

## REMOVING AND CLEANING HYDRO GENERATOR

**MODELS: 125HX, 425HN, 425HNO**



### WARNING

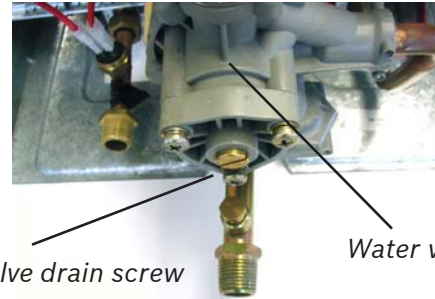
LP & NG ARE EXTREMELY FLAMMABLE SO TAKE EXTRA PRECAUTIONS WHEN PERFORMING ANY WORK TO THE HEATER

### Removing hydro generator

1. Push the ON/OFF button to turn heater off. (See Lighting and Operating Instructions section of manual)
2. Remove cover and shut off cold water supply to heater using installer supplied isolation valve.
3. Open hot water tap to relieve water pressure in water lines.
4. Position a water catch basin underneath the water heater. Remove brass flat-head drain screw from bottom of water valve (Fig. 1) to drain residual water from heater.
5. Disconnect clip connection on the lead wire leads coming from the hydro generator to the electronic control box. (Fig. 2)
6. Remove retaining pin on right side of water valve to disconnect piping from heat exchanger. Gently pull pipe free from water valve. (Fig. 2)
7. Remove bottom retaining pin and top clip to disconnect piping in and out of hydro generator. (Fig. 2)
8. Carefully separate piping from both ends of the hydro generator. Pull hydro generator free from heater and bring to clean working environment.

### Cleaning hydro generator

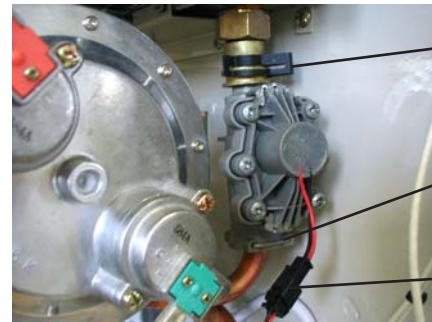
1. Remove inner venturi. Gently push a philips head screwdriver in the smaller outlet side of hydro generator until venturi comes out the other end. (see fig. 3)
2. Clean and flush venturi of any build up or debris.
3. Remove 2 retaining clips on generator by prying them off with a flat head screwdriver. (see fig. 3)
4. Remove 6 philips head screws and separate the hydro-generator halves being careful to catch any internal components that may fall out. (**Note:** There is a black rubber o-ring between the halves that needs to be in place for reinstallation.)
5. Locate serial number on the right side of the heater cover. The first three digits are the FD number. Proceed with the instructions per the FD number on next page.



Water valve drain screw

Water valve

**FIG. 1 DRAIN SCREW LOCATION**

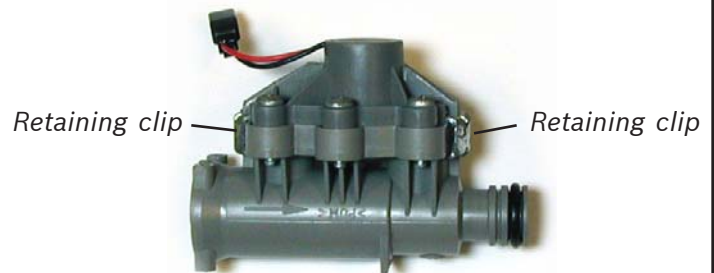


Top clip

Retaining pin

Clip connection

**FIG. 2 HYDRO GENERATOR INSTALLED**



Retaining clip

Retaining clip

**FIG. 3 HYDRO GENERATOR**

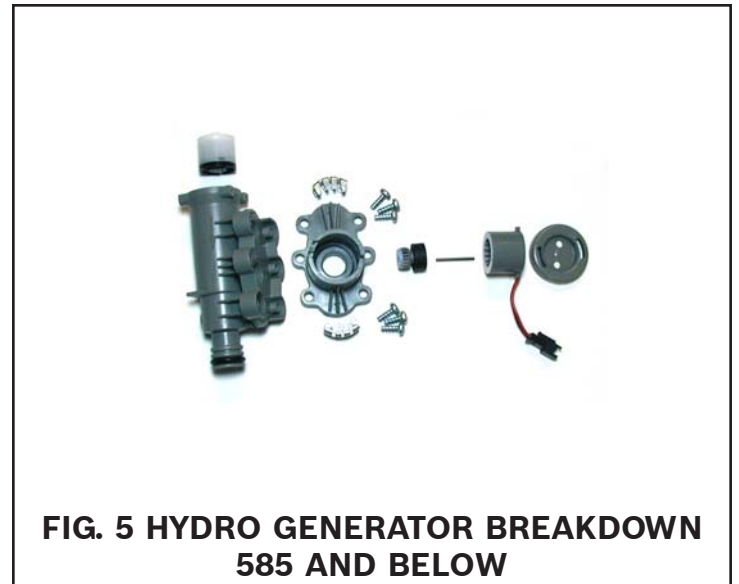
## REMOVING AND CLEANING HYDRO GENERATOR

### FD number 586 and above

1. Remove the flow wheel (with magnet) from the internal steel axle.
2. Remove the white oval shaped component that is behind the flow wheel as well.
3. Clean all components as well as the inside of the generator walls with rubbing alcohol and a clean cloth; Inspect flow wheel magnet for cracks; Inspect flow wheel blades to ensure they are intact. Flush flow wheel blades with water if they are clogged with debris.
4. Clean internal steel axle with light sandpaper if there is any debris or corrosion evident. Polish with clean rag when done.
5. Reinstall white oval shaped component over internal steel axle (flat side facing out).
6. Slide flow wheel with magnet assembly (magnet facing out) on the internal steel axle. Spin it to insure that it spins freely.



7. Slide flow wheel with magnet on to internal steel axle. Spin it to insure that it spins freely. Remove when done.
8. Reassemble flow wheel with magnet into lead wire assembly with magnet side facing out.
9. Reinstall entire lead wire assembly into generator half. Be careful to route lead wires into lower notch to avoid pinching from cap. Replace cap and turn  $\frac{1}{4}$  turn counter-clockwise to seal cap to generator half.



### Reinstalling hydro generator

### FD number 585 and below

1. Focusing on the generator half that has the two lead wires, locate the circular cap with 2 slots. (Note: Lead wires originate from base of cap).
2. Using needle nose pliers in the 2 slotted openings, rotate cap clockwise  $\frac{1}{4}$  turn and pull to remove. NOTE: Do not insert needle nose pliers into inner round holes of cap or damage may occur.
3. Remove lead wire assembly from generator half.
4. Pull flow wheel with magnet out of lead wire assembly.
5. Clean all components as well as the inside of the generator walls with rubbing alcohol and a clean cloth; Inspect flow wheel magnet for cracks; Inspect flow wheel blades to ensure they are intact. Flush flow wheel blades with water if they are clogged with debris.
6. Clean internal steel axle on other generator half with light sandpaper if there is any debris or corrosion evident.

1. Reassemble the two halves of the hydro generator, lining up the screw holes; Ensure black o-ring is in place between the two halves.
2. Reinstall 6 philips head screws being careful not to over tighten and replace retaining clips holding the two halves of the generator together.
3. Reinstall venturi (black side first) into larger inlet side of hydro generator. Gently push on venturi with Philips head screwdriver until it seats.
4. Reinstall hydro generator onto heater. Secure piping in and out of hydro generator using retaining pin and clip on the appropriate ends.
5. Reconnect lead wires from hydro generator to electronic control box at the clip connection.
6. Reinstall brass drain screw onto the bottom of water valve and slowly open cold water isolation valve while checking for leaks.
7. Turn on power using ON/OFF button and return heater to service.