

Owner's Manual CMC100 Dehumidifier

DRI-EAZ PRODUCTS, INC.

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The CMC100 automatically controls humidity in confined areas in many types of spaces, including facilities, marine environments and in residential areas such as crawlspaces, attics and basements.

READ AND SAVE THESE INSTRUCTIONS

WARNING

Read and understand manual before operating.



WARNING! Electric shock hazard, rotating fan, hot surface hazards. Unplug unit before opening cover for cleaning or servicing.

WARNING! Unit must be grounded.

- Keep motor and wiring dry. Keep out of standing water and do not install in area likely to be subject to water intrusion. Do not expose to rain, water or snow.
- Insert three-prong plug on power cord into a matching electrically grounded outlet. Do not use adapter. Never cut off third prong. Do not use an extension cord.
- To reduce the risk of fire or electric shock, do not use this unit with any solid-state speed control device.

FIRE HAZARD

- Keep away from open flames and heat sources.
- Do not use or store where vapors from gasoline, solvents, thinners or other flammable materials may be present.

SAFETY INSTRUCTIONS

WARNING! Unplug unit before cleaning or servicing.

- Turn off unit and unplug before lifting or moving.
- Handle the unit carefully. Always operate the unit on a stable, level surface. Do not drop, throw, or place where it could fall. Rough treatment can damage the unit, and may create a hazardous condition or void the warranty.
- Inspect the power cord before use. If cord is damaged, do not use. Always grasp the plug (not the cord) to unplug.
- The unit must be operated on a 115V/60 Hz circuit protected by a

Ground Fault Interrupter (GFI) device.

- 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 supervision or have been given instruction concerning use of the appliance by a person responsible for their safety.
- Do not attempt to repair the unit. For Authorized Service Centers, call Dri-Eaz Service at 800-932-3030.

INTRODUCTION

The CMC100 reduces humidity in enclosed structural environments by removing water vapor from the air. With proper use, the CMC100 can help to dry out damp structural materials, insulation, and contents, and maintain a healthy level of humidity. Using the CMC100 may also prevent secondary damage caused by high humidity.

How the CMC100 works

The CMC100 refrigerant dehumidifier uses a fan to draw moist air in and condenses it into water that collects in a tray and is automatically pumped out through a drain hose. A humidistat automatically shuts the unit off when the desired level of humidity has been achieved.

Features:

- Industrial-quality dehumidifier removes up to 70 pints (33 liters) of water per day.
- Automatic humidistat control means set-and-forget convenience.
- Ductable outlet for flexible application.
- Recessed handles for easy positioning in confined spaces.
- Interchangeable intake and output panels allow for use in a wide variety of settings.
- Quiet operation and low power consumption.

- The CMC100 has been awarded the ENERGY STAR

NOTICE:

Upon receipt of your CMC100, inspect it carefully for damage. Set up and test unit in a temporary location for proper operation before installing permanently.

INSTALLATION

Location

The CMC100 works best in an enclosed area, as this creates a drying chamber. Excessive infiltration of damp air will increase operating time.

How to position the CMC100 dehumidifier

Place your CMC100 dehumidifier in the middle of the space, away from walls, footings, ducts and other materials that may prevent the free flow of air around and through the unit.

Keep unit level

The unit must be level to operate properly. Four screw-in adjustable foot pads are provided. If the CMC is to be used on an uneven surface, these feet must be assembled and installed into the bottom of the CMC before placing the unit into service.

1. To assemble the feet, press the bolt through the center of the rubber foot and tighten the nut until it is snug against the rubber foot.
2. To install the feet into the CMC100 base, screw one foot assembly into the bottom of each corner of the unit. **NOTICE:** To avoid damage to the condensate drain outlet, do not tip the unit over onto the condensate drain side.
3. To level the unit with the feet, place a carpenter's level on the top of the unit and adjust the footpads to raise or lower each corner of the unit until it is level.

NOTICE: The CMC100 must be kept in an upright position. If it is necessary to place the unit on its side, such as during the installation of the feet, return the unit to the upright position and *wait at least 10 minutes* before starting the unit.

Drain hose set-up

During operation, water condenses out of the air and collects in a drain pan inside the unit. The CMC100 automatically pumps out this water through the drain hose outlet (see Figure 3). Dri-Eaz recommends directing the hose into a drain or well away from area to be kept dry.

NOTICE: Do not place the end of the drain hose higher than 3 feet (1 meter) above the top of the CMC, or leaking may occur.

Pump operation

Depending on operating conditions, the unit may produce condensate water intermittently, in a steady stream, or not at all for short periods of time. These functions indicate normal dehumidifier and pump-purge operations.

NOTICE: To avoid spills, always secure the end of the drain hose so that the intermittent pumping action doesn't shift the hose out of position.

NOTICE: Do not allow the outlet of the drain hose to become submerged, blocked or otherwise subject to pressure that might reduce the ability of unit to pump water.

Duct the outlet for optimum performance

The processed air outlet is designed to accept standard 6 inch ducting (purchased separately). Properly installed, ducting can help circulate the air in the drying environment and improve drying efficiency. When using ducting, fasten it securely to the duct ring (see Figure 3). Place the open end of the duct some distance away from the unit. Use insulated flex ducting for the quietest operation.

OPTIONAL CONFIGURATIONS

The CMC100 features interchangeable panels that allow the unit to be adapted for use on shelves, small storage areas or in other locations where airflow might be obstructed. The damp air intake can be set up to draw in air from the end of the unit or from the side of the unit. Similarly, the output can be set up to exhaust dry air from the end of the unit or from the side of the unit. See Fig. 1.

To change the airflow configuration, first unplug the CMC, then remove the four screws that hold each panel in place (see Figs. 2 and 3). Lift the panels out of the CMC frame. Replace the panels in the desired position and carefully tighten the screws. **NOTE:** When placing both intake and output panels on the side of the unit (option C, above right), Dri-Eaz recommends attaching ducting to the output ring and placing the open end of the ducting some distance away from the CMC. This will help distribute the processed air more completely.

Fig. 1: Airflow Options (Top View)

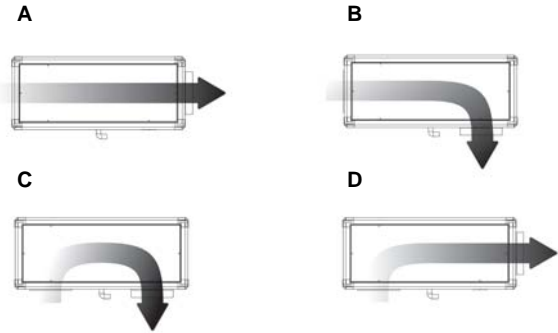


Fig. 2: Parts Identification

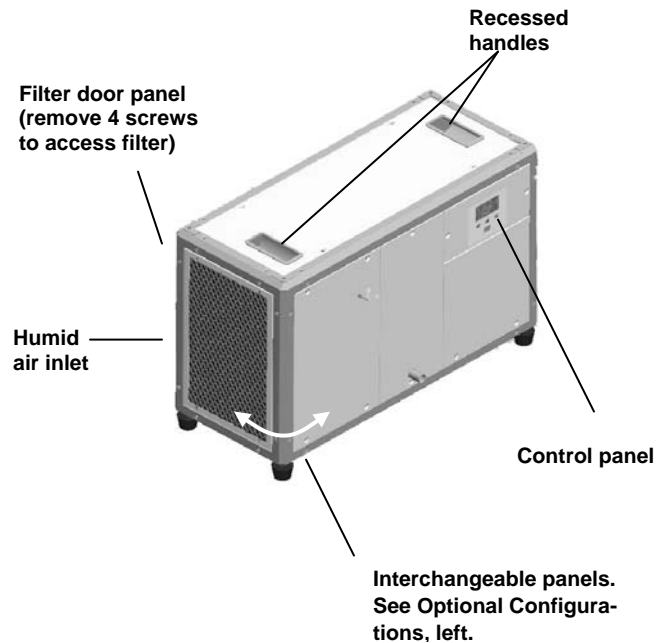
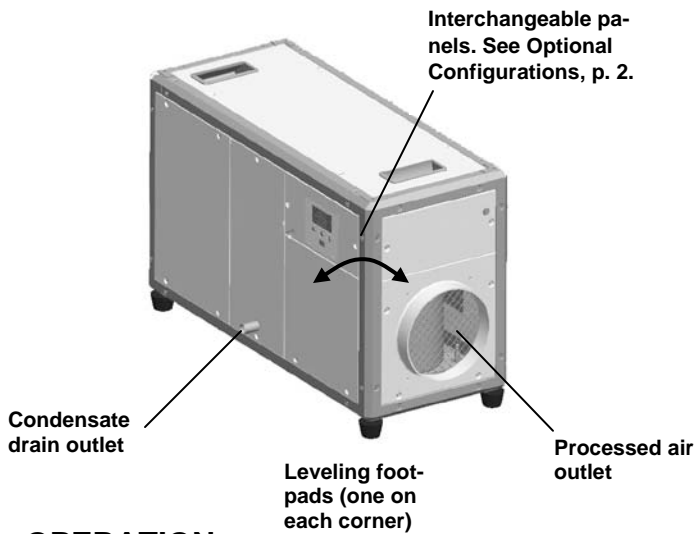


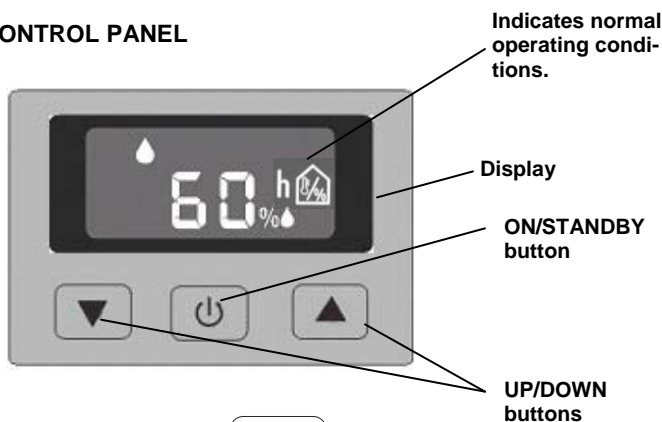
Fig. 3: Parts Identification



OPERATION

1. Plug in the power cord into a standard 115V grounded outlet. The unit must be operated on a 115V/60 Hz circuit protected by a Ground Fault Interrupter (GFI) device.
2. Attach one end of the drain hose to the condensate drain outlet and directing the other end into a drain or away from area to be kept dry. **NOTICE:** To prevent CMC100 drain pan overflow, ensure that there are no kinks or sharp bends in the drain hose and do not place the outlet of the hose higher than 3 ft. (1 m) above the top of the CMC100.
3. The CMC100 is controlled by an electronic touchpad humidistat. The unit will automatically start when the humidity of the surrounding air exceeds the humidity level selected.
4. Set humidity set point with Control Panel (see below).

CONTROL PANEL



ON/STANDBY button



The ON/STANDBY button toggles the unit between the ON and STANDBY modes. The display indicates the current mode.

1. In the **ON** mode, the display shows the current measured humidity as a percentage of relative humidity.



ON mode display shows current humidity

To view the current humidity setting, first set the unit in the ON mode, and then press the UP or DOWN arrow once.



UP button



DOWN button

To change the humidity setting, press the UP or DOWN button twice. Each time you press the button, the value of the humidity setting will increase or decrease in 5 percent increments.

Note: In the ON mode, the display will show the humidity setting only when you press the UP or DOWN buttons. After you have finished adjusting the setting, the display will resume indicating the measured humidity and the CMC will automatically maintain humidity at the selected setting.

2. In the **STANDBY** mode, the display shows a double dash. Unit does not operate in this mode. Press the ON/STANDBY button to return to ON mode.



STANDBY mode

Note: The UP and DOWN buttons do not function in the Stand-by Mode. Press the ON/STANDBY button to resume operation.

ADDITIONAL MODES

The CMC100 also has a DEFROST mode and a LOW TEMPERATURE PROTECTION mode. The unit automatically initiates these modes as conditions warrant. No user intervention is required.

1. The CMC will automatically enter the **DEFROST mode** as needed. The fan will continue to operate until the unit is ready for the next operating cycle. The unit will automatically return to ON mode when the defrost cycle is complete.



DEFROST Mode

2. When the ambient temperature falls below 45°F (7°C), the unit enters **LOW TEMPERATURE PROTECTION mode** and stops operating. The unit will automatically restart when the surrounding temperature rises above freezing.



LOW TEMPERATURE PROTECTION Mode

Automatic water pump out

The unit automatically pumps out condensate through the condensate drain hose. No user intervention is required.

Note: Check for proper operation before leaving the unit unattended. Do not move the CMC100 while it is operating.

MAINTENANCE

WARNING! Unplug unit before cleaning or servicing.

Note: Protect from freezing. Freezing may damage unit.

Note: Check filter one month after first installation for any initial buildup of dust or debris, and clean as needed. See “Inspect and Clean Filter Element” below.

MONTHLY MAINTENANCE

Inspect Power Cord

Inspect power cord for cuts, fraying or damage; do not use if damaged.

Inspect drain hoses

Inspect drain hose for kinks, breaks, or obstructions. Make sure the hose is draining properly.

Inspect Exterior

Inspect exterior cabinet. Make sure air vents are free of any obstructions. Listen to the unit for abnormal sounds. For Parts and Service, call your local distributor or the Dri-Eaz Service Department at 800-932-3030.

Clean Exterior

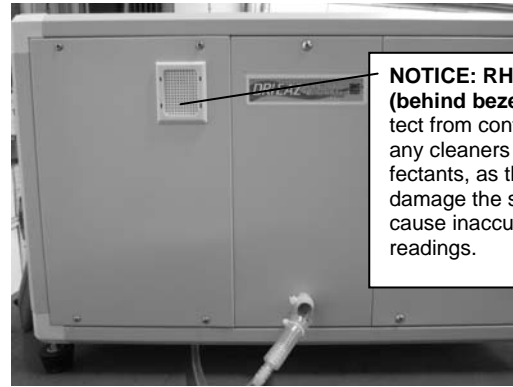
Clean the housing with a damp cloth. Make sure inlet and outlet grills are free of dust and debris.

PERIODIC MAINTENANCE

Inspect and Clean Filter Element

The CMC100 is equipped with a washable filter. Inspect the filter by removing the four filter door screws and sliding it out of the filter door panel (see Figure 2). If the filter shows excessive buildup, vacuum it clean and wash it in mild detergent. Replace the filter in the filter door and close the door securely.

Note: Do not operate the unit without the filter securely in place. If the filter becomes torn or can no longer be adequately cleaned, the filter may be replaced with similar cut-to-fit material available at most hardware stores.



NOTICE: RH Sensor (behind bezel). Protect from contact with any cleaners or disinfectants, as they may damage the sensor or cause inaccurate readings.

Inspect and Clean Pump

If the unit no longer pumps water out of the drain line, the pump may be clogged with debris. Follow these steps to inspect and clean the pump system.

WARNING! Unplug unit before cleaning or servicing.

Tools needed

- Screwdriver
- Clean cloths
- Coil Cleaner (Available from Dri-Eaz, product no. S402)
- Vacuum cleaner with crevice tool

Procedure

1. Remove the interchangeable side (see Fig. 4) and set aside. The panel is attached with four screws.
2. Remove the two drain line panel screws and set the panel down next to unit. The drain line is permanently attached to the interior of the panel and to the pump assembly. **DO NOT REMOVE DRAIN LINE FROM PANEL OR FROM PUMP.**

Fig. 4: Remove two panels for access to pump

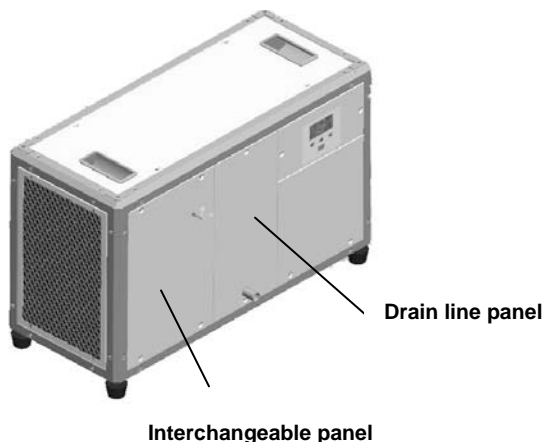


Fig. 5: Remove the four pump bracket bolts from the CMC drain pan.



Fig. 6: Remove the pump from the pump bracket.



3. Locate the pump assembly and remove the four bolts connecting it to the drain pan (Fig. 5). Lift the pump free. **DO NOT DISCONNECT ANY INTERNAL ELECTRICAL CABLES.**
4. Remove the two bolts holding the pump to the pump bracket (Fig. 6). Set bracket aside.
5. Locate the impeller housing on the bottom of the pump assembly. Remove the impeller housing by prying apart one of the two tabs with a screwdriver (Fig. 7). Once one tab is released, the housing will come loose and the second tab is easily released.
6. Inspect the impeller and the housing for dirt and debris. Wipe clean with a cloth. Use a cotton swab to clean the blades of the impeller.
7. Reattach the impeller housing to the pump assembly. Before snapping the housing into place, make sure the O-ring is in position (Fig. 8) and make sure the housing is properly aligned as shown (Fig. 9). The drain line and the electrical cable should be pointing in the same direction.
8. Inspect the drip tray. Wipe clean with a cloth as necessary.
9. Reattach the pump assembly to the pump bracket using the two bolts.
10. Inspect the coil for dust accumulation. Vacuum excess

Fig. 8: Make sure O-ring is correctly seated before reassembling impeller.



Fig. 7: Use a screwdriver to pry open the impeller housing retaining tabs.



- dust, taking care not to damage any components. Clean coils with Dri-Eaz Coil Cleaner. Be sure to wipe up any spills.
11. Inspect the filter. Clean in mild soap and water and dry thoroughly before reinstalling into the filter panel.
 12. Replace the drain line panel. Make sure the drain line is free of kinks and sharp bends before tightening the screws.
 13. Replace the interchangeable panels.
 14. Test the CMC100 for proper operation. For operation instructions, see your Owner's Manual.

NOTE: Before returning the CMC100 to use, make sure it is properly leveled and that the end of the drain hose is no more than 3 ft. (1 m) above the top of the CMC100. See "Keep Unit Level," p. 2, for instructions.

Fig. 9: Reassemble impeller as shown. Make sure electrical cables are oriented in the same direction as the drain tube.



SPECIFICATIONS

Name	CMC 100 Dehumidifier Model F391-A
Dimensions (W x H x D)	10 x 14 x 24 in. 25.4 x 35.6 x 61 cm
Weight	55 lbs. 25 kg
Air movement	250 CFM 7.1 m ³
Water removal	70 pts/day 1.4 L/hr at AHAM (80°F/60% RH)
Power	6.2 amps, 115V
Water removal efficiency (Energy factor)	4.4 pts/kWh 2.1 L/kWh
Condensate pump	Included – internal
Condensate pump lift capacity	3 ft. 1 m
Operating temperature range	45–100°F 7–38°C
Safety	ETL certified to UL 474 and CSA 22.2 No. 92
<i>Specifications are subject to change without notice. Some values may be approximate.</i>	

PARTS INCLUDED WITH THE CMC

Four leveling feet with mounting hardware
10 feet (3 meters) of drain hose
One hose clamp for attaching drain hose

ADDITIONAL PRODUCT INFORMATION and current documentation is available at <http://cmc-100.dri-eaz.com>.

FOR PARTS AND SERVICE CALL YOUR LOCAL DISTRIBUTOR or the Dri-Eaz Service Department at 800-932-3030.
www.dri-eaz.com

Visit warranty.CMC100.com and register your purchase to ensure you receive any important product releases.



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