

# **Service Bulletin**

800-551-8633 318-865-1711 WWW.FRYMASTER.COM

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This bulletin addresses float switch grip-clips, float inspections and troubleshooting.

Subject: Float Switch Clip, Float Inspections & Troubleshooting

Models: FQG60T, FQG80T, FQG100T & FQG120T

**Touch Screen Fryers** 

7/2/2025

During startup and/or service calls of FQG60T, FQG80T, FQG100T and FQG120T fryers, perform a quick visual inspection of the float switch.

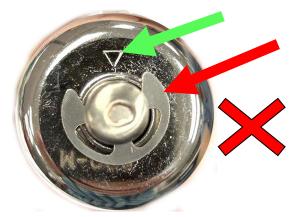
- If the float switch has a HEAVY-DUTY GRIP RING supplied by the manufacturer on TOP OF THE FLOAT AND a HEAVY-DUTY GRIP RING BELOW THE FLOAT (see Figure 1), the float is good stock and DOES NOT NEED TO BE REPLACED.
- 2. If the float switch has an INDENTED TRIANGLE ON THE TOP OF THE FLOAT (see Figure 2), it MUST have a GRIP RING ONLY on the TOP OF THE FLOAT. If it has an E-clip on TOP OF THE FLOAT (see Figure 3), the E-clip MUST BE REPLACED with a GRIP RING.



**Figure 1** Heavy Duty Grip Ring on **Top & Bottom**.



**Figure 2** Float switch showing **Indented Triangle & Grip Ring** on **Top**.



**Figure 3** Float switch showing Eclip.

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If the float DOES NOT HAVE A TRIANGLE on the TOP OF THE FLOAT (see Figure
 AND it has an E-clip BENEATH THE FLOAT (see Figure 5), IT MUST BE REPLACED with kit PN 8262541!



**Figure 4** Float switch with **NO** triangle on top.

Float switches **WITH** the **INDENTED TRIANGLE** that <u>need</u> grip rings, should order kit 8263865, which contains 7 (seven) grip rings. **GOOD** external Snap Ring pliers **will be required** to install the grip rings.

When replacing float switches with kit PN 8262541, ensure that only float switches WITH BLACK LEADS ONLY (see Figure 6) are used as replacements.

FAS's should order replacement kits first. Once they receive the new kits, they should return any 8262541 kits with **RED** leads (see Figure 7).

Standard snap rings **SHOULD NOT** be used (see snap ring on the left in Figure 8). They will not hold and will come loose.

**ONLY HEAVY-DUTY GRIP RINGS** from the manufacturer (see grip-ring on right in Figure 8) should be used.

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**Figure 5** Float switch with E-Clip beneath the float that **DOES NOT** have a triangle on the top.

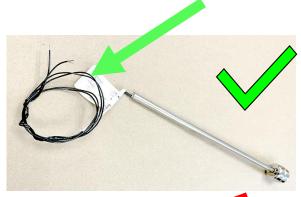


Figure 6
Figure 7





Figure 8



All float switches (ones that have been removed and any unused switches with red leads) should be returned to:

Frymaster Attention: Jeff Jones 8700 Line Avenue Shreveport, LA 71106 318-865-1711

If you have any questions, please call 800-551-8633.

If float switch issues exist with good float switches shown in Figures 1 and 2, use the troubleshooting below.

## **Troubleshooting Low Oil Level / Possible Float Switch Issues**

- 1. Look at the error logs -

  - b. If there are E56 (Float Switch stuck up) or E65 (Float Switch not made) these are float switch errors.
  - c. If you have these errors, ensure that it doesn't have an incorrect float switch as seen in Figures 4 & 5. It should match one of the float switches approved with green checks seen in Figures 1 & 2. If the incorrect float is installed, replace the float switch.
  - d. If these errors occur on the vat, ensure the float is free of debris and that it moves freely up and down. Moving the float switch up and down while spinning the float should loosen the float.
  - e. If these errors are not present and there are intermittent low oil level alarms, the issue may be that the AIF and Temp probes may be inaccurate. See section 3 on page 5.

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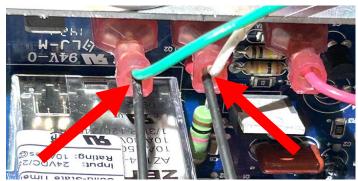


- 2. Troubleshoot the Time Delay Relay Board
  - a. With the float switch in the **UP** position:
    - i. Test across pins 1 (Red) & 8(Black) (see Figures 8, 10 & 11).24VDC should be present with the switch activated.
    - ii. Test <u>across pins</u> 6 (green) & 7 (white) or 2 & 3, depending which pins have green and white attached (see Figures 9, 10 & 11). The voltage should be near OVDC when activated. If

the voltage is above 0.3VDC with power on and contacts closed, the time delay relay must be replaced.



Figure 8



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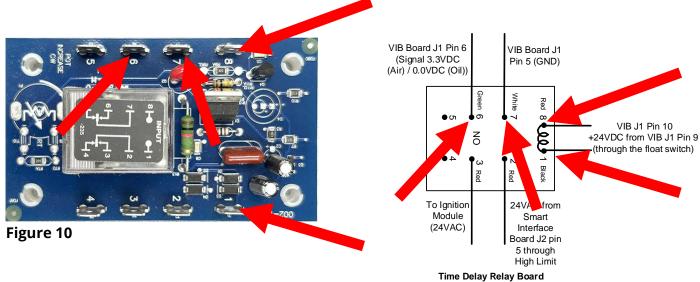
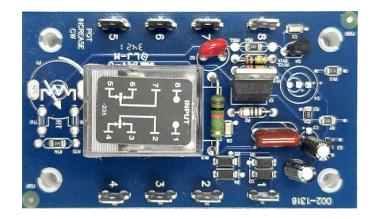


Figure 11



DPDT 3.5 sec.



- 3. If there are intermittent low oil level messages and no errors in the error log and the fryer won't filter.
  - a. Ensure the AIF and ATO probe cavities are clean and free of debris around the probes (see Figure 11).
  - b. On the affected vat, press  $\bigcirc$  ?  $\rightarrow$   $\bigcirc$



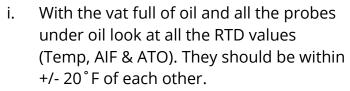




Figure 11

- ii. If the actual temp probe or the AIF probe **DOES NOT** read within +/- 20°F, there is an issue in the probe circuit.
- iii. Check to ensure that the probes are fully seated into the connectors.
- iv. Back out of RTD readings screen, then go back up to step b and take another reading of the RTD's to see if within range.
- v. If the readings are still not within +/- 20°F, disconnect the probes and take a resistance reading of the probes and compare with the chart below. The resistance value should be within +/- 20 ohms of the value shown in the chart below.
- vi. If the probe checks good, the issue could be a VIB or SIB board issue.

#### **Probe Resistance Chart**

100	. 1103136	411CC \	<u> </u>	11.6														
	Probe Resistance Chart																	
	For use with FQG80T/100T/120T fryers manufactured with Minco RTD probes only.																	
F	OHMS	С		F	OHMS	С		F	OHMS	С		F	OHMS	С		F	OHMS	С
60	1059	16		130	1204	54		200	1350	93		270	1493	132		340	1634	171
65	1070	18		135	1216	57		205	1361	96		275	1503	135		345	1644	174
70	1080	21		140	1226	60		210	1371	99		280	1514	138		350	1654	177
75	1091	24		145	1237	63		215	1381	102		285	1524	141		355	1664	179
80	1101	27		150	1247	66		220	1391	104		290	1534	143		360	1674	182
85	1112	29		155	1258	68		225	1402	107		295	1544	146		365	1684	185
90	1122	32		160	1268	71		230	1412	110		300	1554	149		370	1694	188
95	1133	35		165	1278	74		235	1422	113		305	1564	152		375	1704	191
100	1143	38		170	1289	77		240	1432	116		310	1574	154		380	1714	193
105	1154	41		175	1299	79		245	1442	118		315	1584	157		385	1724	196



110	1164	43	180	0	1309	82	250	1453	121	320	1594	160	390	1734	199
115	1174	46	18	5	1320	85	255	1463	124	325	1604	163	395	1744	202
120	1185	49	190	0	1330	88	260	1473	127	330	1614	166	400	1754	204
125	1195	52	19	5	1340	91	265	1483	129	335	1624	168	405	1764	207

