



COMBO-COOL

— BY **MasterCool** —

EVAPORATIVE COOLER CHILLER SYSTEM

OWNER'S MANUAL

READ AND SAVE THESE INSTRUCTIONS



IMPORTANT SAFETY INSTRUCTIONS READ BEFORE USING YOUR COMBO- COOL EVAPORATIVE CHILLER SYSTEM

1. To reduce the risk of fire or shock hazard, this appliance has a polarized plug (one blade is wider than the other). Plug the COMBO-COOL chiller directly into a 120V A.C. electrical outlet. Do not use extension cords. If the plug does not fully fit into the outlet, reverse plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.
2. To reduce the risk of electric shock, install only on a circuit protected with a Ground Fault Circuit Interrupter (GFCI).
3. This appliance is not intended for use by people (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.
4. Do not operate any unit with a damaged cord or plug. Contact customer service for troubleshooting, repair or return.

ONE YEAR LIMITED WARRANTY

This warranty is extended to the original purchaser of a COMBO-COOL chiller when it is installed and used under normal conditions. It does not cover damages incurred through accident, neglect, misuse, abuse, alterations, failure to perform reasonable maintenance, normal wear and tear, or unauthorized repairs. We do not authorize any person or representative to assume for us any other or different liability in connection with this product.

TERMS AND CONDITIONS OF THE WARRANTY

For one year from date of purchase, we will replace or repair any original component or product provided by MasterCool/Champion Cooler which fails due to any defect in material or factory workmanship only. MasterCool/Champion Cooler will cover the cost of postage for returned components or products covered by this warranty.

EXCLUSIONS FROM THE WARRANTY

We are not responsible for any incidental or consequential damage or malfunctions, due to the following situations, which includes but is not limited to:

Damaged pump, clogged water lines, improper installation, improper operational range, use of water treatment chemicals, and acts of God.

We are not responsible for the cost of service calls to diagnose the cause of trouble, or labor charge to repair and/or replace parts.

This warranty does NOT cover any chiller installed outside the continental United States

This warranty does NOT cover connections 5% above the voltage indicated on the nameplate.

This warranty gives the customer specific legal rights, and you may also have the other rights which vary by state to state (or by country or province).

HOW TO OBTAIN SERVICE UNDER THIS WARRANTY

A sales receipt is required as proof of purchase for warranty claims. Purchaser with inoperative unit should contact the dealer from whom you purchased the unit. If for any reason you are not satisfied with the response from the dealer, contact:

CUSTOMER SERVICE DEPARTMENT

Champion Cooler

5800 Murray Street

Little Rock, Arkansas 72209

1-800-826-2665

info@championcooler.com

LET'S GET YOU COOLED OFF

1

Remove the unit from its packaging, You should have:

A

Cabinet

B

Magnetic power cord clips (3)

C

Magnetic wire clips (3)

D

Hose clips 7/16 (3)

E

Hose clips 5/8 (3)

F

Flow valve mount

G

Flow valve

H

Water clip

I

Screws (2)

J

Pump water inlet

K

Pump

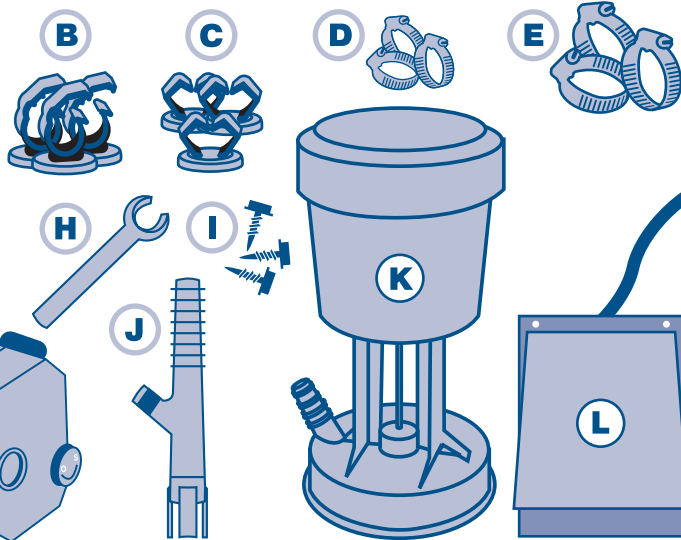
L

DHT (sensor & housing)



CCME-E model

CCME-I model



If you are missing any parts, or need replacement parts, call us at **800-826-2665** and we'll place your order for you. You can also order parts online at **combo-cool.com**. For a list of parts see page 17.

SPECIFICATIONS

2

Voltage/Frequency	115V	Max Watts	345W
Amps	3	Cycle Hertz	60Hz
Phase	1-ph		
Connection	3-prong grounded	Chassis	Powder Coated
Operational Range	32F-130F		
Pump Voltage	115V	Pump Gallons Per Hour	285GPH
CCMC-E			
Dimensions	17.875" Height	9.75" Width	4.425" Depth
Weight	15 lbs 10 oz/7.09 kg		
CCMC-I			
Dimensions	16.625" Height	9.75" Width	4.425" Depth
Weight	14 lbs 10 oz/6.63 kg		

OPEN VENTILATION SYSTEM

3

Unlike traditional air conditioners, evaporative coolers will not work in a closed room. **Both a fresh air source and an exhaust opening are required** to provide correct air flow.

For best results, the open windows or doors should not be on the windward side on the house.

Unlike refrigerated systems, evaporative coolers can continually

bring fresh air in, while exhausting old air every 2 to 4 minutes. This allows the air to always be fresh, not stale or laden with smoke and odors.

Ensure the selected window has sufficient open air around it and is not inhibited by nearby buildings.

Alternately, attic ventilation ducts such as UP-DUX® can be installed to provide sufficient air movement without requiring open windows.

BEFORE INSTALLATION

4

If you do not have an evaporative cooler currently installed, install your cooler before installing the CCMC chiller system.

5

If your evaporative cooler is currently installed, remove power from cooler before installing the CCMC chiller system.

6

Do not connect electrical power to evaporative cooler or CCMC unit until installation is completed.

7

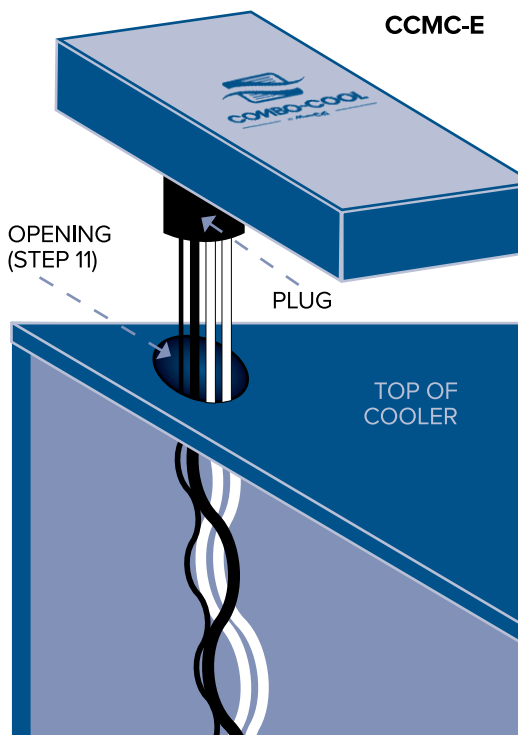
Turn water connection off.

8

Do not place hands near evaporative cooler fan blades.

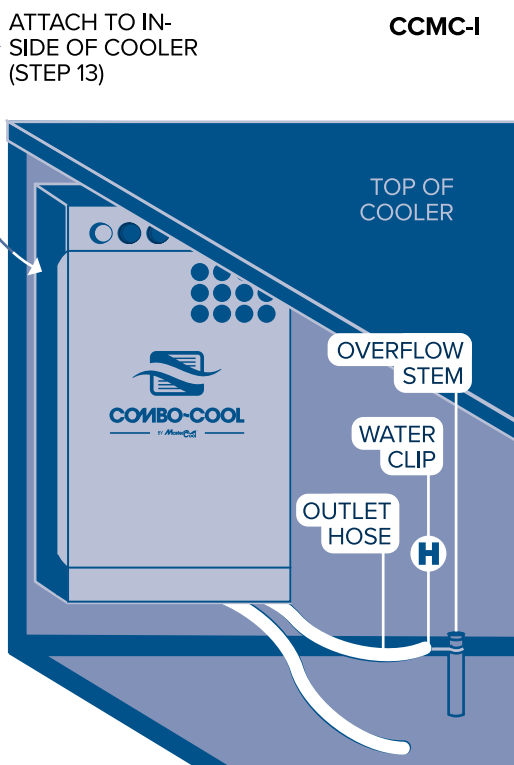
INSTALLATION

- 9** Remove the evaporative cooler's side panel (panels, if needed). See the manufacturer's evaporative cooler manual for instructions.
- 10** Locate the inside of cooler opposite of motor, pulley and belt.
- 11** (If you have the CCMC-I unit, skip to step 13.) Using a unibit or hole saw drill bit, drill a 4" opening for the CCMC-E's plug, wires and tubes.
- 12** Insert all of the CCMC-E's tubes, wires and plug through the drill hole.



- 13** (If you have the CCMC-E model skip to step 14.) Attach the CCMC-I unit to the bottom part of back wall of cooler. The unit's built-in magnets will mount the unit in place.
- 14** Locate the two clear water lines attached to the CCMC unit. The smaller of the two is the outlet hose. Loosely lay out the outlet hose from CCMC unit to overflow stem located in water pan of the evaporative cooler. Trim outlet hose, leaving enough length to reach the overflow stem.
- 15** Insert water clip (item H) into outlet hose and clip on to overflow stem.

ATTACH TO IN-SIDE OF COOLER (STEP 13)



16

Locate the side of cooler with the supply water line for the media pad.

17

Do not let the valve touch your media pads.

18

Using a self-tapping screw (item I), attach the flow valve mount (item F) to the inside of the cooler. Options for attaching flow valve include:

- The vertical flange. This is where the two sections of your cooler join together.
- The brace of the blower.
- The brace of the motor.

19

Locate your existing water line and remove a portion of its tube to insert in the bottom of your flow valve (item G).

20

Insert your flow valve (item G) into the flow valve mount (item F). Clip existing water line into the top of the flow valve. Secure with two (2) hose clips (item E) on the top and bottom of flow valve.

21

Place another hose clip (item E) around the end of the bottom of the flow valve's tube. Slip the hose on the top of the pump water inlet (item J) and secure the hose clip (item E).

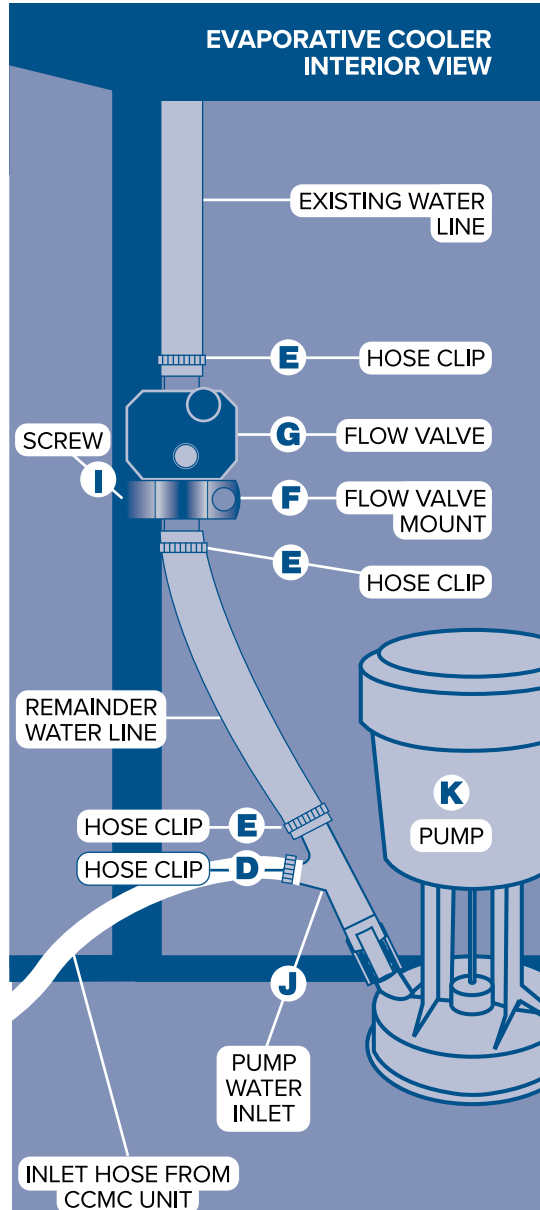
22

Place a small hose clip (item D) around the inlet hose (from the CCMC

unit). Slip the inlet hose on the small part of the "Y" on the pump water inlet (item J). Secure the small hose clip (item D).

23

Clip the bottom of the pump water inlet (item J) into the pump (item K).

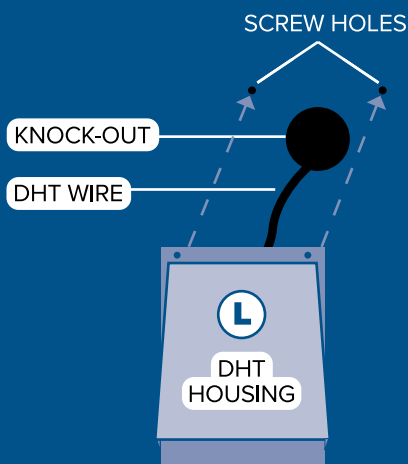


24

(If you have the CCMC-E model skip to step 25.)

Locate factory knock-out hole on the outside of the cabinet. Feed the DHT sensor wire (item L) through the knock-out hole. To attach the DHT housing to the outside of the cabinet, use two (2) 5/16" screws (item I) into holes above the knock-out.

EVAPORATIVE COOLER EXTERIOR VIEW

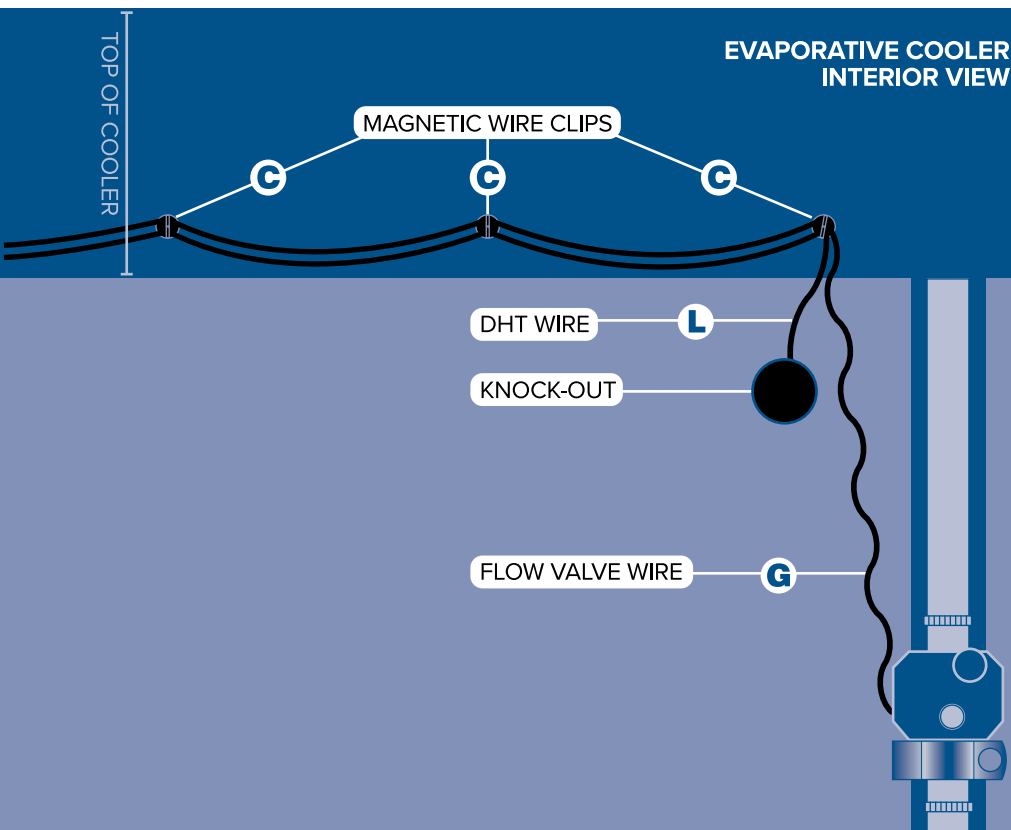


25

Feed the DHT wire (item L) and the flow valve wire (item G) through three (3) magnetic wire clips (item C).

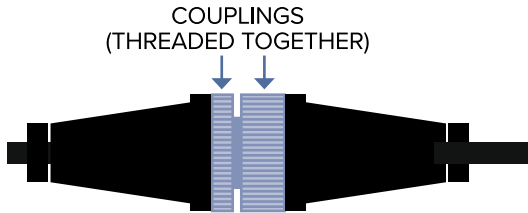
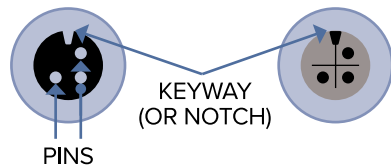
26

Place magnets along the top of the inside of the cooler, directing the wires towards the CCMC unit.

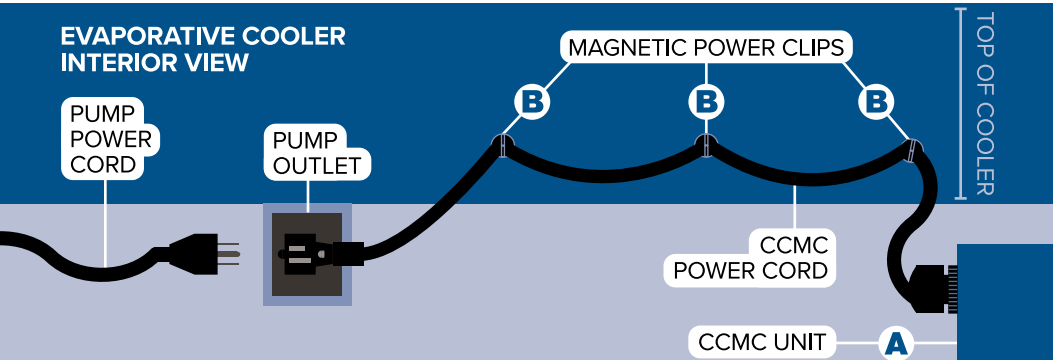


CIRCULAR CONNECTORS

- 27** Locate the circular connectors at the top of the CCMC box.
- 28** Match these labels, "DHT" and "VALVE," to the wire labels.
- 29** Locate the keyways (or notches) inside the connectors and align the corresponding connector and pins.
- 30** Push the connectors together then thread the couplings tightly into place.



- 31** Feed the CCMC's power cord through three (3) magnetic power cord clips (item B).
- 32** Place magnets along the top of the inside of the cooler, directing the wires towards the pump's electrical outlet (inside the cooler).



- 33** Plug the CCMC's power cord into the pump outlet (inside the cooler).
- 34** Plug the pump's power cord directly into the piggy-back of Combo-Cool's power cord.
- 35** Use a twist tie to secure excess length of the CCMC's power cord.
- 36** Replace the evaporative cooler's side panel(s).

WINTERIZATION

DRAINING | Turn power and water supply off and unplug cooler.

Rapidly drain water by removing the black drain plug from the bottom of the unit.

Soak up any remaining water and ensure all water is drained from the water pump.

STORAGE | Disconnect and drain the water hoses and water distributor.

If the temperatures in your area drop below freezing, it may be wise to remove the water supply line from the outside faucet and store the CCMC unit and water pump indoors.

Replace the louver and drain plug.

A canvas cover may be used to prevent cold air from entering the home during the cold winter months. Secure with two (2) nylon straps to avoid draft and noise.

⚠ CAUTION: The CCMC is durable enough to be left installed during the winter, though a few precautions must be taken to ensure no water freezes in the unit or lines.

COMBO-COOL PARTS

Available for purchase at 1-800-643-8341 or mastercoolproducts.com	
DESCRIPTION	PART NUMBER
Magnetic Power Cord Clips	
Magnetic Wire Clips	
Hose Clips (3) 7/16"	
Hose Clips (3) 5/8"	
Flow Valve Mount	
Float Valve	
Pump	
Pump Water Inlet	
Water Clip	
DHT (sensor & housing)	
Screws (3) 5/16"	

TROUBLESHOOTING

CCMC ISSUES

PROBLEM	PROBABLE CAUSE	SOLUTION
No light.	Self-check process still in progress.	Wait 60 seconds for self-check process to complete.
	No power to unit.	Verify unit is plugged in and outlet is functional. Verify main breaker has not been tripped. Use unit's external trip breaker button, located on the outside of the unit.
Green LED—solid light.	Unit is operating properly.	No solution needed.
Red LED—solid light. OR Blue LED—solid light.	DHT sensor failure.	Check the DHT sensor cable connection to the control board, and the DHT sensor cable to the circular connector on the Combo-Cool unit.
	Water valve failure.	Check the water valve connection to the Combo-Cool unit.
Control board or driver board failure.	Inadequate water distribution (pads not saturated).	Check water distribution tray and hose for blockages. Verify that the pump is operating correctly. Check water supply for correct flow.
	Pads dirty or covered with mineral deposits.	Wash dirt & deposits off pads or replace pads.
	Unit is not level.	Ensure the cooler is level.
Unit will not start.	No power.	Verify unit is plugged in and outlet is functional.
	Tripped circuit breaker.	Reset circuit breaker.
	Blown home fuse.	Replace home fuse.
	Electrical fault.	Call customer service at 1-800-826-2665.
Reduced water flow.	Water system has leaks or loose connections.	Check all water connections, tubing, distribution tray for loose fittings, leakage or tears.
	Water is not being absorbed by media pads and entering straight into airflow.	Check the condition of the media pads. Clean or replace them as necessary.
High indoor humidity.	Unsatisfactory exhaust.	Open doors or windows more.

OTHER EVAPORATIVE COOLER ISSUES (See manufacturer's manual.)

Cooler does not pump water.	Water level is low.	Fill with water and ensure pump is activated.
	Pump may be defective.	Replace pump.
Fan does not operate.	Check that unit is plugged into a 120V power receptacle.	Check the fuse or breaker. If connected to a GFCI outlet, check if it is tripped.
Insufficient cooling.	Inadequate water distribution (pads not saturated).	Check water distribution tray and hose for blockages. Verify that the pump is operating correctly. Check water supply for correct flow.
	Pads dirty or covered with mineral deposits.	Wash dirt & deposits off pads or replace pads.
	Unit is not level.	Ensure the cooler is level.
High indoor humidity.	Unsatisfactory exhaust.	Open doors or windows more.
Odor in home.	Occurs initially when pads are first saturated.	This is normal and will dissipate shortly.
	Bacterial growth in reservoir.	Clean unit regularly.
	Air intake is picking up ambient odor from surroundings.	Remove source of odor or move cooler to another window.
Rapid mineral buildup on media pads.	Hard water.	Increase maintenance cycle and wash off scale more often. Check orifices are clear of mineral buildup.

“The Combo-Cool is the best invention... We noticed a difference in temperature within hours of it being installed.”

—ASHLEY C.

HIGH TECH. LOWER TEMPS.

Combo-Cool by MasterCool is simply a chiller system designed to easily install in your evaporative cooler. It uses energy efficient chilling technology to optimize water temperature. Our system incorporates a microcontroller and weather sensors to make precise changes, creating the perfect recipe for efficient and effective cooling.



LOWERS TEMPS USING PATENT
PENDING WATER CHILLING
TECHNOLOGY



EFFECTIVE IN DRY AND HUMID
CLIMATES



EASY, RETROFIT INSTALLATION
INTO EXISTING EVAPORATIVE
COOLERS



INTERNAL MOUNTING FOR
EASY INSTALL IN RIGID
MEDIA COOLERS



ENVIRONMENTALLY FRIENDLY
AND ENERGY EFFICIENT



1-YEAR LIMITED WARRANTY



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