

844-724-CARE 318-865-1711 WWW.FRYMASTER.COM EMAIL: SERVICE@FRYMASTER.COM

## **Service Bulletin**

Subject: Intermittent Heat Failure in LOV/OCF/ **FilterQuick Fryers** 

THIS BULLETIN REPLACES BULLETIN 2012-07. REMOVE 2012-**07 FROM YOUR FILES.** 

MAY 14, 2015

There have been cases of intermittent heat failures in, low-volume gas fryers. The majority of these failures are due to environmental issues. The steps below will increase the tolerance of the fryer for these environmental issues. The sequence of component activity in a successful ignition and the sequence in an unsuccessful burner ignition are also detailed to assist in troubleshooting. This is not a fix all. Normal troubleshooting should be followed if these steps do not resolve the issue.

1. Ensure the Oil Is Back (OIB) sensor (if installed) is clean. Some discoloration is acceptable. Clean with a scratch pad as shown below.



2. Ensure the blower is clean.

	Initial Reading	After Adjustment
24V Transformer		
Gas Type		
Orifice Size		
Gas Pressure — Right		
Gas Pressure — Left		
Micro Amps — Right		
Micro Amps — Left		
Blower Shutter Setting		

- 3. Check initial readings/settings and fill in the above chart.
- 4. Verify that all wires and connections are tight, especially ground wires and flame sense wire connections. The wiring should not be pinched

below any sheet metal plates or ignition module covers which could cause short circuits. Pay close attention to wiring leading to the combustion blower from the interface board, T1 & T2 terminal block, and blower cool down relay if installed. Make sure all pins in all molex style connectors are fully seated and wires are tightly crimped to the pins.

5. Use of the new Solaronics brand ignitors is recommended if ignitors have to be replaced. These new ignitors are more tolerant of flame sensing issues than the previous Ignitor. Solaronics ignitors are identified by the sense wire tab welded to the ignitor. Honeywell ignitors sense wire is attached to the ignitor with a nut.





Ignitor

Ignitor

- 6. Check that the gas type and gas pressure supplied to the unit is consistent and correct.
- 7. Check burner manifold pressure against what is listed on rating plate of unit and ensure pressure is adjusted properly. In some cases it may require de-rating the manifold pressure slightly to get the unit to run properly.



8. Reference the parameters of the four different ignition modules pictured on pages 3 and 4. Ensure that your optimal UA output does not greatly exceed the published levels. In 30 pound fryers, more micro amps are not always better. If micro amp readings are elevated, it may necessitate reducing the blower air shutter until the flame turns blue, then re-opening the shutter to the point that the burners go infrared. Monitor the fryer thru several cook cycles to ensure the settings are correct.

#### **Component Activity in Burn Sequence**

1. Call for heat from computer.

 $\mathcal{P}$ Frymaster  $\mathcal{P}$ Dean

- 2. Ground applied to one side of the coil of the heat relay.
- 3. Relay activates blower.
- 4. Pressure switch closes and passes 24 VAC to interface board (CE fryers only).
- 5. Heat relay supplies ignition module with 24 VAC.
- 6. Module outputs 24 VAC and HV for spark.
- 7. 24 VAC passes through hi limit.
- 8. 24 VAC passes through time-delay relay board (LOV and FilterQuick only).
- 9. 24 VAC applied to gas valve.
- 10. Gas valve opens.
- 11. Spark ignites burner.
- 12. Module reads micro amps and cuts off HV spark voltage.

# Low Micro Amps/Lockout Sequence During a Burn

- 1. Micro amps drop below minimum.
- 2. Module continues to supply 24 VAC to gas valve.
- 3. Module supplies HV spark voltage for 4-5 seconds.
- 4. No micro amps; module locks out.
- 5. Module sends alarm signal to computer via interface board.
- 6. Computer stops calling for heat and displays heat failure.







2000-11/2014 **End of Production and Service Part** 

Replace with kit 8263271.

A hardware upgrade kit 8263270 for GL30 frypots (LOV and OCF) is required for each frypot to initally replace with the new Capable Control modules. One 8263270 will accomodate two 8263271 kits.

Use	All 50-series fryers until 2000; CE and Pacific Rim until 2014
Spark Outputs	Single
Fused	Yes
Lockout	1.5
Optimal UA ouptut	2.5-3.5

Replace with kit 8263271.

A hardware upgrade kit 8263270 for GL30 frypots (LOV and OCF) is required for each frypot to initally replace with the new Capable Control modules. One 8263270 will accomodate two 8263271 kits.

2000-04/2015 End of Production,

Fall 2015 End of Service Part

Use	Domestic
Spark Outputs	Single
Fused	No
Lockout	0.6
Optimal UA output	2.5-3.5





### **Ignition Module Timelines**







### 2000-04/2015 End of Production, Fall 2015 End of Service Part

Replace with kit 8263272 (includes 2-Single Spark modules).

A hardware upgrade kit 8263270 for GL30 frypots (LOV and OCF) is required for each frypot to initally replace with the new Capable Control modules. One 8263270 will accomodate one 8263272 kit.

Use	Domestic
Spark Outputs	Dual
Fused	No
Lockout	0.6
Optimal UA output	2.5-3.5

#### Ignition Module Functions:

- 1. Produces high voltage for spark.
- 2. Senses the flame.
- 3. Provides 24V to gas valve.





Use	All
Spark Outputs	Single
Fused	No
Lockout	0.15
Optimal UA output	0.4- 0.8

4. Provides the Alarm Circuit (24V) to the computer.5. Fuse protection for 24V circuit in older units and in CE models.

