

Instruction Sheet

Follow these steps to update the fryer and install FQLink.

NOTE: FQLink **ONLY** functions on fryers with at least **ONE (1)** Common Controller (see Figure 1) installed in the far-left Vat #1 position.

Subject: LOV-T FQLink Installation Instructions

Models affected: BIGLA30-T and BIELA14-T (LOV Touch Screen) Fryers

11.21.2024



Figure 1

STEP 1: CONFIRM COMMON CONTROLLER IS INSTALLED

1. The fryer **MUST** have at least **ONE (1)** Common Controller (see Figure 1) installed in the battery. It must be located in the far-left Vat #1 position. If so, continue to step 2. The Common Controller can be identified by the large silver metal bezel that surrounds the touch screen. If the fryer **DOES NOT** have a Common Controller installed, **DO NOT PROCEED**. **A controller conversion kit will need to be installed in the far-left vat #1 position prior to installation.**

STEP 2: UPDATE THE FRYER SOFTWARE

1. Locate the USB with the **FRYER SOFTWARE FILES** and follow the enclosed instructions to update the fryer software using the USB port on the **FAR-LEFT** side of the fryer, just inside the left fryer door (see Figure 2). The software versions after update should be: UIC – 04.00.131 or 04.00.132; SIB – 04.02.000; VIB – 01.03.003; FIB – 01.01.046



Figure 2

STEP 3: DISCONNECT KCCM & RELOCATE MODEM (IF INSTALLED)

1. Disconnect power from the fryer.
2. For 30lb fryers open the **FAR-RIGHT** door of the fryer or door with the oil reservoir (it may be third door from the left in 4 vat fryers or larger) (see Figure 3).
3. Remove the JIB/BIB to access the FIB box (see Figure 3). Note: The appearance of the FIB box may differ depending on date of manufacture.



Figure 3

4. Remove the FIB box cover by removing the two (2) ¼" screws attaching the cover and lifting on the cover to remove (see Figure 5). This box may vary by date of manufacture.
5. The KCCM board is located on the right side or rear of the FIB box (see Figure 6) depending on date of manufacture.
6. Disconnect the RJ11 KCCM CAN/power harness (see Figure 7) from the FIB board.
7. Disconnect the white & black wires from the harness in the previous step from the Wago snap connectors (see Figure 8 & 9. Tie the wire harness up out of the way.
8. Disconnect the green ground wire of the harness from the box (see Figure 10).
9. If a cellular modem is **NOT CONNECTED**, skip to step 10. If a modem is connected, disconnect the cellular modem USB cable from the KCCM board (see Figure 11)
10. Disconnect the RJ45 connector from the KCCM board (see Figure 12). Discard the complete harness, it will no longer be used.
11. Connect the supplied RJ11 CAN terminator to the connector on the FIB board from step 6 above (see Figure 13).

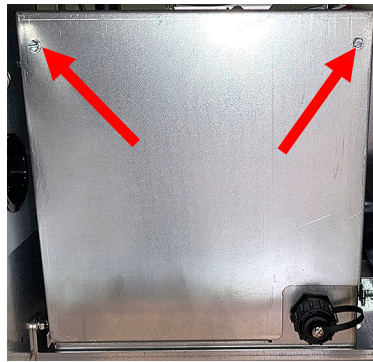


Figure 5

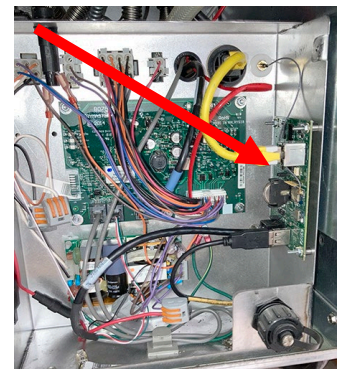


Figure 6

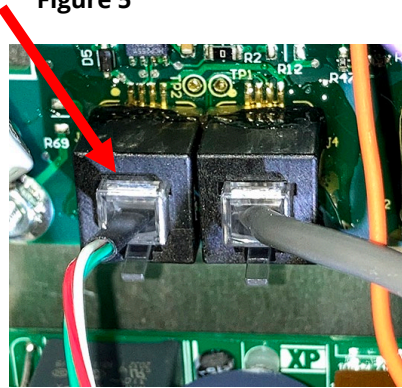


Figure 7

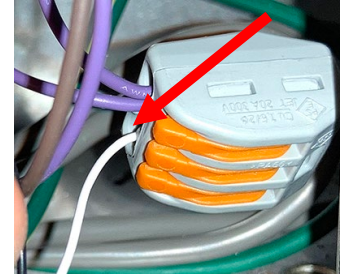


Figure 8

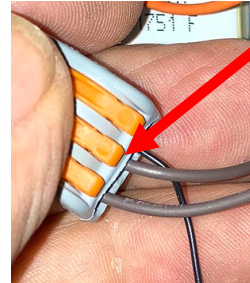


Figure 9

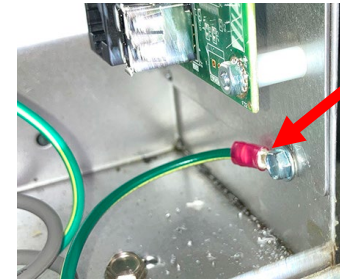


Figure 10



Figure 11



Figure 12

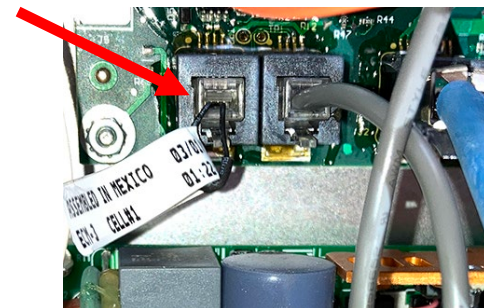


Figure 13

12. In fryers where easy access to the KCCM board is possible, remove the KCCM board from the fryer (see Figure 14). In gas fryers where the KCCM board is not easily accessible in the FIB box, the KCCM board can remain in the fryer.
13. Relocate the cellular modem between the controllers on the rear of the bezel using double sided tape (see Figure 15).
14. If antenna extensions were used, disconnect the extensions and connect antennas directly to the modem (see Figure 16). Ensure the antennas are parallel to each another (see Figure 17).
15. Using the supplied USB cable, route the USB cable from the modem to the rear of the vat #1 controller.
16. Connect to the USB plug with the heat shrink on the rear of the Vat #1 controller. If a cooling housing is installed, connect a splitter between the USB cable modem and the left USB port extension on the fryer (see Figure 18).
17. If connecting using ethernet, route the ethernet cable to the rear of the Vat #1 controller ethernet connection (see Figure 19).



Figure 14

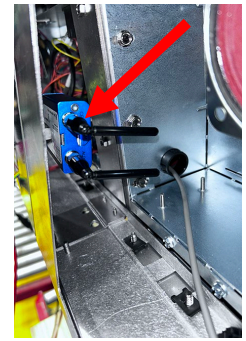


Figure 15



Figure 16

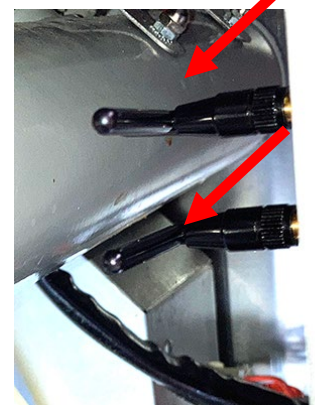


Figure 17

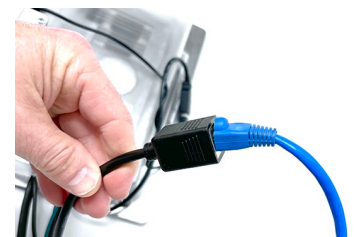


Figure 19

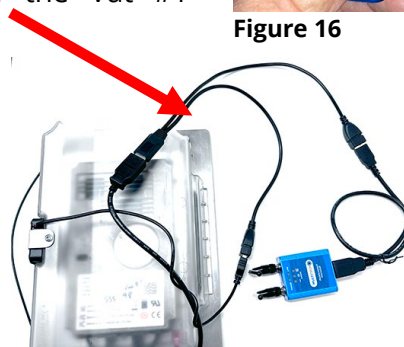


Figure 18

STEP 4: INSTALL THE IoT AGENT SOFTWARE

1. Ensure all controllers are OFF and in the standby mode (see Figure 19a).
2. Locate the USB with the **IoT AGENT SOFTWARE FILES** and insert the USB drive into the USB port on the **FAR-LEFT** side of the fryer, just inside the left fryer door (see Figure 20).
3. Wait for the controller to reboot.
 - a. The process should take about three & a half 3 ½ minutes.
 - b. The controller will be unresponsive to touch after two & a half (2½) minutes.

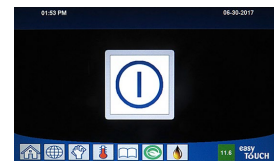


Figure 19a



Figure 20

- c. If the controller **DOES NOT** reboot after five (5) minutes, leave the USB drive inserted and reboot the entire fryer. Once it's finished rebooting, go back to 3.a. on the previous page.

- 4. Wait two (2) minutes
Press the "HOME" button on the (see Figure 21).

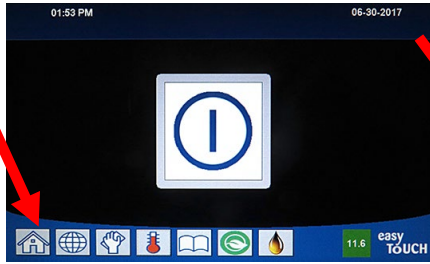


Figure 21

- 5. Press the ? button (see Figure 22).

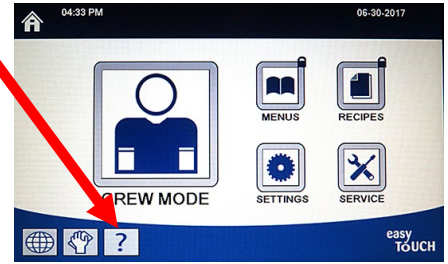


Figure 22

- 6. Press the down arrow button (see Figure 23).

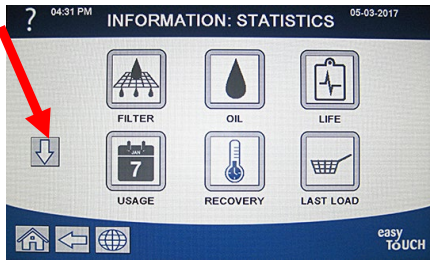


Figure 23

- 7. Press the software version button (see Figure 24).



Figure 24

- 8. Press the down arrow button **TWO** (2) times (see Figure 25).

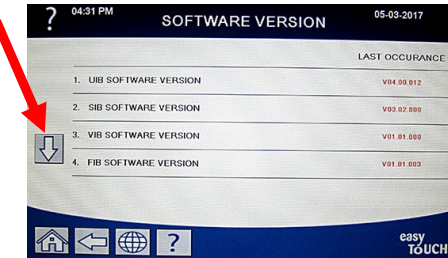


Figure 25

- 9. The **GATEWAY SOFTWARE VERSION** should be **60.99.018 for AWS or 61.99.018 Generic** (see Figure 26). If not, repeat steps 1-8 of this section. If after two tries of loading the software and the version above is **NOT** displayed, go to STEP 4 (Troubleshooting) on the

10. GATEWAY SOFTWARE VERSION

Figure 26

**V60.99.018
AWS
or 61.99.018
Generic**

last page.

- 10. Press the "HOME" button (see Figure 21) when finished.
- 11. This concludes installing hardware and updating software. The instructions on the following pages are for techs that are connecting the fryer to the cloud.

STOP!!!! THE NEXT SECTION SHOULD ONLY BE COMPLETED BY PERSONNEL THAT HAVE THE INFORMATION, PASSWORDS, SSID, ETC. TO CONNECT THE FRYER TO THE CLOUD.

Appendix A

This section should ONLY be completed by IT departments or other personnel with the ability to edit config files and connect to the cloud.

STEP 1: DETERMINE IF THE FRYER IS CONNECTED TO KITCHENCONNECT

1. If the unit is already in Kitchen Connect:
 - a. Remove the unit from the Organization Management structure.
 - b. Delete the unit from the Unit Registration list.
 - c. Wait 3 (three) minutes to ensure the unit is deregistered from the system.
 - d. Add the equipment back to the Unit Registration list using the registration code.
 - e. Activate the equipment.
 - f. Reassign the unit to the correct node in the Organization Management structure.
2. If the unit is not in Kitchen Connect:
 - a. Add the equipment to the Unit Registration list using the registration code.
 - b. Activate the equipment.
 - c. Assign the unit to the correct node in the Organization Management structure.

STEP 2: EDIT THE CONFIG FILE

1. The following information is needed from the fryer:
 - a. Serial number and model number located inside the door of the far-left fryer.
 - b. How many vats are in the fryer battery (ie. 3 vat fryer)
 - c. What type each vat is (FULL, SPLIT).
 - d. Type of fryer (GAS, ELECTRIC).
 - e. Store ID that matches KitchenConnect.
2. Locate the USB drive with the configuration file on it.
3. Insert the supplied USB drive into a Microsoft PC based computer (see Figure 27).
4. Open explorer and right click on the file named **fryer.conf** and open with Notepad to edit the file (see Figure 28).
5. Below are the parameters listed in this file. Enter the parameters listed below. Some of the parameters are **case sensitive**; enter these parameters **exactly** as they are displayed. Do not add



Figure 27

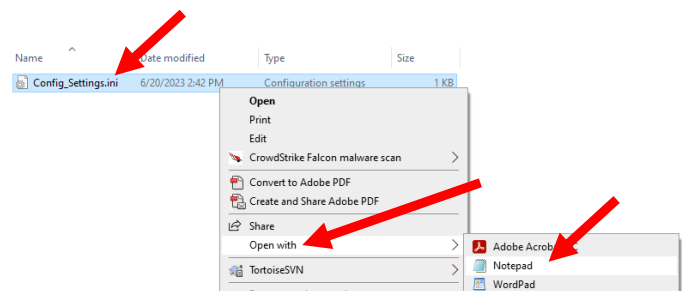


Figure 28

extra spaces. The settings highlighted in **BLUE/YELLOW** are **REQUIRED**.

FRYER.CONF FILE PARAMETERS

DEVICE_TYPE=GAS Should match energy type of fryer. (i.e. GAS or ELECTRIC)

STOREID=FRYENG Should match the Store ID in Kitchen Connect. Maximum 10 characters. ID of the store or unit number of the store

SERIAL_NUMBER=2307xxxxxx Should match the Serial Number in Kitchen Connect. (i.e. 2307xx0001)

TCPPORTNO=20001 Do **NOT** change this.

UDPPORTNO=20002 Do **NOT** change this.

DHCP=YES Do **NOT** change this.

NUMBER_OF_UI=3 Should match the number of frypots in Kitchen Connect. (i.e. 3 [Range 1-6])

UI1TYPE=FULL Vat type of vat #1 (i.e. FULL, SPLIT)

UI2TYPE=SPLIT Vat type of vat #2 (i.e. FULL, SPLIT)

UI3TYPE=FULL Vat type of vat #3 (i.e. FULL, SPLIT) Do not delete extra UI Types if not present.

UI4TYPE=FULL Vat type of vat #4 (i.e. FULL, SPLIT) Do not delete extra UI Types if not present.

UI5TYPE=FULL Vat type of vat #5 (i.e. FULL, SPLIT) Do not delete extra UI Types if not present.

UI6TYPE=FULL Vat type of vat #6 (i.e. FULL, SPLIT) Do not delete extra UI Types if not present.

PUBLISH_STATE=ENABLE Do **NOT** change this.

PRODUCT_NAME= Filter Quick 4000 Do **NOT** change this.

PRODUCT_MODEL_NUMBER=1FQG30 Type of model. Enter the model from the rating plate on the inside of the left door.

CUSTOMER_NAME=General Market Do **NOT** change this.

MANUFACTURER_NAME=Frymaster Do **NOT** change this.

SERVER_ADDRESS=192.168.43.83 Do **NOT** change this.

NETWORK_MODE=WI-FI Type of network. (i.e. CELLULAR or WI-FI) Enter network type

KEY_MGMT=wpa-psk (SSID security type - NONE/WPA-PSK/WPA2-PSK) Enter the SSID security type.

SSID=Set_SSID (SSID of the store network) Enter the SSID of the router connection.

PSK=Set_passphrase Network password (this parameter can be blank if it is open or unlocked network)

- When finished, Click on File and Save (see Figure 29). The file name **MUST** be **fryer.conf**.

STEP 3: COMPRESS THE CONFIG FILE

- Right click on the fryer.conf file on the desktop (see Figure 30).
- Click on Send to Compressed (zipped) Folder.
- Name the .zip folder “fqlink_config_aws.zip (see Figure 31).
- Place the folder in the root directory of the USB drive.
- Go to Explorer (My Computer). Right click on the USB drive. Click Eject (see Figure 32).
- Remove USB drive from computer.

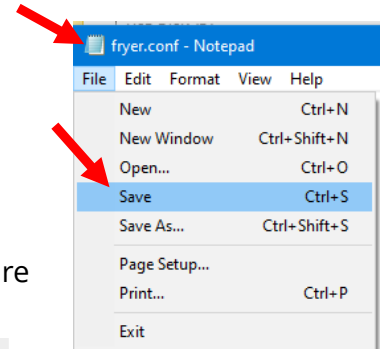


Figure 29

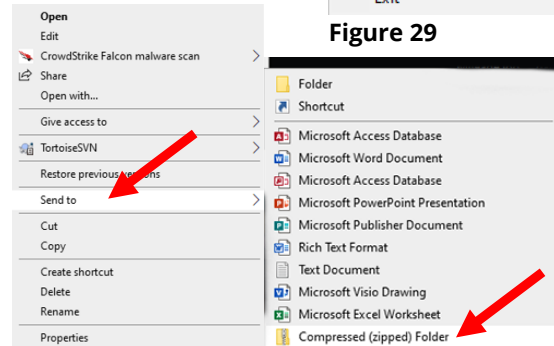


Figure 30

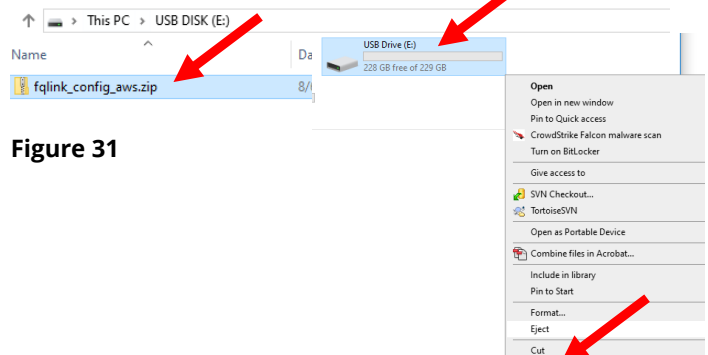


Figure 31

Figure 32

STEP 4: LOAD THE CONFIG FILE

- Ensure all the controllers are in the OFF state.
- On the left screen, press → → → 1650 → → **TECH MODES** → → **SOFTWARE UPGRADE**
- Insert the USB drive from the previous step, with the compressed zip folder fqlink_config_aws.zip with fryer.conf file, into the USB port on the **FAR-LEFT** side of the fryer, just inside the left fryer door (see Figure 33).
- Follow the onscreen instructions.
- When the update has completed on **ALL** screens, press the **YES** button

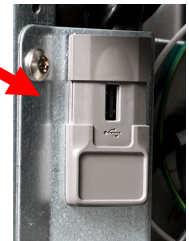


Figure 33

to confirm.

- Remove the USB flash drive and lower cover over the USB slot.
- Power cycle the fryer by **PRESSING** and **HOLDING** the black toggle reset switch for **60 SECONDS**. The reset switch is located either under the USB port, near the USB port or under the **FAR-LEFT** control box (see Figures 34 and 35).



Figure 34



Figure 35

STEP 5: CONFIRM THE IP ADDRESS

- WAIT FIVE (5) MINUTES** before proceeding to the next step.

- Press the **"HOME"** button on the (see Figure 36).

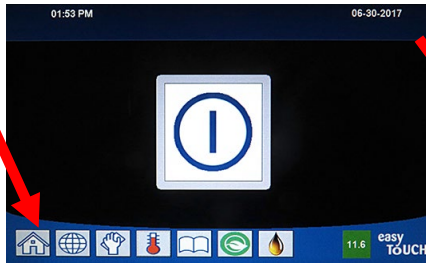


Figure 36

- Press the **?** button (see Figure 37).

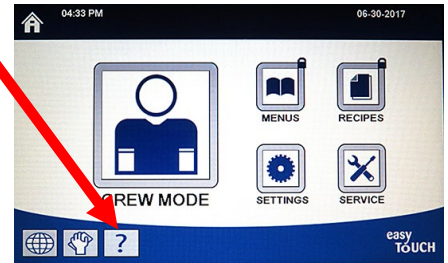


Figure 37

- Press the down arrow button (see Figure 38).

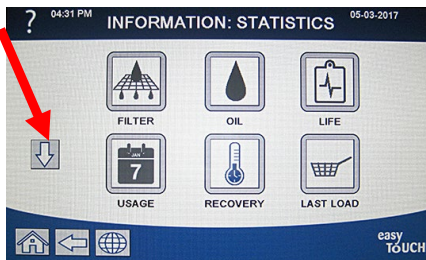


Figure 38

- Press the software version button (see Figure 39).



Figure 39

- Press the down arrow button **TWO** (2) times (see Figure 40).

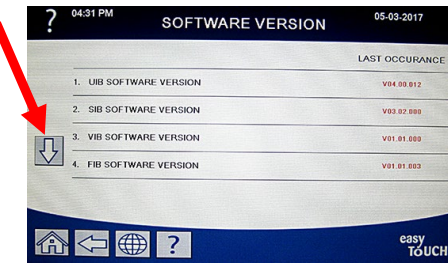


Figure 40

- The **GATEWAY IP ADDRESS** is shown. The **GATEWAY SOFTWARE IP ADDRESS** should have some numbers that are **NOT ALL ZEROS** (see Figure 41). **NOTE: The IP address may be different than shown below (see Figure 42).** If only zeros are shown, power cycle the entire fryer battery and wait 5-10 minutes before checking the software version and IP address again. **NOTE: An IP address should NOT start with 4 or 82.** If so, then it is not connected. If is not connected, repeat steps 1-15 of this section.



Figure 41

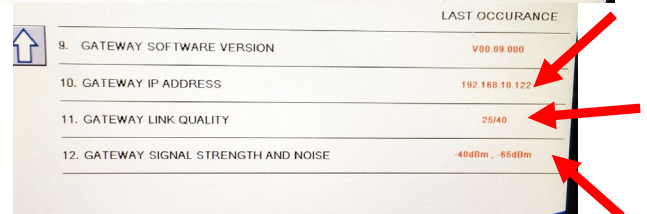


Figure 42

If after two tries of loading the software and the version above is **NOT** displayed, go to STEP 8 (Troubleshooting) on the last page.

8. Confirm the IO address matches with what the router displays.
9. Press the “HOME” button (see Figure 36) when finished.

STEP 6: CONFIRM THE UNIT APPEARS IN THE CLOUD

1. Confirm that the unit appears online in the cloud.

STEP 7: VERIFY DATA IN THE CLOUD

1. Perform a cook on the fryer.
2. Perform a filter on the fryer.
3. Confirm that the cloud displays the proper cooks and filters performed on the fryer.

STEP 8: TROUBLESHOOTING

1. If the software version is all zeros (0), **WAIT AN ADDITIONAL FIVE (5) MINUTES and recheck using steps 1-9 in STEP 5.**
2. The first number on gateway link quality (refer to Figure 42) in #11 (Gateway Link Quality) which is shown at 0/40) is the difference between received signal strength and background noise level. This number is called SNR (Signal-to-noise ratio).
Below is breakdown of first number:
 - a. 40dB = Excellent signal; always associated; lightning fast.
 - b. 25dB to 40dB = Very good signal; always associated; very fast.
 - c. 15dB to 25dB = Low signal; always associated; usually fast.
 - d. 10dB to 15dB = Very low signal; mostly associated; mostly slow.
 - e. 5dB to 10dB = No signal; not associated; no go.
3. Gateway signal strength and noise (refer to Figure 42 #12). Signal strength from -20 dbm to -65 dbm is good connection. Noise level should be below -70 dbm to -95dbm
4. If the IP address is not being displayed but the link quality and signal strength are good, then the modem or KitchenConnect has some issues and/or configuration file needs to be confirmed for accuracy and updated again.