

Service bulletin

Replacing heat exchanger



BOSCH

Introduction

- ▶ When removing heat exchanger, the older style overheat cutoff fuse wrapped around the heat exchanger (if installed) should be replaced with a flue gas limiter (part# 8 700 400 032). Consult bulletin TWH-G2-29 for the installation instructions.
- ▶ If the heat exchanger developed a leak at one of the side elbows and the leaking point looks like a split, please contact Bosch Water Heating if you have not already done so for instructions on how to prevent this from happening in the future.

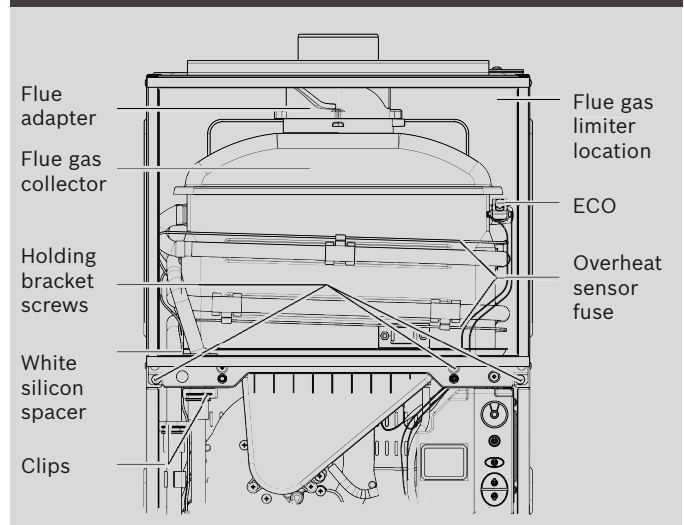
Tools needed:

- ▶ Philips head screw driver

Removing heat exchanger

1. Turn off gas to heater using installer supplied manual shut off valve.
2. Turn power switch to the off (O) position and unplug heater.
3. Close installer supplied inlet isolation valve or shut-off valve and open a hot water tap to release pressure from hot water side of heater. If water flow does not stop a crossover is present and must be corrected. Disconnect inlet and outlet pipes to facilitate draining the heater (be prepared to catch water).
4. Remove cover (see installation manual).
5. Remove brass phillips-head screws to release holding bracket.
6. Disconnect overheat sensor fuse: Follow two red wires from the top half of the heater down the left side to a connector and disconnect. Newer models may have the flue gas limiter which is mounted in the top right corner of the heater and does not need to be disconnected.
7. Disconnect two white wires from the ECO on top right of heat exchanger by pulling gently on the connectors.
8. Remove clips on heat exchanger pipe connections.
9. Loosen phillips-head set-screw on flue adapter.
10. Turn flue adaptor to the left and it will now lift up and separate from flue gas collector. If this is difficult, disconnect the white exhaust adapter from the top of the unit.
11. Remove flue gas collector, leaving black gasket on top of heat exchanger.
12. While holding cold and hot water pipes, gently lift up on left hand side of heat exchanger to separate. Carefully lift heat exchanger up 1" and bring forward slowly making sure not to hit flame sensor and igniter rods while removing.

Removing heat exchanger



Preparing new heat exchanger

1. Inspect heat exchanger for signs of ship damage. Please call supplier of heat exchanger with questions.
2. Remove white silicon spacer from inlet and outlet pipes of old heat exchanger and install in the same location on the new heat exchanger.
3. Remove ECO from top right of heat exchanger by removing screw and install in same location on the new heat exchanger.
4. Install new viewing window and gasket on new heat exchanger.

Replacing heat exchanger

1. Place heat exchanger in place, being careful not to hit the flame sensor and igniter rods with the back of the heat exchanger.
2. Press hot and cold pipes from heat exchanger down until the top lip of the heat exchanger pipe is even with the top lip of the lower pipe.
3. Reinstall clips. The top (smaller) part of clip should hug copper pipe and be completely above heat exchanger pipe lip. **NOTE:** Heater WILL leak if clips are not properly secured see Figure 5 for proper position.
4. Ensure that lower heat exchanger gasket is in place and makes a good seal.
5. Push silicone spacer in place. The top of the spacer should be level and make a good seal.

Silicon spacer



6. Place flue gas collector on top of the heat exchanger and make sure the upper heat exchanger gasket is in place and makes a good seal.
7. Rotate flue gas collector collar to the right. A distinctive “thunk” will be heard when installed correctly.
8. Tighten phillips-head screw on flue adapter.
9. Reconnect two white wires to the ECO on the top right of heat exchanger.
10. Reinstall metal holding bracket with Philips head screws.
11. Reconnect inlet and outlet water pipes to the bottom of heater.
12. Slowly open inlet isolation valve while checking for leaks. If any leaks are detected, shut off water and correct the source of the leak before continuing.
13. Plug unit in and turn power switch to on (I) position. Reset any error that is displayed with reset button.
14. Replace cover and reconnect white flue exhaust adapter (indoor unit, if removed) or the vent cap (outdoor unit).
15. Open gas shut-off valve.
16. Return water heater to service.

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