

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described.

Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and / or property damage! Retain instructions for future reference.

# **KOLDWAVE**

## Portable Air Conditioners

### Description

KOLDWAVE Portable Air Conditioners feature spot cooling for large areas where cooling of the entire area is not practical. A dedicated spot cooling thermostat controls the unit in this application.

These air conditioners can also be used in smaller areas for room cooling. A control panel provides ease of use and contains a self-diagnostic function and display, showing operating modes, room and set temperatures, and faults. If an abnormal operation occurs, a visual display of the fault is shown. Caster wheels are included for easy portability. Suitable applications include: a factory or work place, industrial kitchen, computer room, emergency cooling, etc.



**7KK30**

**Figure 1**

### Unpacking

After unpacking the unit, carefully inspect unit for any damage that may have occurred during transit. Check for any loose, missing, or damaged parts.

### Specifications

Model No.	Power Supply Ph-V-Hz	Cooling Capacity Btu/h	Power Consumption Watts	Rated Current Amps	EER Btu/Wh
7KK30	Single Phase, 230V, 60Hz	29,000	3,410	15.5 A	8.5
Model No.	Nema Plug	Power Cord Gauge AWG	Power Cord Length ft	Dimensions W x D x H - in. (mm)	
7KK30	6-20p	12	10	22.1 x 29.5 x 47.2 (560 x 750 x 1200)	
Model No.	Weight (Net/Gross) Lbs (kg)	Condensate tank Gallons (Liters)	No. of Cool Air Outlets Pcs	Ambient temperature range °F (°C)	
7KK30	244.7 / 279.6lbs. (111 / 126.8 kg)	3.96 (15)	3	64~113 (18~45)	

## Specifications (Continued)

Model No.	Setting temperature (Room cool mode) °F (°C)	Setting temperature (Spot cool mode) °F (°C)
7KK30	64~86 (18~30)	32~86 (0~30)

Model No.	Application Area (Room cool mode) ft² (m²)	Refrigerant Type/oz (g)	Design Pressure - Hi/Low Psig
7KK30	743 (70)	R-410A / 30 (850)	450 / 250

Model No.	Indoor Air Flow (High/Low) CFM (CMH)	Wheels pcs/diameter	Hot Air Duct Diameter In. (mm)	Maximum Duct Length ft (m)
7KK30	741 / 635 (1259 / 1078)	4 / 102mm	16 (400)	60 (18)

Safety Devices	Compressor overload protector, Anti-freezing thermister, Full drain tank switch, Automatic restart (Power interruption), Compressor time delay program, High pressure switch
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Features	Temperature control, Self-diagnostic function, Two speed fan, Optional drain pump kit, Washable filters, °F (°C) display, Off-timer
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Thank you for selecting this Koldwave Portable Air Conditioner. It provides you with spot cooling for large areas where cooling of an entire area is not practical or possible. **Please read this manual** before installing the 7KK30 as it provides important information that should be followed during installation and maintenance of the Portable Air Conditioner, allowing you to correctly set up your system for the maximum safety and performance. Included is information on customer support and service, if it is required. If you experience a problem with the unit, please refer to the Troubleshooting section in this manual to correct the problem. If the problem is not corrected, please collect information so that the Technical Support personnel can more effectively assist you.

## General Safety Information

Please read this manual carefully for instructions on correct installation and usage. Please read all safeguards.

1. Transport and store the unit in an upright position only. Leave unit in an upright position for at least 3 hours before first use.
2. Always place the unit on an even, level surface.
3. Ensure the unit is connected to a grounded power supply of the correct rating/capacity.
4. The unit will cool when the room temperature is between 64°F (18°C) ~ 113°F (45°C) depending on the thermostat setting.
5. DO NOT use this unit for functions other than those described in this instruction manual.
6. DO NOT tilt the unit.
7. DO NOT cover or obstruct the unit's inlet and outlet grilles.
8. DO NOT use the unit in areas where it will be exposed to rain or water.
9. NEVER unplug the unit while it is operating.

### **WARNING**

***DO NOT use the unit in wet environments, such as a laundry room, to avoid the risk of electrical shock.***

10. DO NOT place any foreign objects on the unit.
11. DO NOT operate the unit with wet or damp hands.
12. DO NOT allow chemical substances to come into contact with the unit.
13. DO NOT operate the unit in the presence of flammable substances or vapors such as alcohols, pesticides, gasoline, etc.

### **WARNING**

***DO NOT operate the unit in explosive or flammable environments.***

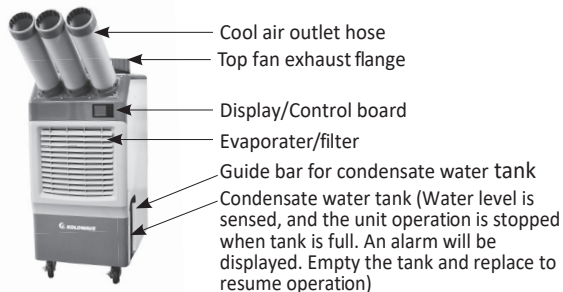
14. DO NOT use the plug to start and to stop the unit. Always use the control panel to start and to stop the unit.
15. Always turn off the unit when it is not in use and unplug the power plug from the electrical outlet.
16. Always turn the unit off and unplug the main power plug from the electrical outlet before cleaning, moving or performing maintenance.
17. AVOID the use of adapter plugs or extension cords. If it is necessary to use an extension cord or an adapter plug to operate the unit, ensure that they are correctly rated for the application. Consult a local qualified electrician and all local electrical codes to ensure proper setup. Any extension cord used with this device must be rated for a minimum of 220V.(20A)
18. DO NOT unplug the unit by pulling on the electrical cord. Keep electrical cord away from heat sources and always completely unroll the cord to avoid overheating. If the power cord be-comes damaged, a qualified service agent, qualified electrician, or similarly qualified person must replace it, in order to avoid a hazard or shock.

**⚠ WARNING** *DO NOT operate a unit with a damaged power cord.*

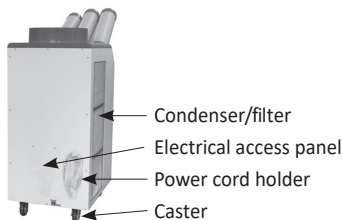
19. The filters must be used with the product at all times. When the filters are removed for cleaning, always ensure that the unit has been turned off and unplugged from the electrical outlet.
20. Regularly clean the filters to maintain efficiency. If the filters are not cleaned regularly, the units output performance and efficiency will decline and energy consumption will increase.
21. DO NOT operate the unit with a damaged power cord or plug, after it malfunctions, has been dropped or damaged.
22. Only use in the upright position on an even, flat surface. Unit must be positioned at least 24 inches (60 cm) from the nearest object in any direction.
23. Stop operation immediately if abnormal noise or odor is noticed. Contact a local service center.
24. Appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
25. Children being supervised not to play with appliance.
26. That the appliance shall be installed in accordance with national wiring regulations.
27. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
29. This 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 use of the appliance by a person responsible for their safety.  
Children should be supervised to ensure that they do not play with the appliance.

**SAVE THESE INSTRUCTIONS**

## Assembly (7KK30)


**Figure 2**

Front and Right side View


**Figure 3**

Back and Left side View



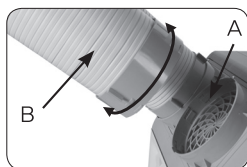
### POWER CORD HOLDER

1. Take out the cord holder from the accessory box.
2. Place the cord holder on the back side of air conditioner.
3. Use screws (enclosed inside of accessory box with cord holder) to install the cord holder on the air conditioner as shown in Figure 4.

**Figure 4**


### TOP FAN EXHAUST FLANGE

1. Remove the top fan exhaust flange from carton.
2. Place the top fan exhaust flange on the top of air conditioner.
3. Use screws (enclosed inside of box with the top fan exhaust flange) to install the top fan exhaust flange on air conditioner as shown in Figure 5.

**Figure 5**

**Figure 6**

### CONVENIENT DETACHABLE DUCT

The twist-on ducts are easily added or removed making air conditioner management more convenient.

Insert a hose(B) into a duct(A) by turning to the left or right. If you heard the clack of duct, the connection is completed. Turn the hose to the right or left to remove the hose.

## Installation

### WARNINGS REGARDING PROPER LOCATION FOR INSTALLATION

- ▲ WARNING** *Do not use the unit in explosive environments or in areas where flammable gas leakage may occur.*
- ▲ WARNING** *Do not use the unit in areas where it will be exposed to rain or water.*
- ▲ WARNING** *Do not use the unit in a corrosive atmosphere.*
- ▲ WARNING** *Do not use the unit above 64°F (18°C) ~ 113°F (45°C).*
- ▲ WARNING** *Do not install the unit on uneven or sloping surface. The unit may roll or topple over even if the casters are set to the locked position.*
- ▲ WARNING** *This product must be used indoors*

## MOVING THE UNIT

Unlock the casters and push the unit using the side handles to a flat, level surface and set the caster brakes to the locked position.

## PLUGGING IN THE UNIT

Check the prongs and surface of the power cord plug for dust/dirt. If dust and/or dirt are present, wipe off with a clean, dry cloth.

Check the power cord, plug and prongs for damage or excess play.

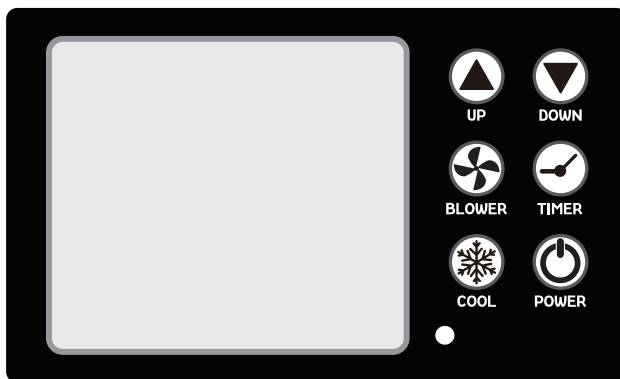
If any damage or excess play is found, contact a qualified repair technician or a qualified electrician to perform replacement or repair of the power cord, plug or prongs.

- ▲ WARNING** *If the power cord or plug is damaged, repair should only be performed by qualified electrical personnel.*
- ▲ WARNING** *Do not connect/disconnect the power cord or attempt to operate buttons with wet hands. This could result in electrical shock.*

**NOTE:** Make sure the AC outlet is free of dirt, dust, oil, water, or any other foreign material. The unit is equipped with an approved NEMA plug configuration. (7KK30 : 6-20P) The appropriate outlet must be used for each plug type.

## Operation

### CONTROL PANEL



**Figure 8**



- Press the power button for 0.5 seconds to activate the product.
- Press the power button for 0.5 seconds while driving to stop the product.
- Self-diagnosis will be performed to test for abnormalities, after marking “VER” for 3seconds when power is “ON”. And the blowing is operated as “High”, and the compressor is operated after 1 minute.



← Example of “VER” sign when it's ON



°C ↔ °F

- Press “Timer” and “UP” Button simultaneously to set Celsius or Fahrenheit.





**COOL**

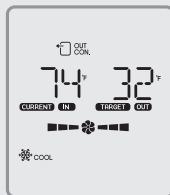
Cooling mode.

1) Cooling mode (SPOTCOOL Mode)

- The basic operation is based on "out" control. (discharge temperature TH1)
- On/off the operation of the compressor. (COOL ↔ BLOWER)
- The set temperature cannot be changed and it operates which is set to 0 degrees Celsius.

2) Cooling mode (ROOMCOOL Mode)

- Press "COOL" and "Blower" Button simultaneously to set the "Spotcool mode" and "Roomcool mode".
- Press "UP" or "Down" Button to set the target temperature



←  
Exmapple of  
Spotcool Mode



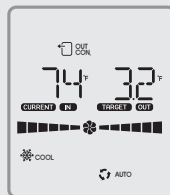
←  
Exmapple of  
Roomcool Mode

2) When blower is operating

- LOW → HIGH → AUTO It consists of three modes and operates in circulation.
- LOW, HIGH, AUTO In "LCD", the middle wing of each mode rotate and operate.



←  
LOW Examples  
of moves.

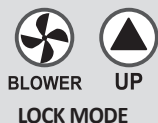


←  
AUTO Examples  
of moves.

· AUTO MODE

- If the power source becomes "on" after "off", it operates as "auto" and then as "high" or "low" depending on the sensor value after 3 seconds.
- The difference between "current temp" and "target temp" operates as "high" when it is 8 degrees Celsius or higher, and "low" when it is 6 degrees Celsius or lower.





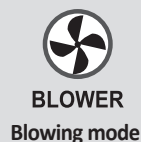
- 1) It is a mode that prevents the operation of the rest of the buttons except for power.  
- It can be operated and released by pressing for 2 seconds.



←  
Example  
of a set-up.



←  
Example of  
releasing it.






- 1) The compressor does not operate, but only the blowing fan operates.  
- LOW → HIGH → AUTO It consists of three modes and operates in circulation.



← Example of blowing.



- 1) Press "Time" button for 2 seconds to activate Time icon.
- 2) Press  "Blower" button to operate time setting.  
- Press  "Cool" button to save after pressing  "Down" button to set OFF or ON  
ON -> Timer setting (when the unit is ready to operate)  
OFF -> Timer setting (when the unit is operating)
- 3) Press "Blower" button to set the desired time.  
The timer can be set maximum 720min (12Hour)
- 4) To cancel the timer, press "Time" and "UP" Button simultaneously, or set the time to "0"



← Example of displaying the remaining time  
(minutes) during "timer" operation during cooling.

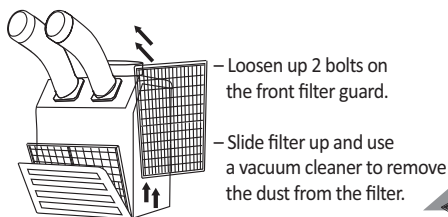
## Maintenance

### FILTER CLEANING (See Figures 10 and 11)

There are two filters in the unit. The evaporator filter is located at the front of the unit. The condenser filter is located at the side of the unit.

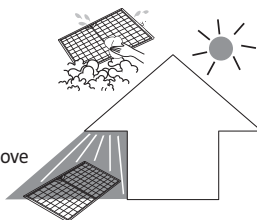
1. Loosen up 2 bolts on the front filter guard.
2. Slide filter up and use a vacuum cleaner to remove the dust from the filter.
3. If the filter is heavily covered with dust and dirt, warm water and mild soap or neutral detergent may be used to wash the filter. Do not use any other chemicals to clean filter, as they will likely damage the filter.
4. Dry the filter in a shaded area before replacing it. Do not operate the unit without the filter installed and the filter guard in the closed position.
5. Replace the clean filter and close the filter guard.
6. To clean the condenser filter, lift up on the side filter from the middle bar slightly and then angle the filter outwards from the bottom and remove.
7. Use the same cleaning procedure as above (3 – 5).
8. To replace the condenser filter, place the top of the filter in the guide and slide the filter up until the bottom of the filter clears the frame. Then push the bottom of filter into the guide and let filter gently fall inside the guide.

NOTE: For effective cooling clean the filter at least every 2 weeks.



- Loosen up 2 bolts on the front filter guard.
- Slide filter up and use a vacuum cleaner to remove the dust from the filter.

**Figure 10 – Removing Filters**



- Remove dust from the filter using a vacuum cleaner hose attachment.
- If required wash the filter in lukewarm water with a mild detergent. Leave to dry in a shaded area before reinstalling.

**Figure 11 – Removal of Dust**

#### **⚠ WARNING**

***Do not operate without the filter fitted.***

#### **⚠ WARNING**

***Do not operate the unit with a damaged cord or plug, after the unit malfunctions, or if the unit has been dropped or damaged.***

- For your convenience, record the complete model number and product name (located on the Product Identification Plate), the purchase date, purchase location, serial number, and warranty period in the table below.
- Also, attach your purchase receipt as proof of purchase to this instruction manual for future reference.
- To ensure your product is covered by warranty, the complete faulty product along with your original purchase receipt must be provided at the place of purchase.

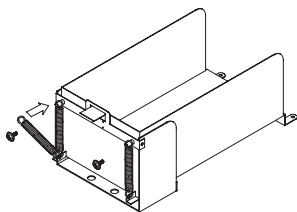
## Maintenance (Continued)

– To ensure your product is covered by warranty, the complete faulty product along with your original purchase receipt must be provided at the place of purchase.

Product	Portable Air Conditioner
Model No.	_____
Date of Purchase	_____
Place of Purchase	_____
Serial No.	_____
Period of Warranty	_____

**Customer:** Please read and keep this manual for future reference and keep sales receipt as proof of purchase.

## SPRING REPLACEMENT (See Figure 12)



**Figure 12 – The process of spring replacement**

There are two springs on the rear of condensate water tank guide.

1. Release the screw on the spring hook.
2. Take off the spring hook, and then pull out the opposite spring hook from hole in the condensate water tank guide.
3. Replace with a new spring in reverse order.
4. Repeat this cycle for the other spring.

## SELF-DIAGNOSTIC CODES (See Table 1)

The alarm light is activated if abnormal operation occurs, and a code is displayed on the control panel. The compressor and condenser fan motor will stop operating. The evaporator fan will continue to run for 3 minutes. If the fault is rectified within 3 minutes, the unit will resume operation. If the fault persists for more than 3 minutes, the evaporator fan also stops. The fault must be rectified before the unit can resume normal operation.





SELF-DIAGNOSTIC ALARM CODES			
Alarm Display	Problem	Cause	Corrective Action
	Compressor overloaded	<ul style="list-style-type: none"> <li>• Ambient temperature is too high</li> <li>• Unstable voltage supply</li> <li>• Defective compressor</li> </ul>	<ul style="list-style-type: none"> <li>• Do not use the air conditioner if ambient temperature is higher than 113°F (45°C)</li> <li>• Contact a qualified service agent</li> <li>• Replace compressor</li> </ul>
	Condensate water level alarm	Condensate tank is full	<ul style="list-style-type: none"> <li>• Empty the water tank</li> <li>• After installation of the water tank, press the SPOT/COOL or ROOM/COOL button to resume operation</li> </ul>
	Drain pump alarm	Drain pump defective or improper hose connection (including kink or blockage)	<ul style="list-style-type: none"> <li>• Check the aconnection and hose</li> <li>• Replace drain pump</li> </ul>
	Refrigerant high pressure switch	<ul style="list-style-type: none"> <li>• Blocked air filter</li> <li>• Blocked/kinked exhaust duct</li> <li>• Ambient temperature is too high</li> </ul>	<ul style="list-style-type: none"> <li>• Clean air filter</li> <li>• Ensure exhaust duct is not blocked/kinked</li> <li>• Do not use the air conditioner if ambient temperature is higher than 113°F (45°C)</li> </ul>

Table 1- Alarm Codes





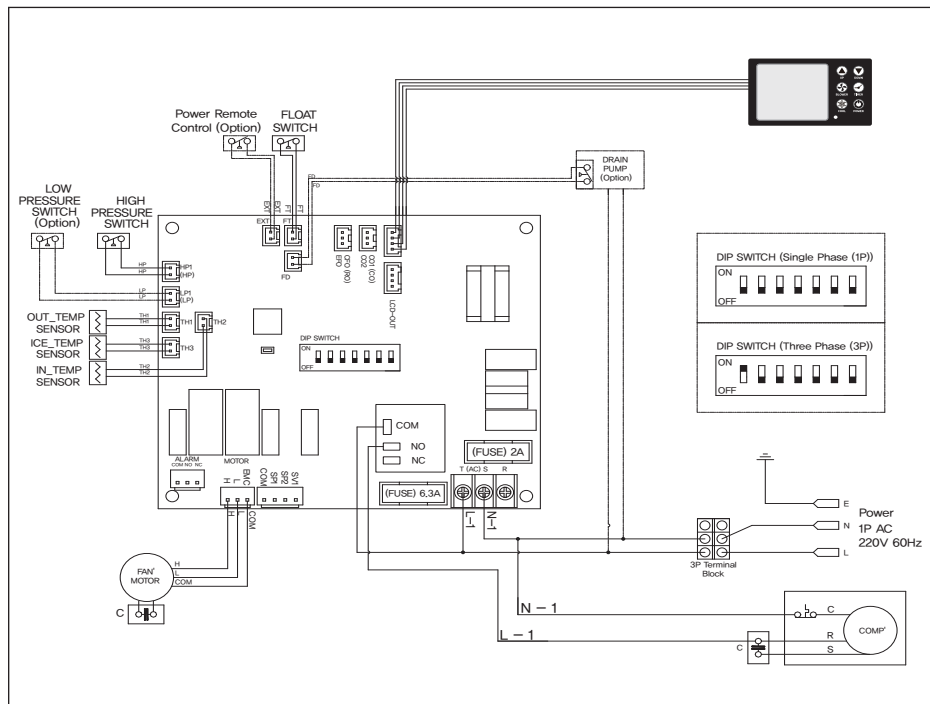
SELF-DIAGNOSTIC ALARM CODES			
Alarm Display	Problem	Cause	Corrective Action
	Abnormal temperature sensor value	TH1 (Outlet) temperature sensor has a loose or broken connection	Contact a qualified service agent
	Abnormal temperature sensor value	TH2 (Inlet) temperature sensor has a loose or broken connection	Contact a qualified service agent
	Abnormal temperature sensor value	TH3 (Prevention of Freeze) Sensor open circuit or poor connection.	Contact a qualified service agent
	Frost prevention sensor and Abnormal temperature sensor value	<ul style="list-style-type: none"> <li>Indoor heat exchanger temperature too low</li> <li>TH3 temperature sensor has a loose or broken connection</li> </ul>	<ul style="list-style-type: none"> <li>Do not use the air conditioner if ambient temperature is lower than 64°F (18°C)</li> <li>Contact a qualified service agent</li> </ul>

Table 1- Alarm Codes

## Wiring Diagram



**Figure 13 - Circuit Wiring Diagram (7KK30)**

## Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Water leakage	Position issue / Damage	1. Check the water tank is placed on the correct position Replace the damaged water tank with the new one.  2. Remove any object stuck underneath the Drain Pan underneath the water tank
	FT sensor error	1. Replace the FT sensor after check it. (ask to Customer Service Center)
	Drain pump issue	1. Remove blockage from drain hose 2. Replace the defective drain pump with the new one.
The unit doesn't work	Check the power supply to verify that power is available to the unit	1. Reset the circuit breaker and restart the unit
	Verify that the power cord is connected	1. Connect power cord
	Trip off the circuit breaker	1. Electrical access panel in Reset the circuit breaker and restart the unit (Consult a local qualified electrician)
No cold air flows from the cold air outlet	Ambient air cannot be properly cooled if the filter is dirty and not regularly cleaned	1. Clean the filter

Symptom	Possible Cause(s)	Corrective Action
No cold air flows from the cold air outlet	Compressor will not work if the unit is turned off and on quickly.	1. Wait 3 minutes after unit is turned off before turning the unit back on.
	Refrigerant leaking	2. Check the Cool Icon If the light is off, A/C will be activated after light is on.
	The ambient air temperature may be too high	1. Charge the refrigerant  1. The temperature of the compressor can be higher when the ambient temperature is too high. The compressor will not work unless the ambient air temperature is within the acceptable operating range of the unit
Water flow can be heard after compressor shuts off	No cause	Common to hear coolant flowing after unit shuts off
Alarm displays "FT" with less than half of condensate water in the tank	Spring is possibly broken	Replace a new spring (See Maintenance Figure 12)

※ A defective unit must be repaired by a qualified company.



## **SHIPPING LIST**

- (1) PORTABLE AIR CONDITIONER
- (1) OWNER'S MANUAL
- (1) POWER CORD HOLDER
- (2) DISCHARGE/SUPPLY AIR DUCTS
- (1) EXHAUST FLANGE

## **OBTAINING SERVICE**

If the Koldwave Portable Air Conditioner requires Service:

1. Use the TROUBLESHOOTING section in this manual to eliminate obvious causes.
2. Verify there are no circuit breakers tripped.
3. Call your dealer for assistance. If you cannot reach your dealer, or if they cannot resolve the problem, call Koldwave Portable Air Conditioner Technical Support at 413-564-5330.

Please have the following information available BEFORE calling the Technical Support Department:

- a. Your name and address.
- b. The serial number of the unit.
- c. Where and when the unit was purchased.
- d. All of the model information about your Koldwave Portable Air Conditioner.
- e. Any information on the failure, including LED's that may or may not be illuminated.
- f. A description of the protected equipment, including model numbers if possible.





For Koldwave warranty please visit  
<https://www.literature.mestek.com/dms/Koldwave/KWLPW-3.pdf>

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**260 North Elm St.**  
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**[www.koldwave.com](http://www.koldwave.com)**