

Service bulletin

Control board diagnostics



BOSCH

Introduction

- ▶ Control boards having software versions 3003 and newer are equipped with full diagnostic features. Older model control boards are not capable of running software version 3003 and newer. Contact Bosch Water Heating at 1-800-642-3111 with questions.

Tools needed:

- ▶ None

Determining diagnostic mode availability

1. Turn on/off switch on water heater to off (O) position then back to the on (I) position. Quickly observe the first set of letters on the LCD display of control unit. If the heater displays the letters "SU", then diagnostics are not available with this software version. If the heater displays the letters "AF", then diagnostics are available and you may proceed to the next step.

Accessing diagnostic mode

1. Turn on/off switch on water heater back to off (O) position.
2. Press and hold the program (P) button (M on older models) while turning the on/off switch to the on (I) position. The display will cycle through a start-up procedure including software version.
3. Release the 'P' button when '188' appears on the display. The display should read 'P2' when the program button is released. If not, repeat process.
4. Press the '+' button on the control panel until the display reads 'P4'. You are now in the diagnostic mode of the control board.
5. When the display reads 'P4', press the 'P' button once again and the display should read 'E'.
6. Use the '+' and '-' button on the control board to cycle through different diagnostic modes available.

NOTE: Each diagnostic mode that appears on the LCD display will have a number on the left and a letter on the right. If the letter on the right is an upper case P, then refer to Software Version 3003 of the diagnostics table on the back page. If the letter on the right is a lower case "d", then refer to Software Version 3005 of the diagnostics table on the back page.

7. Once in the selected diagnostic mode of your choice, press the 'P' button to display the diagnostic information.
EXAMPLE(using software version 3005): To read the flow rate in gallons/minute while the unit is flowing water, cycle to the '3d' mode and press the 'M' button. A reading of 25 on the display would indicate the heater is reading a flow rate of 2.5 gallons/minute.
8. Once the information is obtained, press the 'P' button again to return to the diagnostic mode menu and scroll to additional diagnostic information.
9. To exit the diagnostic mode of the heater, use the '+' or '-' button until the display reads 'E'.
10. Press the 'P' button once again and the display should read P4.
11. Turn the on/off switch off (O) and back on (I) again to return heater to normal function.

Software version 3003 diagnostic codes

E	Entry/Exit into sub-modes
0P	Set-point temperature
1P	Inlet water temperature
2P	Outlet water temperature
3P	Water flow (liters/min)
4P	Water flow (gallons/min)
5P	Fan speed (Hz)
6P	Burner power (%)
7P	Maximum power (kW)
8P	PWM cycle (signal to fan)
9P	Appliance selection
1F	Most recent error/failure
2F	2 nd most recent error
3F	3 rd most recent error
4F	4 th most recent error
5F	5 th most recent error
6F	6 th most recent error
7F	7 th most recent error
8F	8 th most recent error
9F	9 th most recent error
10F	10 th most recent error

Software version 3005 diagnostic codes

E	Entry/Exit into sub-modes
0d	Set-point temperature
1d	Inlet water temperature
2d	Outlet water temperature
3d	Water flow (gallons/min)
4d	Gas type (LP or NA)
5d	Fan speed (Hz)
6d	Burner power (%)
7d	Maximum power (kW)
8d	PWM cycle (signal to fan)
9d	Appliance selection
1F	Most recent error/failure
2F	2 nd most recent error
3F	3 rd most recent error
4F	4 th most recent error
5F	5 th most recent error
6F	6 th most recent error
7F	7 th most recent error
8F	8 th most recent error
9F	9 th most recent error
10F	10 th most recent error

BBT North America Corporation

Bosch Group

Bosch Water Heating

340 Mad River Park

Waitsfield, VT 05673

Telephone 800-642-3111

Fax (802) 496-6924

techsupport@boschhotwater.com