

Replacing ECO / Temperature Limiter

Models: 520HN, 520PN, 330PN



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WARNING

LP & NG are extremely flammable. Take extra precautions when performing any work to the heater.

Introduction

The ECOs/temperature limiters are overheat protection sensors that will shut off all gas to the water heater in the event of overheating.

Note: If experiencing frequent pilot outages during or just after use, first test the temperature limiter/ECO before replacing it. See Technical Service Bulletin: *Thermocouple and pilot test*.

Tools needed:

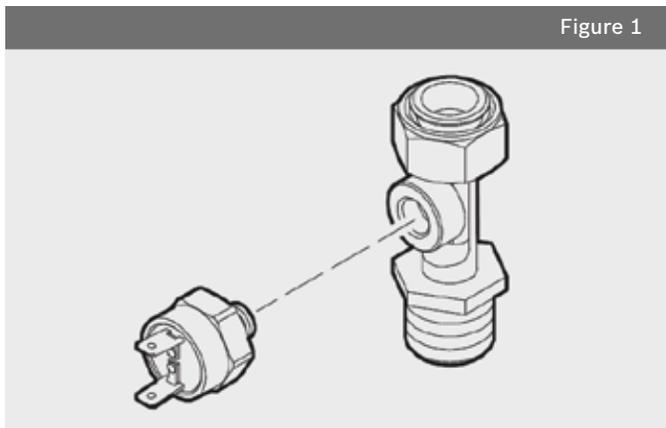
- Philips screwdriver
- 22mm or adjustable wrench
- Needle-nosed pliers

Replacing lower ECO/temperature limiter

(not included on model 330PN)

1. Close installer supplied cold water isolation valve to the water heater.
2. Locate the lower ECO on the ½" copper pipe exiting the bottom left side of the heat exchanger (See Fig. 1).

Figure 1

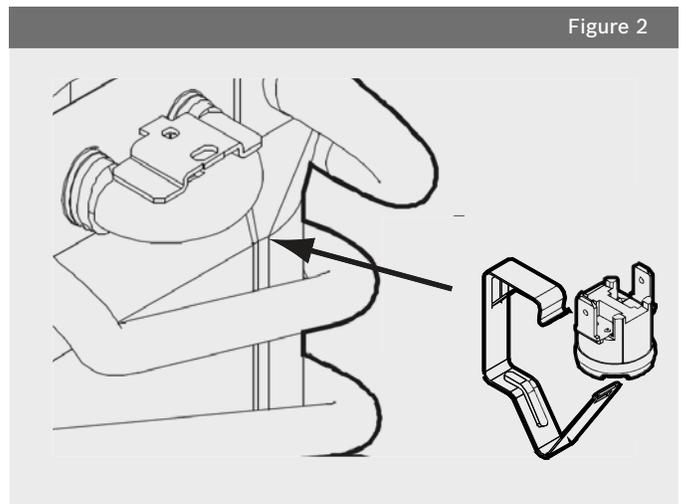


3. Using pliers, disconnect both spade connections to the ECO.
4. Using a 22mm or adjustable wrench, unscrew the ECO from the ½" copper pipe. Be careful not to overstrain the copper pipe.
5. Install new ECO and reconnect wires from electromagnet and flue gas sensor. Wire orientation/polarity does not matter when making this connection.
6. Turn on cold water supply and return the water heater to service.

Replacing upper ECO/temperature limiter

1. Close installer supplied cold water isolation valve to the water heater.
2. Locate the upper ECO installed on the copper bend on the upper right side of the heat exchanger (Fig. 2)

Figure 2



3. Using pliers disconnect both spade wire connections to the ECO.
4. Slide bracket and ECO away from the heat exchanger and separate the bracket from the ECO. Do not loose the bracket.
5. Insert new ECO into the bracket. If a new bracket is provided with the ECO, there is no need to reuse the old bracket.
6. Clip ECO and bracket onto the mounting of the heat exchanger. Heat exchanger mounting should reside between the ECO and bracket.

7. Reconnect wires from the flue gas sensor and the thermocouple to the ECO. Wire orientation/polarity does not matter when making this connection.
8. Turn on cold water supply and return water heater to service.



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