SERENE

OWNER'S MANUAL

Wall Hung Split System Air Conditioner



Model Numbers:

WRC-026AS/WRE-026AS
WRC-035AS/WRE-035AS
WRC-050AS/WRE-050AS
WRC-071AS/WRE-071AS
WRC-080AS/WRE-080AS

IMPORTANT NOTE:

Please read this manual carefully before operating your new air conditioning unit and keep it available for future reference.

That's better. That's Actron.

ActronAir

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FOR COMPLIANCE WITH QUEENSLAND ELECTRICAL SAFETY REGULATIONS 2002
This refers to electrical works only



MUST BE INSTALLED BY A LICENSED ELECTRICIAN

READ SAFETY PRECAUTIONS BEFORE INSTALLATION

Thank you for purchasing this air conditioner. This manual will provide you with information on how to operate, maintain, and troubleshoot your air conditioner. Following the instructions will ensure the proper function and extended lifespan of your unit.



WARNING

Failure to observe a warning may result in death or serious injury. The appliance must be installed in accordance with national regulations.



CAUTION

This symbol indicates that ignoring instructions may cause injury, damage to your appliance or other property.

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Product design and specifications are subject to change without prior notice for product improvement.

INTRODUCTION

- CONGRATULATIONS on your purchase of an ActronAir air conditioning unit! This unit has been designed and engineered to provide optimum air conditioning and to achieve maximum energy efficiency.
- Your air conditioning system has been manufactured from the highest quality materials. Numerous "in house" and "external" inspections and test procedures were conducted to your air conditioning to ensure satisfactory operation.

INFORMATION ABOUT THIS GUIDE

- This guide provides operation instructions specific to your split indoor unit. Read this manual thoroughly to ensure safe operation of your air conditioning system.

PRODUCT INSPECTIONS

- Fully check your air conditioning unit and all items against the bill of loading upon receiving your shipment. Inspect the unit, components and accessories for any sign of shipping damage. If there is any damage to the unit, contact ActronAir Customer Care immediately on: 1300 522 722.
- Check the unit nameplate to verify the model, serial number, electrical rated specifications and details are correct.

CODES, REGULATIONS AND STANDARDS

- The installer assumes responsibility to ensure that unit installation complies with the relevant council, state & federal codes, regulations and building code standards. All electrical wiring must be in accordance with current electrical authority regulations and all wiring connections to be as per electrical diagram provided with the unit.

SAFETY INSTRUCTIONS

1. Only qualified HVAC technicians* should install and service this air conditioning equipment. Improper service or alteration by unqualified technician could result in significant and major damage to the product or property which may render your warranty null and void. Such unqualified service could also lead to severe physical injury or death. Follow all safety instructions in this literature and all warning labels that are attached to the equipment.
2. Prevailing WH&S regulations must be observed and will take precedence to the safety instructions contained in this manual. Safe work practices and environment must be of paramount importance in the performance of all service procedures.
3. Ensure that unit installation complies with relevant council regulations and building code standards.
4. All electrical wiring must be in accordance with current electrical authority regulations and all wiring connections to be as per electrical diagram provided.
5. Secure the fans against accidental contact. Beware of pinch point and sharp edges which can cause cutting injury.
6. Always wear appropriate PPE, remove any dangling jewellery and protect long hair by wearing a cap.
7. Make sure that safety guards and panel covers are always firmly secured and not damaged.
8. This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely. Young children should be supervised to ensure that they do not play with the appliance.
9. Installer must incorporate a means of electrical disconnection (isolator) in the sub mains fixed wiring in accordance with the Australian wiring rule (AS3000).
10. Secure the power cords and control cables that goes in/out the unit. Use the cable ties provided in the control box.

*Qualifications required will be appropriate Electrical, Refrigeration and Refrigerant Handling License & Training, dependent on local State/Territory regulations.

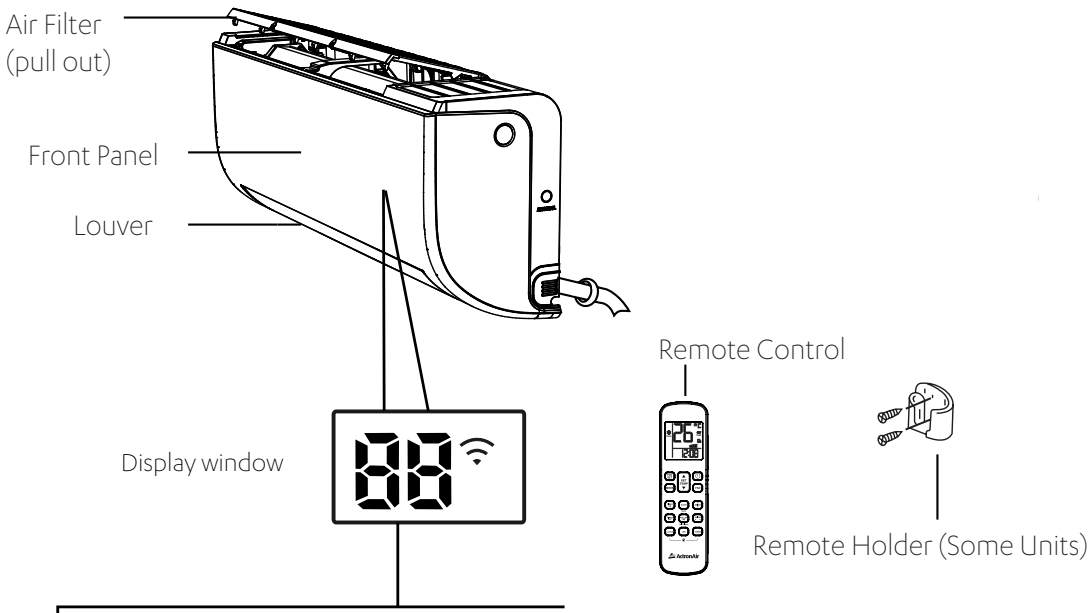
WARNING

- Ask a qualified HVAC technician to install this air conditioner. Inappropriate installation may cause water leakage, electric shock, or fire.
- The warranty will be voided if the unit is not installed by professionals.
- If abnormal situation arises (like burning smell), turn of the power supply and call your HVAC technician for instructions to avoid electric shock, fire or injury.
- DO NOT let the indoor unit or the controller get wet. It may cause electric shock or fire.
- 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 a flammable spray such as hair spray, lacquer or paint near the unit. This may cause fire or combustion.

CAUTION

- DO NOT inspect the unit by yourself. Ask a qualified HVAC technician to perform the inspection.
- To prevent product deterioration, do not use the air conditioner for preservation purposes (storage of food, plants, animals, works of art, etc.).
- DO NOT operate the air conditioner with wet hands. It may cause electric shock.
- DO NOT touch the evaporator coils inside the indoor unit. The evaporator coils are sharp and may cause injury.
- DO NOT place items that might be affected by moisture damage under the indoor unit. Condensation can occur at a relative humidity of 80%.
- DO NOT expose heat-producing appliances to cold air or place them under the indoor unit. This may cause incomplete combustion or deformation of the unit due to the heat.
- If the air conditioner is used together with other heating devices, thoroughly ventilate the room to avoid oxygen deficiency.
- DO NOT climb onto or place objects on top of the outdoor unit.
- DO NOT operate the air conditioner when using fumigant insecticides. The chemicals may become layered with the unit and endanger those who are hypersensitive to chemicals.
- DO NOT let children play with the air conditioner.
- This system is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the system safely. Young children should be supervised to ensure that they do not play with the system.
- DO NOT operate the air conditioner in a wet room (e.g. bathroom or laundry room). This can cause electrical shock and cause the product to deteriorate.

Unit Parts



"ON" for 3 seconds when:
- TIMER ON is set
- FRESH, SWING, TURBO, or SILENCE features are turned on

"OF" for 3 seconds when:
- TIMER OFF is set
- FRESH, SWING, TURBO, or SILENCE features are turned off

"cF" when anti-cold air feature is turned on

"dF" when defrosting

"SC" when unit is self-cleaning

"--" Displayed when Indoor unit is in mode conflict with another operating indoor unit (applicable to multi-split "MRC" installations only)

Display Code Meanings

NOTE: A guide on using the infrared remote is not included in this literature package.

In other modes, the unit will display your temperature setting.

In Fan mode, the unit will display the room temperature.

Achieving Optimal Performance

Optimal performance for the COOL, HEAT, and DRY modes can be achieved in the following temperature ranges. When your air conditioner is used outside of these ranges, certain safety protection features will activate and cause the unit to perform less than optimally.

	COOL mode	HEAT mode	DRY mode
Indoor Temperature	17°C - 32°C	0°C - 30°C	10°C - 32°C
Outdoor Temperature	-15°C - 50°C	-25°C - 30°C	0°C - 50°C

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.

Other Features

- **Auto-Restart**
  If the unit loses power, it will automatically restart with the prior settings once power has been restored.
- **LED Display**
  Press the LED button on the remote control to turn off the indoor screen display.
- **Louvre Angle Memory**
  When turning on your unit, the louvre will automatically resume its former angle.

Setting vertical angle of air flow

While the unit is on, use the vertical SWING button to set the direction (vertical angle) of airflow.

1. Press the vertical SWING button once to activate the louvre. Each time you press the button, it will adjust the louvre by 6°. Press the button until the direction you prefer is reached.
2. To make the louvre swing up and down continuously, press and hold the vertical SWING button for 3 seconds. Press it again to stop the automatic function.

Setting horizontal angle of air flow

While the unit is on, use the horizontal SWING button to set the direction (horizontal angle) of airflow.

1. Press the horizontal SWING button once to activate the louvre. Each time you press the button, it will adjust the louvre by 6°. Press the button until the direction you prefer is reached.
2. To make the louvre swing side to side continuously, press and hold the horizontal SWING button for 3 seconds. Press it again to stop the automatic function.

For a detailed explanation of your unit's advanced functionality (such as TURBO mode and its self-cleaning functions), refer to the Remote Control Manual.

NOTE ON Louvre ANGLES

When using COOL or DRY mode, do not set vertical louvre to the minimum angle for long periods of time. This can cause water to condense on the louvre blade, which will drop on your floor or furnishings. (See Fig. 2.2)

When using COOL or HEAT mode, setting the vertical louvre to the minimum angle can reduce the performance of the unit due to restricted air flow.

Do not move louvre by hand. This will cause the louvre to become out of sync. If this occurs, disconnect the power from the main isolator for a few seconds, then restart the unit. This will reset the louvre.

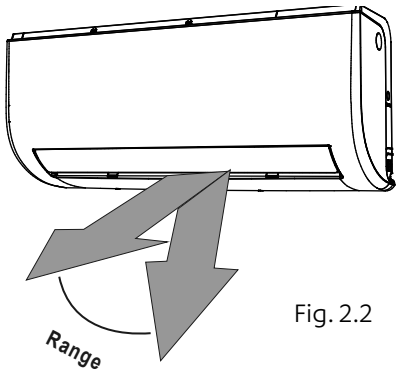


Fig. 2.2

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.

Do not set vertical louvre to the minimum angle for long period of time. This can cause water condensation to drip.

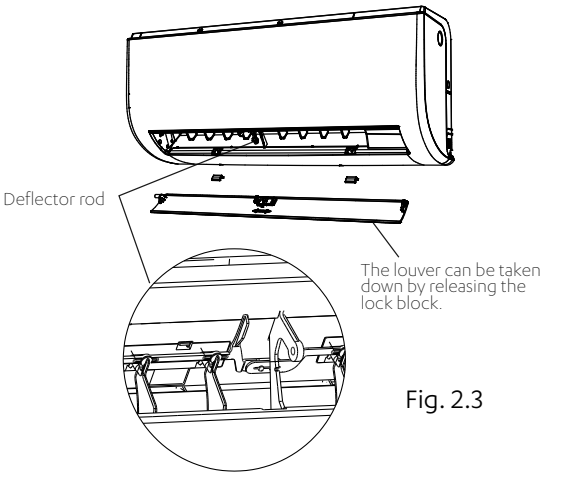


Fig. 2.3

Sleep Operation

The SLEEP function is used to decrease energy use while you sleep (and don't need the same temperature settings to stay comfortable). This function can only be activated via remote control.

Press the SLEEP button when you are ready to go to sleep. When in COOL mode, the unit will increase the temperature by 1°C after 1 hour, and will increase an additional 1°C after another hour. When in HEAT mode, the unit will decrease the temperature by 1°C after 1 hour, and will decrease an additional 1°C after another hour.

It will hold the new temperature for 7 hours, then the unit will turn off automatically.

Note: The SLEEP function is not available in FAN or DRY mode.

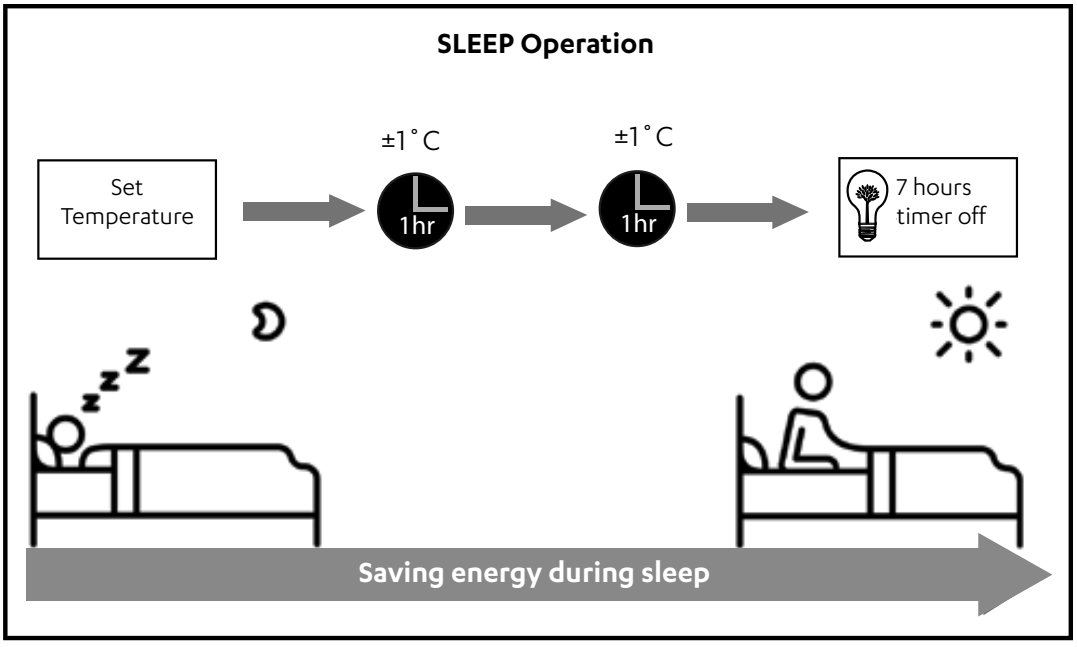
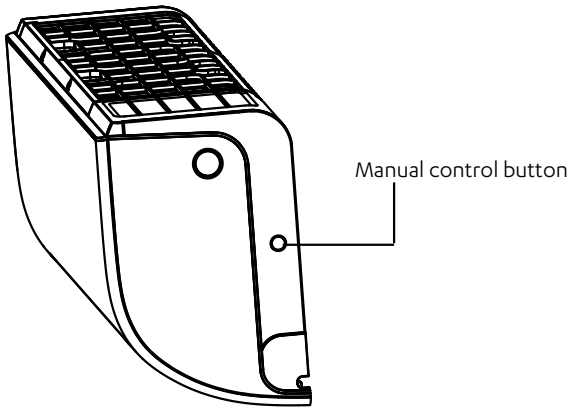


Fig. 3.1

How to operate your unit without the remote control

In the event that your remote control fails to work, your unit can be operated manually with the MANUAL CONTROL button located on the indoor unit. Note that manual operation is not a long-term solution, and that operating the unit with your remote control is strongly recommended.



BEFORE MANUAL OPERATION

Unit must be turned off before manual operation.

To operate your unit manually:

1. Locate the MANUAL CONTROL button on the right-hand side panel of the unit.
2. Press the MANUAL CONTROL button one time to activate FORCED AUTO mode.
3. Press the MANUAL CONTROL again to activate FORCED COOLING mode.
4. Press the MANUAL CONTROL button a third time to turn the unit off.

FORCED AUTO MODE

A/C system will go to Auto Mode with 24˚C set point.

FORCED COOL MODE

The outdoor unit will run at minimum capacity and indoor fan in low speed. After 30 minutes, the A/C system will go to Auto Mode with 24˚C set point.

CAUTION

The manual button is intended for testing purposes and emergency operation only. Please do not use this function unless the remote is lost and it is absolutely necessary. To restore regular operation, use the remote control to activate the unit.

Maintenance Procedures

This section describes the procedures that must be performed as a part of normal maintenance program. Regular servicing of equipment by qualified HVAC technician is highly recommended. Always disconnect electrical power to the unit before performing these procedures. It is always a safe practice to observe all safety warnings and cautions when conducting maintenance tasks.

DANGER

Live Electrical Connections!
It may be necessary to work with live electrical components on certain maintenance tasks. Only qualified technicians are allowed to perform these tasks.

WARNING

Hazardous Voltage!
Always make sure that all power supply, including remote controls, are disconnected before performing maintenance. Observe proper Lock-Out / Tag-Out procedures to ensure that power cannot be inadvertently energised. Failure to disconnect power before maintenance procedures can result in serious injury and/or death.

Annual Maintenance Checklists

- Perform general maintenance inspections.
- Perform scheduled start-up checks.
- Leak test refrigerant circuits.
- Inspect contacts of all contactors and relays. Replace all worn contacts as required.
- Inspect, clean and tighten all electrical connections.
- Check fans for balanced operation. Make sure that there are no loose screws / bolts, no fan blades interference and no damage to the fans and guards.
- Inspect the air filters, clean or replace as required.
- Clean and repaint any corroded panel section.
- Ensure no blockage of airflow through variable speed drive and drive fan is operating correctly.

Cleaning The Condenser Coils

Clean the coils at least once a year or more frequently if unit is located in a dusty and dirty environment, in order to maintain your system's proper operating performance. High discharge pressures are a good indication that the coils need cleaning. When using detergent or solvents to clean the coils, follow the manufacturer's instructions to avoid potential damage to the coils and to the unit.

To clean the refrigerant coils, use a soft brush and water spray, such as garden hose or pressure washer with low pressure nozzle.

DANGER

Beware of Rotating Fan Blades!

- Always make sure that all power supply, to the Outdoor Fans are turn-off and isolated.
- Observe WH&S safety procedures, do not wear loose clothing and any jewellery when working near the fans.
- Wear PPE whenever performing any maintenance procedures.
- Observe all necessary procedures when working in a confined space.

CAUTION

Do Not Use High Alkaline Detergent!

- When using detergent for coil cleaning, ensure that the alkaline level is no higher than 8.5 pH level, which can cause corrosion damage to the coils.
- Be Careful Not to Spray Water into the Electrical Components!

Condenser Coil Cleaning Procedures

- Disconnect power to the unit by following correct tag out procedure.
- Remove the louvered panels from the unit to gain access to the air inlet side of the coils.
- Use a soft brush to remove loose dirt and debris from both sides of the coils.
- Straighten bent coil fins with fin comb.
- Prepare the detergent solutions according to the manufacturer's instructions.
- Spray solution at a 90° angle to the coils, keeping a minimum nozzle spray angle of 15°, with at least a 1800mm distance from the coils and 600psi pressure.
- Spray leaving air side of the coils first then the air inlet side. Allow the solution to stand on the coils for five minutes.
- Rinse both sides of the coils with cool clean water.
- Inspect the coils, if they are still dirty, repeat the cleaning procedure.
- Clean and wipe dry the outer and inner sides of the unit, the refrigerating parts and other components.
- Ensure that the condensate drain lines are not blocked.
- Reinstall all unit panels, covers and guards.
- Restore power to the unit.

Cleaning Your Air Filter

A clogged air conditioner can reduce the cooling efficiency of your unit, and can also be bad for your health. Make sure to clean the filter once every two weeks.

1. The air filter is under the top air inlet grille.
2. Grip the tab on the end of the filter, lift it up,then pull it towards yourself.
3. Clean the air filter with warm, soapy water. Be sure to use a mild detergent.
4. Rinse the filter with fresh water, then shake off excess water.
5. Dry it in a cool, dry place, and refrain from exposing it to direct sunlight.
6. Slide the air filter back into place and clip it into the indoor unit.

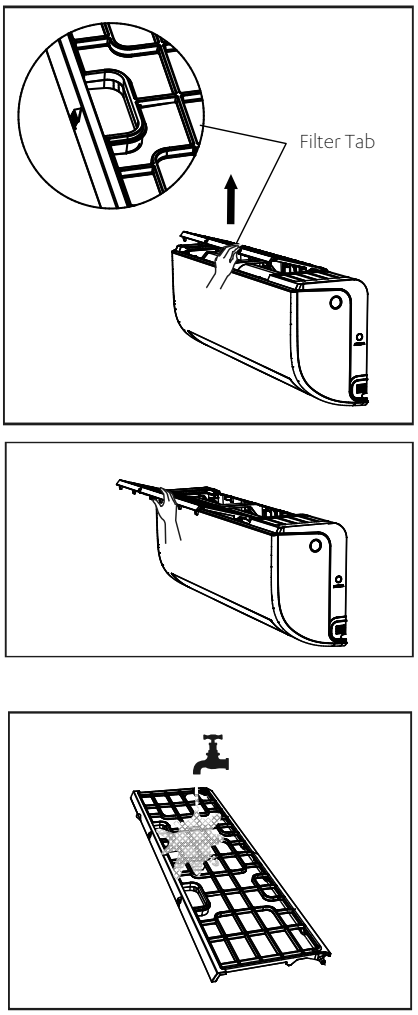


Fig. 5.1

Maintenance – Long Periods of Non-Use

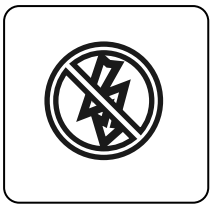
If you plan not to use your air conditioner for an extended period of time, do the following:



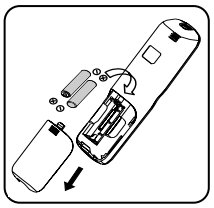
Clean filter



Turn on FAN function until unit dries out completely



Turn off the unit and isolate the power



Remove batteries from remote control

Maintenance – Pre-Season Inspection

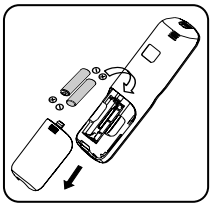
After long periods of non-use, or before periods of frequent use, do the following:



Clean filter



Check for leaks



Replace batteries





Make sure nothing is blocking all air inlets and outlets

CAUTION

- Any maintenance and cleaning of outdoor unit should be performed by qualified HVAC technician.
- Any unit repairs should be performed by qualified HVAC technician.

SAFETY PRECAUTIONS

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

- The power cord is damaged or abnormally warm
- You smell a burning odour
- 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 Authorised SERVICE PROVIDER IMMEDIATELY!

Possible 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	The Unit 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.

Issue	Possible Causes
The indoor unit makes noises	A rushing air sound may occur when the louvre 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.
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.
The unit emits a bad odour	The unit may absorb odours from the environment (such as furniture, cooking, cigarettes, etc.) which will be emitted during operations.
	The unit's filter have become mouldy and should be cleaned.
The fan of the outdoor unit does not operate	During operation, the fan speed is controlled to optimize product operation.

NOTE: If your problem persists after performing the checks and diagnostics above, turn off your unit immediately and contact ActronAir on 1800 119 229 for technical support or warranty.

Please check the following points before contacting a qualified service technician.

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 a qualified service technician
	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 a qualified service technician
	QUIET Mode is activated	QUIET Mode can lower product performance by reducing operating frequency. Turn off QUIET Mode.

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 a qualified service technician
	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 a qualified service technician
	Incompressible gas or moisture has entered the system.	Contact a qualified service technician
	The compressor is broken	Contact a qualified service technician
	The voltage is too high or too low	Contact a qualified service technician
Poor heating performance	The outdoor temperature is too low	Use other 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	Contact a qualified service technician
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 a qualified service technician	
Error code appears in the window display of indoor unit: • E0, E1, E2... • P1, P2, P3... • F1, F2, F3...		

NOTE: If your problem persists after performing the checks and diagnostics above, turn off your unit immediately and contact ActronAir on 1800 119 229 for technical support or warranty.

Error Codes

Please check the following points before contacting a qualified service technician.

Indoor Unit

Error Codes	Operation Lamp	Timer Lamp	Causes
E0	☆ 1 time	**X**	Indoor unit EEPROM parameter error
E1	☆ 2 times	**X**	Communication error between indoor and outdoor units
E3	☆ 4 times	**X**	Indoor fan speed has been out of control
E4	☆5 times	**X**	Indoor room temperature sensor open circuit or short circuit
E5	☆ 6 times	**X**	Evaporator coil temperature sensor open circuit or short circuit
EC	☆ 7 times	**X**	Refrigerant leakage detection
F1	☆ 2 times	**O**	Outdoor ambient temperature sensor open circuit or short circuit
F2	☆ 3 times	**O**	Condenser coil temperature sensor open circuit or short circuit
F3	☆ 4 times	**O**	Compressor discharge temperature sensor open circuit or short circuit
F4	☆ 5 time	**O**	Outdoor unit EEPROM parameter error
F5	☆ 6 times	**O**	Outdoor fan speed has been out of control
P0	☆ 1 time	☆	IPM malfunction or IGBT over-strong current protection
P1	☆ 2 times	☆	Over voltage or over low voltage protection
P2	☆ 3 times	☆	High temperature protection of compressor top diagnosis and solution (only WRC-050AS and WRC-071AS)
P4	☆ 5 times	☆	Inverter compressor drive error
CP	-	**-**	Remote On/Off terminal is open circuit
E0	☆ 1 time	**X**	Indoor unit EEPROM parameter error
E1	☆ 2 times	**X**	Communication error between indoor and outdoor units
E3	☆ 4 times	**X**	Indoor fan speed has been out of control
E4	☆ 5 times	**X**	Indoor room temperature sensor open circuit or short circuit
E5	☆ 6 times	**X**	Evaporator coil temperature sensor open circuit or short circuit
E7	-	**-**	Communication error between the display board and main indoor PCB

O – ON **; X –** OFF**;** ☆ **–** Flash

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