

Model 41000



Model 45000

**WARNING**

**Installer/Service** – This supplement must be used only by a qualified service technician. Follow all guidelines in this manual. Failure to comply with this or other requirements in this manual could result in severe personal injury, death or substantial property damage.

**NOTICE**

**FROZEN PIPES/WATER DAMAGE:** This is not a freeze protection device. Suitable freeze protection monitoring or other precautions are recommended to protect against ruptured pipes/ water damage caused by fuel outage, safety related fault conditions, or equipment failures.

**CARLIN. THE TECHNOLOGY LEADER.**

# Models 41000 and 45000

## Ignitor Test Procedure

This test procedure consists of three tests. The first is the ignitor spark test. The second test is a secondary coil resistance test. The third test consists of an input current test. The following is a step by step procedure to perform these tests. It is important that all three of these tests be performed in the order shown.

### 41000 and 45000 Ignitor Spark Test

1. Turn off the power to the burner/appliance.
2. Disconnect the ignitor wires in the burner junction box.
3. Release the ignitor hold down screws or clips.
4. Swing the ignitor plate fully open.
5. Adjust the copper ignitor clips until they are 1/2" apart (see figure 1). If spring style contacts are installed and cannot be replaced for this test, temporarily insert a length of wire into one of the spring contacts as shown in figure 2.
6. Connect a test power cord with a switch to the ignitor leads in the burner junction box.
7. Turn on the test power cord switch to power the ignitor.
8. Check for spark across the ignitor clip ends (see figure 1 or figure 2).
9. If spark occurs, proceed to the secondary coil test on the back of this page.
10. If spark does not jump the gap, or if the spark jumps intermittently, ignitor is defective and should be replaced.
11. Turn off power to the ignitor.
12. Remove the power cord from the ignitor leads.

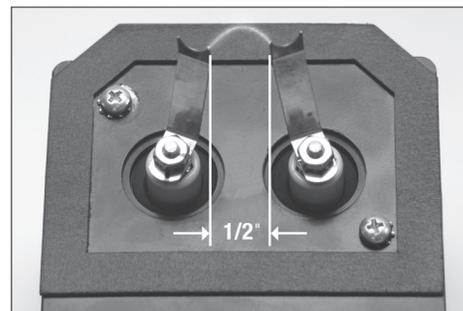
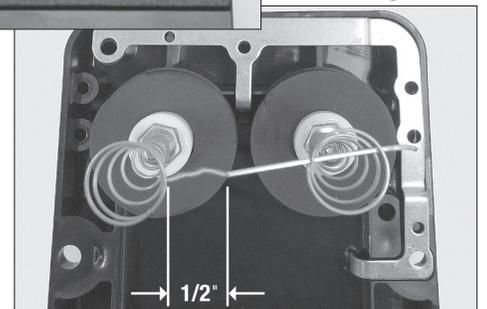


Figure 1

Figure 2



### 41000 and 45000 Secondary Coil Resistance Test

1. Use an ohmmeter to check the resistance from electrode to ground for each of the electrodes (Figure 3 and 4).
2. The secondary coils are good if the difference between the two readings is less than 10%.
3. If the difference in the electrode-to-ground resistance is more than 10%, the secondary coil may be failing. Replace the ignitor.
4. If the difference between electrode-to-ground is within 10%, proceed to the input current test.

Figure 3

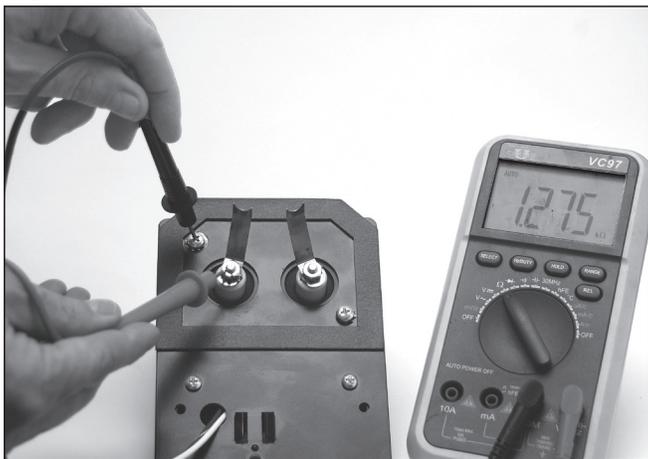
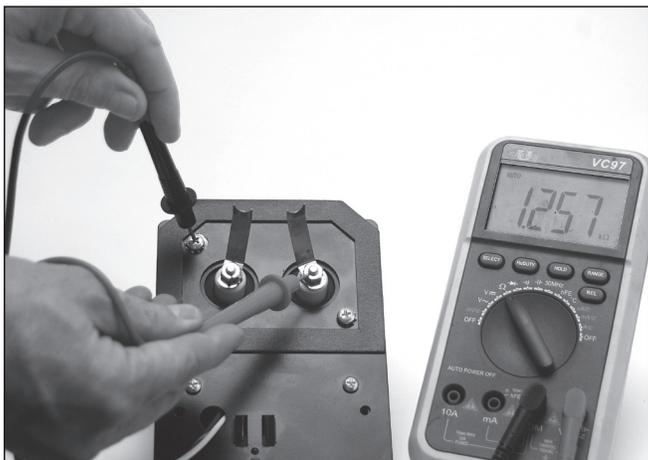


Figure 4



### 41000 and 45000 Input Current Test

1. Leave the ignitor clips still set to 1/2" apart.
2. Set a multimeter to read AC milliamps.
3. Using a test power cord with a switch, wire the ignitor blue lead to one of the multimeter leads. Wire the other lead of the multimeter to the hot side of the test cord. Wire the white ignitor wire to the neutral side of the test cord. (Figure 5)
4. Insure the multimeter is set for AC milliamps and turn on the test power cord switch to power the ignitor. If there is no spark, replace the ignitor.
5. Monitor the input current with the multimeter set on AC milliamps for 5 minutes.
6. If at any time the reading drops below 220 milliamps AC, the ignitor should be replaced. If you are using an auto range meter, the meter could read out of range (OL). This signifies the reading is above the range the meter is reading and is normal. Be sure your meter is set in the proper range.
7. Turn off the power to the ignitor.
8. Remove the power test cord.
9. Readjust ignitor clips to original spacing (1"). Remove wire from spring contact if used for these tests.
10. Wire the ignitor in its original condition (per burner wiring diagram).
11. Replace all components to normal condition.

Figure 5



TECH SUPPORT HOTLINE 800-989-2275



## Carlin Combustion Technology

126 Bailey Road North Haven, CT 06473 Phone 203-680-9401 Fax 203-764-1714  
 e-mail us at: [info@carlincombustion.com](mailto:info@carlincombustion.com) visit our website: [www.carlincombustion.com](http://www.carlincombustion.com)