Rheem has received reports of customers experiencing difficulty in getting proper ignition on AdvantagePlus units out of the box. This issue is often accompanied by an F09 fault showing on the controls. See below for troubleshooting.

The igniter that is present in the unit as it ships is a natural gas igniter. We have found that replacing with the LP Conversion Kit igniter will often address the issue. The replacement parts are contained in a special conversion kit sent with each water heater.

Natural Gas Igniter

LP Igniter

**F09 Error - Ignition Error; No Flame Detected; Max Ignition Attempts**

This lockout code means maximum ignition attempts. The unit has cycled for main burner three times without flame rectification. The operative term here is flame rectification. Remember, the control checks many things such as the blower, venting, gas valve, ECO, etc, that would produce their unique error codes. Thinks to check:

- Does the unit have fuel?
- Is the fuel isolation valve ON?
- Is the orange igniter wire connected at both ends?
- Is the yellow flame probe wire connected at both ends?
- Is the green ground (rectification circuit) wire solidly connected at both ends?
- Is the gas valve Molex connected to the board?
Ignition Issues (F09) with AdvantagePlus

Did the igniter spark?

No

Test ignition wire – and
Test igniter assembly –

1. Remove the orange plug wire and measure resistance thru the wire. You should have at least 1k ohm resistance. If not, replace the ignition wire.
2. Reconnect the spark plug boot to the igniter. Hold the other end approx. 1/4 inch away from the spade terminal on the control and cycle the unit.
   a. IF the spark jumps the gap, then replace the igniter assembly;
   b. IF there is no spark, then replace the controller.

Yes

Test igniter assembly –

Does the gas valve have power? (This step rules out the controller only)

No

Replace controller

Yes

Replace controller

1. Remove the black plug from the gas valve with a flat blade screwdriver.
2. Cycle the unit and wait for the unit to go into ignition (spark).
   Measure for 120v between the center pin and the left hand side pin as shown above.
   a. IF you have @120, then the gas valve is getting power. The controller is OK.
   b. IF you do not have @120V, then replace the controller.
Rheem recommends that if you replace the igniter that you properly re-set combustion as defined in the use and care manual.

*The only visible check is to look thru the sight glass window into the combustion chamber.*