

# Servicing Electronic Oven "Sensor/Probe Circuits"

**MODEL / SERIAL #** All ranges with an EOC, "Electronic Oven Control".

**PROBLEM** Replacing oven the sensor/probe, when it is not defective.

**CAUSE** Technicians not testing the sensor/probe circuit.

**SOLUTION** Test oven sensor/probe circuit, don't just replace it.

Disconnect the harness connector at the EOC; connectors can be 15, 8, or 6 pin. Wire leads from the sensor are always the two violet wires. With meter set for 2K ohms or greater and the sensor at room temperature 75° degrees F, the reading should be around  $1091 \pm 5.3$  ohms, (1091 to 1100 ohms) is normal. When checking the sensor at higher temperatures, follow RTD table. (See RTD, "Resistance Temperature Detector" Table)

## Fault Codes:

- \* F3 - open probe circuit; F4 - shorted probe circuit - older models.
- \* F30 - open probe circuit; F31 - shorted probe circuit - current models.
- \* An F1 or F10 fault code is generally a failure within the EOC, but it can be caused by a failure in the probe circuit. Before replacing the EOC, always check the oven sensor/probe circuit, (probe; harness between control and probe, and connections).

## RTD Scale

Temperature °F	Resistance
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 ± 6.9	1852 ± 13.5
550 ± 8.2	2047 ± 15.8
650 ± 13.6	2237 ± 18.5
900 ± 13.6	2697 ± 24.4