



# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for FRIGIDAIRE ES 305. You'll find the answers to all your questions on the FRIGIDAIRE ES 305 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 305 User guide FRIGIDAIRE ES 305 Operating instructions FRIGIDAIRE ES 305 Instructions for use FRIGIDAIRE ES 305 Instruction manual FRIGIDAIRE ES 305

### SERVICE DATA SHEET

Electric Ranges with ES 200/205/300 & 305 Electronic Oven Controls

**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.

#### SAFESERVICING 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, 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.

#### OVEN CALIBRATION

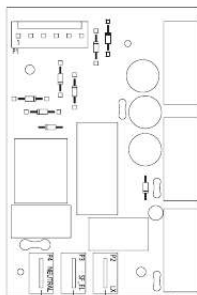
Set the electronic oven control for normal baking at 350°F. Obtain an average oven temperature after a minimum of 5 cycles. Press STOP/CLEAR to end bake mode.

#### TEMPERATURE ADJUSTMENT

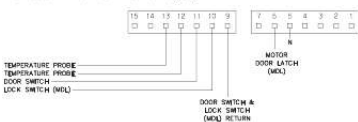
- Get EOC to bake at 350°F.
- Within 5 seconds of setting 350°F, press and hold the bake pad for approximately 15 seconds until a single beep is heard (longer may cause F11 shorted keypad alarm).
- Calibration offset should appear in the display.
- Use the slow keys to adjust the oven temperature up or down 35°F in 5°F increments.
- Once the desired (35° to 35°) offset has been applied, press STOP/CLEAR.

Note: Changing calibration affects normal Bake mode. The adjustments will not change the Self-Cleaning cycle temperature.

#### SEMI-SELECT PCB (some models)



#### E.O.C. CONTROL CONNECTIONS (P5)



#### RESISTANCE TEMPERATURE DETECTOR

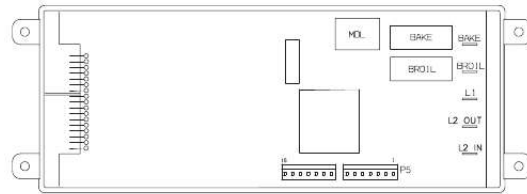


**IMPORTANT**  
DO NOT REMOVE THIS BAG OR DESTROY THE CONTENTS  
WIRING DIAGRAMS AND SERVICE INFORMATION ENCLOSED  
REPLACE CONTENTS IN BAG

pin 316441437 (0510)

RTD SCALE	
Temperature (°F)	Resistance (ohms)
32 ± 1.9	1000 ± 4.0
75 ± 2.5	1091 ± 5.3
250 ± 4.4	1453 ± 8.9
350 ± 5.4	1654 ± 10.8
450 ± 8.9	1852 ± 13.5
550 ± 8.2	2047 ± 15.8
650 ± 9.6	2237 ± 18.5
900 ± 13.8	2997 ± 24.4

#### ELECTRONIC OVEN CONTROL (REAR VIEW)



#### ELECTRONIC OVEN CONTROL FAULT CODE DESCRIPTIONS

Fault Code	Likely Failure Condition/Cause	Suggested Corrective Action
F10	Runaway Temperature.	1. (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 severe.
F11	Shorted Keypad.	2. (F11, 12 & 13) Disconnect power, wait 30 seconds and reapply power.
F12	Bad Micro Identification.	3. (F11, 12 & 13) If fault returns upon power-up, replace EOC.
F13	Bad EEPROM Identification/Checksum error.	
F30	Open probe connection.	1. (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.
F31	Shorted Probe connection.	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.
F90	Maximum oven door unlock time exceeded.	1. (F90, 91, 92, 93 & 94) Check the wiring between EOC & Lock Motor Micro Switch.
F91	Maximum oven door unlock attempts exceeded.	2. (F90, 91, 92, 93 & 94) Replace the Motor Door Latch assembly if necessary.
F92	Maximum oven door open time exceeded.	3. (F90, 91, 92, 93 & 94) Check to binding of the Latch Cam, Lock Motor Rod & Lock Motor Cam.
F93	Maximum oven door lock time exceeded.	4. (F90, 91, 92, 93 & 94) Check to see if Lock Motor Coil is open. If open, replace Lock Motor Assembly.
F94	Maximum oven door lock attempts exceeded.	5. (F90, 91, 92, 93 & 94) Lock Motor continuously runs - if Micro Switch is open, replace Lock Motor Assembly. 6. (F92, 93 & 94) Check oven door Light Switch - if open, replace Switch. 7. If all situations above do not solve problem, replace EOC.

#### CIRCUIT ANALYSIS MATRIX

	EOC Relays				Door Switch COM-NO	Warmer Drawer Lock Switch (Motor Door Latch)
	L1 to Bake	L1 to Broil	L1 to Motor Door Latch			
Bake/Time Bake	X	X*				X
Broil		X				X
Clean	X					X
Unlocked						X
Locking			X			X
Locked						X
Unlocking			X			X
Door Open						X
Door Closed					X	

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



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**Manual abstract:**

The following are examples, but without limitation, of such practices. 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.

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. @@are adequately spaced away from all metal parts and panels. @@Obtain an average oven temperature after a minimum of 5 cycles. Press STOP/CLEAR to end bake mode.

TEMPERATURE ADJUSTMENT 1. 2. Set EOC to bake at 550°F. @@Calibration offset should appear in the display. @@@@4.

5. Note: Changing calibration affects normal Bake mode. @@Shorted Keypad. Bad Micro Identification. @@(F10 only) Check RTD Sensor Probe & replace if necessary. If oven is overheating, disconnect power. @@@@2. @@@3. @@Shorted Probe connection. E.

O.C. CONTROL CONNECTIONS (P5) F31 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. F90 F91 F92 F93 F94 Maximum oven door unlock time exceeded. Maximum oven door unlock attempts exceeded.

Maximum oven door open time exceeded. Maximum oven door lock time exceeded. Maximum oven door lock attempts exceeded. 1. (F90, 91, 92, 93 & 94) Check the wiring between EOC & Lock Motor Micro Switch.

2. (F90, 91, 92, 93 & 94) Replace the Motor Door Latch assembly if necessary. 3. (F90, 91, 92, 93 & 94) Check for binding of the Latch Cam, Lock Motor Rod & Lock Motor Cam. 4.

(F90, 91, 92, 93 & 94) Check to see if Lock Motor Coil is open. If open, replace Lock Motor Assembly. 5. (F90, 91, 92, 93 & 94) Lock Motor continuously runs - if Micro Switch is open, replace Lock Motor Assembly. 6. @@7. .



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