

# Instruction Sheet

**Subject: 8263381 and 8263382 LOV Electric Bulk Oil Kit Instructions**

**Models affected: McDonald's LOV Electric Fryers**

Follow these instructions to install bulk oil kits on LOV electric fryers. These kits **CANNOT** be installed on 17kW fryer and/or fryers with solid shortening kits installed.

**Required tools: 15/16" wrench, 1-1/16" wrench, combination wrench, 2-water pump pliers, 3/8" ratchet, 9/16" wrench, standard socket set.**

1. Remove power from the unit.
2. Relocate the fryer to gain access to the rear of the fryer.
3. Remove JIB/BIB pick up tube from JIB/BIB.



**Figure 1**

4. Clean off the JIB/BIB tubing and suction assembly.
5. Carefully reposition the JIB/BIB suction hose over the ATO box to the rear of the fryer (see Figure 1).



**Figure 2**

6. Carefully remove the JIB/BIB suction hose and 1/2" to 3/8" reducer from the assembly and set aside (see Figure 2).



**Figure 3**

7. Remove the plug from rear of the assembly using a 3/8 socket (see Figure 3).
8. Using pliers and Loctite attach the 8130165- 1/2" street elbow to the assembly where plug was removed in previous step (see Figure 4).
9. Attach the 1/2" x 1/4" reducer removed in step 6 to the elbow with Loctite (see Figure 5).

In This Kit		
Part #	Description	Qty
1087391	PLUMBING, RTI ELEC LOV SVC	1
1087392	CHECK VALVE ASSY, RTI SVC	1
8101069	FLEXLINE, 5/8" X 29.50" LONG (only in kit 8263382)	1
8090412	SCRW,#10-1/2 HX WSHR HD NP	6
1080466	HANDLE, LOV RTI WASTE PULL	1
8051734	DIAGRAM, WIRING LOV ELEC.	1
8130022	NPPL,1/2XCLOSE NPT BM	1
8130062	ELBOW,1/2 90DEG BM	1
8101668	ADAPTER, MALE 5/8"O.D. X 1/2"	2
8130165	EL, ST 1/2NPT 90DEG BM	1
8130304	Bushing 1/2" x 1/4"	1
8158000	LOCTITE 567, TUBE 6ML	6
1087413	HARNESS, ATO TO SOLENOID SVC	1
8130298	NPPL, 1/2NPT X 2.00 BM	1
8130003	TEE, 1/2NPT BM	1
8238991	WRENCH W/A, 1-1/16" CRWS FT	1
8160571	TY WRAP, 11" NATURAL	12
8262141	KIT, 4 TY WRAP HIGH TEMP.	1
8263399	KIT, PIN EXTRACTOR	1
8160772	SLEEVE, CONNECTR W/RNFRCMNT DRN	2
8074660	WIRE, SMT SRVC PIG-TAIL 10EA	1
8197408	INSTR, ELEC LOV BULK OIL KIT	1
8101057	FLEXLINE, 5/8" X 13.00" LONG (only in kit 8263381)	1
8122519	HARNESS, MIB TO RTI	1
8122520	HARNESS, ATO TO SOLENOID	1
1087410	SOLENOID ASSY, BULK OIL SVC KIT	1



**Figure 4**



**Figure 5**



10. Reattach JIB/BIB suction hose assembly removed in step 6 to reducer/elbow using loctite (see Figure 6).
11. Attach the 8130062 - 90° elbow and 8130022 - 1/2" nipple to the assembly with Loctite (see Figure 7). Tighten so that the elbow is oriented at a 45° angle as shown (see Figure 8).



Figure 6



Figure 7



Figure 8

12. Attach flexline adaptor 8101668 with Loctite to the assembly (see Figure 9).
13. Attach the long flexline to the adaptor installed in the previous step (see Figure 10).



Figure 9



Figure 10



Figure 11

14. Route the flexline behind ATO flexline/check valve and behind the fryer support as shown. Allow it to rest on filter pump motor bracket (see Figure 11).
15. Remove the lower back of the fryer (see Figure 12).
16. Remove the filter pan and filter pan lid (see Figure 13).



Figure 12



Figure 13



Figure 14

17. It may be necessary to remove the drain downspout, by loosening the brackets on the drain sleeves, to remove the plug on the rear of the downspout (see Figure 14). Use a 7/16" deep socket with a long extension to loosen the nuts.



Figure 15



Figure 16



Figure 17

18. Remove the plug from the port on the drain spout and attach the check valve assembly 1087392 to the drain spout as shown using Loctite (see Figure 15).



Figure 18



Figure 19

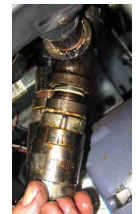


Figure 20

20. Detach the flexline attached to the check valve (see Figure 17).
21. Remove the check valve assembly from the oil return manifold by twisting off the elbow from the nipple on the oil return manifold (see Figure 16).



Figure 21

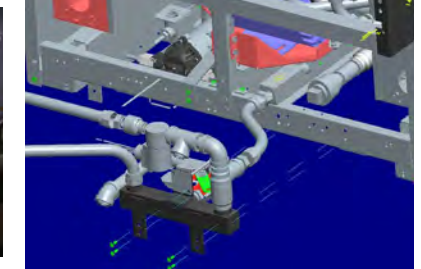


Figure 22

22. Remove the elbow from the assembly and set the check valve assembly aside.
23. Attach the 5/8" flex line adaptor to the 8130003 - "T" and attach to the nipple attached to the oil return manifold as shown with Loctite (see Figure 18). Orient the "T" so that the 5/8" flex line adaptor is oriented about 45° towards the right (see Figure 19).
24. Attach the check valve from step 22 to the bottom side of the "T" (see Figures 19 and 20).
25. Reattach flexline from ATO pump removed in step 20 to the bottom of the check valve (see Figure 21).
26. Position the bulk oil manifold as shown at the rear of the fryer (see Figure 22) to the right of the filter pump motor as viewed from the rear.
27. Attach the manifold to the rear support (see Figure 23) with 4 cabinet screws using



Figure 23



Figure 24

existing holes.

28. Secure green ground wire from solenoid to rear rail (see Figure 24).

29. Attach 5/8" flexline from bulk oil manifold to the adaptor connected to the "T" in step 23 (see Figures 25 and 26).

30. Connect flexline from step 13 to adaptor connected to bulk oil solenoid (see Figure 27).



Figure 27

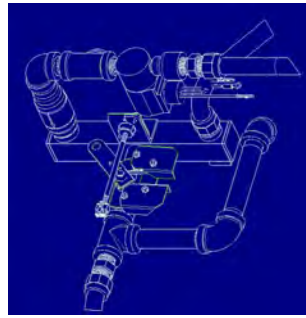


Figure 25



Figure 26

31. Connect flexline coming to front of fryer to the check valve on the rear of the drain downspout (see Figures 28 and 29).



Figure 28



Figure 29

32. Reattach drain to sleeves using the brackets removed in step 17 (see Figures 30 and 31).



Figure 30

33. Route new harnesses from bulk oil manifold into chase, under the contactor box and to front of fryer.



Figure 31



Figure 32



Figure 33

34. Attach dispose valve handle bracket to front rail using existing holes (see Figure 32).

35. With the key in the unlocked position, insert the dispose valve handle into the bracket and slide towards the rear of the fryer (see Figure 33).

36. Holding the clevis clip over the handle in the rear as shown, slide the dispose handle into the handle and clevis clip (see Figure 34).

37. Clip the clevis clip over the dispose handle rod (see Figure 35).



Figure 34



Figure 35

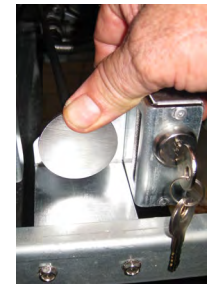


Figure 36

38. Ensure the dispose handle is pushed all the way in and locked into position (see Figures 36 and 37).

39. Lower the MIB board using a Torx 25 and a nut driver. Route the 4 wires from the new harness from the bulk oil switches in step 33 and the other harness up to the MIB board.

40. 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 38). Ensure the two tabs fit properly into notches in connector.



Figure 37

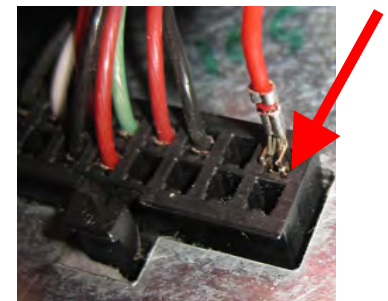


Figure 38

41. Insert the green wire into the far right front position (pin 16) in front of the red wire (see Figure 39).

42. Insert the black wire into the position directly to the left of the red wire inserted in step 40 (pin 7) (see Figure 40)

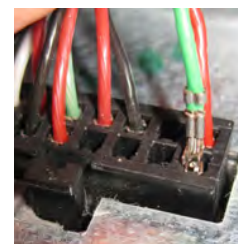


Figure 39

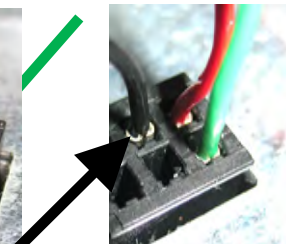


Figure 40

- 43. Insert the white wire into the position directly in front of the black wire inserted in step 42 (pin 15) (see Figure 41).
- 44. Gently tug on all wires to ensure they locked into the connector (see Figure 42).
- 45. Plug the 8-pin male connector from the rear Hirschman connector to the 8-pin female connector on the rear of the MIB board (see Figure 43).



Figure 41

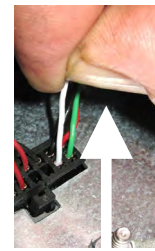


Figure 42



Figure 43

- 46. Reattach the MIB board and secure the cover over the MIB board (see Figures 44 and 45).



Figure 44



Figure 45



Figure 46

- 47. Reinsert filter pan lid and ensure drain spout is properly connected to lid board (see Figure 46).

- 48. Reinsert the filter pan (see Figure 47) ensuring it is fully inserted into the fryer.



Figure 47



Figure 48



Figure 49

- 49. Using a long extension, loosen and remove the two screws securing the wire connection shield on the rear of the ATO box (see Figure 48).

- 50. Carefully position the cover to rest on the top of the ATO box to expose the ATO connections (see Figure 49).

- 51. Locate the 16-pin connector on the rear of the ATO box and the 2 wire harness (8122520) that runs from ATO to solenoid. Insert the red wire into pin-1 and the black wire into pin-9 with the tabs up as shown, (see Figure 50).

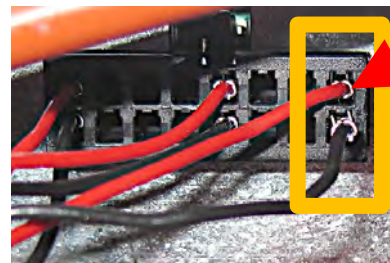


Figure 50

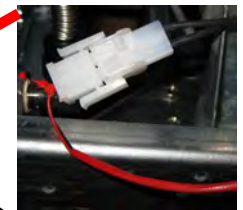


Figure 51

- 52. Attach the other end of the harness in step 51 with the white 2-pin Molex connector to the bulk oil manifold solenoid connector (see Figure 51).

- 53. Reattach the ATO plug cover removed in step 49 (see Figure 52).



Figure 52



Figure 53



Figure 54

- 54. Use tie wraps to secure flexlines and harnesses out of the way. Use brackets behind contactor boxes (see Figure 53).

- 55. Ensure the solenoid harness and connector is located in the chase of the frame using a wire tie and secured to the frame to protect it from getting pinched from the filter pan and holes in frame (see Figure 54).

- 56. Replace the lower fryer back panel.

- 57. Remove the dispose plug and if applicable, the fill plug and connect the dispose and fresh oil lines (see Figure 55).

- 58. Remove the plate exposing the bulk oil connection. Connect any wires from the dispose system to the fryer (see Figures 55 and 56). See the wiring diagram on the last page for more detail.

- 59. Reconnect power.

- 60. Test fryer for function.

- 61. The fryer oil system setup will need to be changed from JIB to Bulk. With the controller displaying

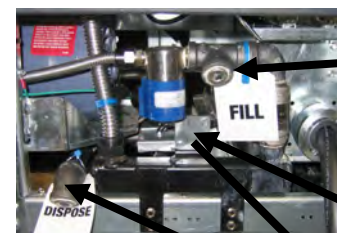


Figure 55

Fresh Oil Connection

Bulk wiring connection (behind plate).

Waste Oil Connection



Figure 56

OFF, press and hold the TEMP and INFO buttons simultaneously until **LEVEL 1** is displayed and release (see Figure 57).



Figure 57

62. The controller displays **ENTER CODE**.

63. Enter **1 2 3 4**.

64. The controller displays **LEVEL 1 PROGRAM** for three seconds changing to **PRODUCT SELECTION**.

65. Press the ▲ (**TEMP**) button once to scroll to **FRYER SETUP**.

66. Press the ✓ (**1 YES**) button.

67. The controller displays **ENTER CODE**.

68. Enter **1 2 3 4**.

69. The controller displays **LANGUAGE** on the left display and **ENGLISH** (or another language) on the right.

70. Press the ▼ (**INFO**) button 9 (nine) times. The controller will display **OIL SYSTEM** on the left and **JIB** on the right.

71. Press the ► (**FLTR**) button once to change to **BULK**.

72. Press the X (2) button under the display.

73. The controller displays **SETUP COMPLETE** and then **OFF**.

74. **It is imperative that the fryer system be completely power cycled after changing the setup from JIB to Bulk to operate correctly.**

75. Completely power cycle the fryer using the hidden reset momentary rocker switch (see Figure 59) under the left control box in gas (see Figure 58) or behind the right control box over the JIB in electric (see Figure 60 ). **HOLD THE SWITCH FOR 15 SECONDS ENSURING THE MIB BOARD HAS POWERED FULLY DOWN.**

76. Allow about 30 seconds for the fryer to fully cycle the MIB board.



Figure 58



Figure 60



Figure 59

## BULK OIL LOV WIRING

