

Cleaning & Replacing The Pilot Assembly

Models: 520HN, 520PN, 330PN



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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)

Figure 1

Pilot wire clip

Pilot tube

Burners

Thermocouple lead

Pilot air screen

Pilot orifice



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).

Figure 2

Pilot shield

Pilot bracket screws

Burners

Pilot air screen

Pilot orifice



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.

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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