

399 BURNER REPLACEMENT KIT INSTRUCTIONS

Kit #550003097

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
- Phillips screwdriver
- 11/32" Nut Driver, Wrench or Socket
- Gasket Scraper
- 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.

⚠ 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:
 - Disconnect igniter cable from igniter.
 - Remove two (2) 8-32 hex nuts using 11/32" nut driver, wrench or socket. See figure 1.
 - Pull igniter up and out of heat exchanger.
 - Remove old igniter gasket. Clean heat exchanger surface.
5. Remove Flame Sensor:
 - Disconnect flame sensor cable from flame sensor.
 - Remove two (2) 8-32 hex nuts using 11/32" nut driver, wrench or socket. See figure 2.
 - Disconnect ground wire from stud.
 - Pull flame sensor out of heat exchanger.

Figure 1 - Blower Assembly, Sight Glass, & Igniter

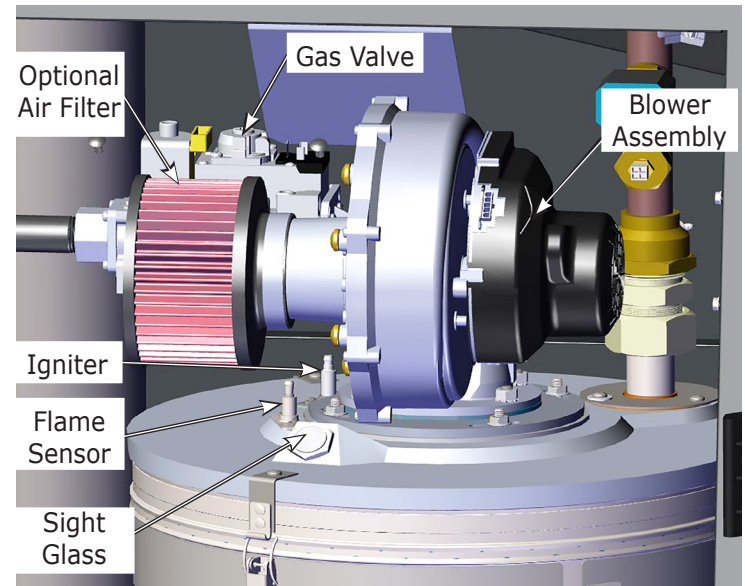
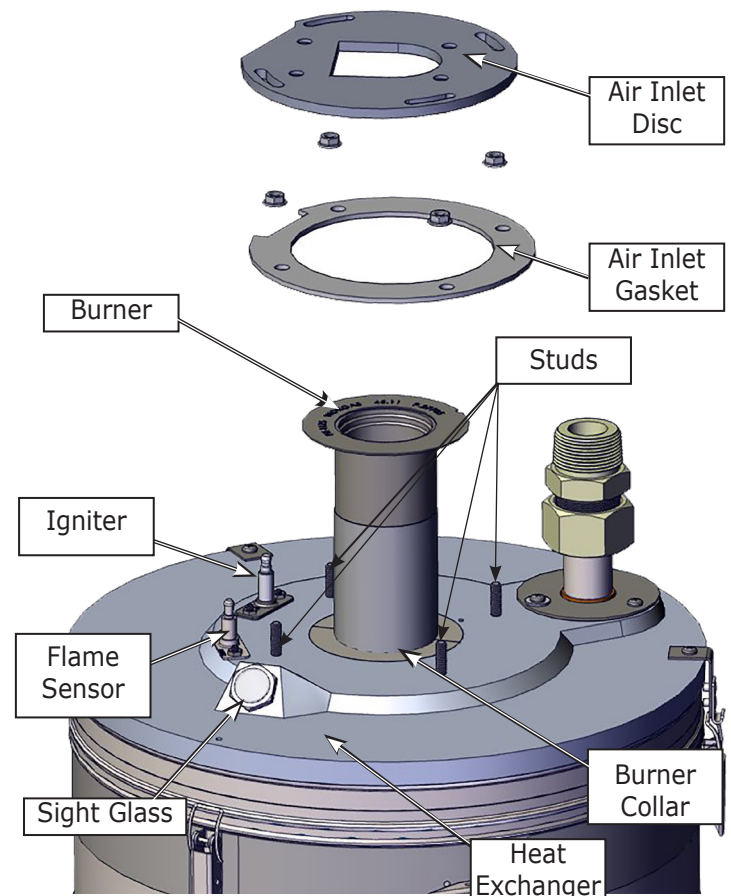


Figure 2 - Heat Exchanger, Burner, Air Inlet Disc



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6. Remove Gas Valve Harness. Loosen retaining screws and disconnect harness from gas valve. See figure 7.
7. Turn off gas at manual main shutoff valve. See figure 3.
8. Disconnect gas valve left flange.

NOTICE

Use two wrenches when loosening and tightening gas lines. Boiler components can be damaged if subjected to excessive torque.

9. Remove blower/gas valve assembly: See figure 4.
 - Disconnect two (2) harnesses from blower.
 - Remove four (4) ¼-20 hex flange nuts securing air inlet disc to heat exchanger using 7/16" deep well socket.
10. Burner Removal.
 - Lift burner from heat exchanger. Allow burner to clear top of chassis.
 - Remove any residual sleeve and/or gasket material from heat exchanger and air inlet assembly.

Figure 3 - Upper Gas Valve Flange Removed

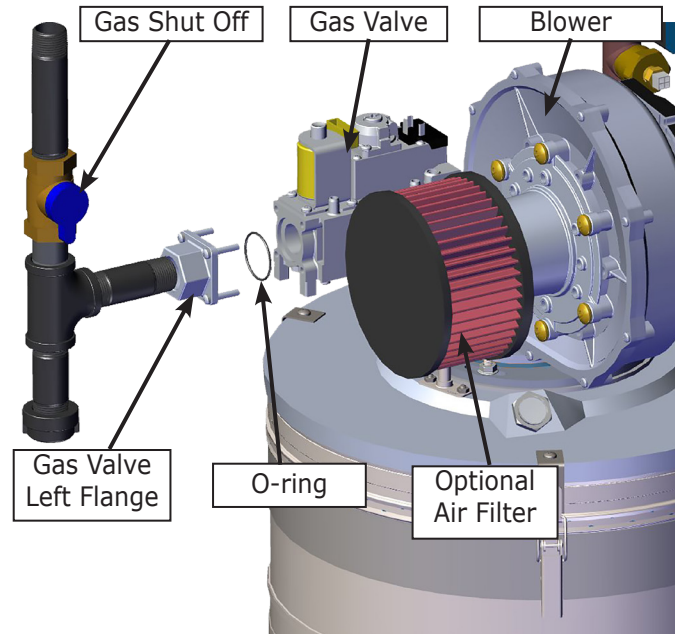
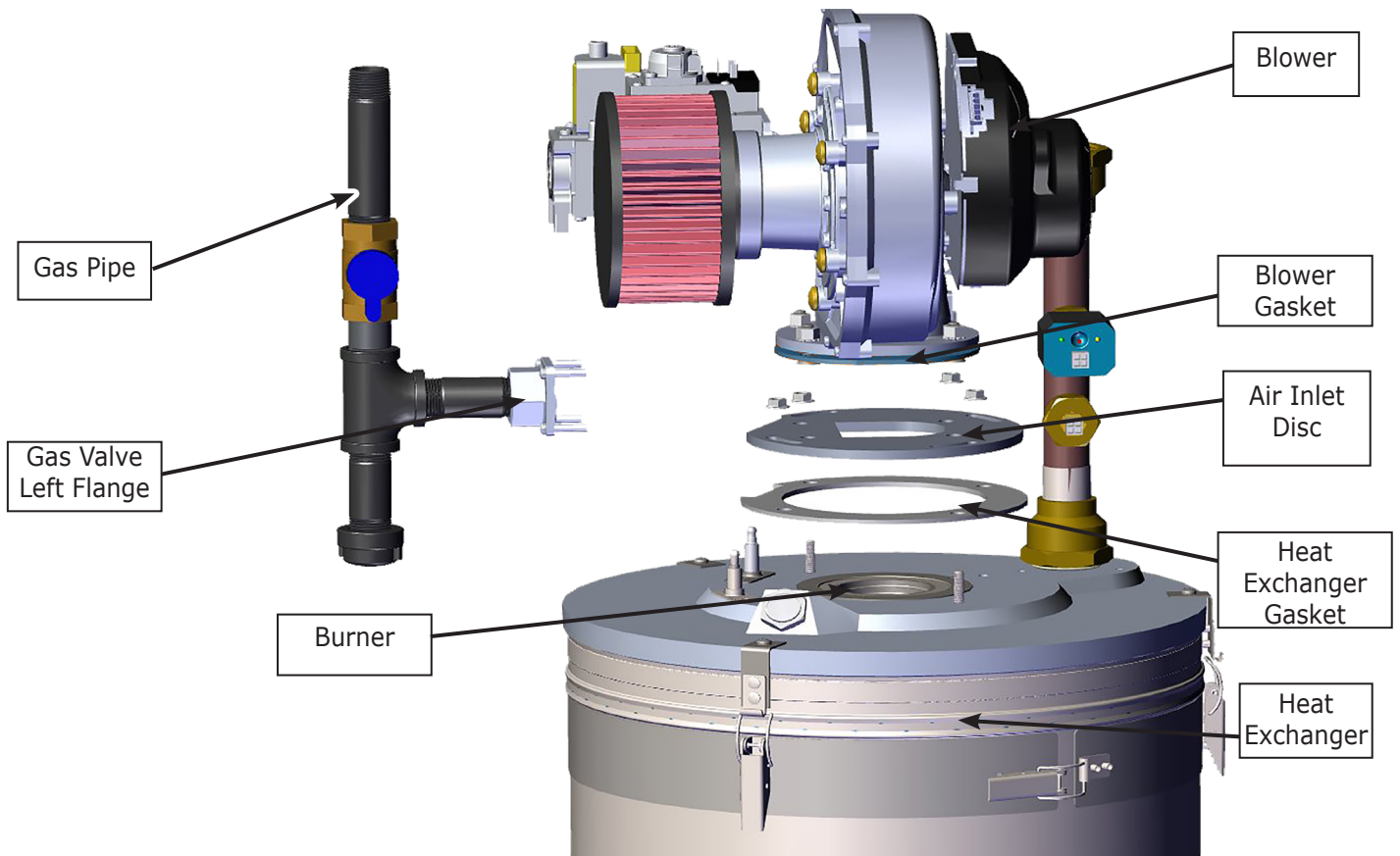


Figure 4 - Blower Assembly



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Figure 5 - Notch and Pin

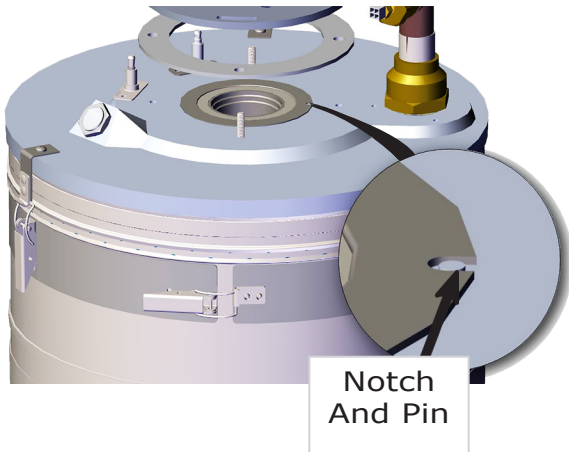


Figure 6 - Burner Collar Halves

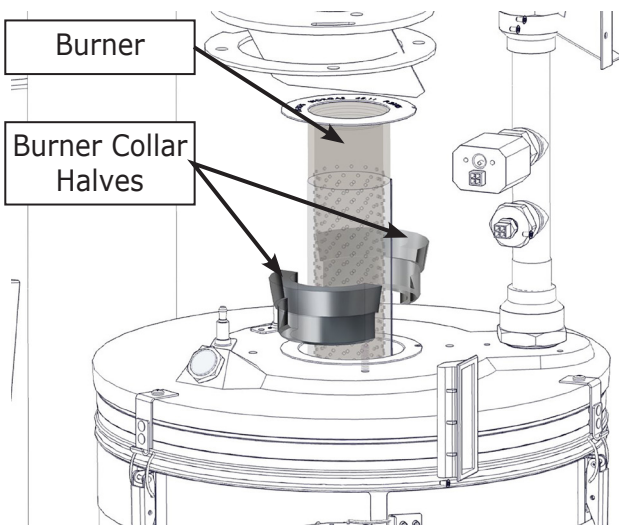
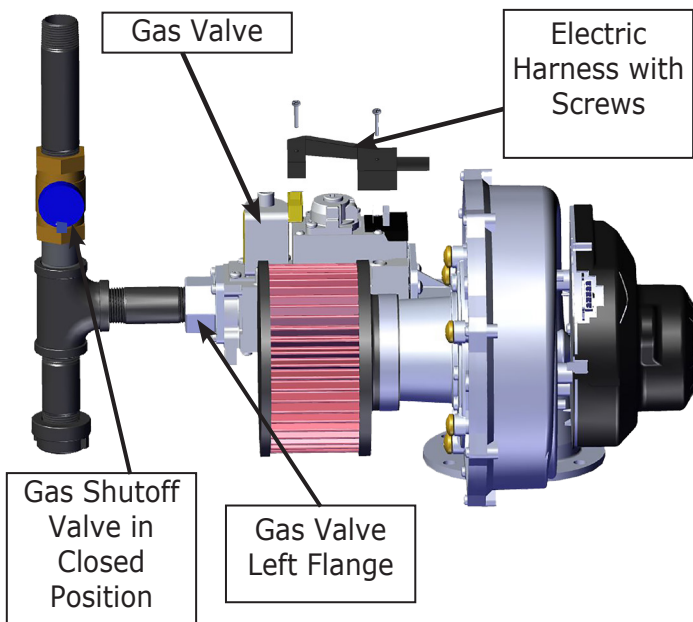


Figure 7 - Gas Valve, Gas Shutoff Valve, Gas Harness



Replacement Instructions:

1. Install Burner
 - Install new burner collar halves join with Pryrolite EZ Fill. See figure 6 for orientation.
 - Insert new burner into heat exchanger. Align U-shaped notch on burner flange with pin on heat exchanger. See figure 5.
2. Install Blower Assembly: See figure 4.
 - Replace existing heat exchanger gasket with new gasket provided with kit. Align gasket with studs in heat exchanger.
 - Place blower assembly onto heat exchanger. Secure hand tight with four (4) ¼-20 hex flange nuts.
 - Verify minimum ⅛" clearance between blower and piping. Complete tightening nuts.
3. Connect gas valve left flange. See figure 3
4. Install Gas Valve Harness. Attach gas valve harness to gas valve. Secure with integral screw. See figure 7.
5. Install Flame Sensor: See figure 2.
 - Insert flame sensor into heat exchanger. Flame sensor bracket is off set and will only allow insertion in proper orientation.

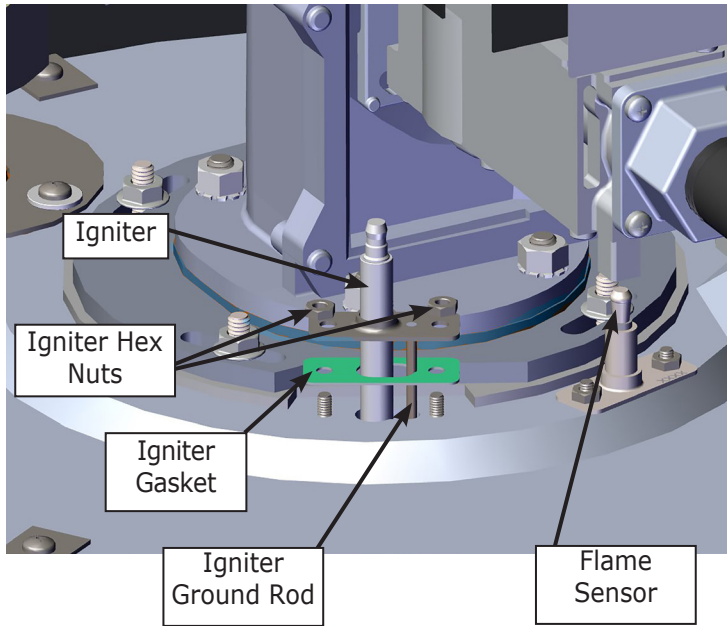
NOTICE

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

- Place flame sensor ground wire onto right-side stud.
 - Secure flame sensor and flame sensor cable with two (2) 8-32 hex nuts. Do not overtighten (maximum 5 lb-ft.).
 - Attach flame sensor cable to flame sensor.
6. Install Igniter. See figure 8.
 - 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.
 7. 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.

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Figure - 8 Igniter, Gasket and Hex Nuts



⚠ **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.

8. 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.

399 Burner Replacement Kit # 550003097		
DESCRIPTION	PART #	QTY
1/4-20 Hex Flange Nut	-	4
Burner Sleeve, Refractory	-	2
8-32 Hex Nut	-	4
Fiber Gasket	-	1
Igniter Gasket	-	1
Burner, 399	-	1
Pyrolite EZ Fill	-	1
Gasket, Blower, Index Plate		1
Instructions	2400111266	1

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