

Instruction Sheet

Follow these instructions to install the Bulk Oil Kits (Fresh and Waste).

1. Disconnect power and gas from the fryer.
2. Remove the fryer from the hood to gain access to the rear of the fryer.
3. Remove the filter pan (see Figure 1).
4. Remove the filter pan lid by lifting the collar up around the drain tube, while pulling the filter pan lid forward (see Figure 2).
5. Remove the lower back by removing the eight (8) screws (see Figure 3). If a four (4) battery or larger, remove both lower backs.



Figure 1



Figure 2



Figure 3

**Subject: 8263506 Gas Fresh/Waste Bulk Oil Kit
Installation Instructions (3-5 Vat Systems)
Models affected: FilterQuick FQG30 Gas Fryers**

In This Kit		
Part #	Description	Qty
KIT17215	PLUMBING (1082796-1082196)	1
KIT17216	ATO ASSY (1085702-1085701) 2 Vat only	1
KIT17221	ATO ASSY (1085703-1085704) 3-5 Vat only	1
KIT17217	HARNESS (8074843-8074671)	1
KIT17219	FLT PUMP (1085816-1087385) 2 Vat only	
KIT17220	FLT PUMP (1085817-1087386) 3-5 Vat only	
1087394	PLUMBING ASSY, GL230 2 Vat only	1
1085907	PLUMBING FQ GAS BULK 3-5 Vat only	1
1082202	FILL ASSY, GL30 RTI	1
1084202	CONNECTION, GL30 RTI DISPOSE	1
1085784	BULK OIL DISPOSE, FLTQCK GAS	1
8238117	HANDLE, GAS BULK OIL 2 Vat only	1
1083387	LOCK, OCF GAS BULK 2 Vat only	
1080686	HANDLE/LOCK ASSY GAS 3-5 Vat only	1
8022660	LABEL, LOV RTI WASTE HANDLE	1
8242325	BRIDGE WELD, PUMP MOTOR 2 Vat only	1
8022608	TAG, FILL RTI	1
8022609	TAG, DISPOSE RTI	1
1087410	SOLENOID ASSY, BULK OIL SVC KIT	1
8122519	HARNESS, MIB TO RTI SVC KIT	1
8090256	NUT, KEPS 10-32 HX ZP	4
8091070	BOLT, 1/4-20 X 5/8 SQ CONE LOCK	6
8090417	NUT, FLNG 1/4-20 SERR	8
8090412	SCRW, #10-1/2 HX WSHR HD N	6
8090194	WSHR, FLT 5/16 SAE ZP	5
8238991	WRENCH W/A, 1-1/16" CRWS F	1
8140015	TY WRAP	8
8160870	CLAMP, .870/.732 SNAP GRIP HOSE	1
8197535	INSTRUCTIONS	1

6. Disconnect all connectors, on the front of the transformer box (or the left box on 3 battery or larger fryers, as viewed from the rear) (see Figure 4).

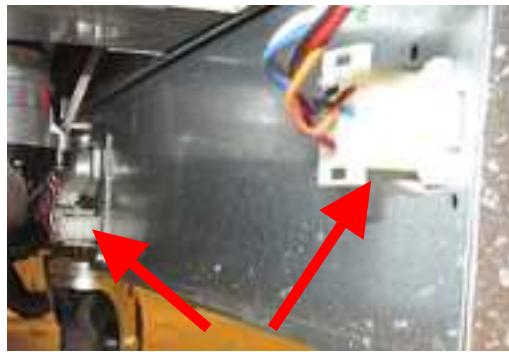


Figure 4

7. Using a 7/16" inch wrench, remove the nuts securing the transformer box (see Figure 5).



Figure 5

8. Lower and set aside (see Figure 6).



Figure 6

9. Locate the inlet plumbing on the left side of the ATO pump, as viewed from the rear of the fryer. Using a 3/8" nut driver, remove the two (2) nuts attaching the inlet hose bracket (see Figure 7).

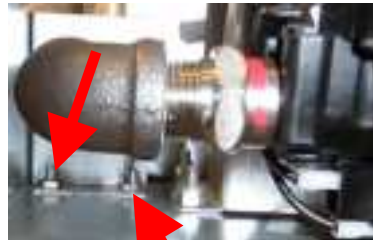


Figure 7

10. Remove the two (2) nuts on the outside left of the ATO tray, as viewed from the rear (see Figure 8).

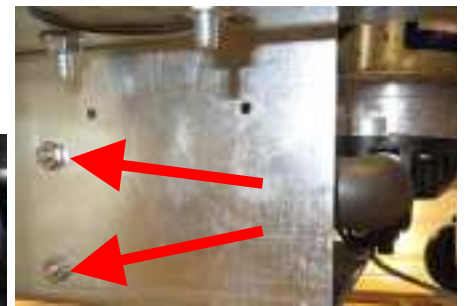


Figure 8



Figure 9



Figure 10

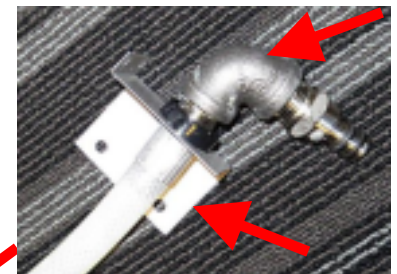


Figure 11

11. On the inlet side of the ATO pump, push down on the quick disconnect lock clip to unlock the fitting (see Figures 9 and 10).

12. Remove the ATO inlet assembly from the ATO pump. Remove the elbow with the quick disconnect fitting and the bracket from the hose. Save the hose with the cap and suction foot for use later (see Figure 11).



Figure 12



Figure 13

13. Disconnect the flex line, that runs between the ATO pump and oil manifold, at the check valve (see Figure 12).

14. Remove the check valve with fitting (see Figure 13). Set aside, as they will be used later.



Figure 14

15. Remove the elbow and check valve nipple. It may require removing the adjacent flexline, to remove elbow (see Figure 14).

16. It may be necessary to disconnect the filter pan switch and move any additional wires out of the way, to allow additional room to work.

17. On the outlet side of the ATO pump, push down on the quick disconnect lock clip, to unlock the fitting and remove the flexline assembly (see Figures 15 and 16).

18. Apply Loctite to the threads of the JIB hose and attach the JIB hose from step 12 to the 1085789 assembly (see Figure 17).

19. Insert the assembly from the previous step through the bottom of the ATO pump tray, ensuring the flexlines and JIB hose are inserted first (see Figure 18).

20. Route the JIB hose over the (ATO) box towards the front of the fryer (see Figure 19).

21. Once in place, insert the four (4) studs through the four (4) holes in the plate and attach with supplied nuts (see Figures 20 and 21).

22. Attach inlet assembly flexline (1083391) to the reducing tee, behind the top off pump (see Figure 22) and tighten. Refer to fill assembly plumbing on page 13 for the next several steps.

23. Route the flexline behind the top off pump and around the side. Insert the quick disconnect into the inlet side of the top off pump. Ensure the lock clip is pushed up and fitting is secure (see Figure 23 and 24).

24. Attach the 8101668 adaptor and check valve nipple removed in step 15, as well as the 8130003 "T", to the adaptor left attached to the oil manifold (see Figures 25 and 26).



Figure 15



Figure 16



Figure 17



Figure 18



Figure 19

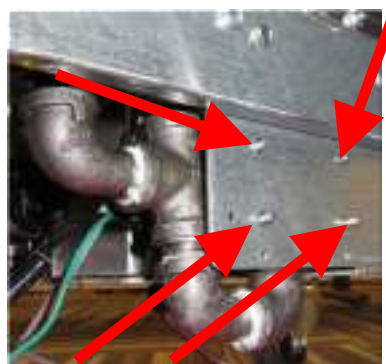


Figure 20



Figure 21



Figure 22



Figure 23



Figure 24



Figure 25

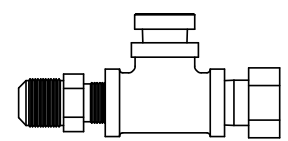


Figure 26

25. Attach flexline 8101057 to flexline adaptor in Figure 26 and the other end to the assembly below it (see Figure 27).

26. Attach the check valve and fitting removed in step 14 to the top of the assembly in Figure 26 (see Figure 28).

27. Reinsert fitting attached to flexline, removed in step 17, into the ATO pump (see Figure 29).

28. Once the quick disconnect fitting is fully engaged, push the lock up (see Figure 30).

29. Attach other end of flexline to the top of the fitting in Figure 28 (see Figure 31).

30. Position the fresh oil fill assembly 1085785 on the left side of the fryer, as viewed from the rear between the oil manifold and the gas manifold. Route the flexline around the ATO pump and attach to the assembly shown in Figure 33 to plumbing assembly, to the right of the ATO pump (see Figure 32).

31. Align the fresh oil fill assembly to the pre-drilled holes and attach using $\frac{1}{4}$ "-20 bolts (see Figure 34).

32. Use zip ties to attach the (FILL) tag to the fresh oil port on the left side of the fryer, as viewed from the rear (see Figure 35).

33. Use a long extension to loosen and remove the three (3) screws securing the wire connection shield on the rear of the ATO box (see Figure 36).

34. Carefully position the cover to rest on the top of the ATO box to expose the ATO connections (see Figure 37).



Figure 27



Figure 28



Figure 29



Figure 30



Figure 31



Figure 32



Figure 33



Figure 34



Figure 36



Figure 35



Figure 37

35. Locate the 16-pin connector on the rear of the ATO box and the two (2) wire harness (8122520). Insert the red wire into pin-1 and the black wire into pin-9 with the tabs up as shown (see Figure 38).

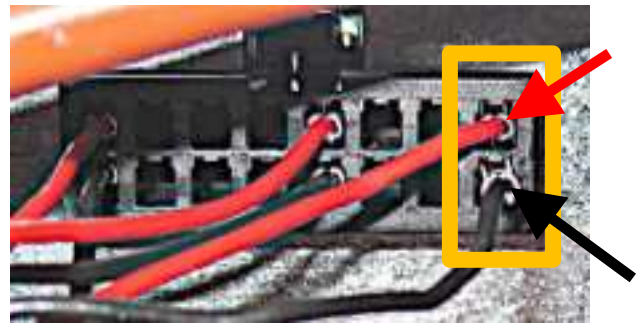


Figure 38

36. Attach the other end of the harness in step 35 with the white 2-pin Molex connector to the bulk fresh solenoid connector (see Figure 39).

37. Attach the green ground wire from the solenoid to the underside of the assembly (see Figure 40).



Figure 39

38. Reattach the ATO wire shield cover removed in step 33 (see Figure 41).



Figure 40



Figure 41

39. Use zip ties to secure flexlines and harnesses out of the way.

40. Disconnect the flexline from the manifold connecting the oil manifold to the filter pump (see Figure 42).



Figure 42

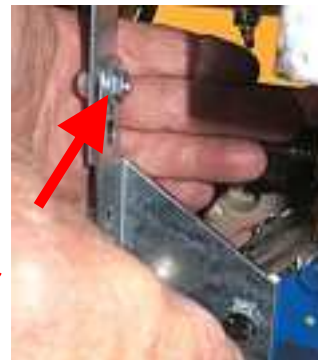


Figure 43

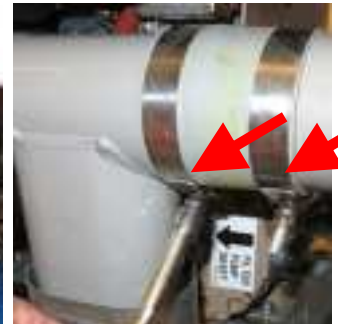


Figure 44

41. Use a 7/16" wrench to remove the nut and bolt from the filter pump shipping bracket (see Figure 43).

42. Use a 7/16" nut driver to loosen the two clamps securing the drain to the drain dump tube (see Figure 44).



Figure 45

43. Slide both clamps, to the right of the sleeve, out of the way (see Figure 45).

44. Remove the acorn nut attaching the drain clamp to the drain dump tube (see Figure 46).



Figure 46

45. Use a screwdriver to loosen the drain sleeve (see Figure 47).



Figure 47

46. Carefully remove the drain dump from the drain manifold and set aside (see Figure 48).



Figure 48

47. Use a 7/16" wrench to remove the two (2) nuts securing the female pick-up tube bracket (see Figure 49).



Figure 49

48. Lower the pick-up tube assembly down out of the way (see Figure 50).



Figure 50

49. Remove the two (2) screws attaching the electrical cover plate to the filter pump motor (see Figure 51).



Figure 51

50. Disconnect the ground (green), neutral (white) and hot (black) wires from the motor (see Figure 52).

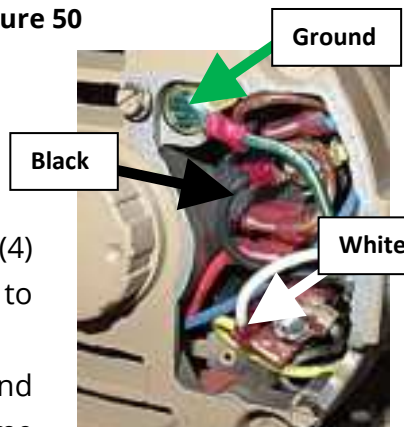


Figure 52

51. Use a screwdriver or pliers to remove the conduit nut and disconnect the conduit from the motor (see Figure 53).



Figure 53

52. Use a 5/16" socket to remove the four (4) screws attaching the pump motor bridge to the frame (see Figure 54).



Figure 54

53. Carefully lift the filter pump assembly and slide towards the left, to lower it off the frame and remove from the fryer.

54. Use a 1/2" wrench to remove the two (2) bolts securing the filter pump bracket to the filter pump (see Figure 55). Discard the bracket.



Figure 55

55. Reinsert the two (2) bolts into the filter pump and adding two (2) 8090104 washers to each bolt before tightening. Torque to 15 foot lbs. Do **NOT** overtighten (see Figure 56).



Figure 56

56. Remove the flexline disconnected from the manifold in step 40 (see Figure 57) and set aside.

57. Remove the flexline adaptor and check valve from the filter pump (see Figure 58).

58. Remove the check valve fittings and the 90° elbow from the filter pump (see Figures 59 and 60). It may be necessary to loosen all four (4) filter pump bolts, to ease removal of the elbow and check valve fittings. When finished, retighten the bolts. Torque to 15 foot lbs., but do **NOT** overtighten.



Figure 57



Figure 58



Figure 59



Figure 60



Figure 61

59. Apply Locktite and insert 1½" nipple (8130087) into the 90° elbow with outlet (8130331). Orient and tighten as shown (see Figure 61).

60. Apply Locktite to both ends of the 2" nipple (8130298). Insert the nipple into the top of the 90° elbow with outlet, attached to the pump, in the previous step (see Figure 62).

61. Attach the 90° elbow (8130062) to the top of the nipple in the previous step. Orient and tighten as shown (see Figure 63).

62. Attach flexline adaptor (8101668) to elbow in previous step and orient as shown (see Figure 63).

63. Attach the 2 check valve fittings, check valve, and flexline adaptor, removed in steps 57 and 58, to the bottom opening of the elbow as shown (see Figure 64).

64. Reattach the flexline disconnected in step 56 (see Figure 65).



Figure 62



Figure 63



Figure 64



Figure 65

65. Locate the 1085907 Bulk Oil plumbing assembly. Facing the switch connectors, attach the harness (8122519) to the Bulk Oil Plumbing assembly. Beginning with the switch on the left, attach the red wire to the farthest left connector; next attach the green wire, to the connector directly to the right of the red. On the right switch, attach the black wire to the farthest right connector; attach the white wire to the connector left of the black wire (see Figure 66).

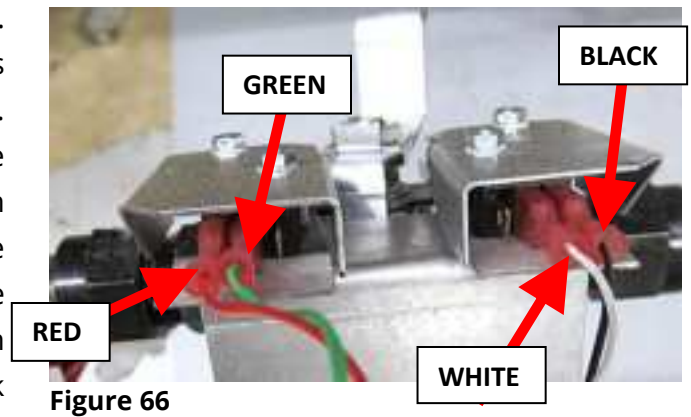


Figure 66

66. With the dispose valve handle oriented away from the filter pump, attach the bulk oil plumbing assembly onto the filter pump bridge. Ensure the flexline, from the female pick up tube assembly to the filter pump, is beneath the bracket of the the dispose switch plumbing assembly.



Figure 67



Figure 68

67. Use a 7/16" wrench to attach the switch assembly, to the four studs on the filter pump mounting plate using 4 – ¼"-20 nuts (see Figure 67).

68. Attach the dispose handle assembly (1080686) to the dispose switch valve assembly using a clevis clip (see Figures 68 and 69).



Figure 69

69. Using Figure 70 below as a guide, route the flexline #1 around the switch assembly and up over flexline #2 and attach to the outlet of the filter pump (see Figure 71).

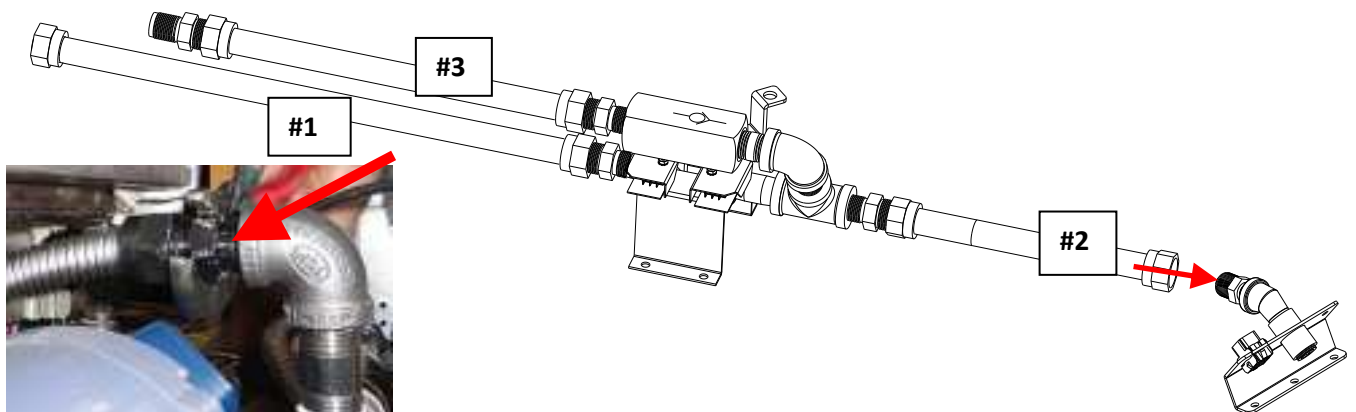


Figure 70



Figure 71

70. Reinsert the entire dispose/filter pump assembly back into the fryer (see Figure 72).
71. Reverse steps 49-52 to reattach the filter pump motor bridge to the frame and reattach the motor electrical connections.
72. Reverse steps 47-48 to reattach the female pickup assembly.
73. Remove far right nut and bolt, as viewed from the rear of the fryer, attaching the return oil manifold to the frame (see Figure 73).
74. Using a prybar, gently lift the oil manifold up slightly to allow the oil dispose assembly 1085784 to slide in between the gas and oil manifolds (see Figure 74).
75. Attach the flexline #2 from the dispose switch assembly in Figure 32, to the dispose outlet assembly (see Figure 75).
76. Position over the pre-drilled holes (see Figure 76).
77. Attach the dispose outlet assembly using ¼"-20 self tapping bolts (see Figure 77).
78. Attach the 1085398 9-pin male connector pigtail to the 9-pin female connector (see Figure 78).
79. Using zip ties, attach the (DISPOSE) tag to the waste oil connection assembly (see Figure 79).
80. Disconnect the 9-pin connector C4 from the right front of the transformer box, as viewed from the front of the fryer, beneath the waste oil connection assembly attached in step 77.



Figure 72



Figure 73



Figure 74



Figure 75

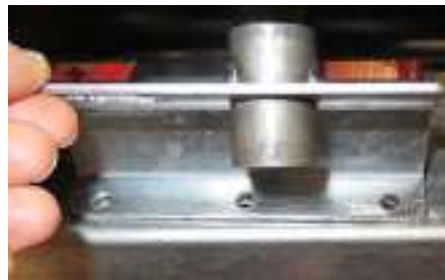


Figure 76



Figure 77

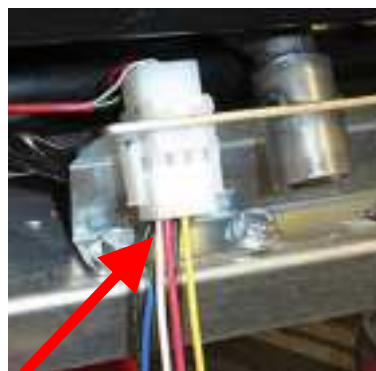


Figure 78



Figure 79

81. Locate the individual red and black wires from the harness attached to the dispose outlet assembly in step 77 (see Figure 80).

82. Insert the red wire into pin 4 and the black wire into pin 7 of the C4 connector, unplugged in step 80 (see Figure 81).

83. Reattach the connector to the transformer box, disconnected in step 80.



Figure 80

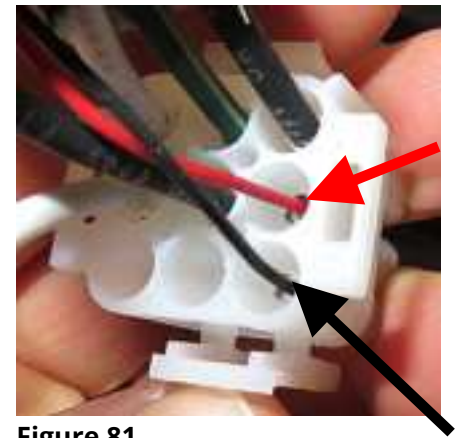


Figure 81

84. Route the 8-pin male connector harness, from the dispose outlet assembly, attached in step 77, under the gas manifold and along the fryer side, to the MIB board on the front of the fryer (see Figure 82).



Figure 82

85. Loosen the two (2) Phillips screws above the MIB board (see Figure 83).



Figure 83

86. Pivot the MIB board down and attach the 8-pin male connector from step 84, to the 8-pin female connector on the rear of the MIB board (see Figure 84).



Figure 84

87. Route the 4-wire harness from the dispose switch assembly, attached in step 65, to the rear of the MIB board.

88. Locate the 16-pin connector on the rear of the MIB board. Insert the red wire into the far right rear position (pin 8) (see Figure 85). Ensure the two tabs fit properly into notches in connector.



Figure 85

89. Insert the green wire into the far right front position (pin 16) in front of the red wire inserted in step 88. (see Figure 86).



Figure 86

90. Insert the black wire into the position (pin 7) directly to the left of the red wire inserted in step 88) (see Figure 87).



Figure 87

91. Insert the white wire into the position (pin 15) directly in front of the black wire inserted in step 90 (see Figure 88).

92. Gently tug on all wires to ensure they are locked into the connector (see Figure 89).

93. Reverse steps 85-86 to pivot the MIB board back into place and secure.

94. Use zip ties to secure harnesses out of the way ensuring none are attached to return manifold.

95. Remove the plug from the rear of the drain dump tube (see Figure 90).

96. Insert the flexline adaptor 8101068 into the rear port of drain tube and tighten (see Figure 91).

97. Remove the oil drain sleeve from drain dump, removed in step 46. Apply cooking oil to the inside of the sleeve to ease reassembly (see Figure 92).

98. Slide the sleeve on the drain manifold (see Figure 93).

99. Attach the #3 flexline from the check valve on the dispose assembly (see Figure 70), to the flexline connector, attached to the drain tube in step 96 (see Figure 94).

100. Reverse steps 42-46 to reattach the drain dump.

101. Reattach the female pickup tube bracket removed in step 47.

102. Reattach the flexline from the filter pump to the rear manifold removed in step 40.

103. Attach the dispose valve handle bracket to the frame (see Figure 95).

104. Use the wiring diagram on the back page for reference when attaching any wiring from an external bulk system. Connect the wiring to the pig-tail harness next to the DISPOSE connector, on the rear of the fryer (see Figure 78).

105. Reverse steps 1-8 to return the fryer to operation.

106. Once fryer has fully powered up, wait one (1) additional minute with the controller OFF before proceeding to next step.



Figure 88

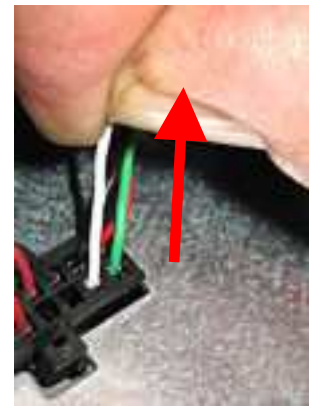


Figure 89



Figure 90



Figure 91



Figure 92



Figure 93



Figure 94



Figure 95

107. Press and hold the ✓ CHECK button until the controller scrolls INFO MODE, changing to MAIN MENU and then PRODUCT SETUP.
108. With PRODUCT SETUP displayed, press the ► (right arrow) button to scroll to VAT SETUP and press the ✓ CHECK button.
109. ENTER CODE is displayed. Enter 1656.
110. SYSTEM is displayed. Press the ✓ CHECK button.
111. LANGUAGE is displayed. Press the ► (right arrow) button ten (10) times to scroll to FRESH OIL.
112. With JIB displays, press the ▼ (down arrow) button to scroll to BULK.
113. Press the ► (right arrow) button to scroll to WASTE.
114. With SDU displayed press the ▼ (down arrow) button to scroll to BULK.
115. Press the ► (right arrow) button to RECOVERY ALARM.
116. Press the EXIT/SCAN button to exit.

117. **It is imperative that the fryer system be completely power cycled after changing the setup from SDU to BULK to operate correctly.**

118. Completely power cycle the fryer using the hidden reset momentary rocker switch (see Figure 97) under the left control box in gas (see Figure 96) or behind the right control box over the JIB in electric (see Figure 98). **HOLD THE SWITCH FOR 60 SECONDS, ENSURING THE MIB BOARD HAS POWERED FULLY DOWN.**



Figure 96



Figure 97

119. Once the fryer is rebooted allow about 30 seconds for the fryer to fully cycle the MIB board.
120. Press and **HOLD** the **ORANGE** JIB reset button to fill the container with fresh oil until the container is full. Once full release the button (see Figures 99 and 100). **NOTE:** It may take approximately twelve (12) seconds from the time the top off reset button is pressed, until the bulk fresh oil pump starts. It may take up to twenty (20) seconds before the level of the oil in the top off reservoir begins to rise. Typically, it may take approximately three minutes to fill the reservoir. It may take approximately one (1) minute to fill a split vat and two (2) minutes to fill a full vat.



Figure 98



Figure 99



Figure 100

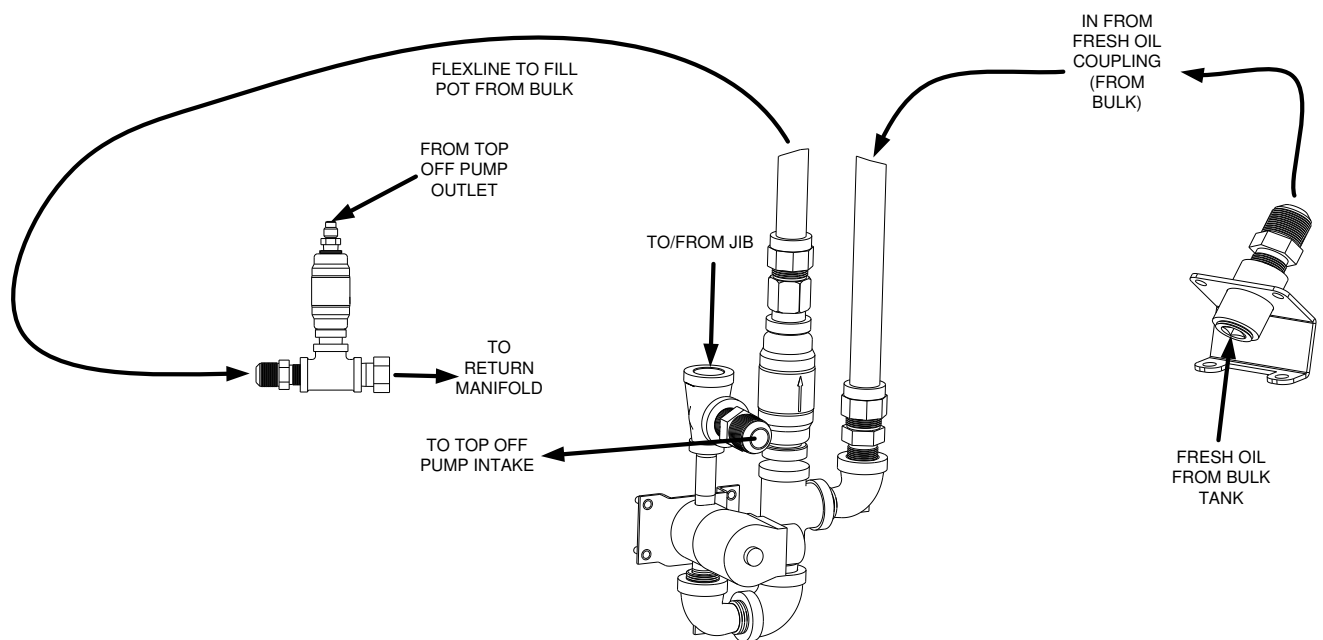
121. With the controller OFF, test the dispose function by pressing and holding the FILTER button until FILTER MENU is displayed for three (3) seconds changing to FILL VAT FROM PAN.
122. Press the ► (right arrow) button to DISPOSE.
123. Press the ✓ CHECK button.
124. DISPOSE NOW? YES NO is displayed. Press the ▲ (up arrow) YES button.
125. START DISPOSE is displayed. Press the button with blinking **BLUE** LED.

- 126.DRAINING is displayed followed by VAT EMPTY AND CLEAN? CONFIRM. Press the ▲ (up arrow) button to confirm.
- 127.OPEN DISPOSE VALVE is displayed.
- 128.Open the dispose valve by pulling the handle towards the front of the fryer (see Figure 100).
- 129.Ensure that the filter pump starts and begins pumping oil out of the filter pan. If so, immediately push dispose handle towards the rear of the fryer to stop the pump.
- 130.REMOVE FILTER PAN is displayed. Pull the filter pan out.
- 131.IS FILTER PAN EMPTY? YES NO. Press the ▲ (up arrow) button.
- 132.INSERT FILTER PAN is displayed.
- 133.FILL VAT? CONFIRM is displayed. Press the ▲ (up arrow) button.
- 134.The controller goes to OFF.
- 135.With the controller OFF, test the dispose function by pressing and holding the FILTER button until FILTER MENU is displayed for three (3) seconds changing to FILL VAT FROM PAN.
- 136.Press the ✓ CHECK button.
- 137.FILL VAT FROM PAN? YES NO is displayed. Press the ▲ (up arrow) YES button.
- 138.FILLING is displayed.
- 139.IS THE VAT FULL? YES NO is displayed. If the vat is full, press the ▲ (up arrow) YES button.
- 140.The controller displays OFF.



Figure 100

Fresh Oil Assembly Plumbing



BULK OIL LOV WIRING

TESTING BETWEEN PINS 1 & 4
9-PIN FEMALE PLUG SHOULD READ:
24VAC WHEN BULK TANK IS FULL
0 VAC WHEN BULK TANK IS EMPTY

