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WARNING

Explosion Hazard

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

• Service by a qualified service technician only.

• Shut off gas supply and disconnect power before servicing.

• Reconnect all grounding devices after service.

• Replace all parts and panels before operating.

GROUND SPECIFICATIONS

Ground Path Resistance 0.10 Max.

Insulation Resistance 250K Min.

INSTALLATION REQUIREMENTS

1. Power Supply

This range must be connected to a supply circuit with proper voltage and frequency as specified on the rating 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. Fuses or Circuit Breakers

NEC FUSE 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	22.0

CONVERSION TO PROPANE (LP) GAS

BURNER OUTPUT RATINGS: BTU/HR				
Propane (LP) Gas 10” W.C.P.				
BURNER	BTU RATE	ORIFICE SIZE (mm)	COLOR	MARKING
LF	18,000			
LF1	N/A	0.027	None	69L
LF2	N/A	0.027	None	69L
LF3	N/A	0.027	None	69L
LFC	N/A	0.016	None	40L
LR	5,000	0.026	Red/Yellow	66L
CF	9,500	0.0365	Orange/Light Blue	92L
CR	9,500	0.0365	Orange/Light Blue	92L
RF	15,000	0.045	Orange/Silver	114L
RR	12,000	0.039	Blue/Magenta	99L

BURNER OUTPUT RATINGS: BTU/HR				
NG (Natural) Gas 5” W.C.P.				
BURNER	BTU RATE	ORIFICE SIZE (mm)	COLOR	MARKING
LF	21,000			
LF1	N/A	0.045	None	114N
LF2	N/A	0.045	None	114N
LF3	N/A	0.045	None	114N
LFC	N/A	0.025	None	63N
LR	5,000	0.040	White/Purple	101N
CF	9,500	0.0555	Yellow	141N
CR	9,500	0.0555	Yellow	141N
RF	15,000	0.070	Brown	178N
RR	12,000	0.061	Red	155N

SPILL-PROOF SEALED BURNER

Brackets are mounted to the under side of the cooktop by T-15 Torx screws.

The screw heads are located under burner head (**these screws must be removed before lifting the cooktop**). Screws and bracket ensure proper alignment for gas to be injected into the burner head. It is critical that brackets are aligned correctly and screws fully torqued down during final assembly.

REPLACING ORIFICE HOLDER AND TUBING

The Orifice Holder and Supply Tubing are one assembly.

To replace the assembly:

- Follow the instructions under To Remove the Cooktop.
- Remove the 5/8” nut securing the orifice holder being replaced to the bracket. Use a 5/8” open ended or adjustable wrench to loosen the nut.
- Loosen the 1/2” nut securing the tubing to the valve.

TO REMOVE COOKTOP

- Turn the power and gas off.
- Slide the unit out.
- Remove grates, burner caps, and heads.
- Remove four (4) ¼” hex head screws on the back of the unit securing the rear trim.
- Remove two (2) ¼” hex head screws on the back of the unit securing the vent trim.
- Rotate the vent trim forward and lift to disengage tabs to remove.
- Remove four (4) ¼” hex head screws on the back of the unit securing the cooktop.
- Remove four (4) T-15 torx screws near the front of the cooktop near the control panel.
- Remove T-15 torx screws - 3 under each burner head.
- Lift cooktop up and remove.

IMPORTANT: Before lowering the cooktop back onto the unit, line up the burner brackets with the holes in the cooktop.

SPARK MODULE LOCATION

The spark module is located on the rear of the range. The module is mounted on a bracket with two (2) screws.

To remove the module, the range must be slid out to access the rear. Then, the back cover must be removed. When viewing the range from the back, the spark module will be located near the top left corner of the rear of the range.

COOLING BLOWER

- To manually test the blower, power down the range for 10 seconds, then power up. **For single ovens** - press and hold **1** and **Broil** simultaneously for 3 seconds until the Service Mode info appears on display. **For double ovens** - press and hold **1** and **Bake** simultaneously for 3 seconds until the Service Mode info appears on display. Press **3** to operate the blower on low speed for 10 seconds. It should reach a speed of at least 700 on the display. You can cycle it several times, if you wish. If it does not get to 700, oven will shut down.
- If the blower fails to turn at all, lift cooktop and check for 120 volts between the LOW speed tab (black wire) and the neutral tab (white wire).
- Also, make sure nothing is pushing against the red hub on the end of the blower. The blower’s shaft is just behind that red cap and pressure on it will keep the blower wheel from starting.
- Check electrical connections at the user sensing board on the fan and main control board on back of unit.

CONVECTION MOTOR OPERATION

Single Oven Convection Fan may change direction and cycle on and off in Hi or Lo speeds in any mode.

TO REMOVE CONVECTION MOTOR

- Turn the power and gas off.
- Slide the unit out.
- Remove oven door.
- Remove Phillips head screws from fan cover.
- Remove nut from fan blade and remove fan blade
- Remove Phillips head screws from motor support.
- Remove motor cover in back of range. (1/4” hex screws)
- Disconnect the wires to the motor.
- Pull the motor out from behind the range.

NOTE: For service replacement on all other leads, use 18 GA. 200°C wire except as individually noted on leads. All leads with designation numbers that enter common lead path () must be traced to their terminations.

GAS, FREESTANDING, SELF-CLEANING RANGE

DOOR LATCH

The latch mechanism is automatically operated. When the SELF CLEAN cycle is selected, the latch will automatically lock for cleaning and unlock after cleaning. The door locks immediately and will remain locked until the oven has dropped below these temperatures (about 550°F.)

LOCK MECHANISM AND LOCK SWITCH ACCESS

- Remove oven door.
- Remove the cooktop (see Remove Cooktop in this manual.)
- Remove cover over lock mechanism (remove 1/4” hex head screws on each side of the cover.)
- Label and remove wires from lock switch.
- Remove screws securing lock mechanism to oven frame.
- Remove mechanism.

Average clean temperature is 830°F. Cool down period is 30 to 40 minutes at the end of the cycle.

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FAILURE CODES

Failure codes may or may not be displayed depending on the failure code. All failure codes will be stored in nonvolatile memory and can be retrieved by entering the Fault Retrieval Mode. The Fault Retrieval Mode can be accessed by pressing together **2** and **Broil** for three seconds while the oven is idle. Pressing **1** will cycle through the faults.

FAILURE CODE	AFFECTED AREA	MEANING	CORRECTION
100	All	Mis-wire condition detected on 240VAC (electric models). Monitoring for this condition happens continuously, not just at startup.	a) Check for house mis-wire condition b) Check L2 coming into the main oven control (red dot on relay)
200	Single or Upper (Double) Oven Cavity	The cavity 1 temperature exceeds 615F while the door is unlocked.	a) Check for mis-wire condition of connections going into the relays b) Check RTD readings are correct c) Airflow to rear of unit d) High resistance in oven sensor leads/connectors (especially at sensor in rear)
210	Single or Upper (Double) Oven Cavity	The cavity 1 temperature exceeds 930F with the door locked (i.e. during self clean).	a) Check for mis-wire condition of connections going into the relays b) Check RTD readings are correct c) Airflow to rear of unit d) High resistance in oven sensor leads/connectors (especially at sensor in rear)
220	Lower (Double) Oven Cavity	The cavity 2 temperature exceeds 615F while the door is unlocked.	a) Check for mis-wire condition of connections going into the relays b) Check RTD readings are correct c) Airflow to rear of unit d) High resistance in oven sensor leads/connectors (especially at sensor in rear)
230	Lower (Double) Oven Cavity	The cavity 2 temperature exceeds 930F with the door locked (i.e. during self clean).	a) Check for mis-wire condition of connections going into the relays b) Check RTD readings are correct c) Airflow to rear of unit d) High resistance in oven sensor leads/connectors (especially at sensor in rear)
300	Single or Lower (Double)	RTD1 sensor short-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
310	Single or Lower (Double)	RTD1 sensor open-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
320	Upper (Double) Oven Cavity	RTD2 sensor short-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
330	Upper (Double) Oven Cavity	RTD2 sensor open-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
340	Single or Lower (Double)	MEAT PROBE1 sensor short-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
342	Upper (Double) Oven Cavity	MEAT PROBE2 sensor short-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
350	All	If the cooling fan is requested to be on, but the speed falls below 200 RPM for 30 consecutive seconds.	a) If fan running with fault, check connection of FAD board to the main oven control b) If fan not running with fault, check for obstruction of fan motor, check motor is getting 120VAC
351	All	If the cooling fan speed is non-zero for 30 seconds when it is not requested to be on.	a) Check cooling fan motor is getting 120VAC b) Check Relay K904 on main oven control - J903 pin 1 to Neutral should be ~0VAC, if 120VAC relay damaged
352	All	If the cooling fan is between 3540-3660 RPM (59Hz-61Hz) for 25 consecutive seconds. Locked motor condition.	a) Check for obstruction in fan motor that won't allow it to run when requested
683	Oven UI	Oven UI communication missing to the oven machine control	a) Check connection from UI control to main oven control b) Communication fault on the UI control, replace control
700	Single or Upper (Double) Oven Cavity	Oven cavity 1 does not stop cooking within 10ms of pressing the cavity 1 cancel key.	a) Power cycle the unit b) If fault persists, replace the oven UI
701	Lower (Double) Oven Cavity	Oven cavity 2 does not stop cooking within 10ms of pressing the cavity 1 cancel key.	a) Power cycle the unit b) If fault persists, replace the oven UI
721	Oven UI	Any oven UI cancel key is stuck for 30 seconds.	a) Wipe conducted material off of key - grease, cleaner, water, etc. b) Replace the Oven UI control
722	Oven UI	Any key other than cancel keys is stuck for 30 seconds.	a) Wipe conducted material off of key - grease, cleaner, water, etc. b) Replace the Oven UI control
783	Oven UI	Low level self-checks failed on Oven UI board.	Replace the Oven UI control
800	Oven UI	Self clean started in cavity 1 without 2 key inputs.	Replace the main oven control
801	Oven UI	Self clean started in cavity 2 without 2 key inputs.	Replace the main oven control
810	Single or Upper (Double) Oven Cavity	If any heating elements in cavity 1 turn on when the oven cavity is not running, this fault is set.	Replace the main oven control
811	Lower (Double) Oven Cavity	If any heating elements in cavity 2 turn on when the oven cavity is not running, this fault is set.	Replace the main oven control
830	All	If self clean is running in 1 cavity and any cook mode is running in the other.	Power cycle the unit
840	All	If the internal ADC diagnostic test fails.	Replace the main oven control
900	Single or Upper (Double) Oven Cavity	The door lock status for cavity 1 changed unexpectedly.	a) Check connection from door lock motor to main oven control b) Check door lock motor is functional
910	Single or Upper (Double) Oven Cavity	The door lock for cavity 1 did not change to the desired state.	a) Check connection from door lock motor to main oven control b) Check door lock motor is functional
920	Lower (Double) Oven Cavity	The door lock status for cavity 2 changed unexpectedly.	a) Check connection from door lock motor to main oven control. b) Check door lock motor is functional
930	Lower (Double) Oven Cavity	The door lock for cavity 2 did not change to the desired state.	a) Check connection from door lock motor to main oven control b) Check door lock motor is functional
940	Single or Upper (Double) Oven Cavity	Cavity 1 door detected as open when locked	a) Check connection from plunger switch to main oven control b) Check door lock motor interaction with door to make sure door is able to close and lock c) Check plunger microswitch is closed when compressed and open when not compressed
950	Lower (Double) Oven Cavity	Cavity 2 door detected as open when locked	a) Check connection from plunger switch to main oven control b) Check door lock motor interaction with door to make sure door is able to close and lock c) Check plunger microswitch is closed when compressed and open when not compressed
960	Single or Upper (Double) Oven Cavity	Cavity 1 door lock is in an unknown state	a) Check connection from door lock motor to main oven control b) Check door lock motor is functional and getting 120VAC when requested
970	Lower (Double) Oven Cavity	Cavity 2 door lock is in an unknown state	a) Check connection from door lock motor to main oven control b) Check door lock motor is functional and getting 120VAC when requested

OVEN TEMPERATURE CALIBRATION

The bake temperature can be adjusted from its factory calibration (+ or -) 35°F in 1° increments.

1. Press the **Settings** key and the special features menu will be displayed.
2. Press the **5** key for Oven Adj.
3. Press the **1** key to change the Upper oven and the **2** key to change the Lower oven.
4. Press the **1** key for more heat and Press the **2** key for less heat.
5. Once the desired option is displayed, press the **9** key to save the setting and the **0** key to exit the menu.

OVEN SENSOR OHMMETER TEST

CIRCUIT	TERMINALS	OHMS	CONDITION
Oven Sensor (RTD1)	J401 pin 4 to 5	1080 Ω 2650 Ω	Room temperature Self Clean temperature

SERVICE MODE

Service Mode must be entered within 30 minutes of a power cycle. To enter Service Mode:

For single ovens - press and hold **1** and **Broil** simultaneously for 3 seconds.

For double ovens - press and hold **1** and **Bake** simultaneously for 3 seconds.

Entering into service mode will turn off all other active modes. **Service Mode** will appear in the top line of the display and will stay there until service mode is exited. Each key will turn on the associated load and each load will turn off when one of the following conditions is met:

- 15 seconds has passed after the key has been released
- The same key is pressed again
- Another key has been pressed

Once the load is disabled, the screen will also update to remove the load information. Sensor temperature for single/upper cavity will always appear in the upper left corner of the display. Sensor temperature for the lower cavity will always appear in the lower left corner of the display. Probe temperature for single/upper cavity will always appear in the upper right corner of the display. Probe temperature for the lower cavity will always appear in the lower right corner of the display. If no probe is inserted, then “000” will appear in the probe temperature display. Cancel/Off key will turn off all loads and exit Service Mode. 20 minutes of inactivity will exited service mode.

Software versions and fault information can be viewed in Fault Retrieval Mode. The unit must be in standby to enter Fault Retrieval Mode:

For single ovens - press and hold **2** and **Broil** simultaneously for 3 seconds.

For double ovens - press and hold **2** and **Bake** simultaneously for 3 seconds.

Select the appropriate option to view the list of faults or to view all software versions. Press **Cancel** to exit.

KEY	OVEN FUNCTION
Bake	Energize Bake Element
Broil	Energize Broil Element
Clean	Cycle Door Lock Position
Settings	Energize Quarter Top Heat (1/4W of Broil Element)
Convection Bake	Energize Convection Bake Element
Warming Drawer	Energize Warming Drawer Element
Cancel/Off	Exit Service Mode
1	Energize Convection Fan CCW
2	Energize Convection Fan CW
3	Turn on Cooling Fan
0	All display VFD segments illuminate
Oven Light	Energize Oven Light

⚠ WARNING

WIRING DIAGRAM

Power must be disconnected before servicing this appliance.

