

INSTALLATION INSTRUCTIONS

(FVIR) Pilot Assembly Replacement Kit

Read these instructions thoroughly and understand all steps and procedures before proceeding with the installation. Refer to figures 3, 4, & 5 for an exploded assembly view and detail views.

▲ CAUTION: The burner chamber is a sealed area. If the inner door, lower air box or mounting plate is removed, the respective gaskets must be replaced. This should only be done by a qualified service technician.

1. INSPECT SHIPMENT:

Inspect contents for possible missing or damaged components. Refer to Figure 3. This kit includes:

- 1 - Inner Door Gasket
- 1 - Mounting Plate Gasket
- 4 - Speed Clips
- 1 - Transition Pan Gasket
- 2 - #8 x 1 1/4" T20 Torx Head Screws
- 2 - #6 Screws
- 2 - #8 - 32 x 3/8" Screws
- 2 - #8-32 x 1/4" Screw
- 2 - #8 - 32 Hex Nuts
- 4 - #10 - 32 Hex Nuts
- 1 - Pilot Assembly
- 2 - #8 x 3/4" Screws
- 1 - Pilot Bracket

2. ADDITIONAL INSTRUCTIONS REQUIRED:

Refer to the Use and Care Manual supplied with the water heater for complete information on the installation, lighting instructions, operation and maintenance of the water heater.

3. SHUT OFF THE GAS SUPPLY:

Turn off the gas supply at the main gas line. Refer to the label located on the front of the unit above the gas valve for instructions on "To turn Gas off to the appliance" or the Use & Care Manual.

4. REMOVE THE JACKET DOOR:

Remove jacket door by lifting the door upward, then outward.

5. REMOVAL OF CONNECTIONS TO GAS VALVE:

Unscrew the pilot supply tube, the thermocouple, the burner supply tube, and unplug the ignitor wire from the piezo ignitor striker. Refer to Figure 1.

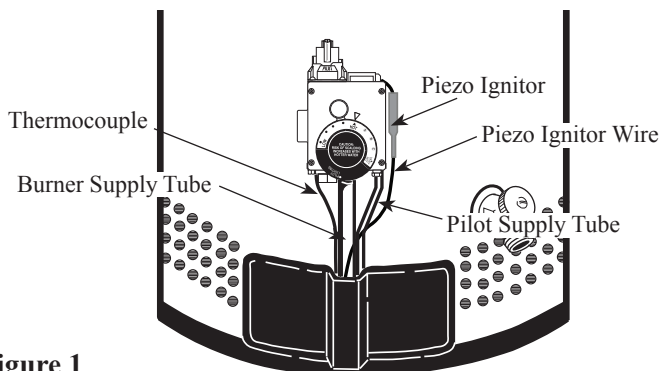


Figure 1

6. REMOVAL OF T20 TORX HEAD SCREWS:

Remove the (2) #8 x 1 1/4" T20 Torx head screws at the ends of the Inner Door.

You will need a #20 size TORX head tool.

7. REMOVAL OF HEX NUTS:

Remove the two #8-32 hex nuts at the top and bottom center of the inner door.

8. REMOVAL OF THE INNER DOOR:

Remove the Inner Door Assembly. If removal is difficult you can insert a flat head screw driver between the door and the burner assembly and pry the two apart all around the outside area of the inner door. Grasp the burner supply tube and remove the inner door assembly from the burner chamber.

NOTICE: The inner door gasket must be replaced with the supplied new inner door gasket.

9. REMOVE THE LOWER AIR BOX:

Unscrew (2) #8-32 x 3/8" screws and remove lower air box.

10. REMOVE BURNER/PILOT ASSEMBLY:

Unscrew (2) #8 x 3/4" screws and remove the burner/pilot assembly.

11. REMOVING THE PILOT BURNER AND PIEZO ELECTRODE ASSEMBLY:

Remove the pilot burner and piezo electrode assembly from the pilot mounting bracket by removing (2) #8-32 x 1/4" screws that attaches it. Remove the complete pilot, thermocouple and piezo electrode assembly from the mounting plate by pulling the orange grommet from the burner access door through the hole from the back.

12. REMOVE THE MOUNTING PLATE GASKET AND REPLACE.

Remove the old mounting plate gasket and discard. Clean the metal surfaces on which the old gasket was attached on the back of the burner/pilot assembly and the front of the burner chamber opening.

The outside edge may be scraped with a putty knife, sanded lightly with sand paper, and washed with a light soap and water mixture to remove the old gasket material and adhesive.

13 REMOVE PILOT MOUNTING BRACKET (If unit was produced prior to November 2013)

Remove (2) #6 screws attaching bracket to burner and replace with new bracket provided. Ensure that bracket is flush to burner assembly and located properly to burner. Refer to Figures 4 & 5.

14. REMOVE THE TRANSITION PAN GASKET AND REPLACE.

Remove the old transition pan gasket and discard. Clean the

metal surfaces on which the old gasket was attached on the transition pan and the lower air box.

The outside edge may be scraped with a putty knife, sanded lightly with sand paper, and washed with a light soap and water mixture to remove the old gasket material and adhesive.

15. INSTALLING THE NEW PILOT BURNER AND PIEZO ELECTRODE ASSEMBLY:

Install the new pilot burner and piezo electrode assembly by threading the connection ends of the assembly thru the hole in the mounting plate from the backside and pushing the small side of the orange grommet into the hole of the mounting plate. Refer to Figure 4.

Take care not to damage the grommet as you push it through the hole to the front.

Ensure the grommet is fully seated. The smaller rubber flange should be completely through to the front of the mounting plate to seat correctly.

Attach the new pilot burner and piezo electrode assembly to the pilot mounting bracket with the screws removed earlier.

NOTE: The old pilot may feature a loop around the burner chamber. This feature is not required for the new pilot assembly.

Make sure the screws pull the assembly up tight against the mounting bracket on the burner plate to ensure proper positioning of the new pilot burner and piezo electrode assembly.

16. INSPECT THERMOCOUPLE:

Make sure that a minimum of piezo wire & copper thermocouple wire is exposed at the grommet.

17. INSTALL BURNER/PILOT ASSEMBLY:

Install the burner/pilot assembly.

(2 torx head screws required in upper position.)

Make sure the speed clips are tight in place upon reinstallation of the burner/pilot assembly and the inner door. Extra speed clips are provided in the event some are lost or damaged in the removal of these parts.

Tighten the T20 Torx head screws to no more than 15 inch pounds of torque using the TORX head tool, **DO NOT** over tighten. **DO NOT USE POWER TOOLS.**

18. INSTALL LOWER AIR BOX:

Install the lower air box. (2 - #8 x 32 Sems Screws Required).

19. PREPARE TO INSTALL THE INNER DOOR:

Remove the old door gasket and clean the metal surfaces on which the old gasket was attached on the back of the door and the front of the burner/pilot assembly.

The outside edge may be scraped with a putty knife, sanded lightly with sand paper, and washed with a light soap and water mixture to remove the old gasket material and adhesive.

▲ WARNING: DO NOT use flammable liquids such as gasoline, paint thinners, or solvents to remove the old gasket material and adhesive.

19A. Install a new gasket on the back of the inner door by aligning the holes in the gasket with the holes on the inner door.

20. INSTALL THE INNER DOOR:

Mount the inner door assembly to the burner assembly and reassemble in the reverse order of removal. Make sure the gasket is fully seated.

When connecting the pilot supply tube, make sure it is seated into the valve straight to help prevent crossthreading of the connection and an improper alignment with the gas valve. Use a wrench to snug the connection to the valve to prevent gas leakage.

When connecting the burner supply tube, make sure the connection is not cross threaded.

When connecting the thermocouple, make sure it is inserted into the valve straight to prevent damage to the thermocouple. The thermocouple should be no more than one quarter (1/4) turn beyond hand tight.

Locate the wire coming from the piezo ignitor and the wire out of the burner access door. Push the wire connectors together and slide the protective wire insulator "boot" over the connection.

Tighten the tamper resistant screws to no more than 15 inch pounds of torque using the TORX head tool, **DO NOT** over tighten. **DO NOT USE POWER TOOLS.**

▲ WARNING: Failure to properly install the burner access door could result in a potentially hazardous situation that could result in death or serious injury and/or property damage.

21. GAS SUPPLY:

Turn the gas supply on at the main gas line. Refer to the label on the front of the unit for "Lighting Instructions", or the Use & Care Manual.

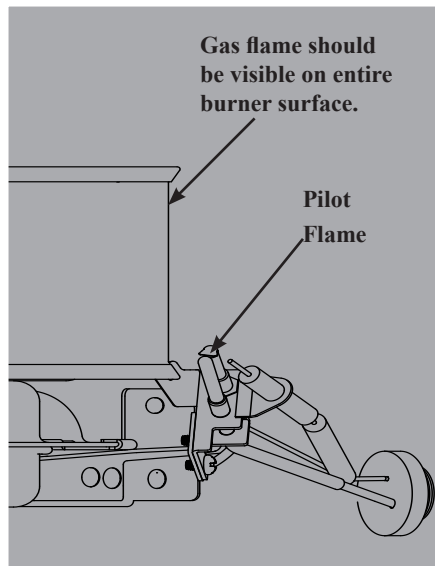
22. THERMOCOUPLE OPERATION

Check that the pilot is lit and the thermocouple is enveloped 3/8" to 1/2" by the pilot flame by looking through the sight glass located on the mounting plate.

Turn the gas cock knob to the "ON" position.

23. MAIN BURNER OPERATION:

Check the operation of the burner through the sight glass located on the mounting plate.



Proper burner and pilot burner pattern.

Visually inspect the pilot burner and main burner annually.

Through the sight glass, inspect the pilot burner flame with the main burner off and inspect the main burner while firing.

If any unusual burner operation is noted, the water heater should be shut off until qualified service assistance can be obtained.

The burner operates in radiant mode and glows bright orange when burning correctly. Allow approximately 30 seconds after turning on for the burner to reach the radiant mode.

CAUTION: For your safety, cleaning of the burner must be performed only by qualified service personnel. The burner chamber is a sealed area. If the burner inner door, lower air box, or inner door burner assembly are removed, the inner door gaskets, burner access door gasket, and transition pan gasket must be replaced.

24. CHECK FOR LEAKS:

Check the burner supply tube and pilot supply tube at the gas control valve for gas leaks with a soap and water solution.

The appearance of bubbles indicate a leak.

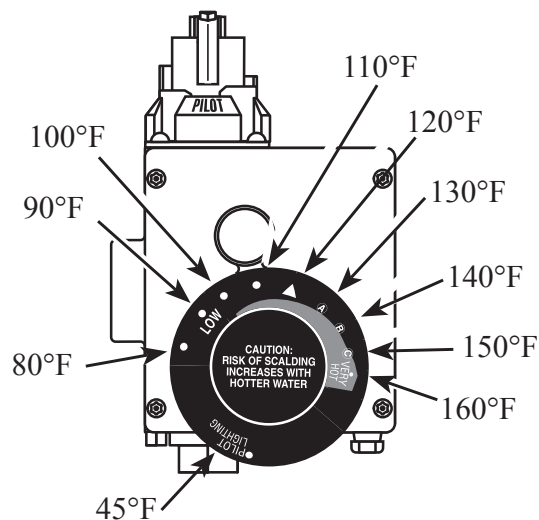
Tighten all connections if a leak is found and check once again with solution.

25. TEMPERATURE SETTING:

DANGER: Hotter water increases the potential for Hot Water SCALDS.

Turn the temperature dial to the desired setting. The recommended starting point temperature is 120°F.

Refer to Figure 2 for details regarding the approximate water temperature for each mark on the gas control (thermostat) temperature dial.



Temperatures are approximate

Figure 2

26. REPLACE JACKET DOOR:

Replace jacket door by reversing the removal procedure.

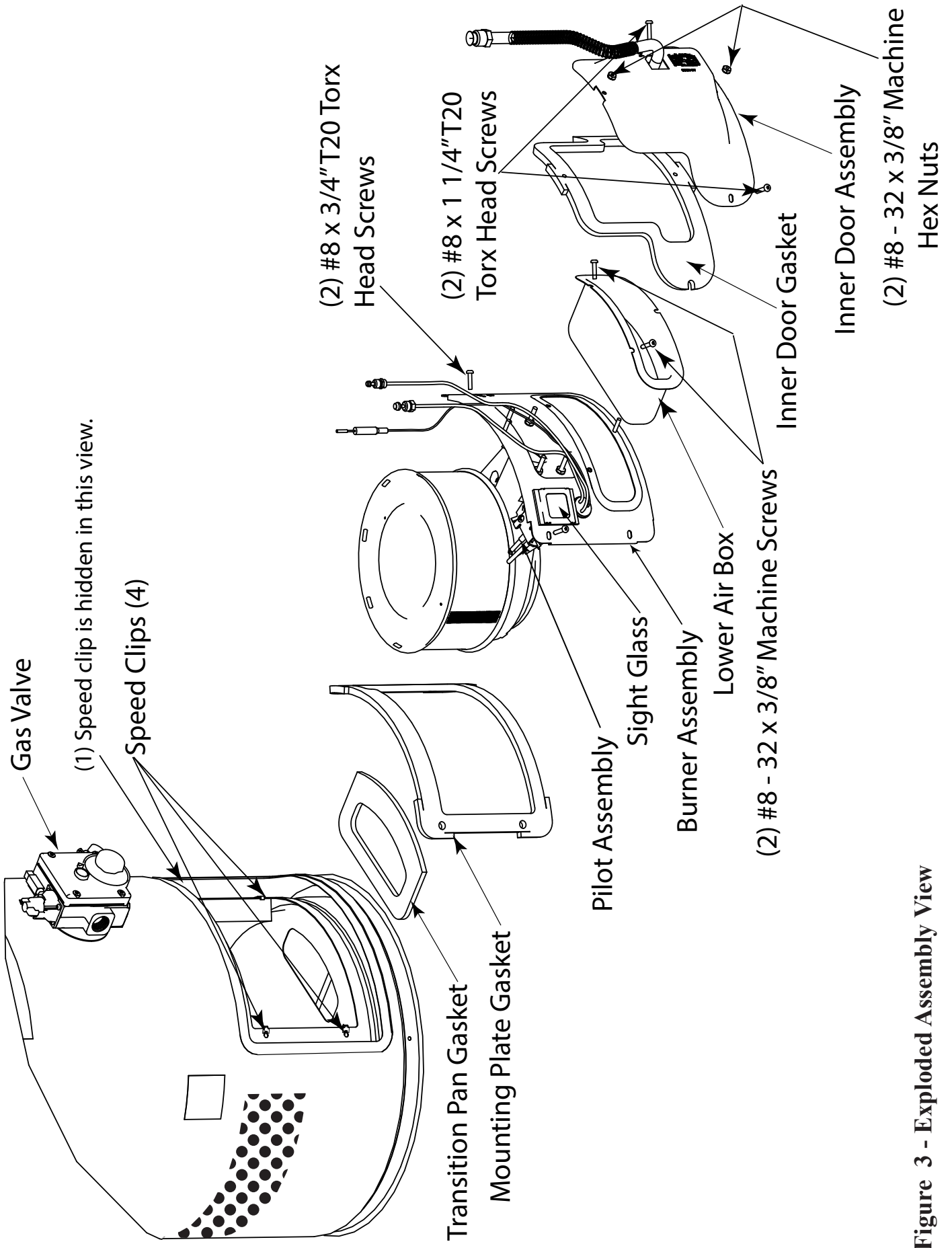
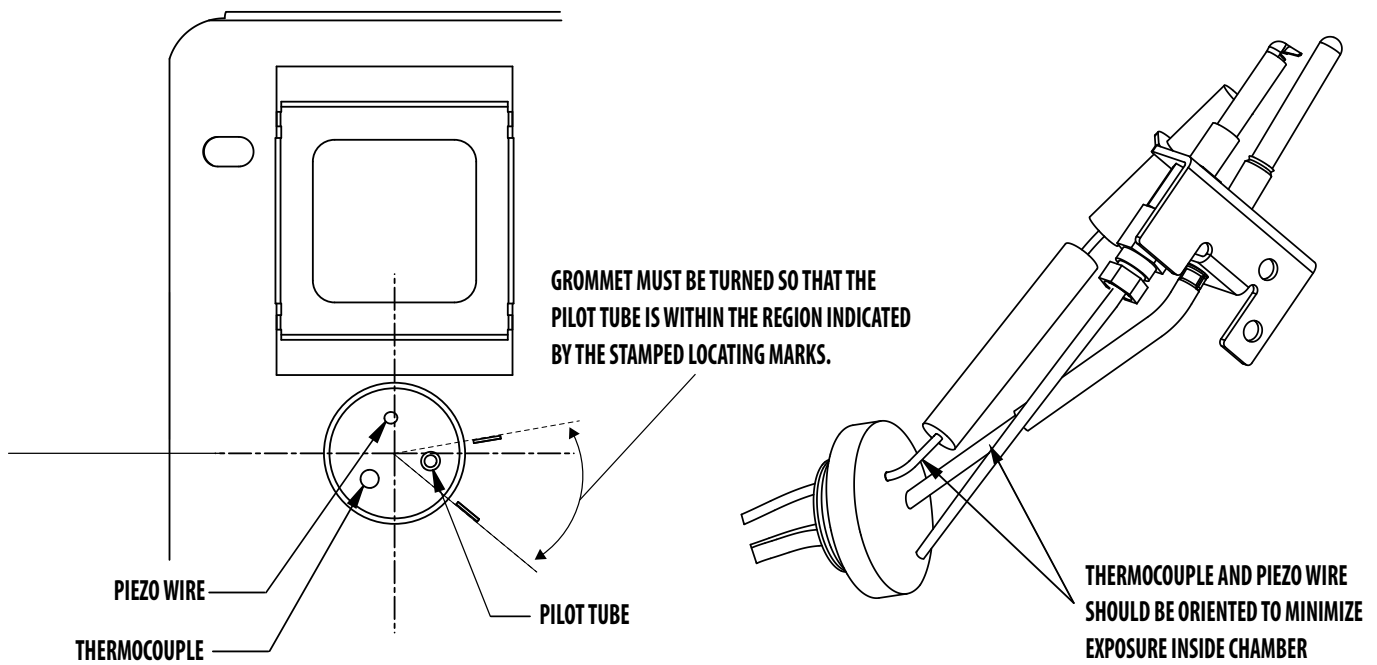
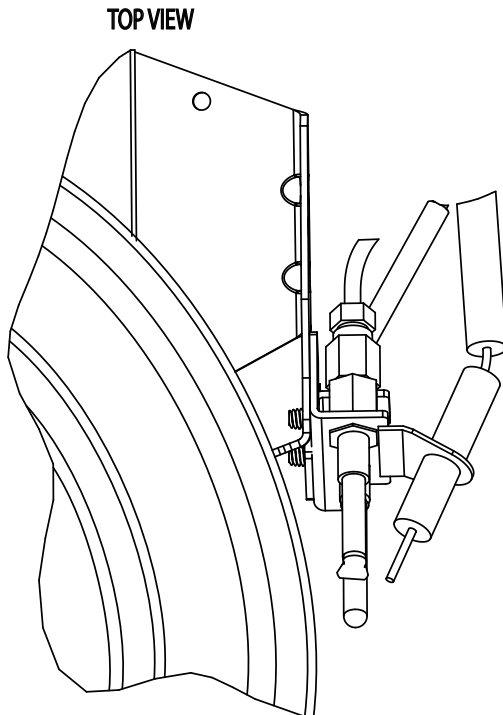


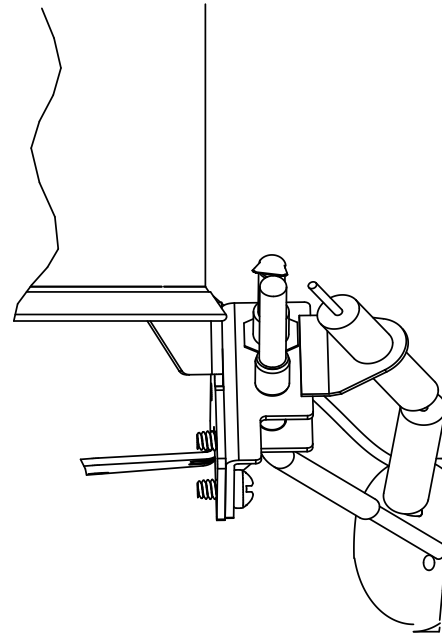
Figure 3 - Exploded Assembly View



PILOT ASSEMBLY



REAR VIEW



NOTE:

1. Pilot assembly grommet to be inserted into mounting plate securely, and to be free of damage or cut edges.
2. Hex nut torque to be 30 ± 5 in-lb.
3. Screw torque to be 20 ± 5 in-lb.
4. Parts need to be free of debris.
5. No foreign objects allowed inside burner assembly.

Figure 4 - Pilot Assembly

PILOT/BURNER BRACKET ATTACHMENT

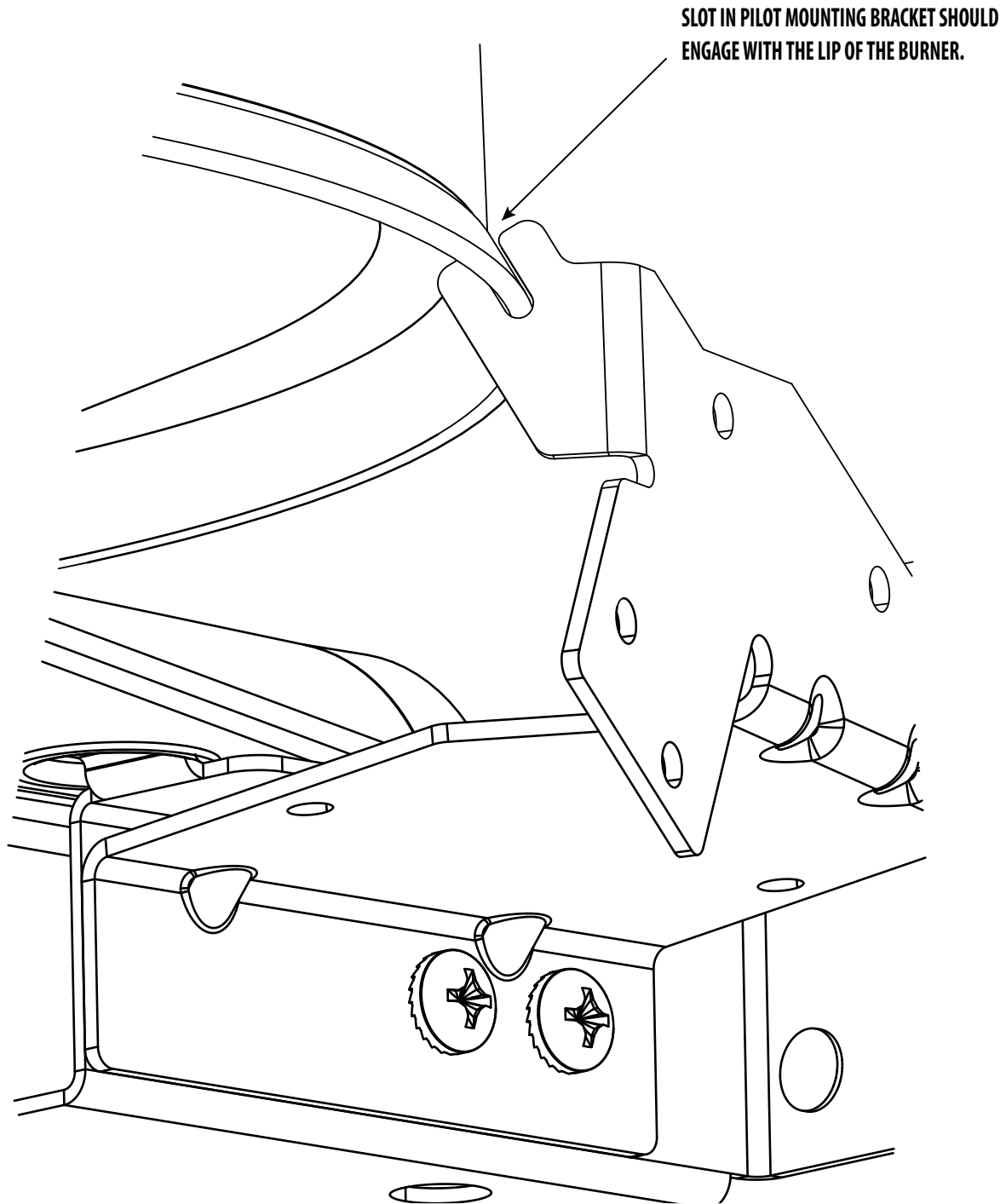


Figure 5 - Pilot / Burner Bracket Attachment

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