

# **COOL-SPACE<sup>®</sup> 350**

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## **Operation and Maintenance Manual**

Manuel de fonctionnement et d'entretien

Manual de operación y mantenimiento

# READ AND SAVE THESE INSTRUCTIONS



**WARNING: ELECTRICAL SHOCK HAZARD.** Disconnect the power supply before performing service or maintenance. Failure to do so may result in serious injury or death.

**CAUTION:** Do not connect to a water source where water pressure exceeds 60 PSI (4 bar/414 kPa). This will cause permanent damage to the cooler.

**CAUTION:** If using an extension cord, do not exceed the cord's amperage ratings. Undersized extension cords create excessive drops in voltage, causing the electric motor to generate excess heat. This results in inefficient motor operation and premature motor failure and will void the warranty.

**CAUTION:** Use caution when troubleshooting or repairing electrical components. Ensure power is disconnected from the cooler before the cooling media or fan guard is removed to gain access to the fan.

**CAUTION:** Repairs should be performed by a qualified technician.

**CAUTION:** The Big Ass Fans product warranty will not cover equipment damage or failure that is caused by improper installation or use.

**CAUTION:** Prolonged use of hard water without proper water treatment will create mineral deposit buildup. This will cause the pump to fail and is **NOT COVERED BY WARRANTY**.

**DANGER:** Hazard to humans and domestic animals. Keep water treatment tablets out of reach of children. Causes severe eye and skin damage. Keep away from eyes, skin, and clothing. Harmful if swallowed.

**DANGER:** Wear face shield or goggles and rubber gloves when handling water treatment tablets. In case of contact, flush with water and seek medical attention.

**WARNING:** To avoid contamination, do not store water treatment tablets near drinking water, food, or feed. Do not reuse the empty container. Dispose of contents/container in accordance with local/regional/national/international regulations.

The 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.

Children being supervised should be instructed not to play with the appliance.



Installation Guide  
Rev. A  
11/29/2022



Original English Instructions

[www.bigassfans.com/support](http://www.bigassfans.com/support)

Improper installation, delivery, or maintenance, including, but not limited to, any of the following actions by the customer or agent of the customer will constitute a breach of and will void all warranties:

- Failure to follow the required installation procedures specified in this Installation Guide and in all other documentation supplied with the coolers and related equipment including documentation provided by the manufacturers of the individual cooler and control components;
- Failure to follow all relevant codes and ordinances, including, but not limited to, the National Electrical Code (United States), applicable national and local electrical codes, and state and local building codes;
- Failure to follow electrical engineering industry standards regarding the approved method of installing solid-state electrical equipment having the characteristics of the coolers, the cooler controls, and their related components, even if such standards are not specifically referenced in any instructions or literature supplied by Big Ass Fans or provided by manufacturers.

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Patent: [www.bigassfans.com/patents](http://www.bigassfans.com/patents) • [www.bigassfans.com/product-warranties](http://www.bigassfans.com/product-warranties)

# BEFORE YOU START

- ☑ Make sure the inside of the cooler is clean and that the water reservoir is free of dirt and debris.
- ☑ Place the cooler on level ground.
- ☑ Position the cooler so that obstacles such as racks and workbenches do not interfere with airflow.
- ☑ Provide uninterrupted fresh air intake and maintain a minimum clearance of **3 ft (0.9 m)** behind the cooler.
- ☑ Provide adequate ventilation. Do not operate the cooler in an enclosed space.
- ☑ Make sure discharged cool air will be free of obstructions.
- ☑ Make sure the water supply pressure does not exceed **60 PSI (4 bar/414 kPa)**.
- ☑ Make sure the cooler will be plugged into a fused or breaker-protected circuit. Refer to the tables below for electrical requirements.
- ☑ If using an extension cord, use a 12 gauge cord if the cord is shorter than 50 ft (15 m) or a 10 gauge cord if the cord is longer than 50 ft (15 m). Refer to the tables below for details.

## Electrical Requirements

Model	Volts +/- 10%	Frequency	Min. Circuit Size	Running Amps
Cool-Space® 350	120 V	60 Hz	15 A	6 A
	220/230 V	50/60 Hz	10 A	4 A

## Three-Conductor Heavy Duty Extension Cord Requirements (120 V)

Cord Length	Cord Size			
	16 GA	14 GA	12 GA	10 GA
0–50 ft (0–15 m)	13 A	18 A	25 A	30 A
50–100 ft (15–30 m)	10 A	13 A	18 A	25 A

## Three-Conductor Heavy Duty Extension Cord Requirements (220/230 V)

Cord Length	Cord Size			
	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>	5 mm <sup>2</sup>
6 m	13 A	15 A	15 A	15 A
16 m	13 A	14 A	15 A	15 A
32 m	10 A	12 A	13 A	15 A

# OPERATION

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## 1. Fill cooler

Connect one end of a garden hose to the water supply and the other end to the cooler's water supply inlet. Turn on the water supply. The water flow will automatically shut off when the cooler is full.

## 2. Plug in cooler

Plug the power cord into a fused or breaker-protected circuit.

## 3. Turn on pump

**Make sure the cooler's drain valve is fully closed.** Turn on the pump on/off switch.

## 4. Adjust water flow

Adjust the flow control valve until a visible flow of water trickles evenly down the cooling media. Make sure water is not splashing outside of the cooler.

## 5. Flush new cooling media

**Skip this step if you are not using new cooling media.**

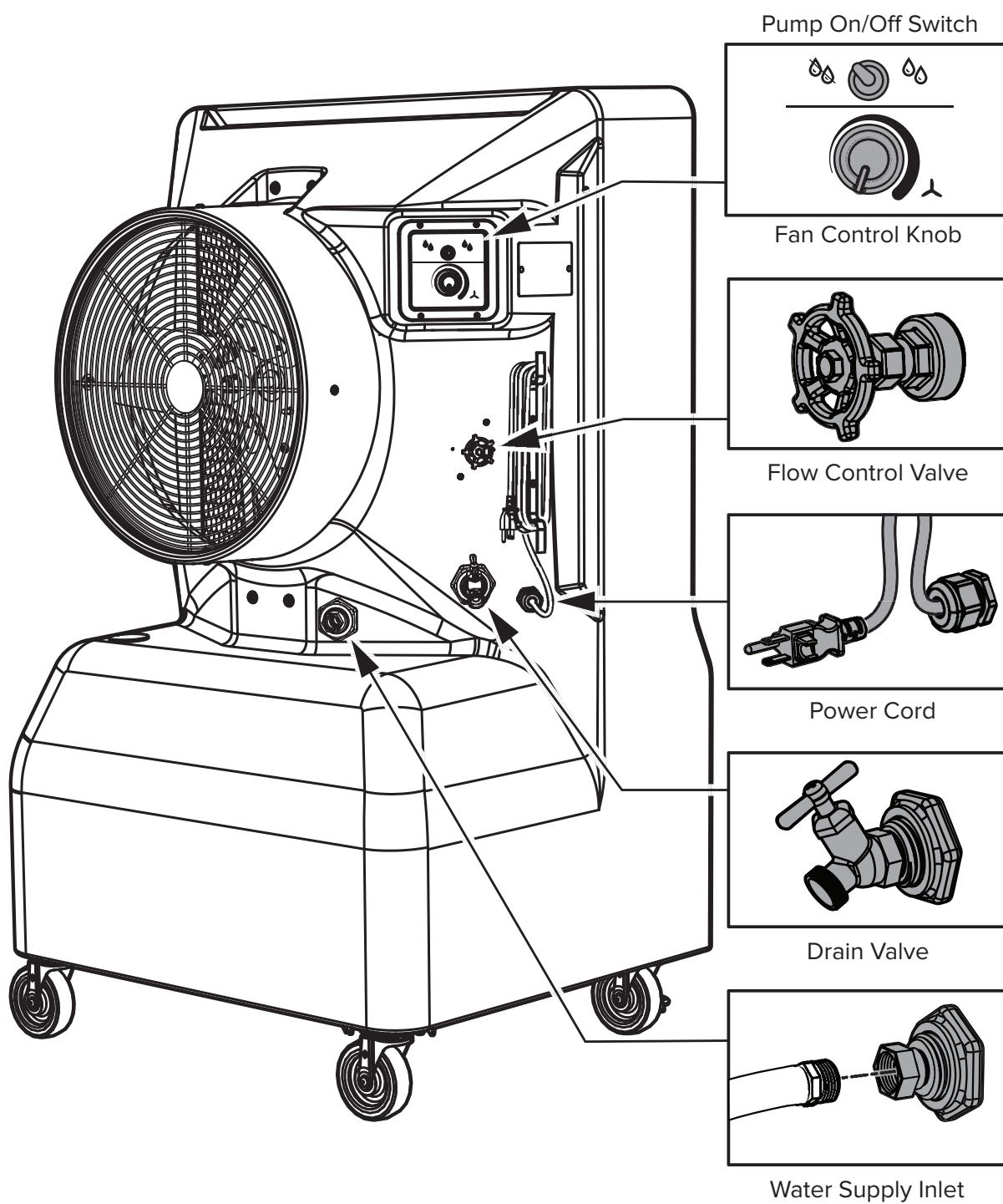
When starting the cooler for the first time or after replacing the cooling media, run the pump for five hours without the fan running to flush the new media.

## 6. Turn on fan

Turn on the fan control knob and adjust the speed to your preferred setting.

## 7. Shut down cooler

Turn off the pump and leave the fan running for 30 minutes to dry out the cooling media, and then turn off the fan. **Allow the cooling media to dry out completely once every 24 hours to prevent algae growth.**



# MAINTENANCE

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 **WARNING: ELECTRICAL SHOCK HAZARD.** Disconnect the power supply before performing service or maintenance. Failure to do so may result in serious injury or death.

## Daily

- ☑ Allow the cooling media to dry out completely once every 24 hours to prevent algae growth.

## Weekly

- ☑ Check the cooling media for bowing, sagging, or dry streaks.
- ☑ Remove the cooling media (see page 6) and inspect the water reservoir. Remove any debris and make sure the reservoir is clean.
- ☑ Check the water distribution system for leaks and check for clogged holes in the spray bar.

## Quarterly

- ☑ Drain and clean the water reservoir, water distribution system, and cooling media. See the following page for draining and cleaning instructions.
- ☑ Add two water treatment tablets to the cooler's reservoir after cleaning to avoid scale and mineral buildup (*Fig. 1*). Tablets can be purchased at [bigassfans.com](http://bigassfans.com).
- ☑ Check all cooler components for cracks or damage, including the pump and fan motor.
- ☑ Make sure the cooler's float valve automatically shuts off the water flow when the cooler is full.

## Annually to every three years

- ☑ Replace the cooling media. Replacement cooling media can be purchased at [bigassfans.com](http://bigassfans.com). The media may need to be replaced more often if it becomes heavily stained with minerals or is damaged. See pages 6–7 for instructions on removing and installing cooling media.

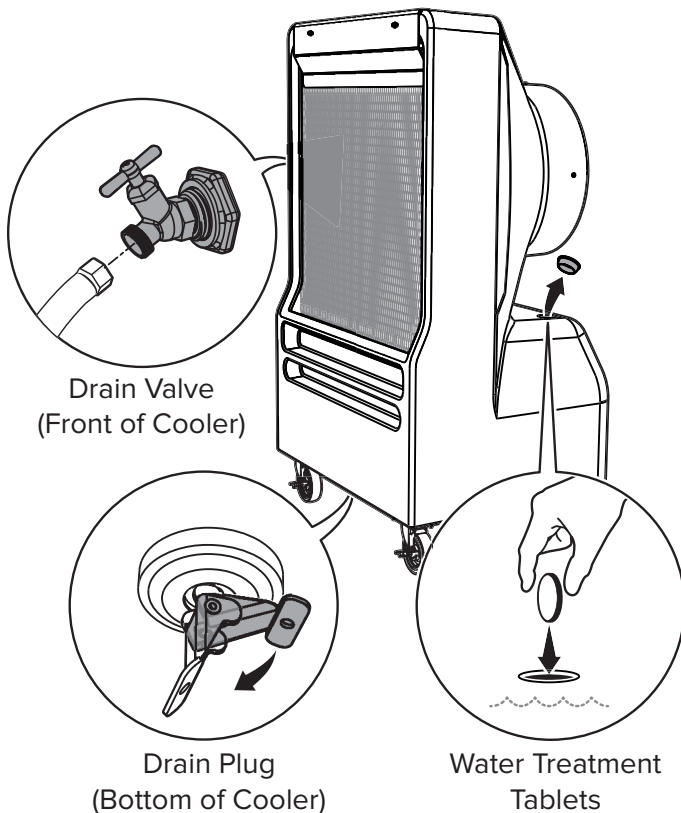
## Storing/winterizing

- ☑ Drain and clean the water reservoir, water distribution system, and cooling media. See the following page for draining and cleaning instructions.
- ☑ To prevent freezing in the cooler's water line, disconnect the water supply, and then open the flow control valve and the drain valve to dry out the reservoir.
- ☑ Store the cooler in a dry area and cover it to prevent damage and dust buildup. Storage covers can be purchased at [bigassfans.com](http://bigassfans.com).

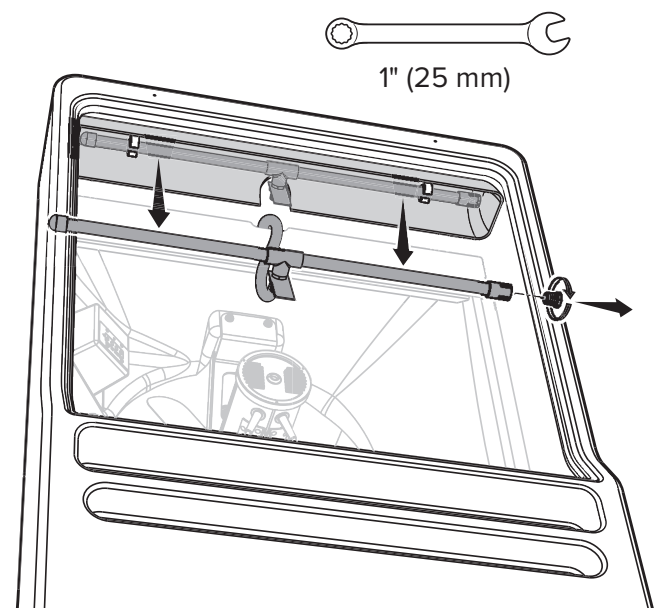
## Draining and cleaning the cooler

1. Drain cooler
  - a. Option A: Close flow control valve. Connect garden hose to drain valve on front of cooler (optional, *Fig. 1*). Open drain valve. Run pump until reservoir is dry, and then immediately turn off pump.
  - b. Option B: Remove drain plug from bottom of cooler (*Fig. 1*). Allow water to drain, and then replace drain plug. **Do not tilt cooler to remove or replace drain plug.**
2. Turn off and unplug cooler.
3. Remove cooling media (see page 6) and clean with water and a soft brush. **Do not use bleach, vinegar, or other harsh cleaners.**
4. Clean out water reservoir with a towel or wet/dry vacuum.
5. Remove spray bar from mounting clips and remove plug at end of spray bar (*Fig. 2*). Make sure water distribution holes are free of debris. Reattach plug to spray bar and reinstall spray bar into mounting clips. **Make sure water distribution holes are facing upward.**
6. Reinstall cooling media (see page 7).
7. Refill cooler with water (unless storing/winterizing).

**Fig. 1**



**Fig. 2**

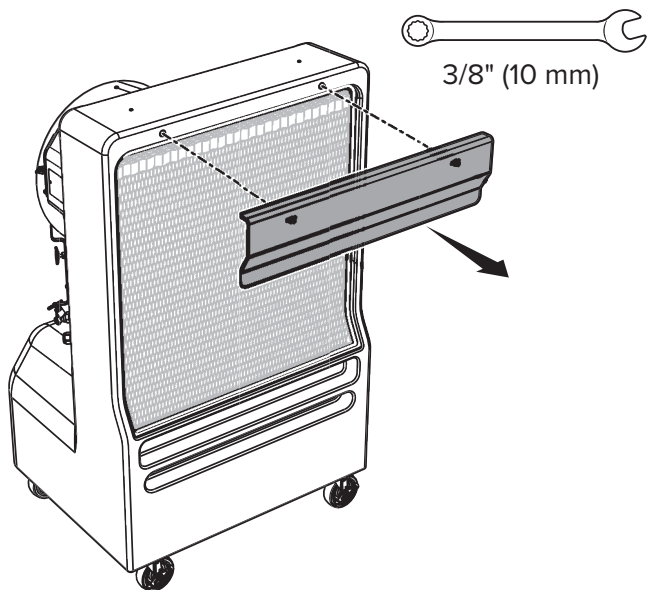


**Make sure spray bar's water distribution holes are facing upward.**

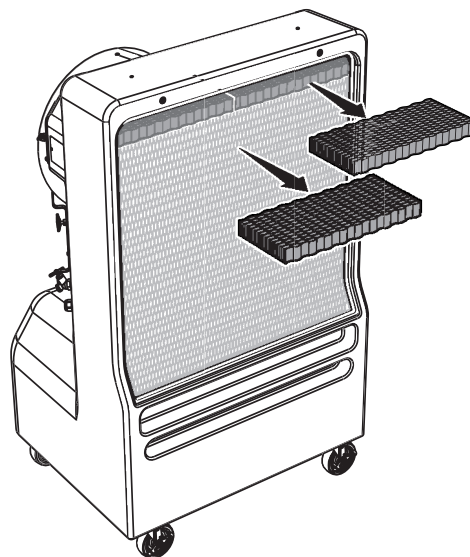
## MAINTENANCE

### Removing cooling media

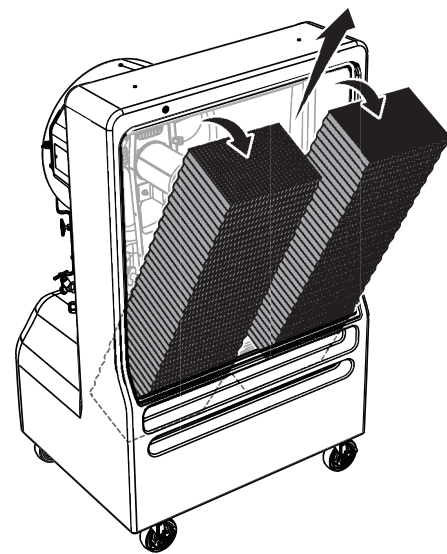
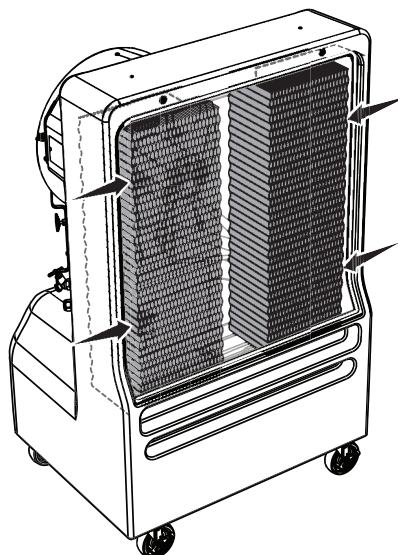
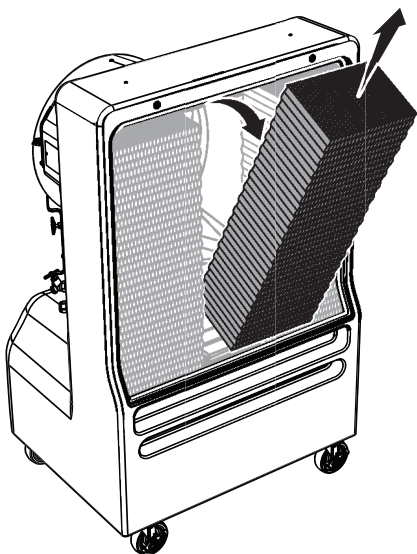
#### 1. Remove retainer bar



#### 2. Remove water distribution pads



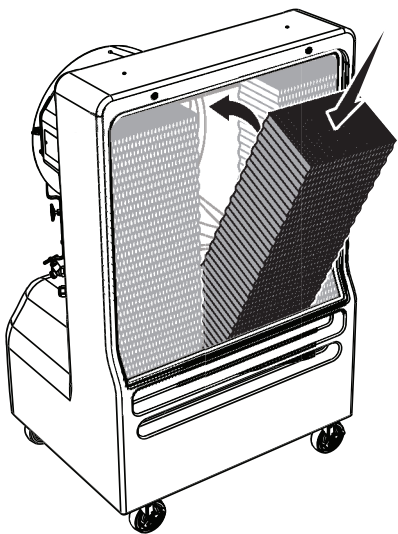
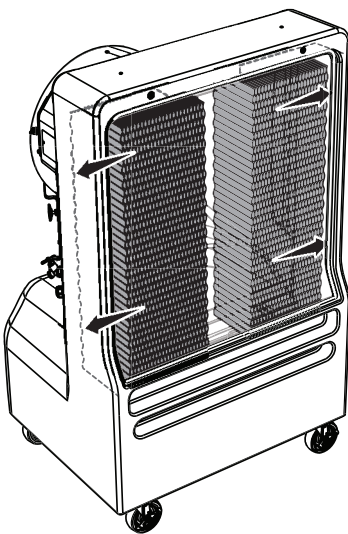
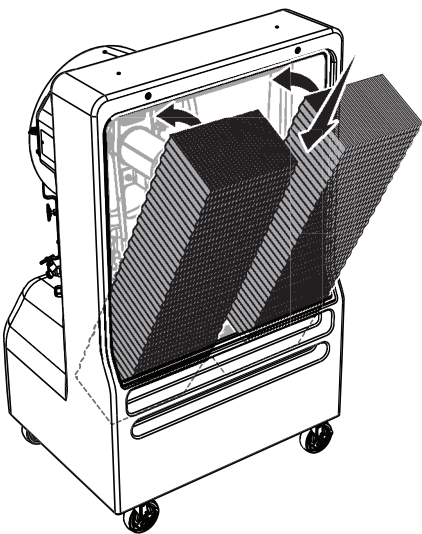
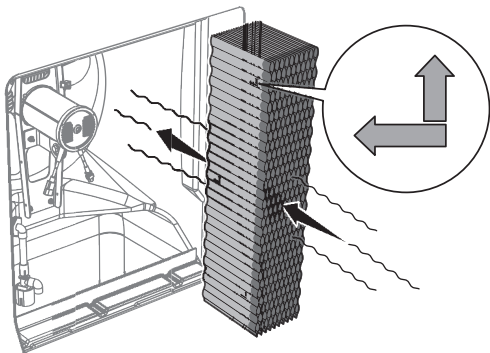
#### 3. Remove cooling media



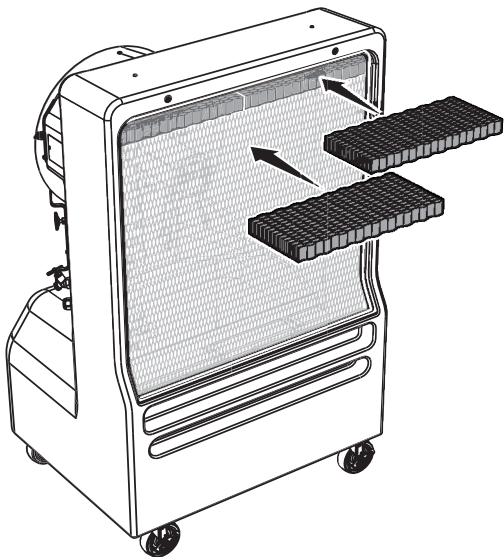
# Installing cooling media

## 1. Orient and install cooling media

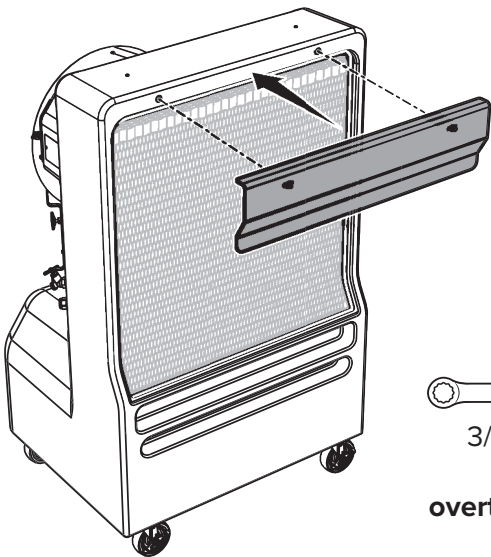
Orient according to the arrow markings on the media. The black coating should face outward.

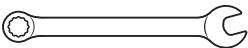


## 2. Install water distribution pads




## 3. Install retainer bar



  
3/8" (10 mm)  
**Do not  
overtighten bolts.**

# TROUBLESHOOTING

 **WARNING: ELECTRICAL SHOCK HAZARD.** Disconnect the power supply before performing service or maintenance. Failure to do so may result in serious injury or death.

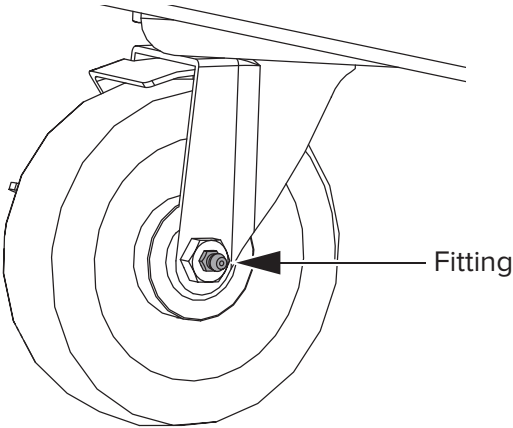
 **CAUTION:** Use caution when troubleshooting or repairing electrical components. Ensure power is disconnected from the cooler before the cooling media or fan guard is removed to gain access to the fan.

## Tools needed

- Screwdrivers
- Pliers
- Adjustable wrenches
- Volt/Ohm meter (electrical troubleshooting)

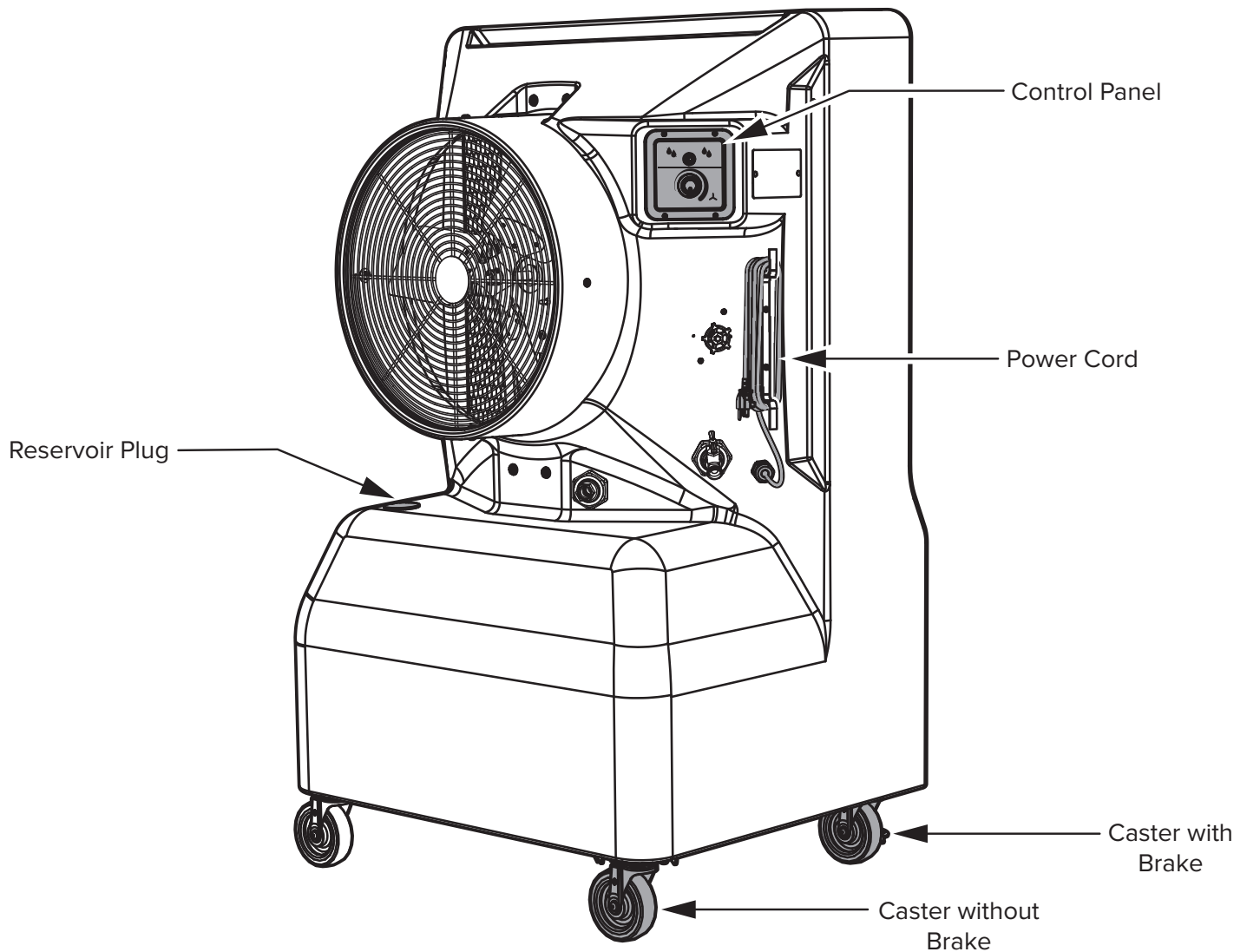
*Additional tools may be required.*

Issue	Solution(s)
Pump or fan will not start.	<ul style="list-style-type: none"><li>• Make sure power cord is plugged in.</li><li>• Make sure pump or fan is turned on.</li><li>• Check circuit breaker or fuse panel for functionality.</li><li>• Make sure supply power is adequate and functional. See page 1 for electrical requirements.</li><li>• Check cooler's water level. Pump automatically shuts off if water level is too low. Pump may take up to five minutes to reset after cooler is refilled.</li><li>• Make sure there are no obstructions in fan assembly or blades.</li><li>• Check extension cord gauge. See page 1 for requirements.</li><li>• Make sure back (inlet side) of cooler is clear of obstructions/walls. Provide minimum 3 ft (0.9 m) inlet clearance.</li></ul>
Breaker trips or fuse blows when pump or fan is turned on.	<ul style="list-style-type: none"><li>• Make sure supply power is adequate and functional. See page 1 for electrical requirements.</li><li>• Check extension cord gauge. See page 1 for requirements.</li></ul>
Pump runs but does not pump water.	<ul style="list-style-type: none"><li>• Make sure flow control valve is open (counterclockwise).</li><li>• Check cooler's water level.</li></ul>
Floor around cooler is wet.	<ul style="list-style-type: none"><li>• Make sure water supply hose is securely connected to cooler. Tighten connections if necessary.</li><li>• Make sure drain plug on bottom of cooler is secure.</li></ul>
Water is leaking from drain valve.	<ul style="list-style-type: none"><li>• Make sure drain valve is fully closed.</li></ul>
There are dry areas on the cooling media.	<ul style="list-style-type: none"><li>• Use flow control valve to increase water flow.</li><li>• Remove cooling media and check spray bar for clogged water distribution holes. Clean if necessary.</li></ul>

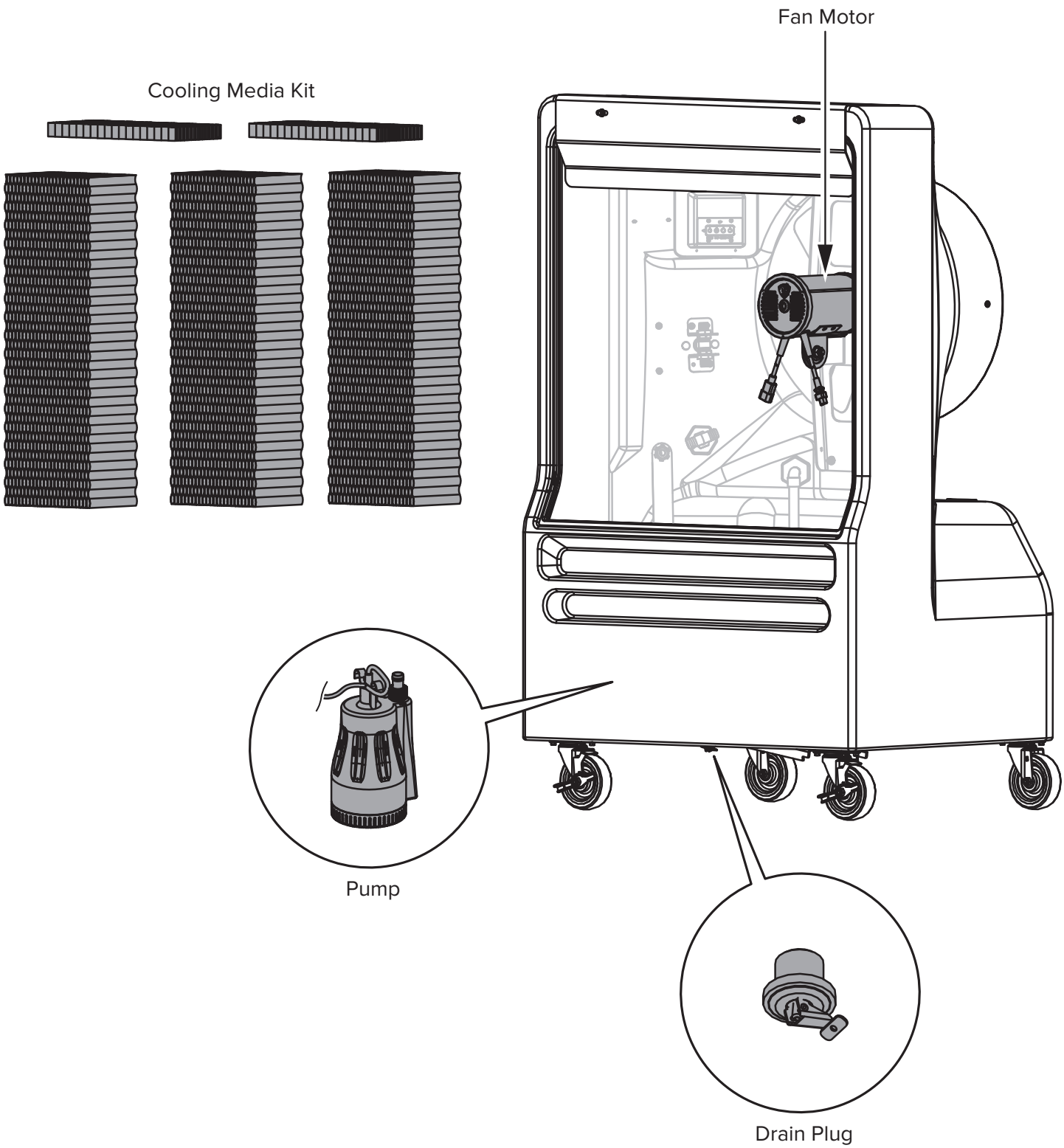
Issue	Solution(s)
Water overflows from reservoir or spits from cooler.	<ul style="list-style-type: none"> <li>• Check hoses and connections for leaks. Tighten connections if necessary.</li> <li>• Use flow control valve to reduce water flow.</li> <li>• Make sure cooling media is installed correctly and is not dirty or damaged.</li> <li>• Remove cooling media and check spray bar. Make sure water distribution holes are facing upward.</li> <li>• Check float valve hose connections. Tighten connections if necessary.</li> <li>• Make sure water supply pressure is below 60 PSI (4 bar/414 kPa) to allow cooler’s float valve to shut off water flow.</li> </ul>
Cooling media has scale and mineral buildup.	<ul style="list-style-type: none"> <li>• Drain and clean cooler and cooling media, and then add two water treatment tablets to reservoir. Tablets can be purchased at <a href="http://bigassfans.com">bigassfans.com</a>.</li> <li>• If mineral buildup is heavy, replace cooling media. Replacement cooling media can be purchased at <a href="http://bigassfans.com">bigassfans.com</a>.</li> </ul>
Casters are noisy.	<ul style="list-style-type: none"> <li>• Lubricate caster fittings with a grease gun.</li> </ul>  <p>The diagram shows a side view of a caster wheel assembly. It includes a wheel, a fork, and a mounting bracket. An arrow points from the word 'Fitting' to a small circular component at the center of the wheel where it meets the fork.</p>

# REPLACEMENT PARTS INDEX

Visit [bigassfans.com](http://bigassfans.com) or contact Customer Service to purchase replacement parts.



# REPLACEMENT PARTS INDEX



# CONTACT US

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## Customer Service

2348 Innovation Drive

Lexington, KY 40511

USA

877-244-3267

bigassfans.com

## Accessories and Replacement Parts

[www.bigassfans.com](http://www.bigassfans.com)



[www.bigassfans.com/support](http://www.bigassfans.com/support)



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