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# SERVICE DATA SHEET

318127022 (0505) Rev. A

Dual Fuel Slide-in Range with Electronic Oven Control  
Gas Slide-in Range with Electronic Oven Control

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## NOTICE

This service data sheet is intended for use by persons having electrical and mechanical training and a level of knowledge of these subjects generally considered acceptable in the appliance repair trade. **The manufacturer cannot be responsible, nor assume any liability, for injury or damage of any kind arising from the use of this data sheet.**

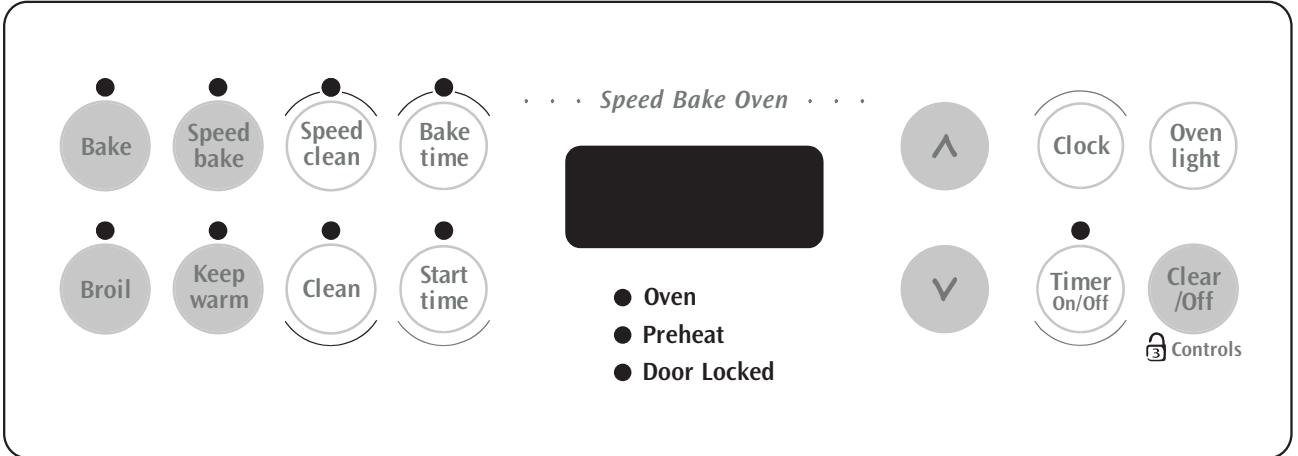
## SAFE SERVICING PRACTICES

To avoid the possibility of personal injury and/or property damage, it is important that safe servicing practices be observed. The following are examples of some, but not all, of these practices.

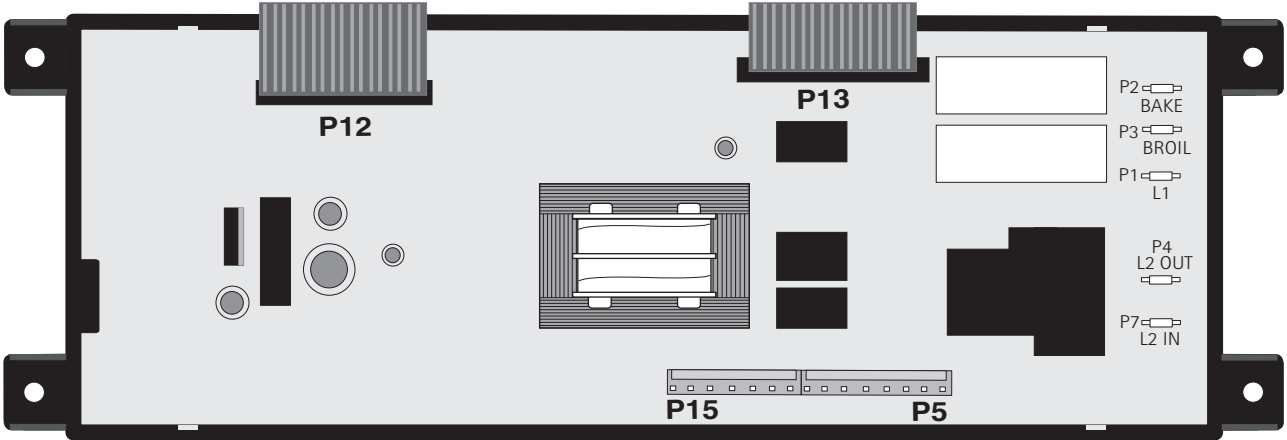
1. Do not attempt a product repair if you have any doubts as to your ability to complete it in a safe and satisfactory manner.
2. Before servicing or moving an appliance, remove power cord from electric outlet, trip circuit breaker to OFF, or remove fuse and turn off gas supply.
3. Never interfere with the proper installation of any safety device.
4. USE ONLY REPLACEMENT PARTS CATALOGED FOR THIS APPLIANCE. SUBSTITUTIONS MAY DEFEAT COMPLIANCE WITH SAFETY STANDARDS SET FOR HOME APPLIANCES.
5. GROUNDING: The standard color coding for safety ground wires is GREEN OR GREEN WITH YELLOW STRIPES. Ground leads are not to be used as current carrying conductors. IT IS EXTREMELY IMPORTANT THAT THE SERVICE TECHNICIAN REESTABLISH ALL SAFETY GROUNDS PRIOR TO COMPLETION OF SERVICE. FAILURE TO DO SO WILL CREATE A POTENTIAL HAZARD.
6. Prior to returning the product to service, ensure that:
  - All electric connections are correct and secure.
  - All electrical leads are properly dressed and secured away from sharp edges, high-temperature components, and moving parts.
  - All non-insulated electrical terminals, connectors, heaters, etc. are adequately spaced away from all metal parts and panels.
  - All safety grounds (both internal and external) are correctly and securely reassembled.
  - All panels are properly and securely reassembled.

# ELECTRONIC OVEN CONTROL

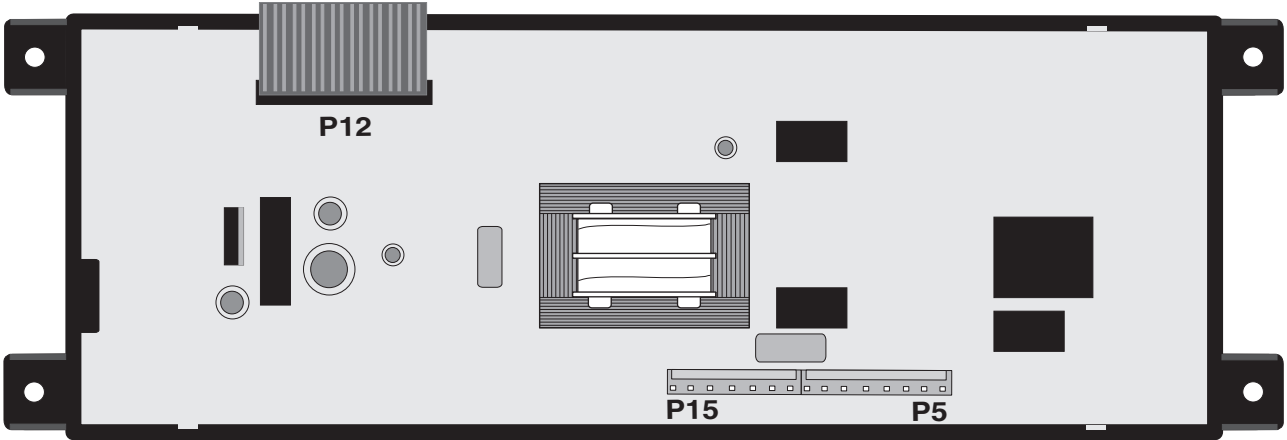
1. This self-cleaning controller offers Bake, Broil, Speed Bake (some models) modes, Timed and Delayed Baking, and Cleaning functions.
2. This Controller has a touch sensitive membrane.



**NOTE:** The Controller's are not field repairable. Only temperature settings can be changed. See oven calibration.



Dual Fuel Models



Gas Models

## SPEED BAKE MODE (some models)

The speed bake oven uses the addition of a fan to move the air already in the oven. Moving the heated air helps to destratify the heat and cause uniform heat distribution. Cooking times can be reduced by as much as 30%. The air is drawn in through a fan shroud located on the rear wall of the oven. It is then discharged around the outer edges of this shroud. The air circulates around the food and then enters the shroud again. There is still an oven vent which discharges through the bottom of the control panel.

To set the control in speed bake mode, follow these steps:

1. Press the **SPEED BAKE** pad.
2. Enter the desired temperature on the keypad (set point).
3. Press the **START** pad.

The oven will automatically start and the fan will begin to run. To cancel the speed bake function, press the **CANCEL** pad.

**NOTE:** The fan runs continuously while in the speed bake mode. The fan will stop if the door is opened. The bake element or burner will continue to operate if the door is opened.

## PREHEAT

During a preheat mode, the oven uses a bake element or burner to reach the controller set point. The element uses full power when it's on. When the set point is reached, the preheat mode is converted to a normal bake mode.

## NORMAL BAKE

**Electric Oven Models:** During a normal bake mode, the controller preheats the oven with the bake element. When the desired temperature is reached, the controller adds top heat by cycling the broil element on for 12 to 18 seconds per minute. The bake element is on for the remaining time of the minute. Both elements use full power when they are on but they are never on at the same time. **Gas Oven Models:** During a normal bake mode, the controller preheats the oven with the bake burner.

## CLEAN

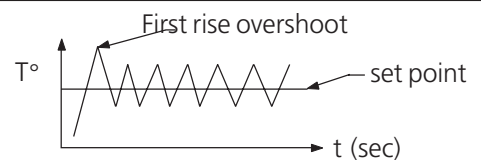
During a cleaning process, the oven uses bake element or burner.

## CLEAN AND TIMED CLEAN

When these modes are selected, the door locks right after start button is pushed.

## FIRST RISE

It is normal to see a temperature overshoot in the first rise of all modes when you monitor the temperature.



## OVEN CALIBRATION

Set the electronic oven control for normal baking at 350°F/176°C. Obtain an average oven temperature after a minimum of 5 cycles. Press Cancel to end bake mode.

**Note:** Changing calibration affects all the cooking modes but not the clean mode.

## ELECTRONIC OVEN CONTROL

### ELECTRONIC OVEN CONTROL (EOC) FAULT CODE DESCRIPTIONS AND RTD SCALE

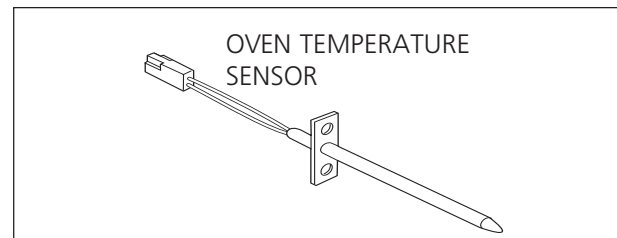
**Note:** Only three fault codes series are displayed by this control "F1", "F3" and "F9". Generally speaking "F1" implies a control failure, "F3" an oven probe problem, and "F9" a latch motor problem. In all occurrences the alarm is accompanied by a display of "F1".

Fault Code Series	Likely Failure Condition/Cause	Suggested Corrective Action
<b>F1</b>	<p><b>(F10)</b> Control has sensed a potential runaway oven condition. Control may have shorted relay, RTD sensor probe may have gone bad.</p> <p><b>(F11)</b> Shorted keypad.</p> <p><b>(F13)</b> Control's internal checksum may have become corrupted.</p> <p><b>(F14)</b> Misconnected flat cables.</p>	<ol style="list-style-type: none"> <li>1. Check RTD sensor probe and replace if necessary. If oven is overheating, disconnect power. If oven continues to overheat when the power is reapplied, replace EOC. Severe overheating may require the entire oven to be replaced, should damage be extensive.</li> <li>2. Press CLEAR key.</li> <li>3. Disconnect power, wait 30 seconds and reapply power. If fault returns upon power-up, replace EOC.</li> <li>4. Disconnect power; verify flat cable connections (P6 or P12).</li> </ol>
<b>F3</b>	<p><b>(F30)</b> Open RTD sensor probe/ wiring problem. Note: EOC may initially display an "F1", thinking a runaway condition exists.</p> <p><b>(F31)</b> Shorted RTD sensor probe / wiring problem. Note: "F3" is displayed when oven is in active mode or an attempt to enter an active mode is made.</p>	<ol style="list-style-type: none"> <li>1. Press CLEAR key.</li> <li>2. Check wiring in probe circuit for possible open condition. Check RTD resistance at room temperature (compare to probe resistance chart). If resistance does not match the chart, replace the RTD sensor probe.</li> <li>3. Let the oven cool down and restart the function</li> </ol>
<b>F9</b>	<p><b>(F90 to F94)</b> Door motor mechanism failure.</p>	<ol style="list-style-type: none"> <li>1. Press CLEAR key.</li> <li>2. If CLEAR key does not eliminate problem, turn off power for 30 seconds, then turn on power.</li> <li>3. Check wiring of Lock Motor, and Lock Switch and Door Switch circuits.</li> <li>4. Unplug P5, apply power (L1) directly to the Lock Motor, if the motor does not rotate, replace Lock Motor Assembly. Plug P5.</li> <li>5. Check Lock Switch A for proper operation (do they open and close, check with ohmmeter). The Lock Motor may be powered as in above step to open and close Lock Switch. If the Lock Switch is defective, replace Motor Lock Assembly.</li> <li>6. If all above steps fail to correct situation, replace control.</li> </ol>

RTD SCALE		
Temp. °F	Temp. °C	Resistance (ohms)
32 ± 1.9	0.0 ± 1.1	1000 ± 4.0
75 ± 2.5	23.9 ± 1.4	1091 ± 5.3
250 ± 4.4	121.1 ± 2.4	1453 ± 8.9
350 ± 5.4	176.7 ± 3.0	1654 ± 10.8
450 ± 6.9	232.2 ± 3.8	1852 ± 13.5
550 ± 8.2	287.8 ± 4.6	2047 ± 15.8
650 ± 9.6	343.3 ± 5.3	2237 ± 18.5
900 ± 13.6	482.2 ± 7.6	2697 ± 24.4

ELECTRICAL RATING (Electric Oven Models)	
Kw Rating 240/208 V	See nameplate
Bake Element Wattage	3400W/ 2553W
Broil Element Wattage	2750W/ 2065W

BURNER RATING (Gas Oven Models)	
Rating	See nameplate
Bake Burner	15 000BTU
Broil Burner	12 000BTU



CIRCUIT ANALYSIS MATRIX									
	ELEMENTS		Speed Bake fan P5-3	Light P5-8	Door Motor P5-6	Lock Motor Switches		Cooling fan DLB L2 out	Door Switch P15-3 COM-NO
	Bake P2	Broil P3				P15-1 & P15-2	A P15-1 & P15-7		
Bake	X	X*						X	
Broil		X						X	
Speed Bake	X		X					X	
Clean	X							X	
Locking					X	NC	NO		
Locked						NO	NC		
Unlocking					X	NO	NC		
Unlocked						NC	NO		
Light				X					
Door Open				X					X
Door Closed									

\* Denotes Topheat (Dual Fuel Models Only)

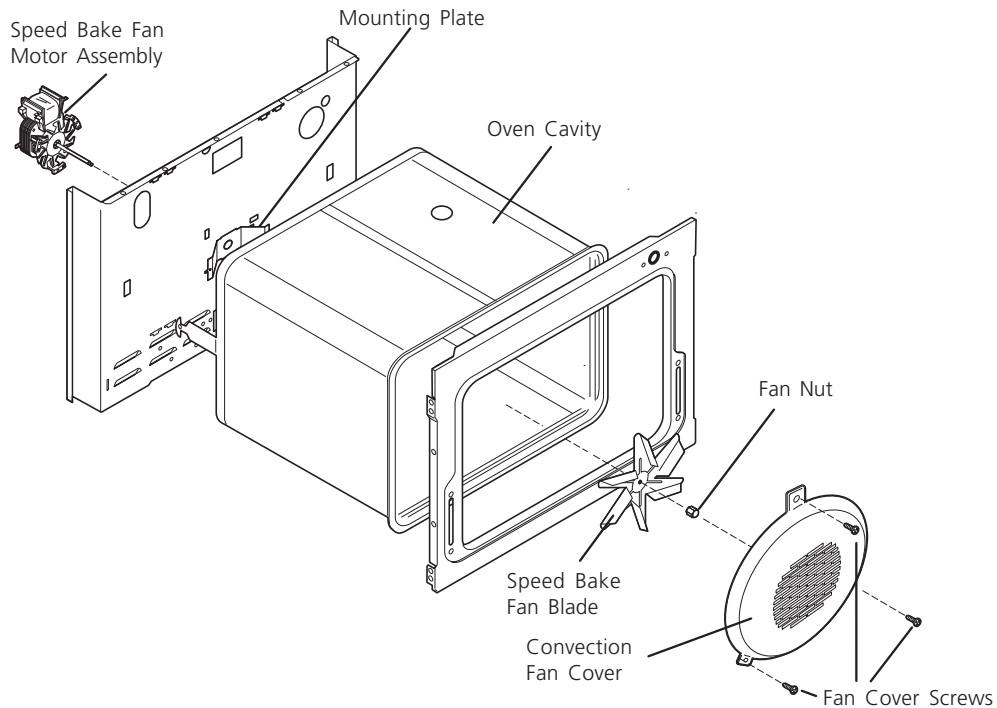
Relay will operate in this condition only

## 2 SPEEDS COOLING FAN

**Electric Oven Models:** A three way thermostat (140°F/170°F) controls the cooling fan speeds. The high speed should engage in clean mode only. Low speed is engaged on all cooking modes.

**Gas Oven Models:** A three way thermostat (140°F/170°F) controls the cooling fan speeds. The high speed should engage in clean mode only. Low speed may engage in broil mode after 25 minutes approximately.

## EXPLODED VIEW OF SPEED BAKE SYSTEM (some models)



### FAN BLADE

The fan blade is mounted in the rear of the unit and has a "D" shaped mounting hole. Only minimum clearance exists between the oven back, fan blade, and fan shroud. Be careful not to bend blade when removing or installing.

Access to the fan blade is gained by removing the fan shroud, held in place by three screws, from the inside of the oven.

The fan blade is held in place with a hex nut that has left handed threads. When removing this nut, gently hold the fan blade, and turn the nut clockwise. If one of the blades becomes deformed, it may be bent back into shape using a flat surface as a reference.

A flat washer is located on the motor shaft between the snap ring on the shaft and the fan blade.

**NOTE:** If the fan blade is bent and motor vibrations increase, the noise made by the fan will be greater.

### MOUNTING PLATE OVEN

The fan motor on the rear of the unit is mounted to the main back (with three screws). There is a mounting plate held in place between the main back (with 2 screws) and the rear oven wall (with 2 screws). Should it be necessary to replace the oven cavity, you must remove the 2 screws located inside the unit at the rear of the oven cavity.

### FAN MOTOR

The 120 volt fan motor is located on the outside of the rear of the oven.

## FAN RELAY

The fan motor runs continuously while in the speed bake mode unless the door is opened. If the fan does not operate, check the following:

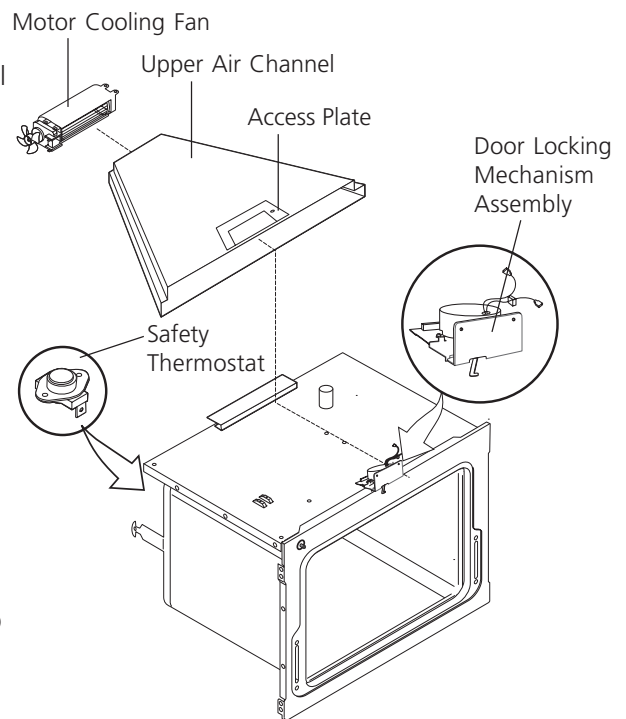
- Display illuminated on the electronic control.
- Voltage output between terminals P5-3 and Neutral.
- 120 Volts available at fan motor.
- Fan motor coil resistance 15.0 ohms  $\pm$  10%.
- Door/light switch.

## DOOR LOCK MECHANISM

The appliance is equipped with an electronic oven control and has an auto locking door latch feature. When the self clean cycle is programmed, the door is locked by a motor operated latch system. The interior of oven doesn't need to heat up to 500°F/260°C before the door locks. However, until the temperature inside oven reaches 500°F/260°C, the self-clean program can be canceled and door will unlock immediately. After oven reaches temperatures over 500°F/260°C, the door will not unlock until temperature drops below 500°F/260°C.

If a problem appears and the door stays locked it is possible for the **servicer** to unlock the door without removing the appliance from its place. Follow the steps below:

1. Trip the circuit breaker to **OFF** position.
2. Remove the 2 screws, which are fixing the oven door latch, located between the control panel and the oven door.
3. When the screws are removed it is possible to unlock the latch with a flat screwdriver, or one of the tools supplied with the wall oven which are used to take off the oven from the cabinet. Insert the tool tip through the slot on top of the oven door. During this step it's important to take care to not damage the appliance.
4. As soon as the latch is in the unlock position, you can open the door.
5. Replace the motor latch:
  1. To have access to the door latch assembly, remove the 3 screws under the control panel which are fixing it.
  2. Remove the access plate located on the upper air channel by removing the screw.
  3. Replace the motor latch by a new one and reassemble in reverse order.



## OVEN DOOR REMOVAL AND REPLACEMENT

### To Remove the Oven Door:

1. Open the door to the fully opened position.
2. Pull up the lock located on each hinge supports and engage it in the hinge lever. You may have to apply a little downward pressure on the door to pull the locks fully over the hooks.
3. Grab the door by the sides, pull the bottom of the door up and toward you to disengage the hinge supports. Keep pulling the bottom of the door toward you while rotating the top of the door toward the range to completely disengage the hinge levers.

### To Replace the Oven Door:

1. Grab the door by the sides; place the hinge supports in the hinge slots. Open the door to the fully opened position.
2. Disengage the lock from the hinge levers on both sides.  
**Note:** Make sure the hinge supports are fully engaged before unlocking the hinge levers.
3. Close the oven door.

**CAUTION** The door is heavy. After removing door, lay it flat on the floor with the inside of the door facing down.

