SERVICE DATA SHEET Gas Range with ES 570 Electronic Oven Control

A 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, but without limitation, of such practices,

- Do not attempt a product repair if you have any doubts as to your ability to complete it in a safe and satisfactory manner.
- 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

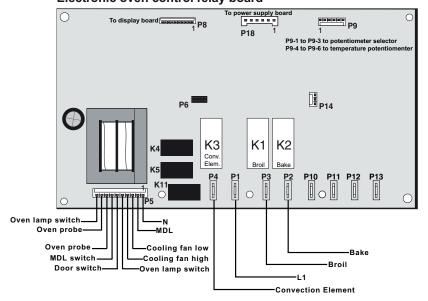
OR GREEN WITH YELLOW STRIPES. Ground leads are not to be used as current carrying conductors. IT IS EXTREMELY IMPORTANT THAT THE SERVICE TECHNICIAN REESTABLISH ALL SAFETY GROUNDS PRIOR TO COMPLETION OF SERVICE. FAILURE TO DO SO WILL CREATE A POTENTIAL HAZARD.

- 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.

Oven Calibration

Set the electronic oven control for normal baking at 350°F. Obtain an average oven temperature after a minimum of 5 cycles. The oven calibration can not be modified

Electronic oven control relay board



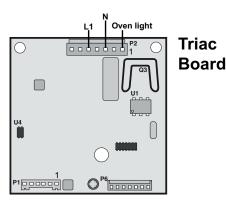
Electronic Display Board



This display board serves for Freestanding Range

- D1- Bake Mode Indicator Light
- D2- Convection Bake Mode Indicator Light
- D3- Convection Roast Mode Indicator Light
- D4- Broil Mode Indicator Light
- D5- Clean Mode Indicator Light
- D6- Lock Mode Indicator Light
- D7- Racks Indicator Light

Goes to P8 oven control.



P1 to oven control relay board

IMPORTANT DO NOT REMOVE THIS BAG OR DESTROY THE CONTENTS WIRING DIAGRAMS AND SERVICE INFORMATION ENCLOSED

REPLACE CONTENTS IN BAG

p/n 809008401 Rev A (1701) EN



RTD	RTD SCALE						
Temperature °F (°C)	Resistance (ohms)						
32 ± 1.9 (0 ± 1.0)	1000 ± 4.0						
75 ± 2.5 (24 ± 1.3)	1091 ± 5.3						
$250 \pm 4.4 (121 \pm 2.4)$	1453 ± 8.9						
$350 \pm 5.4 (177 \pm 3.0)$	1654 ± 10.8						
$450 \pm 6.9 (232 \pm 3.8)$	1852 ± 13.5						
550 ± 8.2 (288 ± 4.5)	2047 ± 15.8						
$650 \pm 9.6 (343 \pm 5.3)$	2237 ± 18.5						
900 ± 13.6 (482 ±7.5)	2697 ± 24.4						
Probe circuit to case ground	Open circuit/infinite resistance						

ELECTRONIC OVEN CONTROL (EOC) FAULT CODE DESCRIPTIONS										
Failure Code	Likely Failure Condition/Cause	Suggested Corrective Action								
Front Panel LED 1 2 3 4 5 6 7 X	Control has sensed a potential runaway oven condition. Control may have shorted relay, RTD sensor probe may have gone bad.	Check RTD sensor probe and replace if necessary. If oven is overheating, disconnect power. If oven continues to overheat when power is reapplied, replace control board.								
Front Panel LED 1 2 3 4 5 6 7 X	Incorrect Micro ID, controller self check failed.	Replace the control board.								
Front Panel LED 1 2 3 4 5 6 7 X	Incorrect EEPROM Checksum, control internal checksum may have been corrupted.	Disconnect power, wait 30 seconds and reapply power. If fault returns upon power-up, replace control board.								
Front Panel LED 1 2 3 4 5 6 7 X X X	Open RTD sensor probe / wiring problem.	 Check wiring in probe circuit for possible open condition. Check RTD resistance at roon temperature (compare to probe resistance chart). If resistance does not match the chart, replace RTD sensor probe. Let the oven cool down and restart the function. If problem persist, replace control board. 								
Front Panel LED 1 2 3 4 5 6 7 X X X	Shorted RTD sensor probe / wiring problem.									
Front Panel LED 1 2 3 4 5 6 7 X X X X	Problem with the communication link between the oven control board and the variable speed convection board.	 Check wiring between P18 on oven control and P1 on the variable speed convection board. Check variable speed convection board supplied correctly: should have +5VDC between pin 3 and 4 of P1. If wiring is good, replace the variable speed convection board. If problem persist, replace the oven control board. 								
Front Panel LED 1 2 3 4 5 6 7 X X X	Oven control not properly calibrated.	- The electronic oven control has not been properly calibrated at the factory Replace the oven control board.								
Front Panel LED 1 2 3 4 5 6 7 X X X X	Door motor mechanism failure.	- Turn off power for 30 seconds, then turn on power. - Check wiring of lock motor, lock switch circuits. - Unplug the lock motor from the board and apply power (L1) directly to the lock motor. If the motor does not rotate, replace the lock motor assembly. - Check lock switch for proper operation (do they open and close, check with ohmmeter). The lock motor may be powered as in above step to open and								
LED Legend: 1 - Bake 2 - Convection Bake 3 - Convection Roast 4 - Broil 5 - Clean 6 - Lock 7 - Remove racks		close lock switch. If the lock switch is defective, replace motor lock assembly. - If all above steps fail to correct situation, replace the control board.								

Circuit Analysis	EOC Relays 570 Gas								Door Switch
Matrix	L1 to Bake	L1 to Broil	L1 to Motor Door Latch	L1 to Convection Fan	L1 to Convection Heating Element	L1 to Oven Lamps	Cooling Fan High	Cooling fan Low	Contacts COM-NO
Bake	Х			X*	X¹			X ³	
Convection Bake	Х			Х	Х			X ³	
Convection Roast	Х			Х*	X1			X³	
Broil		Х						X³	
Self-Clean	Х						Х	X3	
Locking			х						
Unlocking			х						
Door Open						Х			0
Door Closed						0			Х
Oven Lamps(ON)						Х			
Notes: X = Circuit contact closed. O = Circuit contacts open. X ¹ = During preheat. X ³ =Temperature dependent X [*] = Fan comes on after 6 minutes.									

