



## OWNER'S MANUAL

# SPOT COOLER

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MODEL: 2VASPOT5300



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## IMPORTANT NOTE:

- This spot cooler **MUST** be installed in accordance to all local governing codes and ordinances
- This spot cooler **MUST** be installed as specified by these instructions
- Installing this spot cooler requires basic mechanical and electrical skills and should be installed by a qualified professional.

This User Manual provides specific instructions on the installation and operation of your air conditioner. It is important that all SAFETY AND INSTALLATIONS instructions below are followed.

# SAFETY & PRECAUTIONS

**BEFORE YOU BEGIN:** READ THESE INSTRUCTIONS CAREFULLY AND COMPLETELY

## CAUTION

- Do NOT store unit with condensate in the condensate tank.
- Do not drink any water that is drained from the air conditioner.
- Use a dry and clean cloth to clean any dust or debris on the power plug.
- This unit is not intended to be operated on a boat or vehicle. Failure to follow guidelines may result in safety hazards.
- Please do not stick fingers or hands in the vent.
- This appliance is not intended for use by children. Children should be supervised and should not play on or around the appliance.
- DO NOT operate or install your unit in a potentially explosive,combustible, or corrosive gas environment.
- Keep your unit away from flammable materials and open flame.
- DO NOT move the unit while it is operating. Before moving the unit, first turn off the power, then unplug the system from the power source.
- DO NOT tilt or operate the unit on its side or back. This will damage the compressor.
- DO NOT place objects on top of your unit.
- DO NOT insert your hand or any other object into the cold air supply duct(s).
- If repair is needed, please contact the after-sales service department at the place of purchase.

## **WARNING**

### For using R32 refrigerant

- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Do not pierce or burn.
- Be aware that the refrigerants may not contain an odor.
- Appliance should be installed, operated and stored in a room with a floor area according to the amount of refrigerant to be charged. For specific information on the type of gas and the amount, please refer to the relevant label on the unit itself. When there are differences between the label and the manual on the Min. room area description, the description on label shall prevail.
- Appliance shall be installed, operated and stored in a room with a floor area larger than 43 sq. ft. (4 m<sup>2</sup>). Appliance shall not be installed in an unventilated space, if that space is smaller than 43 sq. ft. (4 m<sup>2</sup>).
- Any open fire or device like switch which may generate spark/arcing shall be around appliance to avoid causing ignition of the flammable refrigerant used. Please follow the instructions carefully when storing or maintaining the appliance to prevent mechanical damage from occurring.
- Servicing should only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
- DO NOT modify the length of the power cord or use an extension cord to power the unit.
- DO NOT share a single outlet with other electrical appliances. Improper power supply can cause fire or electrical shock. When maintaining or disposing the appliance, the refrigerant shall be recovered properly, shall not discharge to air directly.
- Compliance with national gas regulations shall be observed.
- Keep ventilation openings clear of obstruction.
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- A warning that the appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
- Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants safely in accordance with an industry recognized assessment specification. All training shall follow the ANNEX HH requirements of UL 60335-2-40 4th Edition. Examples for such working procedures are:
  - breaking into the refrigerating circuit;
  - opening of sealed components;
  - opening of ventilated enclosures.



**CAUTION:**  
Risk of fire  
**flammable materials**

Explanation of symbols displayed on the unit

	<b>CAUTION</b>	This symbol shows that the operation manual should be read carefully.
	<b>CAUTION</b>	This symbol shows that a service professional should be handling this equipment with reference to the installation manual.
	<b>CAUTION</b>	This symbol shows that information is available such as the operation manual or installation manual.

## **WARNING**

For using R32 refrigerant

### **TRANSPORT OF EQUIPMENT CONTAINING FLAMMABLE REFRIGERANTS**

- See transport regulations.

### **MARKING OF EQUIPMENT USING SIGNS**

- See local regulations.

### **DISPOSAL OF EQUIPMENT USING FLAMMABLE REFRIGERANTS**

- See national regulations.

### **STORAGE OF EQUIPMENT/APPLIANCES**

- The storage of the appliance should be in accordance with the applicable regulations or instructions, whichever is more stringent.

### **STORAGE OF PACKED (UNSOLD) EQUIPMENT**

- Storage package protection should be constructed such that mechanical damage to the equipment inside the package will not cause a leak of the refrigerant charge.
- The maximum number of pieces of equipment permitted to be stored together will be determined by local regulations.

## **INFORMATION ON SERVICING**

1. **Checking the area:** Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repair to the refrigerating system, the following precautions shall be complied with prior to conducting work on the system.
2. **Work procedure:** Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapor being present while the work is being performed.
3. **General work area:** All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.
4. **Checking for presence of refrigerant:** The area should be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

## **WARNING**

### For using R32 refrigerant

5. **Presence of a fire extinguisher:** If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO2 fire extinguisher adjacent to the charging area.
6. **No ignition sources:** No person carrying out work in relation to a refrigeration system which involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. No Smoking signs shall be displayed.
7. **Ventilated area:** Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.
8. **Checks to the refrigeration equipment:** Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt consult the manufacturer's technical department for assistance.  
  
The following checks shall be applied to installations using flammable refrigerants:
  - The charge size is in accordance with the room size within which the refrigerant containing parts are installed.

- The ventilation machinery and outlets are operating adequately and are not obstructed.
  - If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant.
  - Marking to the equipment continues to be visible and legible. Markings and signs that are illegible should be corrected.
  - Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.
9. **Checks to electrical devices:**
- Repair and maintenance to electrical components should include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution should be used. This should be reported to the owner of the equipment, so all parties are advised.
  - Initial safety checks should include:
    - That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking.
    - That there no live electrical components and wiring are exposed while charging, recovering or purging the system.
    - That there is continuity of earth bonding.

### **SEALED ELECTRICAL COMPONENTS SHALL BE REPLACED**

### **INTRINSICALLY SAFE COMPONENTS MUST BE REPLACED**

## **WARNING**

### For using R32 refrigerant

#### **CABLING**

- Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

#### **DETECTION OF FLAMMABLE REFRIGERANTS**

- Under no circumstances, should potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) should not be used.
- The following leak detection methods are deemed acceptable for systems containing flammable refrigerants. Electronic leak detectors shall be used to detect flammable refrigerants, but the sensitivity may not be adequate, or may need re-calibration. (Detection equipment should be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment should be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25% maximum) is confirmed.
- Leak detection fluids are suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipework.
- If a leak is suspected, all naked flames should be removed/ extinguished. If a leakage of refrigerant is found which requires brazing, all of the refrigerant should be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. Removal of refrigerant shall be according to Removal and evacuation.

#### **REMOVAL AND EVACUATION**

- When breaking into the refrigerant circuit to make repairs—or for any other purpose - conventional procedures shall be used. However, for flammable refrigerants it is important that best practice is followed since flammability is a consideration.
- The following procedure shall be adhered to:
  - Remove refrigerant
  - Safely remove refrigerant following local and national regulations;
  - Evacuate;
  - Purge the circuit with inert gas (optional for A2L);
  - Evacuate (optional for A2L);
  - continuously flush or purge with inert gas when using flame to open circuit; and
  - open the circuit.
- The refrigerant charge should be recovered into the correct recovery cylinders, if venting is not allowed by local and national codes. For appliances containing flammable refrigerants, the system shall be purged with oxygen-free nitrogen to render the appliance safe for flammable refrigerants. This process might need to be repeated several times. Compressed air or oxygen shall not be used for purging refrigerant systems.
- For appliances containing flammable refrigerants, refrigerants purging shall be achieved by breaking the vacuum in the system with oxygen-free nitrogen and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum (optional for A2L).
- This process shall be repeated until no refrigerant is within the system (optional for A2L). When the final oxygen-free nitrogen charge is used, the system shall be vented down to atmospheric pressure to enable work to take place. The outlet for the vacuum pump shall not be close to any potential ignition sources, and ventilation shall be available.



## **WARNING**

**For using R32 refrigerant**

### **CHARGING PROCEDURES**

- In addition to conventional charging procedures, the following requirements should be followed.
  - Ensure that contamination of different refrigerants does not occur when using charging equipment.
  - Hoses or lines should be as short as possible to minimize the amount of refrigerant contained in them.
  - Cylinders should be kept upright.
  - Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.
  - Label the system when charging is complete (if not already).
  - Extreme care should be taken not to overfill the refrigeration system.
  - Prior to recharging the system, it should be pressure tested with OFN.
  - The system should be leak tested on completion of charging but prior to commissioning.
  - A follow up leak test should be carried out prior to leaving the site.

### **DECOMMISSIONING**

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

- Before attempting the procedure ensure that:
  - When breaking into the refrigerant circuit to make repairs or for any other purpose, conventional procedures should be used.
  - Mechanical handling equipment is available, if required, for handling refrigerant cylinders.
  - Personal protective equipment is available and being used correctly.
  - The recovery process is supervised at all times by a competent person.
  - Recovery equipment and cylinders conform to the appropriate standards.
- Pump down refrigerant system, if possible.
- If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
- Make sure that cylinder is situated on the scales before recovery takes place.
- Start the recovery machine and operate in accordance with manufacturer's instructions.
- Do not overfill cylinders. (No more than 80% volume liquid charge).
- Do not exceed the maximum working pressure of the cylinder, even temporarily.
- When the cylinders have been filled correctly and the process is completed, make sure that the cylinders and the equipment are removed from the site promptly and all isolation valves on the equipment are closed off.
- Recovered refrigerant should not be charged into another refrigeration system unless it has been cleaned and checked.

### **LABELING**

- Equipment should be labeled stating that it has been de-commissioned and emptied of refrigerant. The label should be dated and signed. Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

## **WARNING**

### **For using R32 refrigerant**

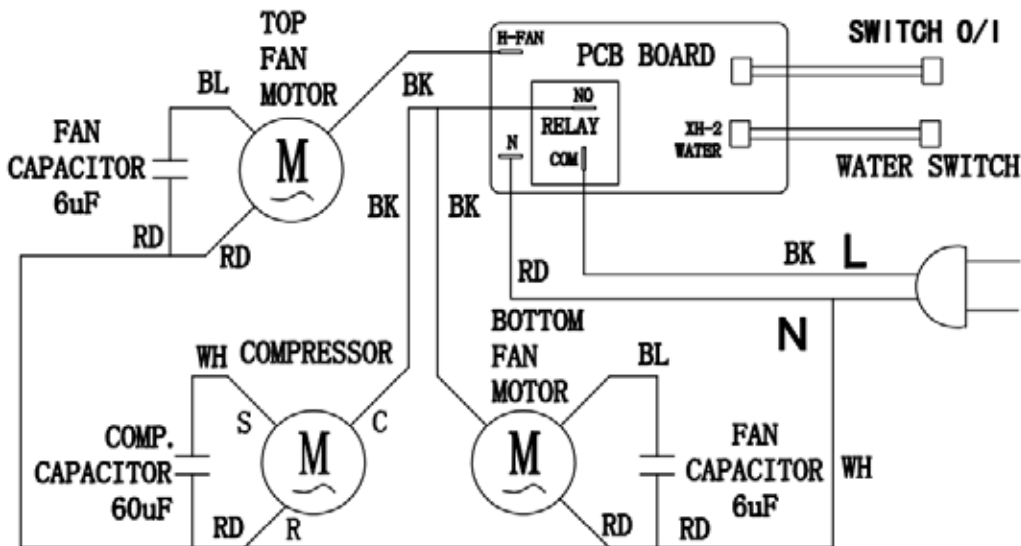
#### **RECOVERY**

- When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.
- When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labeled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.
- The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of flammable refrigerants. If in doubt, the manufacturer should be consulted. In addition, a set of calibrated weighing scales shall be available and in good working order.
- Hoses shall be complete with leak-free disconnect couplings and in good condition.
- The recovered refrigerant shall be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders. If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The compressor body shall not be heated by an open flame or other ignition sources to accelerate this process. When oil is drained from a system, it shall be carried out safely.

# TECHNICAL SPECIFICATIONS

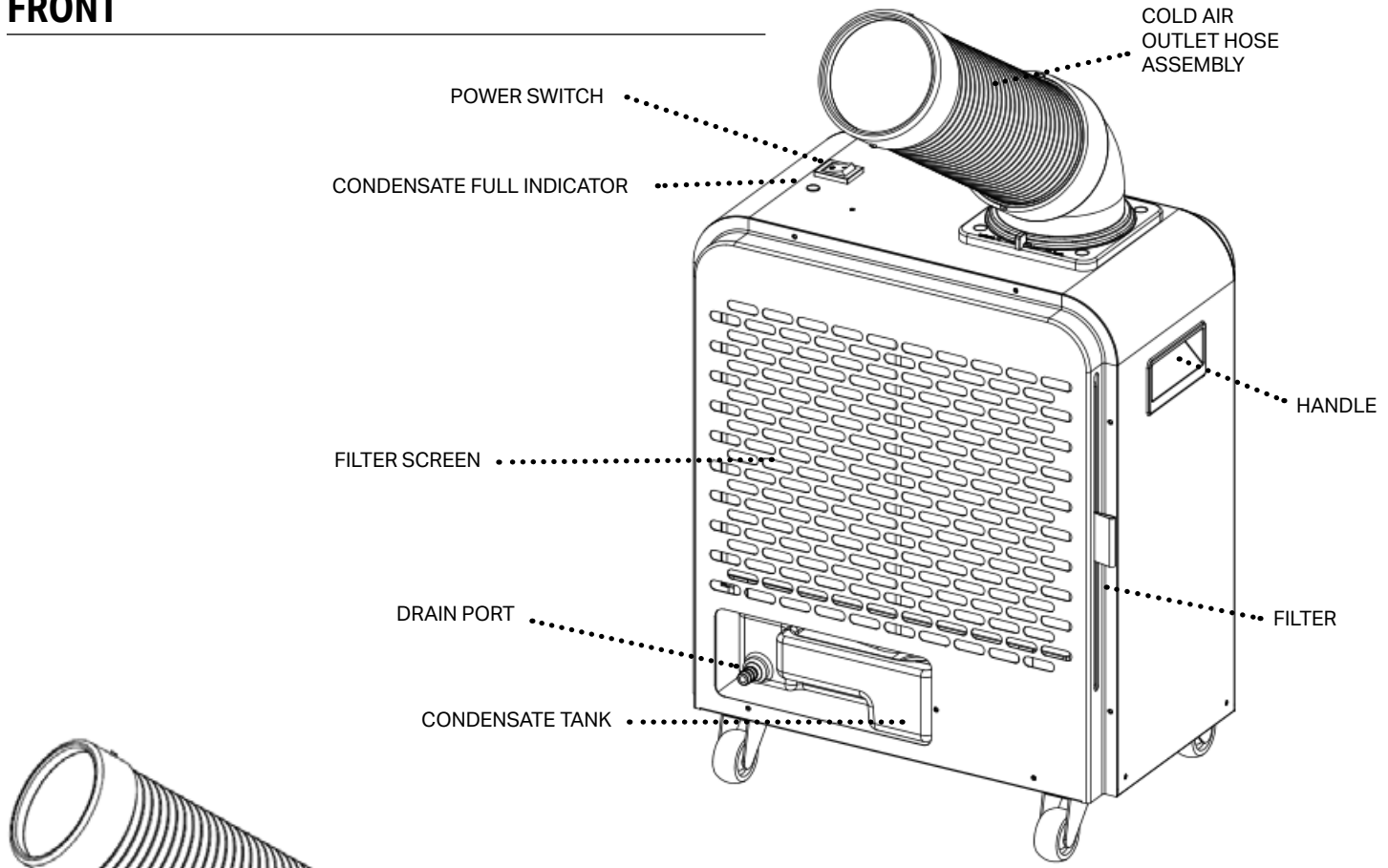
Model Number	2VASPOT5300
Cooling Capacity	7000 Btu/hr
Voltage/Phase/Hz	115V/1Ph/60Hz
Rated Current	8 A
Indoor Air Flow	135 ft <sup>3</sup> /min. (230m <sup>3</sup> /h)
Refrigerant Type	R32
Refrigerant Amount	10.3 oz. (290g)
Ambient Temperature Range	68 °F – 109 °F (20 °C – 43 °C)
Net Weight	56 lbs (25.5 kg)
Gross Weight	62 lbs (28.3 kg)
Product Dimension (Width/Depth/Height)	18.3 in/11.3 in/23.1 in (465*287*586)mm 5

## ELECTRICAL SCHEMATIC DIAGRAM

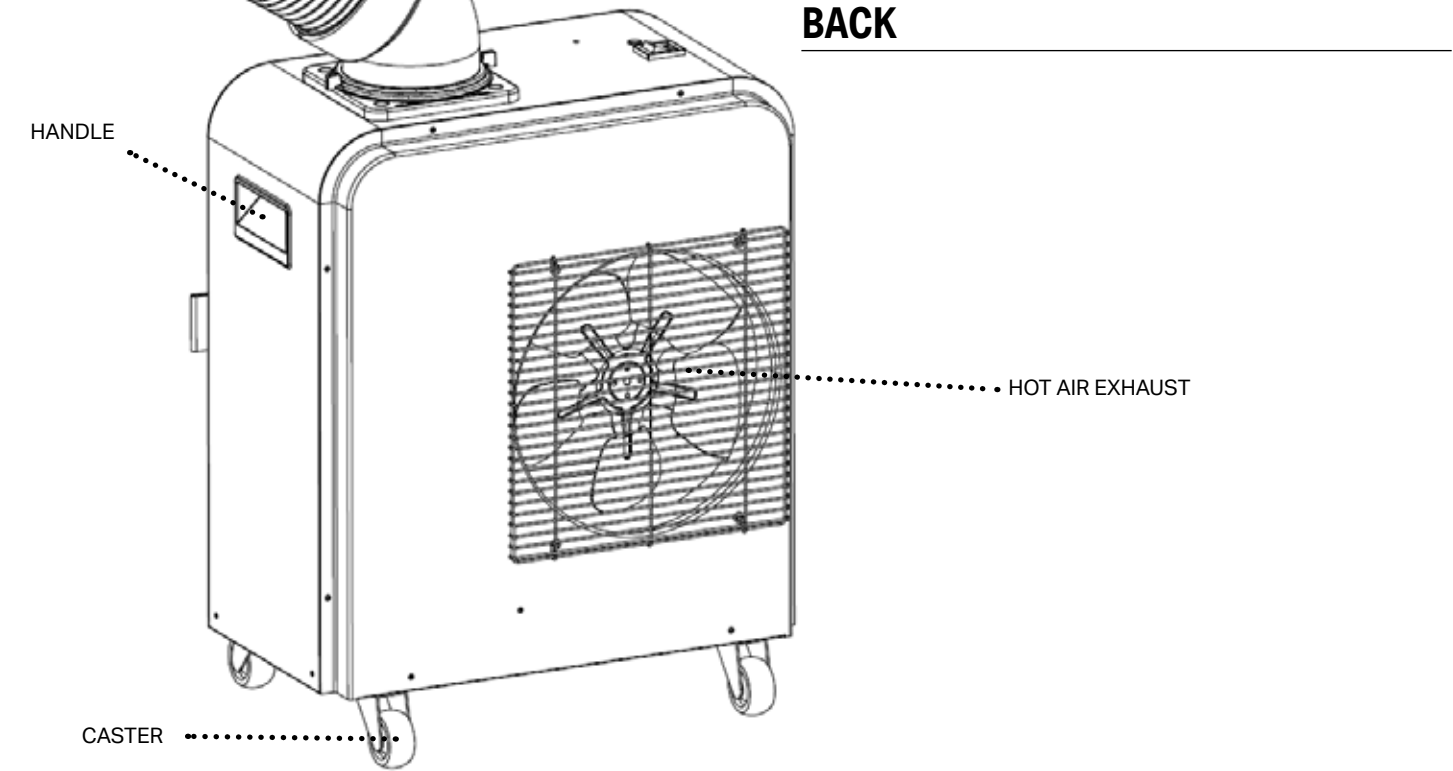


# PRODUCT STRUCTURE

## FRONT



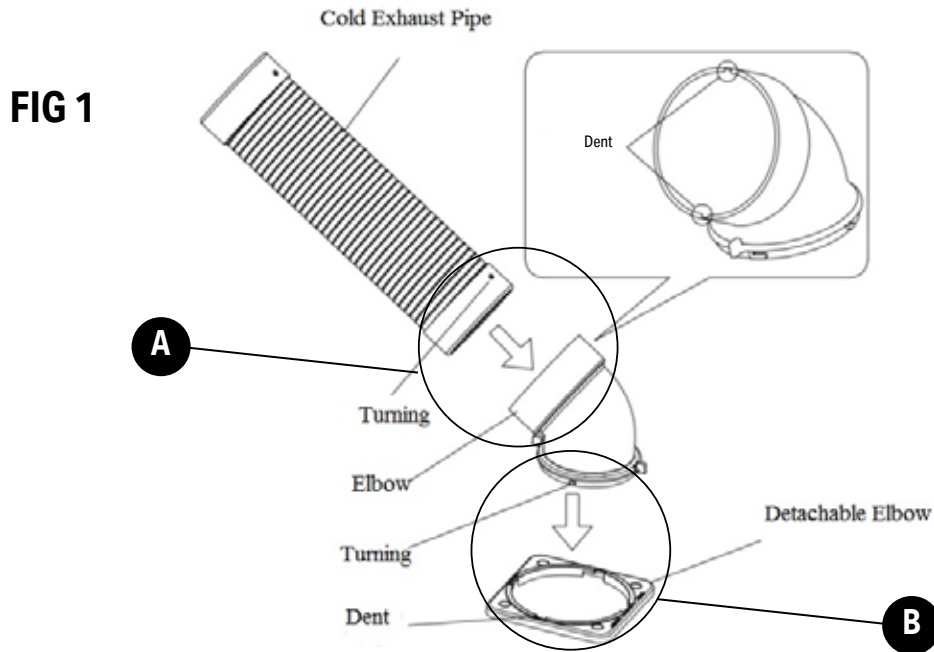
## BACK



# INSTALLATION INSTRUCTIONS

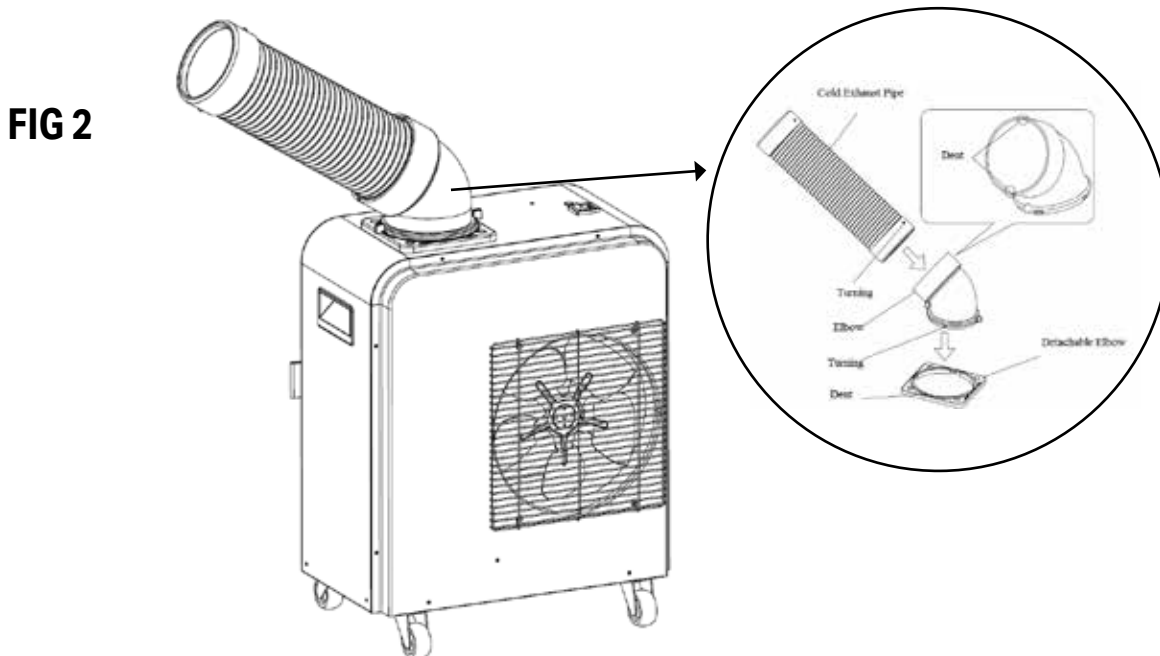
## COLD AIR EXHAUST HOSE ASSEMBLY

1. Align the locking tabs of the Cold Exhaust Pipe to the attachment channels (Dent) located on the exhaust elbow as shown in the diagram below (Fig. 1). **A**
2. Insert the locking tabs into the attachment channels (Dent) and turn until they lock into place (Fig. 1). **A**
3. Align the locking tabs on the elbow with the attachment channels (Dent) on the connection plate (Fig. 1). **B**
4. Insert the locking tabs into the attachment channels (Dent) and turn until they lock into place (Fig. 1). **B**



## ATTACH COLD AIR EXHAUST HOSE ASSEMBLY TO UNIT

1. Using the supplied screws, attach the connection plate to the cabinet (Fig.2).



# OPERATION INSTRUCTIONS

## OPERATION INSTRUCTIONS

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- To power ON the unit: press the power switch to the "I" position. On initial startup the, compressor and fan motor will start immediately. It may take a few minutes for the air to start feeling cold.
- To power OFF the unit: press the power switch (rocker) to the "O" position. The compressor and fan motor will stop.

**ATTENTION:** If the unit is powered off or if there is an electrical interruption, there is a minimum three-minute delay after which, the unit will begin to operate again.

## COMPRESSOR OVERHEAT PROTECTION

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This unit is equipped with an overload protector that is designed to shut down the unit temporarily if the compressor overheats. This overheating can be caused by extremely high or low voltage or by excessively high ambient temperature.

When the overload protection device is activated, the machine will continue to blow air but the compressor will not be operational and the air will not be cold. If the thermal overload protection is frequently activated, please find and eliminate the cause before using the machine.

## WATER ALARM

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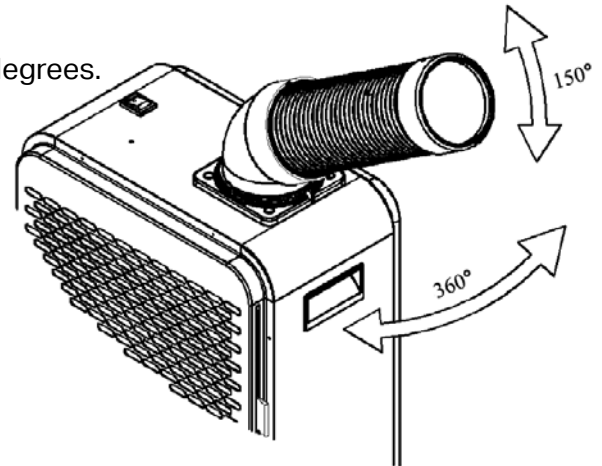
When the volume of condensate in the tank reaches approximately 75% of its fill capacity, the "Condensate Full" sound buzzer will activate. The compressor and fan motor will stop once this occurs.

When the condensate tank is full, turn off the unit by pressing the power switch to the "O" position. The "Water Full" indicator sound buzzer will stop. Remove the condensate tank and dump the contents. Re-insert the empty tank into the unit and power on the air conditioner. The unit should start up normally after a 3-minute delay (Additional instructions in section "VII Condensate Tank.")

## ADJUSTMENT RANGE AND OPERATION OF THE AIR DIRECTION

- The cold air duct can rotate around 360 degrees
- The cold air duct can be moved up and down by about 150 degrees.

**ATTENTION:** When adjusting the air outlet angle of the cold air duct, please hold the elbow for adjustment. Do not directly hold the cold air duct for adjustment.



## CONDENSATE TANK

### Emptying the condensate tank:

1. Shut off the air conditioner by pressing the power switch to the "O" position.
2. Locate the condensate tank.
3. Remove the condensate tank and empty the contents.
4. Re-install the condensate tank after emptying, making sure it is properly aligned.
5. Power on the unit. There is a 3-minute delay for the compressor to start. Normal operation will resume after time delay has ended.
6. Empty the condensate tank before moving the air conditioner to avoid any spills.

**ATTENTION:** The compressor has a 3-minute safety delay function. After emptying the tank, there will be a 3-minute delay where only the fan will operate. After the 3-minutes have expired, the compressor will activate and normal operation will resume.

- If the unit has not been operated for a long time, check the condensate tank before operating:
- Remove the condensate tank from the air conditioner and confirm the float device inside the tank is intact. If no issues are found with the float device, re-install the condensate tank into the air conditioner, making sure everything is aligned.
- Improper installation of the condensate tank may trigger the condensate alarm, unit malfunction, or condensate leakage.



## SPECIAL USER REMINDERS

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- When using the air conditioner, the air inlet and cold air duct should be away from walls and other obstacles by at least 12in.
- The hot air outlet should be at least 32in away from any walls or obstacles.
- The air conditioner should be placed on a flat and level surface. Operating the unit on slopes or uneven surfaces may cause safety hazards and condensate leakage.
- Do not operate this machine in wet or damp places.
- Do not place obstacles in the front of the air inlet, cold air duct and hot air exhaust.

## MAINTENANCE & CARE GUIDE

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Periodically clean the screen filter on this unit. Dust and debris buildup will not allow proper airflow and may cause frosting and malfunction of the heat exchanger.

## FILTER CLEANING

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1. Shut off the air conditioner.
2. Use a vacuum to remove any dust and dirt accumulated on the filter screen.
3. Use clean water to rinse off the remaining particles on the filter screen.
4. Once dry, re-install the filter screen into the air conditioner.

### ATTENTION:

- Unplug the power cord from the machine when conducting maintenance or checks.
- When cleaning the exterior of the machine, do not use chemical agents or other cleaning solutions that may damage the surfaces.
- Check if the power cord is damaged or broken. If so, replace it immediately.
- Check if any screws are loose. If so, tighten the screws.
- Before long-term storage, check condensate tank and empty any remaining condensate.
- The air conditioner must be stored upright.
- Do not lay the machine horizontally or upside down.
- Avoid storing the machine in locations with high temperature, rain, or direct sunlight.

## CORRECT DISPOSAL OF THIS PRODUCT

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This marking on the product, accessories or literature indicates that the product and its electronic accessories should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.





**ATTENTION:** If the air conditioner malfunctions or stops operating, shut off the machine immediately and disconnect it from the wall outlet.

## CHECK THE FOLLOWING ITEMS FOR TROUBLESHOOTING

Problem	Reason	Troubleshooting
Unit is not Operating	The power cord is loose or unplugged	Securely plug the unit into the wall outlet. Ensure there is sufficient power at the wall outlet.
		Have a professional or certified technician replace the fuse.
Unit is not cooling	Dirty heat exchanger	Clean the heat exchanger surface to allow for proper airflow.
	Hot exhaust fan failure	Repair or replace hot exhaust fan or blower.
	Ambient temperature is too high	Do not operate the unit in areas with excessively high ambient temperatures.
	Compressor capacitor is damaged	Replace compressor capacitor.
	Blocked refrigerant tubing	Replace blocked refrigerant tubing.
	Overly high or low input voltage	Use correct voltage.
	Compressor overload protection triggered	Unit will restart after the compressor has sufficiently cooled.
	Compressor motor failure	Repair or replace compressor.
Condensate Leakage	Drainpipe opening is clogged	Clean out any residue or debris in the drain pipe.
	Condensate tank position is not installed properly	Remove the condensate tank and re-install properly.
	Filter screen has dust and filth	Remove filter and clean.
	Condensate float switch is stuck	Shut off the unit and empty condensate tank before use.
	Condensate tank is full	Gently shake the tank to dislodge the float switch.
	Damaged condensate tank	Repair or replace the condensate tank.







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