



This replacement kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, an explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life.

The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

Note

The space or gap between the burner and the end of the ignitor is critical to ignition and to flame proving.

It is recommended to check the spark gap using a gapping tool **P-916**, not included in this kit, when replacing the ignitor.

Ignitor Kit - HC, DC			
	Part #	Description	Quantity
	240-067	Ignitor rod - single prong	1
	250-622	Ignitor gasket	1

When to Install the P-716 ignitor replacement kit

Install the P-716 kit when failure to ignite after 3 tries occurs or obvious damage (misshapen or deformation) is observed during servicing.

Note

A ladder or step may be required to have a clear vertical view of the work area.

Do not attempt to remove the assemblies without a clear view, as damage to the connectors, screws or refractory may occur.

Removal of Ignitor

Preparing the boiler

1. Remove call(s) for heat.
2. Remove power to the boiler at a wall switch or a breaker.
3. Shut off gas supply to the boiler.

Do not drain the boiler unless freezing conditions are expected during this procedure.

4. Allow the boiler to cool down.
5. Remove the front cover.
6. Remove the top service panel (see [Removing the ignitor on page 2](#)).

Removing the ignitor

Note

In some older models, the top service panel cannot be removed and there may not be enough clearance to access and replace the ignitor. In order to access and replace the ignitor, a hole will need to be drilled into the top of the cabinet.

If an access hole is already present, proceed to step #2.

1. In order to give clearance to access the ignitor, use a step drill to open a hole that is $\frac{3}{4}$ inches in diameter in the top of the cabinet above the ignitor.
 - » Use a rasp to remove the burrs.
2. Remove and retain the two screws that secure the ignitor.
3. Remove the ignitor and discard the gasket.

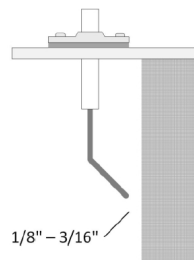
Installation of New Ignitor and Start-up

Installing the new ignitor

1. Install the supplied ignitor gasket.
2. Insert the supplied ignitor and hand-tighten to secure.

Note

The ignitor has a bend that points it towards the burner at the front of the heat exchanger.





3. Check the spark gap using gapping tool P-916
4. Secure the ignitor in position using the two ignitor screws.

Start-up

1. Turn on gas to the boiler.
2. Turn on the water supply to the boiler.
3. Turn on power to the boiler.
4. Restore the call(s) for heat.
5. Test for proper operation and confirm dependable ignition (see [Adjusting the Spark Gap on page 4](#)).
6. Measure the flame current (see [Checking the flame current on page 4](#)).

Checking the flame current

1. To test the current in **Hire Fire**:



- a. Allow the boiler to run against a large load to maintain high fire
- b. Enter the **High Fire Manual Mode** by pressing the *Service*  and *Plus*  buttons together twice (an "H" will show in the service display)


Note

Do not make any adjustments if an "H" is showing in the service display



- c. Allow the boiler to operate at *High Fire* for 3 minutes to stabilize

Note

The boiler will operate in manual mode for 10 minutes then switch back to normal operating mode. To extend the manual mode operation press the *Service*  and *Plus*  buttons together twice while the boiler is operating in manual mode to extend the timer for an additional 10 minutes.

- d. Press and hold  for more than 2 seconds while in **Service Mode** to display the Flame Current in DC microamps. The expected reading is approximately 9.8µA at High Fire.

2. To test the current in **Low Fire**:

- a. Enter the **Low Fire Manual Mode** by pressing the *Service*  and *Minus*  buttons together at the same time (an "L" show in the service display)
- b. The expected reading is 6.5µA or higher.

Adjusting the Spark Gap

1. Remove the ignitor.
2. Hold the ignitor with two pliers, one on each side of the bend, and gently decrease or increase the rod angle.



Caution

When adjusting the gap, do not put stress on the ceramic insulator. It may be necessary to make several attempts to achieve a suitable gap. If you are adjusting a used ignitor, heat it first (e.g. by a torch).

3. Restore the gas and give the boiler a call for heat.
4. Confirm consistent ignition. Re-measure the flame current.