30" FREESTANDING SELF-CLEAN GLASS TOP RANGE WITH ELECTRONIC OVEN CONTROL CONVECTION

IMPORTANT SAFETY NOTICE:

This information is intended for use by individuals possessing adequate electrical, electronic and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or 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 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 Ω Max.
Insulation Resistance	250K Ω Min

INSTALLATION REQUIREMENTS

1. Power Supply
This range must be connected to a supply circuit with the proper voltage and frequency as specified on the data plate. Wire size must conform to the National Electric Code or the prevailing local code. The rating plate is located on the front left support leg (open oven drawer for access).

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

3. Leveling Range
Level range by adjusting two front and two rear leveling screws. (Remove drawer for access).

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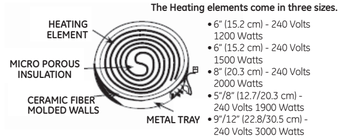
IMPORTANT SERVICE INFORMATION

DO NOT DISCARD

Pub. No. 31-21412

RADIANT HEATING ELEMENT SYSTEMS

The radiant heating element consists of a spiral wound Resistance wire attached to micro porous insulation with molded ceramic fiber walls in a corrosion protected metal tray.



TEMPERATURE LIMIT/HOT LIGHT SWITCH

The Temperature Limit/Hot Light Switch performs two functions:

1. Turns on HOT LIGHT as soon as glass temperature reaches 150°F (65°C). The hot light will remain on until the glass surface above the heating unit has cooled below 150°F (65°C) (even after surface unit switch has been turned off).
2. Detects when glass temperature above a unit has exceeded its limit of approximately 1031°F (555C) and disconnects power to that unit. When glass temperature cools below 1031°F (555°C), the unit will turn back on. The temperature limit/hot light switch cannot be calibrated.

HOT SURFACE INDICATOR LIGHT

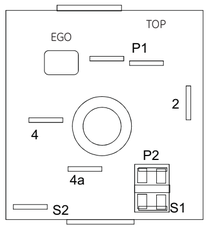
When the glass temperature reaches 150°F (65°C) the Hot Surface Indicator Light is activated to alert consumer that glass Surface is too hot to touch. The Hot Surface Indicator Light Is turned on by an additional set of contacts within the temperature limiter.

SURFACE UNIT CONTROLS

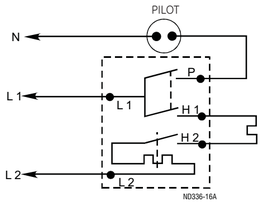
Replacement switches are current sensitive. Proper connection of all leads must be observed (L1 lead connected to L1 terminal etc.). The reverse wiring of one switch may cause one or more switches to blow when a correctly wired switch and a reversed switch are turned on simultaneously.

Replacement
The infinite switches can be replaced by removing the control panel. The infinite switch should only be replaced by a current sensitive switch with the same wattage rating and preferably same part number.

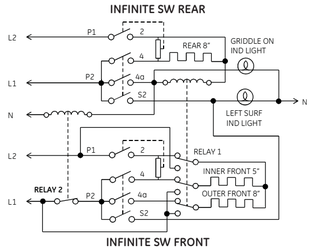
CURRENT SENSITIVE



• TECHNICAL DATA SHEET •

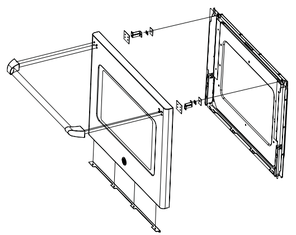


GRIDDLE RELAY



OVEN DOOR

The oven door consists of two major sub assemblies: Outer Panel Assembly and Inner Panel Assembly. The two assemblies are held together by four ¼" hex screws at the bottom of the door and two torx head screws on the inside panel, behind the handle.



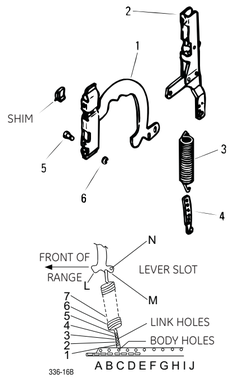
Glass replacement
Separate the outer and inner panel assemblies. Remove the four screws holding the "Z" brackets and handle to the outer panel assembly.

Handle replacement
Separate the outer and inner panel assemblies. Remove the four screws holding the "Z" brackets and end caps handle to the outer panel assembly.

Window replacement
Separate the outer and inner panel assemblies. Remove the four screws holding the window retainer to the inner panel.

DOOR HINGE

The oven door hinge consists of six major components: (1) lever guide assembly, (2) support and roller assembly, (3) spring, (4) link, (5) pin, (6) "E" ring.



Adjustments
To adjust door seal and alignment (in and out):
1. Move screw at the hinge support from the fixed (top) hole to the unused slotted hole. (Remove drawer for access).
2. Loosen the screw in the other slotted hole.
3. Position the door for the best alignment and seal. Door should be parallel with the range body on each side and the gasket should seat on both sides and across top.
4. Tighten screws and check door balance.

Vertical (Height) Adjustment
1. Check door in closed position for uniform gap between top of door.
2. Door can be raised approximately 1/16" (0.1 cm) on one or both sides by adding shim clip (WB02X3193) to top of hinge guide. DO NOT USE MORE THAN ONE SHIM PER HINGE.
3. Check self-clean latch operation.

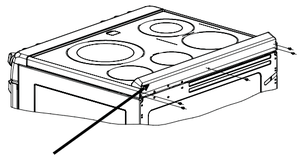
Door Balance Adjustment
To increase the door closing force, move the connection between the link and the base rail toward the rear of the range. Then check the door balance. Use the connection between the link and the door spring to fine tune the balance.
The door should balance in all positions between 45 and 75 degrees and must stay down when fully opened. Both spring hinge assemblies should be positioned the same within one hole location.

CONTROL PANEL/COOKTOP ACCESS

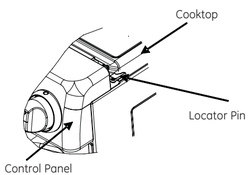
DISCONNECT POWER TO RANGE BEFORE SERVICING COMPONENTS IN THE CONTROL PANEL AND COOKTOP.

RAISE OR REMOVE COOKTOP

1. Slide the unit forward. Require enough space to reach vent trim screws.



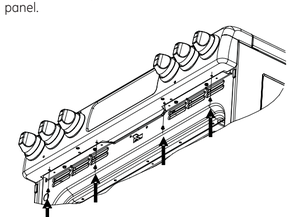
2. Remove 5 Phillips head screws from back of vent trim and cooktop.
3. Remove vent trim.
4. Slide cooktop toward rear and "off" of the locator pin.



5. Disconnect ground screws and control panel harness.

REMOVE CONTROL PANEL

1. Remove cooktop as explained in "raise or remove cooktop".
2. Remove 4 Phillips head screws from bottom of manifold panel.

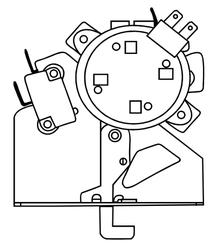


3. Remove locator pins.
4. Slide control panel forward.

ELECTRIC FREESTANDING SELF-CLEANING RANGE

DOOR LATCH

The Latch Mechanism is thermally operated. When the ***SELF CLEAN*** cycle is selected, the latch will automatically lock for cleaning and unlock after cleaning. The door locks up when the oven has reached a temperature between 560°F and 650°F (295°C and 345°C) and will remain locked until the oven has dropped below these temperatures (about 300°F/150°C).



LOCK MECHANISM AND LOCK SWITCH ACCESS

1. Remove oven door.
2. Remove the cooktop (see "To Raise or Remove Cooktop" in this manual).
3. Remove manifold panel (remove (6) Phillips head screw from left, and right burner flame adjustment switch and (3) ¼" hex head screws from the underside of the manifold panel.)
4. Remove (2) hex head screws and control insulation
5. Remove cover over lock mechanism (remove (2) ¼" hex head screws on each side of cover).
6. Label and remove wires from lock switch.
7. Remove screws securing lock mechanism to oven frame.
8. Remove mechanism.

Note: After installing mechanism, rotate lock to unlock position to prevent low temperature, lock-up.

OVEN TEMPERATURE CALIBRATION

1. Press ***BAKE*** and ***BROIL HI/LO*** pads at the same time for about 2 seconds until the display shows ***"SF"***.
2. Press the ***BAKE*** pad. A two digit number shows in the display. Press ***BAKE*** once to decrease (-) the oven temperature or twice to increase (+).
3. Press the number pads to input temperature. For example, to change the oven temperature 15°F (10°C), press 1 and 5. Oven can only be adjusted up to (+) 35°F (20°C) hotter or (-) 35°F (20°C) cooler.
4. Press ***START*** to return to the time of day display.

TO SELF CLEAN

Note: Average clean temperature is 790°F (420°C).
1. Press ***SELF CLEAN***.
2. Press number pads to enter desired time (4:20 hours is standard).
3. Press ***START*** pad.
4. Clean cycle begins with BROIL element operation (only) for the first 30 minutes followed by ***BAKE*** element (only) for the remainder of the clean cycle.
5. ***"CLEAN"*** and the word ***"ON"*** will be displayed to indicate self clean. When a clean is started, the words ***"LOCKED DOOR"*** flash while the latch motor travels and becomes solid when the door is latched.

The clean will not start unless the door locks first.
When the oven reaches about 600°F (315°C) the door remains locked regardless if a clean is active or not. After a clean, when the oven cools to about 350°F (175°C) the door unlocks. Again, the ***"LOCKED"*** word flashes while the motor is traveling.

CONTROL VOLTAGE

The following voltage must be present on the control board:

TERMINALS	VOLTAGE
L1 to N	120 volts (at all times) Control Transformer
L2 to N	120 volts (knob in "OFF" position)
L1 to L2	240 volts (knob in "OFF" position)

No Control Display - Check the transformer connections. Make sure neutral is connected to transformer (See Schematic/Wiring diagram).

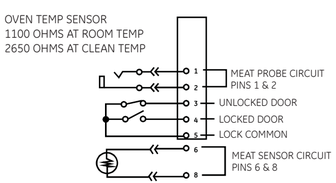
Note: L2 side of the line is connected to Bake and Broil even when the control is in "OFF" position.

RELAY CONTACT OPERATION TEST			
RELAY	**TERMINALS**	**VOLTAGE IN MODE**	**VOLTAGE IN OFF**
BAKE	NO to L1A	0 VAC when relay energized	240 VAC
BROIL	NO to L1A	0 VAC when relay energized	240 VAC
LATCH	COM to MDL	0 VAC motor traveling door closed	120 VAC door closed
OVEN LIGHT	LIGHT to N	0 VAC light on or door open	120 VAC door closed
CONV FAN	CF to N	0 VAC fan on and door closed	120 VAC fan off and door closed
SURFACE LIGHT**	SURFACE to N	0 VAC light on	120 VAC light off

** Some models

CIRCUIT	TERMINALS	OHMS	CONDITION
OVEN SENSOR	6 to 8	1100	OVEN AT ROOM TEMPERATURE
DOOR UNLATCHED	3 to 5	0	DOOR LATCH IN BAKE/BROIL POSITION
DOOR LATCHED	4 to 5	0	DOOR LATCH IN CLEAN POSITION
MEAT PROBE	1 to 2	55000	AT ROOM TEMPERATURE MEAT PROBE INSERTED

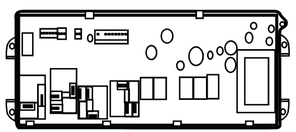
SENSOR AND LOCK SWITCH CIRCUIT



ERC FAILURE CODE The Oven may stop operating but not give a F code on the display immediately. F codes are stored in non volatile eeprom memory until 2 of the same fault occur consecutively. After that, it will be displayed. They can be recalled by pressing together: ***TIMER***, ***CLOCK***, ***9***. While displayed, pressing ***8*** and ***6*** together will clear them. A fault must exist continuously for 5 minutes before a ***F*** code is recorded (***F2***, ***F8*** are sooner).

FAILURE CODE MEANING AND CORRECTIONS

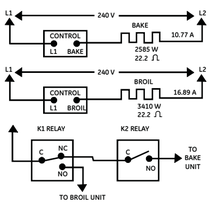
FAILURE CODE	MEANING	CORRECTION
F0	Shorted OFF key	Determine if problem is with Key Panel or control by disconnecting ribbon cable and measuring flat cable pins 13 to 14. Should be open. Should be 100-150 ohms while pressing OFF key.
F2	Oven Temperature 1. Inside oven cavity as measured by sensor over 650ºF unlatched door 915ºF latched	- Welded relay contacts - Cooling fan stalled or blocked - Cooling fan stalled or blocked - Air flow to rear of unit - High resistance in oven sensor leads/connectors - (especially at sensor in rear)
F3	Open oven sensor (over 2900 ohms)	- Disconnect power - Disconnect sensor harness fromcontrol. Measure sensor resistance (while leads) to be -1080 ohms at room temperature with 2 ohms per deg change - Look for damage harness terminals if not a bad sensor
F4	Shorted oven sensor (under 950 ohms)	- Disconnect power - Disconnect sensor harness from control. Measure sensor resistance (while leads) to be -1080 ohms at room temperature with 2 ohms per degree change - Look for damage harness terminals if not a bad sensor
F5	A to D system fault	Replace control
F6	Range Lockout - Switch issues	Check connections on lockout motor and CN6 of control.
F7	Shorted matrix or START key	Determine if problem is with Key Panel or control by disconnecting ribbon cable and measuring flat cable using pinout chart. Allow up to 1000 ohms when pressing a key
F8	EEPROM data shift failure	If repeated. Replace control
F9	Door Lock false while above Runaway Setpoint, Unlatched Door Lock temperature. OR FAD device setpoint exceeded.	***"Unlock"*** Latch Changing status to ***"Lock"*** while cooking or ***"Lock"*** Latch of Motor changing to ***"UnLock"*** while above run away set point.



The relays are in series so that only one heating element can be on at a time. Therefore, the control cycles between the bake and broil elements for all heating operations except broil, (when only the broil is on.

Note: When making heat element voltage checks, make measurement for at least 1 minute during an ***"ON"*** cycle for the heated element. The delay cycle when switching fromone element to another will vary with the particular operation being performed.

CIRCUIT FOR BAKE AND BROIL OPERATIONS



WIRING DIAGRAM

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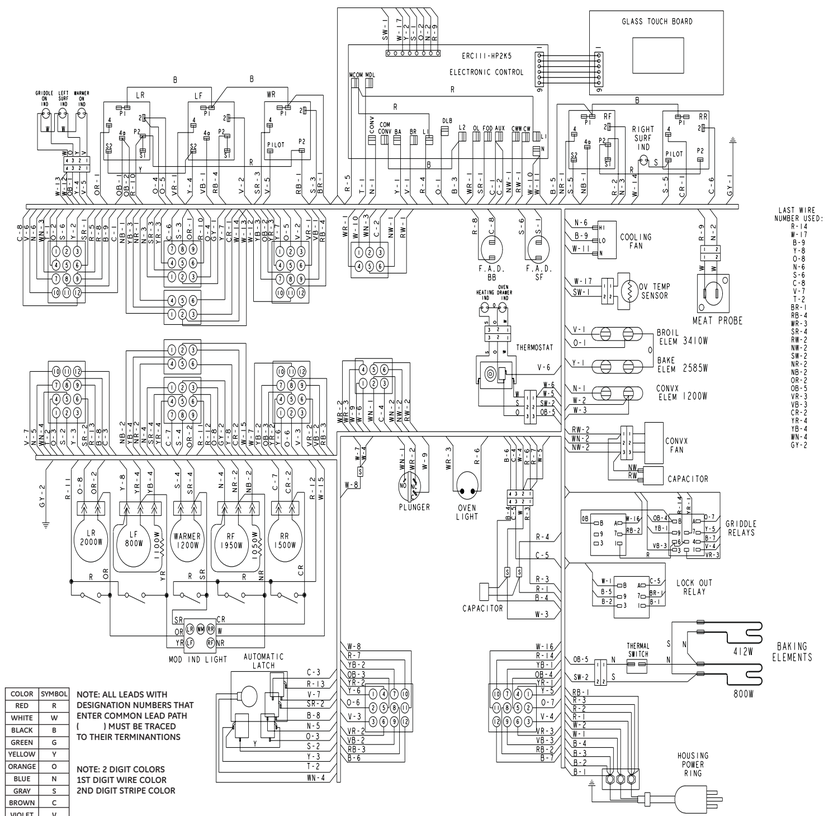
WARNING
POWER MUST BE DISCONNECTED
BEFORE SERVICING THIS APPLIANCE



COLOR	SYMBOL
RED	R
WHITE	W
BLACK	B
GREEN	G
YELLOW	Y
ORANGE	O
BLUE	N
GRAY	S
BROWN	C
VIOLET	V
BEIGE	T

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

NOTE: 2 DIGIT COLORS
1ST DIGIT WIRE COLOR
2ND DIGIT STRIPE COLOR

SCHEMATIC DIAGRAM

WARNING
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