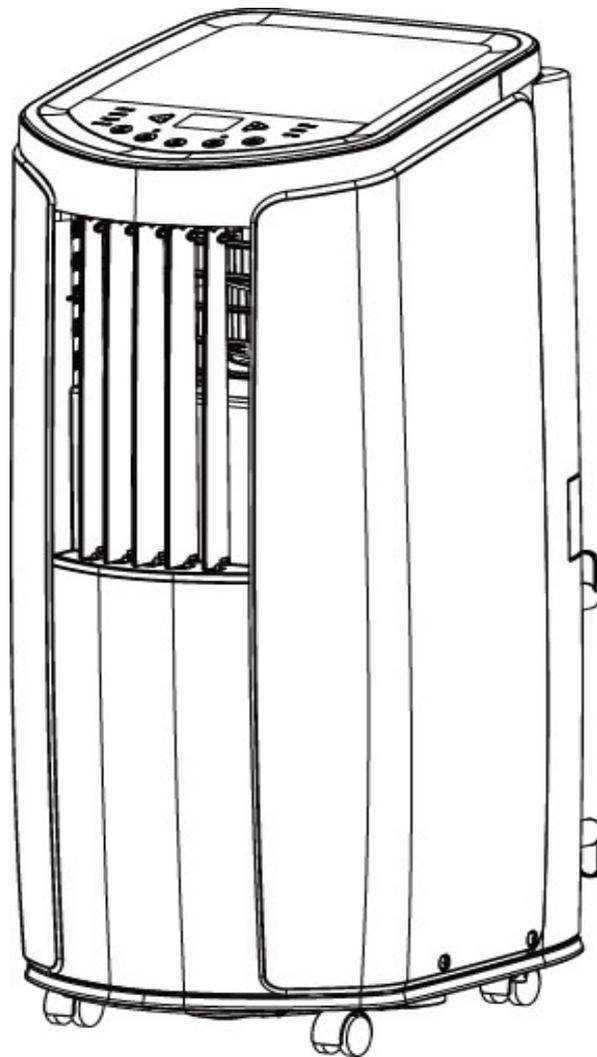




APOLLO MK2

PAC-100013

Portable Air Conditioner



Please read instructions before use. Keep a copy for future reference.

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PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE OPERATING.

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 as we do with any other electrical appliances.

- 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 Center. 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 Center.
- The appliance must be plugged into a grounded 3-prong outlet and ensure that the voltage matches the rated specifications. If you have any doubts, check you a qualified technician.
- Do not use with extension cables or multi sockets.
- Always unplug the appliance before cleaning or maintenance operations 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 near heat sources (such as server rooms & factories).
- 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.

READ & SAVE THESE IMPORTANT SAFETY INSTRUCTIONS FOR FUTURE REFERENCE

The Refrigerant R290 Gas

	Read the precautions in this manual carefully before operating the unit.		This appliance contains of flammable R290 refrigerant gas.
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R290

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 below for each of the models to prevent fire, explosions :-

Model	Minimum Floor Area (m ²)	Contains R290 (Grams)
CRYSTAL MK2 7000 BTU	4	150g
CRYSTAL MK2 9000 BTU	11	180g
CRYSTAL MK2 12000 BTU	11	220g
APOLLO MK2 12000 BTU	11	200g

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 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.

BS PLUG WIRING

BS PLUG WIRING

Wiring Instructions: Should it be necessary to change the plug, please note the wires in the mains lead are coloured in accordance with the following codes:

BLUE - NEUTRAL

BROWN – LIVE

GREEN AND YELLOW - EARTH

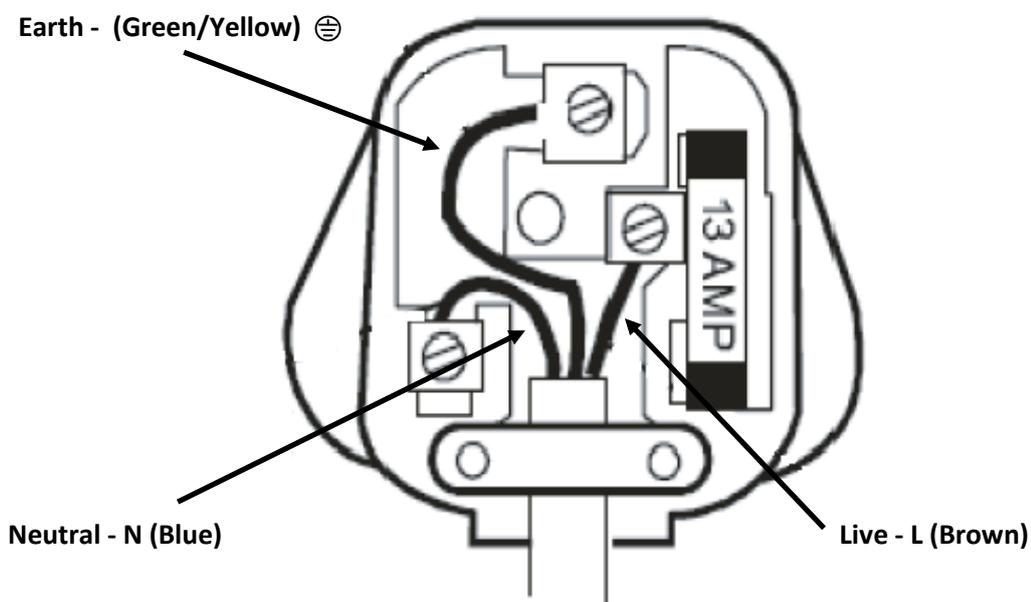
In the event that the colours of the wires in the mains lead of this appliance do not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

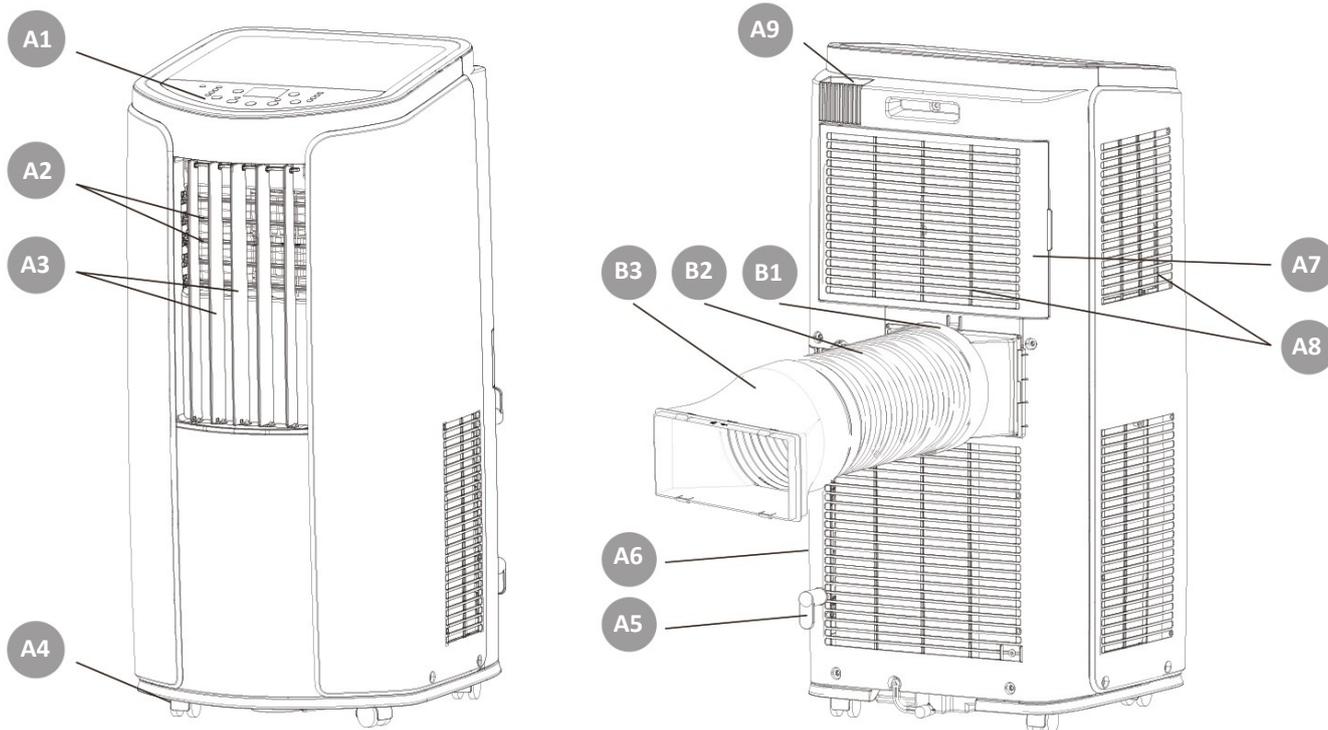
1. The **BLUE** wire is **NEUTRAL** and must be connected to the terminal which is marked with the letter **N** or coloured **BLACK**.
2. The **BROWN** wire is **LIVE** and must be connected to the terminal which is marked with the letter **L** or coloured **RED**.
3. The **GREEN/YELLOW** is **EARTH** 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.

If a **13A (BS 1363)** fused plug is used it must be fitted with a **13A** -fuse. If in doubt consult a qualified electrician.

Wiring for a 13 Amp Plug (BS1363)

Please note. The Earth Terminal is marked with the letter **E** or  Earth Symbol.





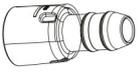
Exhaust Kit , Cable Tidy, Remote Control, User Manual, Screw

B1	B2	B3	B4	B5
B6	B7			

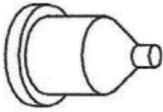
DESCRIPTION	
Key	Description
A1	Control Panel
A2	Outlet Louvre (Horizontal)
A3	Air Outlet Louvre (Vertical)
A4	Castor
A5	Cable Tidy
A6	Plug of power cord
A7	Filter
A8	Air Inlet Grille
A9	Remote Control Compartment

DESCRIPTION	
Key	Description
B1	Joint A (Hose to AC)
B2	Exhaust Hose
B3	Joint B + C (Hose to Window)
B4	Cable Tidy
B5	Screw x 2
B6	User Manual
B7	Remote Control

Continuous Drainage Kit

	
C1	C2

Excess Drainage Kit (For Heat and Dry Modes Only) - To be purchased separately

			
D1	D2	D3	D4

DESCRIPTION

Key	Description
C1	Drainage Connector
C2	Continuous Drainage Hose 14mm (not included)
D1	Hose (10mm)
D2	Rubber Stopper
D3	Pipe Clamp
D4	Screw

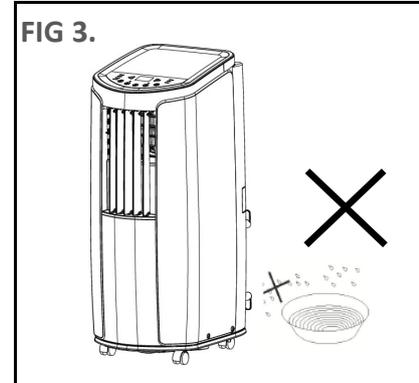
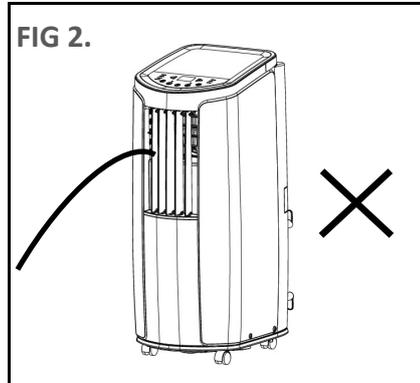
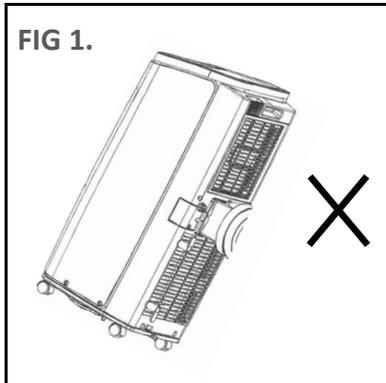
IMPORTANT SAFEGUARD

- ◆ Two or more people are required to move and install the appliance.

Do not pull the appliance along by the power cord. See Fig 1.

Do not place objects on the appliance or restrict air inlet / outlet. See Fig 2.

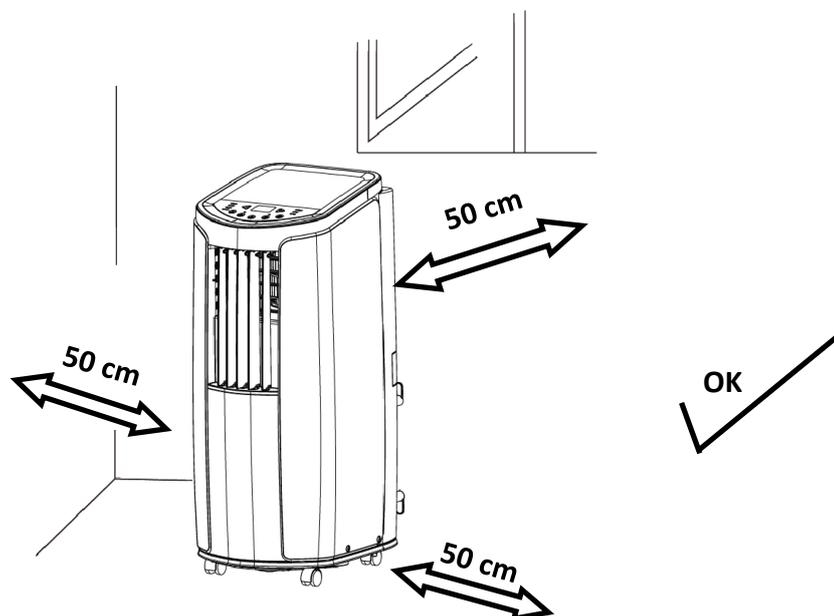
Do not use the appliance in humid or wet environment. See Fig 3.



Appliance in this picture is for illustration purpose only

INSTALLATION REQUIREMENTS:

- ◆ The appliance must be installed in accordance with national wiring regulations.
- ◆ The appliance is for indoor use only, and must not be installed in a high humidity area (i.e. laundry room or wet room).
- ◆ Place the appliance on a even level floor that is strong enough to support the unit.
- ◆ Allow at least 50cm of air space on all sides of the appliance for good ventilation to avoid over-heating.
- ◆ Only use the appliance within the operating temperature in an area where the temperature will not fall below 16°C. Do note operate the appliance where the temperature is below 16°C to avoid frosting of the coils consequently reducing its performance.



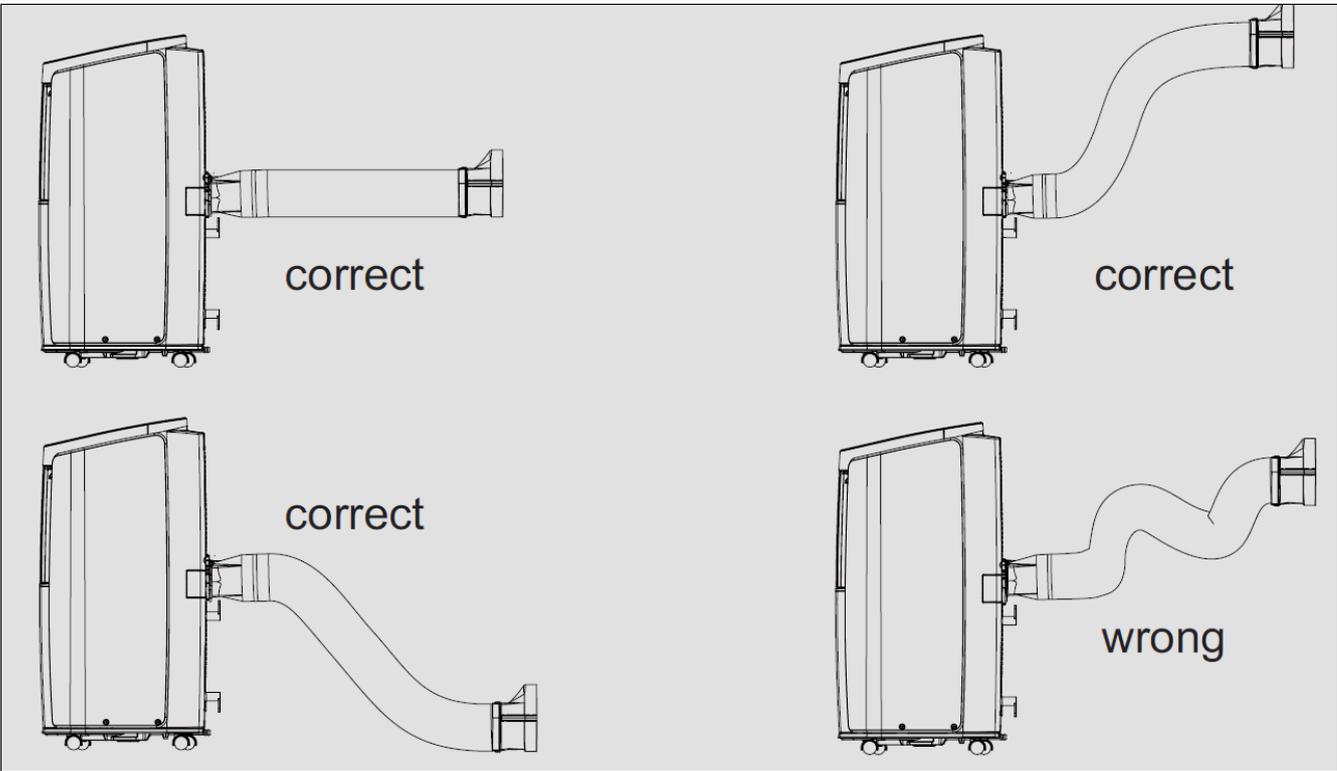
Appliance in this picture is for illustration purpose only

INSTALLATION OF EXHAUST HOSE

EXHAUST HOSE CONNECTION

Only use the exhaust hose **B2** supplied.

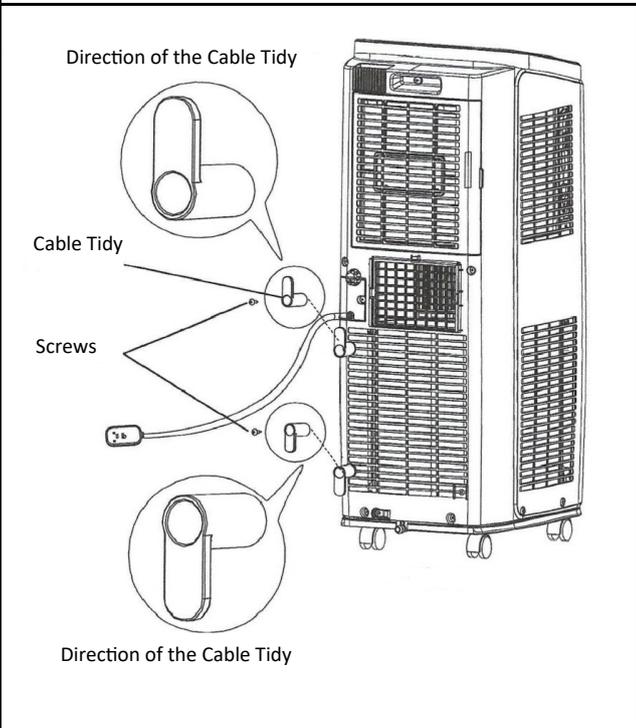
The length of the exhaust hose **B2** must not be longer than 1.5 meters.



INSTALLATION OF POWER LEAD HOOK

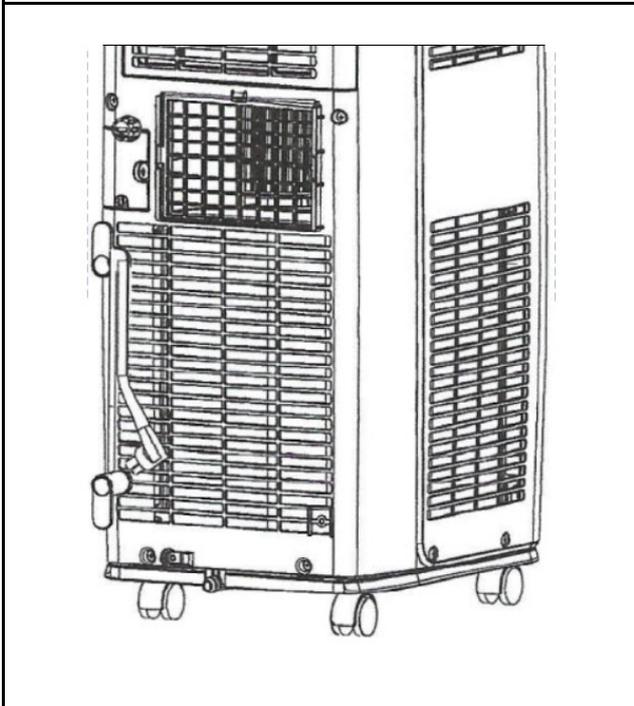
STEP 1. ASSEMBLE THE CABLE TIDY

Fit the cable tidy **B4** at the back of the appliance as shown below.



STEP 2. WIND THE POWER LEAD AROUND THE CABLE TIDY

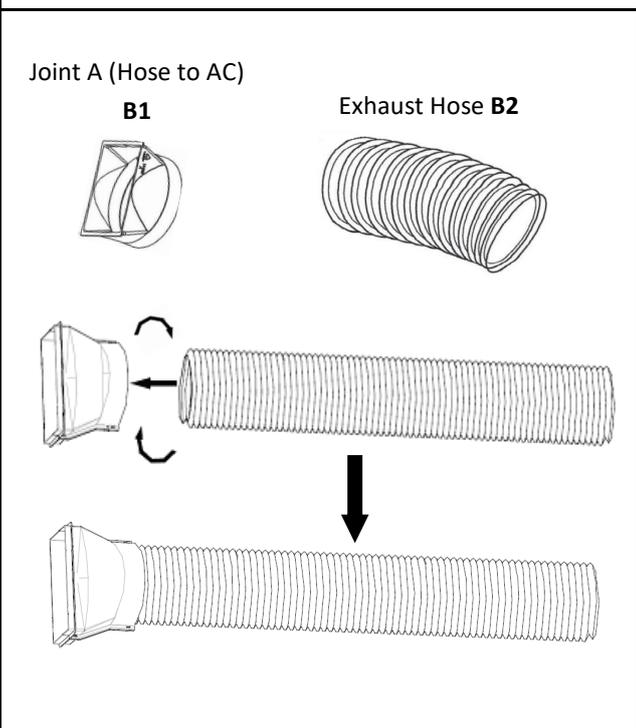
When you are not using the appliance wind the power lead around the cable tidy **B4** as shown below.



INSTALLATION OF EXHAUST HOSE

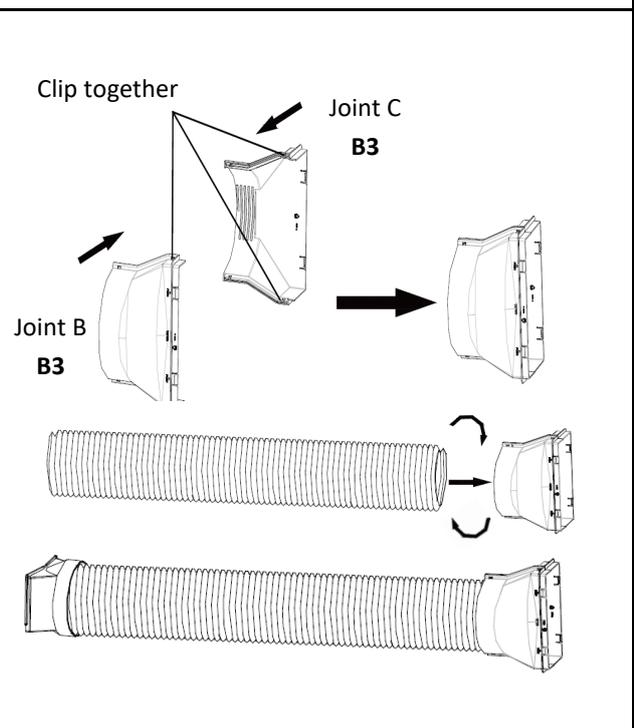
STEP 3. CONNECT JOINT "A" TO EXHAUST HOSE

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



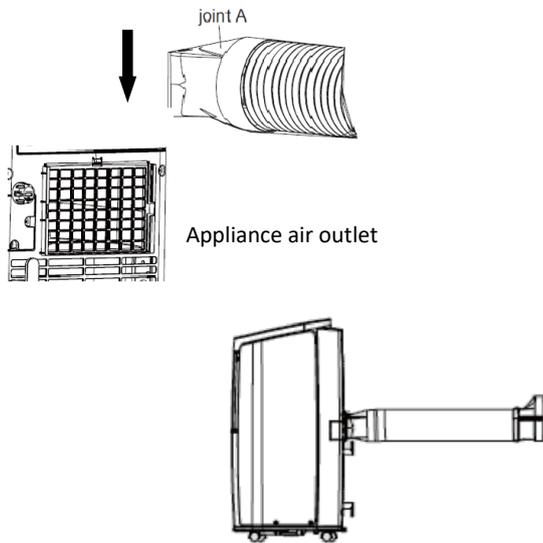
STEP 4. CONNECT JOINT "B/C" TO EXHAUST HOSE

Connect together Joint B to Joint C (**B3**)



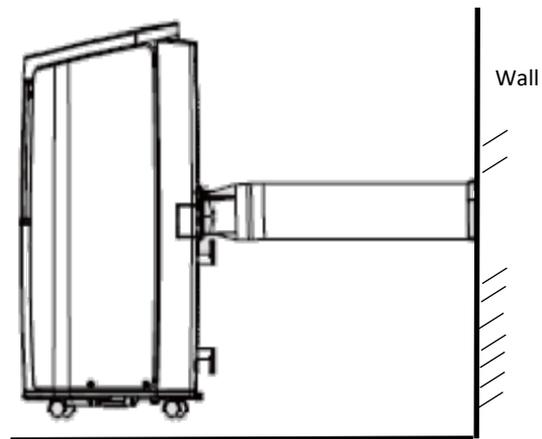
STEP 5. CONNECT EXHAUST HOSE TO APPLIANCE

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



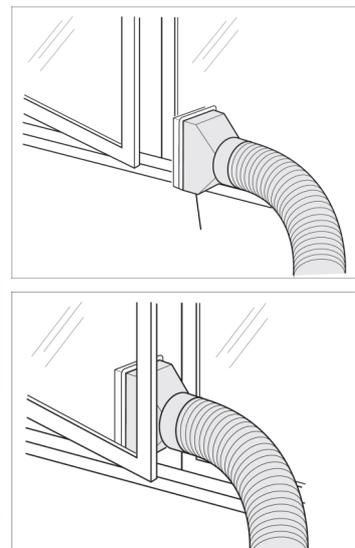
STEP 6A. EXHAUST HOSE THROUGH A WALL

1. Drill a 150mm hole through the wall. (outer diameter 142mm)
2. Insert the exhaust hose **B2** through the hole.
3. Seal the gap between the wall and the exhaust hose **B2**



STEP 6B. DISCHARGE EXHAUST HOSE (B2) THROUGH A WINDOW GAP

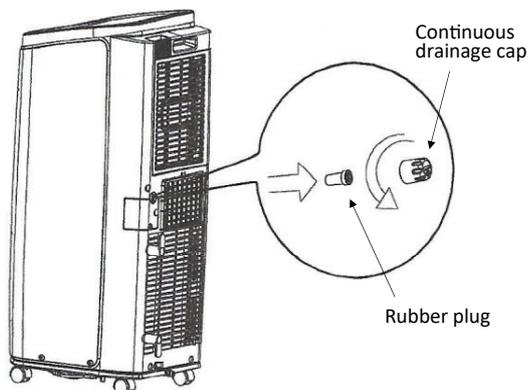
1. Pre-seal the window with a Window Seal Nylon Cloth (available for purchase)
2. Pass the exhaust hose **B2** (with or without Joint B **B3** attached) through the zipped opening.



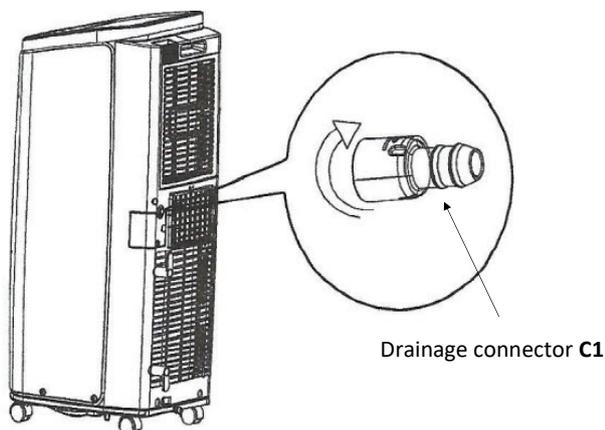
STEP 7. INSTALLATION OF CONTINUOUS DRAINAGE

When running the appliance in **Dry Mode Only**, the continuous drainage must be installed.

STEP 1. Remove the continuous drainage cap and remove the rubber plug from the drainage port.

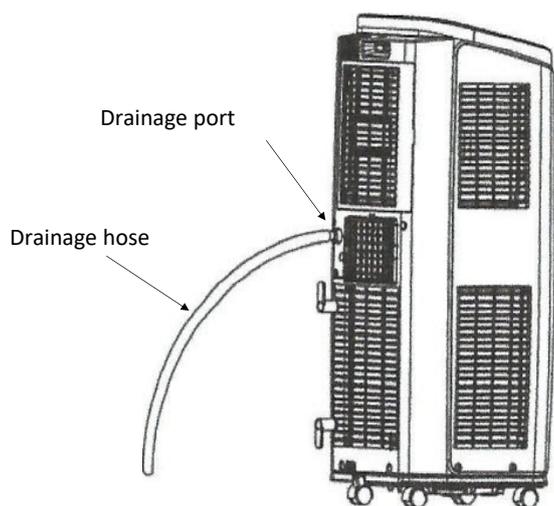


STEP 2. Fasten the Drainage Connector **C1** to the drainage port (turning clockwise).



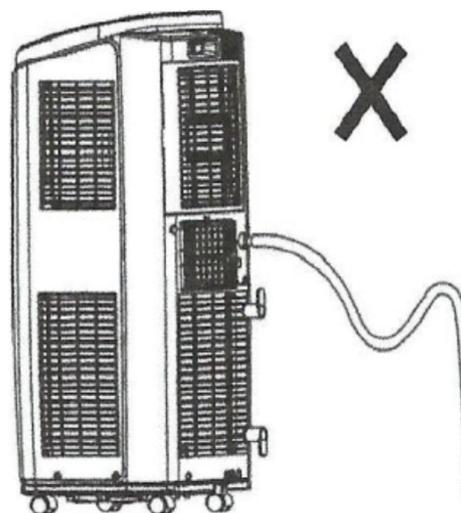
STEP 3. Securely attach Drainage Hose **C2** (14mm) into the drainage connector.

Make sure the drainage hose C2 hangs downward.



Tips to avoid water leakage

- ◆ Ensure the appliance is on an even level surface.
- ◆ Make sure the drainage hose **C2** is clear of any obstructions.
- ◆ The drainage hose **C2** must allow water to drain downwards from the drainage ports (without any kinks or upward angles)
- ◆ Do not submerge the end of the drainage hose in water (this will cause back pressure and the water will not drain).



INSTALLATION OF DRAINAGE

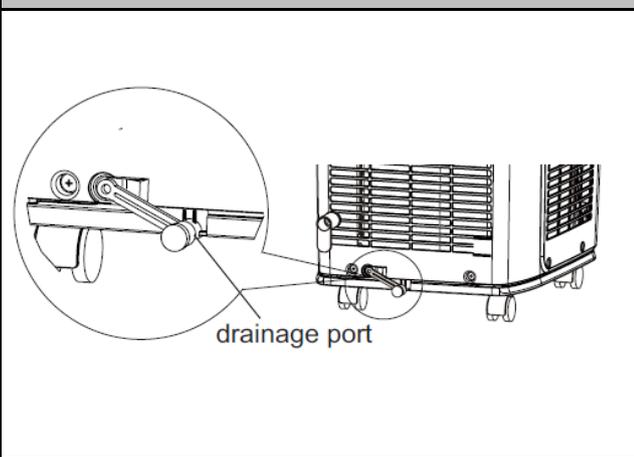
STEP 8. INSTALLATION OF EXCESS DRAINAGE

When running the appliance in **Heat Mode** or **Dry Mode**, the continuous drainage must be installed. Prior to storing the appliance, always drain as below.

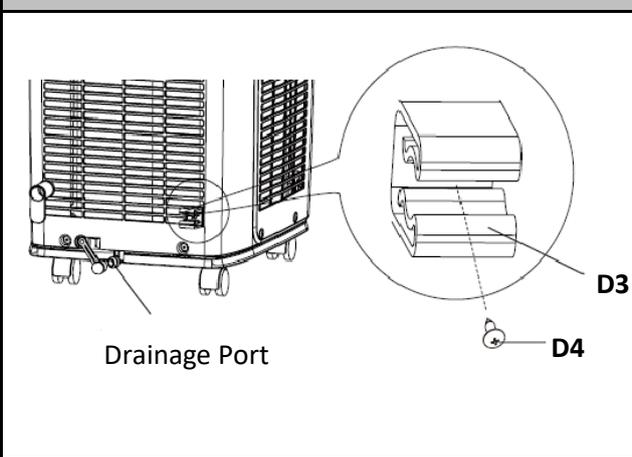
This air conditioning is a self-evaporating appliance. When running any air conditioning, moisture will be extracted from the ambient and the condensation will self- evaporate. However, when the ambient air is very high in humidity, excess condensation will accumulate at a higher rate than the evaporative actions can manage. The excess humidity will be collected into a tray at the bottom of the air conditioning that requires manual draining.

When the tray is full the appliance will display (H8) on the display panel

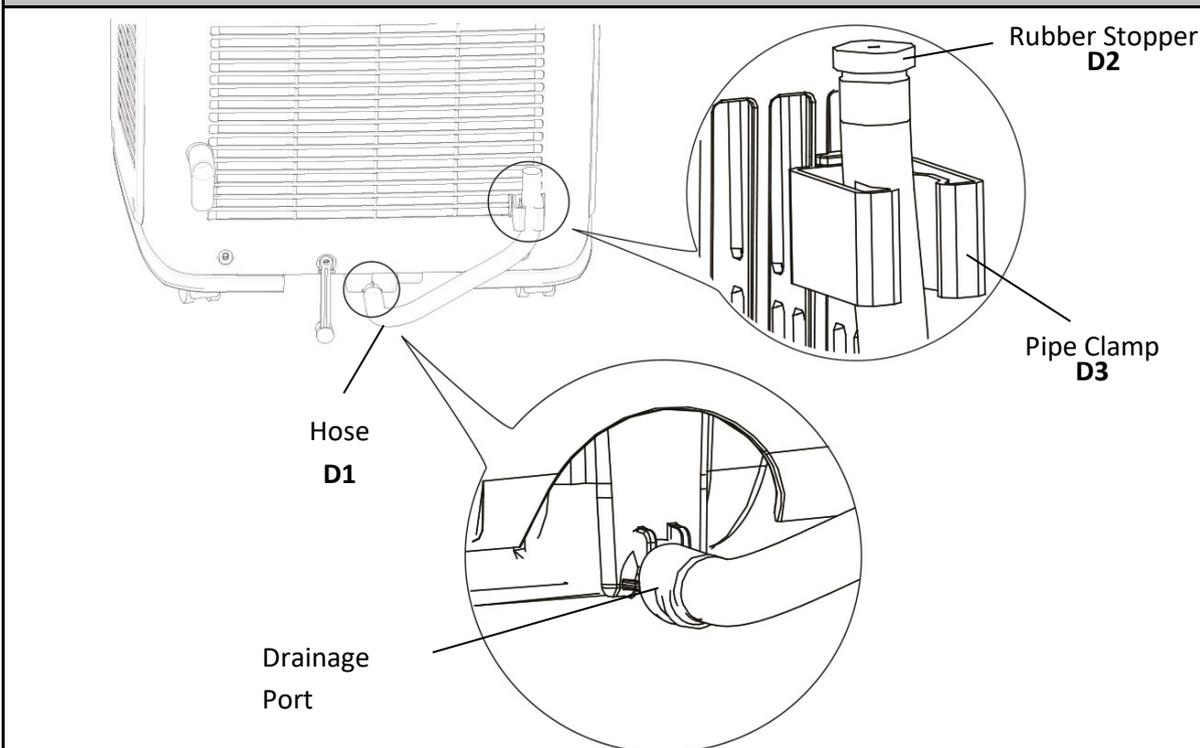
STEP 1. UNPLUG THE PORT DRAINAGE STOPPER

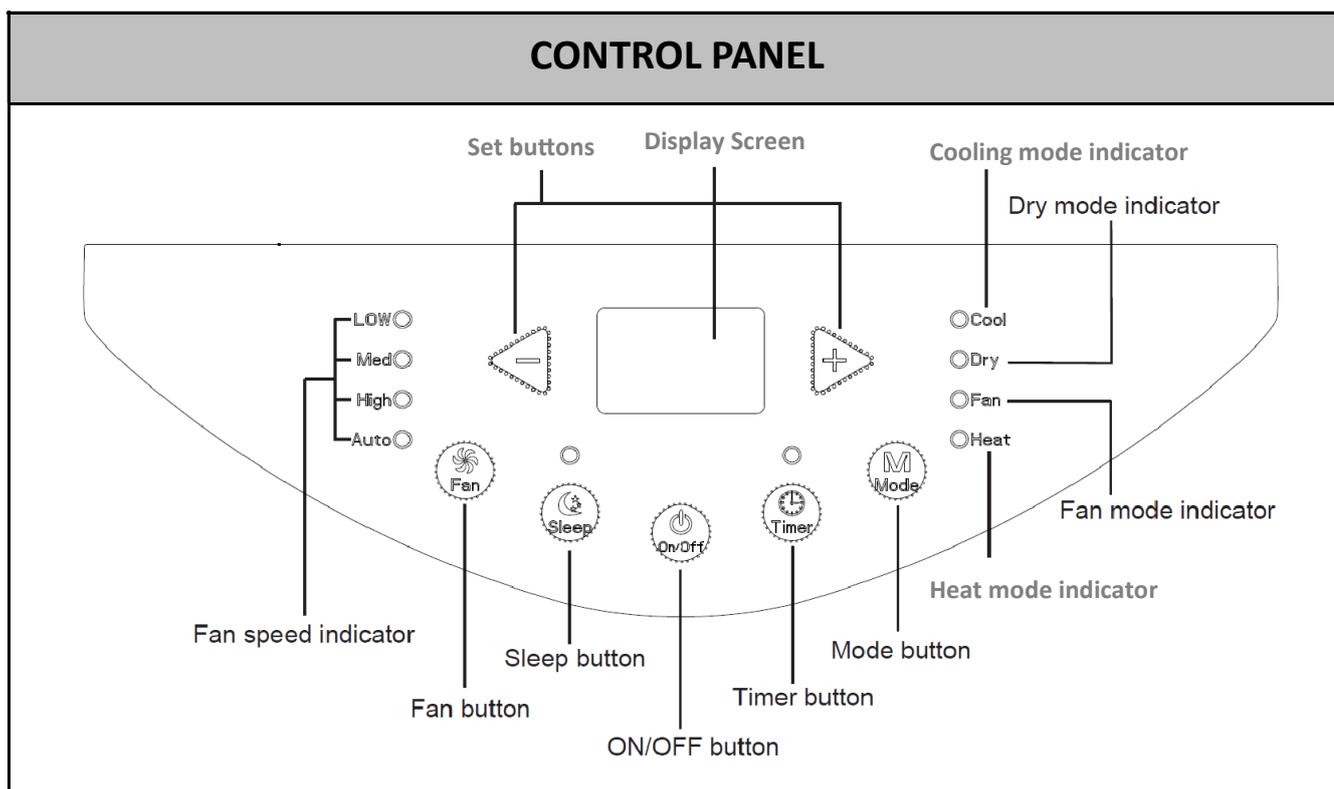


STEP 2. SCREW IN THE PIPE CLAMP (D3) TO THE BACK PANEL



STEP 3. AFFIX THE EXCESS DRAINAGE HOSE





- ◆ After switching **ON**, the appliance will respond with a beep sound. After that, you can operate the appliance with the control panel or remote control.
- ◆ Under **ON** status, when pressing any button on control panel, the appliance will give out a sound. Meanwhile, corresponding indicator light on control panel will be on.
- ◆ Under **OFF** status, there is no display on the control panel.
- ◆ Under **ON** status, the set temperature will show on the display control panel only in cooling mode.
- ◆ For any other modes, the display will not show the temperature.

ON / OFF BUTTON

Press the ON/OFF button to switch on and off.

MODE BUTTON

Press this button to select :

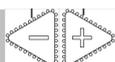
COOL: When cooling Mode indicator is on, the appliance will operate in cooling mode. Display shows the set temperature.

DRY: When drying Mode indicator is on, the display shows nothing. Appliance will operate at low speed only.

FAN: When fan mode indicator is on, the display shows nothing. The appliance only blows air in the ambient temperature as a fan does.

HEAT: When heating mode indicator is on, the appliance will operate in heating mode. Display shows the set temperature. **Recommended to use continuous drainage in this mode otherwise water needs to be drained frequently.**

SET BUTTONS



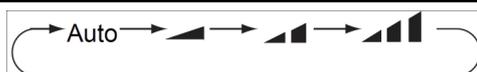
Under cooling and heating mode, press "+" or "-" button to increase or decrease set temperature by 1 °C.

Set temperature range is between 16°C - 30°C. Under auto, drying or fan mode, this button is invalid.

FAN BUTTON



Press this button to select:

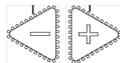


- ◆ Auto
- ◆ Low
- ◆ Medium
- ◆ High

These fan speeds can be selected in cooling and fan modes only.

TIMER BUTTON



- ◆ Press this button to set timer. To adjust timer, press set buttons. 
- ◆ Timer can be set for up to 24 hours.
- ◆ Wait 5 seconds after setting the time, for the display to show the set temperature.
- ◆ During the timer setting, make sure there is no more than 5 seconds delay between sets, otherwise the remote control will cancel setting status.
- ◆ To cancel set timer, press timer button twice.

Note: Select the mode before you select the timer.

The timer can be set for:

1. While the appliance is ON, the timer can be set to switch off after your set time.
2. While the appliance is OFF, the timer can be set to switch on after your set time.

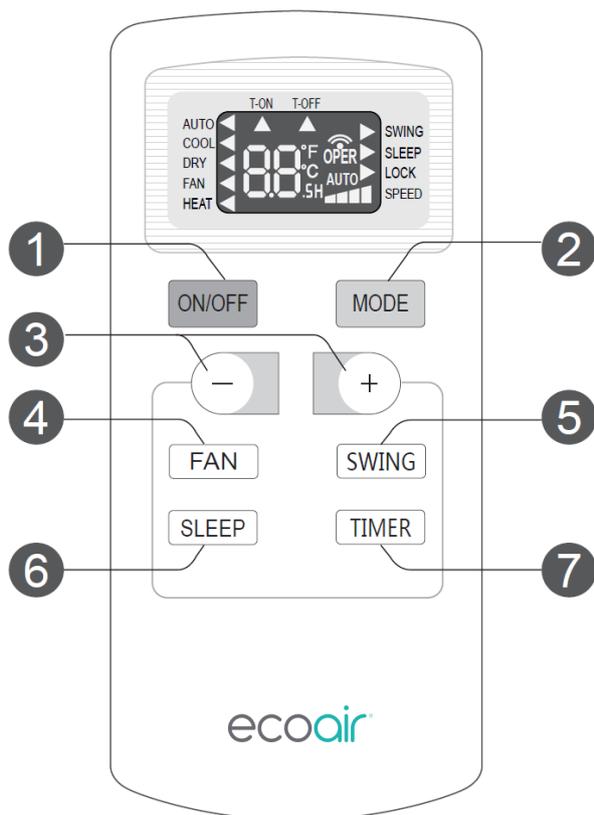
SLEEP BUTTON



Press this button to select sleep mode. (Works in Cooling and Heating mode)

- ◆ The preset temperature will increase by 1°C after the first hour.
- ◆ The preset temperature will increase by 2°C after two hours. The appliance will operate in this temperature until it is switched off.
- ◆ Use this mode for bedtime, the appliance will reduce the cooling as you fall asleep since our body temperature tends to come down during that period.

REMOTE CONTROL



1. ON / OFF button
2. Mode button
3. - / + Button
4. Fan button
5. Swing (Not applicable for this appliance)
6. Sleep button
7. Timer button

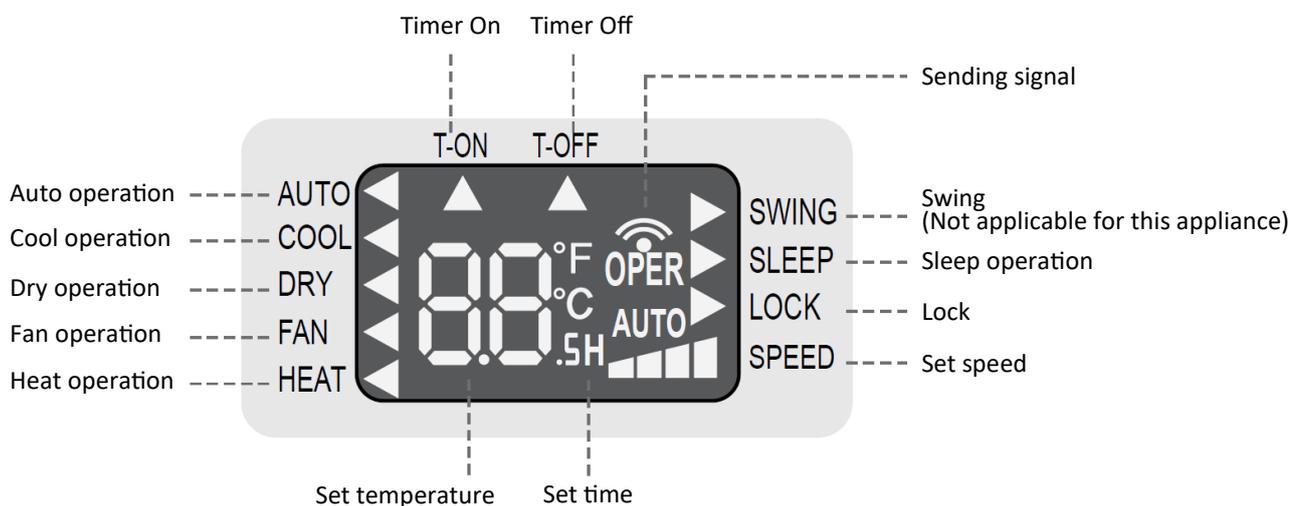
Note:

- ◆ Press MODE and " - " buttons at the same time to switch between °C and ° F. (while the appliance is switched off)
- ◆ Press " + " and " - " buttons at the same time to switch ON and OFF **CHILD LOCK**.

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.
- ◆ If there is no display on the remote control, please replace batteries.

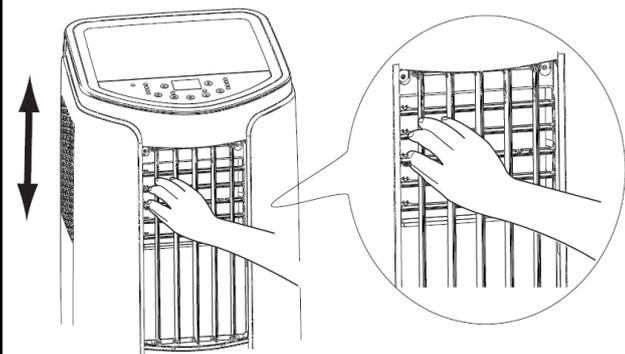
REMOTE CONTROL DISPLAY SCREEN



AIR FLOW DIRECTIONS

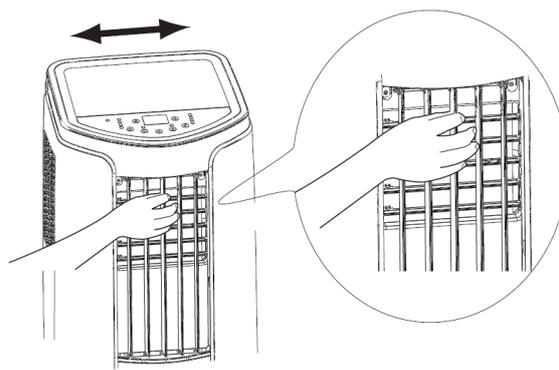
HORIZONTAL DIRECTION

Hold the horizontal louvres and move up or down for your comfort.



VERTICAL DIRECTION

Hold the vertical louvres and move left or right.



NOTE: Do not close the air flow completely.

NOTE:

- 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.

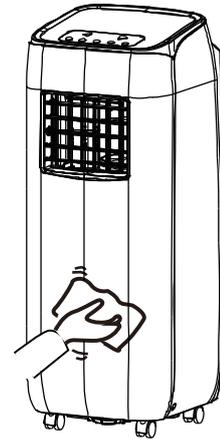
Clean outer case:

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:

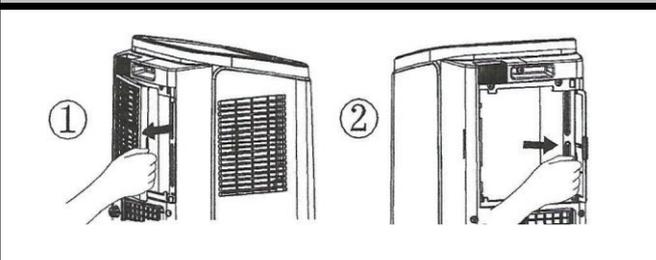
Use soft brush or cloth to clean it.



Appliance in this picture is for illustration purpose only

CLEAN FILTER

1. REMOVE THE FILTER

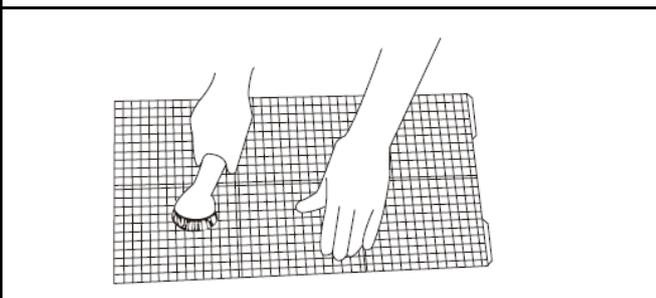


3. INSTALL FILTER

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.

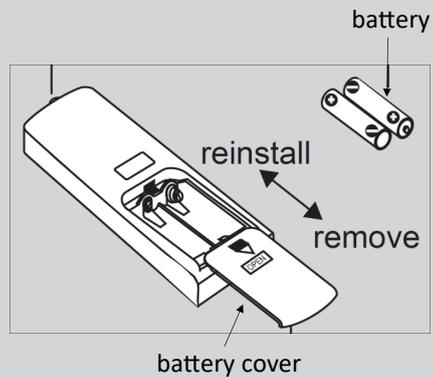
STORAGE OF THE APPLIANCE

Please follow the following steps for optimum performance:

1. Disconnect power supply and wrap the power cord.
2. Clean filter and outer case.
4. Drain the water from the appliance.
5. Make sure Exhaust Hose is disassembled.
6. Clean the appliance and pack it well to prevent dust.

REPLACING BATTERIES

1. Gently slide the battery cover to remove.
2. Replace two (AAA 1.5V) dry batteries and make sure the positions of plus and minus polar are correct.



TROUBLESHOOTING

CHECK THE FOLLOWING POINTS BEFORE CONTACTING TECHNICAL SUPPORT.

DISPLAY CODE	REASON	SOLUTION
H8	Internal water tank is full.	Drain the water from the excess drainage port.
F0	Heat exchanges, compressor, is blocked and clogged up with dust and dirt. Refrigerant may have leaked.	<p>Check the ambient temperature is within the operating range. If its outside range, switch off until the ambient temperature is within range.</p> <p>Clean the filters.</p> <p>If error persist, contact technical.</p>
F1	Ambient temperature sensor alert.	Check the appliance is within the operating temperature.
F2	Evaporator temperature sensor alert.	Check the appliance is within the operating temperature.
F4	Condenser temperature sensor is open/short-circuited	<p>Short circuit of the main board.</p> <p>Temperature sensor or main board may have malfunctioned.</p> <p>If error persist, contact technical.</p>
H3	Overload protection alert.	<p>Check the ambient temperature is within the operating range. If its outside range, switch off until the ambient temperature is within range.</p> <p>Check the ambient humidity. High humidity in a hot environment can cause on overload. Switch off until the humidity level reduces.</p> <p>Clean the filters.</p>
E8	Overload malfunction	<p>Ensure there is at least 50 cm air space around the appliance for sufficient ventilation.</p> <p>If error persist, contact technical.</p>

TROUBLESHOOTING

PROBLEM	REASON	SOLUTION
Does not SWITCH ON	The power supply is not connected properly.	Check the power supply connection or try in a different power socket.
	The power plug is not inserted correctly.	Insert the power plug correctly.
	The power socket is faulty or fuse blown in the plug.	Change the fuse.
Poor Cooling & Heating	Filter might be clogged up.	Clean the air filter.
	Set temperature might be incorrect	Check the set temperature. (should be below the ambient temperature)
	Windows and doors are opened.	Close the doors and windows.
	Exhaust Hose length too long, or kinked. Air inlet or outlet may be obstructed.	The Exhaust Hose must be within 1.5m, always use the hose supplied. Ensure there is 50cm clearance around the appliance.
Appliance cannot receive signal from controller Or Remote Control is not sensible	Remote control is outside of range.	Use the remote control within 6 meter range.
	Remote control signal blocked by obstacles.	Move away the obstacles.
	Appliance does not respond to the remote control.	Replace the batteries.

TROUBLESHOOTING

PROBLEM	REASON	SOLUTION
Fan is not working	Air outlet or Air inlet is blocked.	Remove the blockage from air outlet and air inlet.
	Appliance is defrosting.	It is normal. Wait until the appliance finish defrosting.
	Set Temperature reached.	Set the temperature below the ambient temp. for cooling & above the ambient temp. for heating.
Set Temperature cannot be adjusted	The appliance is on wrong mode.	Change it to heating or cooling mode. (Fan and Dry mode temperature cannot be adjusted).
	Set temperature has been reached.	This is normal.
	Outside the set temperature range.	Temperature range is between 16°C - 30°C.
Bad Smell from Appliance	Smoking, Cooking, recent building works and painting smells was absorbed.	Turn off the appliance, air the room Clean the filters. Run the appliance in a fan mode before using the air conditioning.
	Water residue in the air conditioning has gone stale.	Always run the appliance on fan mode for 30 minutes at the end of the season to clear the excess moisture before stor-
Appliance is noisy	Not on level even surface.	Keep the appliance on an even surface.
	Exhaust Hose longer then recommended size.	Replace with the original Exhaust Hose (Max 1.5m length).
	Exhaust Hose not installed correctly.	Check the Exhaust Hose connection is correct (refer to Exhaust Hose Connection in the manual) and install
Water Flowing sound from the appliance	Liquid flowing sound inside the appliance.	This is normal action for refrigerant flow and water evaporation.

In the unlikely event of a problem with your product, please refer in the first instance to:

ECOAIR TECHNICAL SUPPORT

www.ecoair.org/support



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