

## Service Bulletin: TWH-G2-32

Model: 250SX, 250SXO, 635ES, 635ESO, 2400E, 2400EO

# A9 Error Code Troubleshooting



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### Introduction

Follow the procedures below and report results to Bosch Technical Support. This will assist in determining the cause and solution to the problem.

An A9 error indicates that the hot water temperature sensor is not sensing the expected outlet temperature. The heater may continue to run in a “safe” mode with the A9 error code flashing or the error code may shut down the heater until the code is reset.

### NTC Temperature Sensors

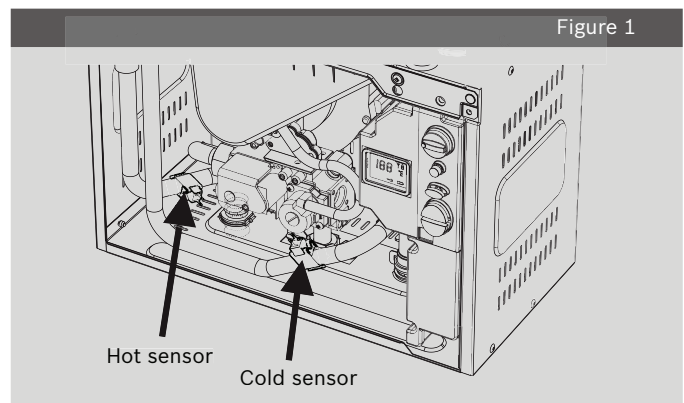
- The sensor is a negative temperature coefficient (NTC) sensor that reads different temperatures based on different resistances.
- Lower resistances are interpreted as higher temperatures; higher resistances are interpreted as lower temperatures.
- See Bulletin TWH-G2-05 for approximate temperature sensor resistance readings

### Tools needed:

- Ohmmeter/ multimeter
- Phillips head screwdriver
- Fine sandpaper or emery cloth

### Procedure

1. Press the reset button on the control panel of the heater to attempt to clear the error code. If the error code does not reset or continues to reoccur, proceed with the following troubleshooting steps.
2. Verify the heater is being used for domestic hot water only and is not being fed any preheated water.
3. Remove the front cover of the water heater. For instructions on removing the front cover, refer to the installation/owner’s manual of the water heater.
4. Locate the hot water temperature sensor on the 1/2” copper pipe inside the lower left side of the water heater. The hot water temperature sensor is connected with two red wires and should be clipped to the horizontal section of the hot water pipe. See Figure 1.
5. Inspect the hot water temperature sensor:
  - a. Sensor should be positioned on the top of the horizontal section of the hot water pipe.



- b. The sensor should not be positioned on an elbow or near the bypass tube on the vertical section of the hot water pipe.
  - c. Unclip the sensor from the copper pipe and inspect the inside of the sensor. Sensor should be clean and free of corrosion.
  - d. Sensor spade connections (red wires) must be clean and tight.
  - e. If wire connections, sensor, or pipe are corroded, clean with fine sandpaper or emery cloth.
6. A9 error codes may be caused by a combination of high inlet water temperatures and low water flow rates. If errors occur only while running low flow fixtures, increasing water flow may resolve A9 error codes.
  7. If error codes persist, contact Bosch Tech Support. To assist tech support in determining the cause of the error code, please document information from the following procedure:
    - a. With the heater on standby and the error code reset, turn the on/off seconds, then turn the switch to the on (I) position.
    - b. Quickly observe the series of letter and numbers that appear on the LCD display screen. This series will typically start with “SU” or “AF” followed by four digits. (Examples: “SU 20 18”, “AF 30 05”). If necessary, repeat previous step to confirm numbers. Record these letters and numbers for reference by Bosch Tech Support.



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