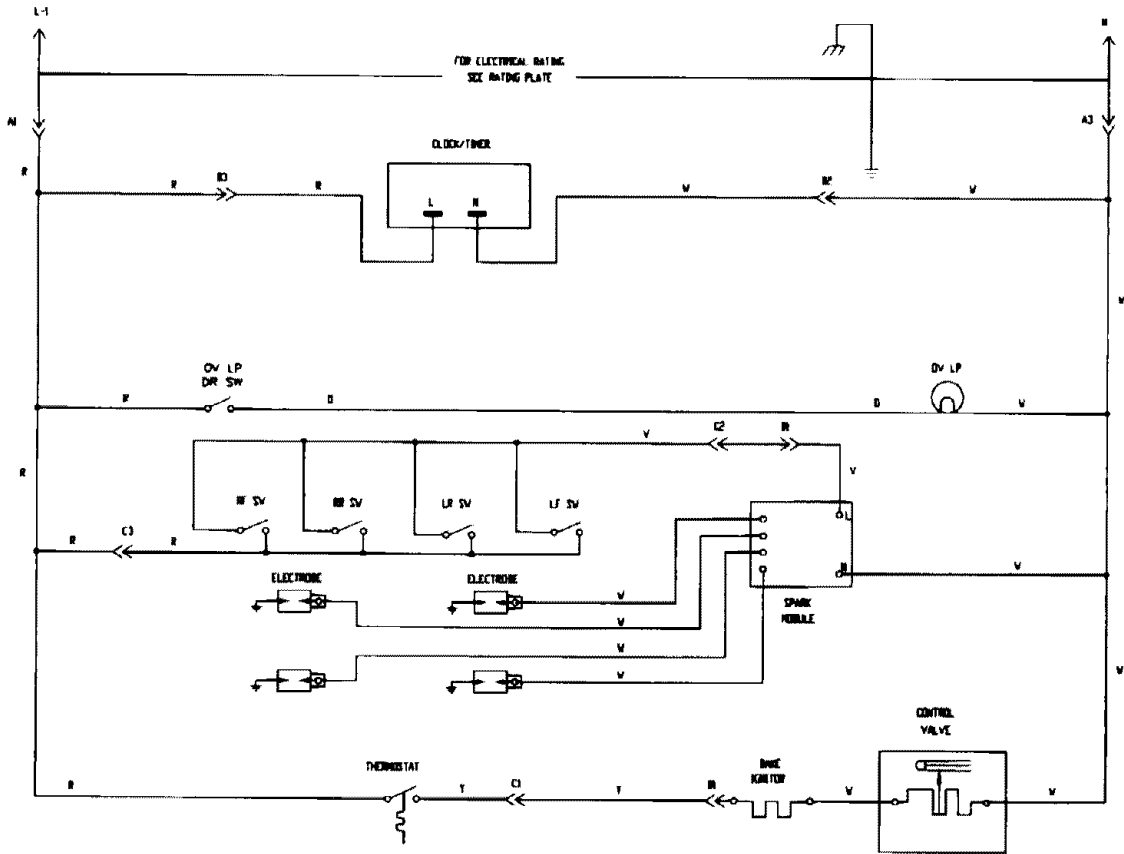


# SCHEMATIC DIAGRAM

**WARNING**  
**POWER MUST BE DISCONNECTED**  
**BEFORE SERVICING THIS APPLIANCE**

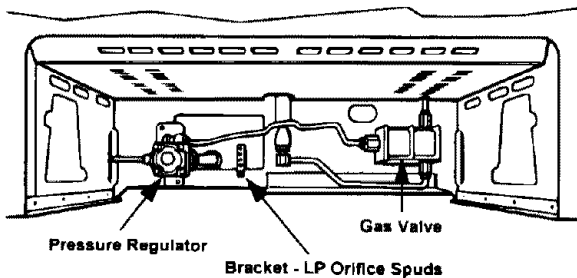


COLOR	SYMBOL
RED	R
WHITE	W
ORANGE	O
GREEN	G
YELLOW	Y
VIOLET	V
BLUE	N
GRAY	S

348A:800552R0.DWG

### LP ORIFICE SPUD LOCATION

LP orifice spuds are located at the back of the storage/ broiler drawer compartment. The spuds are in a metal bracket next to the pressure regulator and are attached to the back wall of the compartment by a 1/4" hex head screw. An LP conversion instruction sheet is also located in this area.

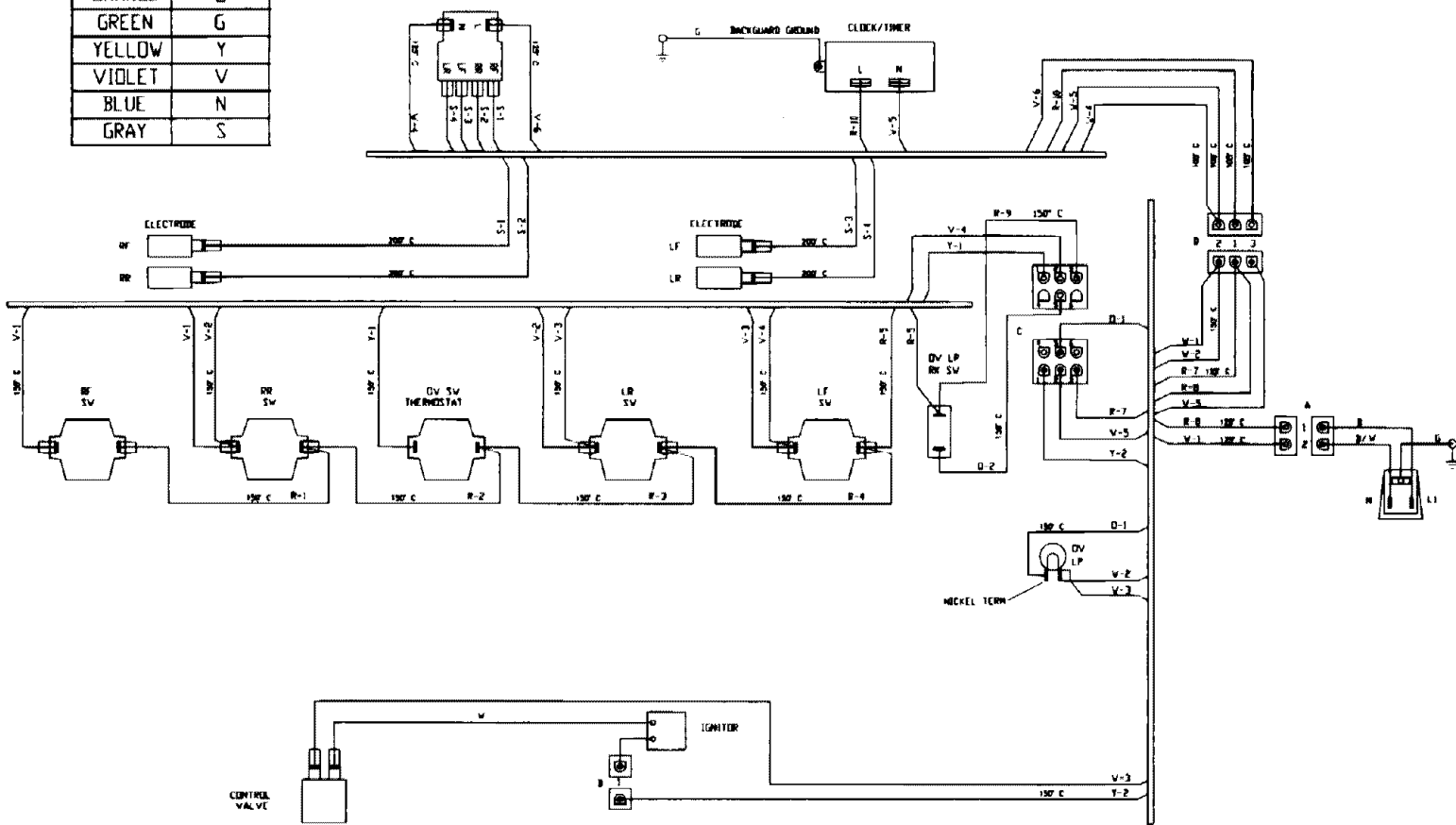


# WIRING DIAGRAM

348A8005 P051

**WARNING**  
**POWER MUST BE DISCONNECTED**  
**BEFORE SERVICING THIS APPLIANCE**

COLOR	SYMBOL
RED	R
WHITE	W
ORANGE	O
GREEN	G
YELLOW	Y
VIOLET	V
BLUE	N
GRAY	S



348A:800551RD.DWG

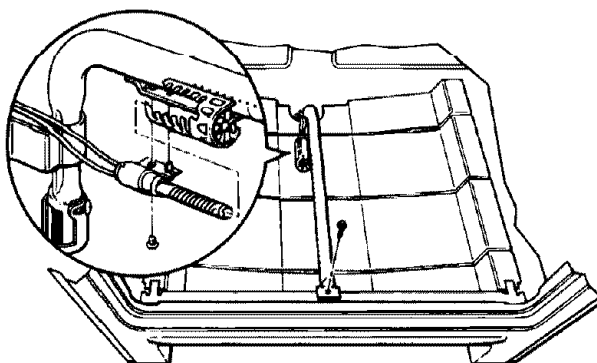
NOTE:  
 FOR SERVICE REPLACEMENT ON ALL OTHER LEADS,  
 USE 18 GA. 150° C WIRE EXCEPT AS INDIVIDUALLY  
 NOTED ON LEADS.

NOTE:  
 ALL LEADS WITH DESIGNATION  
 NUMBERS THAT ENTER COMMON  
 LEAD PATH ( ) MUST BE  
 TRACED TO THEIR TERMINATIONS.

## IGNITER (GLOWBAR) REPLACEMENT

The Igniter/Glowbar and it's protective cage are now 2 parts. The cage is riveted to the burner and is not removeable. The Igniter can be removed as follows:

- ◆ Remove the burner from the oven.
  - \* Bake burner
    - See "Bake Burner Removal" in this manual.
- ◆ Remove the 1/4" hex head screw securing the igniter to the burner.
- ◆ Remove old igniter.
- ◆ **Handle the new igniter by the metal bracket only.**
- ◆ Slide new igniter into the cage and insert the tab on the igniter bracket into the slot on the cage.
- ◆ Re-install 1/4" hex head screw to secure igniter.
- ◆ Re-install the Burner.



### Smaller Orifices For NATURAL Gas

Burner	Orifice Size	Part Number
LF, LR	1.44 mm	WB06x0094
RF	1.65 mm	WB02x9841

### Smaller Orifices For LP (Propane) Gas

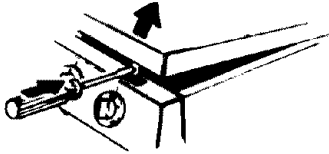
Burner	Orifice Size	Part Number
LF, LR	.73 mm	WB19K5066
RF	.84 mm	WB28K0022

### TO RAISE OR REMOVE COOKTOP

- ◆ Remove burner caps and heads.
- ◆ Disengage 2 front clips using a flat bladed screw driver as shown below.
- ◆ Lift top up at front.

#### FOR REMOVAL:

- ◆ Disconnect electrode leads.
- ◆ Disengage prop rods from range side panels.
- ◆ Lower top approximately 1/2 way down.
- ◆ Shift top left or right to disengage hinge pins at rear.



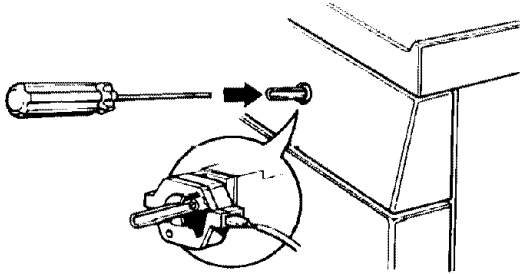
**IMPORTANT:** Before lowering the top onto the front clips, position the burner air/gas mixing tubes into the burner openings in the cooktop.

**NOTE:** When re-installing top, position top to be the equivalent of 1/2 way lowered before attempting to insert the top hinge pins into the corresponding slots on the backguard.

### LOW FLAME (SIMMER) ADJUSTMENT

The top burner valves have low flame/simmer adjustment screws in the center of the control valve shafts. A flashlight may be required to locate the screw. A thin, flat bladed screwdriver (approx. 3/32" across) is needed to access the screw.

**To Adjust The Low Flame Setting** - At least 2 other surface burners must be lit. Then, lite the burner being adjusted and turn knob to "LOW". Remove knob and insert the screwdriver into the valve shaft. Turn the adjustment screw until the flame reaches the desired size.



### Test The Flame Stability

**Test 1:** Turn the knob from "HI" to "LOW" quickly. If the flame goes out, increase the flame size and test again.

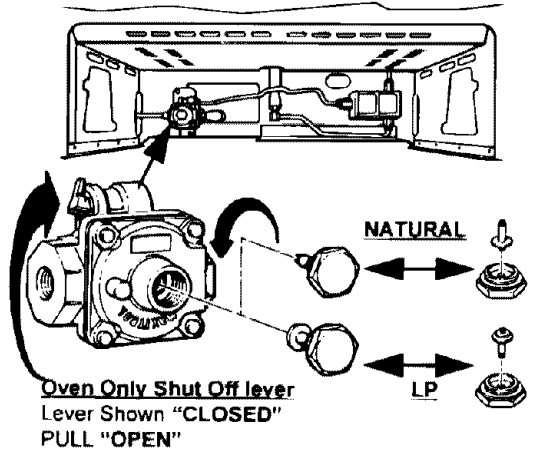
**Test 2:** With burner on "LOW" setting, open and close the oven door quickly. If the flame is extinguished by the air currents created by the door movement, increase the flame height and test again.

### CONVERSION TO LP (PROPANE) GAS

1. Convert Regulator - Regulator is located in the lower, left hand rear corner of the range as viewed from the front.

Depending on the model, remove the storage drawer, broiler drawer or false panel to access the regulator. Some models with a broiler drawer will have a metal cover over the regulator that must be removed for conversion and reinstalled when conversion is complete.

**To convert,** remove the Large hex nut which is located in the center of the regulator. Remove the plastic pin from the bottom side of the cap, turn the pin 180 degrees and snap the pin back into the cap. There are raised letters on the flat side of the plastic pin, "NAT" and "LP". In the "LP" position the end of the pin marked "NAT" should be snapped into the bottom of the hex-nut.

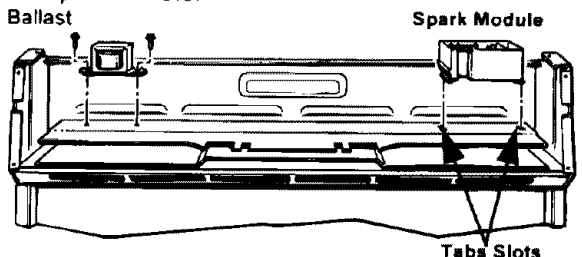


2. Remove surface burners and replace all 4 top burner orifices spuds with the LP orifice spuds supplied with the range. (See chart on column 1 of this sheet for orifice location and orifice indentifying marks).
3. Using a 1/2" wrench, tighten the orifice hood(s) supplying gas to the oven burner(s) clockwise until snug.
4. Open the air shutter on the oven burner(s) to the full open position and adjust as needed.
5. Adjust the low flame (simmer) setting on the surface burners as described under "LOW FLAME (SIMMER) ADJUSTMENTS".

### SPARK MODULE LOCATION

The spark module is located inside the backguard as shown below. The module is mounted by Two tabs which snap into corresponding slots.

To remove the module from its mounting, use a small, flat bladed screwdriver to bend the mounting tab toward the module body, freeing the tabs from their slots. Models with a fluorescent lamp (11" backguards) will have the ballast mounted in the backguard, opposite the spark module.



## IMPORTANT SAFETY NOTICE

THIS INFORMATION IS INTENDED FOR USE BY INDIVIDUALS POSSESSING ADEQUATE BACKGROUNDS OF ELECTRICAL, ELECTRONIC AND MECHANICAL EXPERIENCE. ANY ATTEMPT TO REPAIR A MAJOR APPLIANCE MAY RESULT IN PERSONAL INJURY AND PROPERTY DAMAGE. THE MANUFACTURER OF SELLER CANNOT BE RESPONSIBLE FOR THE INTERPRETATION OF THIS INFORMATION, NOR CAN IT ASSUME ANY LIABILITY IN CONNECTION WITH ITS USE.

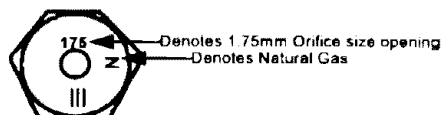
DISCONNECT POWER BEFORE SERVICING  
IMPORTANT - RECONNECT ALL  
GROUNDING DEVICES.

ALL PARTS OF THIS APPLIANCE CAPABLE OF CONDUCTING ELECTRICAL CURRENT ARE GROUNDING. IF GROUNDING WIRES, SCREWS, STRAPS, NUTS OR WASHERS USED TO COMPLETE A PATH TO GROUND ARE REMOVED FOR SERVICE, THEY MUST BE RETURNED TO THEIR ORIGINAL POSITION AND PROPERLY FASTENED.

### Burner Output Rating: BTU/HR

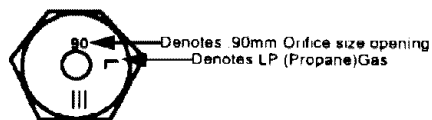
#### Natural Gas 4" W.C.P.

Burner	BTU Rate	Orifice Size
LF, LR	9,500	1.52 mm (II)
RF	12,000	1.75 mm (III)
RR	5,000	1.07 mm (I)
OVEN	16,000	#47 (.0785")



#### LP (Propane) Gas 10" W.C.P.

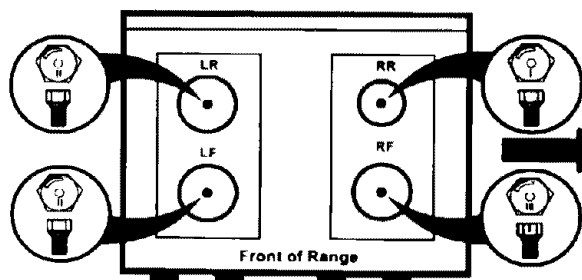
Burner	BTU Rate	Orifice Size
LF, LR	7,000	.78Lmm (II)
RF	9,400	.90Lmm (III)
RR	3,500	.56Lmm (I)
OVEN	16,000	#56 (.0465")



## TOP BURNER ORIFICE IDENTIFICATION

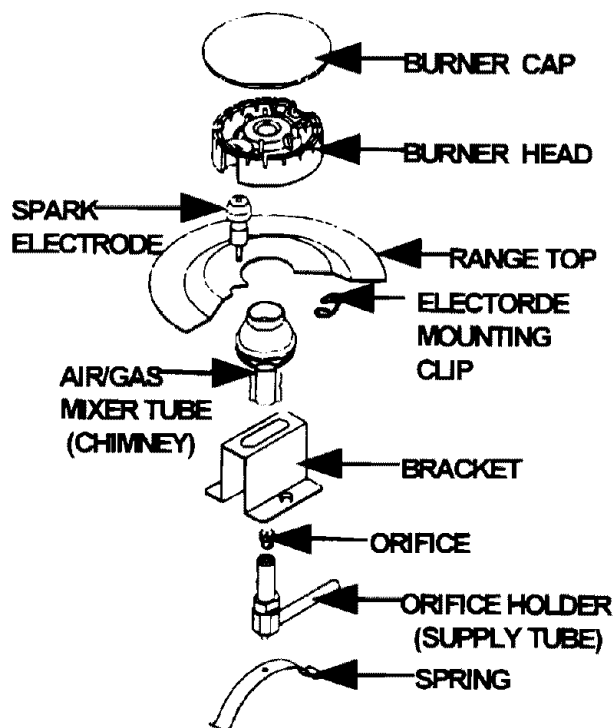
A series of marks (I, II or III) are engraved on the tops of the orifices to denote the location of the orifice as shown in the illustration.

The marks appear on both the LP and Natural Gas orifices. The locations indicated by the marks are the same for both gasses.



## SPILL-PROOF SEALED (GOURMET) BURNER

### Burner Construction



The burner components beneath the range top rely on spring tension to hold them in place. The spring pushes the air/gas mixer tube up against the bottom of the range top. A flange around the airgas mixer tube body is the mating surface between the range top and the air/gas mixer tube. This mating surface serves several purposes:

- It keeps the alignment of the air/gas mixer tube straight so the gas is injected straight into the burner.
- It serves as an electrical grounding path, grounding the burner head to the range, which serves as part of the spark electrode circuit.

## LP ORIFICE COLOR CODE IDENTIFIERS

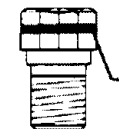
To aid in identifying the proper location for the LP orifices during a conversion from Natural Gas to LP Gas, paint color codes have been added to the side of the orifice. See the chart below.

LP ORIFICE COLOR ID		
Burner	BTU Rate	Color
LF, LR	7,000	None-Brass
RF	9,400	Brown
RR	3,500	White

## TOP BURNER ORIFICE REMOVAL

The top burner orifices can be removed by removing the burner caps and burner heads. Use a 7 millimeter nutdriver to access the orifice through the burner air/gas mixer tube. \*

**NOTE:** The orifices have spring loaded retaining rings around the hex head to hold the orifice in the nutdriver during installation and removal. A slight amount of force is required to push the nutdriver down over the ring.



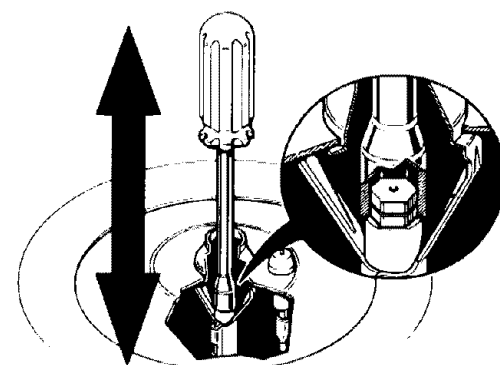
### RETAINER RING

\* A 9/32" nutdriver may be used by will have a loose fit

## BURNER ALIGNMENT

For proper operation of the burner, the alignment of the orifice holder, orifice and air/gas mixer tube must be correct.

The alignment can be checked by placing a 7 mm \* nutdriver over the orifice to exaggerate the angle. The nutdriver should stand straight indicating the alignment and gas injection angle is correct. Angle adjustments can be made by carefully bending the supply tube.



## TOP BURNER FLAME ADJUSTMENTS.

The top burners do not have air shutters and fixed, non adjustable orifices are used. If the flames blow off the burner or have yellow tips, check the following:

- Gas pressure: 4" Natural gas - 10" LP gas.
- Inspect orifice to be sure it is drilled on center and free of debris or burrs.
- Be sure the correct size orifice is in the proper location (see "Orifice Identification" section of this sheet).
- Make sure range was properly converted if on LP gas
- Check the burner alignment per the "Burner Alignment" section of this sheet.
- If cause cannot be found in the above checks, replace the orifice with one having a smaller diameter opening as listed on the next column.

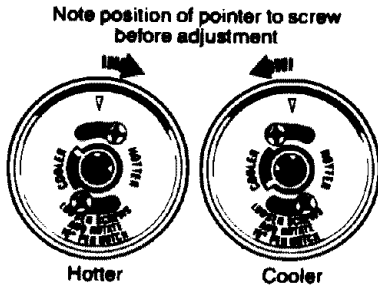
## OVEN TEMPERATURE CALIBRATION

**NOTE:** Calibration adjustments are made by moving the knob skirt. **DO NOT** make any adjustments to the thermostat itself.

**IMPORTANT:** Before making any temperature adjustments, be sure the oven thermostat capillary bulb is properly positioned in the bulb mounting clips. If capillary bulb is out of position and contacts oven wall, calibration will be incorrect. An unusually dirty capillary bulb will also affect thermostat calibration.

### TO ADJUST KNOB:

(As covered in the Use and Care Manual)



1. Loosen screws.
2. Hold knob skirt and move knob so that the top screw (nearest arrow) moves to **HOTTER** to increase temperature or **COOLER** to decrease temperature, each notch or "click" is 10 degree change. Maximum change from factory setting is  $\pm 50$  degrees.

## THERMOSTAT REPLACEMENT

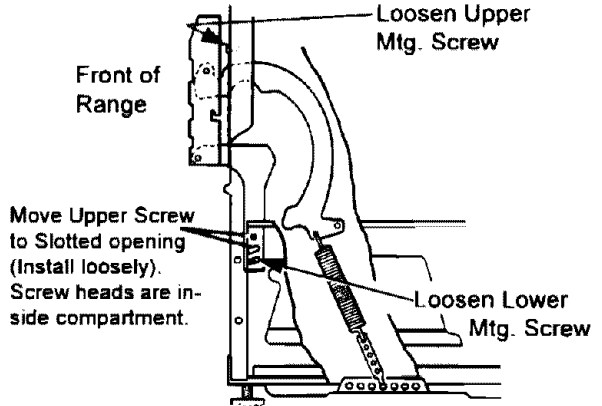
1. Remove power from range.
2. Pull range away from wall.
3. Remove cooktop and manifold panel as described on this sheet.
4. Release thermostat bulb from clips inside oven cavity.
5. Feed capillary and bulb through hole in top of oven cavity.
6. From rear of range, pull the capillary and bulb out the back of the range through one of the vent openings beneath the control panel. It will be necessary to bend the bulb to accomplish the above.
7. Feed the capillary and bulb back through the vent opening and into the opening leading to the burner box.
8. Remove the wiring from the thermostat and remove the screws securing thermostat to manifold.

Install replacement thermostat in reverse order. Be sure thermostat bulb does not touch rear wall of cavity once mounted in the mounting clips.

Also, the capillary tube must not be in contact with the oven flue or any other source of extreme heat.

## DOOR ALIGNMENT

**Horizontal Alignment** - Horizontal alignment of the door is accomplished by adding a shim, part number WB02X3193, to the top of the hinge to raise the door by approximately 1/16". Use only 1 shim per hinge.



**Vertical Alignment** - Vertical alignment of door to even out the spacing of the door to the front frame (top to bottom) is accomplished by moving the door hinges in or out as follows:

1. Remove the storage/broiler drawer.
2. Locate the two screws at the base of the assembly. The screw heads are 1/4" hex head and can be seen by looking through a rectangular slot on the inside of the compartment at the base of the hinge.
3. Remove the upper screw and install this screw in the slotted mounting opening directly below the original mounting hole. Don't tighten.
4. Loosen the lower screw.
5. Open the oven door and loosen the Torx head screw securing the hinge to the range front frame.
6. Close the door and move the hinge in or out to align the door.
7. Tighten the two screws in the storage compartment and then tighten the torx screw above the hinge.

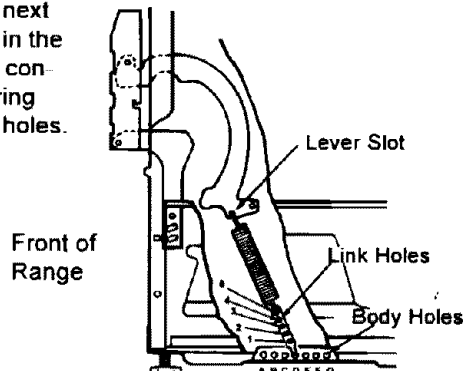
## HINGE SPRING ADJUSTMENT

Spring tension can be adjusted as needed. Proper adjustment requires the door to remain in the fully open position. When raised slightly from fully open, the door should continue to rise then stop in the broil position.

To **Increase** tension, move the spring toward the rear of the range at the body hole connection.

To **Decrease** tension,

move the spring hook to the next higher hole in the link used to connect the spring to the body holes.



# GAS, FREESTANDING RANGE WITH SPILL-PROOF BURNERS

## OVEN BURNER

**1. Oven Burner Gas Shut-off** - Attached to the range gas pressure regulator is a shut-off valve which shuts off gas to the oven only.

Check the position of the shut-off valve first when diagnosing a "no oven" condition.

(See illustration under "Conversion to LP Gas").

**2. Burner Ignition System** - The oven burner is ignited by a glow-bar ignition system.

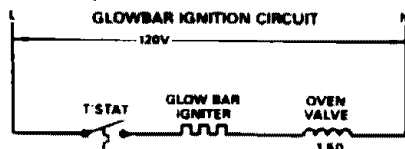
The ignition system consists of the thermostat, the ignitor and the oven safety valve (gas valve). The three components are wired in a series circuit.

The most important points to know about the ignition system is THE IGNITOR RESISTANCE DECREASES AS THE IGNITOR SURFACE TEMPERATURE INCREASES and THE SAFETY VALVE OPERATES BY CURRENT, NOT VOLTAGE.

From a cold start, the ignitor needs 30 to 60 seconds, with voltage applied, to reduce its electrical resistance enough to provide a minimum of 2.5 Amps current flow in the series circuit. This is the required current flow needed for the safety valve to open to supply gas to the burner. With 2.5 to 3.0 Amps flowing in the circuit, the ignitor temperature is between 1800 to 2500°F.

The ignitor will remain energized at all times during burner operation.

If ignitor glows red but circuit does not draw at least 2.5 Amps, the fault is usually with the ignitor, not the valve. (Be sure the oven burner gas shut-off is open).



**IMPORTANT** - Do not place 120 volts directly across the safety valve when testing. The resulting current through the valve would destroy the internal heater circuit.

**NOTE:** An open gas valve heater circuit usually indicates excessive current flow in the ignition circuit. Replacement of the ignitor and valve is recommended.

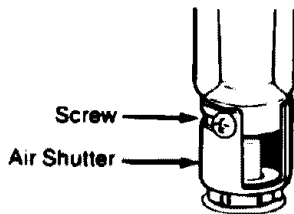
## OVEN BURNER ADJUSTMENTS

The oven burner is equipped with an air shutter and a universal (NAT or LP) orifice hood and orifice needle.

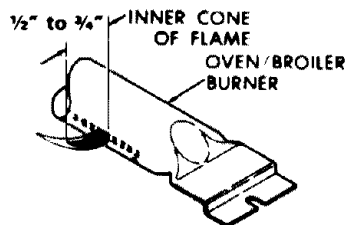
### 1. Air Shutter Adjustment

- Remove oven door, oven bottom, broiler drawer and oven valve shield.
- Remove flame spreader from top of burner.
- Turn thermostat to any BAKE temperature, observe flame:
  - Soft, yellow flames indicate too little primary air - open air shutter more. If condition cannot be corrected with air shutter wide open, see Flame Size.
  - Harsh, blowing flames indicate too much air. Reduce air shutter opening.

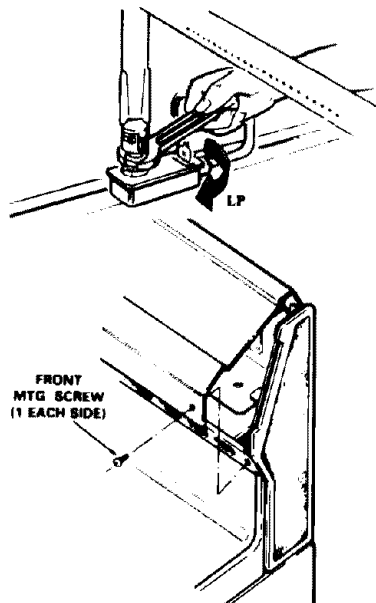
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**2. Flame size** - The inner, blue cone of the burner flame should be between 1/2 to 3/4 inches in length with little or no yellow tipping (observed with flame spreader removed.)



**Flame Size Reduction** - If air shutter adjustments fail to provide proper flame length or flame characteristics, the gas flow to the burner can be reduced (on Natural Gas installations only) by turning the orifice hood slightly in the LP direction. For best results, remove the flame spreader and observe the flame while turning the hood.



## BACKGUARD DISSASSEMBLY

### MODELS WITH FLUORESCENT WORK LIGHTS

- Lift front edge of light cover and rotate cover upward to the fully open position.
- Remove fluorescent tube (lift tube out without rotating).

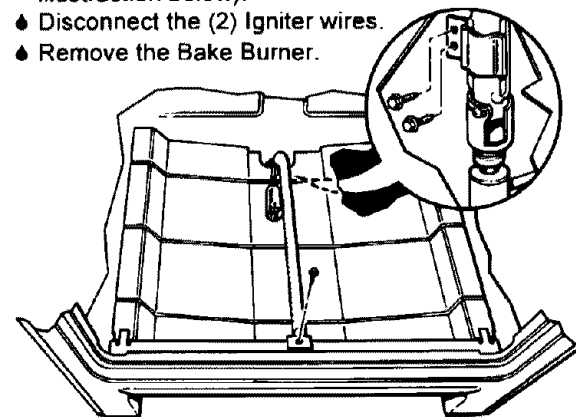
### ALL MODELS

- Remove the 2 front mounting screws (#15 torx) as shown.
- Gently, pull panel out at bottom and rotate panel upward.
- Push panel back at top, freeing panel mounting tabs from top of backguard frame.

# TECHNICAL DATA SHEET

## BAKE BURNER REMOVAL

- Remove oven door and storage/broiler drawer.
- Remove the (2) screws on the oven floor at the back of the oven cavity and remove oven floor/deflector.
- Remove (2) 1/4" hex head screws from the bracket holding the burner to the back wall of the range (screws located in storage/broiler drawer compartment - see illustration below).
- Remove the screw at the front of the burner (see illustration below).
- Disconnect the (2) Igniter wires.
- Remove the Bake Burner.



## MANIFOLD PANEL REMOVAL

(For access to spark switches, surface control valves and top burner gas inlet tubing.)

- Remove cooktop as described on the reverse side of this sheet.
- Remove 2 manifold panel mounting screws in the upper rear corners of panel at bodysides.
- Remove 4 manifold panel mounting screws from bottom of panel.
- Remove top burner control knobs.
- Remove manifold panel.

**NOTE:** Be sure the gasket along the lower inside edge of the manifold panel is in place and is not damaged. The gasket prevents air currents created by opening and closing the door from affecting top burner operation.

## DOOR GASKET

The gasket is secured to the door by 18 to 20 spring clips.

**Method 1** - If gasket is to be replaced, pull gasket off clips, then remove clips using needle-nose pliers.

**Method 2** - If gasket is to be re-used, separate the inner and outer door assemblies and remove clips from the back side of the door liner.