4.1 FRYER PREVENTATIVE MAINTENANCE CHECKS AND SERVICE

⚠️ DANGER
The crumb tray in fryers equipped with a filter system must be emptied into a fireproof container at the end of frying operations each day. Some food particles can spontaneously combust if left soaking in certain shortening material.

⚠️ DANGER
Never attempt to clean the fryer during the frying process or when the frypot is filled with hot oil. If water comes in contact with oil heated to frying temperature, it will cause spattering of the oil, which can result in severe burns to nearby personnel.

⚠️ WARNING
Use a multi-purpose detergent. Read the directions for use and precautionary statements before use. Particular attention must be paid to the concentration of cleaner and the length of time the cleaner remains on the food-contact surfaces.

4.2 DAILY CHECKS AND SERVICE

4.2.1 Inspect Fryer and Accessories for Damage
Look for loose or frayed wires and cords, leaks, foreign material in frypot or inside cabinet, and any other indications that the fryer and accessories are not ready and safe for operation.

4.2.2 Clean Fryer Cabinet Inside and Out - Daily
Clean inside the fryer cabinet with dry, clean cloth. Wipe all accessible metal surfaces and components to remove accumulations of oil and dust.

Clean the outside of the fryer cabinet with a clean, damp cloth soaked with a multi-purpose detergent, removing oil, dust, and lint from the fryer cabinet. Wipe with a clean, damp cloth.

4.2.3 Clean the Built-In Filtration System - Daily

⚠️ WARNING
Never operate the filter system without oil in the system.

⚠️ WARNING
Never use the filter pan to transport old oil to the disposal area.

⚠️ WARNING
Never drain water into the filter pan. Water will damage the filter pump.
There are no periodic preventive maintenance checks and services required for your filtration system other than daily cleaning of the filter pan with a solution of hot water and a multi-purpose detergent.

If you notice that the systems is pumping slowly or not at all, verify that the filter pan screen is on the bottom of the filter pan, with the paper or pad on top of the screen. Verify that the two O-ring(s) on the fitting at the right front of the filter pan are present and in good condition. Verify that the pre-filter is clean and tightened with the wrench.

4.2.4 Clean Filter Pan, Detachable Parts and Accessories - Daily

As with the frypot, a deposit of carbonized oil will accumulate on the filter pan and detachable parts and accessories such as baskets, sediment trays, or fishplates.

Wipe the filter pan and all detachable parts and accessories with a clean dry cloth. Use a cloth dampened with a solution of a multi-purpose detergent. To remove accumulated carbonized oil. Rinse and thoroughly dry each part. DO NOT use steel wool or abrasive pads to clean these parts. The scratches that result from such scrubbing make subsequent cleanings more difficult.

4.2.5 Clean around AIF and ATO sensors – Daily

1. Clean the sediment from around the AIF and ATO sensors during clean and filter when the oil is drained from the frypot.
2. Use a screwdriver or other similar object which allows access around the probe (see Figure 1). Use caution to ensure that the probe is not damaged.
3. Return the oil once the clean and filter is complete.

4.2.6 Clean Basket Lift Rods - Daily

On fryers equipped with basket lifts, wipe down the rods with dry, clean cloth to remove accumulations of oil and dust.

4.2.7 Clean Oil Level Sensor

This process can be done during a daily Clean and Filter process (see section 2.1.3 of the FilterQuick FQ4000 Controller Operation Manual) or using the method below.

1. Drain the oil using the drain to pan option in the filter menu.
2. Use a no-scratch pad to clean carbonized oil off the sensor (see photo right).
3. Return the oil using the fill vat from pan option in the filter menu.

4.3 WEEKLY CHECKS AND SERVICE

4.3.1 Clean Behind Fryers

Clean behind fryers. Shut off and disconnect the gas. Use the manual gas shut-off valve to shut off the gas supply. The manual gas shut-off valve is located on the supply line before the quick disconnects. Then disconnect the gas line from the fryer via the quick disconnect.
4.4 MONTHLY CHECKS AND SERVICE

4.4.1 Deep Cleaning (Boiling Out/Cold Clean) the Frypot – Minimally Monthly

DANGER
Never operate the appliance with an empty frypot. The frypot must be filled with water or oil before lighting the burners. Failure to do so will damage the frypot and may cause a fire.

During normal usage of your fryer, a deposit of carbonized oil will gradually form on the inside of the frypot. This film should be periodically removed by following the Clean (boil-out) procedure. Refer to sections 2.3.10 and 2.3.11 of the FQ4000 Controller Operation Manual for specific details on setting up the controller for clean (boil-out) operation.

DANGER
Allow oil to cool to 100°F (38°C) or lower before draining to an appropriate container for disposal.

WARNING
Never leave the fryer unattended during this process. If the solution overflows, press the ON/OFF switch to the OFF position immediately.

DANGER
Ensure that the frypot is completely free of water before filling with oil. When the oil is heated to cooking temperature, water in the frypot will cause splattering.

4.4.2 Pre-filter Maintenance - Monthly

The pre-filter requires regular maintenance. Every 30 days, or more frequently if the flow of oil slows, remove the cap and clean the attached screen.

DANGER
Wear protective gloves when removing the pre-filter. The filter may be hot and cause severe burns.

1. Wearing protective gloves use the supplied wrench to remove the cap from the pre-filter (Figure 2).
2. Use a small brush to clear debris from the attached screen (Figure 3).
3. Clean under a water tap and thoroughly dry.
4. Return the cap to the pre-filter housing and tighten with the attached wrench, ensuring the pre-filter is tight. If the cap is not tight, air will leak around the pre-filter and slow the return

WARNING
DO NOT remove the pre-filter cap when a filter cycle is under way. DO NOT operate the filter system with the cap removed. Wear protective gloves when handling the cap. The metal and the exposed oil are hot.
4.4.3 **Check FQ4000 Controller Set Point Accuracy - Monthly**

1. Insert a good-grade thermometer or pyrometer probe into the oil, with the end touching the fryer temperature-sensing probe.
2. When the controller product icons are visible (indicating that the frypot contents are within the cooking range), press the button once to display the temperature and setpoint of the oil as sensed by the temperature probe.
3. Note the temperature on the thermometer or pyrometer. Actual temperature and pyrometer readings should be within ± 5°F (3°C) of each other. If not, contact a Factory Authorized Servicer for assistance.

4.5 **QUARTERLY CHECKS AND SERVICE**

4.5.1 **Clean Combustion Air Blower Assembly - Quarterly**

1. Disconnect the blower wiring harness and remove the four blower mounting nuts. (See Figure 4)
2. Remove the blower from the fryer cabinet.
3. Remove the blower shield or shield assembly.
4. Remove the three fasteners that secure the blower motor assembly to the blower housing, and separate the two components. (See Figure 5)
5. Wrap the motor with plastic wrap to prevent water from entering it. Spray degreaser or detergent on the blower wheel and the blower housing. Allow it to soak for five minutes. Rinse the wheel and housing with hot tap water, then dry with a clean cloth. (See Figure 6)
6. Remove the plastic wrap from the blower motor assembly. Reassemble the blower motor assembly and blower housing. Reinstall the blower assembly in the fryer.

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Figure 4

Figure 5

Figure 6
7. Reinstall the blower shield or shield assembly.
8. Light the fryer in accordance with the procedure described in Chapter 3, Section 3.1.2.
9. After the burners have been lit for at least 90 seconds, observe the flames through the burner viewing ports located on each side of the combustion air blower. (See Figure 7)

The air/gas mixture is properly adjusted when the burner manifold pressure is in accordance with the applicable table in Chapter 2, Section 2.3 and the burners display a bright orange-red glow. If a blue flame is observed, or if there are dark spots on a burner face, the air/gas mixture requires adjustment.

On the side of the blower housing opposite the motor is a plate with one or two locking nuts (see Figure 8). Loosen the nut(s) enough to allow the plate to be moved. Adjust the position of the plate to open or close the air intake opening until a bright orange-red glow is obtained. Carefully hold the plate in position and tighten the locking nut(s).

4.5.2 Replace the O-rings - Quarterly
Replace the O-rings on the filter connection (see Figure 10 in section 3.4.2).

4.6 SEMI-ANNUAL CHECKS AND SERVICE
4.6.1 Clean Gas Valve Vent Tube – Semi-Annual

**NOTE: This procedure is not required for fryers configured for export to CE countries.**

1. Set the fryer power switch and the gas valve to the OFF position.
2. Carefully unscrew the vent tube from the gas valve. **NOTE:** The vent tube may be straightened for ease in removal.
3. Pass a piece of ordinary binding wire through the tube to remove any obstruction.
4. Remove the wire and blow through the tube to ensure it is clear.
5. Reinstall the tube and bend it so that the opening is pointing downward.
4.7 ANNUAL/PERIODIC SYSTEM INSPECTION

This appliance should be inspected and adjusted periodically by qualified service personnel as part of a regular kitchen maintenance program.

Frymaster recommends that a Factory Authorized Servicer inspect this appliance at least annually as follows:

4.7.1 Fryer - Annual

- Inspect the cabinet inside and out, front and rear for excess oil.
- Verify that debris or accumulations of solidified oil do not obstruct the flue opening.
- Verify that burners and associated components (i.e. gas valves, pilot assemblies, ignitors, etc.) are in good condition and functioning properly. Inspect all gas connections for leaks and verify that all connections are properly tightened.
- Verify that the burner manifold pressure is in accordance with that specified on the appliance's rating plate.
- Verify that the temperature and high-limit probes are properly connected, tightened and functioning properly, and that probe guards are present and properly installed.
- Verify that component box components (i.e. controller, transformers, relays, interface boards, etc.) are in good condition and free from oil and other debris. Inspect the component box wiring and verify that connections are tight and that wiring is in good condition.
- Verify that all safety features (i.e. reset switches, etc.) are present and functioning properly.
- Verify that the frypot is in good condition and free of leaks and that the frypot insulation is in serviceable condition.
- Verify that wiring harnesses and connections are tight and in good condition.

4.7.2 Built-In Filtration System - Annual

- Inspect all oil-return and drain lines for leaks and verify that all connections are tight.
- Inspect the filter pan for leaks and cleanliness. If there is a large accumulation of crumbs in the crumb basket, advise the owner/operator that the crumb basket should be emptied into a fire-proof container and cleaned daily.
- Verify that all O-rings and seals are present and in good condition. Replace O-rings and seals if worn or damaged.
- Check filtration system integrity as follows:
  - Verify that filter pan cover is present and properly installed.
  - With the filter pan empty, place each vat into fill vat from filter pan selection (see section 2.3.7 of the FQ4000 Controller Operation Manual), one at a time. Verify proper functioning of each oil return valve by activating the filter pump using the fill vat from drain pan selection. Verify that the pump activates and that bubbles appear in the cooking oil of the associated frypot.
  - Verify that the filter pan is properly prepared for filtering, then drain a frypot of oil heated to 350°F (177°C) into the filter pan by using the drain to pan selection (see section 2.3.6 of the FQ4000 Controller Operation Manual). Now using the fill vat from pan drain pan selection (see section 2.3.7 of the FQ4000 Controller Operation Manual), allow all oil to return to the frypot (indicated by bubbles in the cooking oil). Press the check button when all oil is returned. The frypot should have refilled in approximately 2 minutes and 30 seconds.