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## Dial MC8500UL

# Dial MC8500UL High-Efficiency Evaporative Cooler Pump User Manual

Model: MC8500UL (Part No. 1442)

## INTRODUCTION

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This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Dial MC8500UL High-Efficiency Evaporative Cooler Pump. This pump is designed to circulate water in evaporative coolers with CFM ratings ranging from 4,000 to 8,500. It features a robust 115V motor, thermal overload protection for enhanced safety and longevity, and is engineered for quiet performance. The premium design includes a corrosion-resistant shaft and bearings, ensuring reliable and consistent operation. Please read this manual thoroughly before use.

## SAFETY INFORMATION

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Adherence to the following safety precautions is crucial for preventing personal injury and damage to the pump or evaporative cooler system.

- **Electrical Hazard:** Always disconnect power to the evaporative cooler before installing, servicing, or performing any maintenance on the pump.
- **Grounding:** Ensure the pump is properly grounded according to local electrical codes. The pump is equipped with a 3-prong grounded plug for your safety. Do not remove the grounding prong.
- **Water Immersion:** This pump is designed for continuous immersion in water. Do not operate the pump dry, as this can cause severe damage and void the warranty.
- **Temperature Limits:** Do not use this pump with liquids hotter than 120°F (49°C).
- **Clearance:** Keep hands, hair, and clothing clear of moving parts during operation.
- **Intended Use:** Use this pump only for its intended purpose in evaporative cooling systems. Do not use for pumping flammable liquids or in hazardous locations.
- **Thermal Overload Protection:** The pump is equipped with thermal overload protection. If the pump overheats, it will automatically shut off. Allow it to cool down before attempting to restart. Investigate the cause of overheating.

## PRODUCT OVERVIEW

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**Figure 1:** Dial MC8500UL High-Efficiency Evaporative Cooler Pump. The pump is blue, with a label indicating 'POWERCOOL EVAPORATIVE COOLER PUMP MODEL MC8500UL' and 'FOR COOLERS WITH CFM RATINGS FROM 4,000-8,500'. It has a 115V power cord with a standard plug. Alongside the pump are a metal mounting bracket and a mesh filter bag containing small components, likely for installation.

The Dial MC8500UL pump is a submersible unit designed for reliable water circulation in evaporative coolers. Key components include:

- **Motor Housing:** Contains the 115V motor with thermal overload protection.
- **Impeller:** Circulates water efficiently.
- **Discharge Outlet:** Connects to the water distribution system of the cooler.
- **Power Cord:** 115V, grounded plug.
- **Mounting Brackets:** Included for secure installation within the cooler's reservoir.
- **Mesh Filter Bag:** Helps prevent debris from entering the pump, extending its lifespan.

## SETUP AND INSTALLATION

Before beginning installation, ensure the evaporative cooler is disconnected from all power sources.

1. **Prepare the Cooler:** Drain any existing water from the evaporative cooler's reservoir and clean it thoroughly to remove sediment or debris.
2. **Mount the Pump:**
  - Position the pump in the cooler's reservoir, ensuring it sits level and is fully submerged when the cooler is filled with water.
  - Use the included durable mounting brackets to secure the pump to the bottom or side of the reservoir, preventing movement during operation.
3. **Connect Water Line:** Attach the cooler's water distribution hose to the pump's discharge outlet. Ensure a secure, leak-free connection.
4. **Install Filter Bag:** Place the mesh filter bag over the pump's intake area or around the pump itself to prevent larger debris from entering and clogging the pump.
5. **Electrical Connection:** Route the pump's power cord safely, avoiding pinch points or areas where it could be damaged. Plug the pump into a properly grounded 115V electrical outlet. Ensure the outlet is protected by a Ground Fault Circuit Interrupter (GFCI) if required by local codes.
6. **Fill Cooler:** Fill the evaporative cooler's reservoir with water to the recommended operating level. Ensure the pump is fully submerged.

## OPERATING INSTRUCTIONS

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Once installed and the cooler is filled with water, the pump is ready for operation.

1. **Initial Start-up:** Turn on the power to the evaporative cooler. The pump should begin circulating water to the distribution system, wetting the cooler pads.
2. **Check Water Flow:** Verify that water is evenly distributed over the cooler pads. Adjust any distribution lines or nozzles as necessary to ensure optimal wetting.
3. **Monitor Water Level:** Regularly check the water level in the cooler's reservoir. The pump must remain fully submerged during operation. Refill the reservoir as needed or ensure the automatic fill system is functioning correctly.
4. **Quiet Operation:** The pump is engineered for low noise. Any unusual noises may indicate an issue requiring investigation (e.g., debris in the impeller, low water level).

## MAINTENANCE

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Regular maintenance ensures the longevity and efficient performance of your pump.

- **Weekly/Bi-Weekly:**
  - **Disconnect Power:** Always turn off and disconnect power to the cooler before performing any maintenance.
  - **Clean Filter Bag:** Remove and clean the mesh filter bag to remove accumulated debris. Rinse it thoroughly and re-install.
  - **Inspect Pump:** Visually inspect the pump for any signs of wear or damage. Check for debris around the impeller.
- **Monthly/Seasonally:**
  - **Clean Reservoir:** Drain and thoroughly clean the evaporative cooler's water reservoir to prevent algae and mineral buildup.

- **Inspect Impeller:** If water flow is reduced, carefully remove any debris that may have bypassed the filter and lodged in the impeller area.
- **Check Connections:** Ensure all hose and electrical connections are secure and free from corrosion.
- **End of Season (Winterization):**
  - Disconnect power and drain the cooler completely.
  - Remove the pump from the reservoir. Clean it thoroughly and store it in a dry, frost-free location to prevent damage from freezing water.

## TROUBLESHOOTING

Before troubleshooting, always disconnect power to the evaporative cooler.

Problem	Possible Cause	Solution
Pump does not run.	<ul style="list-style-type: none"> <li>• No power to the outlet.</li> <li>• Thermal overload tripped.</li> <li>• Pump motor seized or damaged.</li> <li>• Power cord damaged.</li> </ul>	<ul style="list-style-type: none"> <li>• Check circuit breaker/GFCI. Test outlet with another device.</li> <li>• Allow pump to cool for 30 minutes. Check for obstructions before restarting.</li> <li>• Inspect impeller for obstructions. If seized, pump may need replacement.</li> <li>• Inspect cord for cuts or damage. Replace if damaged.</li> </ul>
Low or no water flow.	<ul style="list-style-type: none"> <li>• Low water level in reservoir.</li> <li>• Clogged filter bag or impeller.</li> <li>• Kinked or obstructed water distribution hose.</li> <li>• Air lock in pump.</li> </ul>	<ul style="list-style-type: none"> <li>• Fill reservoir to proper operating level.</li> <li>• Clean filter bag and inspect impeller for debris.</li> <li>• Check and clear any obstructions in the hose.</li> <li>• Briefly lift and re-submerge the pump to release trapped air.</li> </ul>
Pump is noisy.	<ul style="list-style-type: none"> <li>• Debris in impeller.</li> <li>• Pump not fully submerged.</li> <li>• Pump vibrating against cooler wall.</li> </ul>	<ul style="list-style-type: none"> <li>• Disconnect power and clean impeller.</li> <li>• Ensure water level is adequate and pump is fully submerged.</li> <li>• Adjust pump position or use mounting brackets to secure it.</li> </ul>

## SPECIFICATIONS

Feature	Detail
Brand	Dial
Model Number	MC8500UL (Part No. 1442)
Voltage	115 Volts
Power Source	AC
CFM Rating Compatibility	4,000 - 8,500 CFM Units
Item Weight	2 Pounds

Feature	Detail
Product Dimensions (L x W x H)	4.5" x 4.5" x 8.5"
Material	Polyvinyl chloride or Polypropylene
Color	Black (Pump body is blue, but product listing specifies black)
Style	Diaphragm
UPC	026529144209
Manufacturer	Standard Plumbing Supply

## WARRANTY AND SUPPORT

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For specific warranty information regarding your Dial MC8500UL Evaporative Cooler Pump, please refer to the documentation included with your purchase or contact the retailer where the product was acquired. Warranty terms typically cover manufacturing defects for a specified period from the date of purchase.

For technical support, replacement parts, or further assistance, please contact the manufacturer, Standard Plumbing Supply, or your authorized Dial product dealer. Contact information can usually be found on the product packaging or the manufacturer's official website.