

FryTech Series



ASF-60E shown with deluxe control and optional automatic basket lifts



ASF-60E and ASF-75E Electric Fryers with Deluxe Control

- INSTALLATION
- OPERATION
- MAINTENANCE





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| Delivery | 1 | Service | |
|---|-------|----------------------------------|------------|
| Unpacking | 1 | Troubleshooting | 41-42 |
| Safety Procedures and Precautions | 2 | Extended Limited Frypot Warranty | 43 |
| | | ASF-60E Service Views | 44-49 |
| Installation | | ASF-75E Service Views | 50-59 |
| Dimension Drawings, weights & capacities | 3-4 | | |
| Installation Requirements | 5-10 | Wire Diagrams | |
| Clearance Requirements | 5 | ASF-60E, 208-220V | 60 |
| Site Installation & Leveling | 6 | ASF-60E, 240V | 61 |
| Ventilation | 7 | ASF-60E, 380-415V | 62 |
| Restraint Requirements - Mobile Equipment | 8 | ASF-60E, 440-480V | 63 |
| Electrical Requirements | 9 | ASF-75E, 208-220V | 64 |
| Electrical Installation | 10 | ASF-75E, 240V | 65 |
| | | ASF-75E, 380-415V | 66 |
| Operating Instructions | | ASF-75E, 440-480V | 67 |
| Oil/Shortening Requirements | 11 | | |
| Controls Behind Access Panel | 12 | Warranty | |
| Boil-Out Instructions | 13-14 | Transportation Damage and Claims | Back Cover |
| Start-Up & General Operation | 15 | Limited Warranty | Back Cover |
| Cleaning & Maintenance | 16 | | |
| Oil Filtrations (For units with installed option) | 17-20 | | |
| Suggested Frying Times | 21-22 | | |
| Deluxe Control Operation | 23-40 | | |



DELIVERY

This Alto-Shaam appliance has been thoroughly tested and inspected to ensure only the highest quality unit is provided. Upon receipt, check for any possible shipping damage and report it at once to the delivering carrier. See Transportation Damage and Claims section located in this manual.

This appliance, complete with unattached items and accessories, may have been delivered in one or more packages. Check to ensure that all standard items and options have been received with each model as ordered.

Save all the information and instructions packed with the appliance. Complete and return the warranty card to the factory as soon as possible to ensure prompt service in the event of a warranty parts and labor claim.

This manual must be read and understood by all people using or installing the equipment model. Contact the Alto-Shaam Tech Team Service Department if you have any questions concerning installation, operation, or maintenance.

NOTE: All claims for warranty must include the full model number and serial number of the unit.

UNPACKING

 Carefully remove the appliance from the carton or crate.

NOTE: Do not discard the carton and other packaging material until you have inspected the unit for hidden damage and tested it for proper operation.



2. Read all instructions in this manual carefully before initiating the installation of this appliance.

DO NOT DISCARD THIS MANUAL.

This manual is considered to be part of the appliance and is to be provided to the owner or manager of the business or to the person responsible for training operators. Additional manuals are available from the Alto-Shaam Tech Team Service Department.

3. Remove all protective plastic film, packaging materials, and accessories from the appliance before connecting electrical power. Store any accessories in a convenient place for future use.

SAFETY PROCEDURES AND PRECAUTIONS

Knowledge of proper procedures is essential to the safe operation of electrically and/or gas energized equipment. In accordance with generally accepted product safety labeling guidelines for potential hazards, the following signal words and symbols may be used throughout this manual.

DANGER



Used to indicate the presence of a hazard that WILL cause severe personal injury, death, or substantial property damage if the warning included with this symbol is ignored.

WARNING



Used to indicate the presence of a hazard that CAN cause personal injury, possible death, or major property damage if the warning included with this symbol is ignored.

CAUTION



Used to indicate the presence of a hazard that can or will cause minor or moderate personal injury or property damage if the warning included with this symbol is ignored.

CAUTION

Used to indicate the presence of a hazard that can or will cause minor personal injury, property damage, or a potential unsafe practice if the warning included with this symbol is ignored.

NOTE: Used to notify personnel of installation, operation, or maintenance information that is important but not hazard related.

- 1. This appliance is intended to cook, hold or process foods for the purpose of human consumption. No other use for this appliance is authorized or recommended.
- 2. This appliance is intended for use in commercial establishments where all operators are familiar with the purpose, limitations, and associated hazards of this appliance. Operating instructions and warnings must be read and understood by all operators and users.
- 3. Any troubleshooting guides, component views, and parts lists included in this manual are for general reference only and are intended for use by qualified technical personnel.
- 4. This manual should be considered a permanent part of this appliance. This manual and all supplied instructions, diagrams, schematics, parts lists, notices, and labels must remain with the appliance if the item is sold or moved to another location.

NOTE



For equipment delivered for use in any location regulated by the following directive:

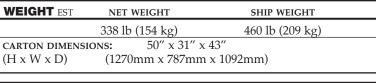
DO NOT DISPOSE OF ELECTRICAL OR ELECTRONIC EQUIPMENT WITH OTHER MUNICIPAL WASTE.

ASF-75E SPECIFICATIONS

| DIMENSIONS EXTERIOR (H X W X D) | | | | |
|---|--|--|--|--|
| ASF-75E WITHOUT LIFTS OR FILTRATION | | | | |
| 41-15/16" x 24-13/16" x 37-7/16" (1065mm x 629mm x 950mm) | | | | |
| ASF-75E WITH LIFTS AND FILTRATION | | | | |
| 44-3/16" x 24-13/16" x 38-11/16" (1121mm x 629mm x 983mm) | | | | |
| BASKET DIMENSIONS (H x W x D) | | | | |
| 6" x 9-3/16" x 14-3/16" (152mm x 232mm x 337mm) | | | | |

| CAPACITY |
|-----------------------|
| SHORTENING/OIL: |
| 73 lb (33 kg) maximum |
| LOAD CAPACITY: |
| 13 lb (6 kg) maximum |





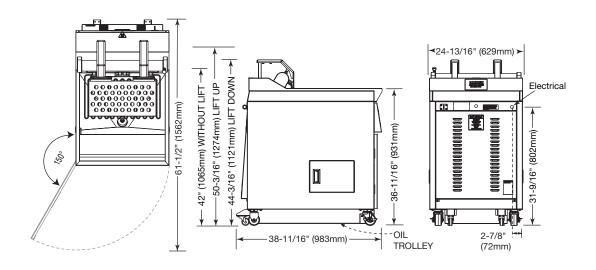
| STANDARD ACCESSORIES | | | | |
|--|----------|--|--|--|
| ☐ Basket, Half-Size | | | | |
| (2 INCLUDED AS STANDARD) | BS-27140 | | | |
| Brush Set (one 2-brush set included as standard) | | | | |
| ☐ SCRUB BRUSH | BH-28693 | | | |
| ☐ STRAIGHT BRUSH BH-28691 | | | | |
| Filter, Paper (7 paper filters included as standard) | | | | |
| ☐ 7 COUNT REFILL PACKAGE | FI-27791 | | | |
| ☐ 100 COUNT REFILL PACKAGE | FI-27794 | | | |







| OPTIONS | |
|---|----------|
| ☐ Basket, Full-Size | BS-26998 |
| FILTERS | |
| ☐ Charcoal/Carbon (30 count pkg.) | FI-27648 |
| ☐ Reusable Mesh (single filter) | FI-27014 |
| ☐ Fry Pot Cover | 5005136 |
| ☐ Mobile Drawer Cover | 5006073 |
| ☐ Strainer/Skimmer | CE-27400 |
| ☐ Oil Discard Hose | HO-27686 |
| ☐ Banking Strip (1 STRIP REQ'D FOR EVERY 2 BANKED FRYERS) | 5008810 |
| ☐ Mobile Oil Caddy | TO-28359 |
| ☐ Pre-filter Sieve Kit (FOR OIL FILTRATION SYSTEM) | 5010451 |



ASF-60E SPECIFICATIONS

| CAPACITY | |
|-----------------|-----------------------|
| SHORTENING/OIL: | 62 lb (28 kg) maximum |
| LOAD CAPACITY: | 8 lb (4 kg) maximum |

| WEIGHT EST | NET WEIGHT | SHIP WEIGHT | | |
|----------------|-----------------|-----------------|--|--|
| | 248 lb (113 kg) | 330 lb (150 kg) | | |
| CARTON DIMENSI | ons 39" x 2 | 22" x 55" | | |
| (H X W X D) | (991mm x 559 | mm x 1397mm) | | |

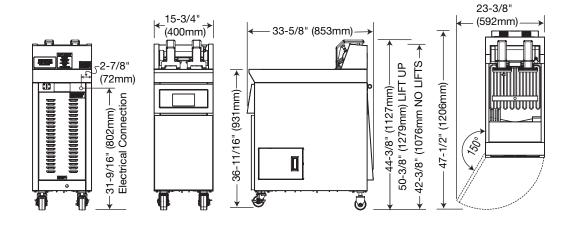
| STANDARD ACCESSORIES | |
|--|----------|
| ☐ Basket, Half-Size (2 included as standard) | BS-27963 |
| Brush Set (one 2-brush set included as standard) | |
| ☐ SCRUB BRUSH | BH-28693 |
| ☐ STRAIGHT BRUSH | BH-28691 |

| OPTIONS | |
|---|--------------------|
| ☐ Fry Pot Cover | 5007596 |
| ☐ Strainer/Skimmer | CE-27400 |
| ☐ Banking Strip (1 strip req'd for every 2 bank | ED FRYERS) 1009367 |
| □ Mobile Oil Caddy | TO-28359 |









DANGER



IMPROPER INSTALLATION,
ALTERATION, ADJUSTMENT,
SERVICE, OR MAINTENANCE COULD
RESULT IN SEVERE INJURY, DEATH,
OR CAUSE PROPERTY DAMAGE.

READ THE INSTALLATION,
OPERATING AND MAINTENANCE
INSTRUCTIONS THOROUGHLY
BEFORE INSTALLING OR SERVICING
THIS EQUIPMENT.

DANGER



AVERTISSEMENT: UNE INSTALLATION, UN AJUSTEMENT, UNE ALTÉRATION, UN SERVICE OU UN ENTRETIEN NON CONFORME AUX NORMES PEUT CAUSER DES DOMMAGES À LA PROPRIÉTÉ, DES BLESSURES OU LA MORT.

LIRE ATTENTIVEMENT LES DIRECTIVES D'OPÉRATION ET D'ENTRETIEN AVANT DE FAIRE L'INSTALLATION, OU L'ENTRETIEN DE CET ÉQUIPEMENT.

SITE INSTALLATION

NOTE: To avoid equipment damage, remove the Mobile Oil Trolley before moving this appliance with a forklift or pallet lift.

MINIMUM CLEARANCE REQUIREMENTS NON-COMBUSTIBLE COMBUSTIBLE SURFACES SURFACES 0" (0mm) 0" (0mm)RIGHT SIDE 0" LEFT SIDE 0" (0mm) (0mm)6" (152mm) 6" (152mm) BACK **FRO** 35mm)

PLUS: 6" (152mm) minimum between the element swing in the extended position and the lower edge of the exhaust hood and filter media..

ENTRY CLEARANCE: 30" (762mm) UNCRATED

Ne pas installer à une distance inférirure à celle indiquée ce-dessous d'une parol en matiére combustible: Côtés 6 pouches, Arriére 6 pouches.

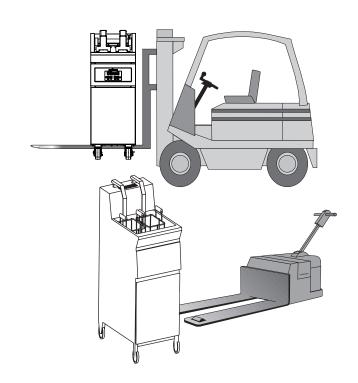
WARNING

MINIMUM CLEARANCES MUST REMAIN UNOBSTRUCTED.

DO NOT place insulation or any other type of materials in clearance areas.

CAUTION

DO NOT USE FORKLIFT FROM FRONT OR REAR OF UNIT. USE FORKLIFT FROM SIDE ONLY.



SITE INSTALLATION

- 1. It is the responsibility of the installer to verify that this fryer installation is in compliance with the specifications listed in this manual and with local code requirements.
- 2. Hood installation is required.
- 3. Both cooking and cleaning functions require unobstructed access. The frypot, control panel, and front access door must be maintained free from obstruction. The access door must be accessible for service and maintenance.
- 4. Locate the fryer on a firm, level surface ONLY. The area surrounding the fryer must be kept clear of all combustible materials.
- 5. **FOR YOUR SAFETY DO NOT** store or use any flammable liquids or allow flammable vapors in the vicinity of this fryer or any other appliance.
- 6. **FOR YOUR SAFETY DO NOT** place insulation or any other type of materials in clearance areas.
- 7. When properly installed, the electric fryer is designed for operation adjacent to non-combustible floors and walls with a 6" clearance at the back. Clearances from all combustible construction is a minimum of 6" (152mm) at the back and both sides. Concrete, tile, terrazzo, or metal surfaces are recommended. Metal over a combustible material may not meet code for non-combustible surfaces. Verify site selection with local codes for specific requirements.

Doit être utilisé seulement sur des planchers non inflammables.

8. Adequate means must be provided to limit the movement of this appliance. A restraining device is required for field installation.

- DO NOT install this fryer in any area where it may be affected by any adverse conditions such as steam or dripping water, etc. DO NOT install the fryer over a drain.
- 10. **LEVELING:** Make certain the fryer is positioned firmly on all four supporting casters. Level fryer front-to-back and side-to-side by holding lower collar (#2) while twisting upper collar (#1). Restraining ties can be used for stabilization if necessary. Use an allen wrench (#3) to lock caster in position.

WARNING

BURN WARNING: Make certain the fryer is stabilized before operation to prevent any movement or tipping and the possibility of severe burns caused by hot, splashing shortening or oil.

DANGER



To avoid electrical shock, this appliance MUST be adequately grounded in accordance with local electrical codes or, in the absence of local codes, with the current edition of the National Electrical Code ANSI/NFPA No. 70. In Canada, all electrical connections are to be made in accordance with CSA C22.1, Canadian Electrical Code Part 1 or local codes.

CAUTION



TO PREVENT PERSONAL INJURY, USE CAUTION WHEN MOVING OR LEVELING THIS APPLIANCE.

WARNING



IMPROPER INSTALLATION MAY RESULT IN FIRE.

Carefully read and follow all installation instructions located in this manual.

VENTILATION

Installation, air ventilation requirements, and service work must be in accordance with all local codes and must be performed by a qualified service technician.

An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269. When writing refer to NFPA No. 96.

Ventilating hoods and exhaust systems shall be permitted to be used to vent appliances installed in commercial applications.

Where automatically operated appliances are vented through a ventilating hood or exhaust system equipped with a damper or with a power means of exhaust, provisions shall be made to allow the flow of gas to the main burners only when the damper is open to a position to properly vent the appliance and when the power means of exhaust is in operation. IN ACCORDANCE WITH NFPA 54 COMMONWEALTH OF MASSACHUSETTS ONLY.

WARNING

This appliance shall be installed in conformity with the current regulations and used only in a well ventilated location.

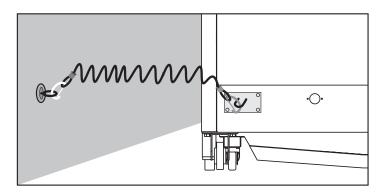
Consult the instructions before installing and using this appliance.

RESTRAINT REQUIREMENTS - MOBILE EQUIPMENT

The fryer must be supplied with a connector that complies with all state and local installation codes.

Any appliance that is not furnished with a power supply cord but that includes a set of casters must be tethered. Adequate means must be provided to limit the movement of this appliance without depending on or transmitting stress to the electrical conduit. The following requirements apply:

- 1. Casters must be a maximum height of 4-inches (102mm).
- **2.** Such mobile appliances must be installed with the use of a flexible connector secured to the building structure.



located on the lower back flange of the appliance chassis, approximately 7-inches (178mm) from the floor. A flexible connector is not supplied by nor is it available from the factory.



ELECTRICAL REQUIREMENTS

DANGER



To avoid electrical shock, this appliance MUST be adequately grounded in accordance with local electrical codes or, in the absence of local codes, with the current edition of the National Electrical Code ANSI/NFPA No. 70. In Canada, all electrical connections are to be made in accordance with CSA C22.1, Canadian Electrical Code Part 1 or local codes.



An electrical wiring diagram is located in the front access door of the fryer. The fryer must be installed by a qualified electrician. This appliance must be branch circuit protected with proper ampacities, in accordance with the wiring diagram located in the fryer. The fryer must be properly grounded in accordance with the National Electrical Code and applicable local codes. A means to disconnect the unit must be incorporated into the fixed wiring in accordance with wiring codes.

Wire size for the main incoming power to the unit must match the minimum size listed in the specifications applicable to the specific fryer. For supply connections, locate the wire size posted on the label located on the electrical control box cover, behind the service panel or elsewhere listed in this manual.

Before operating the fryer, check all cable connections in the electrical connection area for tightness since connections can loosen during transport.

ADANGER



ENSURE POWER SOURCE
MATCHES VOLTAGE STAMPED
ON APPLIANCE NAMEPLATE.

230V:

To prevent an electrical shock hazard between the appliance and other appliances or metal parts in close vicinity, an equalization-bonding stud is provided. An equalization bonding lead must be connected to this stud and the other appliances / metal parts to provide sufficient protection against potential difference. The terminal is marked with the following symbol.

Hard wired models:

Hard wired models must be equipped with a country certified external allpole disconnection switch with sufficient contact separation.

If a power cord is used for the connection of the product an oil resistant cord like H05RN or H07RN or equivalent must be used.

DANGER



APPLIANCES WITH NO CORD PROVIDED BY FACTORY MUST BE EQUIPPED WITH A CORD OF SUFFICIENT LENGTH TO PERMIT THE APPLIANCE TO BE MOVED FOR CLEANING.



ELECTRICAL CONNECTIONS MUST BE MADE BY A QUALIFIED SERVICE TECHNICIAN IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES.

| ELECTRICAL - ASF-60E | | | | | |
|----------------------|-------|----------|------|------|--------|
| VOLTAGE | PHASE | CYCLE/HZ | AMPS | kW | AWG |
| 208-220 (AGCY) | 3 | 60 | 47.0 | 17.9 | AWG 6 |
| at 208 | 3 | 60 | 45.0 | 16.2 | AWG 6 |
| at 220 | 3 | 60 | 47.6 | 18.2 | AWG 6 |
| 240 (AGCY) | 3 | 60 | 43.0 | 17.9 | AWG 6 |
| 380-415 | | | | | |
| at 380 | 3 | 50 | 20.4 | 15.4 | AWG 10 |
| at 415 | 3 | 50 | 25.4 | 18.3 | AWG 10 |
| 440-480 (AGCY) | 3 | 60 | 21.8 | 18.1 | AWG 10 |
| at 440 | 3 | 60 | 20.4 | 15.5 | AWG 10 |
| at 480 | 3 | 60 | 22.2 | 18.5 | AWG 10 |
| No cord or plug | | | | | |

| ELECTRICAL - ASF-75E | | | | | |
|----------------------|-------|----------|------|------|-------|
| VOLTAGE | PHASE | CYCLE/HZ | AMPS | kW | AWG |
| 208-220(AGCY) | 3 | 60 | 68.2 | 26.0 | AWG 2 |
| at 208 | 3 | 60 | 66.6 | 24.0 | AWG 2 |
| at 220 | 3 | 60 | 70.8 | 27.0 | AWG 2 |
| 240 (AGCY) | 3 | 60 | 66.8 | 27.8 | AWG 2 |
| 380-415 (AGCY |) 3 | 50 | 38.1 | 27.5 | AWG 6 |
| at 380 | 3 | 50 | 35.2 | 23.2 | AWG 6 |
| at 415 | 3 | 50 | 38.2 | 27.5 | AWG 6 |
| 440-480 (AGCY |) 3 | 60 | 31.3 | 26.0 | AWG 8 |
| at 440 | 3 | 60 | 30.7 | 23.5 | AWG 8 |
| at 480 | 3 | 60 | 33.4 | 27.9 | AWG 8 |
| No cord or plug | | | | | |

ELECTRICAL INSTALLATION

1. Refer to the nameplate on the <u>FRONT</u> of the fryer. Verify the electrical service power. Voltage and phase must match the nameplate specifications and available electrical service amperage must meet or exceed the specifications listed.

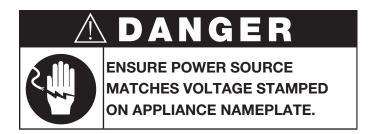
NOTE: Wire gauge, insulation type and temperature rating, as well as type, size and construction of conduit, must meet or exceed applicable specifications of local codes and of the National Electrical Code.

Warning!

440-480V - 3 Phase Only
The pump motor should **rotate clockwise** when viewed from the rear of the fryer.
To change rotation, swap any two lines of 3 Phase incoming power.

2. The fryer is shipped from the factory wired for 3-phase electrical service. This fryer is not approved for conversion to single phase. Converting to single phase will void the warranty and invalidate the ETL certification.

IMPORTANT: Field wiring must be routed and secured away from the frypot, tubing, and filter pump and motor. Field wiring must allow access to the rear of the fryer for cleaning and for access to the oil filter pump motor reset button.





OIL/SHORTENING REQUIREMENTS

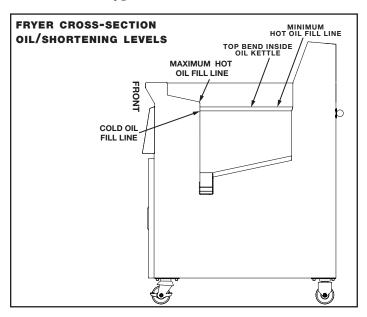
OIL/SHORTENING REQUIREMENTS

The ASF-75E requires 73-pounds (33 kg) of oil or shortening in the frypot and the ASF-60E requires 62-pounds (28 kg) of oil or shortening. Use only quality, high-grade oil/shortening in the fryer. The high moisture content of many lower grade shortening will result in excessive foaming and boil over. The cold oil/shortening level requirement for the fryer is indicated below.

CAUTION

Cold oil or shortening expands as the temperature increases. To avoid injury and equipment damage, allow for expansion by filling to the cold oil fill line.

NOTE: ALWAYS maintain the proper level of shortening by adding fresh oil/shortening to the frypot whenever needed.



WARNING

FAILURE TO PLACE SOLID SHORTENING DIRECTLY ON THE BOTTOM OF THE FRYPOT CAN CAUSE SERIOUS EQUIPMENT DAMAGE.

Check the quality of the oil/shortening in the frypot on a daily basis for signs of deterioration. Use an approved test kit. Signs of shortening deterioration include excessive boiling, smoking, foaming, bad taste, and rancid odor.

⚠ DANGER



The flash point of shortening occurs at a lower temperature the longer the shortening is used. Discard any shortening showing signs of deterioration to avoid serious burns, fire, and property damage.

Discard any shortening before it degrades to the point of affecting product quality. Always filter the oil on a regular basis and keep the frypot clean.

CAUTION

ENSURE THERE IS NO WATER IN THE FRYPOT BEFORE FILLING WITH OIL/SHORTENING. WHEN COOKING COMPOUNDS ARE HEATED TO COOKING TEMPERATURE, WATER IN THE FRYPOT WILL CAUSE OIL TO SPLATTER AND MAY BE A BURN HAZARD.

Remove ice crystals and ensure that food is dry before frying. Excessive water and ice can cause oil to splatter or overflow. Do not over fill the basket. Food needs to be surrounded by oil for best frying results.

Maximum shortening life is achieved by turning the fryer stations off when not in use. In multiple-station units, heat only the component fryers necessary to meet cooking needs.

CAUTION

FIRE OR EQUIPMENT DAMAGE CAN RESULT FROM IMPROPER SHORTENING LEVELS. THE LEVEL OF SHORTENING MUST ALWAYS BE ABOVE THE HEAT EXCHANGERS WHEN THE FRYER IS OPERATING.

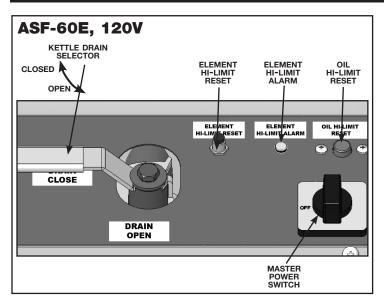
THE REQUIRED SHORTENING LEVEL MUST ALWAYS BE ABOVE THE MINIMUM HOT OIL FILL LINE.

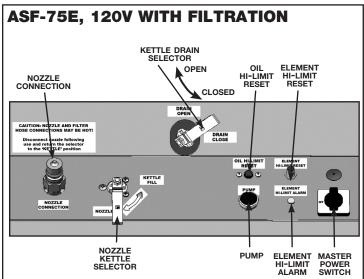
CAUTION

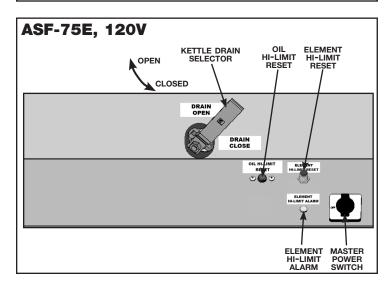


METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

OPERATION







BOIL-OUT PROCEDURE

NOTE: Perform an initial Boil-Out to clean and sanitize the fryer before operating.

Carbonized deposits along with an accumulation of oil will eventually build-up on the interior of the frypot as well as fryer accessories. It is important to periodically remove these deposits, not only to maintain fryer efficiency, but also to provide the highest product quality.

NOTE: Always wear eye protection or a face shield and protective rubber gloves when cleaning the frypot as boil-out chemical is an alkaline solution and can cause severe burns.

NOTE: Because each fryer station is controlled separately, the following procedure must be followed for every unit in multiple-fryer units.

CAUTION

BEFORE ENTERING THIS PROGRAM, MAKE CERTAIN THE FRYPOT IS EMPTY OF ALL OIL OR SHORTENING.

CAUTION

TO AVOID DAMAGING THE PUMP AND CONTAMINATING CLEAN OIL WITH BOIL-OUT CHEMICAL ON UNITS EQUIPPED WITH A FILTRATION SYSTEM, NEVER ALLOW BOIL-OUT SOLUTION OR RINSE WATER TO CIRCULATE THROUGH THE FRYER PUMP SYSTEM.

CAUTION

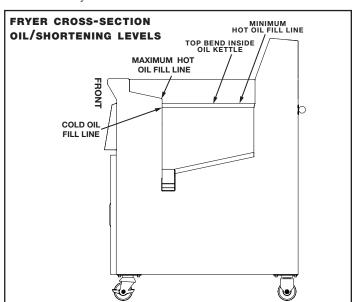
BOIL-OUT SOLUTION AND SURROUNDING METAL SURFACES BECOME EXTREMELY HOT. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN PERFORMING THE BOIL-OUT FUNCTION AND FOLLOW THE MANUFACTURER'S SAFETY INSTRUCTIONS FOR THE BOIL-OUT PRODUCT BEING USED.

CAUTION

DO NOT LEAVE THE FRYER UNATTENDED DURING THE BOIL-OUT PROCESS. THE FRYER MUST BE CONTINUOUSLY MONITORED FOR BOIL-OVER CONDITIONS, PARTICULARLY IN HIGH-ALTITUDE LOCATIONS. IF BOIL-OVER IS IMMINENT, IMMEDIATELY TURN THE MASTER POWER SWITCH OFF AND ALLOW THE SOLUTION TO COOL. WHEN THE SOLUTION HAS COOLED, RE-ENTER THE BOIL-OUT MODE.

NOTE: Manual Boil-Out can only be performed when the actual temperature of the frypot is less than 230°F (110°C).

- 1. Place the mobile oil drawer or heat safe container under the drain. Rotate drain valve to "OPEN" to drain oil. If equipped with the optional oil hand wand, use the wand to pump oil into the frypot to further rinse food particles out of the frypot. Carefully disconnect the wand from fryer and drain any residual oil from the wand into the frypot and then drain the remaining oil from frypot.
- **2.** While wearing heat resistant gloves, wipe excess oil out of inside of frypot with paper towel or clean rag.
- **3.** If oil has been drained into a mobile oil drawer, empty the oil from the drawer. Wash the oil drawer, rinse with clean water, and dry drawer thoroughly.
- **4.** If the fryer is equipped with a filtration system, clean or replace the filter in the filter cartridge and remove cartridge from unit. (See filtration instructions on page 17-18.)
- 5. Open the front access door. If equipped with a filtration system, rotate the Kettle/Nozzle selector to the "KETTLE" position, then rotate the drain valve clockwise until rotation stops and the drain valve is "CLOSED."
- **6.** Fill the fryer to the maximum oil fill line with water.



Add boil out solution. Carefully follow the manufacturer's directions for mixing the boil-out solution.

OPERATION

BOIL-OUT PROCEDURE

CAUTION

KEEP A CONTAINER OF COLD WATER ON HAND DURING BOIL-OUT IN CASE OF BOIL-OVER. IF BOIL-OVER IS IMMINENT, IMMEDIATELY TURN OFF MASTER POWER SWITCH AND POUR COLD WATER INTO FRYPOT TO QUICKLY REDUCE SOLUTION TEMPERATURE.

- **8.** Turn the Master Power Switch (located within the front access door) to the **"ON"** position.
- Within a few seconds, both LED's on the operational control panel will display "OFF" when the Master Power Switch is initially engaged.

NOTE: Initial access to the programming mode must start with the control in the "OFF" position.

- 10. Press the **ELEMENT HI-LIMIT RESET** button.
- **11.** Press and hold the Program Key for 10 seconds.

"Boil" will appear as the first item on the display whenever the **"PROGRAM"** key is initially pressed.

- **12.** Press the Right ▶ arrow key to enter the **"Boil"** program.
- **13.** The display will indicate **"READY ?"**. Press the Right ▶ arrow key to start the boil-out function. The boil-out solution will begin to heat to a temperature of 195°F (91°C). When the temperature has been reached, the appliance will begin a 10 minute countdown.

NOTE: The countdown period will not show in the display.

- **14.** At the end of the boil-out period, an alarm will sound and the control will revert to the **"OFF"** state.
- **15.** Wearing protective gloves to avoid burns, scrub the inside of the fypot with a long-handled scrub brush.
- 16. Place another mobile oil drawer or heat safe container under the drain. Rotate the drain to the "OPEN" position. The handle should be rotated counterclockwise until it stops. Allow the boil-out solution to completely drain into mobile oil drawer or a heat safe container. Discard boil-out solution. Return the drawer to the fully-inserted position beneath the fryer.
- **17.** Making sure the drain is **"OPEN"**, rinse all boil-out solution from fry pot, drain, burner holes, etc. Follow the boil-out solution manufacturer's additional boil-out

- instructions to rinse the frypot in order to neutralize boil-out cleaner residue. Discard rinse solution.
- **18.** There may be residual boil-out solution in the oil fill-hole and tube. This must be flushed out and discarded separately before filling the tank with new oil to avoid contamination of new oil.

For filtration-equipped fryers: Place a small amount of clean, liquid oil in the clean fat drawer. Pump a small amount of oil through the the system. While wearing heat resistant gloves, catch the oil that is pumped through the fill hole inside frypot with paper towel. Drain the oil. Rinse fry pot with a small amount of water.

For units without a pump or filtration system: Pour a small amount of oil into the the fryer and drain it into a separate container. Rinse frypot and frypot drain with water.

CAUTION

ENSURE THERE IS NO WATER IN THE FRYPOT BEFORE FILLING WITH OIL/SHORTENING. WHEN COOKING COMPOUNDS ARE HEATED TO COOKING TEMPERATURE, WATER IN THE FRYPOT WILL CAUSE OIL TO SPLATTER AND MAY BE A BURN HAZARD.

19. Following the boil-out and rinse procedure, wipe dry all accessible interior metal surfaces and interior accessories with a clean, dry cloth to remove any remaining moisture. Clean and dry the fry baskets separately.

NOTE: Make sure the inside of the frypot, the drain opening and all parts that come into contact with new oil/shortening are as dry as possible.

20. Wipe the exterior of the fryer cabinet with a degreaser/sanitizer suitable for use on food contact surfaces. Always follow the manufacturer's instructions and/or mixing directions for proper solution strengths.

Wipe exterior stainless steel surfaces with the grain of the metal and avoid the use of abrasive pads, steel wool, or metal implements.

- **21.** Rotate drain to "CLOSED" position.
- **22.** Replace the oil filter if equipped with filtration system. (See instructions on pages 15-17.)
- 23. Fill tank with new oil or shortening.

START UP & GENERAL OPERATION

NOTE: Perform an initial Boil-Out to clean and sanitize the fryer station before operating.

- **1.** Service is to be performed by an authorized Alto-Shaam service agent.
- **2.** Ensure all local electrical codes, fire codes, and all other requirements such as hood installation have been met in the process of installation.

NOTE: Because each fryer station is controlled separately, the following procedures must be followed for every component fryer in multiple-station units.

- Open front access door and ensure drain valve is in the "CLOSED" position. The handle should be rotated clockwise until it stops.
- **4.** Fill frypot with frying compound as indicated. (SEE ILLUSTRATION ON THE OIL/SHORTENING REQUIREMENTS PAGE)
- **5.** The Master Power Switch is located behind the front access door. Turn Master Power Switch **"ON."**
- **6.** Press the **ELEMENT HI-LIMIT RESET** button.
- **7.** The **LED** display on the control panel will indicate **"-AS-"**, the software version, and then **"CH"**.
- 8. Press and hold the Power "ON" Key on the main control panel for 3 seconds. Both "LED" displays on the control panel will indicate actual oil temperature or ambient room temperature. The bottom of alpha/numeric display will indicate "MELT-CYCLE." It is recommended to allow the fryer to complete the "Melt Cycle" when using solid shortening; however, if liquid shortening is used the "Melt Cycle" may be bypassed by pressing Temperature Key
- When the fryer has reached 135°F, the melt cycle is complete and the LED display on the control panel will indicate "HEAt".

- **10.** When the fryer displays the set-point temperature, product can be fried.
- **11.** More detailed operating guidelines along with information on programming are located within this manual.
- **12.** To shut down the fryer, turn the Master Power Switch located behind the front access door to the **"OFF"** position.



NOTE: FOR YOUR PROTECTION The fryer station is furnished with a hi-limit safety shutoff that will disengage the control if the frying compound temperature in the frypot would ever exceed 415°F (213°C). The **LED** will display **"Hi"**, the heat will shut off, the timer will be cancelled, and a constant alarm will sound. In this event, allow the frying compound temperature to drop below 415°F (213°C). Open the front access door and press the **OIL HI-LIMIT RESET** button for a period of 3-seconds to restart the control.

CLEANING & MAINTENANCE

DANGER DISCONNECT UNIT ERG



DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

THOROUGHLY CLEAN DAILY

The cleanliness and appearance of this unit will contribute considerably to operating efficiency and savory, appetizing food. Good equipment kept clean works better and lasts longer.

- **1.** Disconnect unit from power source, and let cool.
- **2.** Remove all detachable items. Clean these items separately with a good grease solvent or commercial detergent. Rinse well and dry.
- **3.** Clean control panel, door vents, door handles, and door gaskets thoroughly since these areas harbor food debris. Rinse by wiping with sponge and clean warm water. Wipe dry with a clean cloth.

4. To help maintain the protective film coating on polished stainless steel, clean the exterior of the unit with a cleaner recommended for stainless steel surfaces. Spray the cleaning agent on a clean cloth and wipe with the grain of the stainless steel.

NOTE: Avoid the use of abrasive cleaning, compounds, chloride based cleaners, or cleaners containing quaternary salts.

Never use hydrochloric acid (muriatic acid) on stainless steel.

Always follow appropriate state or local health (hygiene) regulations regarding all applicable cleaning and sanitation requirements for foodservice equipment.

DANGER



AT NO TIME SHOULD THE INTERIOR OR EXTERIOR BE STEAM CLEANED, HOSED DOWN, OR FLOODED WITH WATER OR LIQUID SOLUTION OF ANY KIND. DO NOT USE WATER JET TO CLEAN.



SEVERE DAMAGE OR ELECTRICAL HAZARD COULD RESULT.

WARRANTY BECOMES VOID IF APPLIANCE IS FLOODED

ACAUTION



TO PROTECT STAINLESS STEEL SURFACES, COMPLETELY AVOID THE USE OF ABRASIVE CLEANING COMPOUNDS, CHLORIDE BASED CLEANERS, OR CLEANERS CONTAINING QUATERNARY SALTS. NEVER USE HYDROCHLORIC ACID (MURIATIC ACID) ON STAINLESS STEEL. NEVER USE WIRE BRUSHES, METAL SCOURING PADS OR SCRAPERS.

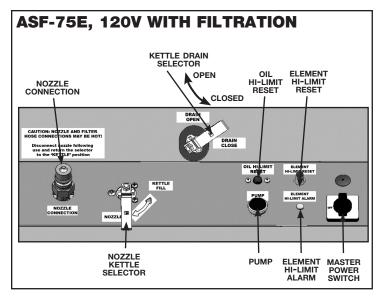
OIL FILTRATION INSTRUCTIONS (FOR UNITS WITH INSTALLED OPTION)

Careful observation of the finished food product will help determine optimal filtering frequency. Filtering the cooking oil at regular intervals will help ensure food quality.

FOR BEST RESULTS: Do not allow the temperature of the oil to decrease below the **"Idle Mode"** temperature of 250°F (121°C) when filtering. If filtering at the end of the day, pump oil back into the kettle while still hot. Do not allow oil to cool before returning to kettle.

CAUTION

OPERATORS MUST BE MADE AWARE OF THE HAZARDS INVOLVED IN THE OPERATION OF A HOT OIL FILTERING SYSTEM. ON-SITE SUPERVISION DURING THE FILTRATION PROCESS AND THE CLEANING PROCESS IS STRONGLY RECOMMENDED.



- 1. Open the front access door. With the Nozzle selector in the "NOZZLE" position, rotate the drain valve counterclock-wise until rotation stops and the drain valve is in the "OPEN" position. Power to the main control panel will automatically switch "OFF."
- **2.** Allow contents of the fryer to completely drain.
- 3. Press the **PUMP "ON"** to allow the oil to circulate through the drain system to flush crumbs. Using the brushes provided, brush the sides, bottom and under the heat exchangers of the fryer while the oil is circulating through the system.
- **4.** Press the **PUMP "OFF"** and allow contents of the fryer to completely drain.
- **5.** Rotate the drain valve clockwise to the **"CLOSED"** position.
- **6.** Press the **PUMP "ON"** and allow the fryer to refill to the recommended level adding additional oil/shortening as required to maintain proper fill level.
- 7. Press the **PUMP "OFF"** button.
- **8.** After the frypot has completely refilled, pull out the mobile oil trolley and discard the filter into a proper receptacle. Clean the filter assembly and oil trolley, if needed.
- **9.** Replace the oil filter and return the trolley to the proper position beneath the fryer.
- 10. Press and hold the "ON/OFF" key on the main control panel for 1-1/2 to 2 seconds to energize the fryer. Continue normal fryer operation after the preheat function has been completed.

CAUTION



METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

WARNING



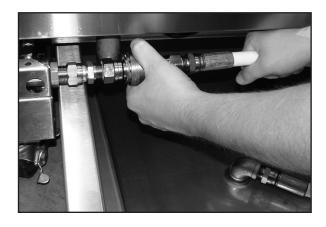
TO AVOID PERSONAL INJURY, USE CAUTION WHEN SURFACES BECOME SLIPPERY DUE TO SPILLED OR DRIPPING OIL.

OPERATION

OIL FILTRATION INSTRUCTIONS (FOR UNITS WITH INSTALLED OPTION)

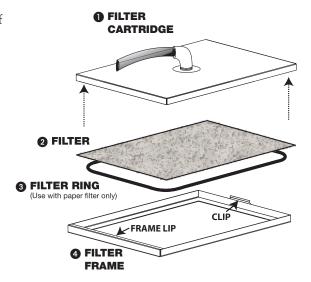
FILTER REPLACEMENT

1. With the **DRAIN** in the **"CLOSED"** position, pull the trolley from the fryer and disconnect the hose from the fryer. Use optional trolley handle if available, or take care when pulling trolley from fryer as it has sharp edges. (Contact factory for optional trolley handle information.)





- 2. Pushing down on filter frame 4 clip, pull side of filter cartridge 1 closest to clip upwards. Slide opposite edge of filter cartridge out from beneath the filter frame lip.
- **3.** Remove used filter **2** and filter ring **3**. Discard filter **2**. Retain filter ring **3**.
- **4.** Place new filter **2** and filter ring **3** next to screen on underside of filter cartridge **1**. Reverse step 2 above.
- **5.** Reconnect hose to fryer and return trolley to the full position under the fryer.



| STANDARD AND OPTIONAL FILTERS | | | |
|-------------------------------|---|--|--|
| PART NO. | DESCRIPTION | | |
| FI-27791 | PAPER (STANDARD WITH FRYER) 7-count package | | |
| FI-27794 | PAPER (STANDARD WITH FRYER) 100-count package | | |
| FI-27648 | CHARCOAL/CARBON FILTER 30-count pkg. | | |
| FI-27014 | REUSABLE MESH FILTER, single | | |

OIL FILTRATION INSTRUCTIONS (FOR UNITS WITH INSTALLED OPTION)

FILTER CLEANING & MAINTENANCE

NOTE: Make certain to use hand protection when working with hot surfaces.

REUSABLE MESH FILTER OPTION:

Clean the reusable mesh filter **(FI-27014)** by spraying thoroughly with hot water. **DO NOT** clean in the dishwasher. **DO NOT** use detergents to clean. Detergents and detergent residues will significantly reduce the life of oil and shortening products.

CAUTION

A WORN FILTER WILL AFFECT PRODUCT FRYING RESULTS.

Make certain the filter is performing efficiently by inspecting the filter each time it is cleaned. Examine for cuts and holes. For the best results, replace the filter whenever necessary.

CAUTION

TO PREVENT FILTER DAMAGE, DO NOT USE SHARP IMPLEMENTS TO REMOVE SCRAPS FROM THE FILTER.

Make certain the filter is securely fastened to the support basket before returning the assembly to the trolley.

To discard deteriorated oil/shortening, the trolley can be pulled from the fryer and can be rolled to a convenient location for use with a pumping device.

ALWAYS MAKE CERTAIN THE TROLLEY IS PROPERLY POSITIONED BENEATH THE FRYER BEFORE OPERATION.

WARNING



TO AVOID PERSONAL INJURY, USE CAUTION WHEN SURFACES BECOME SLIPPERY DUE TO SPILLED OR DRIPPING OIL.

CAUTION



METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

OPERATION

OIL FILTRATION INSTRUCTIONS (FOR UNITS WITH INSTALLED OPTION)

CLEANING & MAINTENANCE

OIL DISCARD HOSE OPTION:

The oil discard hose option (HO-27686) is available as an option to assist both the boil-out and filtration operation.

With the discard hose attached to the nozzle connection, place the Kettle/Nozzle selector in the "NOZZLE" position.

ASF-75E, 120V WITH FILTRATION

NOZZLE
CONNECTION

DRAIN
OPEN

DRAIN
DRAIN
DRAIN
DRAIN
DRAIN
DRAIN
DRAIN
DRAIN
DRAIN
CLOSE

USE

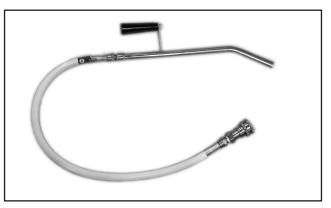
NOZZLE
CONNECTION

NOZZLE
CONNECTION

NOZZLE
SELECTOR

The drain can be placed in the **"OPEN"** or **"CLOSED"** position as required.

Disconnect hose following use and return the selector to the **"KETTLE FILL"** position.



Nozzle will contain a small amount of oil after use. Dispose of properly.



ALL SUGGESTED FRYING TIMES ARE BASED ON A FULL LOAD OF PRODUCT

Remove ice crystals and ensure that food is dry before frying. Excessive water and ice can cause oil to splatter or overflow. Do not over fill the basket. Food needs to be surrounded by oil for best frying results.

| SUGGESTED FRYING TIMES | | | | | | | |
|-----------------------------------|------------------------------------|----------------------|----------------------------|---------------|---------------|--|--|
| | ITEM | MINUTES | TEMPER | RATURE | DISPLAY | | |
| | 1. Fries (FROZEN) | 3:30 | 350°F (| 177°C) | Fries | | |
| EYS | 2. Chicken Nuggets (FROZEN) | 3:30 | 350°F (| 177°C) | Nuggets | | |
| OGRAM K | 3. Fish, Breaded (FROZEN) | 4:30 | 350°F (| 177°C) | Fish | | |
| | 4. Chicken Pieces, Breaded (FRESH) | 17:00 | 340°F (| 171°C) | Chicken | | |
| PRO | 5. PRODUCT A | | | | ProductC | | |
| | 6. PRODUCT B | | | | ProductD | | |
| ITEM | | MINUTES | MINUTES | | TEMPERATURE | | |
| Арј | petizer | 3:30 | | | 350°F (177°C) | | |
| Bre | aded Cauliflower | 3:30 | | | 340°F (171°C) | | |
| Bre | aded Fish | Per pkg. instruction | instructions 340°F (171°C) | | 340°F (171°C) | | |
| Bre | aded Mac & Cheese | 3:30 340°F (17 | | 340°F (171°C) | | | |
| Bre | aded Mushrooms | 3:30 | | | 340°F (171°C) | | |
| Bro | ccoli Cheese Nuggets | 2:30 | | | 350°F (177°C) | | |
| Che | eese Cake, Fried | 8:30 | 8:30 | | 350°F (177°C) | | |
| Che | eese Nuggets | 1:30 | | 350°F (177°C) | | | |
| Chi | cken Breasts (FRESH) | 12:00-17:00 | | 315°F (171°C) | | | |
| Chi | cken Breasts (FROZEN) | 20:00 | | 330°F (166°C) | | | |
| Chi | cken Fried Steak | 4:00 | | 350°F (177°C) | | | |
| Chi | cken Gizzards (fresh) | 3:30 | | 350°F (177°C) | | | |
| Chi | cken, Legs & Wings (FRESH) | 12:00-17:00 | | 315°F (171°C) | | | |
| Chi | cken Legs (frozen) | 18:00 | | 330°F (166°C) | | | |
| Chicken, Patty | | 6:00 | | 350°F (177°C) | | | |
| Chicken Pieces - MRB (FROZEN) | | 17:00 | | 340°F (171°C) | | | |
| Chicken Strips | | 6:00 | | 340°F (171°C) | | | |
| Chicken Tenderloins (FRESH) | | 3:00 | | 350°F (177°C) | | | |
| Chicken Tenders, Breaded (FROZEN) | | 3:30 | | 350°F (177°C) | | | |
| Chicken Wings (FRESH) | | 3:30 | | 350°F (177°C) | | | |
| Chicken Wings (FROZEN) | | 15:00 | | 330°F (177°C) | | | |
| Clam Strips | | 2:00 | | 340°F (171°C) | | | |
| Corn Dogs | | 10:00 | | 350°F (177°C) | | | |
| Cream Cheese Jalapeño Poppers | | 3:30 | | 340°F (171°C) | | | |

THE TIMES AND TEMPERATURES ARE SUGGESTED GUIDELINES ONLY. ALL COOKING SHOULD BE BASED ON INTERNAL PRODUCT TEMPERATURES. DUE TO VARIATIONS IN PRODUCT QUALITY, WEIGHT, AND DESIRED DEGREE OF DONENESS, THE COOKING TIMES AND TEMPERATURES MAY NEED TO BE ADJUSTED ACCORDINGLY. ALWAYS FOLLOW LOCAL HEALTH (HYGIENE) REGULATIONS FOR ALL INTERNAL TEMPERATURE REQUIREMENTS.

OPERATION

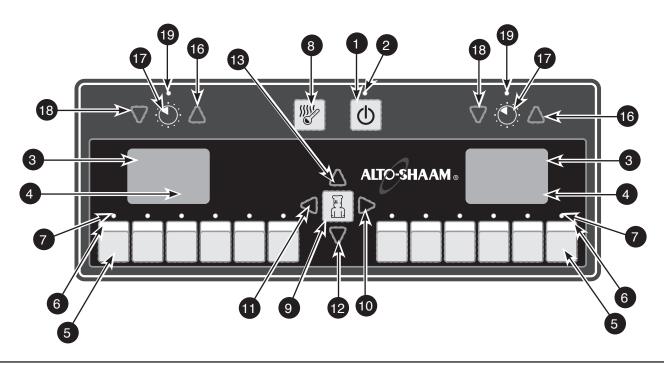
ALL SUGGESTED FRYING TIMES ARE BASED ON A FULL LOAD OF PRODUCT

Remove ice crystals and ensure that food is dry before frying. Excessive water and ice can cause oil to splatter or overflow. Do not over fill the basket. Food needs to be surrounded by oil for best frying results.

| SUGGESTED FRYING TIMES | | | | | |
|--|-----------------------|---------------|--|--|--|
| ITEM | MINUTES | TEMPERATURE | | | |
| Eggplant | 4:00 | 340°F (171°C) | | | |
| Egg Rolls (frozen) | 5:00 | 340°F (171°C) | | | |
| Fries, Crinkle-Cut | 5:00 | 340°F (171°C) | | | |
| Fries, Seasoned | 4:00 | 340°F (171°C) | | | |
| Fries, Sour Cream & Chive | 4:00 | 340°F (171°C) | | | |
| Fries (FRESH) | 5:00 | 340°F (171°C) | | | |
| Fries, Thin Cut | 3:30 | 340°F (171°C) | | | |
| Hash Brown Circles | 4:00 | 340°F (171°C) | | | |
| Jalapeno Peppers, Stuffed | 4:00 | 350°F (177°C) | | | |
| Mozzarella Sticks, Battered or Breaded | Per pkg. instructions | 340°F (171°C) | | | |
| Mushrooms, Breaded | 3:30 | 350°F (177°C) | | | |
| Onion Rings | 3:00 | 340°F (171°C) | | | |
| Pork Chops (fresh) | 10:00 | 340°F (171°C) | | | |
| Pork (fresh) | 12:00 | 340°F (171°C) | | | |
| Potato Chips (fresh) | 2:45 | 325°F (163°C) | | | |
| Potato Wedges | 3:00 | 350°F (177°C) | | | |
| Quesadilla Rolls | 3:30 | 350°F (177°C) | | | |
| Shrimp | 3:30 | 340°F (171°C) | | | |
| Vegetables | 3:00 | 350°F (177°C) | | | |
| Zucchini, Breaded (FRESH) | 3:30 | 350°F (177°C) | | | |

THE TIMES AND TEMPERATURES ARE SUGGESTED GUIDELINES ONLY. ALL COOKING SHOULD BE BASED ON INTERNAL PRODUCT TEMPERATURES. DUE TO VARIATIONS IN PRODUCT QUALITY, WEIGHT, AND DESIRED DEGREE OF DONENESS, THE COOKING TIMES AND TEMPERATURES MAY NEED TO BE ADJUSTED ACCORDINGLY. ALWAYS FOLLOW LOCAL HEALTH (HYGIENE) REGULATIONS FOR ALL INTERNAL TEMPERATURE REQUIREMENTS.

PANEL IDENTIFICATION



| DUAL CONTROL PANEL IDENTIFICATION | | | | |
|--|-----------------------------------|--|--|--|
| 1. POWER ON KEY | 11. LEFT ARROW KEY | | | |
| 2. POWER ON INDICATOR LIGHT | 12. DOWN ARROW KEY | | | |
| 3. L.E.D. 4-DIGIT DISPLAY | 13. UP ARROW KEY | | | |
| 4. ALPHA/NUMERIC DISPLAY | 14. L.E.D. 4-DIGIT DISPLAY | | | |
| 5. PROGRAMMED PRODUCT KEYS (12) | 15. ALPHA/NUMERIC DISPLAY | | | |
| 6. PROGRAMMED PRODUCT WINDOWS (2) | 16. MANUAL OPERATION UP ARROW KEY | | | |
| 7. PROGRAMMED PRODUCT INDICATOR LIGHTS | 17. MANUAL OPERATION TIME KEY | | | |
| 8. TEMPERATURE KEY | 18. MANUAL OPERATION DOWN KEY | | | |
| 9. PROGRAMMING KEY | 19. INDICATOR LIGHT | | | |
| 10. RIGHT ARROW KEY | | | | |

CAUTION



METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

PROGRAMMED PRODUCT KEY OPERATION

1. TURN THE POWER SWITCH LOCATED BEHIND THE LOWER FRONT ACCESS DOOR TO THE "ON" POSITION.

Press the **HI-LIMIT RESET** button.

The **HI-LIMIT ALARM** light will go out.

Both LED displays on the control panel will indicate **OFF**.

2. (l)

Press and hold the **ON/OFF** key for 1-1/2 to 2 seconds to energize the fryer.

The indicator light within the display will illuminate to signify that the control is cycling the heaters to reach the set-point.

The following will appear in the alpha/numeric display:

"MELTCYC"



The fryer will start the melt-cycle mode. This is the required mode necessary for melting solid shortening within the frypot. The fryer will generate **ON/OFF** heating cycles and will remain in this mode until 180°F (82°C) is reached or the mode is manually bypassed.



FOR USE WITH LIQUID SHORTENING, PRESS THE TEMPERATURE KEY FOR 4 SECONDS TO BYPASS THE MELT CYCLE.

"PREHEAT"



Preheat will appear in the display and the fryer will generate a continuous heating cycle until it reaches the operator pre-programmed set-point or a default temperature of 350°F (177°C).

"READY"



When the frypot temperature is reached, **"READY**," will appear in the Alpha/Numeric Display.

3. LOAD PRODUCT

Load product in basket(s) and set basket(s) in the fryer lift brackets. The basket(s) will automatically lower into the oil after the product key is pressed.

4.

Press and hold the desired **PROGRAMMED PRODUCT KEY** for 1 second.

The indicator light for the selected product key will illuminate.



The basket lift (ON LIFT EQUIPPED FRYERS ONLY) will lower the product into the cooking oil/shortening. The display will indicate the product name and the programmed cook time. The control will begin a countdown of the time.

CONTINUED

PROGRAMMED PRODUCT KEY OPERATION

5. If shake-time has been programmed into the selected product:

"SHAKE"



An alarm will sound during the cooking cycle at the specified shake-time programmed. **"SHAKE"** will appear in the display. The basket will automatically lift 50-percent and the display will count down from the shake time programmed.



After shaking the product, both the alarm and display can be cleared by pressing the selected product key. The basket will automatically lower into the cooking position and the cooking time will resume.

NOTE: This function will not occur if shake time has not been programmed into the selected product.

6. At the end of the cooking cycle...

"Done"



The basket(s) will lift (ON LIFT EQUIPPED FRYERS ONLY).

An alarm will sound.

The indicator light within the display will begin to flash.



If the control is set to "Continuous Alarm Mode," press the illuminated product key to silence alarm. If not set to "Continuous Alarm Mode," the alarm will stop in 5 seconds without user intervention and the display will revert to the 350°F (177°C) "READY" state if a hold value has not been programmed.

7. "Hold Done"



If a hold value has been entered into the cooking program, the control alarm will sound and the basket will automatically lift. The hold time will be displayed and countdown will begin. When the hold timer reaches 0, an alarm will sound and the product indicator light within the display will flash. Cancel the alarm by pressing the product key.

NOTE: If no hold value has been programmed, the control will skip to item 8.

8. "READY



The control will revert to the ready state.

"READY," will appear in the Alpha/Numeric Display. The 4-digit display will indicate the operator set temperature or the default set-point of 350°F (177°C).

MANUAL OPERATION

1.



Press and hold the **ON/OFF** key for 1 second to energize the fryer. The following will appear in the Alpha/Numeric Display:

"MELTCYC"



The fryer will start the melt-cycle mode. This is the required mode for melting solid shortening within the frypot. The fryer will generate **ON/OFF** heating cycles and will remain in this mode until 180°F (82°C) is reached or the mode is manually bypassed.



FOR USE WITH LIQUID SHORTENING, PRESS THE TEMPERATURE KEY FOR 4 SECONDS TO BYPASS THE MELT CYCLE.

"PREHEAT"



The fryer will generate a continuous heating cycle until it reaches the operator preprogrammed set-point or a default temperature of 350°F (177°C).

"READY"



When the frypot temperature is reached, **"READY"**, will appear in the Alpha/Numeric Display.

2. LOAD PRODUCT

Load product in basket(s) and set basket(s) in the fryer lift brackets. The basket(s) will automatically lower into the oil after the correct amount of time has been entered and the manual time key is pressed.

3. Press the **"MANUAL TIME KEY"** when **"READY"** appears in the Alpha/Numeric Display.



The previously set time (IN MINUTES) or "0:00" will begin to flash in the display.

4. PRESS THE UP AND DOWN ARROW KEYS TO ADJUST THE AMOUNT OF TIME.

CONTINUED

MANUAL OPERATION



Press the **MANUAL TIME** key after the correct amount of time has been entered.



The fryer basket will automatically lower into the cooking shortening/oil. The displayed time will begin to count down the remaining time.

NOTE: To stop the manual cooking function before time has expired:

Press and hold the **MANUAL TIME** key for 1-second.

The display will revert to **"0:00."**

The control will produce an audible signal.

The basket will automatically rise.

Manual has it's own set point. Use right/left arrow keys to adjust.

May be adjusted during cook cycle.

SHUTDOWN

1.

Press and hold the **ON/OFF** key on the main control panel for 2 seconds.



The alpha/numeric will display **"OFF."** The baskets will automatically lift.

The display will become blank.

2. Turn the Master Power Switch (located behind the front access door) to the **"OFF"** position.

CONTROL PROGRAMMING OVERVIEW



Initial access to the programming mode must start with the control in the **OFF** position.

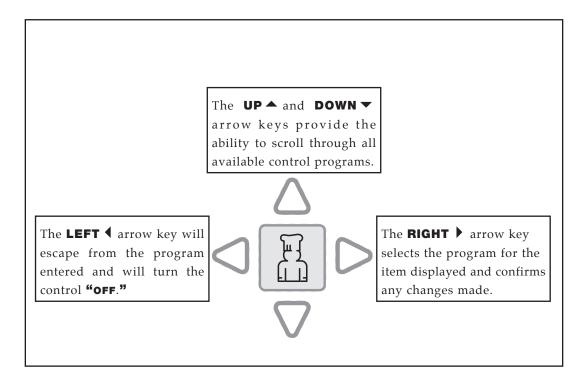


Entering the **"PROGRAM"** mode provides the operator with the ability to modify all control functions and provides access to the boil-out **"BOIL"** feature.

The fryer programming capability offers the following functions and features. Some of these operating parameters have been preset at the factory and are described in the control programming section:

| "Boil" | "Basket Lift" | "Language" | "IdleMode" | "Max Time" | "Hi Band" |
|-------------|---------------|------------|--------------|------------|----------------|
| "Set-Point" | "LiftSync" | "TempDisp" | "Filter" | "Hi Temp" | "Melt Ct" |
| "Product" | "Temp F-C" | "AlarmSet" | "Filter Cnt" | "Lo Band" | "Preheat Band" |

Press and hold the **"PROGRAM"** key for a period of 5 to 10 seconds.



To exit the control programming mode at any time, press and hold the LEFT ◀ arrow key.

PROGRAMMING THE CONTROL

Starting with the control in the **OFF** position, press and hold the **"PROGRAM"** key for a period of 5 to 10 seconds.

"Boil" will always appear as the first item in the display whenever the **"PROGRAM"** key is initially pressed. Detailed boil-out instructions are located in the **OPERATION** section of this manual.

Press the DOWN arrow key to bypass the "Boil" program.

"Boil"

Press the right arrow key enter the "Boil" program (SEE OPERATION SECTION).

Boil

NOTE: Before entering this program, make certain the frypot is empty of all oil or shortening. Close the frypot drain. Carefully follow the manufacturer's mixing directions and fill the frypot with a mixture of cold water and fryer boil-out solution.

Ready ?

The display will indicate **"READY ?"**. Press the right arrow key to start the boil-out function. The boil-out solution will begin to heat to a temperature of 195°F (91°C). When the temperature has been reached, the display will begin a 10 minute countdown.

CAUTION

DO NOT LEAVE THE FRYER UNATTENDED DURING THE BOIL-OUT PROCESS. THE FRYER MUST BE CONTINUOUSLY MONITORED FOR BOIL-OVER CONDITIONS, PARTICULARLY IN HIGH-ALTITUDE LOCATIONS. IF BOIL-OVER IS IMMINENT, IMMEDIATELY TURN THE MASTER POWER SWITCH OFF AND ALLOW THE SOLUTION TO COOL. WHEN THE SOLUTION HAS COOLED, RE-ENTER THE BOIL-OUT MODE.

At the end of the boil-out period, an alarm will sound and the control will revert to the **OFF** state.

PROGRAMMING THE CONTROL

"SetPoint

350°F SetPoint

This program allows the operator to change the temperature of the frypot oil/shortening. The setpoint temperature of the oil/shortening can be adjusted from a range of 250°F to 450°F (121°C to 232°C). The factory default is set at 350°F (177°C).

Press the Up \blacktriangle or Down \blacktriangledown arrow keys to scroll until "SetPoint" appears in the display. Press the right \blacktriangleright arrow key to enter the program. Display stops flashing. The previously set temperature will appear in the display. Press the Up \blacktriangle or Down \blacktriangledown arrow keys to change the setting. When the correct set-point appears, press the right \blacktriangleright arrow key to confirm the setting. Display flashes. Press the down \blacktriangledown arrow key to advance the control to the next program feature.

To exit the control programming mode at any time, press and hold the LEFT √ arrow key.

PROGRAMMING THE CONTROL

"Product"

Product

The fryer control has been preset at the factory with four product menu items and two programmable spaces in the dual control.

1. Fries 2. Nuggets 3. Fish 4. Chicken 5. PRODUCT A 6. PRODUCT B

The number of available product keys is directly linked to the "LiftSync" program that provides the ability to raise both baskets simultaneously or independently. If "LiftSync" is set in the "ON" position to raise both baskets at the same time, the "Product" function provides six available product keys for programming. If "LiftSync" is set to the "OFF" position to raise each basket independently, the "Product" control feature provides twelve available product keys for programming, six on each side of the control. When received from the factory "LiftSync" is set in the "OFF" position for independent basket operation.

NOTE: If "LiftSync" is to remain in the "OFF" position to provide independent basket operation for the purpose of frying two individual products simultaneously, the cooking temperature for each product must be the same. The fryer will use the higher temperature menu item.

The **"Product"** feature provides the operator with the ability to modify all presets and/or program additional product menu items as required.

Press the Up ▲ or Down ▼ arrow keys to scroll until **"Product"** appears in the display.

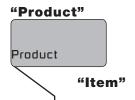
"Item"



The sub-menu provides the operator with the ability to rename an existing programmed product or add a program to one of the blank program keys, i.e., **PRODUCT A** OF **PRODUCT B**.

CONTINUED

PROGRAMMING THE CONTROL





Press and hold any one of the twelve product keys to be programmed or modified.

The product, as currently named, will begin to flash in the display.

Press the Right ▶ arrow key. The first letter of the product name will begin to flash. Press the Up ♠ or Down ▼ arrow keys to scroll until the first letter changes as required (UPPER CASE, LOWER CASE, NUMBERS, OR BLANK SPACE IS AVAILABLE THROUGH THE SCROLLING PROCESS). Press the Right ▶ arrow key. The second letter of the product name will begin to flash. Press the Up ♠ or Down ▼ arrow keys to scroll until the second letter is changed as required. Continue this process until the desired name appears. NOTE: There are 8 spaces available for the product name. ALL 8 spaces must be filled with a letter, number or blank space to complete the setting.

When the correct name is displayed, press the Left \triangleright arrow key to confirm the selection. The named product will start flashing. Display flashes. Press the Up \blacktriangle or Down \blacktriangledown arrow key to advance the control to the next setting option for this product as directed on the following pages:

Time Mod Cook Time SetPoint ShakeTime Hold Time

Entry into the Product programming mode allows the operator to program all available product keys. To continue programming additional items, press and hold the next product key $\stackrel{\circ}{\Box}$ to be programmed and follow the above instructions.

Off

After the final "Product" key has been programmed, the LEFT ◀ arrow key must be pressed to completely exit the control programming mode. The control will revert to the "OFF" position. To program control features other than PRODUCT, press and hold the "PROGRAM" key for a period of 5 to 10 seconds from the "OFF" position.

Press the Up ▲ or Down ▼ arrow keys and scroll to the program function to be set.

PROGRAMMING THE CONTROL

"Product"

Product

"TimeMod"

TimeMod

OFF

This sub-menu allows the operator to compensate for any drop in oil/shortening temperature as it relates to cooking start time. In the "ON" position, the product countdown timer will not start until the oil temperature reaches the set-point temperature. In the "OFF" position, the product countdown timer will start as soon as the product key is pressed. This item is set to "OFF" at the factory.

Press the right ▶ arrow key to select "TimeMod." Display stops flashing. Press the Up ▲ or Down ▼ arrow keys to scroll to the value of "ON" or "OFF." When the correct value is displayed, press the right ▶ arrow key to confirm the setting. Display flashes. Press the down ▼ arrow key to advance the control to the next setting option.

"CookTime"

5:00

CookTime

This sub-menu allows the operator to adjust a previously programmed cooking time as determined by the operator or as shown on the product chart. The control provides frying time adjustment up to a period of 60 minutes.

Press the right ▶ arrow key to select "CookTime." The previously set programmed cook time or "0000" will appear in the display. Display stops flashing. Press the Up ▲ or Down ▼ arrow keys to change the setting. When the correct time appears, press the right ▶ arrow key to confirm the setting. Display flashes.

Press the down ▼ arrow key to advance the control to the next setting option.

"SetPoint"

Setpoint

This sub-menu allows the operator to adjust the temperature of the fry-pot oil/shortening as required from the temperatures shown on the product chart. The set-point temperature of the oil/shortening can be adjusted from a range of 250°F to 450°F (121°C to 232°C).

Press the right \blacktriangleright arrow key to enter the program. Display stops flashing. The previously set temperature will appear in the display. Press the Up \blacktriangle or Down \blacktriangledown arrow keys to change the setting. When the correct set-point appears, press the right \blacktriangleright arrow key to confirm the setting. Display flashes. Press the down \blacktriangledown arrow key to advance the control to the next setting.

PROGRAMMING THE CONTROL

"Product"

Product

"ShakTime"

OFF ShakTime The "ShakTime" sub-menu provides the operator with a programmed time period during which the baskets will automatically lift to half the normal raised position so that the operator can shake each basket. When programmed into a product procedure, an alarm will sound to alert the operator at the start of the "ShakTime" cycle and will continue until the activated product key is pressed. The amount of "ShakTime" can only be programmed up to the maximum amount of frying time allotted to the programmed product.

There is no **"ShakTime"** programmed into any of the products shown on the product chart. The control provides shake time adjustment from **"OFF"** up to a period of 60 minutes. When received from the factory, shake-time will indicate **"OFF"** in the display for all programmed preset items.

Press the right ▶ arrow key to enter the **"ShakTime"** sub-menu. Display stops flashing. Press the Up ▲ or Down ▼ arrow keys to change the setting. When the desired amount of **"ShakTime"** appears, press the right ▶ arrow key to confirm the setting. If no shake time is required, press the Down ▼ arrow key and scroll until **"OFF"** appears in the display. When the correct setting appears, press the right ▶ arrow key to confirm. Display flashes. Press the down ▼ arrow key to advance the control to the next sub-menu setting.

To exit the control programming mode at any time, press and hold the LEFT √ arrow key.

PROGRAMMING THE CONTROL

"Product" Product

"HoldTime"

1:00

HaldTime

This sub-menu allows the operator to program a time interval to lift the basket(s) and allow the product to drain before signaling the end of the frying cycle. There is no **"HoldTime"** programmed into any of the products shown on the product chart. The control provides hold time adjustment from **"OFF"** up to a period of 60 minutes.

Press the right ▶ arrow key to enter the "HoldTime" sub-menu. Display stops flashing. The previously set hold time or "OFF" will appear in the display. Press the Up ▲ or Down ▼ arrow keys to change the setting. When the correct "HoldTime" appears, press the Right ▶ arrow key to confirm the setting. If no hold time is required, press the Down ▼ arrow key and scroll until "OFF" appears in the display. When the correct setting appears, press the Right ▶ arrow key to confirm. Display flashes.

Entry into the Product programming mode allows the operator to program all available product keys. After the final **"Product"** key has been programmed, the **LEFT** ◀ arrow key must be pressed to completely exit the control programming mode. The control will revert to the **"OFF"** position.

Off

To program control features other than *Product*, press and hold the **"PROGRAM"** for a period of 5 to 10 seconds from the **"OFF"** position. Press the Up ♠ or Down ▼ arrow keys and scroll to the program function to be set.

To exit the control programming mode at any time, press and hold the LEFT ◀ arrow key.

PROGRAMMING THE CONTROL

"BsktLift"

ON

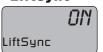
BsktLift

The Basket Lift program provides the operator with the ability to enable or disable the automatic basket lift function. In the "ON" position, the baskets will lift automatically as programmed in the selected product procedure. In the "OFF" position, both baskets will remain in the raised position until manually dropped by the operator. This function is set in the "ON" position as received from the factory. IT IS STRONGLY RECOMMENDED THAT THE "BSKTLIFT" REMAIN AT THIS SETTING. If it is ever necessary to transition from the disabled "OFF" position to the enabled "ON" position, the control display will indicate "POWERDOWN" requiring the operator to perform a control shutdown in order to synchronize the baskets with the revised state of the control.

Turn the Master Power Switch (located behind the front access door) to the "OFF" position.

Press the Up ▲ or Down ▼ arrow keys to scroll until "BsktLift" appears in the display. Press the Right ▶ arrow key to enter the program. Display stops flashing. The previous setting will appear in the display. Press the Up ▲ or Down ▼ arrow keys to change the setting. When the correct setting appears, press the Right ▶ arrow key to confirm. Display flashes. Press the Down ▼ arrow key to advance the control to the next setting option.

"LiftSync"



AVAILABLE ON DUAL-CONTROL FRYERS ONLY. The **"LiftSync"** program provides the ability to raise both basket lifts simultaneously by selecting the **"ON"** position. The factory preset is in the **"OFF"** position for independent operation.

Press the Up \blacktriangle or Down \blacktriangledown arrow keys to scroll until "LiftSync" appears in the display. Press the Right \blacktriangleright arrow key to enter the program. Display stops flashing. Press the Up \blacktriangle and Down \blacktriangledown arrow keys to toggle between "ON" and "OFF." When the selection has been made, press the Right \blacktriangleright arrow key to to confirm the selection. Display flashes. Press the Down \blacktriangledown arrow key to advance the control to the next programming function.

"Temp F/C"



The temperature display can be shown in degrees Fahrenheit or Celsius.

Press the Up or Down arrow keys to scroll until "Temp F/C" appears in the display. Press the Right ▶ arrow key to enter the program. Display stops flashing. The current setting will appear in the display. Press the Up or Down arrow keys to toggle between "F" and "C." Press the Right ▶ arrow key to accept the desired selection. Display flashes. Press the Down arrow key to advance the control to the next programming function.

To exit the control programming mode at any time, press and hold the LEFT ◀ arrow key.

PROGRAMMING THE CONTROL

"Language"

The language option is only available in English **"ENG"** at this time.

ENG Language

"TempDisp"

ON TempDisp The operator can choose to have the fryer oil temperature continuously shown in the display during a product cooking sequence by selecting **"ON"** or to a normal display sequence by selecting **"OFF."** The function is set to **"ON"** at the factory.

Press the Up \blacktriangle or Down \blacktriangledown arrow keys to scroll until "**TempDisp**" appears in the display. Press the Right \blacktriangleright arrow key to enter the program. Display stops flashing. The current setting of "**ON**" or "**OFF**" will appear in the display. Press the Up \blacktriangle or Down \blacktriangledown arrow keys to change the setting. When the correct setting appears, press the Right \blacktriangleright arrow key to confirm the setting. Display flashes. Press the Down \blacktriangledown arrow key to advance the control to the next programming function.

"AlarmSet"

Alarm Set

The operator is able to set the volume of the fryer alarm to off, low, medium or high "OFF", "LO", "MED" or "HI." The alarm is set to "HI" when received from the factory.

Press the Up ▲ or Down ▼ arrow keys to scroll until "AlarmSet" appears in the display. Press the Right ▶ arrow key to enter the program. Display stops flashing. The current setting will appear in the display. Press the Up ▲ or Down ▼ arrow keys to toggle among the available choices. When the correct setting appears, press the Right ▶ arrow key to confirm the setting. Display flashes. Press the Down ▼ arrow key to advance the control to the next programming function.

"IdleMode"
30:00

The idle mode allows the operator to set a period of time during which the fryer is not being used but still maintains full fryer oil temperature. When idle time expires, the fryer oil temperature will drop to 250°F (121°C) at which point the oil/shortening must be reheated before frying additional product. This time period can be adjusted between **"OFF"** and **60:00** minutes. The factory default is set at 30 minutes idle time.

Press the Up ▲ or Down ▼ arrow keys to scroll until "IdleMode" appears in the display. Press the Right ▶ arrow key to enter the program. Display stops flashing. If no idle time is required, press the Down ▼ arrow key until "OFF" appears in the display. Press the Up ▲ or Down ▼ arrow keys to change the setting. When the correct setting appears, press the Right ▶ arrow key to confirm. Display flashes. Press the Down ▼ arrow key to advance the control to the next programming function.

"IdleMode" can be interrupted at any time by pressing any of the 12 product preset keys. The fryer will immediately begin to preheat to the set-point temperature. The baskets can be dropped only after the set-point temperature has been reached.

To exit the control programming mode at any time, press and hold the LEFT √ arrow key.

PROGRAMMING THE CONTROL

"FILTER"

OFF Filter The filter program is a monitor to notify the operator to service the oil/shortening after a specified number of product loads established and set in the filter count "FILTER CNT" programming function. This feature is set to "OFF" at the factory. THE NUMBER OF PRODUCT LOADS CAN BE ADJUSTED BY THE OPERATOR THROUGH THE FILTER COUNT PROGRAM. FILTER COUNT WILL AUTOMATICALLY ADJUST FILTER MONITOR ALERTS TO ONE OF THE THREE SELECTIONS SHOWN AS SET BY THE OPERATOR.

"Off"

OFF

Filter

When set to the **"OFF"** position, the filter monitor is disabled and will **NOT** notify the operator to service the oil/shortening.

"ALRM"

ALRM Filter Set to alarm "ALRM," this feature will provide an audible alarm and the display will indicate "FILTER NOW" as a reminder to the operator after every 15 product loads or the number of processed fry loads set by the operator in the "FILTER CNT" program function. When set to "ALRM" additional fry loads can be processed and the alarm can be silenced by pressing the ON/OFF power key on the main control panel to the "OFF" position

"LocH"

LOC**H** Filter When the program mode is changed to the lock **"LOCH"** position, an audible alarm will sound and the fryer will become inoperable following the number of processed fry loads set by the operator in the **"FILTER" CNT"** program function. The control will only become operable after the oil/shortening has been serviced.

Press the Up ▲ or Down ▼ arrow keys to scroll until "FILTER" appears in the display. Press the Right ▶ arrow key to enter the program. Display stops flashing. Press the Up ▲ or Down ▼ arrow keys to toggle among the available choices. When the desired setting appears, press the Right ▶ arrow key to accept the selection. Display flashes. Press the Down ▼ arrow key to advance the control to the next programming function.

PROGRAMMING THE CONTROL

"FILTER CNT"

75 Filter Cnt The filter count program allows the operator to change the number of processed fry loads within a range of 5 to 15 before the monitor notifies the operator to service the oil/shortening. The factory default is set at 15 loads. THE "FILTER" MONITOR PROGRAM MUST BE ACTIVATED IN ORDER TO MAKE THE "FILTER CNT" PROGRAM FUNCTIONAL.

Press the Up \blacktriangle or Down \blacktriangledown arrow keys to scroll until "FILTER CNT" appears in the display. Press the Right \blacktriangleright arrow key to enter the program. Display stops flashing. Press the Up \blacktriangle or Down \blacktriangledown arrow keys to until the desired number of processed loads appears in the display. When the desired setting appears, press the Right \blacktriangleright arrow key to accept the selection. Display flashes. Press the Down \blacktriangledown arrow key to advance the control to the next programming function.

"MAX TIME"

3:00 Max Time **"MAX TIME"** provides notification when the temperature of the oil is lower than the set-point temperature. The factory set default is 3 minutes and should not be adjusted by the operator. Press the down ▼ arrow key to advance the control to the next programming function.

LoTemp

"HI TEMP"

450°F Hi Temp **"HI TEMP"** allows the operator to trigger an automatic fryer shut-down at a specified oil temperature within a range of 250°F to 450°F (121°C to 232°C). This safety feature is provided in the event the actual oil temperature exceeds the oil set-point temperature due to equipment malfunction. The factory default is set at 450°F (232°C).

Press the Up \blacktriangle or Down \blacktriangledown arrow keys to scroll until "HI TEMP" appears in the display. Press the right \blacktriangleright arrow key to enter the program. Display stops flashing. Press the Up \blacktriangle or Down \blacktriangledown arrow keys to scroll until the desired shut-down temperature appears in the display. When the desired temperature appears, press the right \blacktriangleright arrow key to accept the selection. Press the down \blacktriangledown arrow key to advance the control to the next programming function.

PROGRAMMING THE CONTROL

"LO BAND"

21°F Lo Band **"LO BAND"** provides an alarm notification when the temperature of the oil is lower than the set-point temperature. The adjustment range is between 5°F and 100°F (3°C and 56°C) with a factory preset of 21°F (12°C).

Low Temp

Press the Up \triangle or Down ∇ arrow keys to scroll until "LO BAND" appears in the display. Press the Right \triangleright arrow key to enter the program. Display stops flashing. Press the Up \triangle or Down ∇ arrow keys to scroll until the desired number appears in the display. When the desired setting appears, press the Right \triangleright arrow key to accept the selection. Display flashes. Press the Down ∇ arrow key to advance the control to the next programming function.

"HI BAND"

25°F Hi Band **"HI BAND"** provides an alarm notification when the temperature of the oil becomes higher than the set-point temperature. The adjustment range is between zero and 100°F (56°C) with a factory preset of 25°F (14°C).

Hi Temp

Press the Up ▲ or Down ▼ arrow keys to scroll until "HI BAND" appears in the display. Press the Right ▶ arrow key to enter the program. Display stops flashing. Press the Up ▲ or Down ▼ arrow keys to scroll until the desired number appears in the display. When the desired setting appears, press the Right ▶ arrow key to accept the selection. Display flashes. Press the Down ▼ arrow key to advance the control to the next programming function.

"MELT CT"

0:10 Melt Ct The fryer control includes a melt function with **ON/OFF** pulsed heating cycles for the purpose of melting solid shortening at a continuous but slower rate to assure full melt-down. The operator has the ability to control the **ON/OFF** pulse rate between 00:01 and 00:60 seconds. The factory default is set for 10 seconds (00:10).

Press the Up \triangle or Down ∇ arrow keys to scroll until "MELT CT" appears in the display. Press the Right \triangleright arrow key to enter the program. Display stops flashing. Press the Up \triangle or Down ∇ arrow keys to scroll until the desired time appears in the display. When the desired setting appears, press the Right \triangleright arrow key to accept the selection. Display flashes. Press the Down ∇ arrow key to advance the control to the next programming function.

"PREHEAT BAND"

10°F) Preheat Band The **"PREHEAT BAND"** is used to prevent the oil temperature in the frypot from reaching the actual set-point temperature in order to compensate for temperature override as the fryer calls for heat. This program feature is set to 10°F (6°C) at the factory.

It is strongly urged that the "PREHEAT BAND" remain at this setting.

To exit the control programming mode, press and hold the LEFT ◀ arrow key.

TEMPERATURE VERIFICATION



The temperature of the cooking oil/shortening and the temperature set-point can be verified at any time.

Press the **"Temperature"** key <u>once</u> to verify the temperature of the oil/shortening. Press the **"Temperature"** key <u>twice</u> to verify the set-point temperature.

The fryer control will automatically exit either of these readings after four (4) seconds.

If a defective probe is suspected, measure the temperature of the oil/shortening with a thermometer. Compare the thermometer reading with temperature shown in the control to make certain the readings are reasonably close. If there is a wide discrepancy, perform a complete fryer shutdown and contact Alto-Shaam service.

| ERROR CODE DISPLAY MESSAGES | |
|--|---|
| PROBABLE CAUSE | SOLUTION |
| Ambient temperature surrounding the controller is too high or too low. | Adjust the system or the environment so that the ambient air surrounding the control is above 32°F (0°C) or below 160°F (80°C). |
| Controller EEPROM initialization (FIRST TIME USE). | Wait for approximately 30 to 120 seconds. If the message does not terminate, return the controller to the factory. |
| FIXPROBE Probe shorted. | Contact Alto-Shaam service. |
| FIXPROBE Probe open. | Contact Alto-Shaam service. |
| Exceeded maximum amount of time to achieve temperature. | Turn power OFF and reset the control. |
| Exceeded set temperature by X degrees. | Turn power OFF and allow fryer to cool. Contact Alto-Shaam service. |
| E-85 Preset Data Error (EEPROM data error) SERVICE | Contact Alto-Shaam service. |
| NOCOMMS Problem with connectors or cable. SERVICE | Check ribbon cable from main board to slave board. Contact Alto-Shaam service. |

1. Press and hold the **ON/OFF** key for 1 second.

One of the following will appear in the alpha/numeric display:

A. "**READY**" along with "- - - " in the L.E.D. display.

The fryer is in the cooking range.

NOTE: For best results, do not cook product until the display is in this mode.

B. "HI TEMP"

The pot temperature is 40°F (22°C) or higher than the set-point.

C. "LO TEMP"

The pot temperature is 21°F (12°C) or lower than the set-point.

D. "PROBLEM"

Indicates a heating problem.

E. "HOT"

The pot temperature is more than 410°F (210°C) or 395°F (202°C) for CE (European Community fryers).

F. "FIXPROBE"

The control has detected a problem in the temperature measuring circuit, including the probe. **NOTE:** A decimal point "•" between L.E.D. digits 1 and 2 in either display indicates the control is calling for heat.



DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

CAUTION

THIS SECTION IS PROVIDED FOR THE ASSISTANCE OF QUALIFIED SERVICE TECHNICIANS ONLY AND IS NOT INTENDED FOR USE BY UNTRAINED OR UNAUTHORIZED SERVICE PERSONNEL.

CAUTION

IT IS RECOMMENDED THIS APPLIANCE BE INSPECTED BY A QUALIFIED SERVICE TECHNICIAN AT REGULAR INTERVALS AS PART OF A STANDARD KITCHEN MAINTENANCE PROGRAM.



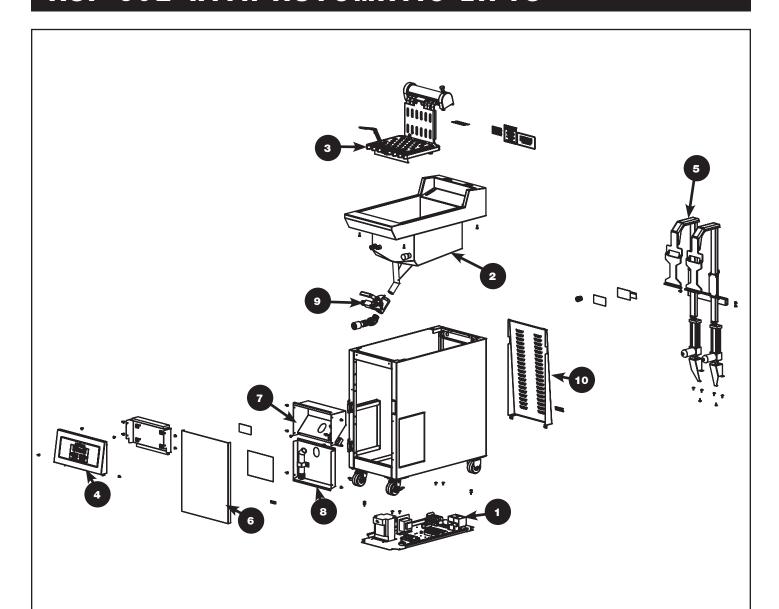
EXTENDED LIMITED FRYPOT WARRANTY

Alto-Shaam, Inc. warrants to the original purchaser that any frypot that is found to be defective in material or workmanship will, at Alto-Shaam's option, subject to provisions hereinafter stated, be replaced with a new or rebuilt frypot.

The labor warranty remains in effect for three (3) years from the shipping date. Alto-Shaam will bear shipping and normal labor charges for installation performed during standard business hours, and excluding overtime, holiday rates or any additional fees.

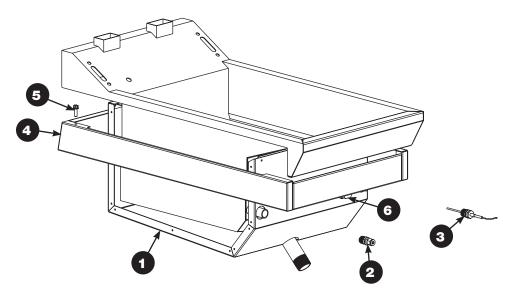
The parts warranty remains in effect for seven (7) years from the shipping date. Following the initial three (3) year labor warranty, Alto-Shaam will replace the frypot only, with freight, labor and all additional charges at the full responsibility of the owner/operator.

Extended frypot warranty coverage is subject to all remaining provisions as set forth in Alto-Shaam's standard published warranty.



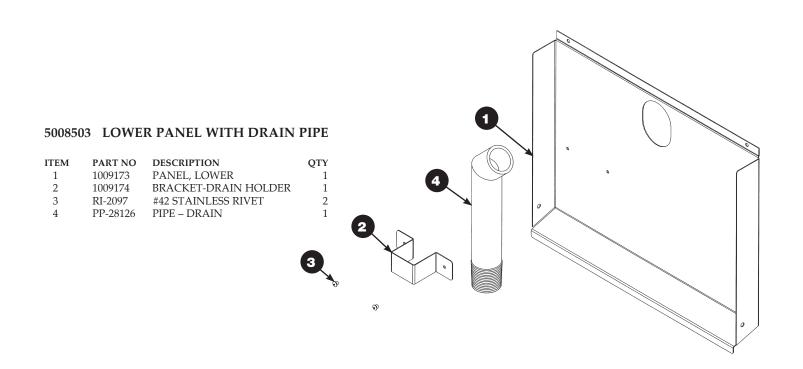
See details for these assemblies on following pages:

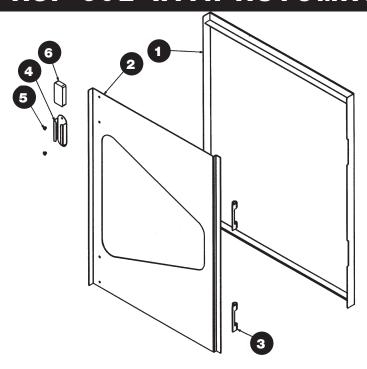
| ITEM | PART NO | DESCRIPTION | QTY |
|------|---------|-------------------------------|-----|
| 1 | 5008682 | ELECTRIC ASSY | 1 |
| 2 | 5009111 | KETTLE ASSY-ASF60E DLX W/LIFT | 1 |
| 3 | 5008656 | ELEMENTS ASSY-ASF60E 208-220V | 1 |
| 4 | 5007811 | CONTROL PANEL ASSEMBLY | 1 |
| 5 | 5007518 | LIFT ASSEMBLY-ASF-60 | 1 |
| 6 | 5007555 | DOOR-ASF 60 | 1 |
| 7 | 5008570 | DRAIN PANEL AND SWITCHES-60E | 1 |
| 8 | 5008503 | LOWER PANEL WITH DRAIN PIPE | 1 |
| 9 | 5007792 | VALVE-DRAIN ASSEMBLY ASF-60 | 1 |
| 10 | 1008458 | PANEL-BACK | 1 |



5009111 KETTLE ASSY

| ITEM | PART NO | DESCRIPTION | QTY |
|------|----------|------------------------------------|-----|
| 1 | KE-27824 | KETTLE-KIREMKO | 1 |
| 2 | FT-27250 | FITTING-1/4" COMPRESSION x 3/8 NPT | 1 |
| 3 | 5005200 | PROBE-REDUCER | 1 |
| 4 | 5008865 | FRAME | 1 |
| 5 | SC-24262 | 1/4-20 X 5/8" SER FGD HD ZP | 2 |
| 6 | CP-28016 | CAP-3/4 NPT | 1 |



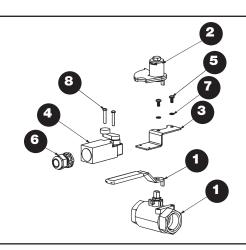


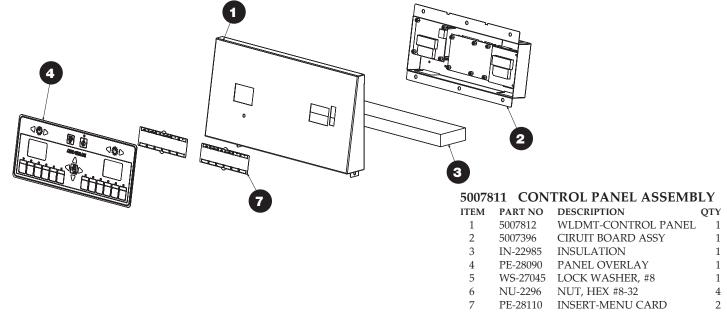
15007555 DOOR

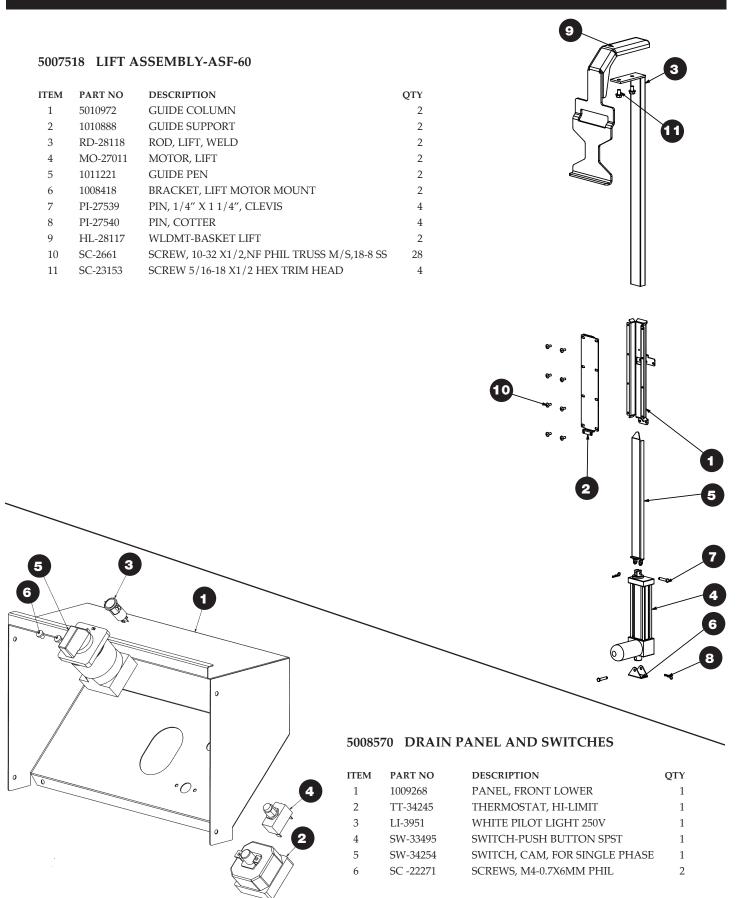
| ITEM | PART NO | DESCRIPTION | QTY |
|------|----------|---------------------|-----|
| 1 | 1008455 | OUTER DOOR | 1 |
| 2 | 1008462 | INNER DOOR | 1 |
| 3 | HG-26994 | HINGE, FEMALE, DOOR | 2 |
| 4 | 1006303 | BRACKET-MAGNET | 1 |
| 5 | RI-2097 | #42 STAINLESS RIVET | 2 |
| 6 | MA-25734 | MAGNET, DOOR, AR-7E | 1 |

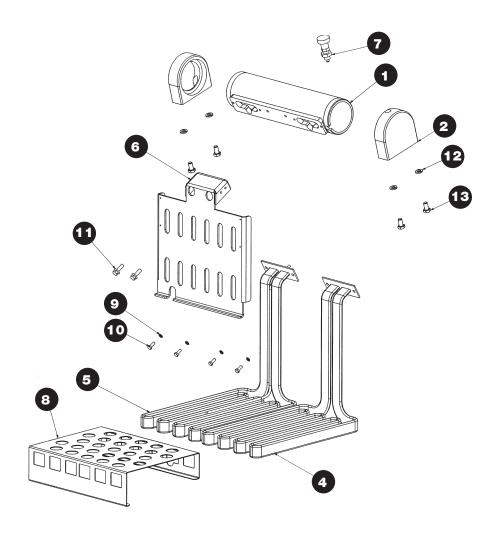
5007792 VALVE-DRAIN ASSEMBLY

| ITEM | PART NO | DESCRIPTION | QTY |
|------|-----------|-----------------------------------|-----|
| 1 | VA-28114 | VALVE-BALL USE WITH FT-28113 | 1 |
| 2 | 5008497 | WLDMT-DRAIN CAM | 1 |
| 3 | 1008739 | BRACKET, DRAIN SWITCH MOUNT | 1 |
| 4 | SW-34246 | LIMIT SWITCH | 1 |
| 5 | SC -28288 | SCREW-10-24 x .375 PHMS | 2 |
| 6 | BU-3964 | BUSHING, STRAIG HT, STRAIN RELIEF | 1 |
| 7 | WS-23671 | WASHER, LOCK, #10, 18-8 S/S | 2 |
| 8 | SC -2069 | SCREW, 8-32 X 1, NC PHILLIPS PAN | 2 |



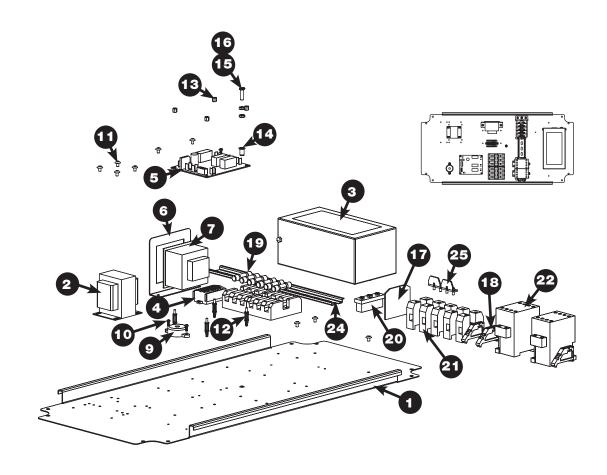




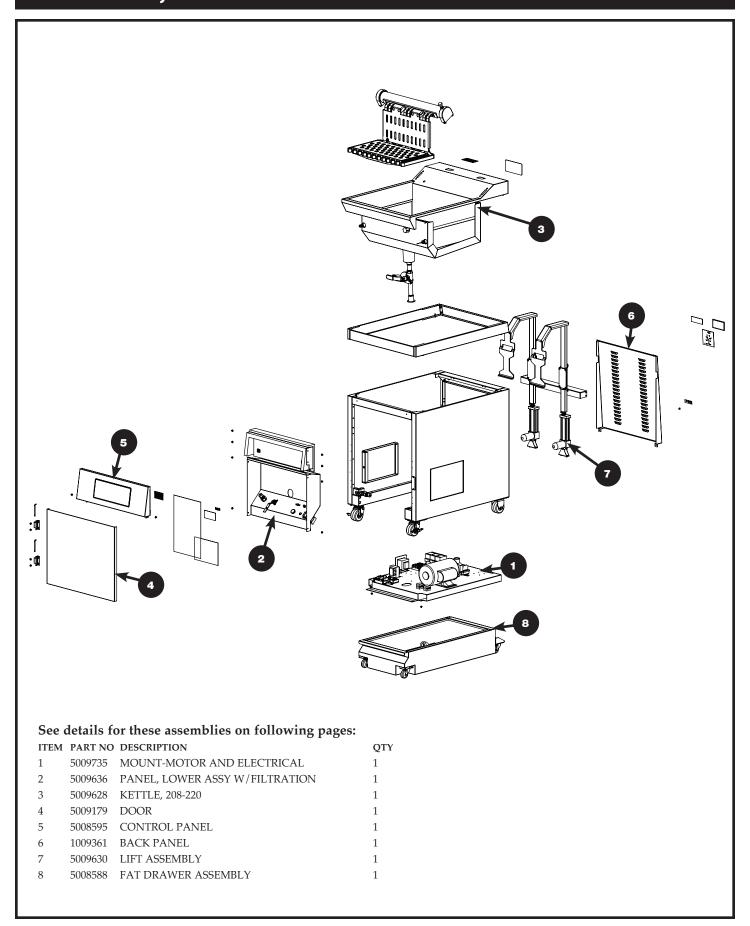


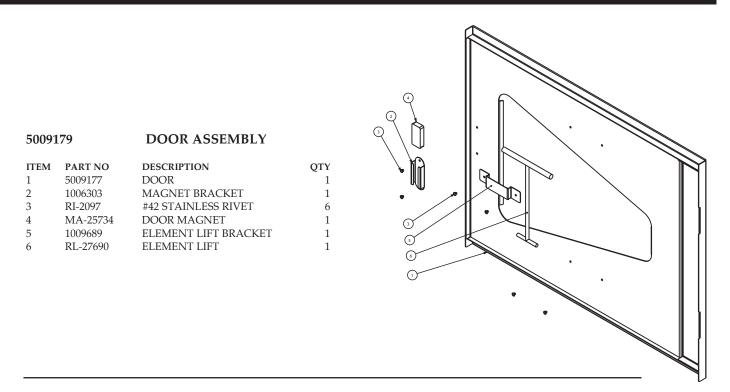
5008656 ELEMENTS ASSY-ASF60E 208-220V

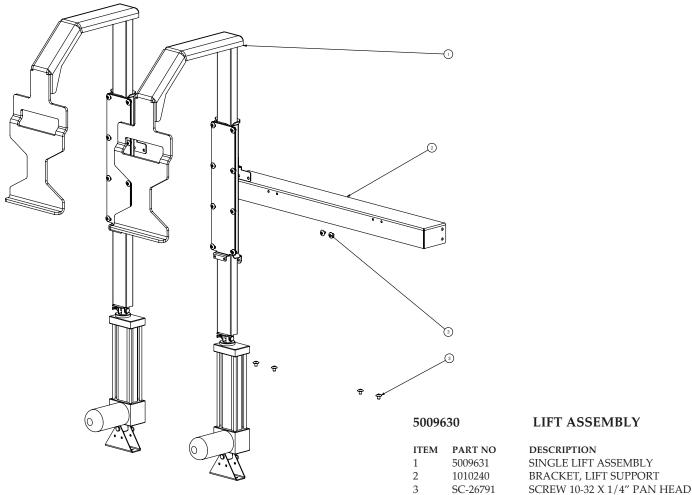
| ITEM | PART NO | DESCRIPTION | QTY |
|------|-----------|--------------------------------|-----|
| 1 | PP-28143 | PIPE, 2-1/2" SC H-40 304 SS | 1 |
| 2 | BK-27098 | HINGE BLOCK WITH SECURITY PIN | 1 |
| 3 | BK-27099 | HINGE BLOCK WITHOUT | 1 |
| 4 | EL-34352 | ELEMENT 208-220V | 1 |
| 5 | EL-34387 | ELEMENT 208-220V W/TC | 1 |
| 6 | 1008527 | GUARD, HEATER | 1 |
| 7 | PI-27152 | PIN, SECURITY | 1 |
| 8 | 1009262 | ELEMENT GUARD | 1 |
| 9 | WS-23671 | WASHER, LOCK, #10, 18-8 S/S | 4 |
| 10 | SC -27481 | SCREW, 10-32 X 1/2" HEX HD, SS | 4 |
| 11 | SC -25286 | 1/4-20 X 3/4" FLANGED HD | 2 |
| 12 | WS-22303 | M8 SPLIT RING WASHER | 4 |
| 13 | SC -26462 | HEX HEAD SCREW, M8 X 15 | 4 |



| | | | | THE PARTY | . DADENO | DESCRIPTION | OTTN/ |
|------|----------|---|-------|-----------|-----------|----------------------------------|-------|
| ITEM | PART NO | DESCRIPTION | QTY | ITEM | I PART NO | DESCRIPTION | QTY |
| 1 | 1008453 | BASE-ASF-60 | 1 | 15 | NU-2215 | NUT,10-32,NF HEX MS,# 18-8 S/S | 2 |
| 2 | TN-34402 | TRANSFORMER, 230V/24V, 50A | 1 | 16 | SC-2071 | 10-32 X 3/4 PHILLIPS PAN HD | 1 |
| 3 | TN-34401 | TRANSFORMER, 440/480V | 1 | 17 | TM-3786 | TERMINAL, CT, 35mm WALL, PART | 1 |
| 4 | BK-34372 | T-BLOCK, MODULAR | 1 | 18 | TM-3926 | TERMINALS,*CT,PLUG,6.10 | 3 |
| 5 | BA-34563 | RELAY BOARD-ASF-DELUXE | 1 | 19 | FU-3860 | FUSE-30 A, CLASS G, QC | 6 |
| 6 | 1006917 | BRACKET, HI-LIMIT CONTROLLER | 1 | 20 | TM-3782 | TERMINAL, GROUND, 35mm | 1 |
| 7 | CC-34378 | CONTROLLER, HI-LIMIT, | 1 | 21 | TM-3780 | TERMINAL, CT, MARK, L | 5 |
| 8 | 5008119 | WIRE SET-ASF 60E 440-480V NO LIFT | 1 | 22 | CN-3652 | CONTACTOR | 2 |
| 9 | BP-3567 | BEEPER | 1 | 23 | FU-3773 | FUSE HOLDER | 2 |
| 10 | SC-23455 | 6-32 X 3/8 RD HD | 4 | 24 | 1003551 | DIN RAIL-QC 12" | 1 |
| 11 | SC-2459 | 8-32 x 1/4" PHIL SCREW | 9 | 25 | TM-33837 | JUMPER STRIP | 2 |
| 12 | SP-33901 | SPACER, 7/16 FOR .125 HOLE IN .062" BOA | ARD 4 | 26 | FU-34274 | FUSE-4A SECONDARY, 3AG TYPE | 1 |
| 13 | SP-33707 | SPACER, SUPPORT, NYL, 1.4" | 4 | 27 | FU-34355 | FUSE-2A 250V, T-LAG, GLS, MOL | 1 |
| 14 | HG-22672 | 10-32 THREADED INSERT | 1 | 28 | CR-3226 | CONNECTOR, TERM., # 10 STUD RING | 1 |







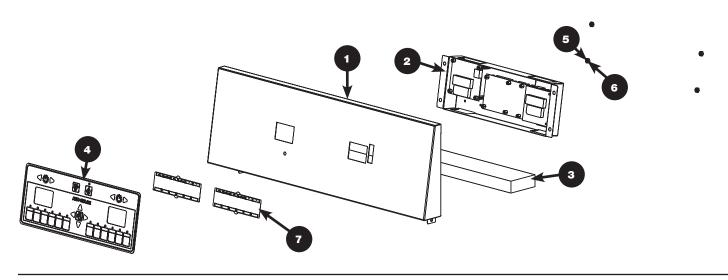
QTY

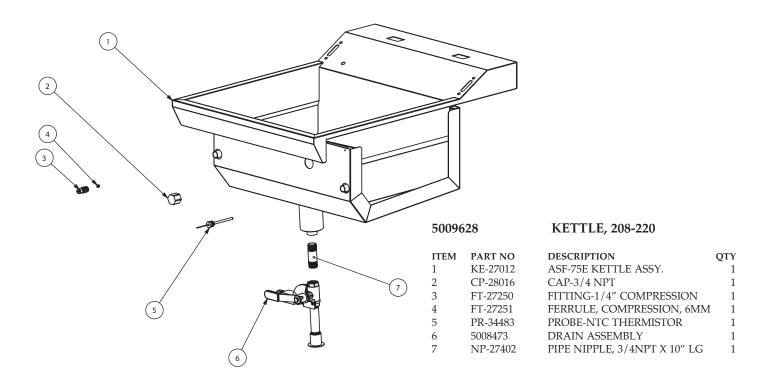
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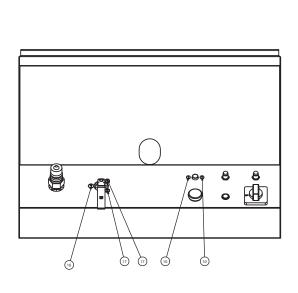
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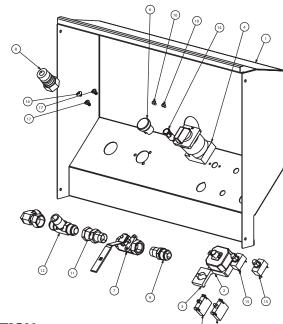
5008595 CONTROL PANEL

| ITEM | PART NO | DESCRIPTION | QTY |
|------|----------|--------------------------|-----|
| 1 | 5008594 | WELDMENT-CONTROL PANEL | 1 |
| 2 | 5007396 | ASSY-CIRCUIT BOARD | 1 |
| 3 | IN-22985 | INSULATION, 1/2" CERAMIC | 1 |
| 4 | PE-28090 | MAIN OVERLAY-WATLOW | 1 |
| 5 | WS-27045 | WASHER, # 8, LOCK WASHER | 4 |
| 6 | NU-2296 | NUT, HEX # 8-32 | 4 |
| 7 | PE-28110 | INSERT-MENU CARD | 2 |



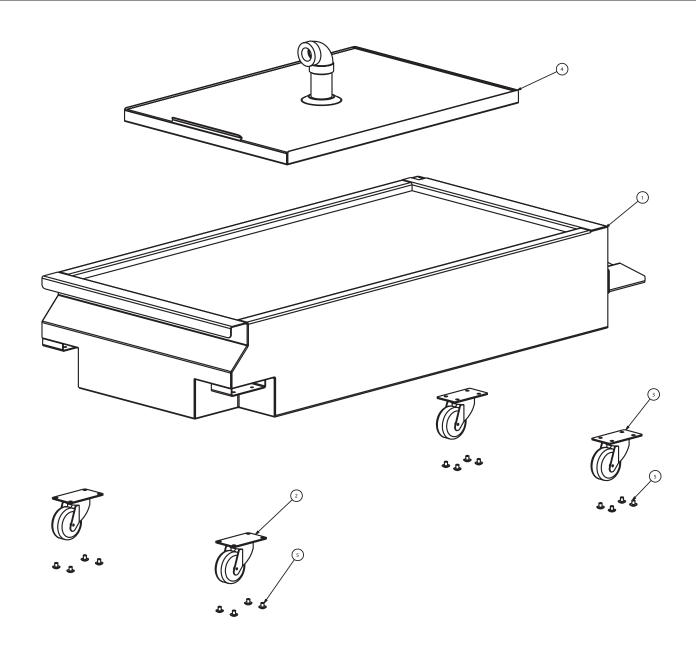




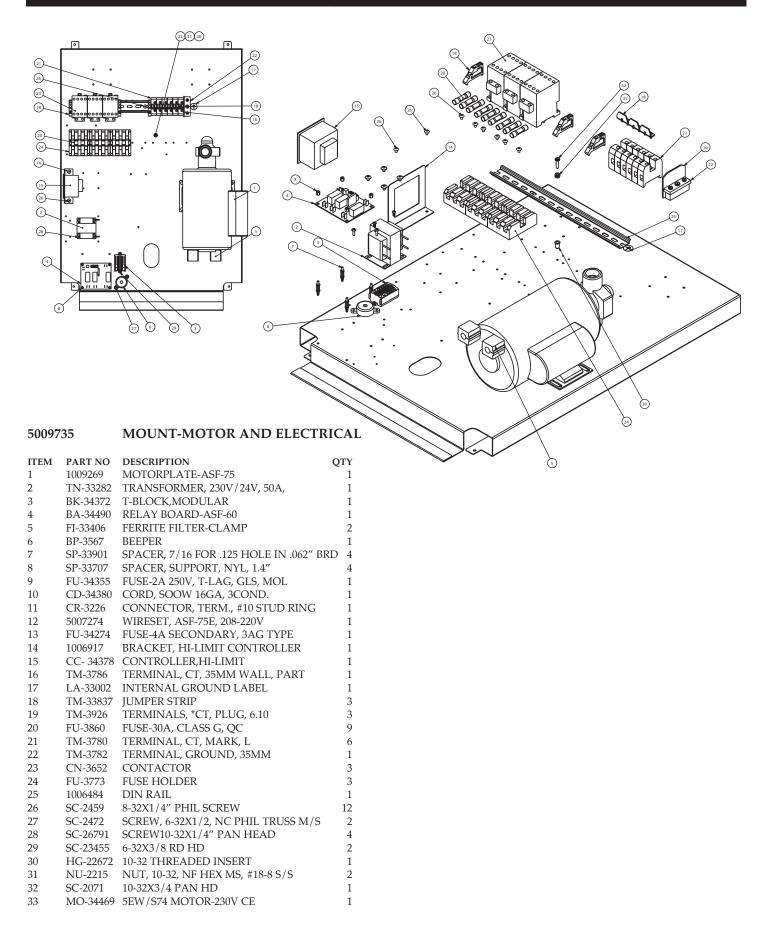


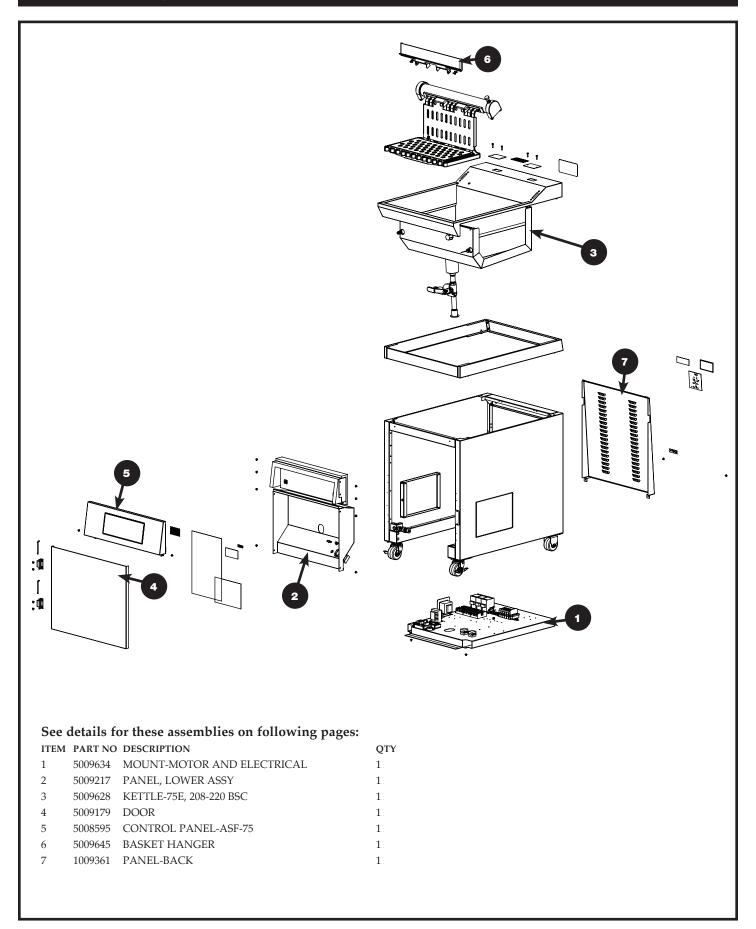
5009636 PANEL, LOWER ASSY W/ FILTRATION

| ITEM | PART NO | DESCRIPTION | QTY |
|------|----------|-------------------------------------|-----|
| 1 | 1009369 | PANEL, FRONT LOWER | 1 |
| 2 | TT-34245 | THERMOSTAT, HI-LIMIT | 1 |
| 3 | PA-27057 | PLATE-LIGHT MOUNTING | 1 |
| 4 | SW-34254 | SWITCH, CAM, FOR SINGLE PHASE | 1 |
| 5 | LI-34252 | LIGHT PUMP, PUSH BUTTON | 1 |
| 6 | SW-34240 | PUSH BUTTON SWITCH-PUMP | 1 |
| 7 | VA-28274 | VALVE-BALL 1/2" NPT PANEL MOUNT | 1 |
| 8 | FT-28008 | FITTING-1/2 NPT X ½ QUICK DISCT | 1 |
| 9 | FT-28275 | FITTING-1/2-14 NPTF X 37° CONNECTOR | 1 |
| 10 | SC-22271 | SCREWS, M4-0.7 X 6MM PHIL | 2 |
| 11 | FT-28661 | FITTING-ADAPTER 37° TO NPTF | 1 |
| 12 | TE-28662 | TEE-37° X 37° X NPTF | 1 |
| 13 | LI-34251 | SWITCH-PUSH BUTTON | 1 |
| 14 | LI-3951 | WHITE PILOT LIGHT 250V | 1 |
| 15 | SW-33495 | SWITCH-PUSH BUTTON SPST | 2 |
| 16 | SC-26791 | SCREW10-32 X 1/4" PAN HEAD | 1 |
| 17 | SC-28288 | SCREW-10-24 X .375 PHMS | 2 |
| 18 | EB-28687 | ELBOW-#1037° X 37° | 1 |

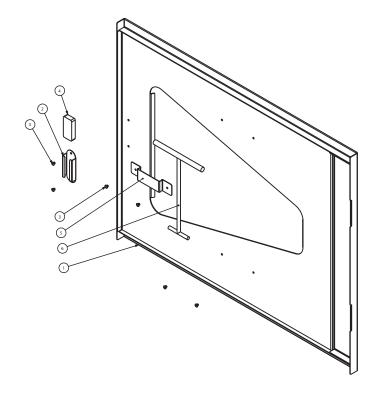


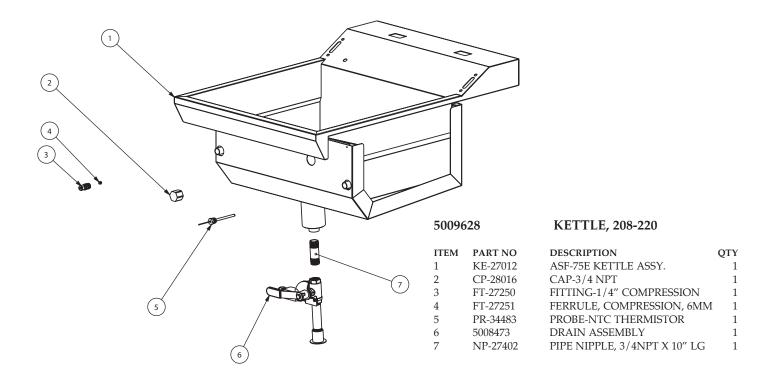
| 5008588 | | FAT DRAWER ASSEMBLY | |
|---------|----------|-----------------------------|-----|
| ITEM | PART NO | DESCRIPTION | QTY |
| 1 | 5008589 | WLDMT-FAT DRAWER | 1 |
| 2 | CS-27054 | CASTER, 2" WHEEL | 2 |
| 3 | CS-27253 | CASTER, 2" WHEEL | 2 |
| 4 | 5008591 | FILTER CARTRIDGE | 1 |
| 5 | SC-26791 | SCREW 10-32 X 1/4" PAN HEAD | 16 |
| 6 | HO-27649 | HOSE, FRYER FILTER | 1 |

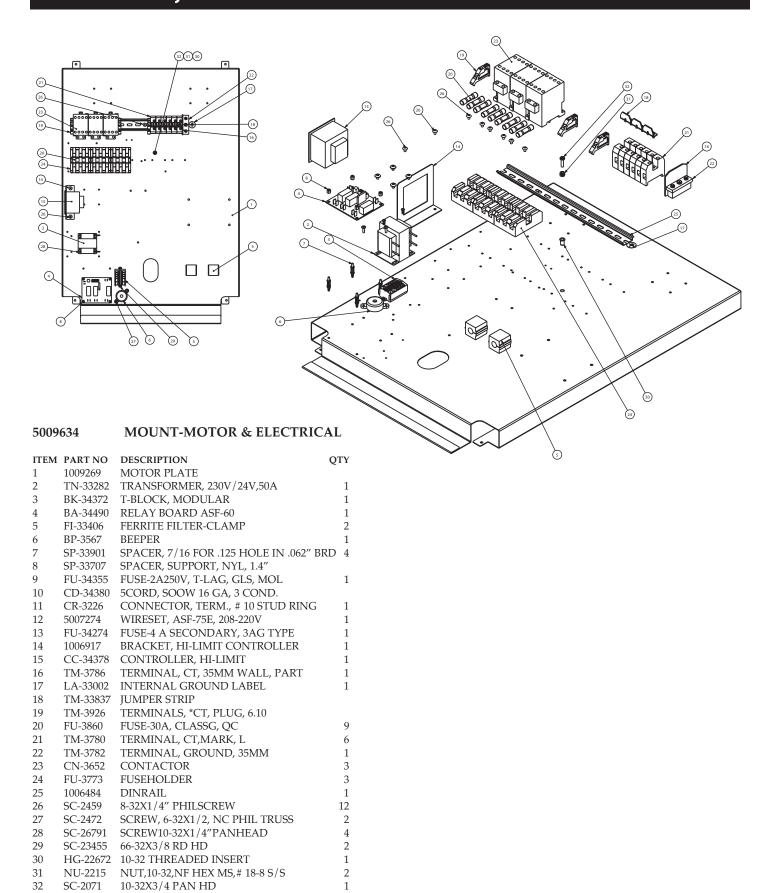






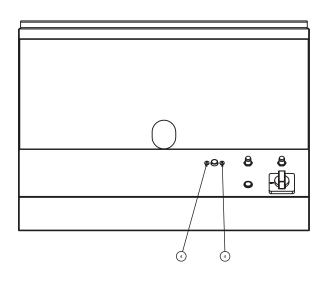


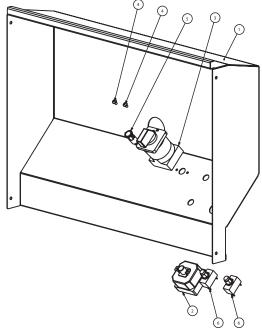




5009217 PANEL, LOWER ASSY

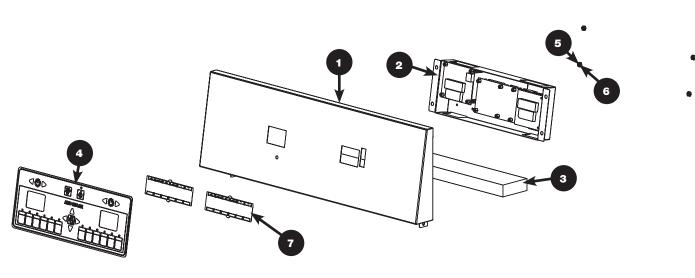
| ITEM | PART NO | DESCRIPTION | QTY |
|------|----------|-------------------------------|-----|
| 1 | 1009947 | PANEL, FRONT LOWER NO FILTER | 1 |
| 2 | TT-34245 | THERMOSTAT, HI-LIMIT | 1 |
| 3 | SW-34254 | SWITCH, CAM, FOR SINGLE PHASE | 1 |
| 4 | SC-22271 | SCREWS,M4-0.7X6MM PHIL | 2 |
| 5 | LI-3951 | WHITE PILOT LIGHT 250V | 1 |
| 6 | SW-33495 | SWITCH-PUSH BUTTON SPST | 2 |

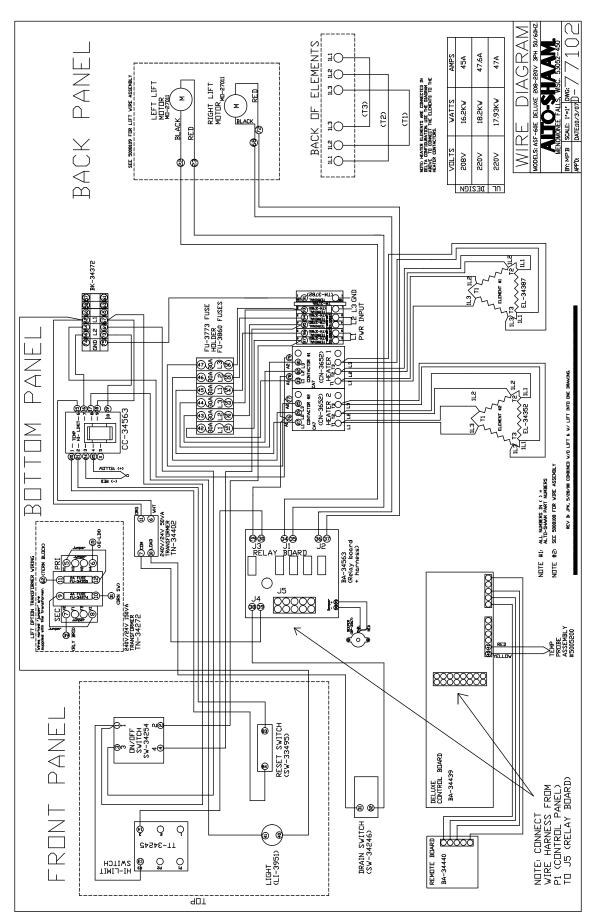




5008595 CONTROL PANEL

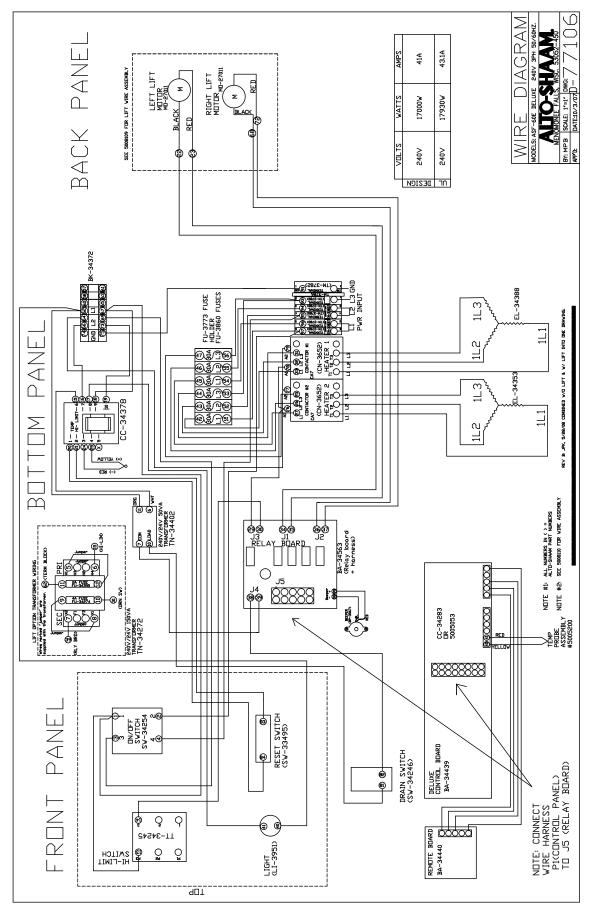
| ITEM | PART NO | DESCRIPTION | QTY |
|------|----------------------------|---|---|
| 1 | 5008594 | WELDMENT-CONTROL PANEL | 1 |
| 2 | 5007396 | ASSY-CIRCUIT BOARD | 1 |
| 3 | IN-22985 | INSULATION, 1/2" CERAMIC | 1 |
| 4 | PE-28090 | MAIN OVERLAY-WATLOW | 1 |
| 5 | WS-27045 | WASHER, # 8, LOCK WASHER | 4 |
| 6 | NU-2296 | NUT, HEX # 8-32 | 4 |
| 7 | PE-28110 | INSERT-MENU CARD | 2 |
| | 1 2 3 4 5 6 | 1 5008594 2 5007396 3 IN-22985 4 PE-28090 5 WS-27045 6 NU-2296 | 1 5008594 WELDMENT-CONTROL PANEL 2 5007396 ASSY-CIRCUIT BOARD 3 IN-22985 INSULATION, 1/2" CERAMIC 4 PE-28090 MAIN OVERLAY-WATLOW 5 WS-27045 WASHER, # 8, LOCK WASHER 6 NU-2296 NUT, HEX # 8-32 |





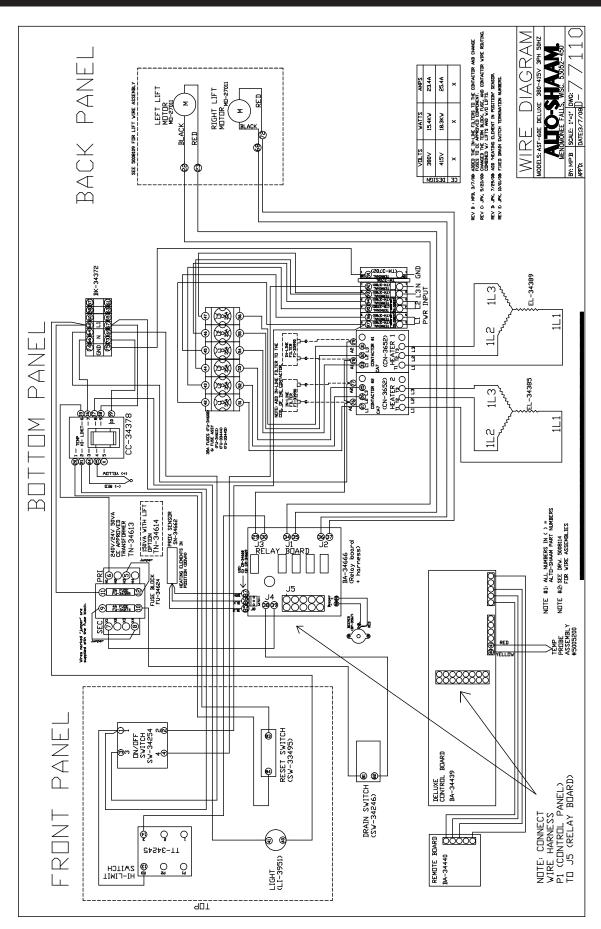
Electric Fryer Operation & Care Manual • 60

ASF-60E SERVICE



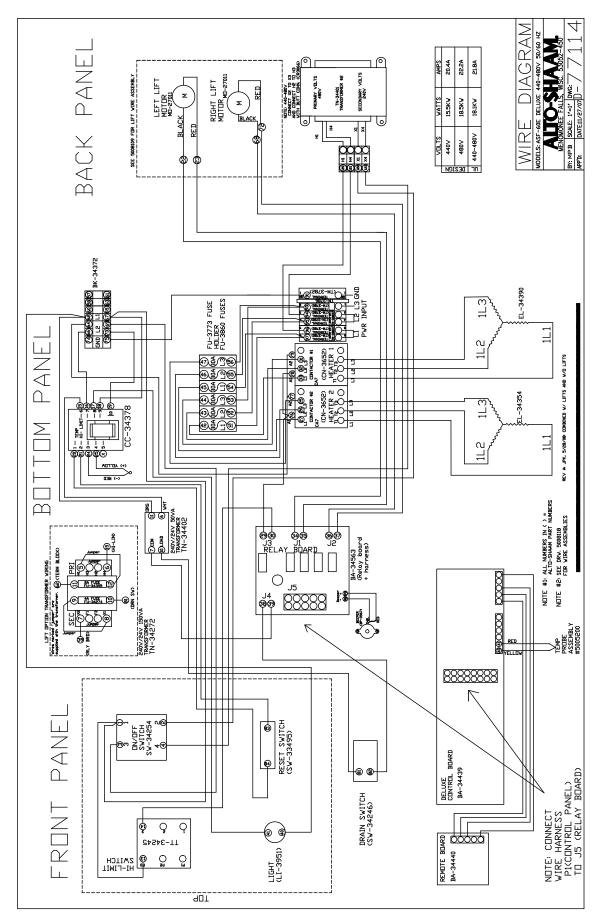
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ASF-60E SERVICE

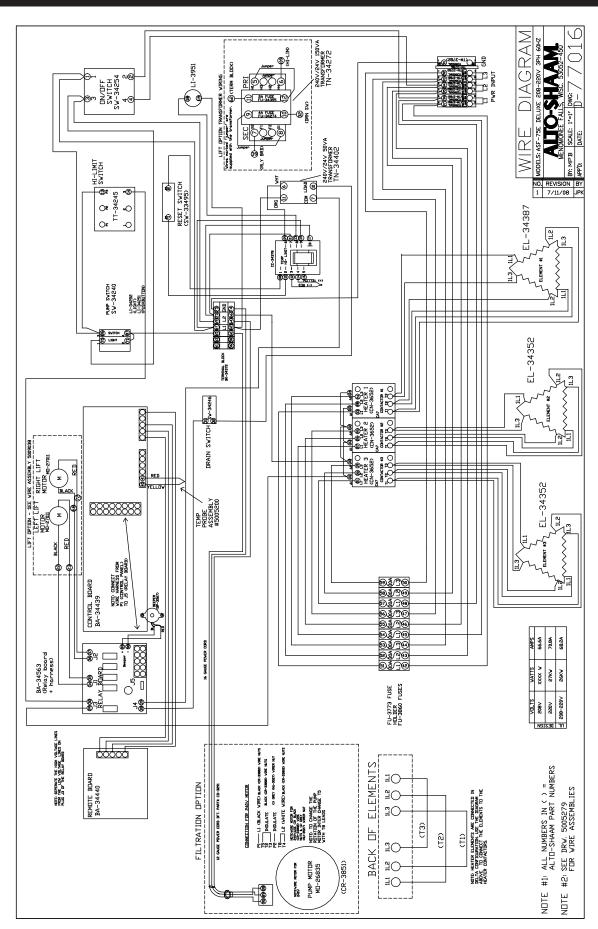


Electric Fryer Operation & Care Manual • 62

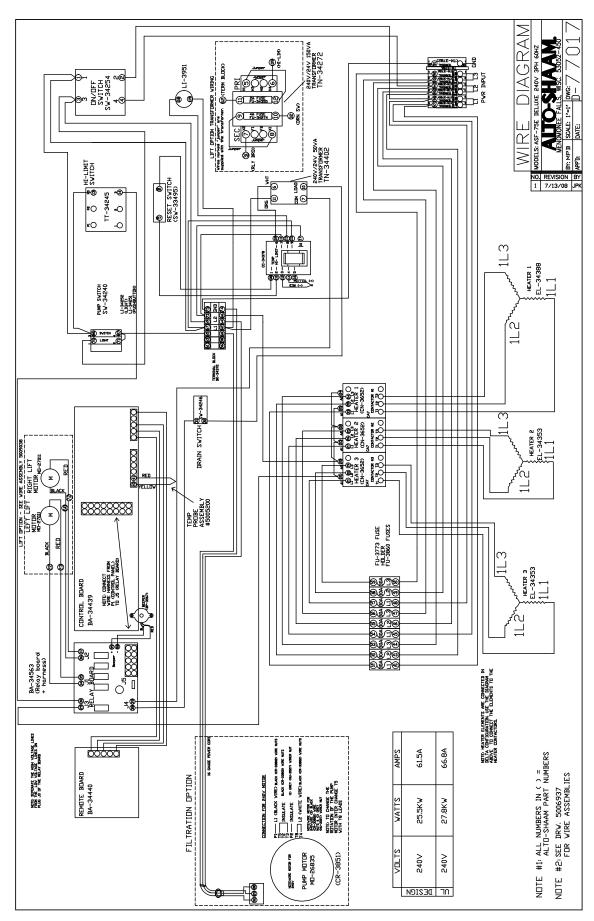
ASF-60E SERVICE



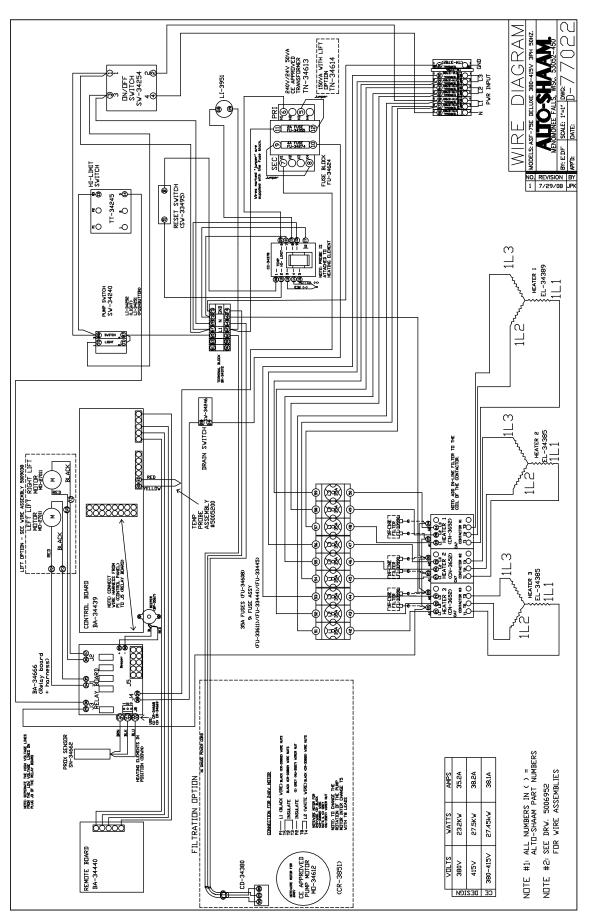
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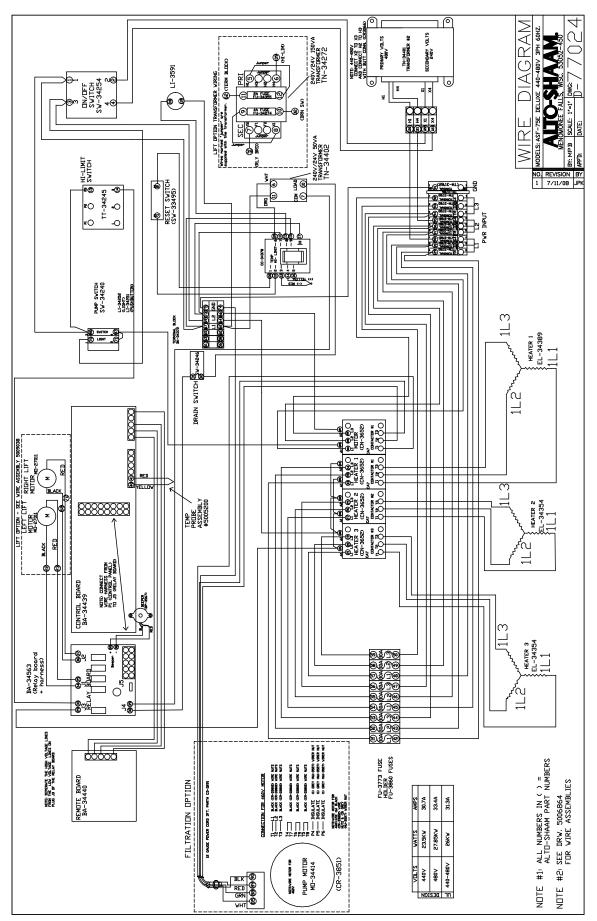
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Electric Fryer Operation & Care Manual • 65



Electric Fryer Operation & Care Manual • 66



Electric Fryer Operation & Care Manual • 67

TRANSPORTATION DAMAGE and CLAIMS



All Alto-Shaam equipment is sold F.O.B. shipping point, and when accepted by the carrier, such shipments become the property of the consignee.

Should damage occur in shipment, it is a matter between the carrier and the consignee. In such cases, the carrier is assumed to be responsible for the safe delivery of the merchandise, unless negligence can be established on the part of the shipper.

- 1. Make an immediate inspection while the equipment is still in the truck or immediately after it is moved to the receiving area. Do not wait until after the material is moved to a storage area.
- 2. Do not sign a delivery receipt or a freight bill until you have made a proper count and inspection of all merchandise received.
- 3. Note all damage to packages directly on the carrier's delivery receipt.
- 4. Make certain the driver signs this receipt. If he refuses to sign, make a notation of this refusal on the receipt.
- 5. If the driver refuses to allow inspection, write the following on the delivery receipt: *Driver refuses to allow inspection of containers for visible damage.*
- 6. Telephone the carrier's office immediately upon finding damage, and request an inspection. Mail a written confirmation of the time, date, and the person called.
- 7. Save any packages and packing material for further inspection by the carrier.
- 8. Promptly file a written claim with the carrier and attach copies of all supporting paperwork.

We will continue our policy of assisting our customers in collecting claims which have been properly filed and actively pursued. We cannot, however, file any damage claims for you, assume the responsibility of any claims, or accept deductions in payment for such claims.

LIMITED WARRANTY

Alto-Shaam, Inc. warrants to the original purchaser only that any original part that is found to be defective in material or workmanship will, at Alto-Shaam's option, subject to provisions hereinafter stated, be replaced with a new or rebuilt part.

The parts warranty period is as follows:

For the refrigeration compressor on Alto-Shaam Quickchillers[™], five (5) years from the date of installation.

For the heating element on Halo Heat® cook/hold ovens, as long as the original purchaser owns the oven.

For all other parts, one (1) year from the date of installation or fifteen (15) months from the shipping date, whichever occurs first.

The labor warranty period is one (1) year from the date of installation or fifteen (15) months from the shipping date, whichever occurs first. Alto-Shaam will bear normal labor charges performed during standard business hours, excluding overtime, holiday rates or any additional fees.

To be valid, a warranty claim must be asserted during the applicable warranty period. This warranty is not transferable.

THIS WARRANTY DOES NOT APPLY TO:

- 1. Calibration.
- 2. Replacement of light bulbs, door gaskets, and/or the replacement of glass due to damage of any kind.
- 3. Equipment damage caused by accident, shipping, improper installation or alteration.
- 4. Equipment used under conditions of abuse, misuse, carelessness or abnormal conditions, including but not limited to, equipment subjected to harsh or inappropriate chemicals, including but not limited to, compounds containing chloride or quaternary salts, poor water quality, or equipment with missing or altered serial numbers.
- 5. Damage incurred as a direct result of poor water quality, inadequate maintenance of steam generators and/or surfaces affected by water quality. Water quality and required maintenance of steam generating equipment is the responsibility of the owner/operator.
- 6. Damage caused by use of any cleaning agent other than Alto-Shaam's Combitherm® Cleaner, including but not limited to damage due to chlorine or other harmful chemicals. Use of Alto-Shaam's Combitherm® Cleaner on Combitherm® ovens is highly recommended.
- 7. Any losses or damage resulting from malfunction, including loss of product or consequential or incidental damages of any kind.
- 8. Equipment modified in any manner from original model, substitution of parts other than factory authorized parts, removal of any parts including legs, or addition of any parts.

This warranty is exclusive and is in lieu of all other warranties, express or implied, including the implied warranties of merchantability and fitness for a particular purpose. In no event shall Alto-Shaam be liable for loss of use, loss of revenue or profit, or loss of product, or for any indirect, special, incidental, or consequential damages. No person except an officer of Alto-Shaam, Inc. is authorized to modify this warranty or to incur on behalf of Alto-Shaam any other obligation or liability in connection with Alto-Shaam equipment.

Effective 09/10

| ALTO-SHAAM |
|------------|
| |

| | RECORD THE MODEL AND SERIAL NUMBER OF THE APPLIANCE FOR EASY REFERENCE. ALWAYS REFER TO BOTH MODEL AND SERIAL NUMBER IN ANY CONTACT WITH ALTO-SHAAM REGARDING THIS APPLIANCE. |
|---------------|---|
| Model: | Date Installed: |
| Voltage: | Purchased From: |
| Serial Number | |

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