

Dometic 3850644422

Dometic 3850644422 120V/325W Heating Element Instruction Manual

Model: 3850644422 | Power: 120V/325W

1. PRODUCT OVERVIEW

The Dometic 3850644422 is a 120V/325W heating element designed for use in Dometic RV refrigerators. This component is crucial for the electric operation of the absorption refrigeration system, providing the heat necessary to initiate the cooling cycle when operating on AC power.

Image 1: Dometic 3850644422 Heating Element showing model and power specifications.

Image 2: Electrical connectors of the Dometic 3850644422 Heating Element.

2. SAFETY INFORMATION

WARNING: Electrical shock hazard. Disconnect all power sources (AC and DC) to the refrigerator before attempting any installation, maintenance, or troubleshooting. Failure to do so can result in serious injury or death.

- Ensure the refrigerator is completely powered off and unplugged from any AC source.
- Wear appropriate personal protective equipment, including safety glasses and electrical gloves.
- If you are not comfortable performing electrical work, consult a qualified technician.

3. INSTALLATION (SETUP)

This section outlines the general procedure for replacing the heating element. Specific steps may vary depending on your Dometic refrigerator model. Refer to your refrigerator's service manual for detailed instructions.

1. **Disconnect Power:** Ensure all AC and DC power to the RV refrigerator is disconnected.
2. **Access the Refrigerator Compartment:** Locate the exterior access panel for your RV refrigerator. Open and remove the panel to expose the rear components.
3. **Locate the Old Heating Element:** Identify the existing heating element. It is typically a metal rod inserted into a flue tube, with wires connecting to the control board.
4. **Disconnect Wires:** Carefully disconnect the electrical wires from the old heating element at the control board or terminal block. Note their original positions for correct re-connection.
5. **Remove Old Element:** The heating element is usually held in place by a clip or screw. Remove any fasteners and carefully slide the old element out of the flue tube. This step may require some manipulation due to tight spaces.
6. **Insert New Element:** Gently insert the new Dometic 3850644422 heating element into the flue tube. Ensure it is fully seated.
7. **Secure New Element:** Secure the new element with the appropriate clip or screw.
8. **Connect Wires:** Reconnect the electrical wires to the new heating element, ensuring they are securely attached to the correct terminals.
9. **Verify Connections:** Double-check all connections to ensure they are tight and correctly routed.
10. **Replace Access Panel:** Reinstall the exterior access panel.
11. **Restore Power:** Reconnect AC and DC power to the RV.

For visual guidance on installation, refer to the following video:

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Video 1: General guide for replacing a heating element in a Dometic refrigerator. This video is provided by a seller and offers visual assistance for the installation process.

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Video 2: Visual demonstration of a heating element and its components. This video is provided by a seller and helps in identifying the part.

4. OPERATION

The Dometic 3850644422 heating element operates automatically when the RV refrigerator is set to AC electric mode. It converts electrical energy into heat, which is then used to drive the absorption refrigeration cycle. When the refrigerator is powered by AC, the control board activates the heating element to maintain the desired temperature.

- Ensure the refrigerator is connected to a stable 120V AC power source.
- Select the AC operating mode on your refrigerator's control panel.
- The heating element will activate as needed to cool the refrigerator compartment.

5. MAINTENANCE

Regular maintenance helps ensure the longevity and efficient operation of your heating element and refrigerator.

- **Visual Inspection:** Periodically inspect the heating element and its wiring for any signs of damage, corrosion, or loose connections.
- **Cleanliness:** Ensure the area around the heating element and flue tube is free from dust, debris, or obstructions that could impede heat transfer.
- **Electrical Connections:** Check that all electrical connections are secure and free from corrosion.
- **Performance Check:** Monitor your refrigerator's cooling performance on AC power. A decline in

cooling efficiency may indicate an issue with the heating element.

6. TROUBLESHOOTING

If your Dometic refrigerator is not cooling properly on AC power, or if you suspect an issue with the heating element, consider the following troubleshooting steps:

- **No Cooling on AC:**
 - Verify the RV is connected to a live 120V AC power source.
 - Check the circuit breaker for the refrigerator in your RV's power panel.
 - Inspect the refrigerator's control board for any blown fuses.
 - Test the heating element for continuity and resistance using a multimeter. A faulty element will show an open circuit or incorrect resistance.
- **GFCI Tripping:**
 - A Ground Fault Circuit Interrupter (GFCI) tripping when the refrigerator is on AC power often indicates a short circuit or ground fault within the heating element.
 - Disconnect the heating element from the control board and test if the GFCI still trips. If it does not, the heating element is likely faulty and requires replacement.
- **Element Not Getting Hot:**
 - With power disconnected, carefully remove the element and visually inspect it for any cracks or damage.
 - Test the element's resistance with a multimeter. Compare the reading to the manufacturer's specifications (e.g., for a 325W, 120V element, resistance should be around 44.3 ohms, calculated as $V^2/W = 120^2/325$).

Always disconnect power before performing any electrical tests or repairs.

7. SPECIFICATIONS

| Feature | Specification |
|--------------------------|--|
| Model Number | 3850644422 |
| Voltage | 120V AC |
| Wattage | 325W |
| Product Dimensions | Approximately 10 x 4 x 0.2 inches (25.4 x 10.16 x 0.51 cm) |
| Item Weight | Approximately 0.3 Pounds (0.14 kg) |
| Manufacturer Part Number | 3850644422 |
| Country of Origin | China |

8. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided with your Dometic refrigerator or

contact Dometic customer support directly. Keep your purchase receipt as proof of purchase. For technical assistance or further inquiries, visit the official Dometic website or contact their customer service department.

- **Dometic Website:** www.dometic.com
- **Customer Support:** Refer to your product packaging or the Dometic website for regional contact information.