

Technical Service Bulletin:

No Spark With Hot Water Flow

Models: 520HN, 520PN, 330PN



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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.

Tools needed:

- ▶ Voltmeter/ multimeter

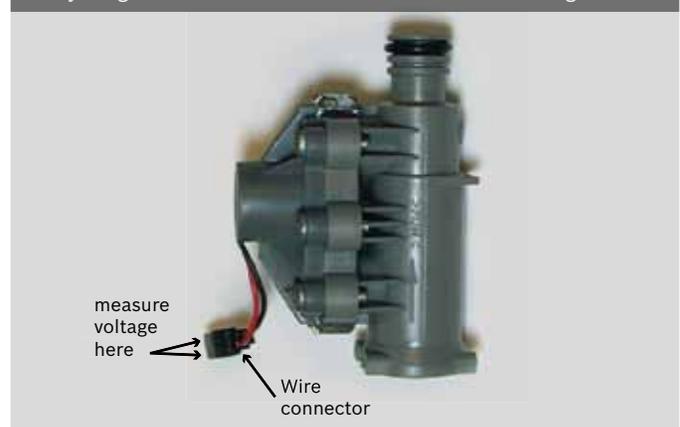
No spark with hot water flow

1. Ensure that the On/Off button on control box is pushed to the "On" position.
2. Ensure that cold water supply is attached to rear of water valve and hot water outlet is on the left.
3. Measure voltage at hydrogenerator. Disconnect the wire connector at hydrogenerator and measure voltage on hydrogenerator side of connector.
 - a. If the wires from the hydrogenerator are black and red, the voltage should be at least 1.3VDC.
 - b. If the wires from the hydrogenerator are blue and brown, the voltage should be at least 2.8VAC.

If the voltage is inadequate, refer to Technical Service Bulletin: *Cleaning and Replacing Hydrogenerator*.

Hydro generator uninstalled

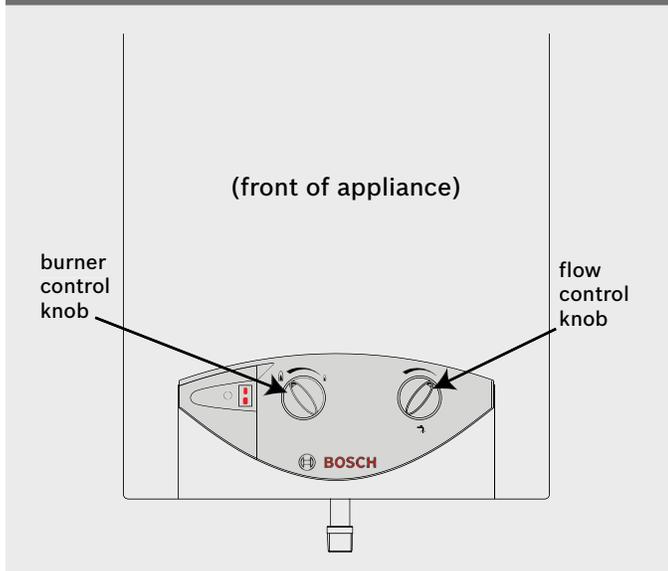
Figure 1



Note: Hydro-generator design may vary

4. Check for crossover:
 - a. Turn off cold water supply to heater only. If no shut off valve is present, install before continuing.
 - b. Turn on each hot water fixture to hot only.
 - c. Wait 5 minutes
 - d. If any water is flowing, even a trickle, there is a crossover or the scald protection in a shower valve is adjusted incorrectly. Consult plumber or faucet valve manufacturer for repair or adjustment.
5. Rotate flow control (right knob) to full clockwise position for the lowest activation rate of about .6 gallon per minute. As the knob is turned counter-clockwise, the activation rate will rise to about 1.1 gallons per minute. (see Figure 2)

Figure 2



Note: Front cover view may vary depending on model type

6. Check for obstructions to water flow. Clean inlet filter screen in water valve, whole house filters, showerheads and faucet aerators. Obstructions such as dirt, debris or mineral deposits will decrease the water flow through the heater below the activation rate.
7. Check for tight and clean wire connections in heater:
 - a. wire from ignition unit to spark electrode
 - b. wires to flue gas sensor on draft diverter
 - c. wires to overheat sensor on outlet pipe
 - d. wires to overheat sensor on heat exchanger
 - e. wires to microswitch
 - f. ground wire connection between ignition unit and fixing screw
8. If a powervent and spill switch are installed, check the reset button on the spill switch (installed on the draft diverter). Consult powervent manual for more details.
 - a. If the button clicks when pushed, the switch was tripped. Check venting for restrictions and exhaust hood damper for correct operation.
9. Check microswitch on bottom of gas valve. Disconnect wire connector at microswitch and jump connector on wiring cable. Run water through heater.
 - a. If heater sparks, check continuity through microswitch connector with water flow. If circuit does not close one of the following may be the cause; microswitch is faulty, water valve needs maintenance or flow is inadequate.
10. If heater still does not spark, contact Bosch technical support.



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