Technical Service Bulletin: Cleaning & Replacing The Pilot Assembly

Models: 520HN, 520PN, 330PN

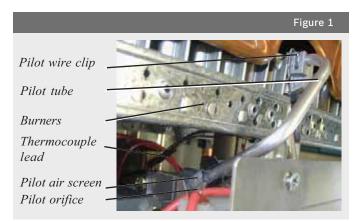


WARNING

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

Removing pilot tube and orifice - 520PN / 330PN Models

- 1. Shut off gas to heater and remove cover per installation manual.
- 2. Remove wire clip holding upper end of pilot tube into burner bracket. (Fig. 1)



- 3. Remove lower end of pilot tube from black clip on gas valve being careful not to damage cylindrical air screen
- 4. Lift up pilot tube and remove from bracket

Cleaning pilot tube and orifice - 520PN / 330PN Models

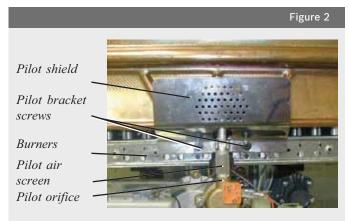
- 1. Blow out pilot tube and air screen.
- 2. Remove brass hex-headed pilot orifice from gas valve with 8mm wrench. Black clip may have to be removed with pliers to access orifice with socket wrench
- 3. Clean orifice with compressed air or aerosol carburetor cleaner. (NOTE: Do not ream or poke any object through orifice opening).

Reinstalling pilot tube & orifice - 520PN / 330PN Models

- 1. Screw clean or new orifice into gas valve and tighten with 8mm wrench. Do not over tighten.
- 2. Place cylindrical air screen over pilot orifice. Angle top of air screen outwards.
- 3. Feed bottom of pilot tube into angled cylindrical air screen. Push bottom of pilot tube with air screen into black clip until it snaps into place. NOTE: Air screen may become deformed during this process. Simply mold back into cylindrical shape by hand.
- 4. Replace cover, open gas supply and return heater to service.
- 6. If pilot flame is not strong and blue, replace orifice (NG is stamped 4C, LP is stamped 3C).

Removing pilot assembly and orifice - 520HN Model

- 1. Shut off gas to heater and remove cover per installation manual.
- 2. Remove 2 philips head screws holding pilot shield and pilot assembly to front of burner. Remove pilot shield (Fig. 2).
- 3. Remove pilot assembly from burners (with spark electrode and flame sensor) being careful not to damage cylindrical air screen on bottom (Fig. 2).



Cleaning pilot tube and orifice - 520HN Model

- 1. Blow out pilot tube and air screen.
- 2. Remove brass hex-headed pilot orifice from top of pilot electrovalve with 8mm wrench.

12 | Cleaning & Replacing The Pilot Assembly

3. Clean orifice with compressed air or aerosol carburetor cleaner. (NOTE: Do not ream or poke any object through orifice opening).

Reinstalling pilot assembly and orifice - 520HN Model

- 1. Screw clean or new orifice into pilot electrovalve and tighten with 8mm wrench. Do not over tighten.
- 2. Insert pilot assembly into burner and fit cylindrical air screen onto orifice and pilot tube.
- 3. Insert screws through pilot shield and pilot assembly into burner and tighten.
- 5. Replace cover, open gas supply and return heater to service.
- 6. If pilot flame is not strong and blue, replace orifice (NG is stamped 2C, LP is stamped 1C).



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