

CRYSTAL MK3 9K

PAC-100020

PORTABLE AIR CONDITIONER

USER MANUAL



Please read instructions before use
Keep for future reference

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IMPORTANT SAFETY INSTRUCTIONS

Use this appliance only as described in this instruction manual. As with any electrical appliances, the instructions aim to cover as many situations as possible, caution and common sense should be used when operating and installing this air conditioner.

- The appliance is manufactured for comfort cooling and dehumidification in domestic environments and must not be used for other purposes.
- This appliance must not be used outdoor or wet areas such as bathrooms.
- Do not alter or modify the appliance's characteristics in any way.
- The appliance must be installed in accordance with the relevant national legislation.
- Should repairs be necessary, contact EcoAir's Authorised Service Centre. Self-servicing or unauthorised servicing can be dangerous.
- The 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 the use of the appliance by a person responsible for their safety.
- Children and pets should be supervised to ensure they do not play with the appliance.
- If the power cable is damaged, do not use the appliance. It must be replaced by an EcoAir's Authorised Service Centre.
- The appliance must be plugged into a grounded 3-prong outlet and ensure that the voltage matches the rated specifications. If in doubt, check with a qualified technician.
- Do not use with extension cables or multi sockets.
- Always unplug the appliance before cleaning or maintenance or when not in use.
- Do not pull or place strain on the power cord when moving appliance.
- The appliance must not be installed where the atmosphere may contain combustible gasses, oil or sulphur or solvent or near heat sources (such as server rooms & factories).
- Do not use this appliance in a dusty environment or a potentially explosive environment.
- Do not place or rest any objects on the appliance.
- Do not place any objects or curtains in close proximity to the appliance. Always allow a minimum of 50 cm clearance around the appliance.
- Do not operate the appliance without a filter in place. Clean the filters at least once a week.
- Do not use the appliance near any other appliances that emits heat such as heaters, servers etc.
- The appliance must be always kept upright on an even and level floor, during use or transportation and when put into storage.
- Ensure the air inlet and outlet are not blocked or covered when in use.
- Do not operate or store the appliance under direct sunlight.
- Always switch of the power before unplugging from the socket.
- Do not leave the appliance running or plugged in over a long period of time unattended. Leaving unattended electrical appliances running is unsafe.
- Always make sure your hands are dry when operating the appliance.
- Only operate the appliance within the specified operating temperature range.
- Always observe the minimum room size for storing and operating the appliance.
- Keep the unit upright for 4 hours before switch on first time.

REFRIGERANT R290



R290

This appliance contains R290 Refrigerant Gas

Our portable air conditioners contain the non-polluting refrigerant R290 with no harm to our ozone, it helps reduce global warming potential. This refrigerant complies with the European Environmental Directives.

There are some important safety precautions that you need to follow :-

1. Do not use these appliances in rooms smaller than shown in table below for each of the models to prevent fire, explosions .
2. Do not use these appliances in a room with continuous sources of ignition such as open flames, gas appliances, electric heaters, cigarette smoking and other sources of ignitions.
3. Always store these appliances in a well-ventilated area with a minimum size shown in the above table.
4. Keep any required ventilation openings clear of obstructions.
5. Never attempt to service or repair the appliances yourself, always ensure it is only serviced by a EcoAir approved engineer using original EcoAir parts.
6. If these appliances are installed, operated or stored in a non-ventilated area, then the room must be designed to prevent the accumulation of refrigerant leaks. Accumulation of refrigerant leaks in a non-ventilated area can be ignited by other causes such sparks or smoking or open flames from other appliance or causes such as electric heaters, stoves or other sources of ignition in the area.

Model	Minimum Floor Area (m ²)	Contains R290 (Grams)
PAC-100020 - CRYSTAL MK3 9000 BTU	7.7m ²	100g

Failure to comply with these instructions may result in fire or explosions.

BS PLUG WIRING

Should it be necessary to change the plug, please note the wires in the mains lead are colour coded as follows:

BLUE - NEUTRAL

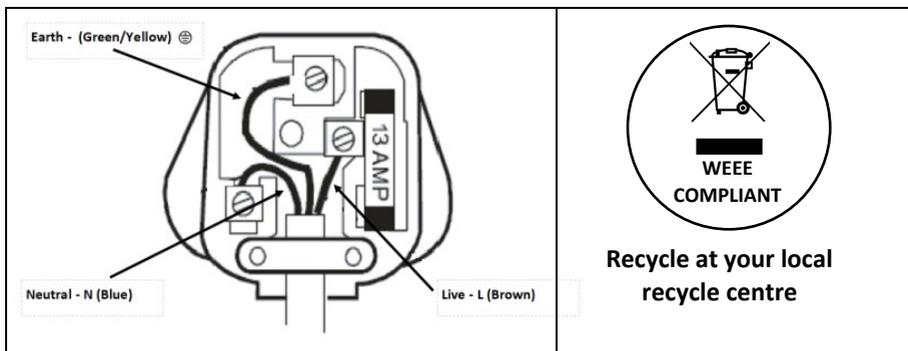
BROWN – LIVE

GREEN AND YELLOW - EARTH

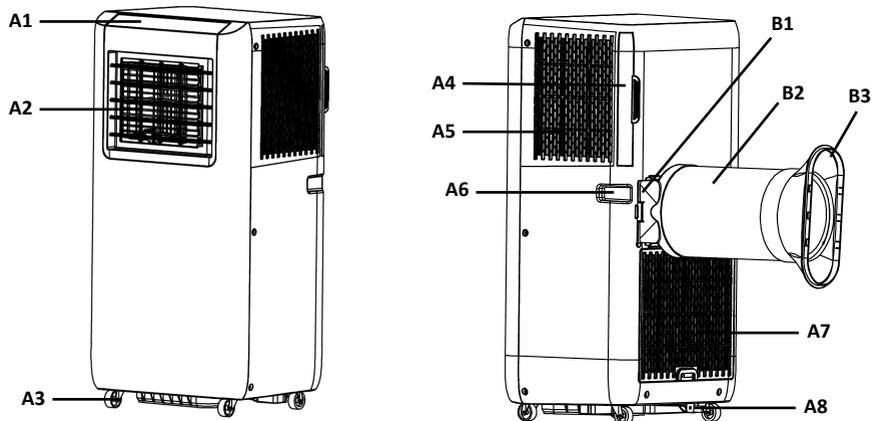
In the event that the colours of the wires in the mains lead of this appliance do not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

1. The BLUE wire is NEUTRAL and must be connected to the terminal which is marked with the letter N or coloured BLACK.
2. The BROWN wire is LIVE and must be connected to the terminal which is marked with the letter L or coloured RED.
3. The GREEN/YELLOW is EARTH and must be connected to the terminal which is marked with the letter E or  or coloured GREEN or GREEN/YELLOW.
4. Always ensure that the cord grip is positioned and fastened correctly.
5. If a 13A (BS 1363) fused plug is used it must be fitted with a 13A -fuse. If in doubt consult a qualified electrician.

Please note the Earth, Neutral and Live Terminals are marked as E , N and L respectively.



THE APPLIANCE & ACCESSORIES



Accessories List

B1	B2	B3	B4	B5
B6				

DESCRIPTION

Key	Description
A1	Control Panel
A2	Outlet Louvre
A3	Castor
A4	Upper Filter
A5	Air Inlet Grille
A6	Handle
A7	Lower Filter
A8	Continuous Drainage Port

DESCRIPTION

Key	Description
B1	Joint A (Hose to AC)
B2	Exhaust Hose
B3	Joint B (Hose to Window)
B4	User Manual
B5	Remote Control
B6	Continuous Drainage Hose 11mm Inner Diameter

IMPORTANT SAFEGUARDS

Some important safeguards :-

1. This appliance is heavy. At least 2 persons are required to move and install the appliance
2. The appliance is for indoor use only.
3. Do not install in high humidity area such as wet room or laundry room.
4. Always keep appliance upright during storage, use or storage. In the event that it was in a non upright position, put it back on its upright position for at least 16 - 24 hours to allow the liquid inside the appliance to settle before use. Without allowing this time, will result in a shorter life expectancy of the appliance.
5. Never restrict the air inlet and air outlet.
6. For Cooling mode, use within the operating temperature of 16°C to 30°C. Using outside this range can cause the coils to freeze.
7. Do not pull the appliance by the power cord. **FIG 1.**
8. Do not place objects on or cover the appliance. **FIG 2.**
9. Allow at least 50cm of air space on all sides of the appliance for good ventilation to avoid overheating. **FIG 3.**

FIG 1.

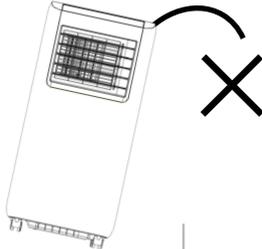


FIG 2.

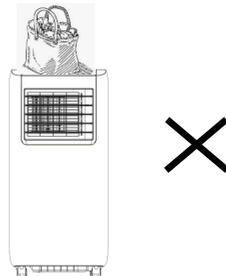
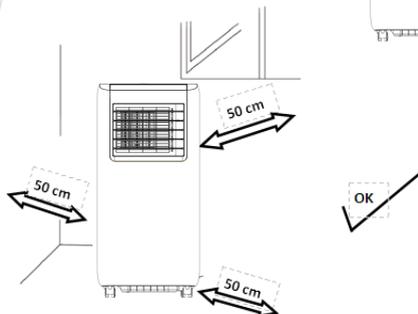
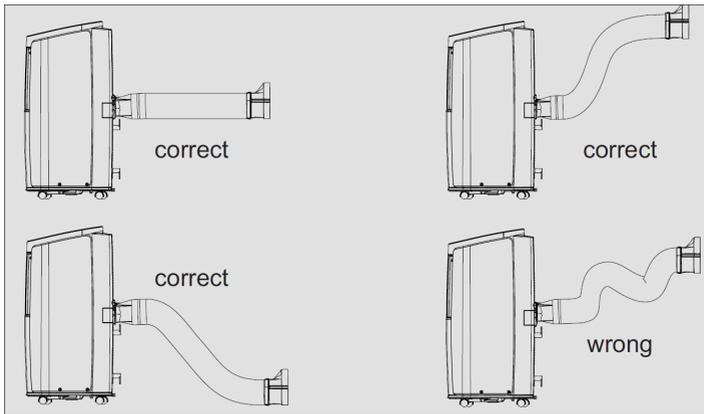


FIG 3.



IMPORTANT SAFEGUARDS

1. Always use the original exhaust hose B2 supplied.
2. The length of the exhaust hose must not be longer than 1.5 meters.
3. Ensure that the hose is as straight as possible to ensure the heat is discharged efficiently. If there are kinks in the exhaust hose, the heat will not be discharged properly, causing it to overheat which can cause permanent malfunction.

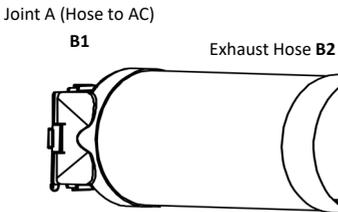


INSTALLATION

INSTALLATION OF EXHAUST HOSE

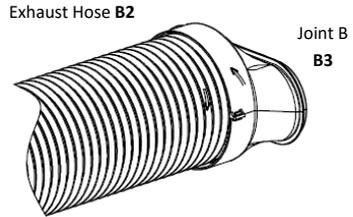
STEP 1. CONNECT JOINT "A" TO EXHAUST HOSE

Attach Joint A (B1) to Exhaust Hose (B2)

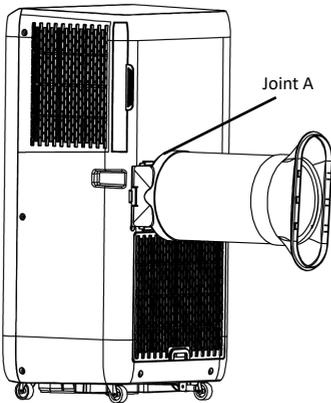


STEP 2. CONNECT JOINT "B" TO EXHAUST HOSE

Attach Joint B (B3) to Exhaust Hose (B2)



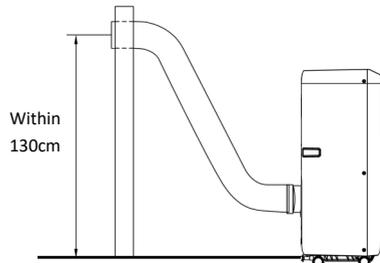
STEP 3. CONNECT EXHAUST HOSE TO APPLIANCE



Attach Joint A (Hose to AC) B1 to the air outlet slot (at the back of the appliance)

STEP 4A. EXHAUST HOSE THROUGH A WALL

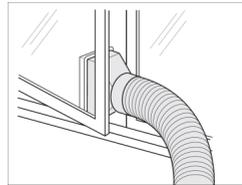
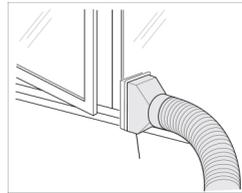
1. Drill a 163mm hole through the wall. (outer diameter 155mm)
2. Insert the exhaust hose B2 through the hole.
3. Seal the gap between the wall and the exhaust hose B2



INSTALLATION

STEP 4B. DISCHARGE EXHAUST HOSE (B2) THROUGH A WINDOW GAP

1. Pre-seal the window with a Window Seal Nylon Cloth (available for purchase)
2. Pass the exhaust hose **B2** (with or without Joint B **B3** attached) through the zipped opening.



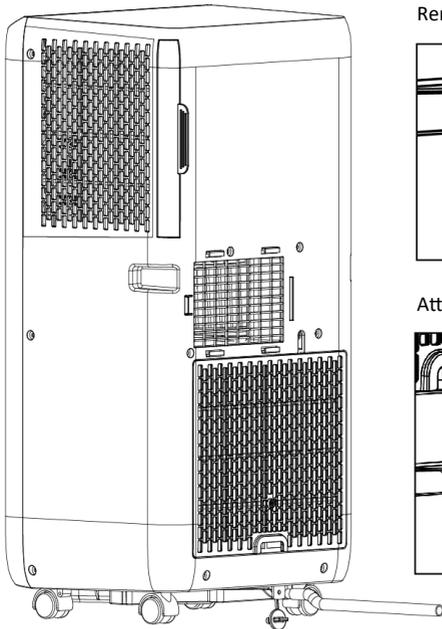
SETUP CONTINUOUS DRAINAGE FOR DRY MODE & E4/W.F

When the control panel displays E4 and WF indicator lights up, this indicates the water tank is full. When using the dry mode, we recommend that you set up the continuous drainage to continuously drain so that the appliance can continue to run without stopping when the water tank is full

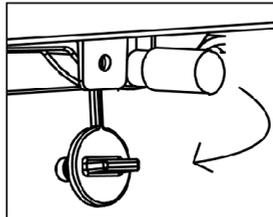
1. This air conditioning is a self-evaporating appliance. When the ambient air is very high in humidity, excess condensation can accumulate very quickly. The excess humidity may be collected into an internal tank that requires manual draining.
2. Always drain the excess condensation at the end of the season to keep the appliance clean and hygienic.

How to empty the tank:-

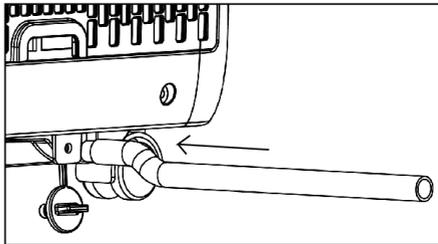
1. Turn off the appliance and unplug from the socket
2. Remove the plug from the bottom drainage port
3. Attach a 11mm inner diameter hose
4. Drain the water
5. Reinsert the plug



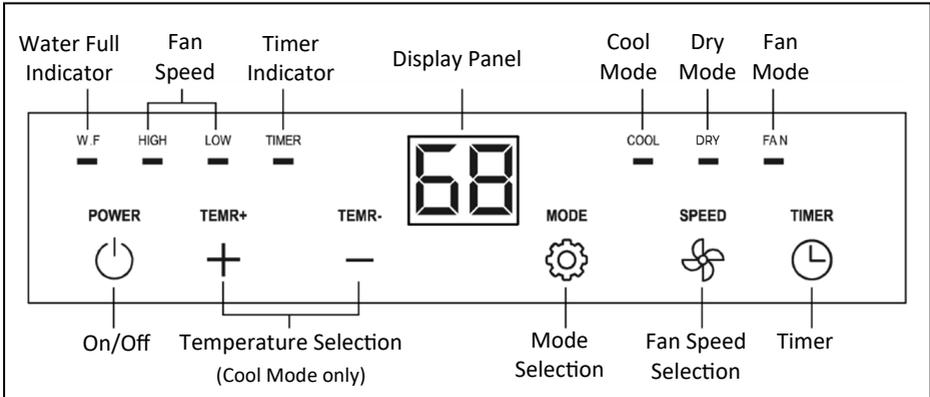
Remove plug from drainage port (A8)



Attach supplied 11mm hose (B6) into the port (A8)



CONTROL PANEL



SELECT MODE

Press the "  " Button to select a desired mode shown below:



COOL MODE

- 1) Turn appliance on
- 2) Select COOL mode
- 3) Select your desired fan speed (Low, High)
- 4) Select your desired temperature (between 16C to 31C)
- 5) The display will show your desired temperature

DRY MODE (SUMMER USAGE ONLY)

- 1) Turn appliance on
- 2) Select DRY mode
- 3) The fan will always default to low fan speed
- 4) The display does not show any information

FAN MODE

- 1) Turn appliance on
- 2) Select FAN mode
- 3) Select your desired fan speed (Low, High)
- 4) The display does not show any information

TIMER MODE

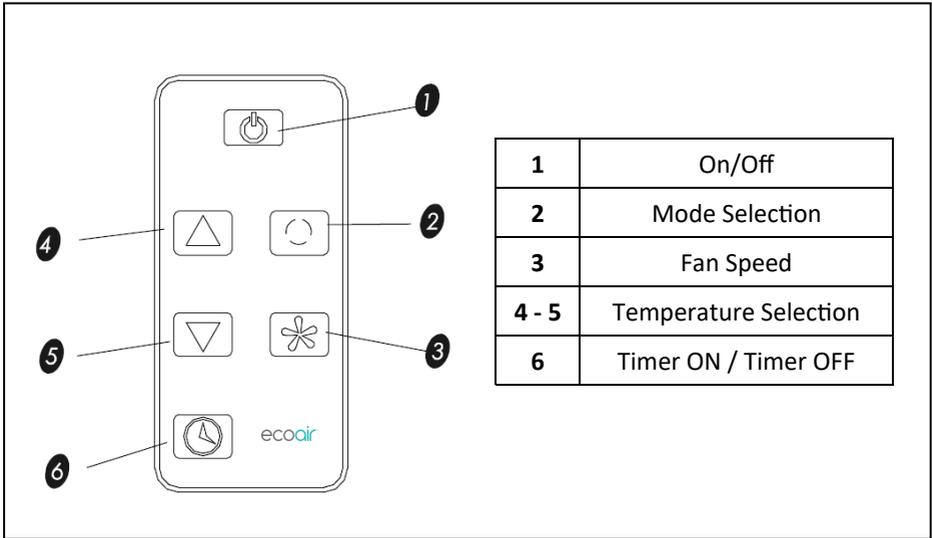
- 1) Turn appliance on
- 2) Select TIMER mode, display will flash "00"
- 3) Use the "+" and "-" button to increase and decrease the time
- 4) When turns to "00", timer is off

NOTE:

W.F/E4 on the control panel means empty water tray, the unit will stop until water tray is empty.

(See page 9 on how to setup continuous drainage for DRY MODE & E4/W.F)

REMOTE CONTROL



USEFUL INFORMATIONS

- ◆ During the operation, point the remote control towards the appliance not more than 6 meters away.
- ◆ Make sure there is no obstacles between the remote control and the appliance.
- ◆ Remote control signal may be interfered within the room where there is wireless telephone, fluorescent lamp.
- ◆ When appliance is not in use for a long time, please remove batteries.
- ◆ Replacement battery (CR2025).

Protection

Operating condition

The protective device may trip and stop the appliance in the cases listed below.

Cooling Mode	Indoor air temperature is over 35°C
	Room temperature is below 15°C
Dry Mode	Room temperature is below 15°C

If the air conditioner runs in COOLING or DRY mode with door or window opened for a long time when relative humidity is above 80%, condensation may drop down from the outlet.

Software protection

The software protection will work in the following cases.

- *Restarting the unit at once after operation stops or changing mode during operation, you need to wait 3 minutes.*
- *If the plug is taken out, when you restart the appliance, it will return to the original mode, TIMER ON and TIMER OFF must be set again.*

CLEANING AND MAINTENANCE

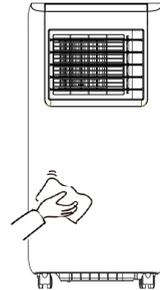
- Before cleaning the appliance, turn it off and disconnect power. Otherwise, it may cause electric shock.
- Do not wash appliance with water. Otherwise, it may cause electric shock.
- Do not use volatile liquid (such as thinner or gas) to clean the appliance. Otherwise, it may damage the appearance of appliance.

Clean outer case:

If there's dust on the surface of outer case, use soft towel to wipe it.
If the outer case is very dirty, use a damp cloth to clean it.

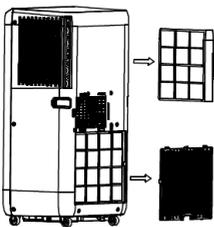
Clean grille:

Use soft brush or cloth to clean it.



CLEAN FILTER

1. REMOVE THE FILTER

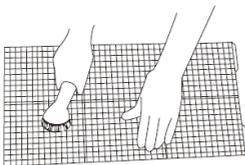


3. INSTALL FILTER

Before re-installing the filter, make sure the filter is dry.

2. CLEAN FILTER

Use vacuum cleaner, brush or water to clean the filter.



3. USEFUL INFORMATION

The filter should be cleaned at least once every two weeks. For dusty environment, you should increase the cleaning frequency.

STORING THE APPLIANCE

Follow the simple steps below when storing the appliance away.

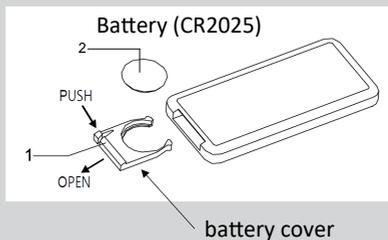
1. Disconnect power supply
2. Clean filter and outer casing.
3. Drain the excess condensation from the appliance. (See setup continuous drainage for DRY MODE & E4/W.F on page 9).
4. Disassemble the Exhaust Hose
5. Clean the appliance and pack it well to prevent dust.
6. Remove the batteries from the remote control.

Using the appliance after storage:-

1. Check all inlet and outlet are clear of blockage and dust
2. Check filter is clean
3. Replace the remote control battery if necessary
4. Check the exhaust hose and accessories are not damaged and is complete.

REPLACING BATTERIES

1. Gently slide the battery cover to remove.
2. Replace one dry battery (CR2025) and make sure the positions of plus and minus polar are correct.
3. Re-attach the cover of battery box.



DISPLAY CODES

Display Code	Reason	Solution
Machine fails to start up.	Power supply failure: 1. Not plugged; 2. Plug or socket damaged; 3. Fuse broken.	1. Plug in; 2. Replace the power cord or socket; 3. Replace the fuse by service provider (Specification: 3.15A/250VAC).
Machine auto-matically stops.	TIMING shut down or set temperature reached.	Restart or wait for auto-switch.
No cold air under COOLING mode.	1. Room temperature lower than set temperature; 2. Machine enters into anti-frost protection.	1. This is a normal phenomenon, the machine will auto-switch while the room temperature is higher than the set temperature; 2. The machine will auto switch after anti-frost protection is over.
No hot air under DRY mode.	1. Indoor temperature higher than set temperature; 2. Defrosting; 3. Cold-air protection.	This is a normal phenomenon, the machine will auto switch while the room temperature is lower than the set temperature, or after the defrosting ends, or after cold-air protection is over
LED displays failure code "E0"	Room temperature sensor fails or damaged.	Replace the room temperature sensor.
LED displays failure code "E4"	Water-full warning.	Drain out the water.

TROUBLESHOOTING

Issue	Reason	Solution
Does not switch on	<ul style="list-style-type: none"> • Power supply not connected properly. • Power plug is not inserted correctly • Socket or fuse is faulty 	<ul style="list-style-type: none"> • Check power supply connection, or try on a different socket. • Change to fuse or plug.
Poor Cooling	<ul style="list-style-type: none"> • Filter clogged up • Temperature can be adjusted when in cooling mode only. • Room not properly sealed. • Exhaust hose too long or over-elevated • Exhaust hose not connected properly • Air inlet and outlet obstructed • Insufficient clearance around the appliance • Under capacity due to room size too large or excessive heat load in the room 	<ul style="list-style-type: none"> • Clean or replace the air filter • Check set temperature. • Close doors & windows and seal any gaps • Check Exhaust hose length is within 1.5m and elevation is within 130cm from floor level • Check air inlet and outlet are not obstructed • Check that there is 50cm clearance around the appliance
Appliance not responding to remote control	<ul style="list-style-type: none"> • Remote control is out of range, or blocked by obstacles or battery needs replacement. 	<ul style="list-style-type: none"> • Use within 6 meter range • Remove obstacles • Replace battery
Fan is not working	<ul style="list-style-type: none"> • Air inlet or outlet is blocked • Appliance is defrosting • Set temperature reached 	<ul style="list-style-type: none"> • Clear blockage • Allow appliance to defrost. • Check the set temperature setting
Set Temperature cannot be adjusted	<ul style="list-style-type: none"> • Temperature can only be adjusted when in cooling mode only. 	<ul style="list-style-type: none"> • Select the correct mode and refer to manual
Bad smell	<ul style="list-style-type: none"> • Smoking, Cooking, recent building works and painting smells was absorbed. 	<ul style="list-style-type: none"> • Turn off and air the room, clean the filter and run the appliance in fan mode for an hour to clear the inter-
Appliance is noisy	<ul style="list-style-type: none"> • Not on even level floor • Exhaust hose too long or not installed properly 	<ul style="list-style-type: none"> • Place appliance on an even floor • Check Exhaust hose length is within 1.5m and elevation is within 130cm
Water sound in the appliance	<ul style="list-style-type: none"> • Refrigerant or water flowing sound 	<ul style="list-style-type: none"> • Normal action