30" RADIANT SLIDE-IN RANGE

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. Neither the manufacturer nor the seller can be responsible for the interpretation of this information or 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	0.10Ω	Max.
Insulation Resistance	250KΩ	Min.

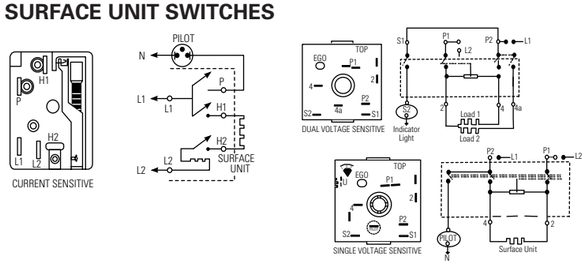
INSTALLATION REQUIREMENTS

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 RATING	MAXIMUM KILOWATT 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

SURFACE UNIT SWITCHES



CONTROL PANEL ASSEMBLY

Removing Faceplate

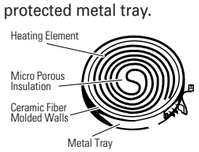
1. Turn the power off to the unit.
2. Remove all knobs.
3. Unscrew all faceplate retainers while holding the faceplate against the control trim. The retainers must only be hand-tightened.
4. Faceplate can now be removed.

Replacing Infinite Switches

1. Remove the two screws holding the infinite switch.
2. Remove steel control panel insert by removing 4 screws.
3. From the rear of the control panel assembly, unplug wires and remove infinite switch.
4. Repeat steps in reverse order to reassemble the unit.

RADIANT HEATING ELEMENT SYSTEMS

The radiant heating element consists of a resistance ribbon attached to microporous insulation with molded ceramic fiber walls in a corrosion-protected metal tray.

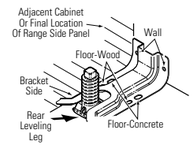


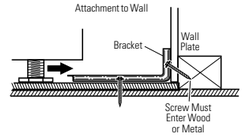
The Heating Elements come in various sizes:
- 6" - 240 Volt 1500 Watts
- 8" - 240 Volt 2000 Watts
- 9" - 240 Volt 2500 Watts (Dual Unit 6" & 9")

HOT SURFACE INDICATOR LIGHT

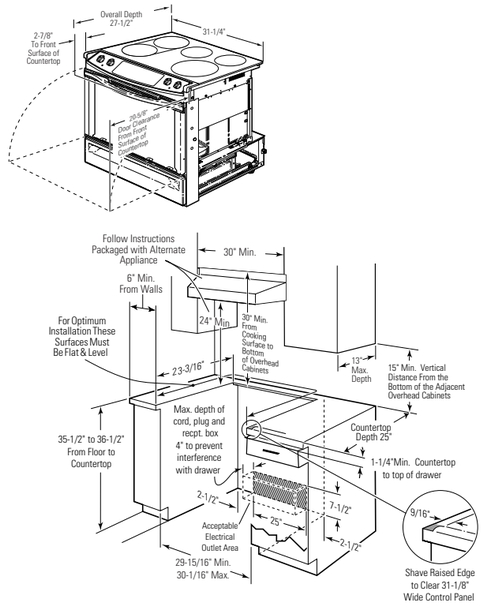
When glass temperature reaches 150°F the hot surface indicator light is activated to alert consumer that glass surface is too hot to touch. The hot surface indicator light is turned on by an additional set of contacts within the temperature limiter.

NOTE: Installation information for reference only. See Installation Instructions shipped with product for complete details and before attempting to install.
Anti-tip brackets should be attached to the floor or wall to hold either right or left rear leg leveler. Make sure leg leveler re-engages the bracket when range is moved for any reason.





MINIMUM CLEARANCES



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. The HOT LIGHT will remain on until the glass surface above the heating unit has cooled below 150°F (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 and disconnects power to that unit. When glass temperature cools below 1031°F, the unit will turn back on.

The temperature limit/hot light switch cannot be calibrated.

DUAL CIRCUIT CONTROL

The left-front and right-front elements have two cooking zones:
- To use the large 9" cooking area or bridge, push to turn the control knob clockwise to desired setting.
- To use the small 6" or 8" cooking area, push to turn the control knob counterclockwise to desired setting.

When a cooking zone is activated, coils beneath the zone radiate heat through the glass cooktop to the utensil. The red glow of the coils will be visible through the glass. It will take the cooking zone on the glass surface a few moments to heat up. The coil cycles on and off to maintain your selected control setting.

REMOVABLE OVEN DOOR
COMPONENT COMPARTMENT AIRFLOW

The oven uses a fan for cooling the components. Air is pulled in by the fan blades and circulated in the component compartment. The air is exhausted through louvers below the control panel and out above the door.

Door Assemblies:
The doors can be separated into two assemblies:
(1) Outer assembly which consists of handle, vent trim, outer glass, bottom trim and frame.
(2) Inner assembly which consists of inner panel, gasket, glass panels and insulation. The assemblies are held together by 2 screws on each side, along with 4 screws across the bottom.

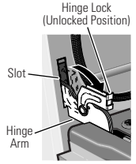
CAUTION: Care must be taken when mounting door handle not to overtighten handle screws. Overtightening screws can damage handle. Hand-tighten screws (do not use electric driver). Make sure handle fits snugly to door panel.

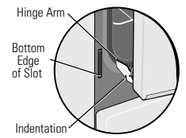
SELF-CLEAN DOOR GASKET: The door gasket is attached to the inner door panel by a chain of spring clips.
1. Locate spring clip at center of gasket and insert in hole on inner door panel near top.
2. Install gasket by bending at 90° beside clip and rocking into hole.
3. Tuck loose ends into slot at the bottom of inner panel.

REMOVABLE OVEN DOOR

To Remove:
1. Fully open the door.
2. Push the hinge locks down toward the door frame, to the unlocked position. This may require a flat blade screwdriver.
3. Firmly grasp both sides of the door at the top.
4. Close door to the door removal position.
5. Lift door up until the hinge arm is clear of the slot.

To Replace:
1. Firmly grasp both sides of the door at the top, with the door at the same angle as the removal position, seat the indentation of the hinge arm into the bottom edge of the hinge slot.
2. Fully open the door.
3. Push the hinge locks up against the front frame of the oven cavity, to the locked position.
4. Close the oven door.





CONTROL PANEL REMOVAL

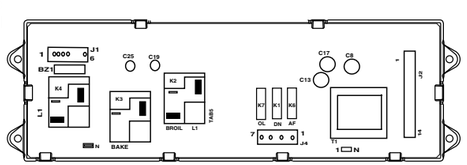
The control panel contains the ERC and infinite switches.
To service:
1. Remove faceplate (reference section on control panel assembly).
2. Remove screws (from bottom) securing control panel to vent trim.
3. Remove steel control panel insert by removing 4 screws.
4. Detach from main harness by unplugging the two 15-pin connector blocks.
5. Remove 5 screws securing the control panel to the maintop assembly.
6. Control panel can now be removed.

COOKTOP REMOVAL

Before removing the cooktop, the control panel must first be removed (reference section on control panel removal). The cooktop is fastened to the body side extensions with two (2) screws. Remove the 2 screws and slide the cooktop assembly forward. Lift the cooktop off.

ERC

The Electronic Range Control system consists of the control, key panel, oven sensor, and door lock assembly.



KEY PANEL

The key panel (control panel) and electronic control are separate components and must be tested individually.

Key Panel Test

Press each pad on the key panel. If the key panel is functioning properly the following should occur:
- **BAKE, BROIL, CLEAN, TIMER, CLOCK, STOP TIME and COOK TIME MODES** Audible tone plus display showing mode of operation selected.
- **Clear/Off** – Audible tone plus display shows time of day.
- **Number pads** – Listen for audible tone. Can only be used after another function has been selected.
- If no key response, try ohmmeter test.
- If key pad measures okay, replace the control.

CONTROL VOLTAGE

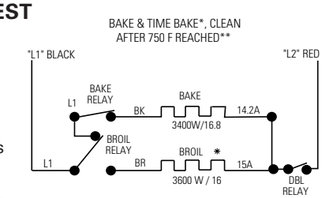
TERMINALS	VOLTAGE
L1-N	120VAC ALL THE TIME
L2-N	120 VAC ALL THE TIME
L1-L2	240 VOLTS when oven is not calling for heat (BAKE, CONV., and BROIL relay contacts open).
*J4-5-L1	120 VOLTS when light is on.
J4-3-N	120 VOLTS not locking or unlocking, door closed

CIRCUIT	TERMINALS	OHMS
Oven sensor	4-6	1100Ω @ Rm Temp. 2650Ω @ 865°F
Door Unlatched	1-2 3-2	0Ω open
Door Latched	3-2 1-2	0Ω open

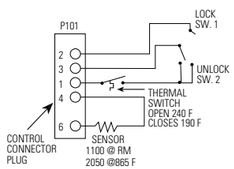
***If oven light is not working, make the following checks:**
- **Check oven light bulb.**
- **Light is to come on when door is opened–check voltage across light socket terminals; voltage should read 120 VAC. If 0 volts, check jamb switch and wiring.**
- **Light is to come on when control light pad is pressed. K7 should click–check voltage from J4-5 to L1. Voltage should read 120 VAC. If 0 volts, check oven light keypad using ohmmeter test. If keypad is good, replace the control.**

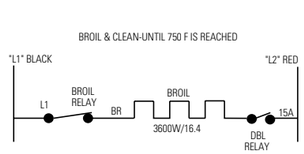
OVEN SENSOR AND DOOR SWITCH OHMMETER TEST

(See "Motorized Door Lock Operation" for door switch function explanation.) Remove power from oven. Make resistance measurement from side of sensor and lock switch connector with exposed terminals disconnected from control.



OVEN SENSOR AND LOCK SWITCH CONNECTOR





OHMMETER TEST OF KEYPAD: Pins should read infinite untouched and 0 to 2K touched when flat cable disconnected.

KEY	PINS	KEY	PINS
Bake	12-14	6	7-13
Broil	11-14	7	5-11
Clean	9-14	8	8-13
Oven Light	9-13	9	8-14
Start	1-2	0	5-6
1	5-7	Clear	3-4
2	4-8	Cook Time	
3	6-14	11-13	
4	6-13	Timer	10-14
5	7-14	Delay	12-13
		Clock	10-13

NOTE:
Conductors are on either side of flat cable tip but not on both.

SPECIAL FUNCTIONS

The control has a section that can be entered to change how the control will work. To enter this section:
Press and hold **BAKE** and **BROIL** pads for 3 (three) seconds and **"SF"** appears in the display. Select the area to change. When the change has been made, press **START** to return to Time of Day.

- **End-of-Cycle Tone** – Press **TIMER** pad. Display shows **"Con Beep"** when control is set for continuous **End-of-Cycle** Tone or **"Beep"** when set for noncontinuous.
- **°F or °C** – Press **BROIL** and **COOK TIME** pad. Display will show either **"F°"** or "C°." Press **BROIL** pad again to change.
- **12-Hour, 24-Hour, or blank out Time of Day Clock** – Press **CLOCK** pad. Display will show **"12 hr," "24 hr," "OFF"** for blank clock. Press again to change.
- **12-Hour Shutdown** comes set to shut down after 12 hours of continuous operation; this can be eliminated. Press **DELAY START** pad. Display will show **"No Shdn."** To turn back on, press **DELAY START** pad again and display will show **"12 Shdn."**
- **Sales Mode** (special feature for sales floor demonstration) – Press **CLOCK** and **TIMER** pads at the same time. Display will start to cycle through the different modes of operation.

ERC FAILURE CODES

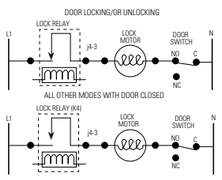
FAILURE CODE	MEANING	CORRECTION
F0	Shorted OFF key	Determine if problem is with key panel or control by disconnecting ribbon cable and measuring flat cable pins 13-14. Should be open. Should be 100-150 ohms while pressing OFF key.
F2	Over temperature **1.** Inside oven cavity as measured by sensor over 650°F unlatched or 915°F latched or **2.** Cooling fan stalls while oven above 650°F–open thermal switch in yellow leads	• Welded relay contacts • Cooling fan stalled or blocked • Airflow to rear of unit • High resistance in oven sensor leads/connectors (especially at sensor in rear)
F3	Open oven sensor (under 950 ohms)	• Disconnect power. Disconnect sensor harness from control. Measure sensor resistance (white leads) to be -1080 ohms at room temperature with 2 ohms per degree change. • Look for damaged harness terminals if not a bad sensor.
F4	Shorten oven sensor (over 2900 ohms)	• Disconnect power. Disconnect sensor harness from control. Measure sensor resistance (white leads) to be -1080 ohms at room temperature with 2 ohms per degree change. • Separate sensor from harness to determine fault.
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	Cooling fan stalls; open thermal switch in yellow leads	Cooling fan or airflow to control area.
FF	Loss of latch motor safety circuit	Replace control.

MOTORIZED DOOR LOCK

The motorized door lock assembly is located above the oven. The assembly consists of a lock motor cam and switch assembly, lock hook and mounting plate.

MOTORIZED DOOR LOCK OPERATION:

The lock motor is energized when the control is set for Clean and Clean Time is selected. The K4 Relay contacts will close and complete the circuit that supplies the voltage to the lock motor.



NOTE: Control Display will flash "LOCK DOOR" if the door switch is in the "C" to "NC" position (door open).

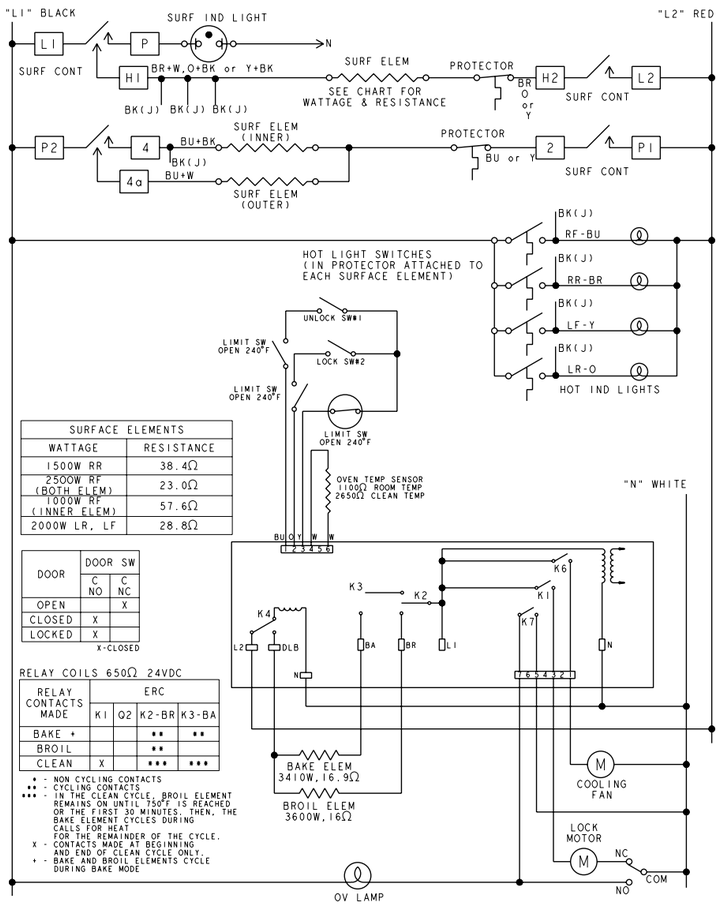
- The words "LOCK DOOR" will flash on and off in the display while the lock motor is in motion. When the door is locked the words "LOCKED DOOR" remain illuminated in the display.
- CAM – The cam on the motor performs two functions:

1. Positions the lock hook in the door to prevent opening during clean operation.
2. Operates the lock switches which tell the control if the door is unlocked or locked and ready for Clean operation.

SCHEMATIC DIAGRAM

⚠ WARNING POWER **MUST** BE DISCONNECTED BEFORE SERVICING THE APPLIANCE

PT. NO. 229C5267-0



SURFACE ELEMENTS	
WATTAGE	RESISTANCE
1500W RR	38.4Ω
2500W RF (BOTH ELEM)	23.0Ω
1000W RF (INNER ELEM)	57.6Ω
2000W LR, LF	28.8Ω

DOOR	DOOR SW	
	C NO	C NC
OPEN		X
CLOSED	X	
LOCKED	X	

X-CLOSED

RELAY COILS 650Ω 24VDC

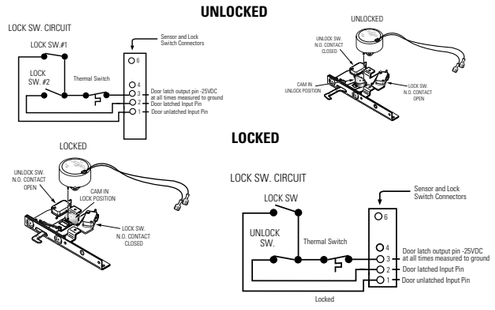
RELAY CONTACTS MADE	ERC			
	K1	Q2	K2-BR	K3-BA
BAKE +			**	**
BROIL			**	
CLEAN	X		***	***

* - NON CYCLING CONTACTS
** - CYCLING CONTACTS
*** - IN THE CLEAN CYCLE, BROIL ELEMENT REMAINS ON UNTIL 750°F IS REACHED OR THE FIRST 30 MINUTES. THEN, THE BAKE ELEMENT CYCLES DURING CALLS FOR HEAT FOR THE REMAINDER OF THE CYCLE.
X - CONTACTS MADE AT BEGINNING AND END OF CLEAN CYCLE ONLY.
+ - BAKE AND BROIL ELEMENTS CYCLE DURING BAKE MODE

NOTE:- BK(J) DENOTES BLACK JUMPER WIRE ON EACH RADIANT ELEMENT BETWEEN TERMINALS 4 AND S

MOTORIZED DOOR LOCK (cont.)

NOTE: When door is either being locked or unlocked, both lock switches will be in the open position.



CLEAN THERMAL SWITCH

The clean thermal switch is located on the floor of the component compartment in front of the fan motor. The clean thermal switch is wired in series with the lock motor switches. The limit switch opens at 240°F and closes when temperatures cool below 190°F. If the clean thermal switch opens during:

1. Oven Temperature Below 600°F, program is cancelled when thermal switch opens. Lock motor will run and the words "LOCK" and "DOOR" will be flashing in the display.
2. Oven Temperature Above 600°F, any mode of operation control will go to -F2- failure code. When this condition exists, check the fan operation (look for obstructions), inspect oven installation (make sure grille areas are not blocked), oven insulation and lock circuit.

BAKE THERMAL SWITCH

The bake thermal switch is wired in series with the lock motor switches. The limit switch opens at 162°F and closes at 140°F. If the thermal switch opens during bake, the program is cancelled and the lock motor will run. The words "LOCK DOOR" will flash in the display.

WIRING DIAGRAM

⚠ WARNING POWER **MUST** BE DISCONNECTED BEFORE SERVICING THE APPLIANCE

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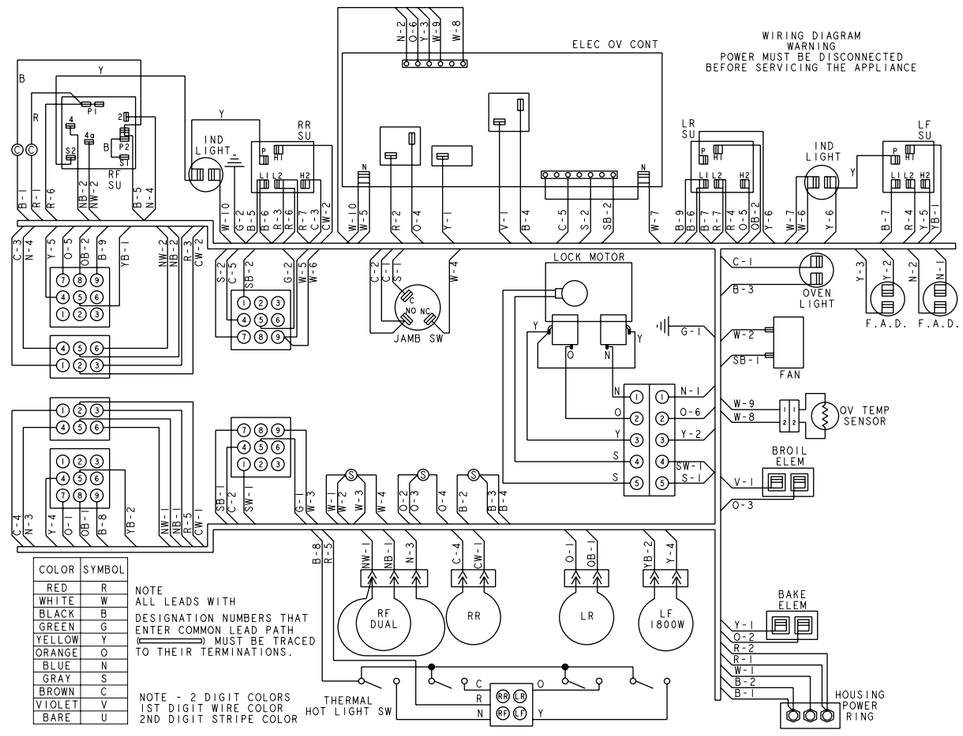

COLOR	SYMBOL
RED	R
WHITE	W
BLACK	B
GREEN	G
YELLOW	Y
ORANGE	O
BLUE	N
GRAY	S
BROWN	C
VIOLET	V
BARE	U

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

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

LAST WIRE NUMBER USED:

R - 7	V - 1
W - 10	NW - 2
B - 9	CW - 2
G - 2	NB - 2
Y - 6	YB - 2
O - 6	OB - 2
N - 4	SB - 2
S - 2	SW - 1
C - 5	

MODEL NUMBER

JS900
JCSP47
JSP47
JSP42

IMPORTANT
SERVICE INFORMATION
DO NOT DISCARD

ND 05F-1343

Pub. No. 31-14346