SERVICE DATA TECH SHEET
Gas Free-Standing Ranges with Venturi Burner System

**WARNING** Before servicing, disconnect electrical supply at circuit breaker, fuse or power cord.

**WARNING** This service data sheet is intended for use by persons having electrical and mechanical training and a level of knowledge of these subjects generally considered as acceptable in the appliance repair trade. The manufacturer cannot be responsible, nor assume any liability, for injury or damage of any kind arising from the use of this data sheet.

**SAFE SERVICING PRACTICES**

To avoid the possibility of personal injury and/or property damage, it is important that safe servicing practices be observed. The following are examples, but without limitation, of such practices:

1. Before servicing or moving an appliance remove power cord from electrical outlet, trip circuit breaker to OFF, or remove fuse.
2. Never interfere with the proper installation of any safety device.
3. GROUNDING: The standard color coding for safety ground wires is GREEN OR GREEN WITH YELLOW STRIPES. Ground leads are not to be used as current carrying conductors. It is extremely important that the service technician reestablish all safety grounds prior to completion of service. Failure to do so will create a potential safety hazard.
4. Prior to returning the product to service, ensure that:
   - All electrical connections are correct and secure.
   - All electrical leads are properly dressed and secured away from sharp edges, high-temperature components, and moving parts.
   - All uninsulated electrical terminals, connectors, heaters, etc. are adequately spaced away from all metal parts and panels.
   - All safety grounds (both internal and external) are correctly and securely reassembled.

**Gas Regulator & Shut-off Valve Location**

The gas regulator is located on the back of the appliance (See Fig. 1). The shut-off valve is located on the gas regulator as shown (Fig. 2). After properly installing or if converting the appliance to LP Gas, be sure to set the shut-off valve back to the ‘ON’ position before operating.

**Surface Burner Heads**

- Charge Ports
- Lighter Ports
- Flash Tube Assembly
- Spark Electrode

**Surface Burner System**

- Gas Valve Office
- Spark Electrode
- Gas Burner Valve
- Spark Caps
- Spark Module

**Surface Gas Valves & Air Shutter**

- Air Shutter adjustment
- Venturi Air Shutter
- Spark Electrode
- Spark Module

**Surface Burner Flame Adjustments**

1. The air shutter adjustment for each of the 4 surface burners is located at the open end of the venturi tube near the valve gas orifice (See Fig. 4). Should the air shutter need adjustment, rotate the air shutter to allow more or less air into the burner tube. If the air is properly adjusted, the flame will be steady, relatively quiet, and have approximately 2½" to 3" long blue cones (the sharp blue cone (usually centered) of the air shutter’s adjustment). If the flame is yellow in color, increase air shutter opening size. If the flame is a distinct blue cone but lifting away from the burner, reduce the air shutter opening size.

2. Check gas pressure with all burners ON (See Check the Regulator Inlet & Outlet). If the spark at the 2 surface spark electrodes is operating, go to step 2 below. If the spark electrodes are not operating, go to step 5 below.

**Surface Burner Troubleshooting**

Check gas pressure with all surface burners turned ON (See Check the Regulator Inlet & Outlet). If the spark at the 2 surface spark electrodes is operating, go to step 2 below. If the spark electrodes are not operating, go to step 5 below.

3. Check gas pressure with all surface burners turned ON (See Check the Regulator Inlet & Outlet).

4. Check alignment of burner flash tube assemblies (See Fig. 3).

5. Disconnect power & turn OFF power to the appliance. Remove the panel at the top right rear of the range that covers the spark module.

6. Reconnect electrical power. Turn one of the surface burner valves to “LITE” and check in the center of the oven. If the meter reads 0 VAC, check the wiring to and from the surface burner switches and the surface burner switch assembly. It is extremely important that all 4 surface burner switch assemblies have continuity simultaneously since the surface burner switches are wired in parallel.

7. Listen to the spark module. If a snapping sound is heard and the surface electrodes are not arcing, the high voltage lead to surface electrodes is open. If the snapping sound is not heard go to step 8.

8. Disconnect electrical power and remove the 2 wires from output terminals 1 & 2. Using an Ohm Meter check the high voltage wiring between the spark module and the burner electrodes for a short to the chassis. If no shorted wiring is found replace the spark module.

**Oven Burner Troubleshooting**

The oven burner is ignited by an electronic igniter/ignition system. The ignition circuit consists of the oven thermostat, the oven igniter and the oven safety valve. These 3 components are wired in series. The most important points to know about the oven ignition system are:

1. The oven igniter resistance decreases as the ignition temperature increases.
2. The gas safety valve operates by current not voltage.

From a cold start, the oven igniter needs 30-60 seconds with voltage applied, to reduce its electrical resistance enough to provide a minimum of 2.9 amps of current flow in the series circuit. This is the required current flow needed for the gas safety valve to open to supply gas to the oven burner.

**Oven Burner Adjustments**

1. Check hood (See Fig. 8). Check air shutter adjustments on oven burner (See Fig. 8). Check gas pressure (as described earlier).

**Oven Calibration**

1. Place the probe for the oven tester in the center of the oven.

2. Turn thermostat to 350°F and allow it to cycle 3 times. Record the temperatures at the highest and lowest point of the third cycle and determine the average.

3. If the average temperature does not fall within 330° to 390°F, replace the oven thermostat.

**Natural Gas BTU Ratings**

This appliance is factory preset for use with Natural Gas with a 9,000 BTU rating for each surface burner and 18,000 BTU rating for the oven burner. For operation at elevations above 2000 ft., appliance calibration should be reduced at the rate of 4 percent for each 1000 ft. above sea level.