Service Bulletin: TWH-G1-01

Model: 38B, 125B, 125X, 125HX, 125FX, 425HN, 425EF

Temperature fluctuation troubleshooting

BOSCH

Introduction

Follow the procedures below and report results to Bosch Technical Support. This will assist in determining the cause and solution to the problem.

Note: This bulletin only applies to 425HN models with serial numbers of FD685 and lower. For 425HN models with newer serial numbers (≥FD686), refer to Service Bulletin CT-01.

If burners go out and water goes cold during use:

A. If the water flow drops below the activation rate (about .5 gallon per minute with the flow control set at full clockwise position, about 1 gallon per minute at full counter-clockwise), the burners will go out. The pilot does not go out on standing pilot models.

1. Check for restrictions to water flow:
   a. Clean or replace filter in water valve (see bulletin G1-12).
   b. Clean or replace faucet aerators and showerheads. Remove aerators and showerheads from fixtures and flush with water. If there are mineral deposits, soak in vinegar and flush with water or follow fixture manufacturer recommendations or replace.
   c. If the showerhead is a hand-held style, the connecting hose may be too restrictive. Replace hose with larger diameter to increase flow or replace showerhead with fixed style.
   d. Clean or replace whole house filter (if installed). If filter has a bypass, use the bypass and test for higher flow.

2. 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 misadjusted. Consult plumber or faucet valve manufacturer for repair or adjustment.

3. Minimum water pressure is 30psi during heater operation. For installation on a private well system with the use of a pressure tank, the lowest pressure range setting recommended is 40-60 psi (2.07-3.45 bar). Consult your installer or local plumber for effective ways to maintain constant water pressure to the water heater when on a well system.

4. Check flow control knob setting on heater. Turn knob to full clockwise position for lowest activation rate of about .5 gallons per minute and hottest water. As knob is turned counter-clockwise, the activation rate will rise up to about 1 gallon per minute and the water temperature will drop.

5. If water coming into heater is warm (especially in the late summer), the water coming out of the heater may be very hot. If too much cold water is added at the fixture to create a comfortable temperature, the flow may drop below the heater activation rate.
   a. On 125B models with serial numbers higher than FD390, reduce gas supplied to heater by moving slide control to single flame position.
   b. On other models, reduce gas supplied to heater by slightly closing gas shut off valve.

B. For models FD381 or higher: Flue gas sensor may be tripping. The pilot goes out on standing pilot models. Check for correct venting and combustion air supply:

1. Venting cannot be reduced in size (unless a powervent kit is added on certain natural draft models).

2. On all heaters without powervent, a minimum one foot rise is required in the venting before installation of an elbow.

3. Powervented heaters must terminate through a sidewall with approved hood, not through roof or into chimney.

4. Combustion air supply may be inadequate. Check installation manual or National Fuel Gas Code (NFPA54) for requirements.

5. Perform draft test (see bulletin G1-03).

C. If heater is supplied with preheated water, it may overheat and the ECO(s) may trip. The pilot goes out on standing pilot models. Heater must be supplied with cold water.

If burners do not go out and water temperature goes from hot to warm during use:

A. Minimum water pressure is 30psi during heater operation. For installation on a private well system with the use of a pressure tank, the lowest pressure range setting recommended is 40-60 psi (2.07-3.45 bar). Consult your installer or local plumber for effective ways to maintain constant water pressure to the water heater when on a well system.

B. If additional hot water fixtures in the building are opened or closed, there will be a change in the flow rate through the heater and a temperature change

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Bosch Thermotechnology Corp.
50 Wentworth Avenue
Londonderry, NH 03053

Tel: 1-866-642-3198
Fax: 1-603-584-1681
www.boschpro.com