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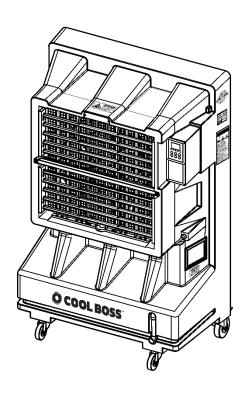
# Cool Boss™ Portable Evaporative Air Cooler with Swing Louvers

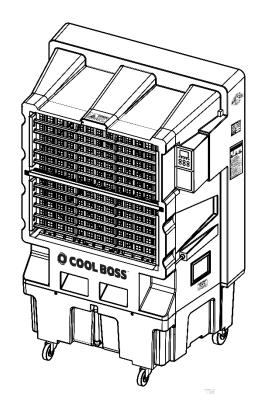
# **Installation and Operation Manual**

Manual Revision A — February 2022 — Manual P/N 5900275

### Models:

- CB-20SL / SLH
- CB-24SL / SLH





CB-20SL / SLH

CB-24SL / SLH



Read the *entire* contents of this manual *before* using this product. Failure to follow the instructions and safety precautions in this manual can result in serious injury or death. Make sure all other operators also read this manual. Keep the manual near the product for future reference. *By proceeding with setup and operation, you agree that you fully understand the contents of this manual and assume full responsibility for product use.* 

**Manual.** Cool Boss™ Portable Evaporative Air Cooler with Swing Louvers, *Installation and Operation Manual*, P/N 5900275, Manual Revision A, February 2022.

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**Limitations.** Every effort has been made to ensure complete and accurate instructions are included in this manual. However, product updates, revisions, and/or changes may have occurred since this manual was published. BendPak reserves the right to change any information in this manual without incurring any obligation for equipment previously or subsequently sold. BendPak is not responsible for typographical errors in this manual.

**Warranty.** The Cool Boss warranty is more than a commitment to you: it is also a commitment to the value of your new product. Visit **thecoolboss.com/warranty** for complete warranty information.

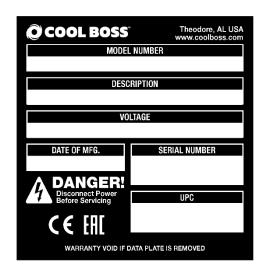
**Safety.** Your new product was designed and manufactured with safety in mind. Your safety also depends on proper training and thoughtful operation. Do not set up, operate, maintain, or repair your Cool Boss without reading and understanding this manual and the labels on the unit.

**Owner Responsibility.** In order to maintain your product properly and to ensure operator safety, it is the responsibility of the product owner to read and follow these instructions:

- Follow all setup, operation, and maintenance instructions.
- Make sure product setup conforms to all applicable local, state, and federal codes, rules, and regulations, such as state and federal OSHA regulations and electrical codes.
- Read and follow all safety instructions. Keep them readily available for operators.
- Make sure all operators are properly trained, know how to safely operate the unit, and are properly supervised.
- Do not operate the product until you are certain that all parts are in place and operating correctly.
- Carefully inspect the product on a regular basis and perform all maintenance as required.
- Service and maintain the unit only with approved replacement parts.
- Keep all instructions permanently with the product and make sure all labels are clean and visible.

<b>Unit Information.</b> Enter the Model Number, Serial
Number, and Date of Manufacture from the label on
your unit. This information is required for part or
warranty issues.

Model:		
Serial:		
Date of Manufa	cture:	



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# Introduction

This manual describes the Cool Boss Portable Evaporative Air Cooler, which keeps your shop or workplace cool and comfortable on even the hottest summer days.

The Cool Boss also features an Amplified speaker pair with Bluetooth® and analog inputs for streaming audio from smart devices.

The Cool Boss is available in three models with a fan diameter of 16", 28" or 36". Each model may be ordered in a 110 VAC or a 220 VAC version:

- **CB-20SL:** 110 VAC, 60Hz, 1 Ph. Power
- **CB-20SLH:** 208–230 VAC, 50/60Hz, 1 Ph. Power
- **CB-24SL:** 110 VAC, 60Hz, 1 Ph. Power
- **CB-24SLH:** 208–230 VAC, 50/60Hz, 1 Ph. Power

The CB-20 and CB-24 Cool Boss units operate identically and will be referred to as Cool Boss or Cooler throughout this manual. Any differences based on the selected power supply or function, will be called out in the text by the unit's specific model number.

This manual is mandatory reading for all users of the Cool Boss, including anyone who sets up, operates, maintains, or repairs it.



Be very careful when setting up, operating, maintaining, or repairing this equipment; failure to do so correctly could result in property damage, product damage, injury, or (in very rare cases) death. Make sure only authorized personnel operate this equipment. All repairs must be performed by an authorized technician. Do not make modifications to the unit; this voids the warranty and increases the chances of injury or property damage. Make sure to read and follow the instructions on the labels on the unit.

Keep this manual on or near the equipment so that anyone who uses or services the unit can read it.

Assistance with your Cool Boss is available from your dealer, by calling Cool Boss at **(805) 933-9970**, or by emailing **support@thecoolboss.com**. You may also contact Cool Boss for parts replacement (please have the serial number and model number of your unit available).

# **Shipping Information**

Your equipment was carefully checked before shipping. Nevertheless, you should thoroughly inspect the shipment **before** you sign to acknowledge that you received it.

When you sign the bill of lading, it tells the carrier the items on the invoice were received in good condition. *Do not sign the bill of lading until after you have inspected the shipment.* If any of the items listed on the bill of lading are missing or are damaged, do not accept the shipment until the carrier makes a notation on the bill of lading that lists the missing and/or damaged goods.

If you discover missing or damaged goods **after** you receive the shipment and have signed the bill of lading, notify the carrier at once and request the carrier to make an inspection. If the carrier will not make an inspection, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

It is difficult to collect for loss or damage after you have given the carrier a signed bill of lading. If this happens to you, file a claim with the carrier promptly. Support your claim with copies of the bill of lading, freight bill, invoice, and photographs, if available. Our willingness to assist in helping you process your claim does not make us responsible for collection of claims or replacement of lost or damaged materials.

# **Safety Considerations**

**Read this manual carefully before using your new product.** Do not set up or operate the product until you are familiar with all operating instructions and warnings. Do not allow anyone else to operate the product until they are also familiar with all operating instructions and warnings.



**California Proposition 65**. This product can expose you to chemicals including styrene and vinyl chloride which are on a list of over 900 chemicals identified by the State of California to cause birth defects or reproductive harm. ALWAYS use this product in accordance with Cool Boss BendPak's instructions. For more information go to **www.P65Warnings.ca.gov**.

### **Safety Information**

- The product is an air-cooling device. Use it only for its intended purpose.
- The product should only be operated by authorized personnel. Children should **not** be allowed operate the Cool Boss. Make sure all operators read and understand the Warning labels and the *Installation and Operation Manual*. Keep the manual near the device at all times.
- Never operate the Cool Boss with a damaged Power Cord or Plug.
- When the product is in use, keep all body parts away from it.
- Only use the product indoors in a well-ventilated area. Ensure a window or door is open to allow adequate air flow.
- Do not make any modifications to the product. This voids the warranty and increases the chances
  of injury or property damage.
- Avoid using an extension cord; they can overheat. If you must use an extension cord, make sure it
  is a three conductor No. 14 AWG minimum with a three prong plug/receptacle and does not
  exceed 50-feet in length. For 100-foot extensions cords use 12 AWG minimum. Use only UL Listed
  extension cords with a rated capacity sufficient to supply this device.

- Do not spray the outside of the unit with water. Moisture can harm the motor and other parts of the electrical system.
- Only connect the power cord to a grounded, three-prong GFCI protected receptacle.
- Lock at least two Casters before turning on the fan.
- Make a visual inspection of the product before using it. Check for damaged or missing parts. Do
  not use the product if you find problems with the unit. Instead, remove it from service,
  then contact your dealer, call Cool Boss at (805) 933-9970, or email Cool Boss at
  support@thecoolboss.com.
- Do **not** operate the Cool Boss if the fan has cracked or damaged blades.
- Do **not** operate the Cool Boss unless the Media is securely in place.
- Do **not** operate the Cool Boss within 35-feet (10.6 m) of an open flame or spark.
- **Always** remove the plug from the electrical receptacle by pulling on the plug not the power cord.
- BendPak recommends making a thorough inspection of the product at least once a year. Replace any damaged or severely worn parts, decals, or warning labels.

### Save these instructions!

### **Symbols**

**A** CAUTION

Following are the symbols used in this manual:

⚠ DANGER Calls attention to an immediate hazard that will result in death or severe injury.

Calls attention to a hazard or unsafe practice that could result in minor personal injury, product, or property damage.

Tip Calls attention to information that can help you use your product better.

## **Liability Information**

BendPak Inc. assumes **no** liability for damages resulting from:

- Use of the equipment for purposes other than those described in this manual.
- Modifications to the equipment without prior, written permission from BendPak Inc.
- Injury or death caused by modifying, disabling, overriding, or removing safety features.
- Damage to the equipment from external influences.
- Incorrect operation of the equipment.

# **Frequently Asked Questions**

**Question**: Is the Cool Boss an air conditioner?

**Answer**: No. it is an evaporative air cooler, sometimes called a swamp cooler. A Fan pulls in hot outdoor air, through a Cooling Media kept wet by a water drip spray system. As the Water droplets evaporate when they meet the hot air, it can lower the air temperature by up to 26°F, and the fan blows the cooled air in the desired direction.

**Q**: How much air does the Cool Boss cool?

A: Each unit can cool approximately:

Model	Airflow	Cooling Area	
CB-20SL / SLH	5,300 cfm / 150 cmm	1,076 ft <sup>2</sup> / 100 m <sup>2</sup>	
CB-24SL / SLH	7,063 cfm / 200cmm	1,615 ft <sup>2</sup> / 150 m <sup>2</sup>	

Q: What's the best way to set up my Cool Boss?

**A**: With the back of the unit facing a source of hot, dry air – which is what the Cool Boss will cool—and the front facing the area you want to keep cool. It will need to be near a power source also. And remember, it is portable. So you can move it to where you need it; it does not have to stay in the same place the whole time.

**Q**: Does it require special water?

A: No. Clean, ordinary tap water.

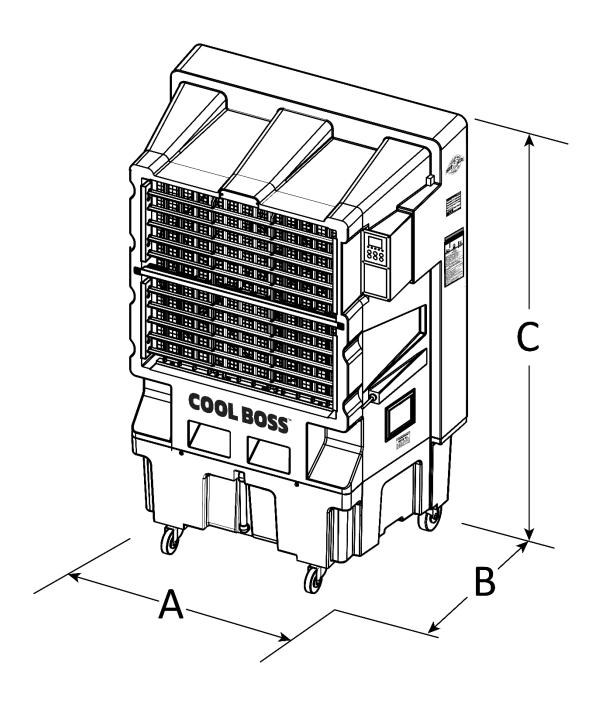
**Q**: Is it hard to control the Cool Boss?

**A**: Not at all. There a few, easy-to-understand controls on the unit. It also comes with a remote control, so that you can turn it on or off or change settings from wherever you happen to be.

**Q**: What about maintenance?

**A**: Very little. Basically, keep the Water Reservoir filled with clean tap water and clean the Media once in a while. Dirt and other pollutants from the environment accumulate in the Media and the Reservoir, so it is best to clean it every so often. Do not clean the Media by spraying it with high pressure water while installed in the Cool Boss! Instead, remove the Media using the procedure in the **Maintenance section**, then clean it as per the procedure found there.

# **Specifications**



Model	CB-20SL / SLH	CB-24SL / SLH	
Dimensions (A x B x C)	34 in. x 19 in. x 54 in.	36 in. x 23 in. x 57 in.	
	864 mm x 483 mm x 1,372 mm	914 mm x 584 mm x 1,448 mm	
Fan diameter	20 in. / 508 mm	24 in. / 610 mm	
Weight Empty	82 lbs. / 91 kg	96 lbs. / 125 kg	
Weight Full	206 lbs. / 93.5 kg	254 lbs. / 115 kg	
Water capacity	15 gal. / 57 L	19 gal. / 72 L	
Maximum airflow	5,297 ft <sup>3</sup> /min.	7,063 ft <sup>3</sup> /min.	
	150 m <sup>3</sup> /min.	200 m <sup>3</sup> /min.	
Sound level	53 to 63 dB	61 to 65 dB	
Electrical Current	4 A	5.5 A	
UL® Certified	Yes	Yes	
Fan speed	3-Speeds, Low – Medium - High		
Fan type	Axial		
Max. Water Source Pressure	≈72.5 psi / 0.5 MPa Max. Automatic Float Valve Shutoff.		
Water Pump Shutoff	The internal Water Pump incorporates an automatic low-level shutoff.		
Operating Temperature	64° to 113° F / 18° to 45°C		
Water Temperature	<45°C		
Power Cord Length	16 feet / 4.8 m		
Power Source	CB-XXSL: 110 VAC, 60 Hz, 15A, single phase.		
	<b>CB-XXSLH</b> : 208 to 230 VAC, 50-60 Hz, 15A, single phase.		
	Must be a grounded 15 amp circuit protected by a circuit breaker or fuse.		

# **Components**

### **The Cool Boss Unit**

CB-24 pictured below detailing the front (exhaust) side.

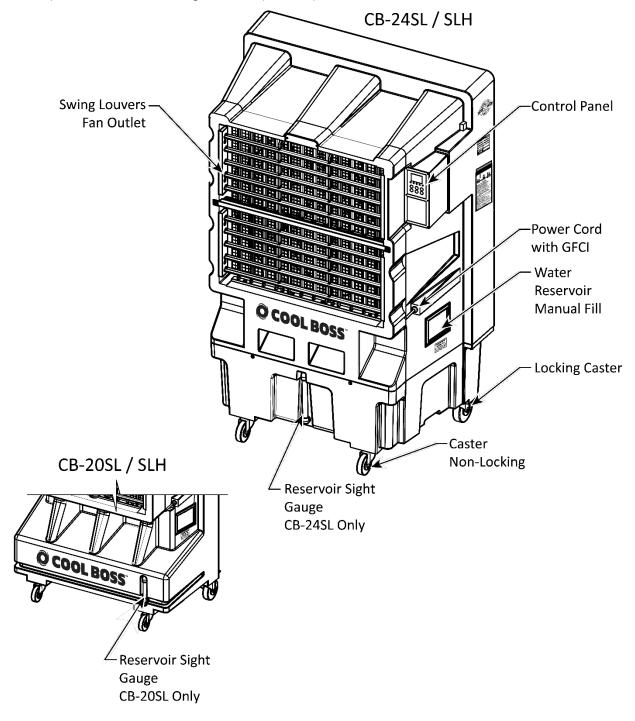


Figure not to scale. Components removed for clarity.

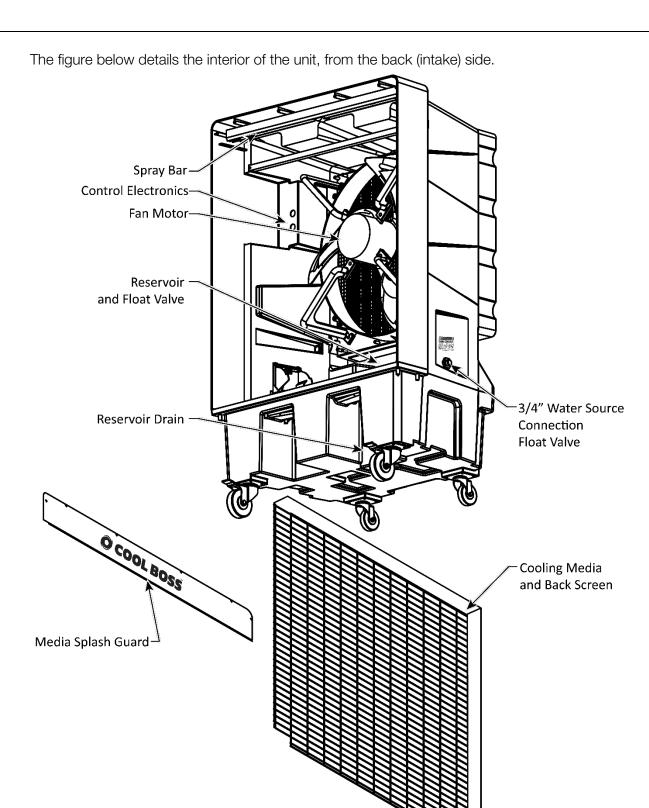
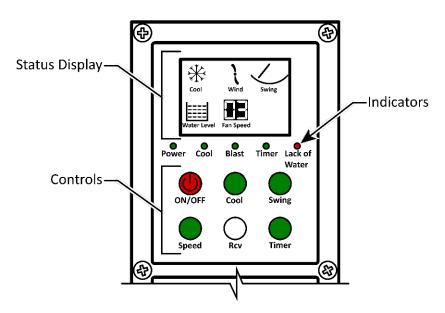


Figure not to scale. Components removed for clarity.

### The Cool Boss Control Panel

The figure below details the Control Panel.



### **Status Display and Indicators**

The Status Display and LED indicators provide the on-off status and low water indication of the Cooler.

### **Control Functions**

**On/Off** – Push on-off. Applies power to the Cool Boss.

**Speed** – Push to cycle through the three Fan speed settings low – medium – high.

**Swing** – Push on-off to start/stop the Swing Louver function.

**Cool** – Push on, applies power to the Pump which provides water to the Spray Bar over the Media and also starts the Fan.

### **Important**

The Fan start may be delayed up to a minute after pressing the Cool button. This time delay allows the water to propagate through the Cooling Media prior to pulling air through the Media.

**Blast** – Pushing the Cool button twice turns off the water pump and leaves the only Fan operating.

**Timer** – Push to scroll through preprogramed shutdown times. Allows the operator to select an automatic shutdown time in 1 hour increments. Up to 24 Hours maximum.

**Rcv** – This is the Infra-Red receiver for the Remote Control. Do not obstruct. The Remote Control requires a direct line of sight to this receiver.



**Never** push the buttons on the Control Panel or the Remote Control with anything sharp (e.g. screwdrivers, pens or a knife). Sharp objects can puncture the membrane and damage the circuitry below requiring repairs not covered under warranty.

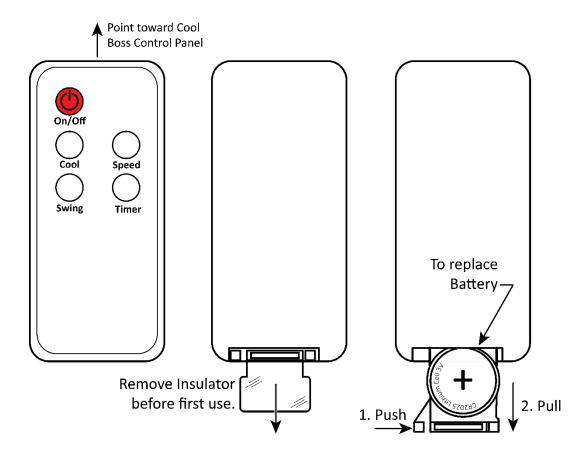
### **Remote Control**

The figure below details the remote control and identifies the control functions as defined above. The remote will be found in the box with the Casters. The Remote Control utilizes infra-red light to communicate with the Cool Boss. The Remote must be within 32 ft. / 10 m and have a direct line of sight to the Cool Boss Control Panel.

**Important** Pull the plastic insulator out of the Remote's Battery compartment prior to first use.

Pushbutton functions are as described in the Control Panel section above.

The Remote Control requires one CR2024 Button Style Lithium Battery (supplied with the Remote).



### To replace the Remote Control's Lithium Battery:

- 1. On the back of the Remote find the rectangular indentations on the bottom edge. Push the left square toward the center of the Remote and hold.
- 2. Gently pull the larger rectangle away from the Remote to access the Battery.
- 3. Replace with a new Battery. Verify the positive side is facing you as shown above.
- 4. Gently push the battery and the carrier back into the Remote.

**Important**Lithium Batteries are hazardous waste, dispose of at hazardous waste collection facilities only.





# **Setup**

There are six basic steps in the Cool Boss set-up.

- 1. Unbox.
- 2. Install the Casters.
- 3. Install the Media and Back Screen.
- 4. Determine the Cool Boss location.
- 5. Fill the reservoir or connect to water supply.
- 6. Connect to power.

### **Tools required for Assembly:**

- Hammer
- Pry Bar
- Phillips Screwdrivers
- Metric Open End Wrench Set

### **Unboxing the Cool Boss**

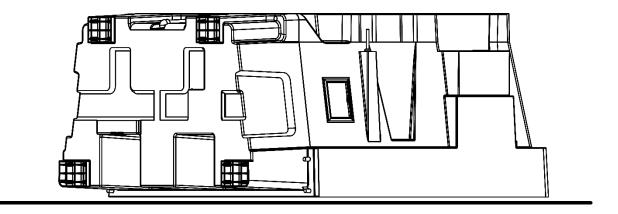
The Cool Boss Cooler is carefully packaged to prevent damage. Exercise care in removing the Cooler from its packaging. Be careful not to injure yourself on sharp edges or fasteners.



You must wear the proper protective equipment at all times during setup and assembly of this Cooler: leather gloves, steel-toed boots, and back belts.

### To unbox the Cooler:

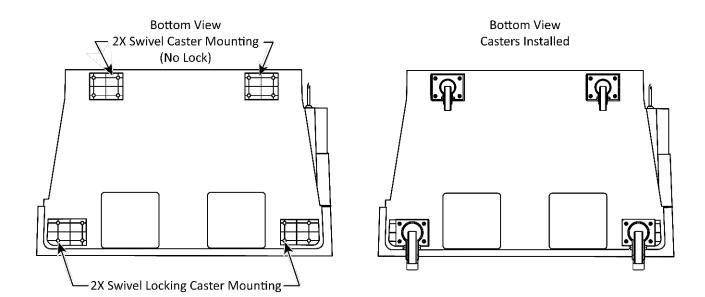
- 1. Use a hammer and pry bar to **carefully** remove the shipping container from around the Cool Boss.
- 2. Position the Cooler with its Media and Backscreen (intake) side down to provide access to the bottom of the unit. The back of the shipping container may be used to provide a clear, clean area to work on the Cooler. See figure below.



### **Installing the Casters**

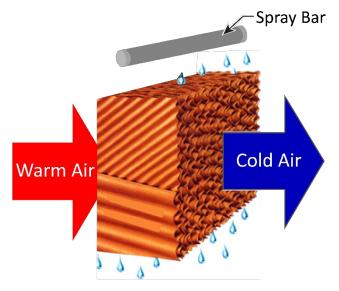
The Cool Boss is shipped with two heavy-duty Locking Casters and two Swivel Casters to both support and allow easy movement of the cooler around your facility. The Casters are shipped in a separate box with the Remote Control.

- 1. Locate and Install the two swivel Casters using the four bolts and flat washers for each Caster. As detailed in the figure below.
- 2. Locate and install the two Locking Casters using the four bolts and washers for each Caster.
- 3. Lock the two rear Casters by pushing down on the larger pedal. Pulling the pedal up releases the lock.
- 4. Have an assistant help rotate the Cool Boss upright onto its Casters.



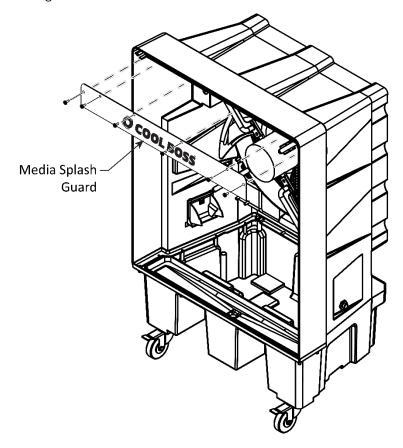
### **Installing the Cooling Media**

The Cooler pulls warm air through a Media saturated with water. Properly installed Media is critical to the Cool Boss operation. Refer to the figure below.

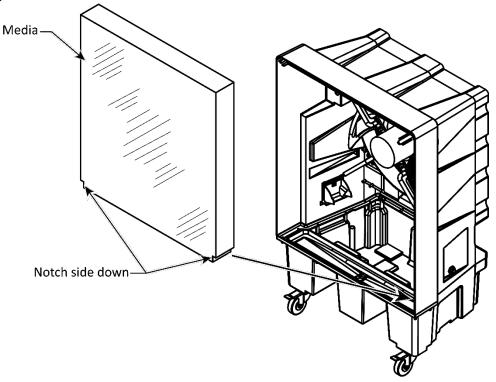


### To install the Media:

1. Remove and retain the six screws securing the Media Holder Splash Guard to the Cooler. Refer to the figure below.

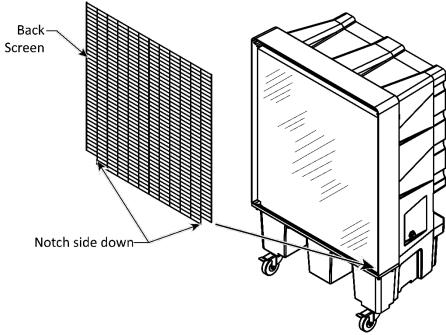


2. Retrieve the Media for your specific Cool Boss model and insert it into the Cooler top first with the notch side down. Once the top of the Media is in place push the bottom in and let it drop to seat in the tray at the bottom. Each Cool Boss model uses a different Media size. Refer to the table and figure below.

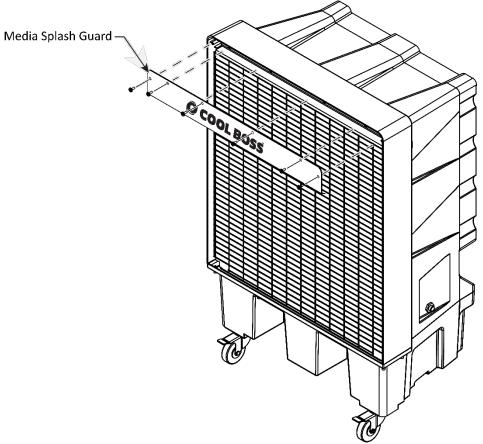


Not to scale, some components removed for clarity.

3. Retrieve the Back Screen and insert it into the Cool Boss top first with the Notch side down until it rests up against the Cooling Media.



4. Replace the six screws securing the Media Holder Splash Guard. Refer to the figure below.



Not to scale, components removed for clarity.

5. Removing the Back Screen and the Media is simply the reverse of this procedure.

### **Find a location for your Cool Boss**

Find a suitable location for the Cool Boss (hot air to the rear, cooling area to the front). The Cool Boss should be indoors, near an appropriate power and water source, and in a low-traffic and well-ventilated area.

**WARNING** 

This equipment has internal arcing or sparking parts that should not be exposed to flammable vapors. The unit must not be located in a recessed area or below floor level.

**MARNING** 

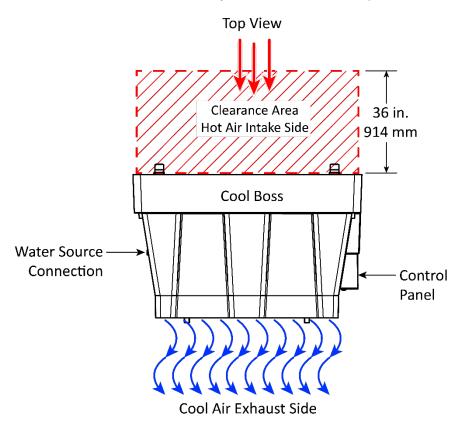
Verify the floor will support the weight of the Cool Boss with a *full* reservoir; is well constructed and stable enough to prevent the Cooler from tipping over.

### To choose a location for the Cool Boss Cooler:

1. Unlock the Casters to roll the Cool Boss. Direct the Fan outlet toward the area to be cooled.

**⚠** CAUTION

To ensure efficient operation, the Cool Boss requires adequate air flow for intake and exhaust. Verify a window or door is open.



2. Keep 36 in. / 914 mm minimum behind the Cool Boss open for air intake.

**⚠ WARNING** 

Verify the Power Cord and Water Supply Hose are routed to prevent a tripping hazard and are not routed under carpets or across sharp edges.

3. Once you have determined and moved the Cool Boss into position, **Lock the two rear Casters**, by pressing down with your foot on the Caster Pedal. To unlock the Casters, pull up on the pedal.



Do **not** start the Cool Boss until you have locked a two Casters; this ensures that unintended movement caused by the thrust of the Fan will not occur.

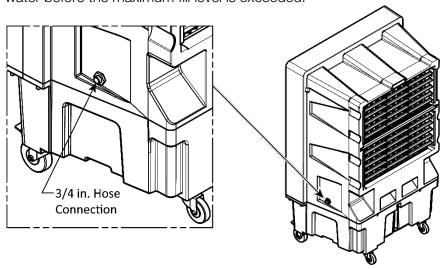
### **Fill the Water Reservoir**

There are two options to fill the Reservoir, using a hose connected to the 3/4 inch Water Inlet Connector or manually filling the Reservoir through the Reservoir Fill Door.

### To fill the Reservoir:

1. You may connect to the Water Inlet Connector on the left side of the unit using the 3/4 inch Hose fitting and a Hose that is rated to 72 psi / 0.5 MPa. Turn on the water and verify there are no leaks at the connection point. A Hose is **not** supplied with the Cool Boss. See figure below.

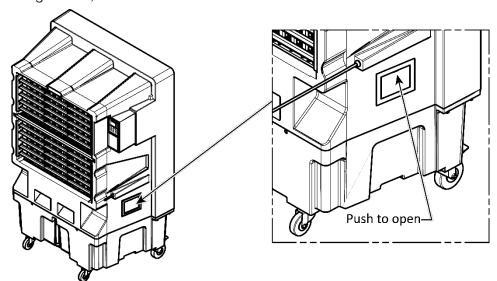
If you are utilizing the 3/4 inch Water Inlet Connector, the Reservoir Float Valve will shut off the water before the maximum fill level is exceeded.



### **⚠** CAUTION

Do **not** connect to a water source with a supply pressure in excess of  $\approx$ 72.5 psi / 0.5 MPa. If necessary, install a regulator to reduce the inlet pressure at the Cooler.

2. Alternatively, you may manually fill the Reservoir through the Reservoir Fill Door found directly below the Control Panel. The door is held closed by a spring loaded latch. Push to open. Then, using a hose, fill the Reservoir.



### **⚠** CAUTION

Do **not** pull on the Reservoir Fill Access Door. Push in to release the spring loaded latch, then pull to open.

Add *clean* water. Fill to the Max. fill level only, do **not** overfill. Monitor the Reservoir level visually and as indicated on the Control Panel. Water temperature must be less than 113°F (45°C).

3. After filling, close the Fill Door, remove and dry any spilled water on the Cool Boss or on the flooring surfaces around the unit.

# **▲ CAUTION**

Use only cold clean water to fill the Cool Boss. No detergents or additives of any kind

Model	Water Capacity		
CB-20SL / SLH	≈15 gal. / 57 liters		
CB-24SL / SLH	≈19 gal. / 72 liters		

### **Connecting to Power**

**Before** connecting this unit to a power source, first verify the required voltage by studying the model nameplate affixed to your machine. Cool Boss model numbers **CB-20SL** and **CB-24SL** are configured for 110 VAC operation; model numbers with an **H** suffix indicates 208 to 230 VAC operation (e.g. **CB-20SLH** or **CB-24SLH** are configured for **220 VAC** operation). It is recommended that a separate electrical circuit servicing only the Cool Boss be provided.

If your Cool Boss is equipped with a plug **not** compatible with your current power source, you must contact a licensed, certified Electrician. The Electrician will install a separate 15 Amp circuit protected by a fuse or circuit breaker with an appropriately grounded power receptacle in accordance with all national and local electrical codes. **Use an outlet that cannot be turned off by a switch**.

No Electrician is required to use the Cool Boss with a 110 VAC power source as shipped from the factory. Units operating at 110 VAC have the appropriate GFCI and plug attached. Only units requiring 220 VAC operation require an electrician to install the required 220 VAC plug and GFCI.

### **⚠ DANGER**

**All** electrical work must be accomplished by a **licensed, certified Electrician**, in accordance with national and local electrical codes. If you do not use a licensed, certified Electrician, you void your warranty and put everyone who uses the Cooler in danger of injury or, in rare cases, death.

### To connect the Cooler to a 220 VAC power source:

- 1. Verify the Cool Boss is **disconnected from the power source.** 
  - If it is connected, disconnect it. Do not begin to install a 220 VAC plug until you are sure that power has been disconnected from the unit.
- 2. Verify the Cooler is configured for 220 VAC operation. Locate the Model/Serial Number plate near the Cooler Display. The operating voltage is indicated on this data plate and should indicate 208 240 VAC operation. If this data plate indicates 110 VAC, then the unit cannot be run on 220 VAC.
- 3. Have a *licensed, certified Electrician* attach a 250 VAC NEMA 30A, 2-Pole, 3-Wire plug. This Plug is not shipped with the Cool Boss. You must have the Electrician bring the correct plug.

The colors of the three exposed wires from the power cord are Brown, Blue, and Green/Yellow, the European color code.

### **Important:**

To connect the three exposed wires to an appropriate Plug or to hard-wire them, have your Electrician follow the electrical codes for the country and locality in which you are using the unit.

For example, if you are using the unit for 220V in the United States, the color codes of the power cord wiring on the Cooler correspond to:

220 VAC

Brown: Live

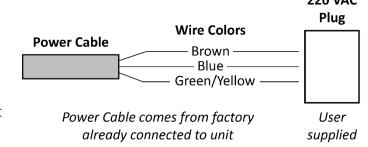
Blue: Live

**Green/Yellow**: Ground

If you were using the unit in a European country, the color codes on the wiring that comes with the Cooler correspond to:

**Brown**: Live **Blue**: Neutral

Green/Yellow: Ground



Information about color code conventions in other regions and countries is available online. Make sure your Electrician installs the Plug in accordance with all applicable national and local electrical codes.

- 4. Plug the Cool Boss power cord into a 220 VAC outlet protected by an appropriate circuit breaker.
- 5. Test the unit to verify the Cooler is working normally.

### **Additional electrical information:**

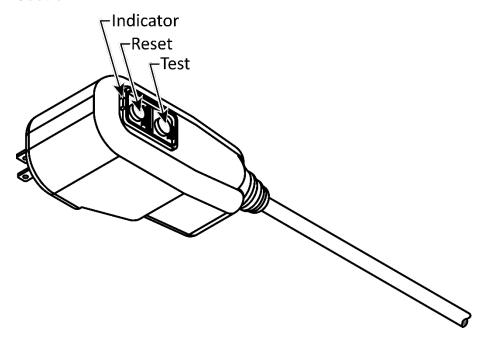
Damage caused by improper electrical installation (such as not grounding the unit) voids the warranty.

**WARNING** Disconnect power before performing any troubleshooting or maintenance. Make sure the unit cannot be re-energized until you are done.

**WARNING** Never remove the Ground Prong from the plug end of the Power Cord.

### **Ground Fault Circuit Interrupter (GFCI)**

The Cool Boss incorporates a Ground Fault Circuit Interrupter. The GFCI acts as a Circuit Breaker in the event of a Ground Fault. A Ground Fault occurs when the power conductor comes into direct contact with the equipment's frame or Ground. To test the GFCI see the **Maintenance Section**.



**⚠ WARNING** 

The Cool Boss must connected to a properly grounded electrical outlet for the GFCI to function. If the Outlet is not correctly grounded or if the Power Cord is damaged preventing the Ground connection, the GFCI cannot protect you from electrical shock.

**⚠ WARNING** 

The GFCI does not protect against electrical shock due to contact with both circuit conductors or a fault in the wiring that supplys the GFCI.

### **Extension Cords**

If an extension cord is required, use **only UL Listed** cords with a polarized plug/receptacle no longer than 100 feet in length. Never use an extension cord that is not properly rated to handle the electrical load. When making connections, ensure all local and national electrical codes are adhered to.

Minimum requirements for Extension Cords				
25-50 Feet in length Minimum 14 AWG				
Up to 100 Feet in length	Minimum 12 AWG			

### **MARNING**

For generator users and or areas with frequent brown-out conditions. Motor failure due to excessive high or low voltage is not covered under warranty. If you plan to use the Cool Boss with a Generator or operate in an area with frequent brown-outs, verify that the power source can provide the required electrical current and voltage. While voltage variations are common (±5%) both high and low voltage episodes in excess of 10% to 20% can cause Electric Motor overheating and premature Motor failure.

Low voltage will cause the Motor to draw more electrical current to deliver the same amount of force to the Fan Blades. Excessive current overheats the Motor Windings, eventually burning through the insulation and resulting in complete Motor failure.

High voltage episodes can cause premature failure of electrical and electronic components due to overheating.

# **Operation**

This section describes how to operate your Cool Boss Evaporative Cooler.

This section describes now to operate your Cool Boss Evaporative Cooler.				
	<b>⚠ WARNING</b>	The Cool Boss should only be operated by authorized, trained personnel. That training includes reviewing and understanding the Operation Manual and safety Labels on the Cool Boss. Do <i>not</i> allow children or impaired persons to operate the Cool Boss.		
	<b>⚠ WARNING</b>	<b>Never roll anything heavy or sharp over the power cord.</b> Try to find a location where people will not be constantly walking over the power cord, presenting a tripping hazard. The product should only be operated by authorized, trained personnel.		
	<b>⚠ WARNING</b>	Rotating Fan Blades! Keep hands, fingers and loose clothing away from the Fan when it is running.		
	<b>⚠ WARNING</b>	Never operate the Cool Boss unless the Ground Fault Circuit Interrupter (GFCI) is functioning.		
	<b>⚠ WARNING</b>	<b>Never</b> remove the Ground Prong from the plug end of the Power Cord.		
	<b>⚠ WARNING</b>	Do <b>not</b> run the Power Cord under a rug or other flammable material.		
	<b>⚠ WARNING</b>	Use only in a well ventilated open environment with a fresh air supply.		
	<b>⚠ WARNING</b>	The Cool Boss area must be free from airborne pollutants, flammable gases and contaminates.		
	<b>⚠ WARNING</b>	Ambient operating temperature must remain between 65° to 113° F / 18° to 45° C		
	<b>⚠ WARNING</b>	Never spray unit with water as moisture may harm the motor or other electrical system components.		
	<b>⚠ WARNING</b>	Do <b>not</b> operate near open containers of flammable liquids or gases.		
	<b>WARNING</b>	Always maintain a minimum distance of 50 feet / 15 meters from any open flame or sparks.		
	<b>⚠ WARNING</b>	The Cool Boss is not designed 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 concerning use by a person responsible for their safety.		
	<b>⚠ WARNING</b>	Never operate the Cool Boss unless the Cooling Media is securely in place.		
	^			

current temperature and humidity.

Always dry the Media after use by pressing the **Cool** button twice to run the Fan without circulating water. This may take from 15 to 45 minutes depending on the

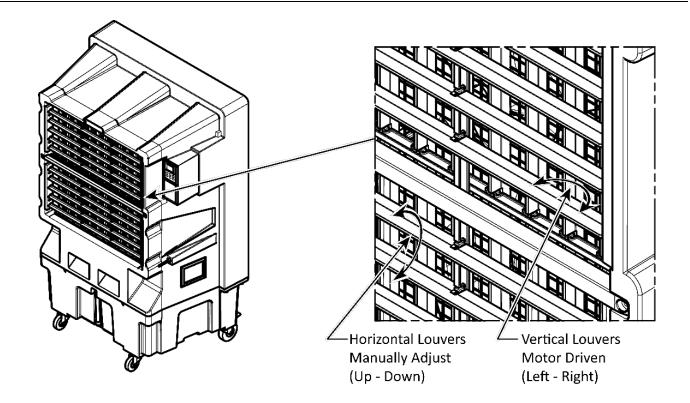
**MARNING** 

### To operate the Cool Boss for cooling:

- 1. Before starting the Cool Boss, verify that the Splash Guard over the Media is secured in place. This will reduce the chances of water splashing out of the Cool Boss and creating a slipping hazard in front of the Media.
- 2. Open a Door or Window, if using the Cool Boss indoors. Sufficient airflow for intake and exhaust is critical.
- 3. Verify that the Cool Boss is connected to a Water Source through the 3/4 inch Hose Inlet or the Water Reservoir is full.
- 4. Verify the two locking Casters are locked to prevent the Cool Boss from moving with additional thrust from the Fan.
- 5. Plug-in the Cool Boss.
- 6. Press the **On-Off** button on the Cool Boss Fan Controls. Refer to the Status Display on the Control Panel to review the current settings.
- 7. Press the **Cool** button once to supply power to the Cooling Pump and the Fan. The **Power** and **Cool** indicators will light. Water will begin to propagate through the Cooling Media.

# **The Fan will not rotate for up to a minute after pressing Cool**. This allows water to propagate through and saturate the Media prior to the Fan pulling air through it.

- 8. Press **Speed** to adjust the Fan power setting to Low. Leave the Fan Control on low until the top ≈30% of the Media becomes saturated (30 seconds minimum). Once the top 30% of the Media is saturated the Fan speed may be increased.
- 9. Verify the Low Water Indicator is off on the Status Display. If the Low Water indictor is on, verify the water source is connected and providing water under pressure. If filling manually, turn off the Cool Boss, unplug it from power and fill the Reservoir.
- ⚠ CAUTION Make sure there is water in the Water Reservoir before pressing Cool; if not, the Pumps' internal low-water switch will keep the Pump in the off condition.
- ⚠ WARNING Rotating Fan Blades! Keep hands, fingers and loose clothing away from the Fan when it is running.
- 10. Press the **Swing** button once to activate the Vertical Louvers. The Vertical Louvers will begin to move left and right dispersing the cool air. Press the **Swing** button again to deactivate the Swing function.
- Do not attempt to grab or push objects into the Vertical Louvers while they are in motion. The Vertical Louvers may also be damaged by attempting to move them when the Cooler is in the off condition. Such damage is not covered under warranty.



### To shut down the Cool Boss:

- 1. Stop the flow of water through the Media by pressing the **Cool** button twice. Verify the Pump is indicating off on the Status Display. The **Cool** indicator should be off and the **Blast** indicator should be on.
- 2. If using the 3/4 inch Water Source inlet, close the Valve supplying the water to the Cool Boss.
- 3. Dry the Media by leaving the Fan on in the **Blast** mode.

### **⚠ WARNING**

Dry the Media at the end of each day to reduce the possibility of bacteria and mold growth. Running the Fan without circulating water for 15 to 45 minutes should dry the Media in the majority of cases. Media drying times will vary based on heat, humidity and Fan speed.

4. After the Media is dry, reduce the Fan power, then turn off the Cool Boss.

### Using the Timer to shut down the Cool Boss:

- Stop the flow of water through the Media by pressing the Cool button twice. Verify the Pump indicates off on the Status Display. The Cool indicator should be off and the Blast indicator should be on.
- 2. If using the 3/4 inch Water Source inlet, **close** the Valve supplying the water to the Cool Boss.
- 3. Press the **Timer** button until the desired number of hours before shut-down are displayed.

  The Cooler will shut down based on the time entered. The available range is 1 to 24 hours in 1-hour increments.

# **Maintenance**

### ⚠ DANGER Disconnect the unit from its power source *before* performing any maintenance!

Verify the unit is locked out from power and cannot be energized while maintenance is being performed. If your organization has Lockout/Tag out policies, make sure to implement them before servicing the Coal Ross.

implement them before servicing the Cool Boss.

MARNING Rotating Fan Blades can cause serious injury! Keep hands and loose clothing clear!

**WARNING** Disconnect the Power Cord when cleaning the Cool Boss and exercise care to avoid splashing water on the motor or internal electronics.

### To maintain the Cool Boss:

- **Daily**. Turn off the Cooling Pump by starting the Blast mode (press **Cool** twice) to run the Fan and dry the Media. Drying will inhibit the growth of bacteria, mold and mildew. Typically Media drying can take 15 to 60 minutes depending on current temperature and humidity.
- **Weekly**. Change the Cool Boss Reservoir water when it gets dirty. Dirt and other pollutants from the environment will get into the water and reservoir. Cool Boss recommends draining and cleaning the Reservoir weekly or more often depending on the frequency of use and the cleanliness of the environment. Regular cleaning can remove contaminants and reduce the build-up of minerals.
- **Weekly**. Drain and clean the Cool Boss Water Reservoir. Dirt and other pollutants from the environment can settle in the Cool Boss Water Reservoir.
- **Monthly**. Test the GFCI on the Cool Boss Power Cord monthly to ensure it is functioning correctly. See, **to test the GFCI**, later in this section.
- **Monthly**. Clean the outside of the unit. Use no harsh chemicals. Unplug the Cool Boss and wipe down the outside of the unit with a damp cloth. The frequency of use and the cleanliness of the environment will affect the frequency of cleaning required.
- **WARNING** Do not spray the Cool Boss with water. The electronics are not sealed. Water can damage the motor and/or other components of the electrical system.
- Monthly. Empty the Reservoir and clean it.

number of your unit available).

• **Monthly**. Remove the Media and clean as detailed below. Dirt and other pollutants from the environment will become caught in the Media. Clean it regularly to keep the air fresh and clean.

# ⚠ WARNING Do not operate your Cooler if you find maintenance issues; instead, remove it from service. Assistance with your Evaporative Cooler is available from your dealer, by calling Cool Boss at (805) 933-9970, or by emailing support@coolboss.com. You may also contact Cool Boss for parts replacement (please have the serial number and model

### To clean the Reservoir:

- 1. The Media must be dry before removing. If the Media is wet, run the Fan without running the Cooling Pump until dry (press **Cool** twice).
- 2. Turn off and then unplug the Cool Boss.

### **↑** WARNING

Disconnect the unit from its power source before performing any maintenance! Make sure the unit is locked out from power and cannot be energized while maintenance is being performed. If your organization has Lockout/Tag out policies, make sure to implement them before servicing the Cool Boss.

- 3. Remove and retain the six Splash Guard Fasteners and then remove the Splash Guard.
- 4. Remove the Media and Back Screen by lifting it up and then pulling out at the bottom away from the Cool Boss. You may need to apply a little pressure to get the Media out. Be careful not to damage the Media.
- 5. Remove the plug at the bottom of the Reservoir and drain into a container or appropriate drain.

### **⚠** CAUTION

Take care to not damage the threads or seal that provides a watertight barrier between the Plug and the Reservoir.

- 6. Remove any residual water with rags or a wet / dry vacuum.
- 7. Wipe with clean rags and remove any mineral deposits. Use no harsh chemicals.
- 8. Refill the Reservoir and replace the Media. The Cool boss is ready to use.



Cool Boss recommends wearing gloves when handling the Media.

### To clean the Media:

- 1. The Media must be dry before removing. If the Pad is wet, run the Fan without running the Cooling Pump until the Pad is dry (push **Cool** twice).
- 2. Turn off and then unplug the Cool Boss.

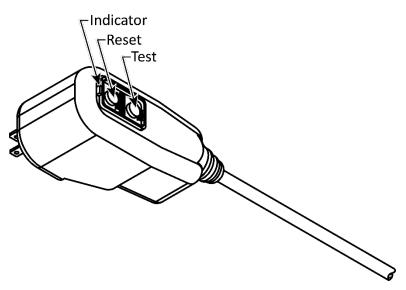
### **⚠ WARNING**

Disconnect the unit from its power source before performing any maintenance! Make sure the unit is locked out from power and cannot be energized while maintenance is being performed. If your organization has Lockout/Tag out policies, make sure to implement them before servicing the Cool Boss.

- 3. Remove and retain the six Splash Guard Fasteners securing the Splash Guard and then remove the guard.
- 4. Remove the back Screen and Media by lifting it up then pulling the bottom away from the Cool Boss. You may need to apply a little pressure to get the Media out. Be careful not to damage the Media.
- 5. Clean the Media from the inside (motor side) out. Rinse the Media under running water to clean and use a soft brush or rag to gently remove accumulated dirt. Do *not* use highly pressurized water or air to clean the Media.
- 6. Dry the Media before attempting to reinstall in the Cool Boss.
- 7. Put the Media back in place. Install the bottom first and then the top. You may need to apply gentle pressure to get the top of the Media into place.

### To test the GFCI:

- 1. Plug the cord into a properly grounded wall outlet. The indicator should be illuminated. Refer to the figure below.
  - a. If the indicator is not illuminated, check the wall outlet for power.
  - b. If power is present at the outlet, the Power Cord or the GFCI requires replacement.
- 2. Press the Test button. The Indicator should go out and no power should be available at the Cool Boss.
- 3. Press the Reset Button and the Indicator should be illuminated again. The Cool Boss should now be provided power and is ready for use.
- If the GFCI does not function, take the unit out of service, contact your dealer or BendPak Support at coolboss.com.com/support, via email at support@coolboss.com, or by phone at (800) 253-2363.
- ⚠ WARNING Do not use the Cool Boss if the GFCI fails this test.



**⚠ WARNING** 

The GFCI does not protect against electrical shock due to contact with both circuit conductors or a fault in the wiring supplying the GFCI.

**⚠ WARNING** 

Do not operate your Cooler if you find maintenance issues; instead, remove it from service, then Assistance with your Evaporative Cooler is available from your dealer, by calling Cool Boss at **(805) 933-9970**, or by emailing **support@coolboss.com**. You may also contact Cool Boss for parts replacement (please have the serial number and model number of your unit available).

### To store the Cool Boss:

- 1. Drain the Reservoir and wipe clean and dry.
- 2. Secure the electrical cord.
- 3. Cover the Cooler to prevent dust build-up and store in a dry, protected area.

# **Troubleshooting**

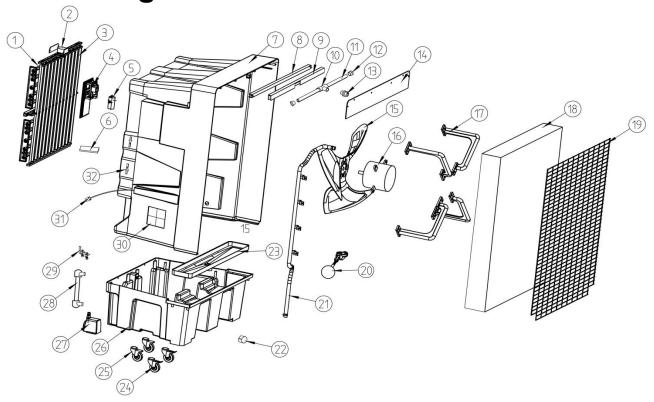
### **MARNING**

This Evaporative Cooler uses electrical energy; if your organization has Lockout/Tagout policies, make sure to implement them before performing any Troubleshooting.

Issue	Probable Cause	Action to Take
Control Panel inoperative.	No power. Circuit Breaker open. Panel component failure.	<ul><li>Check the power supply.</li><li>Reset the circuit breaker.</li><li>Replace the panel.</li></ul>
Unit not working.	No power.	<ul><li>Power cycle the unit on-off.</li><li>Verify the power supply is functional.</li></ul>
Fan not working or moving slowly.	Fan is stuck. Fan is broken. Media is clogged with dust or blocked by an object. Brown-out or low voltage.	<ul><li>Check for blockage and remove.</li><li>Clean the Media.</li><li>Repair fan.</li><li>Correct voltage supply issue.</li></ul>
Motor not working.	Control Panel failure.  Motor failure	<ul><li>Replace Control Panel.</li><li>Replace motor.</li></ul>
Drain leaks.	Drain Plug is not tight Drain Plug is cross-threaded.	<ul><li>Tighten Drain Plug.</li><li>Replace Plug, if thread is damaged.</li></ul>
Fan dripping water.	Water tubing is disconnected or leaking.  Spray Bar may have come loose from its mount.	<ul><li>Check and tighten internal water connections and tubing.</li><li>Verify Spray Bar is secured above the Media.</li></ul>
Remote does not work.	Battery is inoperative.  Something is obstructing receiver or remote.  Remote is out of range of the receiver.	<ul> <li>Replace both batteries (AAA 1.5 V).</li> <li>Clear the obstruction.</li> <li>The remote must be within 32-ft. / 10 m and have a direct line-of-sight to the Cool Boss Control Panel.</li> </ul>
Louver swing function is inoperative.	Louver synchronous motor is inoperative. Louver mechanical linkage is broken.	- Replace synchronous motor.  - Replace damaged mechanical linkage components.

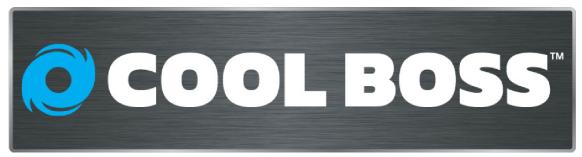
Assistance with your Cool Boss is available from your dealer, by calling Cool Boss at **(805) 933-9970**, or by emailing **support@coolboss.com**. You may also contact Cool Boss for parts replacement (please have the serial number and model number of your unit available).

# **Parts Diagram**



Item No.	Part Name	Qty.	Item No.	Part Name	Qty.
1	Horizontal Louver Blade	10	17	Braces, Fan Motor	4
2	Swing Motor	1	18	Cooling Media	1
3	Vertical Louver Blade	12	19	Back Metal Screen	1
4	LCD Control Panel	1	20	Float Valve	1
5	Capacitor	1	21	Water Pump Hose	1
6	Remote controller	1	22	Drain Plug	1
7	Air Cooler Housing	1	23	Water Baffle	1
8	Holder, Cooling Media	1	24	Back Swivel Casters w/ Lock	2
9	Holder, Spray Bar	1	25	Front Swivel Caster w/o Lock	2
10	Spray Bar, Tee	1	26	Water Tank	1
11	Spray Bar	1	27	Water Pump	1
12	Covers, Spray Bar	2	28	Water Gauge	1
13	Copper Joint, Spray Bar	1	29	Water Level Sensor	1
14	Splash Guard, Back Cover, Cooling Media	1	30	Water Inlet	1
15	Fan Blade	1	31	GFCI Plug	1
16	Fan Motor	1	32	Cord Holder	1

# Labels



# L BOS

### **AWARNING**

Cooling pads must be installed and caster locks must be engaged before operation.

PN 5905264



### **AWARNING**

Rotating fan blades. Keep hands clear. Follow lockout procedure before servicing.

PN 5905259

# **ACAUTION HOSE CONN**

ADD WATER HERE. Use clean water only with no detergents or additives. Avoid water spillage and prevent risk of electric shock. Fill reservoir to "MAX FILL" level only.

G

# **ACAUTION WATER FILL**

ADD WATER HERE. Use clean water only with no detergents or additives. Avoid water spillage and prevent risk of electric shock. Fill reservoir to "MAX FILL" level only.

REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES OR LACK OF EXPERIENCE AND KNOWLEDGE UNLESS THEY HAVE BEEN GIVEN SUPERVISION OR INSTRUCTION CONCERNING USE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.







### **SAFE OPERATION**

- SAFE OPERATION

  Read and understand instructions and all warning labels.

  NEVER modify this equipment in any way or warranty will be voided.

  NEVER operate if there is any damage to the power cord or plug.

  DO NOT route power cord under carpeting, flooting, or similar coverings.

  Minimize trip hazard by routing power cord AWAY from pedestrian traffic areas.

  NEVER step on or roll over power cord with neary or sharp objects.

  DO NOT RUN PUNP DRY or severe pump damage or failure will result.

  Use only in a ventilated open environment with ress air supply.

  Ambient operating temperature must remain between 65–1139°F (18–45°C).

  Maximum water temperature should never exceed 1139°F (45°C).

  DO NOT operate near open containers of flammable liquids or gases.

  NEVER spray or wash unit with a garden bose as water may harm motor and other. NEVER spray or wash unit with a garden hose as water may harm motor and other electrical
- system components. DO NOT open control box compartment. No serviceable parts located inside.
- All repair work MUST be performed by qualified personnel.

  DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE OR REPAIRS TO THE UNIT!

### IMPORTANT ELECTRICAL INFORMATION

WARNING! ALL WIRING MUST BE PERFORMED BY A CERTIFIED ELECTRICIAN IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. USE ONLY WITH GFCI PROTECTED RECEPTACLES.

- BEFORE connecting this unit to a power source, first verify the voltage that will be required by studying the model nameptate affixed to the machine (110V, 60Hz, 1PH, 15A or 208-230V, 60Hz, 1PH, 15A).
- If your unit is equipped with a plug not applicable to your power source, change the plug as

- If your unit is equipped with a plug not applicable to your power source, change the plug a required using only an approved NEM rated plug.
   Connect only to a fused and grounded electrical supply.
   It is recommended that a separate circuit serving only the unit be provided.
   Use an outlet that cannot be turned off by a switch plug in the plug and not the cord.
   ALWAYS remove plug from electrical receptable by pulling on the plug and not the cord.
   ALWAYS test the GFOI receptable or breaker monthly to ensure proper function.
   Check power outlet for correct polarity before use.
   NEVER use an extension cord that is not properly rated to handle the power load.
   If an extension cord is required, use only cords with poterized and/or three-prong plugs no longer than 100 feet in length (25-50 foot in length MIN. 14 Gauge, or up to 100 foot in length MIN. 12 Gauge). length MIN. 12 Gauge).

If the unit is damaged or it malfunctions, CEASE operation immediately. Visit www.coolboss. com and refer to the warranty, troubleshooting, and FAQ page. For Cool Boss Technical Support, call 1-855-223-2665, or email support@coolboss.com.

CONSUMER NOTICE: This product contains chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

5905258

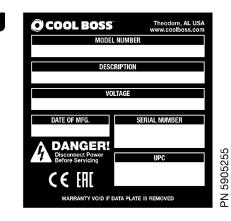


Unplug unit from power source before removing media pad. Fan can start unexpectedly due to the timer control feature.

PN 59052

PN 5905261



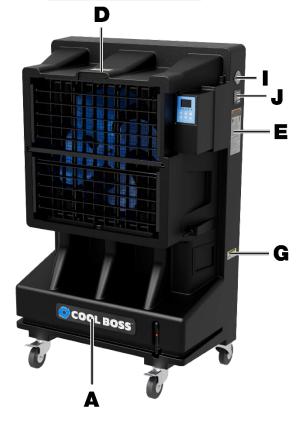


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# CALIFORNIA PROPOSITION 65

WARNING WARNING: This product can expose you to chemicals including styrene and vinyl chloride which are on the list of over 900 chemicals identified by the State of California to cause cancer, birth defects or reproductive harm. ALWAYS use this product in accordance with the manufacturer's instructions. For more information, go to www.p65warnings.ca.gov. PN 5905775

PN 5905775



# **Maintenance Log**

# **Maintenance Log**

