

# High Temperature Limit Validation

Models: Bosch Greenstar Combi, Bosch Greenstar



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## Subject

Model Greenstar Series Boilers - CSD-1 field test procedure for high temperature limit validation to meet jurisdictional requirements.

## Introduction

The Greenstar series boilers are protected against temperature issues through the Heatronic PCB (in combination with the supply, return, and high temperature limit sensors that are part of the boiler). The Heatronic PCB monitors a number of situations that are relevant to safe operation of the boiler including:

- Absolute sensor temperatures
- Maximum temperature increases
- Minimum temperature decreases

The Heatronic also monitors the function of the sensors, ie the Heatronic will respond when a sensor has broken down or when there is a short circuit situation.

The method of operating the boiler using the boiler control logic (Heatronic) and internal temperature sensor for supply, return, and high limit have been tested and certified by CSA International.

## Instructions for High Limit Test

1. Press the emissions test button (🔧) to select **maximum nominal output** (see Fig. 1, item 1). After one push, the display shows (130). The appliance works with the set maximum output in heating mode. Press the emissions test button again and the display shows (150). The appliance will now work for 15 minutes at the maximum nominal output.
2. When the supply temperature has reached 130° F, close down on the isolating valves under the boiler (Fig.1, item 11).
3. The boiler will then lockout-shutdown and show a E9 error code because of 'excessive heat exchanger temperature'.
4. When test is complete, fully open the isolating valves, press the reset button on the Heatronic control, and put the boiler back into normal operation.

Figure 1

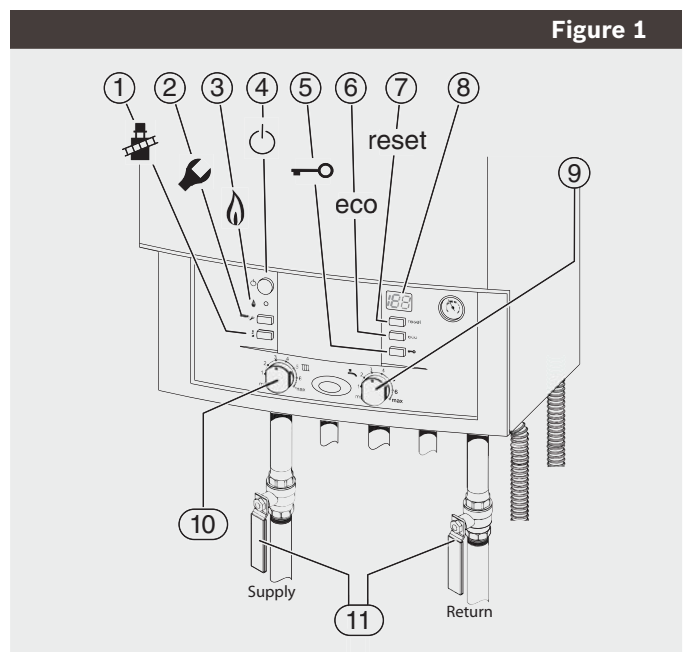


Figure 1 Legend:

- 1 Emissions test button
- 2 Service button
- 3 Burner operation indicator lamp
- 4 ON/OFF power switch
- 5 Key pad lock
- 6 ECO button
- 7 Reset button
- 8 Display
- 9 DHW thermostat
- 10 Boiler high limit dial
- 11 Isolation valves



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