16) IGNITION SYSTEM CHECKS

TO CHECK IGNITION CABLE
*A WARNING:* The ignition circuit generates high voltage and electrical shock can result. Disconnect power supply before making these checks.

a. Make sure that the ignition cable does not touch any metal surface.

b. Make sure that connections to the stud terminal and the igniter/sensor are clean and tight.

c. Make sure that the ignition cable provides good electrical continuity.

TO CHECK IGNITION SYSTEM GROUNDING.
(Nuisance shutdowns are often caused by a poor or erratic ground.) A common ground is required for the module, igniter, flame sensor and main burner.

a. Check for good metal-to-metal contact between the igniter bracket and the main burner.

b. Check the ground lead from the GND (BURNER) terminal on the module to the igniter bracket. Make sure connections are clean and tight. If the wire is damaged or deteriorated, replace it.

c. Replace igniter/sensor with factory replacement part if insulator is cracked.

TO CHECK SPARK IGNITION CIRCUIT.

a. Check ignition cable (as above).

b. Verify power (24V) at module input terminals and output terminal to gas valve.

c. Replace spark module if power (24V) is OK.

IGNITION MODULE DIAGNOSTICS  *(Fanwal #35-6087D1-038 module only)*

The **LED** located on the ignition module will flash **ON** for ¼ second, then **OFF** for ¼ second during a fault condition. The pause between fault codes is 3 seconds.

<table>
<thead>
<tr>
<th>LED Indication</th>
<th>Error Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steady On</td>
<td>CONTROL FAULT</td>
</tr>
<tr>
<td>2 Flashes</td>
<td>FLAME – NO CALL FOR HEAT</td>
</tr>
<tr>
<td>3 Flashes</td>
<td>IGNITION LOCKOUT</td>
</tr>
</tbody>
</table>
TO CHECK FLAME SENSOR CIRCUIT  (Fenwal #35-6087D1-038 module only)

The flame current is the current that passes through the flame from the sensor to the ground. The minimum flame current necessary to keep the system from lockout is 0.7 micro-amps.

a. To measure the flame current, connect an analog DC micro-ammeter to the FC- and FC+ terminals per diagram. The meter should read 0.7 micro-amps or higher when the burner is running full on.

b. If the meter reads below zero, the meter leads are reversed. Disconnect power and reconnect the meter leads for proper polarity.

c. Remove micro-ammeter. Return system to normal operation.

17) REPLACING PARTS

Ensure that at all times when parts are being replaced, both gas and electrical supplies are disconnected. Various parts are available from the factory for replacement by a licensed person. Refer to the Replacement Parts Guide in Section 19 for all replacement parts.

18) INSTALLATION DATA

Date of Installation: ______________ Number of Heaters in System: ______________

Heater Serial Number: ________________________________

Heater Model: **RSCA** ____ N=Natural Gas

____ L=Propane Gas