

SERVICE DATA SHEET

318047410 (0205) Rev. C

Gas & Electric Wall Ovens with Electronic Oven Control (ES 300)

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.**

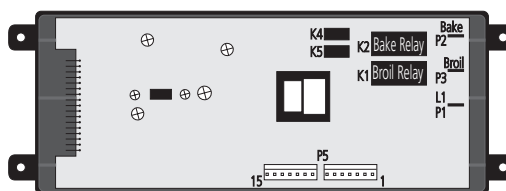
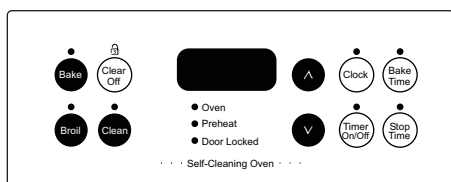
SAFE SERVICING PRACTICES

To avoid the possibility of personal injury and/or property damage, it is important that safe servicing practices be observed. The following are some limited examples of safe 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.
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 and gas connections are correct and secure.
 - All gas connections are tested for leaks. DO NOT TEST FOR GAS LEAKS WITH A FLAME.
 - All electrical leads are properly dressed and secured away from sharp edges, high-temperature components, and moving parts.
 - All uninsulated 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.

ES300 ELECTRONIC OVEN CONTROL

The ES300 electronic oven control is almost identical to the current control with a few exceptions.



Note: The ES300's are not field repairable. Only temperature settings can be changed. See Electronic Oven Control Guide (section recalibrating your oven temperature)

Note: Depending on model, the size and shape of touch pads may vary (for example elliptical instead of round).

NORMAL BAKE

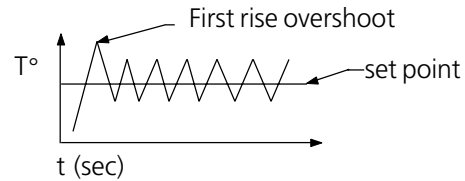
During a normal bake mode, the control preheats the oven with the bake element. When the desired temperature is reached, the control adds top heat by cycling the broil element on for 6 to 9 seconds per minute. The bake element is on for the remaining time of the minute. Both elements use full power when they are on but they are never on at the same time.

CLEAN

During a cleaning process, the oven uses the bake element. When this mode is called, the door locks right after 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.



ELECTRONIC OVEN CONTROL

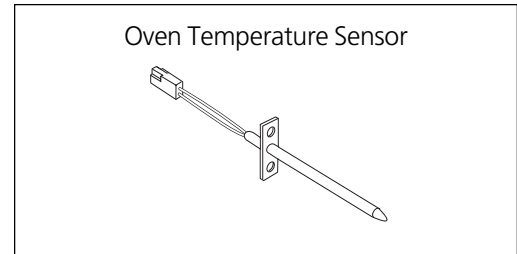
ELECTRONIC OVEN CONTROL FAULT CODE DESCRIPTIONS AND RTD SCALE

Note: Only three fault codes 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	Likely Failure Condition/Cause	Suggested Corrective Action
F1	<ol style="list-style-type: none"> 1. Shorted keypad. 2. Control's internal checksum may have become corrupted. 3. Control has sensed a potential runaway oven condition. Control may have shorted relay, RTD sensor probe may have gone bad. 	<ol style="list-style-type: none"> 1. Replace EOC. 2. Disconnect power, wait 30 seconds and reapply power. If fault returns upon power-up, replace EOC. 3. 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.
F3	<ol style="list-style-type: none"> 1. Open RTD sensor probe/ wiring problem. Note: EOC may initially display an "F1", thinking a runaway condition exists. 2. 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. 3. Abusive operation (safety thermostat). 4. Safety thermostat opened, or cooling fan stalled. 	<ol style="list-style-type: none"> 1. 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. 2. Check wiring in probe circuit for possible short condition. Check RTD resistance at room temperature (compare to probe resistance chart). If resistance does not match the chart, replace the RTD sensor probe. 3. Let the oven cool down and restart the function 4. Look for stalled cooling fan, broken safety thermostat (opens).
F9	<ol style="list-style-type: none"> 1. Door motor failure / jammed. Latch motor switch failure. 2. Control software failure, or component failure (relay stuck). 3. Wiring Problem. 	<ol style="list-style-type: none"> 1. Press CLEAR key. 2. If CLEAR key does not eliminate problem, turn off power for 30 seconds, then turn on power. 3. Check wiring of Lock Motor, and Lock Switch A, and Door Switch circuits. 4. Unplug P4, apply power (L1) directly to the Lock Motor, if the motor does not rotate, replace Lock Motor Assembly. Plug P4. 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. 6. If all above steps fail to correct situation, replace control.

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 Models)	
Kw Rating 240/208 V	3.5 / 2.6
Bake Element Wattage	2100W / 1577W
Broil Element Wattage	3400W / 2554W



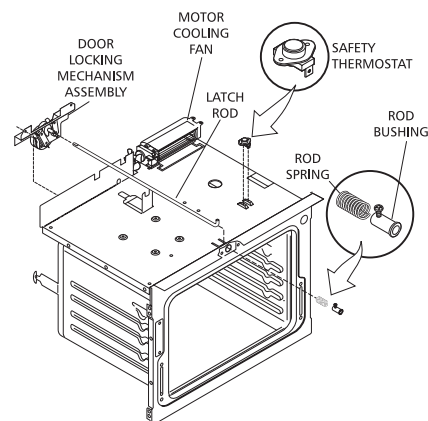
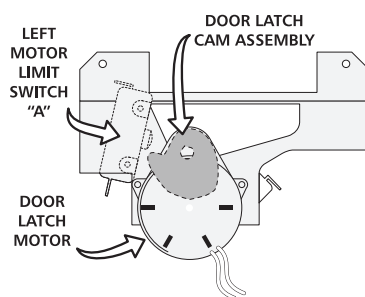
	CIRCUIT ANALYSIS MATRIX				
	Bake P2	Broil P3	MDL P5-6 & N	Lock Motor Switch A	
				P5-9 & P5-10 NO	P5-11 & P5-9 NC
Bake	X	X*			
Broil		X			
Clean	X				
UnLocked					X
Locking			X		
Locked				X	
Unlocking			X		

* Denotes broil element alternate with bake element.

Not used

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 does'nt 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.



TYPICAL GLASS DOOR

