

299 REPLACEMENT BURNER KIT INSTRUCTIONS

Kit # 550002809

Kit installation shall be completed by qualified agency.

⚠ WARNING

Fire, explosion, asphyxiation and electrical shock hazard. Improper installation could result in death or serious injury. Read this instruction and understand all requirements, including requirements of authority having jurisdiction, before beginning installation. Installation not complete until appliance operation verified per Installation, Operation & Maintenance Manual provided with boiler.

Tools required:

- (2) Crescent wrenches
- 11/32" Nut Driver, Wrench or Socket
- Gasket Scraper
- Phillips Screwdriver
- 7/16" Deep Well Socket

1. Follow instructions TO TURN OFF GAS TO APPLIANCE found on Operating Instructions label on boiler or in Installation, Operation & Maintenance Manual. Verify all electrical power to boiler is turned off.

⚠ WARNING

Electrical shock hazard. Turn OFF electrical power supply at service panel.

2. Remove front jacket panel(s).

⚠ WARNING

Burn hazard. Verify heat exchanger, igniter, and flame sensor have cooled or use appropriate personal protection equipment before removing.

3. Inspect combustion chamber through sight glass. Verify flame is not present. See figure 1.
4. Remove Igniter: See figure 2.
 - Disconnect igniter cable from igniter.
 - Remove two (2) 8-32 hex nuts using 11/32" nut driver, wrench or socket.
 - Pull igniter up and out of heat exchanger.
 - Remove old igniter gasket. Clean heat exchanger surface.
5. Remove Flame Sensor. See figure 2.
 - Disconnect flame sensor cable from flame sensor.
 - Remove two (2) 8-32 hex nuts using 11/32" nut driver, wrench or socket.
 - Disconnect ground wire from stud.
 - Pull flame sensor out of heat exchanger.

Figure 1 - Blower Assembly, Sight Glass, & Igniter

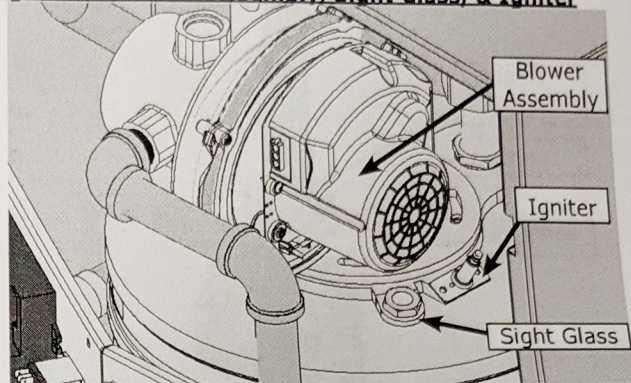
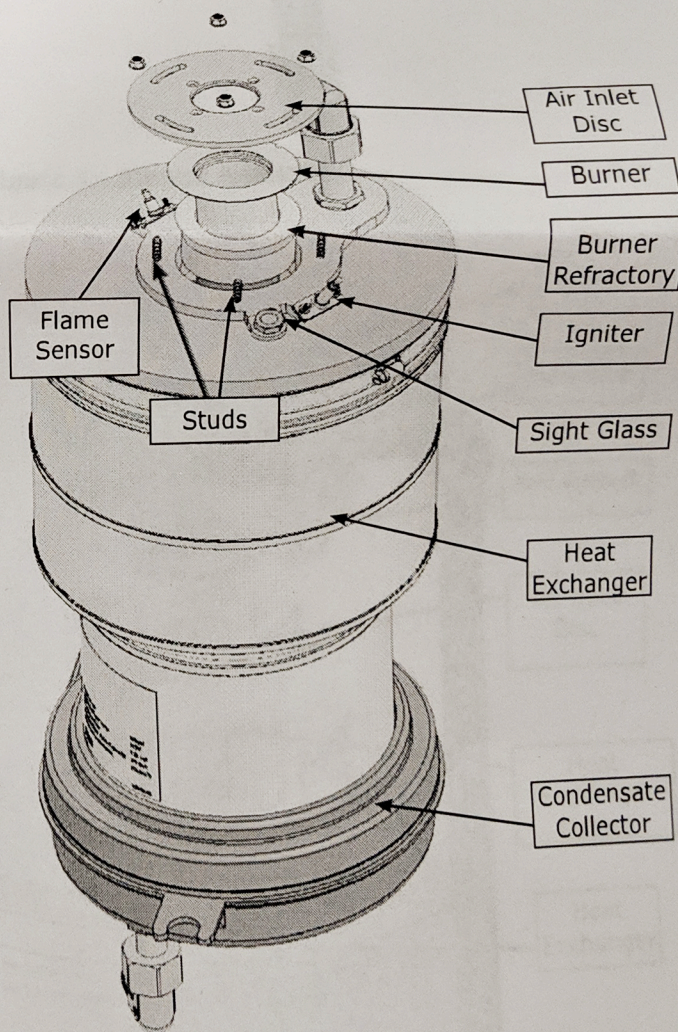


Figure 2 - Heat Exchanger, Burner, Air Inlet Disc



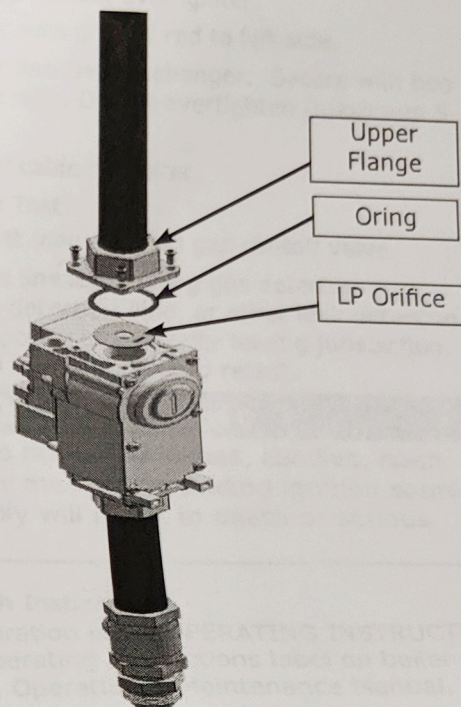
REPLACEMENT BURNER KIT INSTRUCTIONS

- Remove Gas Valve Harness. Loosen retaining screw and disconnect harness from gas valve.
- Turn off gas at main shutoff valve.

NOTICE

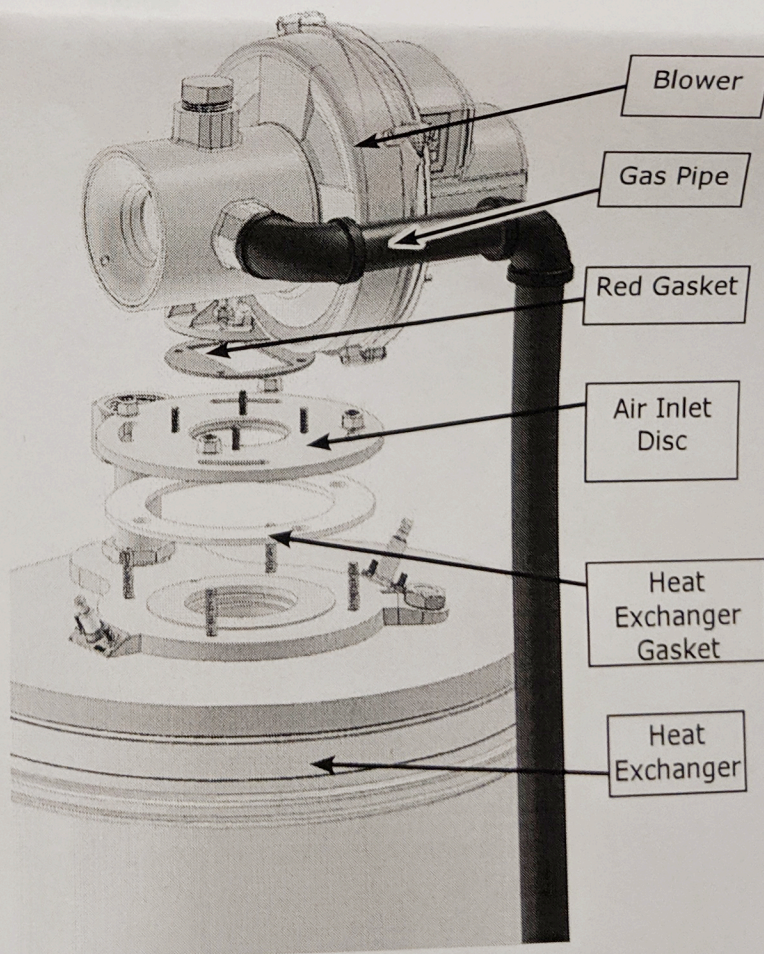
Use two (2) wrenches when tightening gas lines. Boiler components can be damaged if subjected to excessive torque.

Figure 3 - Upper Gas Valve Flange Removed



- Disconnect upper flange on gas valve. See figure 3.
- Remove blower Assembly: See figure 4.
 - Disconnect two (2) harnesses from blower.
 - Support air inlet assembly. Remove four (4) 1/4-20 hex flange nuts securing air inlet disc to heat exchanger using 7/16" deep well socket.
- Remove Burner: See figure 2
 - Remove heat exchanger gasket.
 - Lift burner from heat exchanger. Allow burner to clear top lip of chassis.
 - Remove any residual sleeve and/or gasket material from heat exchanger and air inlet assembly.
 - Slide new refractory burner sleeve onto new burner. See figure 3 for orientation.
 - Insert new burner into heat exchanger. Align U-shaped notch on burner flange with pin on heat exchanger. See figure 5.

Figure 4 - Blower Assembly



11. Install Air Inlet Assembly

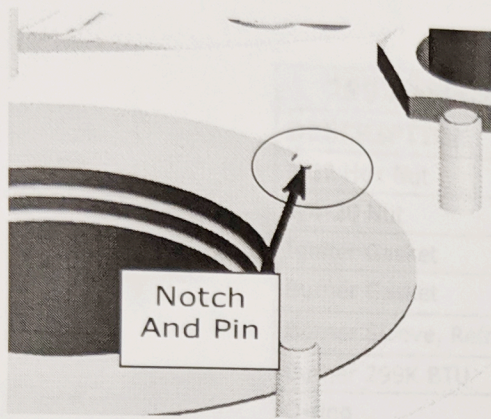
- Replace existing burner gasket with new gasket provided with kit. Align gasket with studs in heat exchanger.
 - Place air inlet disc onto heat exchanger. Secure hand tight with four (4) 1/4-20 hex flange nuts. See figure 4.
 - Verify minimum 1/8" clearance between blower and piping. Complete tightening nuts.
- Connect gas valve upper flange onto gas valve. LP/propane units only. Place LP orifice between upper flange and gas valve body. See figure 3
 - Install Flame Sensor:
 - Insert flame sensor into heat exchanger. Flame sensor bracket is off set and will only allow insertion in proper orientation.

NOTICE

Flame sensor does not require gasket. Flame sensor o-ring seals flame sensor to heat exchanger.

REPLACEMENT BURNER KIT INSTRUCTIONS

Figure 5 - Notch and Pin

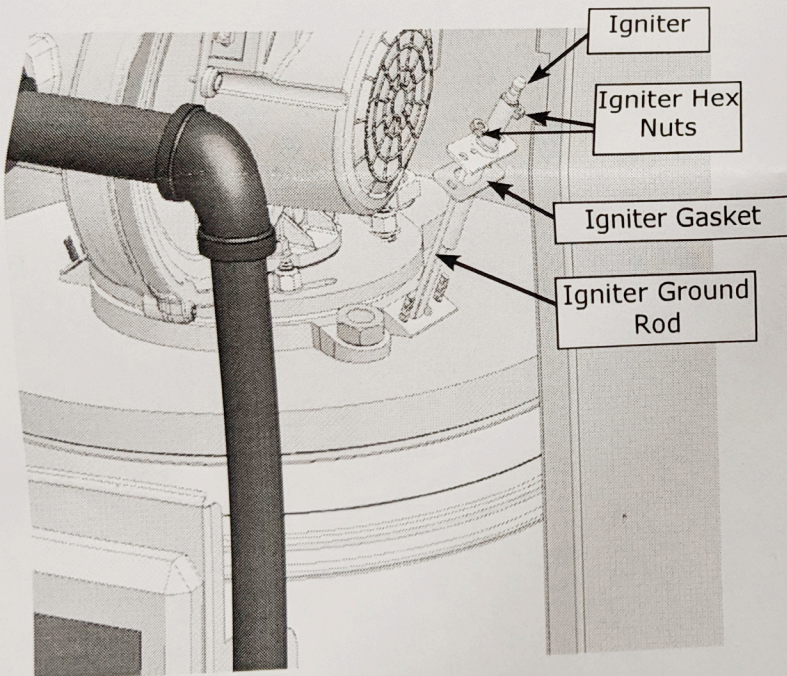


14. Install Igniter. See figure 6.
 - Position igniter gasket over igniter.
 - Orient igniter with ground rod to left side.
 - Insert igniter into heat exchanger. Secure with two (2) 8-32 hex nuts. Do not overtighten (maximum 5 lb-ft).
 - Attach igniter cable to igniter.
15. Gas Line Leak Test
 - Turn on gas at manual main gas shutoff valve.
 - Check for gas line leaks using gas detector, noncorrosive detection fluid, or other leak detection method acceptable to authority having jurisdiction. Correct leaks immediately and retest.

⚠ DANGER

Fire hazard. Do not use matches, candles, open flames, or other methods providing ignition source. Failure to comply will result in death or serious injury.

Figure 6 - Igniter, Gasket and Hex Nuts - 299 MBH



16. General Finish Instructions
 - Resume operation using OPERATING INSTRUCTIONS found on Operating Instructions label on boiler or in Installation, Operation & Maintenance Manual.
 - Verify proper operation by following START UP PROCEDURE in Installation, Operation & Maintenance Manual.
 - Install front jacket panel(s).

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299 REPLACEMENT BURNER KIT INSTRUCTIONS

PARTS LIST

299 Replacement Burner Kit # 550002809		
DESCRIPTION	PART #	QTY
8-32 Hex Nut	-	4
1/4-20 Nut	-	4
Igniter Gasket	-	1
Burner Gasket	-	1
Burner Sleeve, Refractory	-	1
Burner 299K BTU	-	1
O-ring	-	1
Instructions	2400010106	1