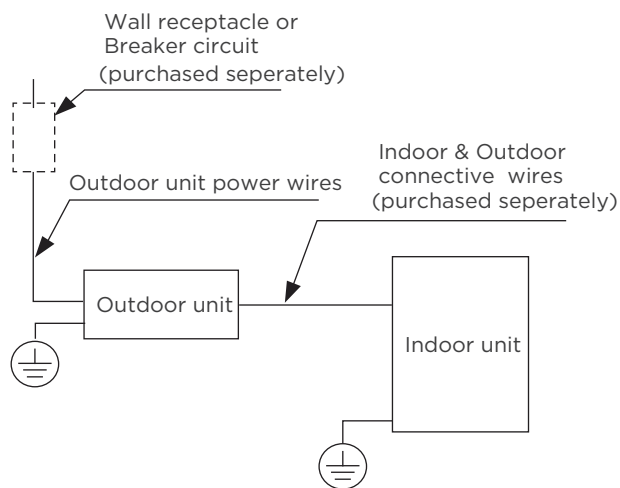
- The cover only has enough space for the wiring itself. It is recommended to shorten the conduit.
- For some units that require on-site connection of power cords, it is necessary to remove the front frame first, thread the power cable through the cable-cross hole in the rat baffle at the back of the indoor unit, and then pull it out from the front side, secure it with a cable clip as shown in the following diagram. (Fig. B)

After the power cord passes through the cable clamp, strip the wire 10mm from the end, and then connect the wire to the terminal.





Indoor power supply models

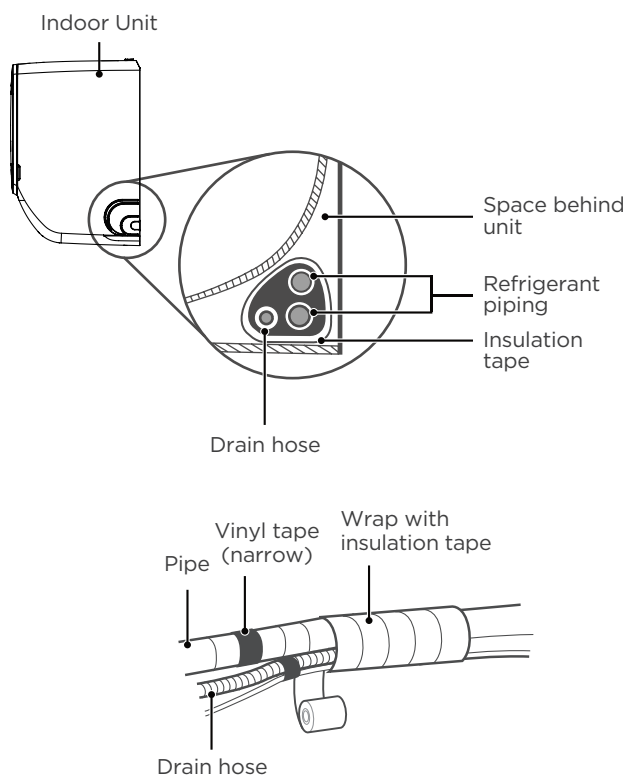


Outdoor power supply models

5. Wrap piping & Cables

i NOTE

Before passing the piping, and drain hose through the wall hole, you must bundle them together to save space, protect them, and insulate them.



Step 1:

Bundle the drain hose, refrigerant pipes as shown above.

Step 2:

Using adhesive vinyl tape, attach the drain hose to the underside of the refrigerant pipes.

Step 3:

Using insulation tape, wrap the refrigerant pipes, and drain hose tightly together. Double-check that all items are bundled.

Step 4:

After completing the wiring and piping connection, reinstall the lower frame.

Drain Hose Must Be On Bottom

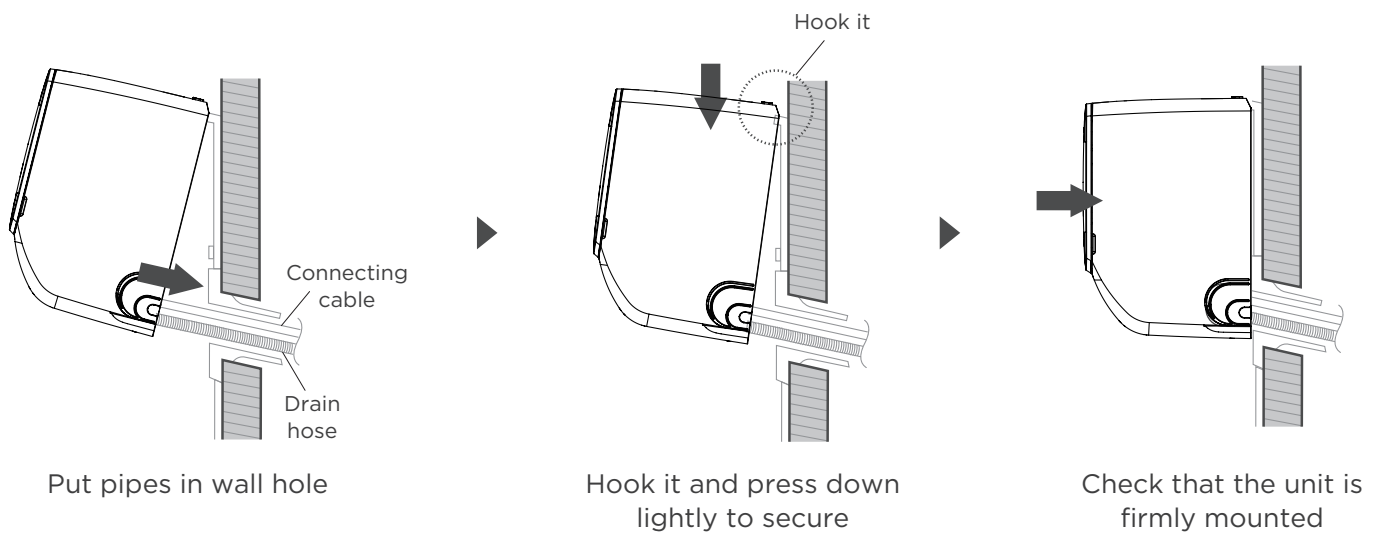
Make sure that the drain hose is at the bottom of the bundle. Putting the drain hose at the top of the bundle can cause the drain pan to overflow, which can lead to fire or water damage.

Do Not Wrap Ends Of Piping

When wrapping the bundle, keep the ends of the piping unwrapped. You need to access them to test for leaks at the end of the installation process (refer to Electrical Checks and Leak Checks section of this manual).

6. Mount indoor unit

If you installed new connective piping to the outdoor unit, do the following:



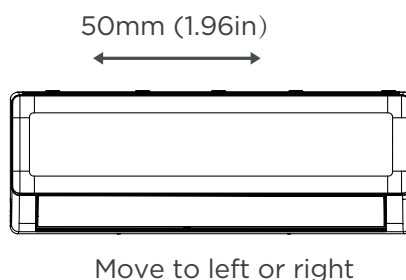
1. If you have already passed the refrigerant piping through the hole in the wall, directly proceed to Step 4.
2. Otherwise, double-check that the ends of the refrigerant pipes are sealed to prevent dirt or foreign materials from entering the pipes.
3. Slowly pass the wrapped bundle of refrigerant pipes, drain hose, and signal wire through the hole in the wall.
4. Hook the top of the indoor unit on the upper hook of the mounting plate.
5. Check that unit is hooked firmly on mounting by applying slight pressure to the left and right-hand sides of the unit. The unit should not jiggle or shift.
6. Using even pressure, push down on the bottom half of the unit. Keep pushing down until the unit snaps onto the hooks along the bottom of the mounting plate.
7. Again, check that the unit is firmly mounted by applying slight pressure to the left and the right-hand sides of the unit.

**If refrigerant piping is already embedded in the wall,
do the following:**

- Hook the top of the indoor unit on the upper hook of the mounting plate.
- Prop up the unit, and give enough room to connect the refrigerant piping, signal cable, and drain hose.
- Connect drain hose and refrigerant piping (refer to **Refrigerant Piping Connection** section of this manual for instructions).
- Keep pipe connection point exposed to perform the leak test (refer to **Electrical Checks** and **Leak Checks** section of this manual).
- After the leak test, wrap the connection point with insulation tape.
- Release the holder that is propping up the unit.
- Using even pressure, push down on the bottom half of the unit. Keep pushing down until the unit snaps onto the hooks along the bottom of the mounting plate.

i NOTE : UNIT IS ADJUSTABLE

Keep in mind that the hooks on the mounting plate are smaller than the holes on the back of the unit. If you find that you don't have ample room to connect embedded pipes to the indoor unit, the unit can be adjusted left or right by about 50mm (1.96in), depending on the model.



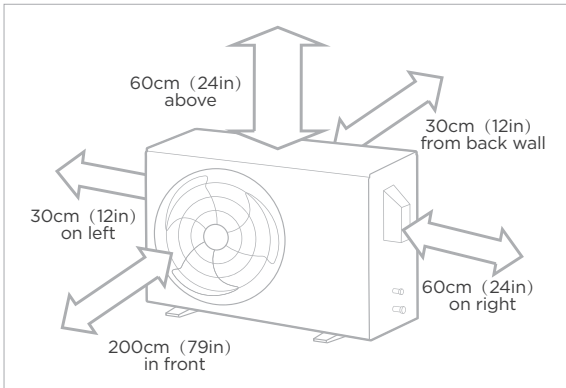
Install the Outdoor Unit

1. Select installation location

i NOTE : PRIOR TO INSTALLATION

Before installing the outdoor unit, you must choose an appropriate location. The following are standards that will help you choose an appropriate location for the unit.

Proper installation locations meet the following standards:



✓ Good air circulation and ventilation.



✓ Firm and solid—the location can support the unit and will not vibrate.



✓ Noise from the unit will not disturb other people.



✓ Protected from prolonged periods of direct sunlight or rain.



✓ Where snowfall is anticipated, take appropriate measures to prevent ice buildup and coil damage.

✓ Meets all spatial requirements shown in Installation Space Requirements above.

i NOTE Install the unit by following local codes and regulations, codes and regulations may differ between regions

! CAUTION:

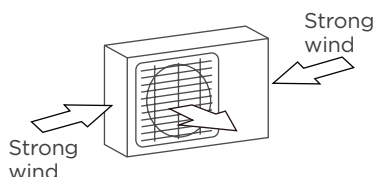
SPECIAL CONSIDERATIONS FOR EXTREME WEATHER

If the unit is exposed to heavy wind:

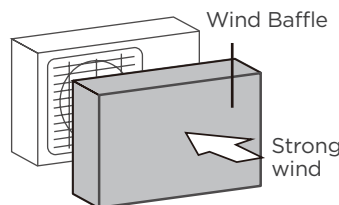
Install unit so that air outlet fan is at a 90° angle to the direction of the wind. If needed, build a barrier in front of the unit to protect it from extremely heavy winds. See Figures below.

If the unit is frequently exposed to heavy rain or snow:

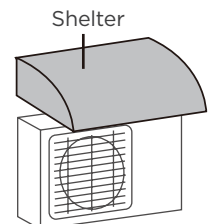
Build a shelter above the unit to protect it from the rain or snow. Be careful not to obstruct air flow around the unit.



90° angle to the direction of the wind



Build a wind Baffle to protect the unit



Build a shelter to protect the unit

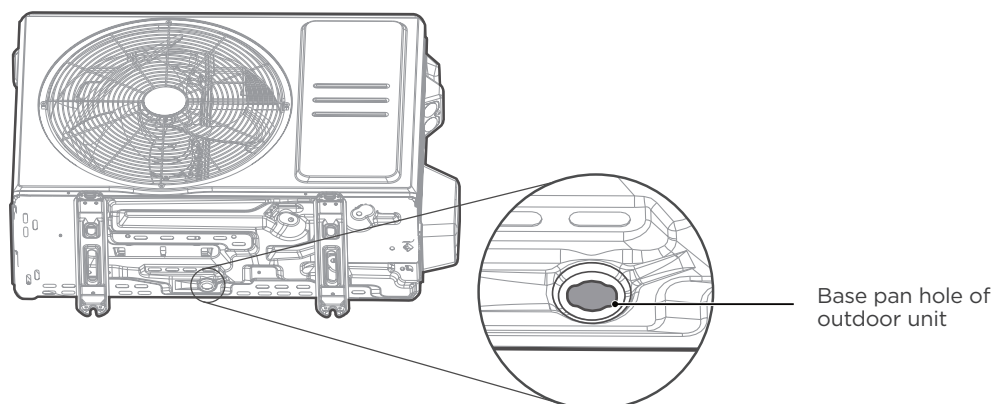
DO NOT install unit in the following locations:

- ⊘ Near an obstacle that will block air inlets and outlets.
- ⊘ Near animals or plants that will be harmed by hot air discharge.
- ⊘ In a location that is exposed to large amounts of dust
- ⊘ Near a public street, crowded areas, or where noise from the unit will disturb others.
- ⊘ Near any source of combustible gas.

2. Install drain joint(Heat pump unit only)

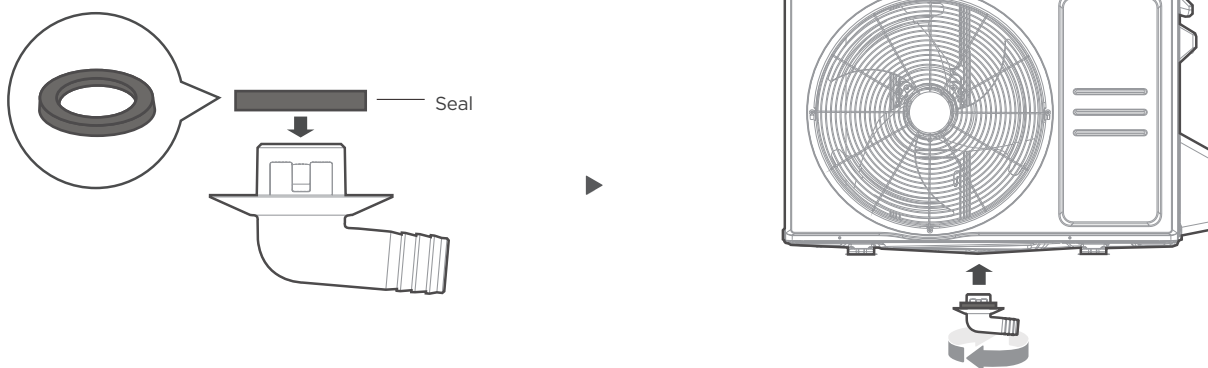
i NOTE : PRIOR TO INSTALLATION

Before bolting the outdoor unit in place, you must install the drain joint at the bottom of the unit. For the units with base pan built-in with multiple holes for proper draining during defrost, the drain joint is no need to be installed.



Step 1:

Find out the base pan hole of outdoor unit.



Step 2:

- Fit the rubber seal on the end of the drain joint that will connect to the outdoor unit.
- Insert the drain joint into the hole in the base pan of the unit. The drain joint will click in place.
- Connect a drain hose extension (not included) to the drain joint to redirect water from the unit during heating mode.

i NOTE : IN COLD CLIMATES

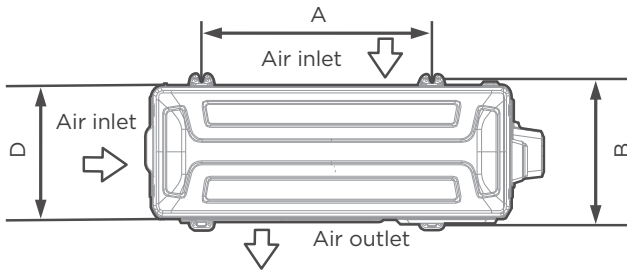
In cold climates, make sure that the drain hose is as vertical as possible to ensure swift water drainage. If water drains too slowly, it can freeze in the hose and flood the unit.

3. Anchor Outdoor Unit

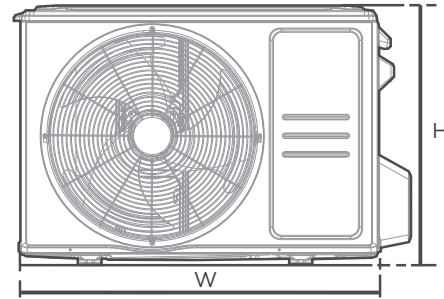
⚠ WARNING

WHEN DRILLING INTO CONCRETE, EYE PROTECTION IS RECOMMENDED AT ALL TIME.

- The outdoor unit can be anchored to the ground or to a wall-mounted bracket with bolt(M10). Prepare the installation base of the unit according to the dimensions below.
- The following is a list of different outdoor unit sizes and the distance between their mounting feet. Prepare the installation base of the unit according to the dimensions below.



Top view



Front view

Outdoor Unit Model	Outdoor Unit Dimensions (mm) W x H x D	Mounting Dimensions	
		Distance A (mm)	Distance B (mm)
WSD27HWC-E	765x555x303 (30.1"x 21.8"x 11.9")	452 (17.8")	286(11.3")
WSD35HWC-E	805x554x330 (31.7"x 21.8"x 12.9")	511 (20.1")	317 (12.5")
WSD51HWC-E	890x673x342 (35.0"x 26.5"x 13.5")	663 (26.1")	354 (13.9")
WSD70HWC-E	890x673x342 (35.0"x 26.5"x 13.5")	663 (26.1")	354 (13.9")
WSD79HWC-E	890x673x342 (35.0"x 26.5"x 13.5")	663 (26.1")	354 (13.9")

If you will install the unit on the ground or on a concrete mounting platform, do the following:

- Mark the positions for four expansion bolts based on dimensions chart.
- Pre-drill holes for expansion bolts.
- Place a nut on the end of each expansion bolt.
- Hammer expansion bolts into the pre-drilled holes.
- Remove the nuts from expansion bolts, and place outdoor unit on bolts.
- Put washer on each expansion bolt, the replace the nuts.
- Using a wrench, tighten each nut until snug.

If you will install the unit on a wall-mounted bracket , do the following:

- Mark the position of bracket holes based on dimensions chart.
- Pre-drill the holes for the expansion bolts.
- Place a washer and nut on the end of each expansion bolt.
- Thread expansion bolts through holes in mounting brackets, put mounting brackets in position, and hammer expansion bolts into the wall.
- Check that the mounting brackets are level.
- Carefully lift unit and place its mounting feet on brackets.
- Bolt the unit firmly to the brackets.
- If allowed, install the unit with rubber gaskets to reduce vibrations and noise.

⚠ CAUTION

Make sure that the wall is made of solid brick, concrete, or of similarly strong material. The wall must be able to support at least four times the weight of the unit (please refer to the rating label on the unit).

4. Connect signal and power cables

WARNING - Before the Operation

- ALL WIRING WORK MUST BE PERFORMED STRICTLY IN ACCORDANCE WITH THE WIRING DIAGRAM LOCATED INSIDE OF WIRE COVER OF THE OUTDOOR UNIT.
- BEFORE PERFORMING ANY ELECTRICAL OR WIRING WORK, TURN OFF THE MAIN POWER TO THE SYSTEM.

Choose the right cable size

The size of the power supply cable, signal cable, fuse, and switch needed is determined by the maximum current of the unit. The maximum current is indicated on the nameplate located on the side panel of the unit.

Please choose the right cable according to the section "Cable types".

- Using wire strippers, strip the rubber jacket from both ends of cable to reveal about 40mm (1.57in) of the wires inside.
- Strip the insulation from the ends of the wires.
- Using a wire crimper, crimp u-lugs on the ends of the wires.

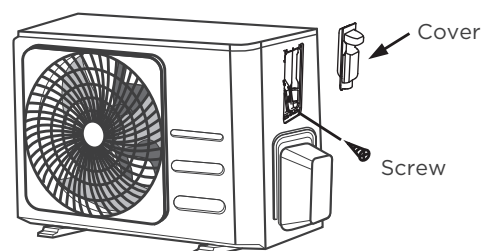
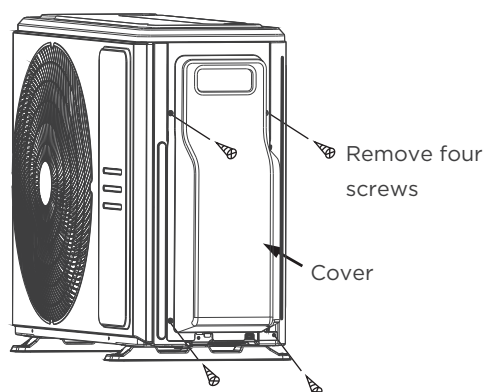
Pay attention to live wire

While crimping wires, make sure you clearly distinguish the Live ("L") Wire from other wires.

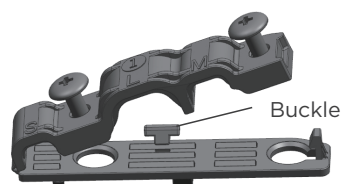
The outside unit's terminal block is protected by an electrical wiring cover on the side of the unit. A comprehensive wiring diagram is adhered on the inside of the wiring cover.

- Unscrew the electrical wiring cover and remove it.
- Unscrew the cable clamp below the terminal block and place it to the side.
- Connect the wire according to the wiring diagram, and firmly screw the u-lug of each wire to its corresponding terminal.
- After checking to make sure every connection is secure, loop the wires around to prevent rain water from flowing into the terminal.
- Using the cable clamp, fasten the cable to the unit. Screw the cable clamp down tightly.
- Insulate unused wires with PVC electrical tape. Arrange them so that they do not touch any electrical or metal parts.
- Replace the wire cover on the side of the unit, and screw it in place.

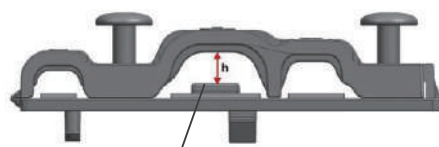
NOTE: The unit you purchased may be slightly different. The illustrations are for explanatory purposes. The actual shape shall prevail.



NOTE: If the cable clamp looks like the following, please select the appropriate through-hole according to the diameter of the wire.



Three size hole: Small, Large, Medium



When the cable is not well secured, use the buckle to prop it up so the cable can be securely fastened.

Refrigerant Piping Connection

1. Piping Connection Instructions

⚠ WARNING

WHEN CONNECTING REFRIGERANT PIPING, **DO NOT** LET SUBSTANCES OR GASES OTHER THAN THE SPECIFIED REFRIGERANT ENTER THE UNIT. THE PRESENCE OF OTHER GASES OR SUBSTANCES WILL LOWER THE UNIT'S CAPACITY, AND CAN CAUSE ABNORMALLY HIGH PRESSURE IN THE REFRIGERATION CYCLE. THIS CAN CAUSE EXPLOSION AND INJURY.

Note on Pipe Length

The length of refrigerant piping will affect the performance and energy efficiency of the unit. Nominal efficiency is tested on units with a pipe length of 5 meters (16.5ft). A minimum pipe run of 3 metres is required to minimise vibration & excessive noise.

Maximum Length and Drop Height of Refrigerant Piping per Unit Model

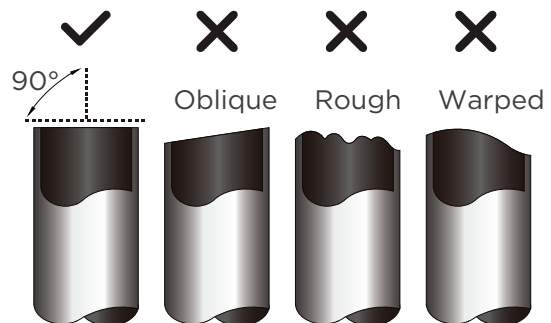
Model	Capacity (BTU/h)	Max. Length (m)	Max. Drop Height (m)
R32 Inverter Split Air Conditioner	< 15,000	25 (82ft)	10 (33ft)
	≥ 15,000 and < 24,000	30 (98.5ft)	20 (66ft)
	≥ 24,000 and < 36,000	50 (164ft)	25 (82ft)
	≥ 36,000 and < 60,000	65 (213ft)	30 (98.5ft)

Connection Instructions – Refrigerant Piping

Step 1: Cut pipes

When preparing refrigerant pipes, take extra care to cut and flare them properly. This will ensure efficient operation and minimize the need for future maintenance.

- Measure the distance between the indoor and outdoor units.
- Using a pipe cutter, cut the pipe a little longer than the measured distance.
- Make sure that the pipe is cut at a perfect 90° angle.



⊘ DO NOT DEFORM PIPE WHILE CUTTING

Be extra careful not to damage, dent, or deform the pipe while cutting. This will drastically reduce the cooling efficiency and heating efficiency of the unit.

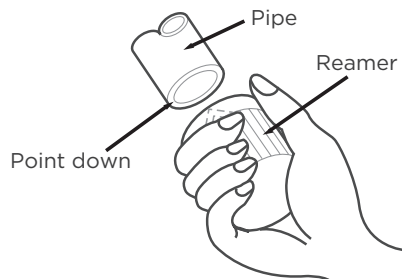
⚠ CAUTION

CHECK PIPE ENDS FOR CRACKS AND ENSURE EVEN FLARING AND ENSURE PIPE IS SEALED.

Step 2: Remove burrs

Burrs can affect the air-tight seal of refrigerant piping connection. They must be completely removed.

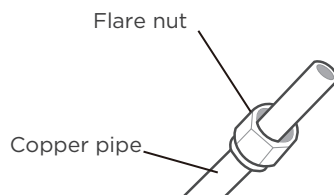
- Hold the pipe at a downward angle to prevent burrs from falling into the pipe.
- Using a reamer or deburring tool, remove all burrs from the cut section of the pipe.



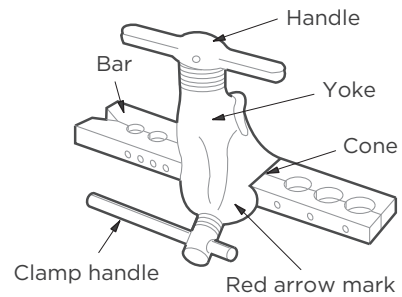
Step 3: Flare pipe ends

Proper flaring is essential to achieve an airtight seal.

- After removing burrs from cut pipe, seal the ends with PVC tape to prevent foreign materials from entering the pipe.
- Sheath the pipe with insulating material.
- Place flare nuts on both ends of pipe. Make sure they are facing in the right direction, because you can't put them on or change their direction after flaring.

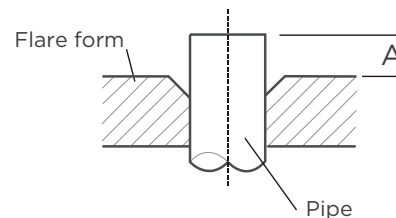


- Remove PVC tape from ends of pipe when ready to perform flaring work.
- Clamp flare form on the end of the pipe. The end of the pipe must extend beyond the edge of the flare form in accordance with the dimensions shown in the table below.



PIPING EXTENSION BEYOND FLARE FORM

Outer Diameter of Pipe (mm)	A (mm)	
	Min.	Max.
Ø 6.35 (Ø 1/4")	0.7 (0.0275")	1.3 (0.05")
Ø 9.52 (Ø 3/8")	1.0 (0.04")	1.6 (0.063")
Ø 12.7 (Ø 1/2")	1.0 (0.04")	1.8 (0.07")
Ø 16 (Ø 5/8")	2.0 (0.078")	2.2 (0.086")
Ø 19 (Ø 3/4")	2.0 (0.078")	2.4 (0.094")



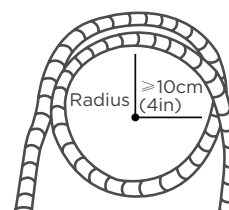
- Place flaring tool onto the form.
- Turn the handle of the flaring tool clockwise until the pipe is fully flared.
- Remove the flaring tool and flare form, then inspect the end of the pipe for cracks and even flaring.

Step 4: Connect pipes

NOTE: When connecting refrigerant pipes, be careful not to use excessive torque or to deform the piping in any way. You should first connect the low-pressure pipe, then the high-pressure pipe. Refer to torque requirements table for correct torque.

MINIMUM BEND RADIUS

When bending connective refrigerant piping, the minimum bending radius is 10cm.

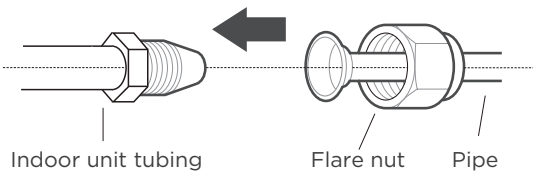


2. Connecting Piping to Indoor Unit

Instructions for Connecting Piping to Indoor Unit

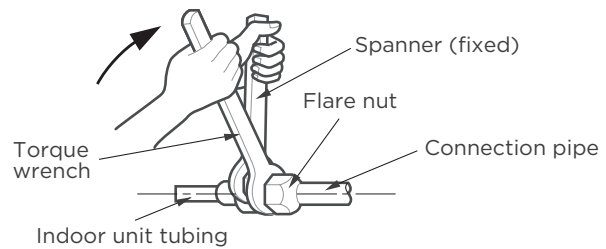
Step 1:

- Align the center of the two pipes that you will connect.



Step 2:

- Tighten the flare nut as tightly as possible by hand.
- Using a spanner, grip the nut on the unit tubing.
- While firmly gripping the nut on the unit tubing, use a torque wrench to tighten the flare nut according to the torque values in the Torque Requirements table below. Loosen the flaring nut slightly, then tighten again.



Torque Requirements

Outer Diameter of Pipe(mm)	Tightening Torque(N.m)	Flare dimension(B)(mm)	Flare shape
Ø 6.35 (Ø 1/4")	18-20(180-200kgf.cm)	8.4-8.7 (0.33-0.34")	
Ø 9.52 (Ø 3/8")	32-39(320-390kgf.cm)	13.2-13.5 (0.52-0.53")	
Ø 12.7 (Ø 1/2")	49-59(490-590kgf.cm)	16.2-16.5 (0.64-0.65")	
Ø 16 (Ø 5/8")	57-71(570-710kgf.cm)	19.2-19.7 (0.76-0.78")	
Ø 19 (Ø 3/4")	67-101(670-1010kgf.cm)	23.2-23.7 (0.91-0.93")	

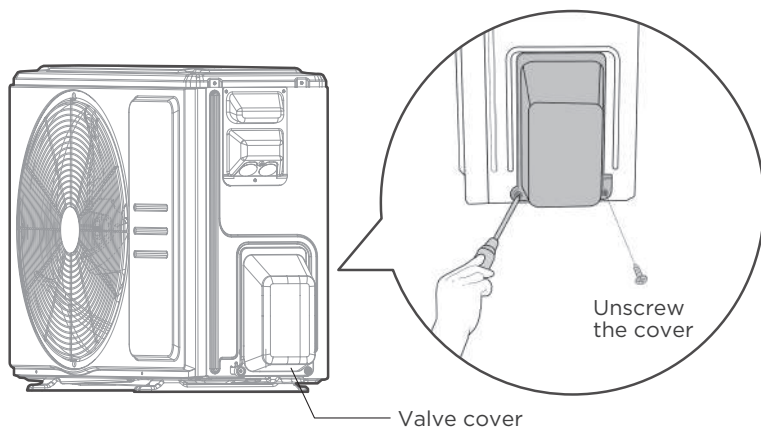
DO NOT USE EXCESSIVE TORQUE

Excessive force can break the nut or damage the refrigerant piping. You must not exceed torque requirements shown in the table above.

3. Connecting Piping to Outdoor Unit

i NOTE

This section still needs to be operated according to the **TORQUE REQUIREMENTS** chart on the previous page.

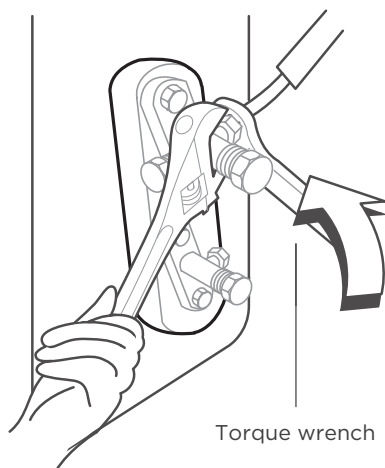


1. Unscrew the cover from the packed valve on the side of the outdoor unit.
2. Remove protective caps from ends of valves.
3. Align flared pipe end with each valve, and tighten the flare nut as tightly as possible by hand.
4. Using a spanner, grip the body of the valve. **Do not** grip the nut that seals the service valve.

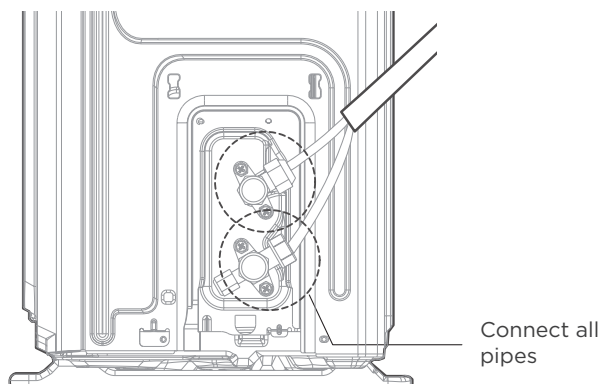


USE SPANNER TO GRIP MAIN BODY OF VALVE

Torque from tightening the flare nut can snap off other parts of valve.



5. While firmly gripping the body of the valve, use a torque wrench to tighten the flare nut according to the correct torque values.
6. Loosen the flaring nut slightly, then tighten again.
7. Repeat Steps 3 to 6 for the remaining pipe.



Air Evacuation

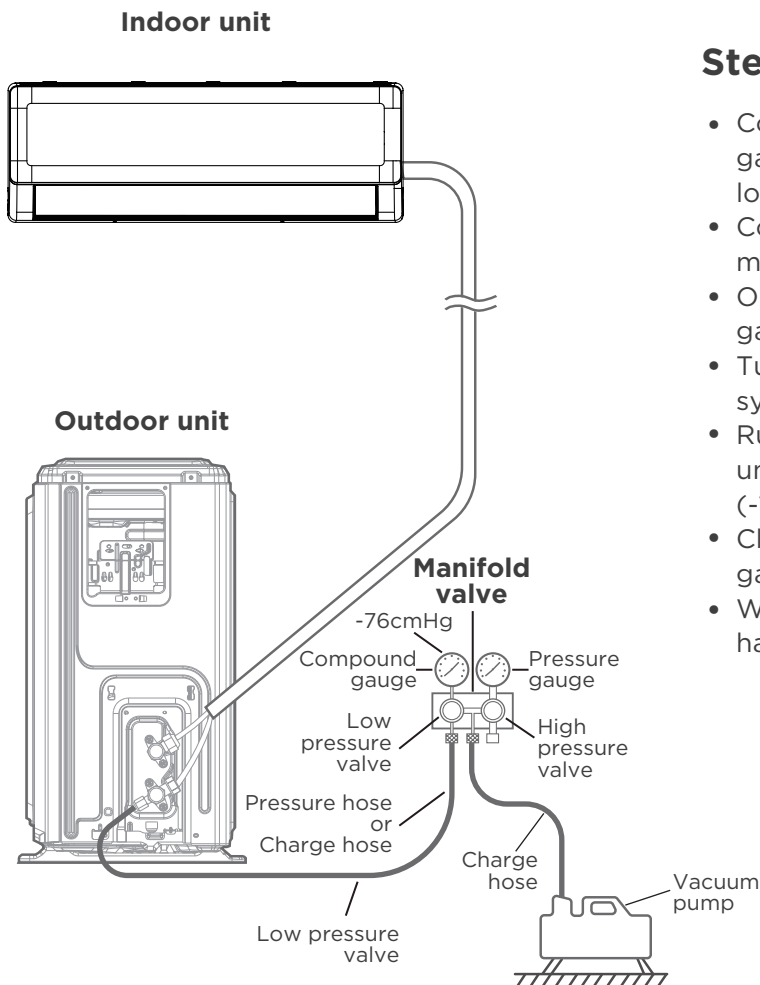
i NOTE : PREPARATIONS AND PRECAUTIONS

Air and foreign matter in the refrigerant circuit can cause abnormal rises in pressure, which can damage the air conditioner, reduce its efficiency, and cause injury. Ensure to evacuate the air inside the indoor unit and pipes with vacuum pump. Use a vacuum pump and manifold gauge to evacuate the refrigerant circuit, removing any non-condensable gas and moisture from the system. Evacuation should be performed upon initial installation and when unit is relocated. Incorrect installation due to ignoring of the Instruction will cause serious problem to the machine.

! BEFORE PERFORMING EVACUATION

- ✓ Make sure the connective pipes between the indoor and outdoor units are connected properly.
- ✓ Check to make sure all wiring is connected properly.

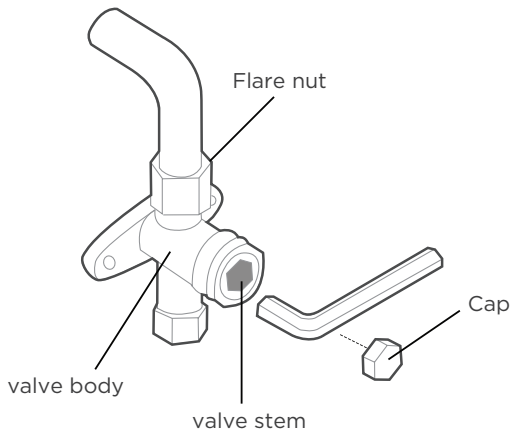
Evacuation Instructions



Step 1:

- Connect the charge hose of the manifold gauge to service port on the outdoor unit's low pressure valve.
- Connect another charge hose from the manifold gauge to the vacuum pump.
- Open the Low Pressure side of the manifold gauge. Keep the High Pressure side closed.
- Turn on the vacuum pump to evacuate the system.
- Run the vacuum for at least 15 minutes, or until the Compound Meter reads -76cmHG (-10^5 Pa).
- Close the Low Pressure side of the manifold gauge, and turn off the vacuum pump.
- Wait for 5 minutes, then check that there has been no change in system pressure.

Step 2:



- If there is a change in system pressure, refer to Gas Leak Check section for information on how to check for leaks. If there is no change in system pressure, unscrew the cap
- from the packed valve (high pressure valve). Insert hexagonal wrench into the packed valve (high pressure valve) and open the valve by turning the wrench in a 1/4 counterclockwise turn. Listen for gas to exit the system, then close the valve after 5 seconds.
- Watch the Pressure Gauge for one minute to make sure that there is no change in pressure. The Pressure Gauge should read slightly higher than atmospheric pressure.
- Remove the charge hose from the service port.
- Using hexagonal wrench, fully open both the high pressure and low pressure valves.
- Tighten valve caps on all three valves (service port, high pressure, low pressure) by hand. You may tighten it further using a torque wrench if needed.



OPEN VALVE STEMS GENTLY

Ensure to open all the valves after evacuation. When opening valve stems, turn the hexagonal wrench until it hits against the stopper. Do not try to force the valve to open further.

Additional Refrigerant Charge

i NOTE ON ADDING REFRIGERANT

Some systems require additional charging depending on pipe lengths. The standard pipe length is 5m (16'). The refrigerant should be charged from the service port on the outdoor unit's low pressure valve. The additional refrigerant to be charged can be calculated using the following formula:

During installation, if you need to extend the connection pipe, please refer to the table below.

Extend pipe length (m)	Additional refrigerant charge (kg)	
	Liquid side: Ø 6.35mm (0.012kg/m)	Liquid side: Ø 9.52mm (0.024kg/m)
1	0.012	0.024
2	0.024	0.048
3	0.036	0.072
4	0.048	0.096
5	0.06	0.12
6	0.072	0.36
7	0.084	0.168
8	0.096	0.192
9	0.108	0.216
10	0.12	0.24
N	N*0.012	N*0.024

Note: The length of refrigerant pipe will affect the performance and energy efficiency of the unit. During installation, if you need to extend the connection pipe, please do not exceed the maximum pipe length and maximum additional refrigerant charge amount specified in the tables below.

Model	Capacity (BTU/h)	Max. pipe length (m)	Max. additional refrigerant charge (kg)			
			Liquid side: Ø 6.35mm Standard pipe length		Liquid side: Ø 9.52mm Standard pipe length	
			5m	7.5m	5m	7.5m
R32 Inverter Split Air Conditioner	< 15,000	25	0.24	0.21	0.48	0.42
	≥ 15,000 and < 24,000	30	0.30	0.27	0.60	0.54
	≥ 24,000 and < 36,000	50	—	—	1.08	1.02
	≥ 36,000 and < 60,000	65	—	—	1.44	1.38

Maximum refrigerant charge amount:

Liquid Side Diameter	Maximum refrigerant charge amount (kg)
Ø 6.35mm	Max. additional refrigerant charge amount (kg) + Nameplate nominal charge amount (kg)
Ø 9.52mm	

⊘ DO NOT MIX REFRIGERANT TYPES.

Electrical and Gas Leak Checks

WARNING - RISK OF ELECTRIC SHOCK

ALL WIRING MUST COMPLY WITH LOCAL AND NATIONAL ELECTRICAL CODES, AND MUST BE INSTALLED BY A LICENSED ELECTRICIAN.

BEFORE TEST RUN

Only perform test run after you have completed the following steps:

- Electrical Safety Checks – Confirm that the unit's electrical system is safe and operating properly
- Gas Leak Checks – Check all flare nut connections and confirm that the system is not leaking
- Confirm that gas and liquid (high and low pressure) valves are fully open

Electrical Safety Checks

After installation, confirm that all electrical wiring is installed in accordance with local and national regulations, and according to the Installation Manual.

Before Test Run

Check Grounding Work

Measure grounding resistance by visual detection and with grounding resistance tester.

During Test Run

Check for Electrical Leakage

During the **Test Run**, use an electroprobe and multimeter to perform a comprehensive electrical leakage test.

If electrical leakage is detected, turn off the unit immediately and call a licensed electrician to find and resolve the cause of the leakage.

Gas Leak Checks

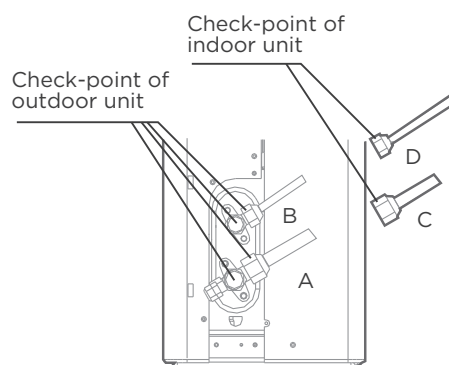
There are two different methods to check for gas leaks.

Soap and Water Method

Using a soft brush, apply soapy water or liquid detergent to all pipe connection points on the indoor unit and outdoor unit. The presence of bubbles indicates a leak.

Leak Detector Method

If using leak detector, refer to the device's operation manual for proper usage instructions.



- A: Low pressure stop valve
B: High pressure stop valve
C & D: Indoor unit flare nuts

AFTER PERFORMING GAS LEAK CHECKS

After confirming that the all pipe connection points **DO NOT** leak, replace the valve cover on the outside unit.

Test Run

Test Run Instructions

You should perform the **Test Run** for at least 30 minutes.

- Connect power to the unit.
- Press the **ON/OFF** button on the remote controller to turn it on.
- Press the **Mode** button to scroll through the following functions, one at a time:
 - COOL-Select lowest possible temperature
 - HEAT-Select highest possible temperature
- Let each function run for 5 minutes, and perform the following checks:

List of Checks to Perform	PASS/FAIL	
No electrical leakage		
Unit is properly grounded		
All electrical terminals properly covered		
Indoor and outdoor units are solidly installed		
All pipe connection points do not leak	Outdoor (2):	Indoor (2):
Water drains properly from drain hose		
All piping is properly insulated		
Unit performs COOL function properly		
Unit performs HEAT function properly		
Indoor unit louvers rotate properly		
Indoor unit responds to remote controller		

DOUBLE-CHECK PIPE CONNECTIONS

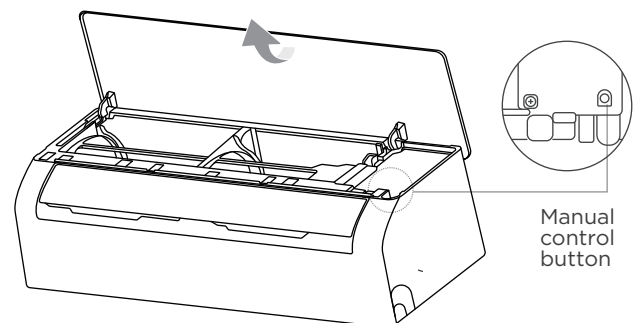
During operation, the pressure of the refrigerant circuit will increase. This may reveal leaks that were not present during your initial leak check. Take time during the Test Run to double-check that all refrigerant pipe connection points do not have leaks. Refer to **Gas Leak Check** section for instructions.

- After the Test Run is successfully completed, and you confirm that all checks points in List of Checks to Perform have PASSED, do the following:
 - a. Using remote control, return unit to normal operating temperature.
 - b. Using insulation tape, wrap the indoor refrigerant pipe connections that you left uncovered during the indoor unit installation process.

IF AMBIENT TEMPERATURE IS BELOW 16°C(60°F)

You can't use the remote controller to turn on the COOL function when the ambient temperature is below 16°C (60°F). In this instance, you can use the **MANUAL CONTROL** button to test the COOL function.

- Lift the front panel and raise it until it clicks in place.
- The **MANUAL CONTROL** button is located on the right-hand side of the electrical control box. Press two times to select cool mode.
- Perform Test Run as normal.





FOR SALES IN AUSTRALIA AND NEW ZEALAND
WESTINGHOUSE SPLIT SYSTEM AIR CONDITIONER

This document sets out the terms and conditions of the product warranties for Westinghouse Appliances. It is an important document. Please keep it with your proof of purchase documents in a safe place for future reference should there be a manufacturing defect in your Appliance. This warranty is in addition to other rights you may have under the Australian Consumer Law.

1. In this warranty:

- (a) 'ACL' or 'Australian Consumer Law' means Schedule 2 to the Competition and Consumer Act 2010;
- (b) 'Appliance' means any Electrolux product purchased by you and accompanied by this document;
- (c) 'ASC' means Electrolux's authorised serviced centres;
- (d) 'Westinghouse' is the brand controlled by Electrolux Home Products Pty Ltd of 163 O'Riordan Street, Mascot NSW 2020, ABN 51 004 762341 in respect of Appliances purchased in Australia and Electrolux(NZ) Limited (collectively "Electrolux") of 3-5 Niall Burgess Road, MountWellington, in respect of Appliances purchased in New Zealand;
- (e) 'Warranty Condition' means:
 - (i) evidence by the customer that the Appliance was installed in accordance with Electrolux installation guidelines as set out in the installation manual;
 - (ii) the Appliance rating is correct for the size and thermal characteristics of the room;
 - (iii) the Appliance has been regularly maintained in accordance with Electrolux guidelines as set out in the user manual;
 - (iv) the Appliance is designed for providing human comfort and should be used under ambient conditions as set out in the product specifications and general air quality conditions.
- (f) 'Warranty Period' means the period specified in clause 3 of this warranty;
- (g) 'you' means the purchaser of the Appliance not having purchased the Appliance for re-sale, and 'your' has a corresponding meaning.

2. Application: This warranty only applies to new Appliances, purchased and used in Australia or New Zealand and is in addition to (and does not exclude, restrict, or modify in any way) other rights and remedies under a law to which the Appliances or services relate, including any non-excludable statutory guarantees in Australia and New Zealand.

3. Warranty Period: Subject to these terms and conditions, this warranty continues for in Australia for a period of 60 months and in New Zealand for a period of 60 months, following the date of original purchase of the Appliance.

4. Repair or replace warranty: During the Warranty Period, Electrolux or its ASC will, at no extra charge if your Appliance is readily accessible for service, without special equipment and subject to these terms and conditions, repair or replace any parts which it considers to be defective. Electrolux may, in its absolute discretion, choose whether the remedy offered for a valid warranty claim is repair or replacement. Electrolux or its ASC may use refurbished parts to repair your Appliance. You agree that any replaced Appliances or parts become the property of Electrolux.

5. Travel and transportation costs: Subject to clause 7, Electrolux will bear the reasonable cost of transportation, travel and delivery of the Appliance to and from Electrolux or its ASC. Travel and transportation will be arranged by Electrolux as part of any valid warranty claim.

6. Proof of purchase is required before you can make a claim under this warranty.

7. Exclusions: You may not make a claim under this warranty unless the defect claimed is due to faulty or defective parts or workmanship. This warranty does not cover:

- (a) light globes, batteries, filters or similar perishable parts;
- (b) parts and Appliances not supplied by Electrolux;
- (c) cosmetic damage which does not affect the operation of the Appliance;
- (d) damage to the Appliance caused by:
 - (i) negligence or accident;
 - (ii) misuse or abuse, including failure to properly maintain or service;
 - (iii) improper, negligent or faulty servicing or repair works done by anyone other than an Electrolux authorised repairer or ASC;
 - (iv) normal wear and tear;
 - (v) power surges, electrical storm damage or incorrect power supply;
 - (vi) incomplete or improper installation;
 - (vii) incorrect, improper or inappropriate operation;
 - (viii) insect or vermin infestation;
 - (ix) failure to comply with any additional instructions supplied with the Appliance; and
 - (x) a breach of the Warranty Conditions.

In addition, Electrolux is not liable under this warranty if:

- (a) the Appliance has been, or Electrolux reasonably believes that the Appliance has been, used for purposes other than those for which the Appliance was intended, including where the Appliance has been used for any non-domestic purpose;
- (b) the Appliance is modified without authority from Electrolux in writing;
- (c) the Appliance's serial number or warranty seal has been removed or defaced.

8. How to claim under this warranty: To enquire about claiming under this warranty, please follow these steps:

- (a) carefully check the operating instructions, user manual and the terms of this warranty;
- (b) have the model and serial number of the Appliance available;
- (c) have the proof of purchase (e.g. an invoice) available;
- (d) telephone the numbers shown below.

9. Australia: For Appliances and services provided by Electrolux in Australia: Electrolux goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the Appliance repaired or replaced if the Appliance fails to be of acceptable quality and the failure does not amount to a major failure. 'Acceptable quality' and 'major failure' have the same meaning as referred to in the ACL.

10. New Zealand: For Appliances and services provided by Electrolux in New Zealand, the Appliances come with a guarantee by Electrolux pursuant to the provisions of the Consumer Guarantees Act, the Sale of Goods Act and the Fair Trading Act. Where the Appliance was purchased in New Zealand for commercial purposes the Consumer Guarantee Act does not apply.

11. Confidentiality: You accept that if you make a warranty claim, Electrolux and its agents including ASC may exchange information in relation to you to enable Electrolux to meet its obligations under this warranty.

Important Notice

Before calling for service, please ensure that the steps listed in clause 8 above have been followed.

AUSTRALIA	FOR SERVICE or to find the address of your nearest authorised service centre in Australia PLEASE CALL 13 13 49 For the cost of a local call	FOR SPARE PARTS or to find the address of your nearest spare parts centre in Australia PLEASE CALL 13 13 49 For the cost of a local call
NEW ZEALAND	FOR SERVICE or to find the address of your nearest authorised service centre in New Zealand PLEASE CALL 0800 10 66 10	FOR SPARE PARTS or to find the address of your nearest spare parts centre in New Zealand PLEASE CALL 0800 10 66 20



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