



Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for FRIGIDAIRE ES 100. You'll find the answers to all your questions on the FRIGIDAIRE ES 100 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual FRIGIDAIRE ES 100 User guide FRIGIDAIRE ES 100 Operating instructions FRIGIDAIRE ES 100 Instructions for use FRIGIDAIRE ES 100 Instruction manual FRIGIDAIRE ES 100

SERVICE DATA SHEET

Electric Ranges with ES 100/105 Electronic Oven Control

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.

- Before servicing or moving an appliance remove power cord from electrical outlet, trip circuit breaker to OFF, or remove fuse.
- Never interfere with the proper installation of any safety device.
- 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 safety hazard.
- 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 uninsulated electrical terminals, conductors, heaters, etc. are adequately spaced away from all metal parts and panels.
 - All safety grounds (both internal and external) are correctly and securely reestablished.

Oven Calibration

Set the electronic oven control for normal baking at 350°F. Obtain an average oven temperature after a minimum of 10 cycles. Press CANCEL or CLEAR to end bake mode.

Oven Temperature Adjustment

(some models - do not use Bake or Broil while adjusting the oven temperature):

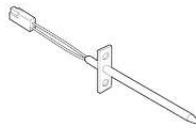
- Press & hold the BAKE key pad and release after the display begins flashing the factory temperature setting of 00.
- Note: If the oven temperature has been previously adjusted from the factory setting, the current temperature adjusted value will flash in the display instead.
- You may increase the oven temperature in 5°F increments with each press of the UP ARROW key pad to a maximum oven adjustment of +35°F. You may also adjust the oven temperature downward in 5°F increments with each press of the DOWN ARROW key pad (total adjustment range of 35 to +35°F. Note: Your oven control was factory set in the Fahrenheit (°F) Temperature Display Mode. To change for (Celsius) °C, see Changing the Temperature Display Mode in the Oven Control Functions section of this Use & Care Manual.
- If no other key pad is pressed after 5 seconds the display will begin to flash. If you do not want to keep the display adjustment, press the CANCEL or CLEAR key pad before the oven control beeps. This will cancel the temperature adjustment procedure. To start this procedure over again begin with step 1 above OR:
- If you want to keep the adjustment, wait until the display quits flashing and the oven control beeps once.
- The oven temperature adjustment has been accepted by the oven control and the display will return to the time of day.

Notes: The oven temperature adjustment may be made if your oven control has been set to operate in the (Celsius) °C Temperature Display Mode. In this case each press of the UP ARROW or DOWN ARROW key pad will adjust by 1°C increment upward (maximum +18 °C) or downward (maximum -18 °C), depending on which arrow key pad is pressed.

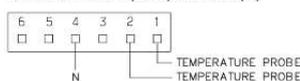
Resistance Temperature Detector Scale

RTD SCALE	
Temperature (°F)	Resistance (ohms)
32 ± 1.9	1050 ± 4.0
75 ± 2.5	1091 ± 5.3
250 ± 4.4	1453 ± 8.9
350 ± 5.4	1654 ± 10.8
450 ± 6.9	1852 ± 13.5
550 ± 8.2	2047 ± 15.8
650 ± 9.6	2237 ± 18.5
900 ± 13.6	2897 ± 24.4

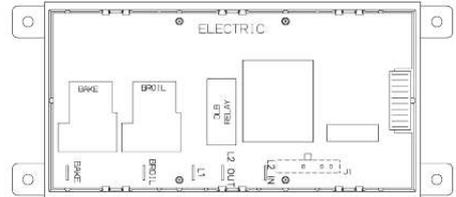
Resistance Temperature Detector



Electronic Oven Control (E.O.C.) Connections (J1)



Electronic Oven Control (E.O.C. Rear View)



Electronic Oven Control (E.O.C.) Fault Code Descriptions (some models-models that display F1 or F3)

Note: Only two fault codes are displayed by this control - F1 or F3. Generally, F1 display implies the electronic oven control itself has detected an internal malfunction - F3 implies the control has detected a sensor probe failure. In either case, an alarm will accompany a displayed F1 or F3.

Fault Code	Likely Failure Condition/Cause	Suggested Corrective Action
F1	<ol style="list-style-type: none"> Shorted keypad. Control's internal checksum may have become corrupted. 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"> Disconnect power, wait 30 seconds and reapply power. If fault returns upon power up, replace EOC. Check RTD sensor probe and replace if necessary. If oven is overheating, disconnect power. If oven continues to overheat when the power is reappplied, replace EOC. Severe overheating may require the entire oven to be replaced, should damage be extensive. Replace EOC.
F3	<ol style="list-style-type: none"> Open RTD sensor probe. Note: The EOC will initially display an F1 for this condition. The EOC thinks a runaway oven condition exists. Shorted RTD sensor probe. Note: The F3 for shorted probe should only occur when the oven is active or when an attempt is made to enter a mode. 	<ol style="list-style-type: none"> Check resistance at room temperature and compare to RTD sensor resistance chart. If resistance does not match the chart, replace RTD sensor probe. Check resistance at room temperature. If less than 500 ohms, replace RTD sensor probe.

Electronic Oven Control (E.O.C.) Fault Code Descriptions (some models-models that display F10, F11, F13, F30 or F31)

Fault Code	Likely Failure Condition/Cause	Suggested Corrective Action
F10	Runaway Temperature.	<ol style="list-style-type: none"> If F10 only: Check RTD Sensor Probe & replace if necessary. If oven is overheating, disconnect power. If oven continues to overheat when the power is reappplied, replace EOC. Severe overheating may require the entire oven to be replaced should damage be extensive. (F11 & F13) Disconnect power, wait 30 seconds and reapply power. (F11 & F13) If fault returns upon power up, replace EOC.
F11	Shorted Keypad.	
F13	Bad EEPROM Identification/Checksum error.	
F30	Open probe connection.	<ol style="list-style-type: none"> (F30 or F31) Check resistance at room temperature & compare to RTD Sensor resistance chart. If resistance does not match the RTD chart replace RTD Sensor Probe. Check Sensor wiring harness between EOC & Sensor Probe connector. (F30 or F31) Check resistance at room temperature. If less than 500 ohms, replace RTD Sensor Probe. Check for shorted Sensor Probe harness between EOC & Probe connector.
F31	Shorted Probe connection.	

Circuit Analysis Matrix

	EOC Relays		Door Switch COM-NC
	L1 to Bake	L1 to Broil	
Bake	X	X*	
Broil		X	
Door Open			X
Door Closed			

Note: X=Check listed circuits. *=Alternates with Bake element.

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

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Manual abstract:

NOTICE SAFE SERVICING PRACTICES To avoid the possibility of personal injury and/or property damage, it is important that safe servicing practices be observed. 1. 2. 3. Before servicing or moving an appliance remove power cord from electrical outlet, trip circuit breaker to OFF, or remove fuse. Never interfere with the proper installation of any safety device. **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 safety hazard.

are adequately spaced away from all metal parts and panels. Press & hold the BAKE key pad and release after the display begins flashing the factory temperature setting of 00. Note: If the oven temperature has been previously adjusted from the factory setting, the current temperature adjusted value will flash in the display instead. You may increase the oven temperature in 5°F increments with each press of the UP ARROW key pad to a maximum oven adjustment of +35°F. This will cancel the temperature adjustment procedure.

F3 implies the control has detected a sensor probe failure. In either case, an alarm will accompany a displayed F1 or F3. 5. 6. 4. Fault Code F1 Likely Failure Condition/Cause 1. 2. 3. Shorted keypad. Control's internal checksum may have become corrupted. Control has sensed a potential runaway oven condition. 2. Disconnect power, wait 30 seconds and reapply power. If fault returns upon power-up, replace EOC. Check RTD sensor probe and replace if necessary.

If oven is overheating, disconnect power. Severe overheating may require the entire oven to be replaced, should damage be extensive. Replace EOC. Oven Calibration Set the electronic oven control for normal baking at 350°F. Obtain an average oven temperature after a minimum of 5 cycles. 2. Open RTD sensor probe. Note: The EOC will initially display an F1 for this condition. The EOC thinks a runaway oven condition exists. Shorted RTD sensor probe. If resistance does not match the chart, replace RTD sensor probe. Shorted Keypad. Bad Micro Identification. F13 Bad EEPROM Identification/Checksum error. 1.

If resistance does not match the RTD chart replace RTD Sensor Probe. Check Sensor wiring harness between EOC & Sensor Probe connector. 2. (F30 or F31) Check resistance at room temperature, if less than 500 ohms, replace RTD Sensor Probe. Check for shorted Sensor Probe harness between EOC & Probe connector.

Suggested Corrective Action 1. (F10 only) Check RTD Sensor Probe & replace if necessary. If oven is overheating, disconnect power. Severe overheating may require the entire oven to be replaced should damage be extensive. 2. (F11 & 13) Disconnect power, wait 30 seconds and reapply power. 3. .



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