### 30" FREESTANDING RANGE



Death or serious injury can result from failure to follow these instructions.

- Service by a qualified service technician only.
- Disconnect power before servicing this product.
- Reconnect all grounding devices after service.
- Replace all parts and panels before operating.

### DISCONNECT POWER BEFORE SERVICING

IMPORTANT: Reconnect all grounding devices. All parts of this appliance capable of conducting electrical current are grounded. If grounding wires, screws, straps, clips, 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.

### **GROUNDING SPECIFICATIONS**

Ground Path Resistance  $0.10\Omega$  Max. Insulation Resistance 250 K $\Omega$  Min.

### **INSTALLATION REQUIREMENTS**

**Power Supply:** This appliance must be supplied with proper voltage and frequency, and connected to an individual properly grounded branch circuit, protected by a circuit breaker or time delay fuse, as noted on rating plate. Wiring must conform to the National Electrical Codes. The rating plate is located on lower front frame behind the storage drawer.

Overcurrent Protection Ranges				
NEC	MAXIMUM KILOWATT RATING			
RATING	208V	236V	240V	
35 Amp	_	12.4	12.4	
40 Amp	12.4	15.4	16.0	
50 Amp	17.4	21.4	22.00	

This terminal is rated for use of copper or aluminum conductors. See Installation instructions for further details.

### SURFACE UNITS

Plug in terminals should be straight and parallel for ease of insertion and removal. If terminals require straightening, be careful not to damage the plastic bushings. Terminals could be adjusted up or down to correct fish mouth or rocking conditions.

### SURFACE UNIT CONTROLS

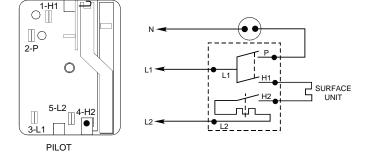
Replacement switches are current sensitive type. Proper connection of all leads must be observed (L1 lead connected to L1 terminal etc.). Reversed wiring of one switch to blow when a correctly wired switch and a reversed switch are turned on simultaneously.

### REPLACEMENT

The infinite switches can be replaced by removing the back cover or by removing the control panel. The infinite switch should only be replaced with a current sensitive switch with the same wattage rating. See table below.

Surface Unit Description	Surface Unit Wattage	Infinite Switch Wattage
4 turn 6"	1250	1250
5 turn 8"	2400	2600

### **CURRENT SENSITIVE**



### SURFACE UNIT RECEPTACLE

The receptacle is mounted to the cooktop by a single screw. The receptacle is replaced as a complete assembly (WB17X5113) and consists of the receptacle and bracket, two short leads with preattached terminals, two ceramic wire nuts, and heat shrink tubing.

### Possible Causes for Wobbly, Rocking, Uneven, or Rattling Surface Units:

- · Burner Bowls not flat
- Cooktop not flat
- Surface Units Support (spider) not flat
- Receptacle Block / Clip mounted crooked
- Loose or Stripped mounting screw
- · Bent surface unit terminals
- · Receptacle bracket angled up on wire side

### Possible causes for surface unit popping up (Fish mouth effect):

- · Bent surface unit terminals
- · Receptacle bracket angled down on wire side
- Cooktop receptacle mounting flange bent

### **CONTROL PANEL ACCESS**

## **▲WARNING**

DISCONNECT POWER TO RANGE BEFORE SERVICING COMPONENTS IN THE CONTROL PANEL.

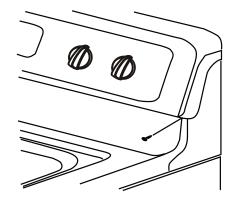
### **Rear Access**

The panel can be accessed by removing the six screws (1/4" hex) holding the rear panel cover, and lifting the cover of the range back.

### **Front Access**

The control panel is front serviceable as follows:

- 1. Remove the (1) T-15 torx mounting screw from each end front.
- 2. Loosen the (2) 1/4" hex head screws one in each upper corner back side.
- 3. Gently pull the backguard panel out at the bottom and lift the panel upward.
- 4. Panel can now be laid on the cooktop for access to components.



### **COOKTOP REMOVAL**

The cooktop is also front serviceable.

- 1. DISCONNECT POWER TO RANGE.
- 2. Remove the surface units and bowls.
- 3. Lift cooktop and look it in the cleaninig position.
- 4. Remove the four screws that are holding the four surface unit receptacle assemblies to the cooktop this position will allowed access to the retaining brackets that are holding the cooktop hinge pins. They are located on the control panel supports.
- 5. Lift the brackets to remove them.
- 6. Remove the cooktop and disengage the support rods from the range.
- 7. Remove the ground screw and wire located in the rear of the cooktop. Installation is reverse of the disassembly procedure.

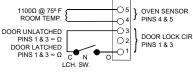
COOKTOP HINGE PIN

PETAINING

BRACKET

# SENSOR & LOCK CIRCUITS OHMMETER TEST (on self clean models)

Disconnect power and make measurements from side of connector that has terminals exposed.



### **DOOR LATCH MECHANISM (on self clean models)**

The Latch Mechanism is thermally operated. When the latch handle is moved to the clean position the latch hook engages a slot in the oven door.

As the clean cycle progresses the increase in oven temperature causes a bi-metal coil on the latch mechanism to expand. This expansion causes a cam to rotate into the path of the latch mechanism locking it into position.

This cam will keep the door from being unlatched. This interlock will usually engage at an oven temperature between 450 and 550 degrees F. It will remain locked until the oven temperature has dropped below these temperatures (usually within 30 minutes after the clean cycle has stopped).

**NOTE:** When installing a new latch make sure that the latch arm stop is rotated fully to the unlock position (clockwise).

# LOCK UNLOCK BI-METAL COIL SHAFT (THERMAL LOCK)

### **CONTROL SYSTEM**

Oven control with time of day clock, timer and automatic oven control functions. Variable clean time from three hours to five hours. (Not all features on all models).

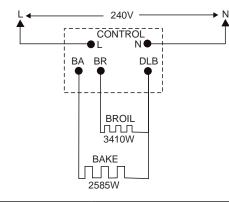


### TO ADJUST BAKE TEMPERATURES

The bake temperature can be adjusted by  $\pm 35^{\circ}$  F in 1° F increments.

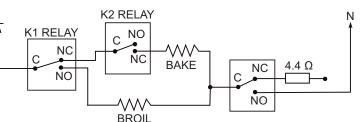
- Press and hold both the BAKE and BROIL pads for about 2 seconds until the display shows SF.
- 2. Press the **BAKE** pad. A two digit number shows in the display.
- Press the + pad to increase the temperature in 1 degree increments or press the - pad to decrease the temperature in 1 degree increments.
- 4. Approximately five seconds after the last change is made, the display will return to time of day and the oven is ready for use.
- 5. Press **START** key. The control will return to Time of Day.

### **CIRCUITS FOR BAKE AND BROIL OPERATION**



FAILURE CODE	MEANING	CORRECTION
F0	SHORTED CANCEL/ OFF KEY	Power down then power up the range. If the fault condition reappears within 15 minutes - REPLACE CONTROL.
F2	OVEN OVERTEMPERATURE CONDITION 1) Door unlocked - oven exceeded 620°F 2) Door locked - oven exceeded 930°F 3) Door latch unlocked while oven in excess of 620°F.	If no overtemperature condition occurred: Check all contacts and connections in sensor circuit. Eliminate excessive resistance in sensor circuit due to increased contact / connector resistance.     If overtemperature condition ocurred: look for welded relay contacts on bake, broil, or double-line-break relays. If relay contact welding is confirmed REPLACE CONTROL.     Ensure Door Latch stays locked for duration of Clean cycle.
F3	OPEN OVEN SENSOR Sensor resistance > 2900 hms	Measure sensor circuit resistance at sensor / lock switch connector (should be 1100 ohms at room temperature).  Ensure each sensor lead to chassis ground resistance is infinitely high.
F4	OPEN OVEN SENSOR Sensor resistance > 2900 ohms	If open or short circuit is detected: 1. Look for cut or pinched sensor harness wire. 2. Look for sensor leads shorted to chassis ground. 3. Look for loss of terminal contact in the harness and at the control. 4. Check sensor resistance directly at sensor harness connector (away from the control). If reading is abnormal - REPLACE OVEN SENSOR.
		If sensor circuit appears to be normal: Reinstall sensor / lock switch connector on the control and measure sensor resistance at solder joints on the back of the control circuit board. If abnormal resistance reading is observed - RESTORE CONTACT PRESSURE ON SENSOR /LOCK SWITCH CONNECTOR.  If corrective actions above do not eliminate the
		problem: REPLACE CONTROL
F5	CONTROL SUPERVISORY CIRCUIT FAILURE	REPLACE CONTROL
F7	SHORTED MATRIX KEY	Power down then power up the range. If the fault condition reappears within 15 minute - REPLACE CONTROL.
F8	EEPROM ERROR	Power down then power up the range. If the fault condition reappears within 5 minute - REPLACE CONTROL.

### **RELAY SEQUENCE CYCLING**

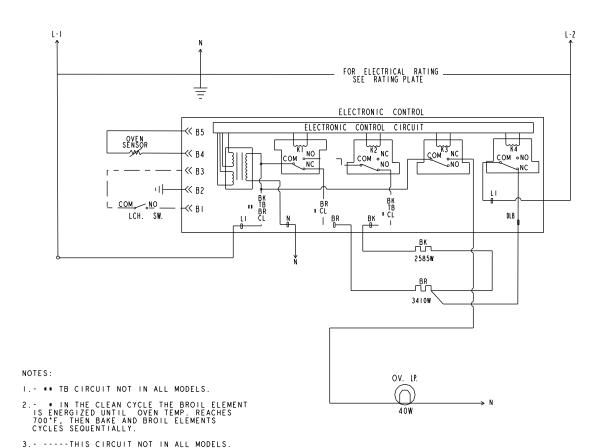


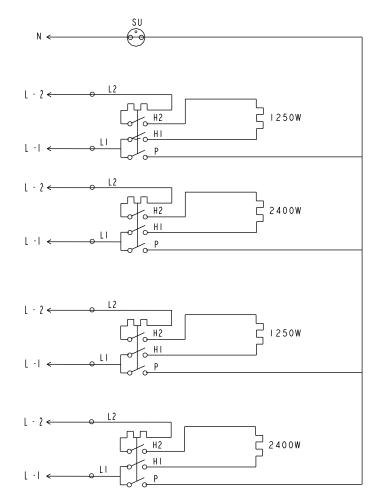
JBS360, JB256, RBS360, and XBS360 SINGLE OVEN COIL 31-17312-1 08-18 GEA

PT.NO.295D3667P002-0

OVEN ELEMENTS		
WATTAGE	RESISTANCE	
3410W BROIL	16.8 Ω	
2585W BAKE	22.2 Ω	

	SURFACE ELEMENTS		
	WATTAGE @240V	RESISTANCE	
	2400W, LR	23.41 Ω	
	1250W, LF	44.30 Ω	
Г	2400W, RF	23.41 Ω	
	1250W, RR	44.30 Ω	





### **WIRING DIAGRAM**

# AWARNING Power must be disconnected before servicing this appliance.

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