Frymaster[®]

Instruction Sheet

Follow these instructions to replace the Variable Frequency Drive (VFD).

- 1. Turn off the controllers.
- 2. Disconnect power from the fryer.
- 3. Remove the JIB/BIB oil reservoir.
- 4. Pull the fryer out from under the hood to gain access to the rear of the fryer.
- 5. Remove the three (3) screws to remove the splash shield from the rear of the SCB box (see Figure 1).
- 6. Disconnect the five (5) Molex harnesses and unscrew the filter motor cable (see Figures 2 & 3).
- 7. Remove the two (2) screws attaching the cover of the SCB box (see Figure 4).
- 8. Lift up slightly on the cover and then angle forward to remove the SCB box cover (see Figure 5). Set the cover aside.
- 9. Locate the two (2) harnesses that run through the grommet on the rear of the SCB box (see Figure 6).
- 10. From the front of the SCB box, locate the red harness from step 9, with the red and black wires. Gently press on the lock to disconnect the two (2) pin connector, from

the SCB board (see Figure 7).

11. Locate the harness in the black netting from step Gently press in on the side of the connector to



Figure 6

disconnect the **YELLOW CAN cable connector** from the SCB board (see Figure 8).

12. Disconnect the purple wire from the relay in the top left corner of the box that is tied into the harness in the previous step, (see Figure 9).

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Subject: 8263869 Variable Frequency Drive (VFD) Kit **Instructions**

Models affected: Intuition FQIG30, MIG30, FQIE30 and **MIE14 Fryers**

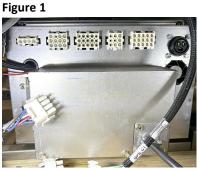
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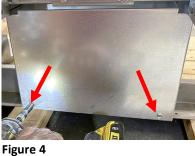
In This Kit		
Part #	Description	Qty
8076491	VFD DRIVE IHP-230V 3PH	1
8198077	VFD JUMPER SETTINGS INSTRUCTIONS	1





Figure 2





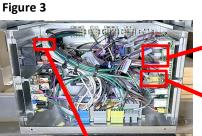




Figure 7





Figure 8



Figure 5

Figure 9





- 13. From the rear of the SCB box, gently pull the harnesses disconnected in steps 10, 11 & 12 through the rear grommet in the rear of the SCB box (see Figure 10). Let them rest behind the SCB box.
- 14. Loosen, **DO NOT REMOVE**, the two screws, on the **LEFT SIDE** of the SCB box, with the slots, as viewed from the front of the fryer, that attach the SCB box to the frame (see Figure 11).
- 15. **REMOVE**, the two screws, on the **RIGHT SIDE** of the SCB box, as viewed from the front of the fryer, attaching the SCB box to the frame (see Figure 12).
- 16. Gently slide the box to the right and lower the SCB box to the floor (see Figure 13).
- 17. Slide the SCB box forward from underneath the fryer.
- 18. Relocate the SCB box to a flat working surface to replace the VFD.
- 19. Mark the four (4) center Molex connectors positions for easy reassembly (see Figure 14).
- 20. Using a screwdriver loosen and push the four (4) center Molex connectors back into the SCB box (see Figures 15 & 16).
- 21. Lay the wires towards the front of the box out of the way (see Figure 17). NOTE: Use caution working around the VFD capacitors. They still may store a charge and pose a shock hazard.
- 22. Use a long extension with a 5/16" driver to **LOOSEN** the nuts on the RIGHT side of the VFD (see Figure 18).
- 23. Use a long extension with a 5/16" driver to **REMOVE** the nuts on the **LEFT** side of the VFD (see Figure 19).
- 24. Disconnect the gray CAN cable from the VFD (see Figure 20).
- 25. Locate the green ground wire in the upper top left corner of the VFD (see Figure 24). Trace it back to the Yellow
 - Wago terminal block (see Figure 21). Lift up on the orange tab and remove the ground wire from the terminal block (see Figure 22). Loosen the ground wire out of the harnesses. This will make the VFD easier to remove.
- 26. Slide the VFD slightly left and off the studs and set the VFD on the top edge of the box (see Figure 23).
- 27. Remove the green screw with ground wire & set aside (see Figure 24).



Figure 10

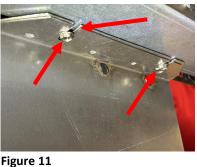




Figure 15

Figure 14

Figure 19



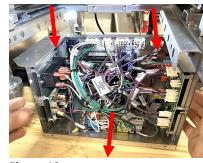


Figure 13

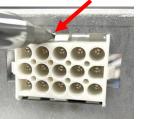


Figure 16



Figure 17



Figure 20

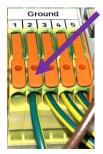


Figure 21



Figure 22



Figure 23



Figure 24

- 28. Place the new VFD on a flat surface (see Figure 25).
- 29. Lift up on the top cover clips to detach and discard the top cover (see Figure 26).
- 30. If a **WHITE** jumper wire **is** currently connected to the VFD board, disconnect the jumper wire and install Figure 25 it on the new VFD (see Figure 27). **NOTE: Use caution** working around the VFD capacitors. They still may store a charge and pose a shock hazard. The new VFD ships without the jumper installed (200-250V range). The jumper is in a bag marked 115V. If using 100V-120V, ensure the jumper is attached. IF THE VOLTAGE IS 200V AND ABOVE, ENSURE THE JUMPER IS NOT INSTALLED!!!!!!! NOTE: If the jumper is **NOT**

removed for high voltage

(200V-250V), it will destroy the VFD!







Figure 26

Figure 27



Figure 28

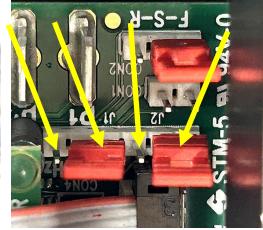
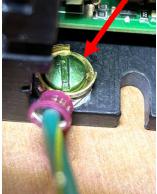


Figure 29



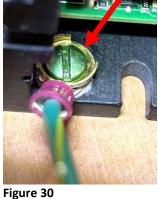




Figure 31

- 31. Locate the ribbon cable (see Figure 28). Under the ribbon cable is a series of jumpers. Set the jumper on J1 and J2 as shown (see Figure 29). J2 should be towards the outer edge of the VFD. Then there should be an open pin and then jumper on [1] and then an open pin. This jumper is the GFCI setting. If this setting isn't set correctly the fryer may trip a breaker during filtration.
- 32. Attach the green ground wire removed from the old VFD in step 27 to the new VFD ground terminal (see Figure 30).
- 33. Locate the new VFD next to the old VFD on the rail of the SCB box and swap wires over, one at a time to the same locations (see Figures 31 & 32).



Figure 32

- 34. Reverse steps 5 through 27. Ensure that the CAN cable between the SCB board and the VFD is connected to the same position as Figure 20 (next to the blue terminal block).
- 35. Push the fryer back under the hood.
- 36. Reposition the JIB/BIB in the fryer.
- 37. Reconnect power to the fryer.
- 38. Perform a filter to ensure the VFD is functioning correctly.