

## 3 in 1 Portable Air Conditioner



**ARP-2210**

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# Safety Instructions

When using this unit follow these safety precautions to reduce risk of fire, electric shock, or injury

## WARNING

### Electrical Safety

1. For your safety, this unit should be properly grounded on a level surface indoors.
2. The unit should be placed near an electrical outlet so that the outlet is easily accessible.
3. Make sure the voltage meets the unit's electricity requirements (115-120V/60Hz).
4. Do not connect this machine to an outlet having the electrical ratings below or above this machine.
5. In case of any abnormality, be sure to turn off the machine, disconnect the plug, and contact Royal Sovereign Customer Service.
6. Do not operate if the electrical plug or power cord is damaged. If damaged, call Royal Sovereign Customer Service for repair/replacement.
7. Do not under any circumstances alter the electric plug.
8. Do not place heavy items on the plug or cord.
9. Do not plug this cord into a loose electrical outlet.
10. Only plug the unit into a properly installed, grounded 3 prong outlet.
11. If the electrical outlet you intend to use is not adequately grounded or protected by a time delay fuse or circuit breaker, you should have a qualified electrician install the proper outlet.
12. Do not share the electrical socket with other appliances.
13. Do not use an adapter plug or extension cord with this unit.
14. Never attempt to turn off this machine by disconnecting the plug.
15. When plugging or unplugging, keep your hands dry.
16. Always grasp the plug when plugging or unplugging the unit. Never unplug by pulling on the cord.
17. Do not pull on the power cord while moving the unit.
18. This unit uses a plug with a built-in fuse. Conduct a Power Plug Check before use to confirm normal operation.
19. Turn the unit off and unplug when: cleaning the unit, removing the filters, or not using the unit for an extended time period.

**Read and Fully Understand this Owners Manual before using or operating the unit**

# Safety Instructions

When using this unit follow these safety precautions to reduce risk of fire, electric shock, or injury

## WARNING

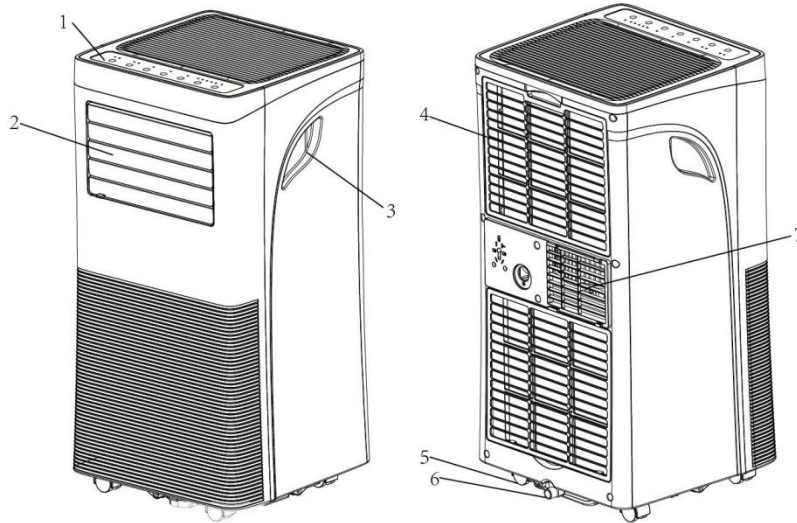
### Operational Safety

1. Install the unit according to the installation instructions supplied
2. Do not block air outlets or intake with obstacles.
3. Do not insert any objects into the unit.
4. Do not place heavy items or sit on the unit.
5. Do not place flammable or chemical substances near the unit.
6. Do not place this machine near heating appliances.
7. Do not splash or pour water on the housing or control panel.
8. To prevent the water from freezing, do not use this machine and the drain hose at a temperature below 41°F (5°C).
9. Ensure the rubber drain plugs are securely plugged into the drain ports on the back of the unit to prevent water leaks.
10. Drain the unit before moving the unit or storing the unit.
11. Do not operate the unit with the back cover removed.
12. Do not use this machine outside.
13. Do not modify any part of this product.
14. Do not operate this unit for any other purpose other than its intended use.
15. This unit is not designed for use by young children

Read and Fully Understand this owners manual before using or operating the **unit**

# Product View

## Unit



## Remote Control



### Unit

1	Control panel	4	Air filter (inlet)	6	Drainage Hole
2	Adjustable Louver	5	Caster Wheels	7	Exhaust Duct
3	Handle				

### Remote Control

1	High	4	Sleep	6	Timer
2	Up/Down	5	° C/° F	7	Power
3	Cool /Dry / Fan				

# Unpacking



## Accessories Included:

1. Exhaust hose
2. Hose connector
3. Window kit adapter
4. Remote control
- 5/ Window Kit

## Important:

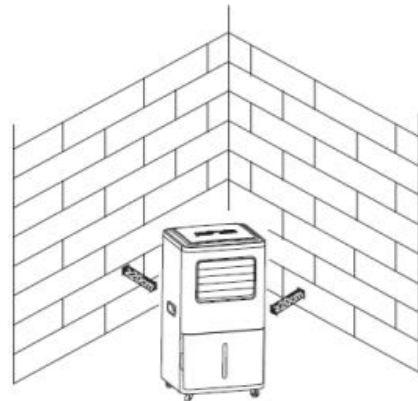
To prevent damage after moving, unpack the unit and let the unit stand upright for a minimum of **2 hours**. If the unit was accidentally placed on its side, allow the unit to set upright for at least 24 hours before use

# Placement

1. Place the unit on a firm, level surface in an area with at least 20" (50cm) of free space around it to allow for proper air circulation. The electrical outlet used should be in accordance with the local electric safety requirements.
2. Do not operate in close proximity to walls, curtains, or other objects that may block the units air inlet and outlet.
3. Keep the air inlet and outlet free of obstacles.

## Never install the unit where it could be subject to:

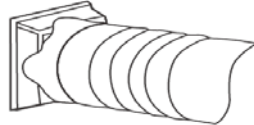
- Heat sources such as radiators, heat registers, stoves or other products that produce heat
- Direct sunlight
- Mechanical vibration or shock
- Excessive dust
- Lack of ventilation, such as next to a cabinet or bookcase
- Uneven surface



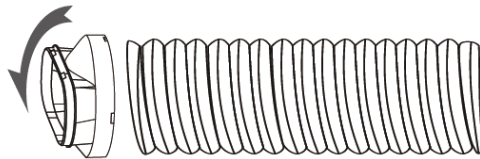
# Installation

The air conditioner requires being vented outside so that the exhaust air can escape the room. Do not replace or extend exhaust hose beyond its specification. This will result in decreased efficiency of the unit and may cause the unit to shut down due to low backpressure.

**Step 1:** Connect the hose connector to one end of the exhaust hose



**Step 2:** Connect the windows kit adapter to the other end of the exhaust hose.

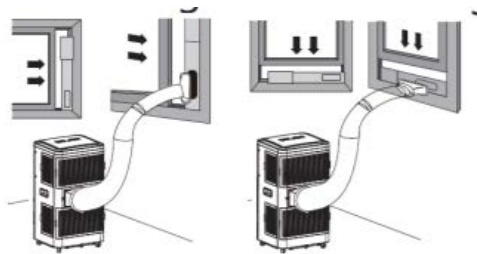


**Step 3:** Extend the adjustable window kit the length of your window. Connect the exhaust hose to the window kit. The window kit can be installed either horizontally or vertically. The window kit can be adjusted from 23.6"-47.2" (0.6-1.2m). The exhaust hose can be adjusted from 9.4"-59" (240-1500mm)

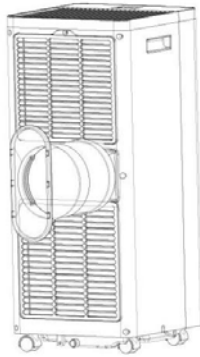


**Step 4:** Open the window and place the window kit on the inside edge of the window. Adjust the window seal plate to the width of the window. Once secure, close the window to secure it in place.

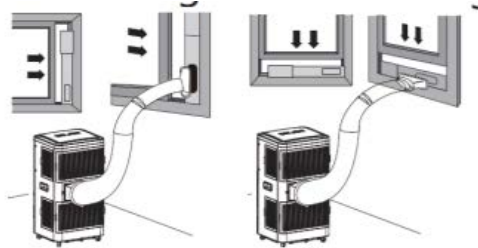
Note: Depending on the type of window frame, for some window installations the use of duct tape may be ideal to better seal the window kit to attain a better closed seal which will yield maximum efficiency.



**Step 5:** Attach the hose connector to the exhaust air outlet of unit.



**Step 6:** Adjust the length of the flexible exhaust hose. Avoid bends in the hose and ensure that the unit is near the electrical outlet.





# Operation

## **BEFORE PLUGGING IN THE UNIT TO A POWER SOURCE:**

1. Let the unit stand upright for a minimum of **2 hours**. This will reduce the chance of malfunction in the cooling system.
2. Ensure the rubber drain plugs are securely plugged into the drain ports on the back of the unit to prevent any possible water leaks.
3. Ensure the exhaust hose and window kit installation has been installed properly and properly vented

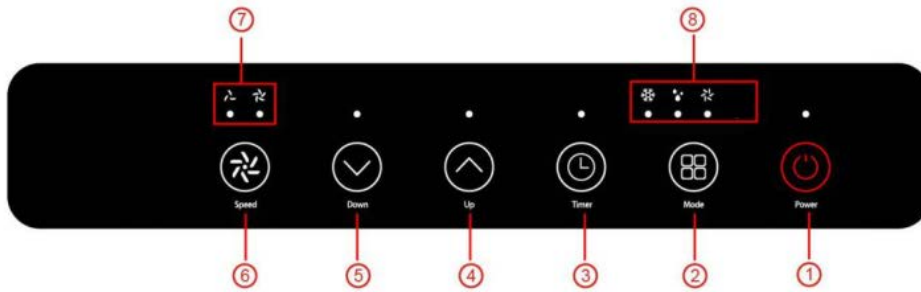
## **Conduct a Power Plug Check:**

1. Press the RESET button on the power cord.
2. Plug the cord into an electrical outlet.
3. Press the TEST button on the power cord. The RESET button should pop up.
4. Press the RESET button for use.
5. Do not use the air conditioner if the test fails.

## **NOTE:**

1. If you turn the air conditioner off and immediately restart it, allow up to 3 minutes for the compressor to restart cooling. In the event of a power failure, wait 3 minutes before restarting the unit.
2. The unit sold in the United States is preset to Fahrenheit. the unit sold in Canada is preset to Celsius



# Unit Panel




1	<b>POWER</b>	Press button to turn unit ON/OFF
2	<b>MODE</b>	Press button to switch the operation mode between fan, cooling, and dehumidifying modes
3	<b>TIMER</b>	Press button to set a time for the unit to automatically start or stop.
4	<b>UP</b>	Press button to increase the desired temperature and/or used for timer setting.
5	<b>DOWN</b>	Press button to decrease the desired temperature and/or used for timer setting.
6	<b>SPEED</b>	Press button to switch the fan speed between HIGH and LOW
7	<b>FAN SPEED Indicator</b>	Displays either high fan speed & low fan speed setting

## Fan Mode

### Using the control panel

Press the Mode button  until fan mode  is selected. The fan indicator light will blink for a few second and turn solid when set.

In fan mode, only the unit will circulate air, while the units compressor is off.

To change between high and low setting, press the speed button 



To control the direction of the air flow, manually adjust the louvres by using the louvre handle

### Using the remote control

Press the Fan button. The fan indicator light will blink for a few seconds and turn solid when set. To change between high and low setting, press the appropriate high or low button

## Dehumidifying Mode

### Using the control panel

Press the Mode button  until fan mode  is selected. The dehumidifier indicator light will blink for a few second and turn solid when set.

In dehumidify mode, only fan runs at low speed and the temperature is not adjustable



### Using the remote control

Press the Dry button. The fan indicator light will blink for a few seconds and turn solid when set.


Important Note: In dehumidifying mode, the user may want to consider continuous drain option. Refer to Safety Precautions, Maintenance and Continuous Drainage section of this manual

## Cooling Mode

### Using the control panel

Press the Mode button  until cool mode  is selected. The cool indicator light will blink for a few second and turn solid when set.

Press the up or down icons to set the desired temperature. The display will show the current set temperature

To change between high and low setting, press the speed button 

Important Note: For optimal operation, shorten the length of the air duct and keep unit away from direct sunlight  
To control the direction of the air flow, manually adjust the louvres by using the louvre handle

### Using the remote control

Press the Cool button. The cool indicator light will blink for a few seconds and turn solid when set. To change between high and low setting, press the appropriate button. To change the temperature, press the up/down button

## Sleep Mode

Available only using Remote Control.

Press the sleep icon  to switch to sleep mode

Sleep mode can only be used when the unit is in cooling mode

In sleep mode the fan runs at low speed. During sleep mode after 1 hour the preset temperature will increase by 1° C and again every hour by 1° C

## Timer

The timer function has two sets of operation (Timer OFF and Timer ON)

To turn off  
(When power on)



Press **Timer** key to turn on the timer function.



Press **Up /Down** repeatedly to set the delay OFF time.

To turn on  
(When power off)



Press **Timer** key to turn on the timer function.



Press **Up /Down** repeatedly to set the delay ON time.

Cancel timer

Press **Up /Down** repeatedly until the LED shows '00'.  
Note: when press **POWER** will also exit the timer setting.

# Safety Precautions, Maintenance and Continuous Drainage

## Automatic Defrost

As a safety precaution, this unit is equipped with Automatic Defrost Feature. At low room temperatures, frost may buildup at the evaporator during operation. To ensure ideal operation of the unit, the units built in Automatic defrost function will activate. the air conditioner unit will automatically start defrosting and the **POWER** LED will blink.

The auto defrost feature will operate in cooling setting. When in cooling operation, if the unit ambient temperature sensor senses the evaporator coil temperature to be below -1°C, the compressor will stop operating for 10 minutes. When the coil temperature sensor detect 7°C, the unit will restart to cool operating mode

### Automatic Defrost (Continued)

When the unit operates in the dehumidifying mode, once the coil temperature sensor senses the temperature of the evaporator is below 40°C and the differential temperature between coil temperature and room temperature is below 19°C, compressor operation will stop operation for 20minutes, the unit will begin defrosting for 5 minutes and the power indicator light will be blinking.

### Overload Protection

In the event of a power loss, to protect the compressor there is a 3-minute delay until the compressor restarts.

### Drainage (Dehumidifying)

Built into this unit is self-evaporating drainage feature. Under normal operating conditions, the self-evaporative feature of the unit will operate without issue or maintenance being required.

However, in high humidity conditions, you may need to drain manually water from the unit. **(Ft error)** You may also choose to do continuous drain option, which would drain water automatically from the unit (in dehumidifier mode)

### To Drain Manually

1. Turn off the power to the unit and unplug
2. Place a water tray under the drainage port at the bottom of the unit to collect water
3. Remove the rubber drainage plug and allow water to drain
4. Replace the plug, when drainage water stops flowing

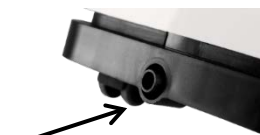
### For continuous drainage into a floor drain

#### To operate similar to a stand alone dehumidifier, you may choose to use continuous drain option

- Turn off the power to the unit and unplug the unit
- Remove the plug of the water outlet opening.
- Attach the drain hose . Ensure that the hose is straight without any knots and clear of obstruction.
- Place the other end of the drainage hose into a floor drain.
- Replace the rubber sealing plug after operation to prevent leaks



Remove the rubber sealing plug.



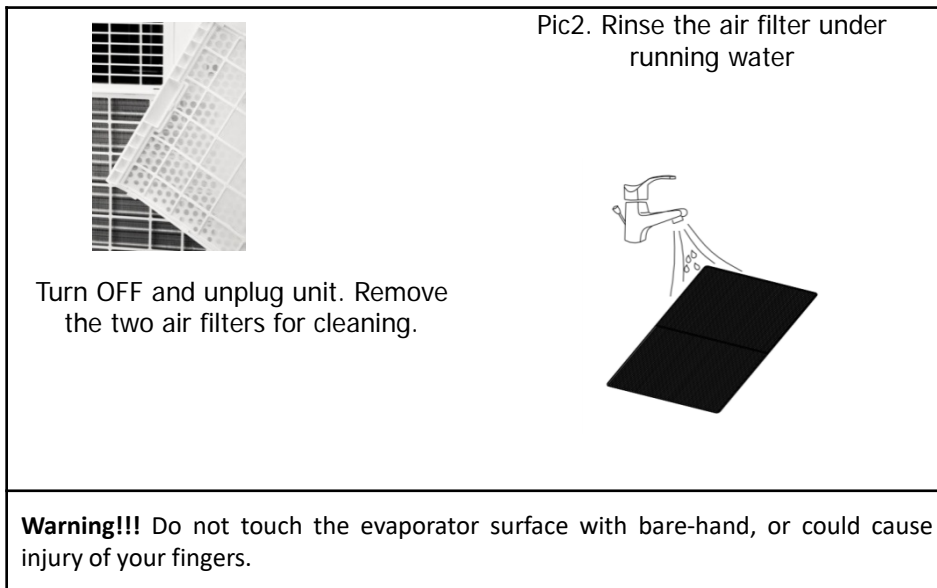
Continuous drain hose

## CLEANING THE AIR FILTER

The filter should be cleaned about every 2 weeks to maintain proper air flow

**Important:** Do not operate the unit without an air filter, or the evaporator may be contaminated.

1. Press POWER button to turn OFF the unit. Unplug the unit from the electrical power outlet.
2. Remove the filter mesh from the unit.
3. Use a vacuum cleaner or brush to clean the air filter.
4. Turn the filter over and rinse the air filter under running water. Set the air filter aside and allow the filter to air dry completely before reinstalling.



## STORAGE

If you will not be using the unit for an extended period of time (more than a few weeks) it is best to clean the unit and dry it out completely. The unit must be kept in upright position when in storage.

1. Unplug the unit and remove exhaust hose and window kit store with the unit.
2. Drain the remaining water from the unit.
3. Clean the filter and let the filter dry completely
4. Re-install the filter.
5. Preserving the machine in ventilating, dry, non- corrosive gas and safe place indoor

# Troubleshooting

## 7. TROUBLESHOOTING

Symptom		Check	Solution
The unit is not operating.	✓	Check the power connection	➤ Insert the power cord securely into the wall outlet.
	✓	Check if the water level indicator lights up	➤ Empty the drain pan by removing the rubber plug.. Refer to self evaporating drainage section of this manual
	✓	Check the room temperature.	➤ The range of operating temperature is 5-35°C.(41-95° F)
The unit works with reduced capacity.	✓	Check the air filter to see if it needs cleaning	➤ Clean the air filter
	✓	Check if the air duct is blocked.	➤ Clear the obstacle.
	✓	Check if a room door or window is open where unit is operating	➤ Keep the door and windows closed.
	✓	Check if the desired operating mode is selected and the temperature is properly set.	➤ Set the mode and temperature to proper setting.
	✓	The exhaust hose is detached.	➤ Ensure the exhaust hose is securely attached.
Water Leakage	✓	Overflow while moving the unit.	➤ Empty the water tank before transport. Refer to self evaporating drainage section of manual
	✓	Check if the drain hose is kinked or bends.	➤ Straighten the hose to avoid a trap existing.
Excessive Noise	✓	Check if the unit is securely positioned.	➤ Ensure the unit is on a flat, firm surface.
	✓	Check if any loose, vibrating parts.	➤ Secure and tighten any parts.
	✓	Noise sounds like water flowing.	➤ Noise comes from flowing refrigerant. This is normal.
Error Codes	E0	✓ Communication faults between main PCB and display PCB.	➤ Check the wire harness of the display PCB for damage.
	E1	✓ Ambient temperature sensor failure	➤ Check connection or replace it. Clean or replace the temperature sensor – Contact Royal Sovereign customer service
	E2	✓ Coil temperature sensor failures.	➤ Check connection or replace it. Clean or replace the temperature sensor. – Contact Royal Sovereign customer service
	Ft	✓ Condensate water high level alarm.	➤ Empty the drain pan by removal the rubber plug. Refer to self evaporating drainage section of manual

# Specifications

## Attributes

**BTU:** 10000 BTU Ashrae /6600 BTU SACC  
**Room Size:** 32.5m<sup>2</sup> (350sq. ft.)  
**Functions:** Cool, Fan, Dehumidify  
**LED Digital Display:** Yes  
**Front LED Temperature Display:** Yes  
**Remote Control Included:** Yes  
**4-Way Manual Louvres:** Yes  
**Fan Speeds:** 2  
**24 Hour Timer:** Yes  
**Sleep Mode:** Yes  
**Auto Restart:** Yes  
**Thermostat Range:** 16-32°C /61-90°F  
**Selectable °C/°F Setting:** Yes  
**Temperature Display:** Yes  
**Airflow Volume:** 300 m<sup>3</sup>/h  
**Water Removal:** Self-evaporative  
**Dehumidify Capacity /Day:** 21.8L/ 46 Pints  
**Sound:** Low <52dB, High <54dB  
**Window Kit Included:** Yes Kit frame adjustable from 23.6"-47.2" (0.6-1.2m), Hose 9.4"-59" (240-1500mm)  
**Refrigerant:** R410A.  
**Power Supply:** 120V/60 Hz  
**Power Consumption:** 963W, 8.6A

## Dimensions and Weights

**Unit Dimensions (w x d x h)**  
350 x 348 x 701mm (13.8" x 13.7" x 27.6")  
**Unit Weight:** 25kg (55 lbs)

## DISPOSAL



### WARNING!!!

**Releasing refrigerant into atmosphere is strictly forbidden!**

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.



\* All specifications mentioned are under test conditions, Actual performance depends on ambient conditions



# One Year Limited Warranty

Royal Sovereign International, Inc. warrants this product to be free from defects in material and workmanship to the original purchaser only as outlined below.

**Parts:** Replacement of defective parts for 1 year from the date of customer purchase.

**Compressor:** 3-year warranty from the date of customer purchase. Royal Sovereign will supply a replacement compressor (parts only), free of charge.

**Labor:** 1 year from the date of end user purchase.

This warranty only covers products that are properly installed, properly maintained, and properly operated in accordance with the instructions provided. This limited warranty does not cover any failures or operating difficulties due to normal wear and tear, accident, abuse, misuse, alteration, misapplication, improper installation, or improper maintenance and service by you or any third party.

Returned product will not be accepted without a Return Authorization number. To request a Return Authorization number, please visit us at [www.royalsovereign.com](http://www.royalsovereign.com). All transportation costs for the return of damaged product or parts will be the responsibility of the purchaser. Return defective product, in original packaging, to the address below.

**Royal Sovereign International, Inc.** (and its affiliated companies) requires reasonable proof of your date of purchase from an authorized retailer or distributor. Therefore, you should keep your receipt, invoice, or canceled check from the original purchase. The limited warranty shall be limited to the repair or replacement of parts which prove defective under normal use and service within the warranty period.

**Royal Sovereign International, Inc.** (and its affiliated companies) SHALL HAVE NO LIABILITY WHATSOEVER TO PURCHASER OR ANY THIRD PARTY FOR ANY SPECIAL, INDIRECT, PUNITIVE, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above exclusion and limitations may not apply to you

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