

Cotherm BBSC301507

COTHERM BBSC Water Heater Thermostat Model 301507 Instruction Manual

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your COTHERM BBSC Water Heater Thermostat, Model 301507. This device is designed to regulate the temperature of water in compatible water heaters. Please read these instructions carefully before installation or use.

Important Safety Notice:

Some technical products, including this thermostat, may appear similar to other components. It is crucial to verify compatibility with your specific water heater model. Always consult a qualified professional for installation and any complex repairs to ensure safety and proper function. Incorrect installation can lead to electrical hazards, water damage, or product malfunction.

2. PRODUCT OVERVIEW

The COTHERM BBSC thermostat is a critical component for controlling water temperature. It typically consists of a control unit and two temperature-sensing probes (bulbs) that extend into the water heater tank.



Figure 1: Cotherm BBSC Water Heater Thermostat. This image displays the Cotherm BBSC thermostat. It features a central control unit, typically blue and white, with electrical terminals. Extending from the unit are two temperature sensing probes: one shorter, thicker copper probe and one longer, thinner metallic probe with a coiled wire section. These probes are designed to be inserted into the water heater to monitor and regulate water temperature.

3. SETUP AND INSTALLATION

Installation of this thermostat involves electrical connections and working with water heating systems. For safety and proper operation, **installation must be performed by a qualified electrician or plumbing professional.**

3.1 Safety Precautions

- Always disconnect power to the water heater at the main circuit breaker before beginning any installation or maintenance.
- Ensure the water heater tank is drained if necessary, following the water heater manufacturer's instructions.
- Wear appropriate personal protective equipment (PPE).
- Verify that the replacement thermostat is compatible with your specific water heater model.

3.2 Installation Steps (Professional Guidance Recommended)

1. **Power Disconnection:** Turn off the electrical power to the water heater at the circuit breaker.
2. **Access Thermostat:** Remove the access panel(s) on the water heater to expose the existing thermostat and heating elements.
3. **Disconnect Wiring:** Carefully disconnect the electrical wiring from the old thermostat, noting the position of each wire. It is advisable to take a photograph for reference.
4. **Remove Old Thermostat:** Extract the old thermostat and its probes from their housing.
5. **Insert New Probes:** Carefully insert the new thermostat's probes (bulbs) into the designated sleeves on the water heater tank. Ensure they are fully seated for accurate temperature sensing.
6. **Connect Wiring:** Connect the electrical wires to the new thermostat's terminals according to the wiring diagram provided with your water heater or the original thermostat's configuration. Ensure all connections are secure.
7. **Secure Thermostat:** Mount the thermostat control unit securely within the water heater's housing.
8. **Restore Power:** Replace the access panel(s) and restore power to the water heater.
9. **Test Operation:** Monitor the water heater's operation to ensure it heats water correctly and the thermostat cycles on and off as expected.

4. OPERATING INSTRUCTIONS

Once installed, the COTHERM BBSC thermostat operates automatically to maintain the set water temperature. The primary user interaction involves setting the desired temperature.

4.1 Setting Water Temperature

- Locate the temperature adjustment dial or screw on the thermostat control unit. This may be accessible behind an access panel on your water heater.
- Using a flathead screwdriver or by turning the dial (depending on the model), adjust the temperature setting to your desired level.
- Refer to your water heater's manual for recommended temperature settings. A common setting for household use is typically between 120°F (49°C) and 140°F (60°C). Settings above 120°F (49°C) can increase the risk of scalding.
- Allow time for the water heater to reach the new temperature setting.

5. MAINTENANCE

Regular maintenance helps ensure the longevity and efficient operation of your water heater and its thermostat. Always disconnect power before performing any maintenance.

- **Annual Inspection:** Have a qualified technician inspect your water heater and thermostat annually. They can check for proper operation, signs of wear, corrosion, or loose connections.
- **Probe Condition:** Ensure the thermostat probes are clean and free from mineral buildup or corrosion, which can affect temperature sensing accuracy.
- **Electrical Connections:** Periodically check that all electrical connections to the thermostat are tight and free from corrosion. This should only be done by a qualified professional with power disconnected.
- **No User-Serviceable Parts:** The thermostat itself contains no user-serviceable parts. Do not attempt to disassemble the control unit.

6. TROUBLESHOOTING

If your water heater is not functioning correctly, the thermostat may be a contributing factor. Always ensure power is disconnected before inspecting components.

6.1 Common Issues and Solutions

- **No Hot Water:**
 - Check if the circuit breaker for the water heater has tripped.
 - Verify that the thermostat's high-limit reset button (if present) has not tripped. Press it firmly to reset.
 - Ensure the thermostat temperature setting is not too low.
 - If these steps do not resolve the issue, the thermostat or heating element may be faulty. Contact a professional.
- **Water Not Hot Enough:**
 - Increase the temperature setting on the thermostat.
 - Allow sufficient time for the water to heat up.
 - Check for mineral buildup on the probes, which can hinder accurate temperature sensing.
- **Water Too Hot (Scalding Risk):**
 - Immediately lower the temperature setting on the thermostat.
 - If the water remains excessively hot, the thermostat may be faulty and require replacement. Disconnect power and contact a professional.

If you are unsure about any troubleshooting step or suspect an electrical issue, contact a qualified technician immediately.

7. SPECIFICATIONS

Feature	Detail
Brand	Cotherm
Model Name	BBSC301507
Manufacturer Reference	703567
ASIN	B00HW2EV2C
Batteries Required/Included	No
Date First Available	January 16, 2014
Availability of Spare Parts	Information unavailable
Discontinued by Manufacturer	No

8. WARRANTY INFORMATION

Specific warranty details for the COTHERM BBSC Thermostat Model 301507 are not provided in this manual. Please refer to the documentation included with your purchase or contact the retailer or manufacturer directly for warranty terms and conditions.

9. SUPPORT

For technical assistance, troubleshooting beyond the scope of this manual, or inquiries regarding parts and service, please contact the seller from whom you purchased the product or the Cotherm manufacturer directly. When contacting support, please have your product model (BBSC301507) and ASIN (B00HW2EV2C) available.