ALTO-SHAAM®

ecosmart®

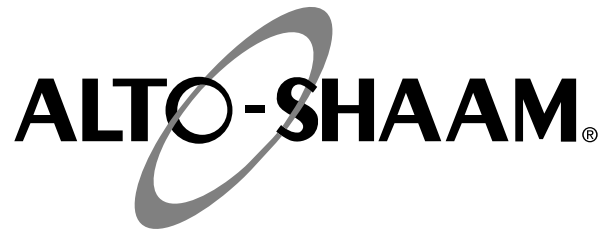*ASF-60E shown with deluxe control and optional automatic basket lifts*

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

• INSTALLATION

• OPERATION

• MAINTENANCE

Fry Tech™

24•7
Your Service Hotline
1-800-558-8744

ALTO-SHAAM®

ALTO-SHAAM.

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

1. 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.
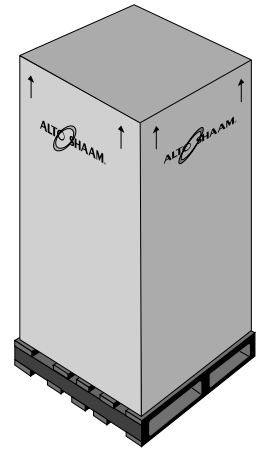
2. Read all instructions in this manual carefully before initiating the installation of this appliance.

   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.

KEEP THIS MANUAL IN A CONVENIENT LOCATION FOR REFERENCE.

INSTALLATION

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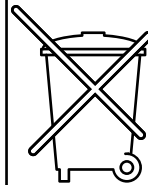
For equipment delivered for use in any location regulated by the following directive:

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

DIMENSIONS EXTERIOR (H x W x D)
ASF-75E WITHOUT LIFTS OR FILTRATION
42" 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

WEIGHT EST.	NET WEIGHT	SHIP WEIGHT
	338 lb (154 kg)	460 lb (209 kg)
CARTON DIMENSIONS (L x W x H)	31" x 43" x 50"	
	(787mm x 1092mm x 1270mm)	

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)	1009511
☐ Mobile Oil Caddy	TO-28359
☐ Pre-filter Sieve Kit (FOR OIL FILTRATION SYSTEM)	5010451
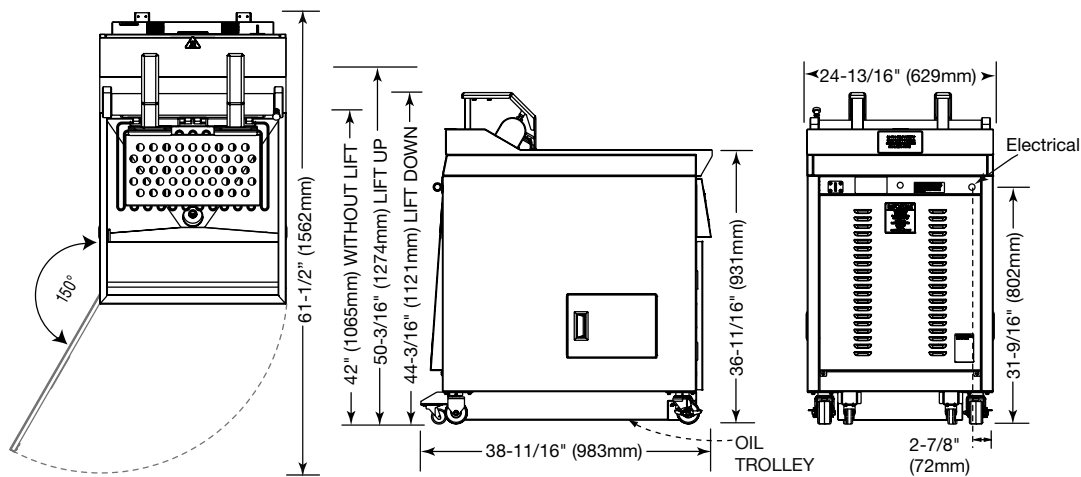
INSTALLATION

ASF-60E SPECIFICATIONS

DIMENSIONS EXTERIOR (H X W X D)
44-3/8" x 15-3/4" x 33-5/8" (1127mm x 400mm x 854mm)

BASKET DIMENSIONS (H X W X D)
5-3/16" x 5-7/8" x 13-13/16" (131mm x 149mm x 351mm)

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 DIMENSIONS	22" x 39" x 55"	
(L X W X H)	(559mm x 991mm 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 BANKED UNITS)	1010991
☐ Mobile Oil Caddy	TO-28359
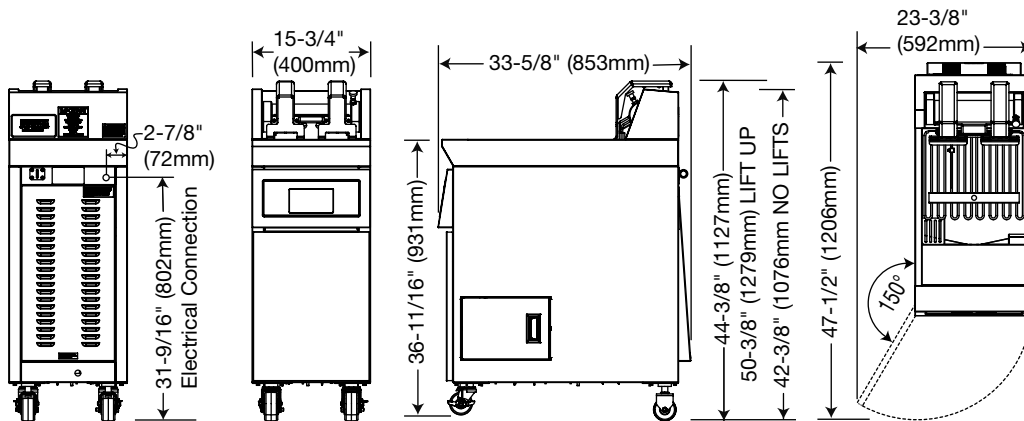
DANGER

⚠️ 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.

CAUTION

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

MINIMUM CLEARANCE REQUIREMENTS

	COMBUSTIBLE SURFACES	NON-COMBUSTIBLE SURFACES
RIGHT SIDE	0" (0mm)	0" (0mm)
LEFT SIDE	0" (0mm)	0" (0mm)
BACK	6" (152mm)	6" (152mm)
FRONT	25" (635mm)	

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.

INSTALLATION

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.

9. 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.
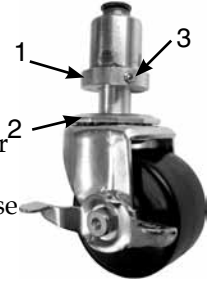
WARNING

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.

⚠ DANGER

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.

INSTALLATION

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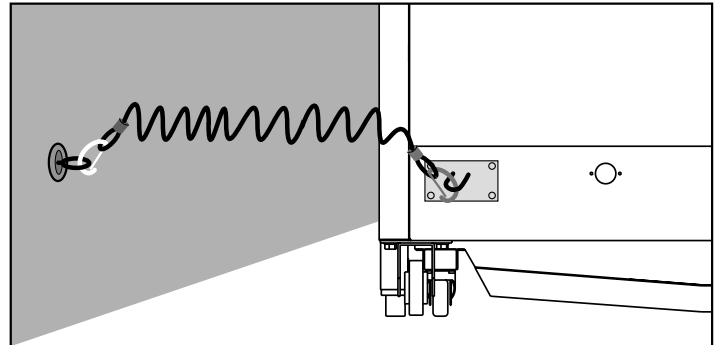
located on the lower back flange of the appliance chassis, approximately 7-inches (178mm) from the floor. A flexible connector is not supplied by nor is it available from the factory.

⚠ **WARNING**

RISK OF ELECTRIC SHOCK.

**Appliance must be secured
to building structure.**

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.

⚠ DANGER

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					

INSTALLATION

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.

   ┌───┐
   │ **W a r n i n g !**   │
   │ 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**.

⚠ **DANGER**

ENSURE POWER SOURCE
MATCHES VOLTAGE STAMPED
ON APPLIANCE NAMEPLATE.

⚠ **DANGER**

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

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.
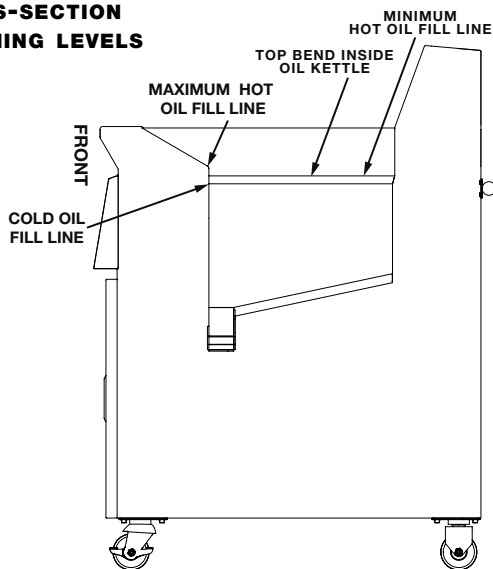
⚠ DANGER

FLASH POINT

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

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.

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.

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

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.

FRYER CROSS-SECTION
OIL/SHORTENING LEVELS

MINIMUM HOT OIL FILL LINE
TOP BEND INSIDE OIL KETTLE
MAXIMUM HOT OIL FILL LINE
FRONT
COLD OIL FILL LINE

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

CAUTION!
HOT SURFACE

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

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.

OPERATION

ASF-60E, 120V

KETTLE DRAIN SELECTOR

CLOSED

OPEN

ELEMENT HI-LIMIT RESET

ELEMENT HI-LIMIT ALARM

OIL HI-LIMIT RESET

ELEMENT HI-LIMIT RESET

ELEMENT HI-LIMIT ALARM

OIL HI-LIMIT RESET

DRAIN CLOSE

DRAIN OPEN

OFF

MASTER POWER SWITCH

ASF-75E, 120V WITH FILTRATION

KETTLE DRAIN SELECTOR

OPEN

CLOSED

NOZZLE CONNECTION

OIL HI-LIMIT RESET

ELEMENT HI-LIMIT RESET

DRAIN OPEN

DRAIN CLOSE

CAUTION: NOZZLE AND FILTER HOSE CONNECTIONS MAY BE HOT!

Disconnect nozzle following use and return the selector to the 'KETTLE' position

OIL HI-LIMIT RESET

ELEMENT HI-LIMIT RESET

KETTLE FILL

PUMP

ELEMENT HI-LIMIT ALARM

OFF

NOZZLE CONNECTION

NOZZLE

NOZZLE KETTLE SELECTOR

PUMP

ELEMENT HI-LIMIT ALARM

MASTER POWER SWITCH

ASF-75E, 120V

OPEN

CLOSED

KETTLE DRAIN SELECTOR

OIL HI-LIMIT RESET

ELEMENT HI-LIMIT RESET

DRAIN OPEN

DRAIN CLOSE

OIL HI-LIMIT RESET

ELEMENT HI-LIMIT RESET

ELEMENT HI-LIMIT ALARM

ELEMENT HI-LIMIT ALARM

MASTER POWER SWITCH

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

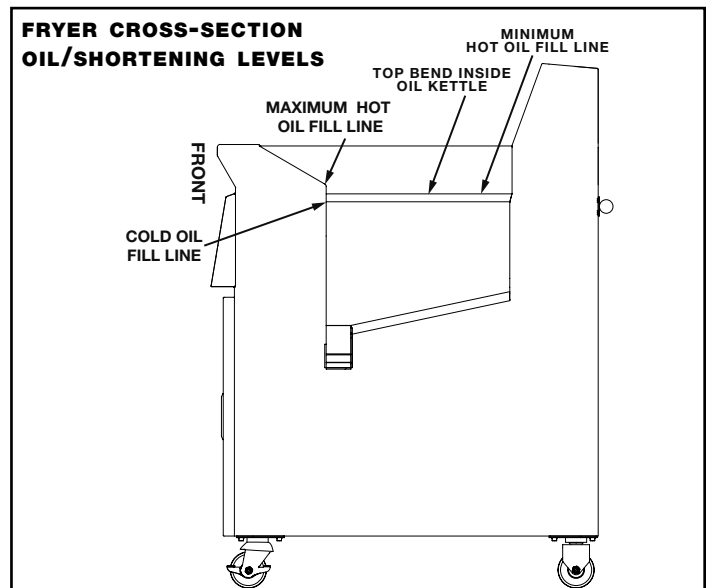BOIL-OUT SOLUTION AND SURROUNDING METAL SURFACES BECOME EXTREMELY HOT. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN PERFORMING THE BOIL-OUT FUNCTION AND FOLLOW THE MANUFACTURER'S SAFETY INSTRUCTIONS FOR THE BOIL-OUT PRODUCT BEING USED.

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, *slowly* 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.

FRYER CROSS-SECTION OIL/SHORTENING LEVELS

MINIMUM HOT OIL FILL LINE
TOP BEND INSIDE OIL KETTLE
MAXIMUM HOT OIL FILL LINE
FRONT
COLD OIL FILL LINE

7. 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 behind the front access door) to the **"ON"** position and press the **CONTROL RESET**.

9. To enter Boil Mode, press and hold the P key ⓅP for 3 seconds. **"COUNTS"** will be displayed.

10. Press the up ▲ or down ▼ arrow keys until **"BOIL"** is displayed, then press the P key Ⓟ. **"BOIL"** will be displayed. Using a separate timer, allow the frypot to boil-out for 10 minutes.

11. After the 10 minute boil-out period, turn the Master Power Switch located behind the front access door to the **"OFF"** position.

12. Wearing protective gloves to avoid burns, scrub the inside of the fypot with a long-handled scrub brush.

13. 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 heat safe container to the fully-inserted position beneath the fryer.

14. Making sure the kettle drain valve is **"OPEN"**, rinse all boil-out solution from fry pot, drain, burner holes, oil fill hole, 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.

15. 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 mobile oil drawer. Pump a small amount of oil through 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.

16. 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.**

17. 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.**

18. Rotate kettle drain to **"CLOSED"** position.

19. Replace the oil filter if equipped with filtration system. (See instructions on pages 15-17.)

20. Fill tank with new oil or shortening.

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.**

3. 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 **CONTROL RESET** button.

7. **"READY"** will be displayed when fryer reaches set temp.

   More detailed operating guidelines along with information on programming are located within this manual.

8. 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 406°F (208°C). The high limit switch will pop out and the kettle will no longer heat. In this event, allow the frying compound temperature to drop below 406°F (208°C). Open the front access door and press the **OIL HI-LIMIT RESET** button for a period of 3-seconds to restart the control.

⚠ **DANGER**

DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

⚠ DANGER

DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.
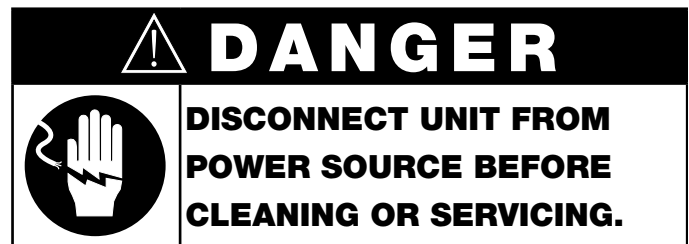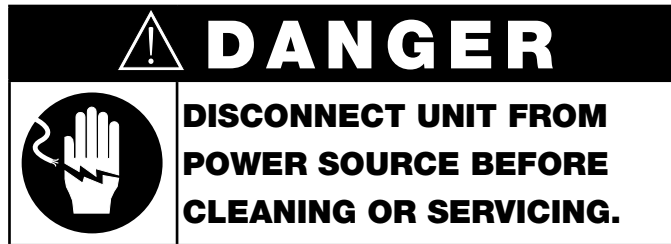
THOROUGHLY CLEAN DAILY

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

⚠ CAUTION

NO SCRAPERS

NO WIRE BRUSHES

NO STEEL PADS

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.
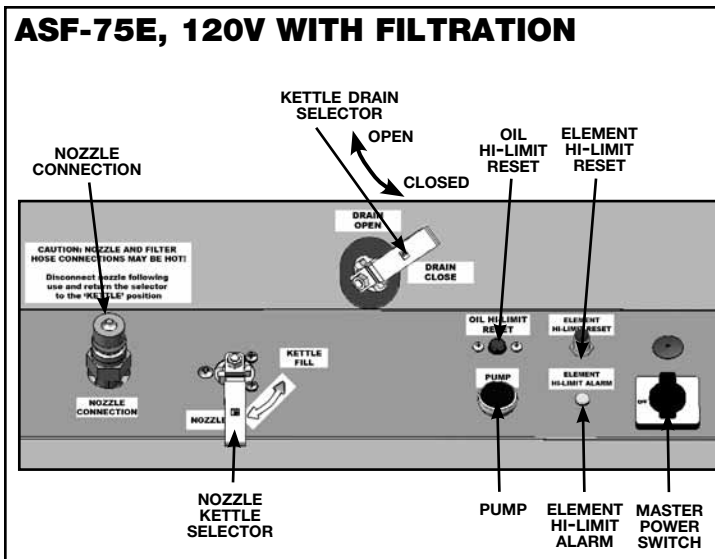

CAUTION

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.

ASF-75E, 120V WITH FILTRATION

KETTLE DRAIN SELECTOR
OPEN
CLOSED

NOZZLE CONNECTION

OIL HI-LIMIT RESET

ELEMENT HI-LIMIT RESET

CAUTION! NOZZLE AND FILTER HOSE CONNECTIONS MAY BE HOT!

Disconnect nozzle following use and return the selector to the 'KETTLE' position

DRAIN OPEN

DRAIN CLOSE

NOZZLE CONNECTION

KETTLE FILL

OIL HI-LIMIT RESET

ELEMENT HI-LIMIT RESET

NOZZLE

ELEMENT HI-LIMIT ALARM

NOZZLE KETTLE SELECTOR

PUMP

ELEMENT HI-LIMIT ALARM

MASTER POWER SWITCH

PUMP

---

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

CAUTION! HOT SURFACE

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.)
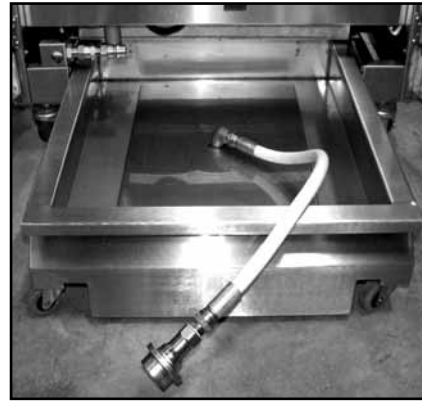
2. Pushing down on filter frame ❹ clip, pull side of filter cartridge ❶ closest to clip upwards. Slide opposite edge of filter cartridge out from beneath the filter frame lip.

3. Remove used filter ❷ and filter ring ❸. Discard filter ❷. Retain filter ring ❸.

4. Place new filter ❷ and filter ring ❸ next to screen on underside of filter cartridge ❶. Reverse step 2 above.

5. Reconnect hose to fryer and return trolley to the full position under the fryer.

❶ **FILTER CARTRIDGE**

❷ **FILTER**

❸ **FILTER RING**
(Use with paper filter only)

CLIP

FRAME LIP

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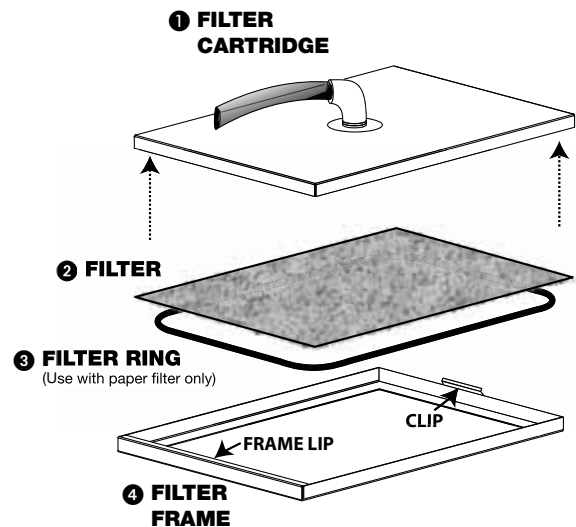
STANDARD AND OPTIONAL FILTERS	
PART NO.	**DESCRIPTION**
FI-27791	PAPER (STANDARD WITH FRYER) 7-count package
FI-27794	PAPER (STANDARD WITH FRYER) 100-count package
FI-27648	CHARCOAL/CARBON FILTER 30-count pkg.
FI-27014	REUSABLE MESH FILTER, single

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.

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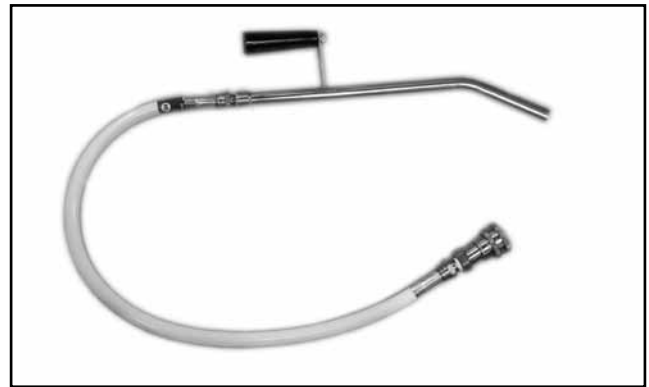
Nozzle will contain a small amount of oil after use. Dispose of properly.

ASF-75E, 120V WITH FILTRATION
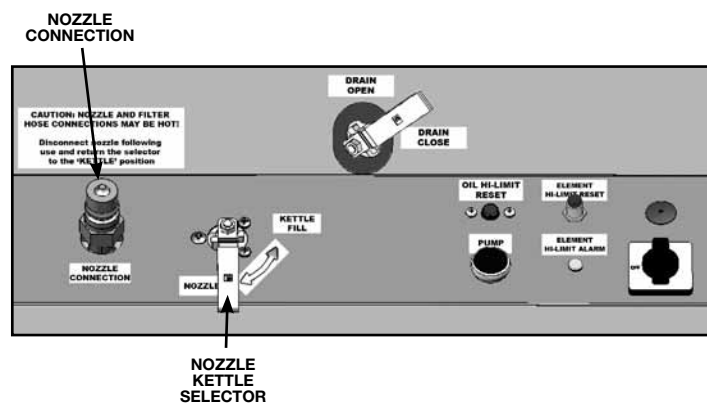
DANGER

TO AVOID SERIOUS PERSONAL INJURY DO NOT STAND ON THE FRYER OR FRYER COVER. THE FRYER COVER IS DESIGNED TO HOLD A MAXIMUM OF 10-POUNDS (4,5 KG) OF WEIGHT.
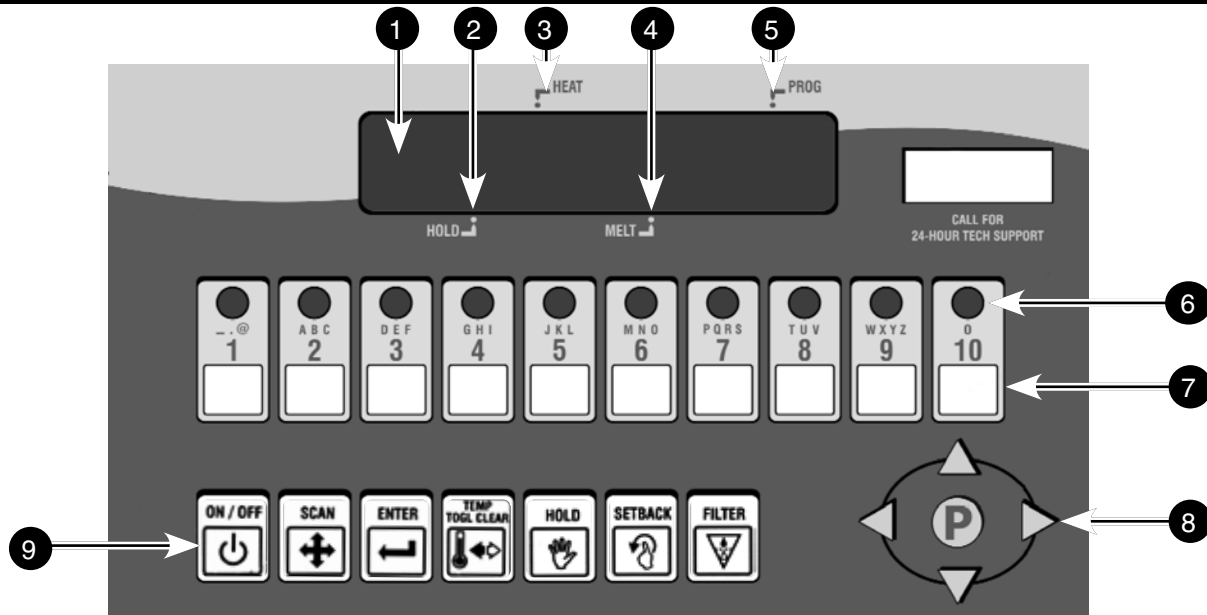
1. **LED DISPLAY**
2. **HOLD INDICATOR**
3. **HEAT INDICATOR**
4. **MELT CYCLE INDICATOR**
5. **PROGRAM INDICATOR**
6. **PRODUCT KEY INDICATOR LIGHTS:** Illuminate during active cook cycle or programming mode.

7. **PREPROGRAMMED PRODUCT KEYS:** Press to start a cook cycle. Also used in programming. **REPLACEABLE MENU STRIP:** Make menu changes quickly and easily.
8. **PROGRAMMING CENTER:** Easy cell phone-like programming. Access programming mode, preprogrammed menu items, and change cooking parameters.
9. **FEATURE KEYS:** Used to access programming functions and controller features.

9. FEATURE KEYS

A. **ON/OFF KEY**
B. **SCAN KEY:** Shows time left between recipe / baskets
C. **ENTER KEY:** Used while entering your own menu / time.
D. **TEMP TOGGLE CLEAR KEY**
E. **HOLD KEY:** Displays remaining hold time
F. **SETBACK KEY:** Reverts to reduced oil temperature while fryer is idle
G. **FILTER KEY**
   (NOT ENABLED AT THIS TIME)

LEFT BASKET (1-5) PRODUCT KEY PRESET TIMES:

    1 - 2:45 minutes
    2 - 3:00 minutes
    3 - 3:15 minutes
    4 - 3:30 minutes
    5 - 3:45 minutes

RIGHT BASKET (6-10) PRODUCT KEY PRESET TIMES:

    6 - 2:45 minutes
    7 - 3:00 minutes
    8 - 3:15 minutes
    9 - 3:30 minutes
    10 - 3:45 minutes
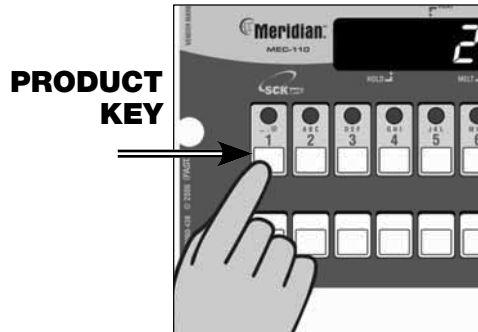
Start a Cook Cycle

Press any product key to start a cook cycle. If the key is programmed, the cooking time will be displayed and will immediately start to count down in minutes and seconds. DONE will display when the cook cycle has ended.

The pressure solenoid will also close if programmed to do so, or a basket lift will lower if so equipped. If DONE is displayed immediately and the unit starts to beep, the product key being pressed is not programmed.

Stop a Cook Cycle

Press and hold an active product key for 3 seconds. Timing will stop, and basket will lift if so equipped.

Respond to a DONE Alarm

Cancel the signal by pressing the same product key used to start the cook cycle.

Action Alarms

If the controller is programmed for action alarms, they will signal at a preset time during the cooking cycle. The signal, a dual-rhythm beeping, will last 5 seconds and then self-cancel. The display will flash the action alarm time and the controller will start counting toward 0:00.

Holding Timers

If the product menu is programmed with holding times, they will automatically start counting upon expiration of the cook cycle.

When there are active hold times, the HOLD indicator light will be lit.

To view all active hold times, press and hold the HOLD key. Upon expiration, the timer will display HOLD and pulse with a beep.

To Cancel, pres the HOLD key.

Check Product Counts

Press and hold the P key for 3 seconds. *COUNTS* will be displayed.

Press the P key. *PRODT* will be displayed then the number of cooks that were completed on that key. To see the number for each key, continue to press the P key and each product will display *PROD X* then the number of cooks.
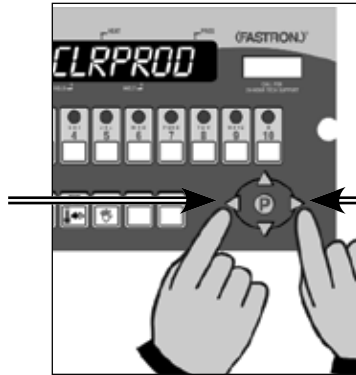
Resetting the Product Counts

Once you go through all keys, the display will show *CLRPROD* then *NO*. Use the left and right arrow keys to toggle between *YES* and *NO*. Choose *YES* to reset your product count or *NO* to save the cook counts that have already been completed. Then press the P key.

The display will show *GLOBAL*. This is the total product count of all keys combined. Press the P key again. *CLRGLOBL* then *NO* will be displayed. Use the left and right arrow keys to toggle between *YES* and *NO*. Choose *YES* to reset your total product count or *NO* to save the total cook counts that have already been completed Then press the P key. *TOTALXTD* is displayed, then a number. Press the P key again.

Exit Product Counts

COUNTS will be displayed. Press the up arrow key. *EXIT* will be displayed. Press the P key. The controller will exit programming mode.

Display Descriptions		
	2:30	Controller is in Operating Mode and a cook cycle is in progress.
	- - - - - - - -	Controller is in Operating Model. Actual vat temperature is within the proper cooking temperature range. The vat is ready to start a cook cycle.
	DROP	
	READY	
	ALMTIME1	Action alarm status is displayed.
	APPLIANC	Controller is in Appliance Type Programming Mode.
	CODE	Controller is waiting for a pass code to be entered.
	DONE	Controller is in Operating Mode and a cook cycle has been completed.
	HI	Controller is in Operating Mode. The actual vat temperature is more than 40 degrees above the highest programmed vat temperature. A continuous audible signal will sound.

Display Descriptions (continued)

|	
LO	Controller is in Operating Mode. The actual vat temperature is more than 10 degrees below the programmed vat temperature.
PROBE	Controller's probe is either open or shorted. Display will be accompanied with an audible alarm if shorted. Check or replace the probe.
PRODUCT	Controller is in Product Key Programming Standby mode.
SYSTEM	Controller is in System Programming Standby Mode.
TEMP	Stage cooking temperature.
TEMPUNIT	Controller is in Fahrenheit or Celsius Programming Mode.
TIME	Stage cooking time.
TIMING	Stage timing mode (flex or straight).

PRODUCT KEY PROGRAMMING

10 button controllers have a single, dual-purpose display that will alternate information; for example:

TIME then *2:00*

Recipe Programming Code (1724) Manager

ENTER PROGRAMMING MODE.
Press and hold the P key for 3 seconds.
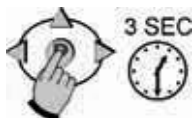
COUNTS
Press the down arrow key.

PROGRAM
PROGRAM will be displayed. Press the P key.

PRODUCT KEY PROGRAMMING (CONTINUED)

CODE

Type in 1 7 2 4 using the product keys. Press the P key.
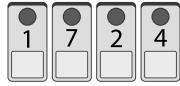
RECIPE

Press the P key. All product key LEDs will light up.

PRODUCT

PROGRAM A PRODUCT KEY. Press the product key you want to program. Press the P key.
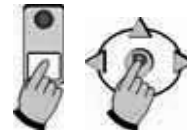
Depending on model, you can either press the P key to change all programmable settings or you can scroll using the arrow keys to any of the specific options.

Note: The Recipe Library contains more than 100 different choices.

ALL

Press the P key.

NAME
XXXXXXX

SET PRODUCT DISPLAY NAME. *NAME* will be displayed then the actual product name. Use the up and down arrow deys to scroll through the library. Press the P key to lock in your choice.

TIME
XX:XX

SET COOK TIME. Actual set time will be displayed. To change, press toggle clear to change the time to zero. Type in a new time using the product keys. Press the P key.

TIMING
STRAIGHT
FLEX
SENSITIV

SET TIMING MODE. Use the left and/or right arrow keys to choose Straight, Flex or Sensitivity. Press the P key.
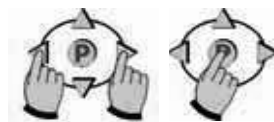
ALMTIME1
XX:XX

SET ACTION ALARM. Actual alarm time 1 will be displayed. To change, press toggle clear to change the time to zero. Type in a new time using the product keys. Press the P key.
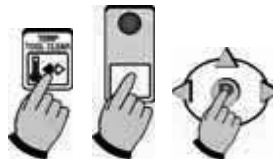
ALMNAME1
XXXXXXX

SET ACTION ALARM NAME. *ALMNAME1* will be displayed, then the actual action alarm name. Use the up and down arrow keys to scroll through the library. Press the P key to either go to next action alarm name, or continue through programming.
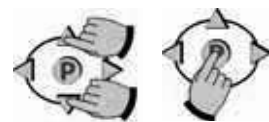
HOLDTIME
XX:XX

SET HOLD TIME. Actual hold time will be displayed. To change, press toggle clear to change the time to zero. Type in a new time using the product keys. Press the P key.

ALL

EXIT PROGRAMMING MODE. Press the up arrow key.

EXIT

Press the P key.

`PRODUCT`

Either press another product key to program and repeat the programming instructions, or continue by pressing the down arrow key.

OR
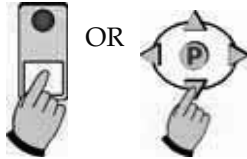
`SET TEMP`

SET GLOBAL TEMPERATURE.
Press the P key.

`SET TEMP`

`XXXF`

SET TEMP, then *Actual Temp* will be displayed. To change, use the number keys and then press the P key.
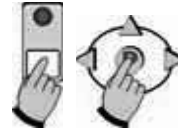
To Exit, press the down arrow key.

`EXIT`

Press the P key.

`RECIPE`

Press the up arrow key.

`EXIT`

Press the P key.

SYSTEM PROGRAMMING

**SYSTEM CODE
(3228)
MANAGER**

Enter System Programming Mode. Press and hold the P key for 3 seconds.
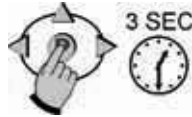
`COUNTS`

Press the down arrow key.

`PROGRAM`

*PROGRAM* will be displayed. Press the P key.

`CODE`

Type in 3 2 2 8 using the product keys. Press the P key.
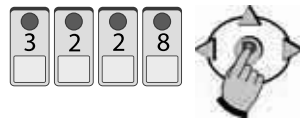
`SYSTEM`

Press the P key.

`APPLIANC`

`GAS`
`ELEC`
`GEN`

SET APPLIANCE MODE. Use the left and/or right arrow keys to choose Gas, Electric or Generic. Press the P key.
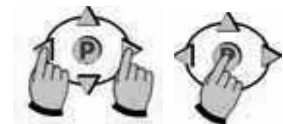
Note: Preheat is also known as a melt cycle. Yes is used for solid shortening, No is used for oil.

`CTRTYPE`

`TEMPCTRL`
`TIMECTRL`

SET CONTROL TYPE. Use the left and/or right arrow keys to choose Temperature or Time Control. Press the P key.

`TEMPUNIT`

`F`
`C`

SET TEMPERATURE SCALE. Use the left and/or right arrow keys to choose Fahrenheit (F) or Celsius (C). Press the P key.
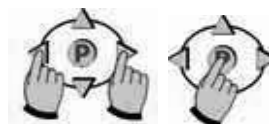
`PREHEAT`

`YES`
`NO`

SET PREHEAT MODE. Use the left and/or right arrow keys to choose Yes or No. Press the P key.
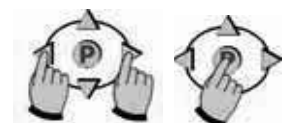
`COOKUNIT`

`MM:SS`
`HH:MM`

SET COOK TIME UNIT. Use the left and/or right arrow keys to choose Minutes/Seconds or Hours/Minutes. Press the P key.
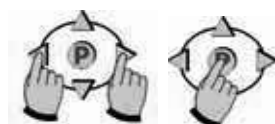
`SYSTEM`

EXIT SYSTEM PROGRAMMING MODE. Press the up arrow key.

`EXIT`

Press the P key.

`READY`

You have now EXITED System Programming Mode and can operate the controller.

DELUXE CONTROL OPERATION

PROGRAMMING CUSTOM PRODUCT AND ACTION ALARM NAMES TO THE LIBRARY

SYSTEM CODE (3228) MANAGER

ENTER LIBRARY PROGRAMMING MODE. Press and hold the P key for 3 seconds.
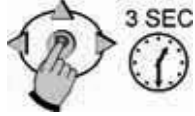
`COUNTS`

Press the down arrow key.

`PROGRAM`

PROGRAM will be displayed. Press the P key.

`CODE`

Type in 3 2 2 8 using the product keys. Press the P key.
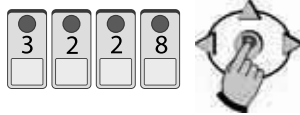
`SYSTEM`

Press the down arrow key to select either *PRODLIBR* or *ALRMLIBR*.

`PRODLIBR`
`ALRMLIBR`

Choose either *PRODLIBR* (Product Library) or *ALRMLIBR* (Action Alarm Library) by pressing the P key.

`-`
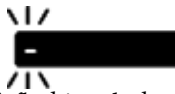
A flashing dash will be displayed. Press the SCAN key and use the product keys to spell a new word. Press the right arrow key to advance to the next character position.

`AB`
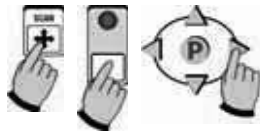
Continue spelling the word. When done, press the P key.

`ADD`

TO SAVE WORD, press the P key again. Skip to Exit Library Programming.

TO CANCEL OR MODIFY, see next step.

`ADD`
`CANCEL`
`MODIFY`

TO CANCEL OR MODIFY WORD, press the left or right arrow keys to choose CANCEL or MODIFY.

IF YOU CHOOSE CANCEL:

`CANCEL`

Press the P key to EXIT and cancel the word.

- -

IF YOU CHOOSE MODIFY:

`MODIFY`

Press the SCAN key to go back and modify the word.

`PRODLIBR`
`ALRMLIBR`

EXIT LIBRARY PROGRAMMING. Use the up or down arrow keys until display reads EXIT.

`EXIT`

Press the P key.

`READY`

You have now EXITED Library Programming Mode and can operate the controller.

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	DISPLAY
PROGRAM KEYS	**1. Fries** (FROZEN)	**3:30**	**350°F (177°C)**	Fries
	2. Chicken Nuggets (FROZEN)	**3:30**	**350°F (177°C)**	Nuggets
	3. Fish, Breaded (FROZEN)	**4:30**	**350°F (177°C)**	Fish
	4. Chicken Pieces, Breaded (FRESH)	**17:00**	**340°F (171°C)**	Chicken
	5. PRODUCT A			ProductC
	6. PRODUCT B			ProductD

ITEM	MINUTES	TEMPERATURE
Appetizer	3:30	350°F (177°C)
Breaded Cauliflower	3:30	340°F (171°C)
Breaded Fish	Per pkg. instructions	340°F (171°C)
Breaded Mac & Cheese	3:30	340°F (171°C)
Breaded Mushrooms	3:30	340°F (171°C)
Broccoli Cheese Nuggets	2:30	350°F (177°C)
Cheese Cake, Fried	8:30	350°F (177°C)
Cheese Nuggets	1:30	350°F (177°C)
Chicken Breasts (FRESH)	12:00-17:00	315°F (171°C)
Chicken Breasts (FROZEN)	20:00	330°F (166°C)
Chicken Fried Steak	4:00	350°F (177°C)
Chicken Gizzards (FRESH)	3:30	350°F (177°C)
Chicken, Legs & Wings (FRESH)	12:00-17:00	315°F (171°C)
Chicken 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.

⚠ DANGER

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.

24•7
Your Service Hotline
1-800-558-8744

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.

CONTROL TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
No power	Circuit breaker OFF	Check and reset
	Appliance not plugged in	Plug in cord
	Defective 24VAC transformer	Replace transformer Replace controller
No sound	Inoperable speaker	Replace controller
Button problem	Frozen key	Unplug controller. Hold down the TOGGLE/CLEAR key as you plug controller back in
	Inoperable key	Replace controller
PROBE is displayed	Defective temperature probe	Replace temperature probe
	Probe not plugged in	Plug in probe
Reading wrong temperature	Defective temperature probe	Replace temperature probe.
Not heating	Defective element, relay, contactor or gas valve	Replace defective part
	Defective controller	Replace controller

TROUBLESHOOTING

1. **FRYER WILL NOT POWER-UP**
   A. Make certain cord is plugged in and breaker is turned "ON."
   B. Ensure the drain switch is turned to the "CLOSED" position.
   C. Ensure the master switch is turned to the "ON" position.

2. **FRYER WILL NOT HEAT**
   A. Ensure the gas valve is turned "ON."
   B. Ensure the gas hose is connected.
   C. Ensure the hi-limit is not tripped.
   C. Ensure there is oil in the frypot.

3. **PUMP WILL NOT RETURN OIL**
   A. Ensure there is oil in the mobile oil trolley.
   B. Ensure the pump switch is turned "ON."
   C. Push the reset button located behind the front access door to activate the pump motor.

4. **BASKETS WILL NOT DROP**
   A. Ensure fuse is not blown on basket lift relay board.
   B. Ensure there is no interference with basket lift mechanism.
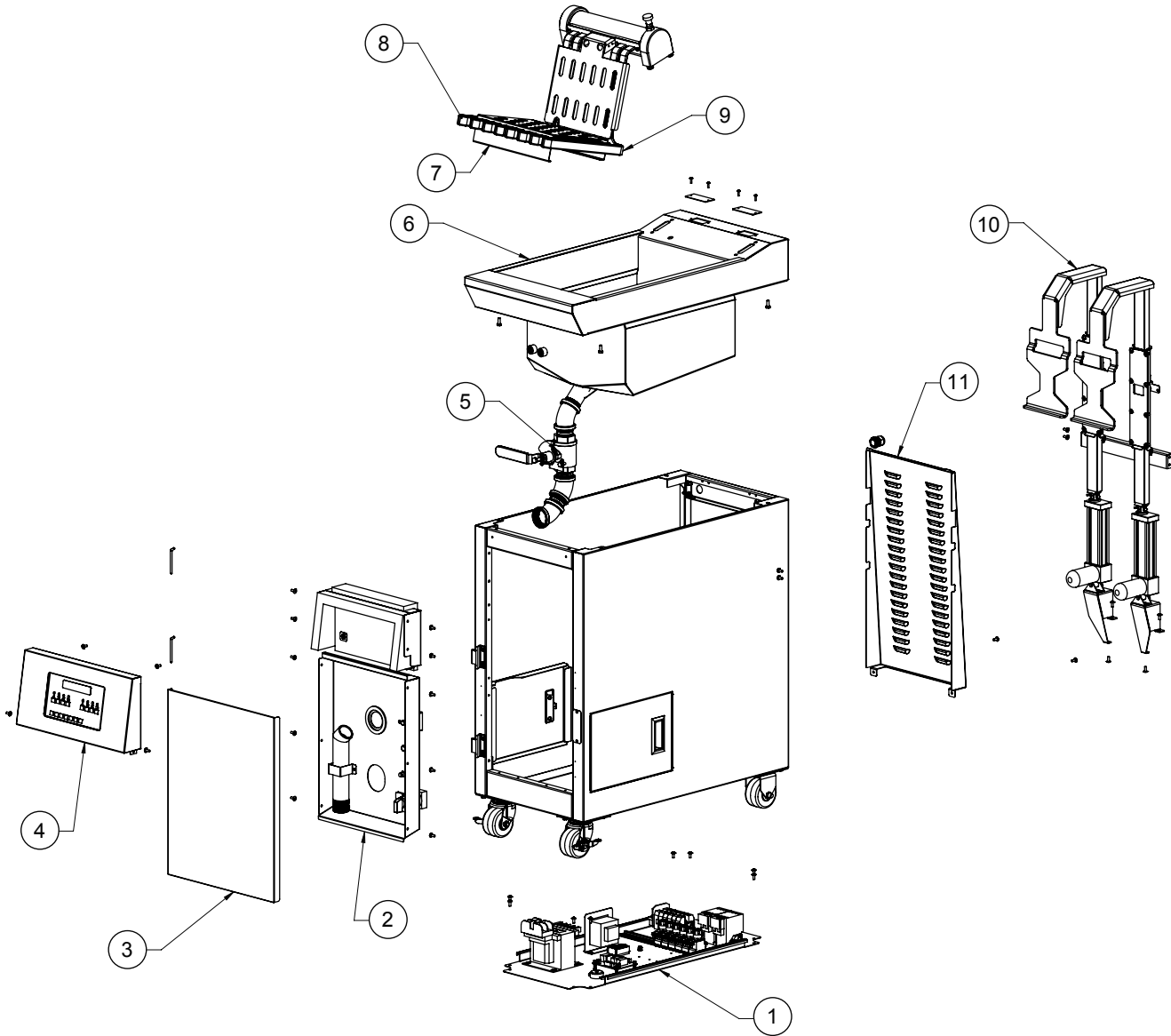
380415   ASF-60E MODEL ASSEMBLY

ITEM	DESCRIPTION	P/N	QTY
1	Electric Control Assembly 380-415V	77108	1
2	Front Panel with Drain Pipe	5013786	1
3	Door Assembly	5008965	1
4	Control Panel Assembly	5014288	1
5	Drain Valve, 1-1/4" S.S.	VA-28950	1
6	Kettle Assembly, Alto-Shaam	5013777	1
7	Element Guard	1009262	1
8	Element, 380-415V W/TC	EL-34389	1
9	Element, 380-415V	EL-34385	1
10	Lift Assembly, ASF-60	5007518	1
11	Back Panel, ASF-60	1008458	1

SEE NOTE

NOTE:
1012370 IS ONLY USED WITH NO LIFT UNITS.
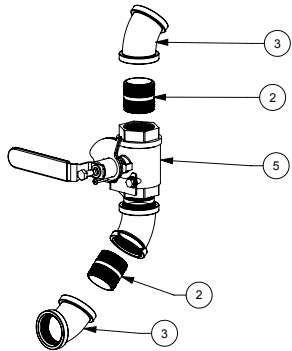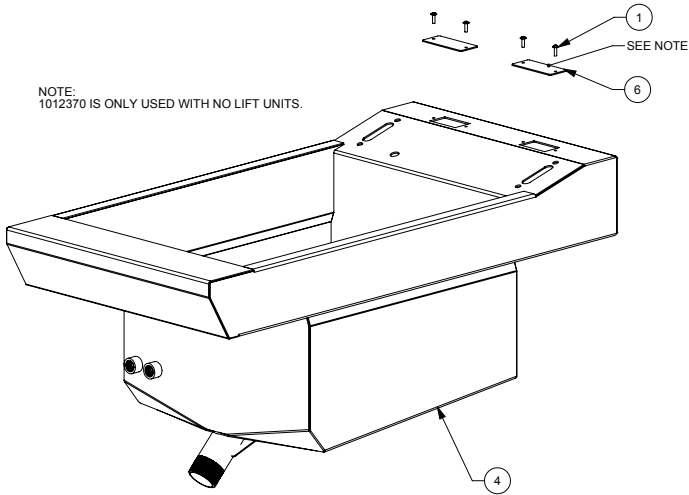
5013777   DRAIN ASSEMBLY

ITEM	DESCRIPTION	P/N	QTY
1	Screw, Philips Truss Head	SC-2472	4
2	Nipple, 1-1/4" NPT	NP-28949	2
3	Elbow, 1-1/4 x 45° Female	EB-28948	2
4	Kettle, ASF-60E, Alto-Shaam	5013776	1
5	Valve Drain Assembly, ASF-60	5011116	1
6	Lift Cover Plate, ASF-60	1012370	2

5008503   LOWER PANEL WITH DRAIN PIPE

ITEM	DESCRIPTION	P/N	QTY
1	Panel, Lower	1009173	1
2	Bracket, Drain Holder	1009174	1
3	#42 Stainless Rivet	RI-2097	2
4	Pipe, Drain	PP-28126	1
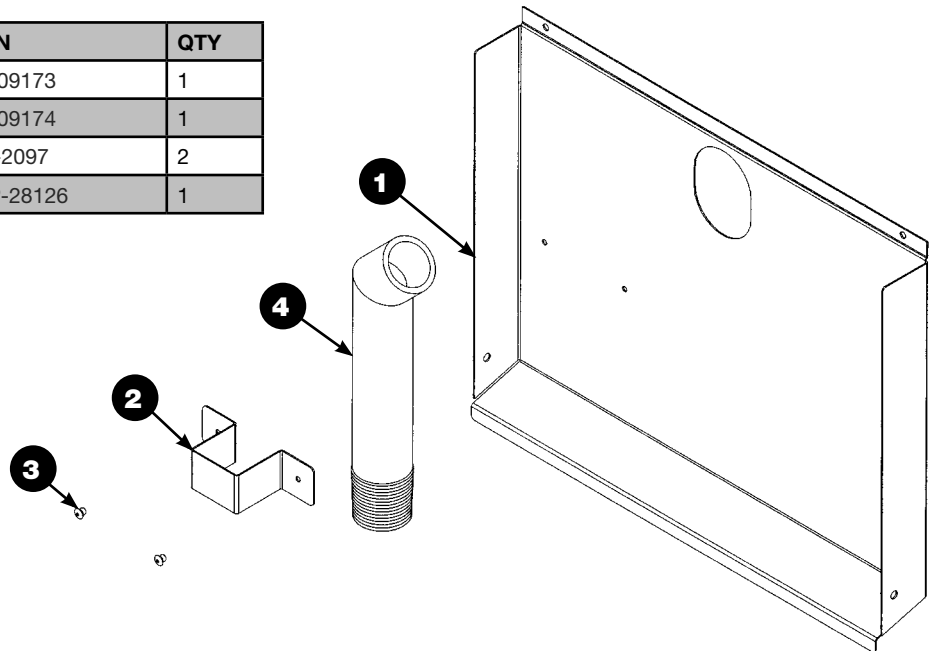
5007792　　VALVE-DRAIN ASSEMBLY

ITEM	P/N	DESCRIPTION	QTY
1	VA-28114	Valve-Ball, use with FT-28113	1
2	5008497	Weldment, 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, Straight 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
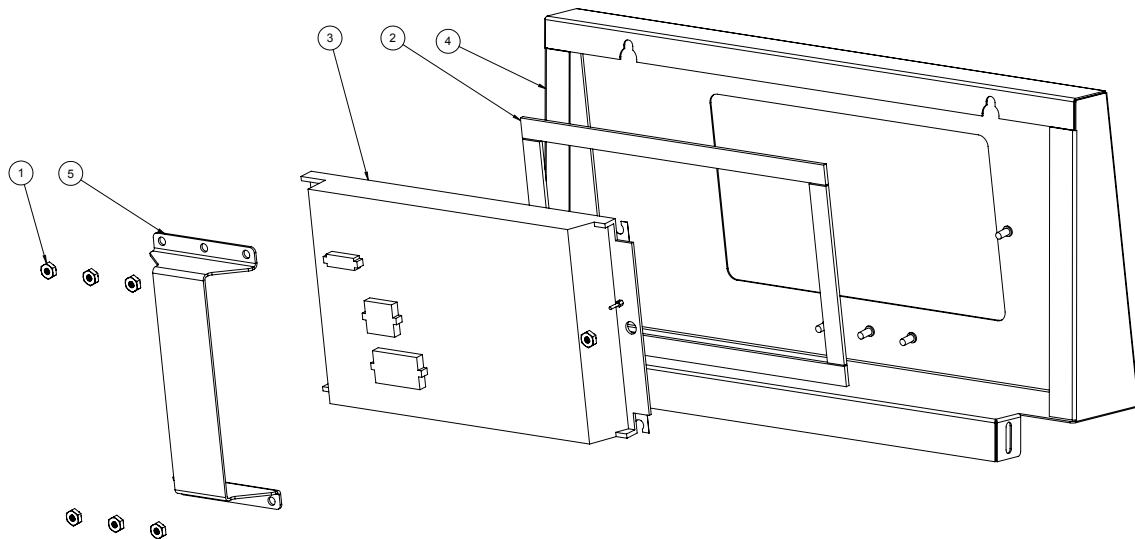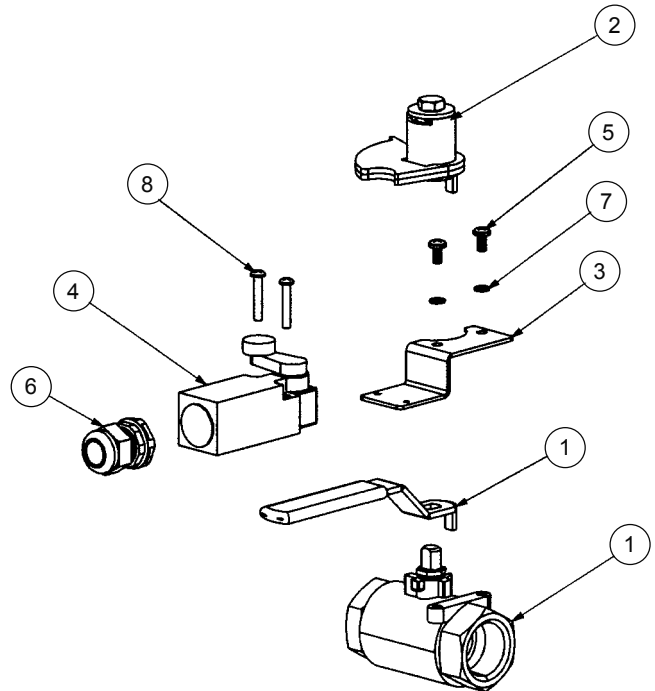
5014288　　CONTROL PANEL ASSEMBLY

ITEM	DESCRIPTION	P/N	QTY
1	Nut, #8-32	NU-26526	8
2	Gasket, 1/2" Self Adhesive	GS-2019	1
3	Control, ASF-60, 10 Button	CONTACT FACTORY	1
4	Control Panel Weldment	5014287	1
5	Bracket, Controller Support	1011993	1

5007518   LIFT ASSEMBLY

ITEM	P/N	DESCRIPTION	QTY
1	1008420	Guide Column	2
2	1008421	Guide Support	2
3	RD-28118	Rod, Lift Weld	2
4	MO-27011	Motor, Lift	2
5	1008419	Guide Pen	2
6	1008418	Bracket, Lift Motor Mount	2
7	PI-27539	Pin, 1/4" x 1-1/4", Clevis	4
8	PI-27540	Pin, Cotter	4
9	HL-28117	Basket Lift	2
10	SC-2661	Screw, Philips Truss	24
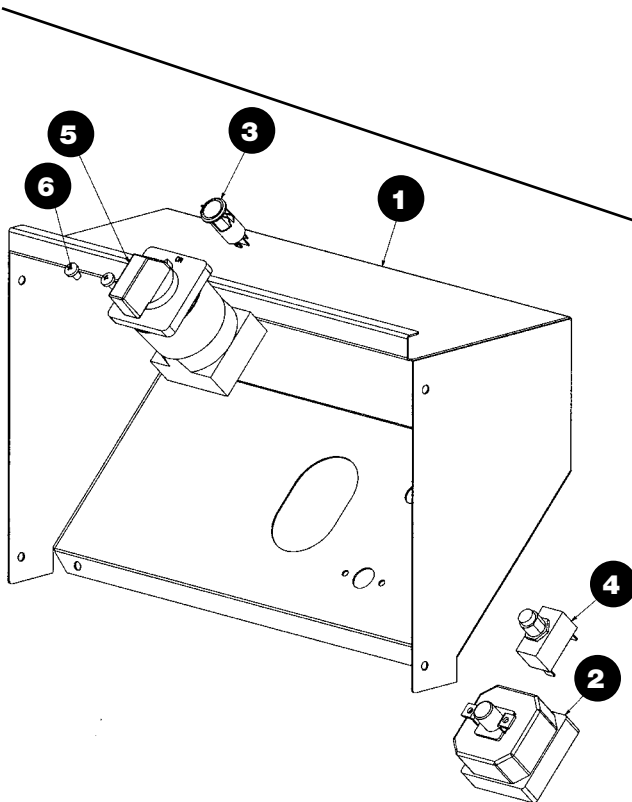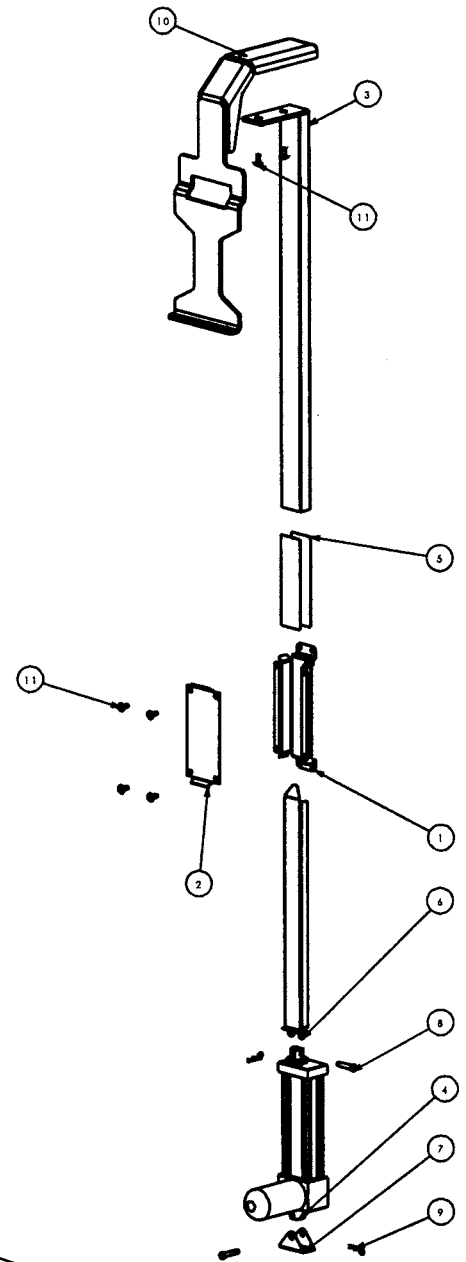
5008570   DRAIN PANEL AND SWITCHES

ITEM	DESCRIPTION	P/N	QTY
1	Panel, Front Lower	1009268	1
2	Thermostat, Hi-Limit	TT-34245	1
3	Whilte Pilot Light, 250V	LI-3951	1
4	Switch, Push Button SPST	SW-33495	1
5	Switch, Cam, for Single Phase	SW-34254	1
6	Screws, M4-0.7x6mm Philips Head	SC-22271	1
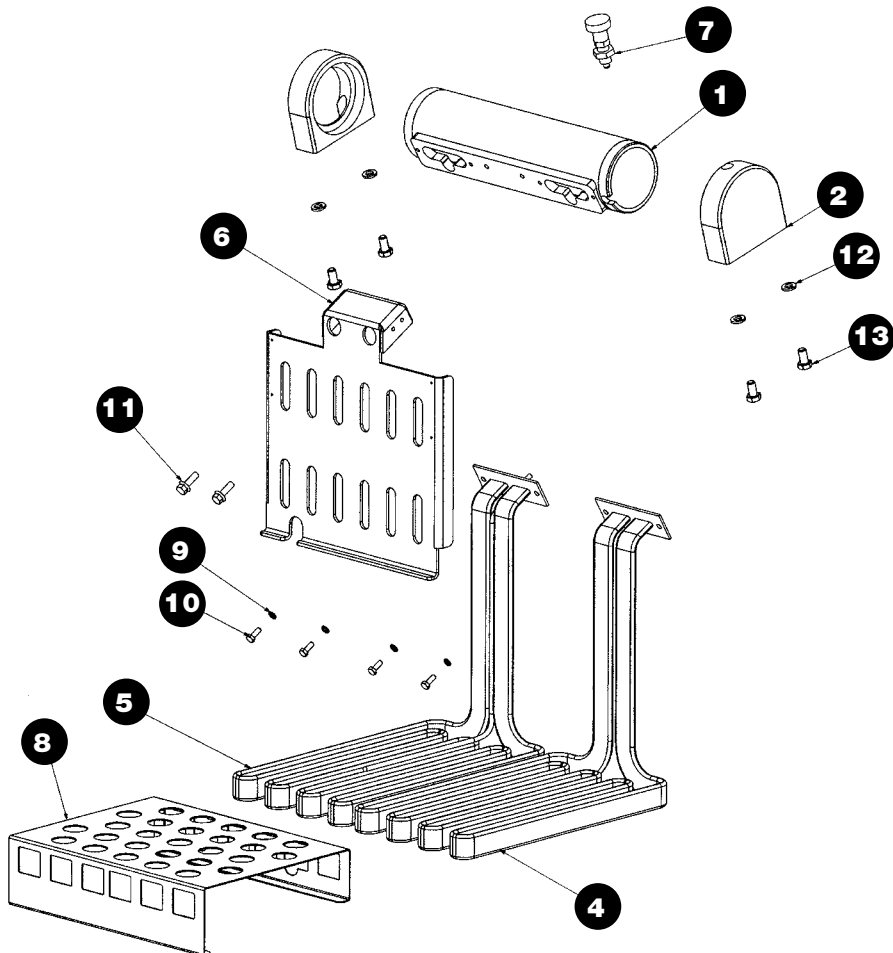
5008656   ELEMENTS ASSY-ASF60E 208-220V

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
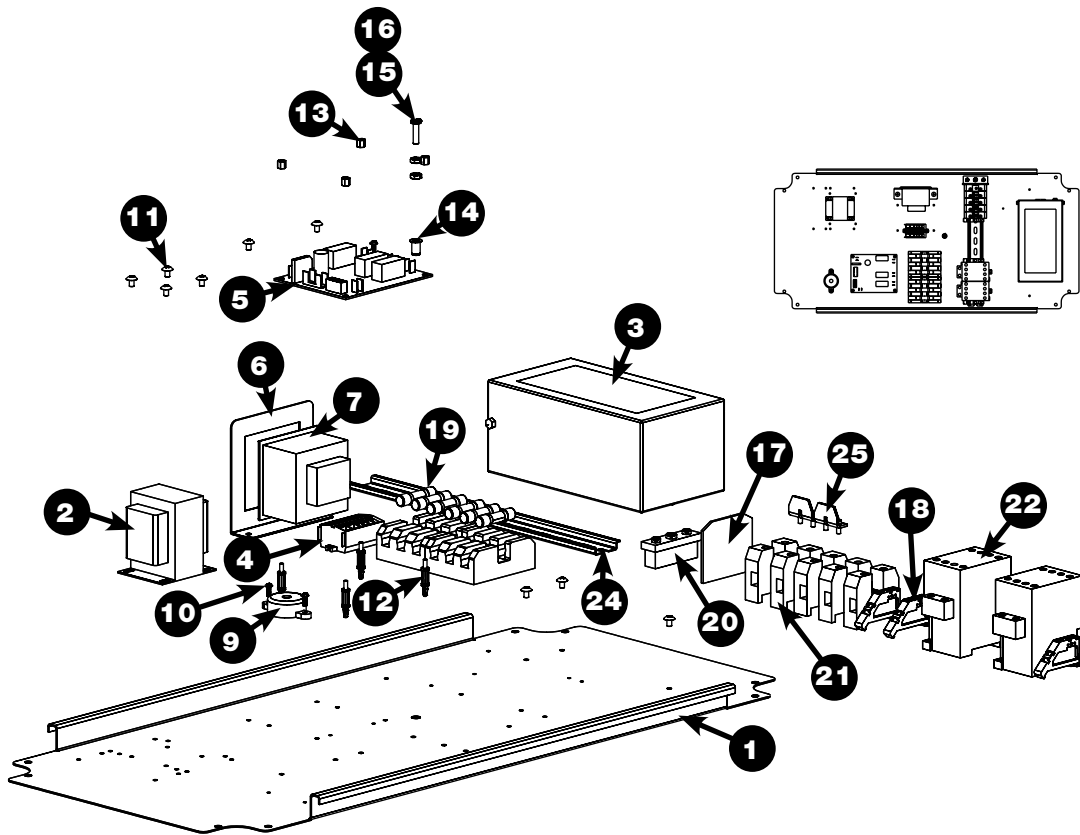
5008682   **ELECTRIC ASSY 440-480**

ITEM	PART NO	DESCRIPTION	QTY
1	1008453	BASE-ASF-60	1
2	TN-34402	TRANSFORMER, 230V/24V, 50A	1
3	TN-34401	TRANSFORMER, 440/480V	1
4	BK-34372	T-BLOCK, MODULAR	1
5	BA-34563	RELAY BOARD-ASF-DELUXE	1
6	1006917	BRACKET, HI-LIMIT CONTROLLER	1
7	CC-34378	CONTROLLER, HI-LIMIT,	1
8	5008119	WIRE SET-ASF 60E 440-480V NO LIFT	1
9	BP-3567	BEEPER	1
10	SC-23455	6-32 X 3/8 RD HD	4
11	SC-2459	8-32 x 1/4" PHIL SCREW	9
12	SP-33901	SPACER, 7/16 FOR .125 HOLE IN .062" BOARD	4
13	SP-33707	SPACER, SUPPORT, NYL, 1.4"	4
14	HG-22672	10-32 THREADED INSERT	1

ITEM	PART NO	DESCRIPTION	QTY
15	NU-2215	NUT,10-32,NF HEX MS,# 18-8 S/S	2
16	SC-2071	10-32 X 3/4 PHILLIPS PAN HD	1
17	TM-3786	TERMINAL, CT, 35mm WALL, PART	1
18	TM-3926	TERMINALS,*CT,PLUG,6.10	3
19	FU-3860	FUSE-30 A, CLASS G, QC	6
20	TM-3782	TERMINAL, GROUND, 35mm	1
21	TM-3780	TERMINAL, CT, MARK, L	5
22	CN-3652	CONTACTOR	2
23	FU-3773	FUSE HOLDER	2
24	1003551	DIN RAIL-QC 12"	1
25	TM-33837	JUMPER STRIP	2
26	FU-34274	FUSE-4A SECONDARY, 3AG TYPE	1
27	FU-34355	FUSE-2A 250V, T-LAG, GLS, MOL	1
28	CR-3226	CONNECTOR,TERM.,# 10 STUD RING	1
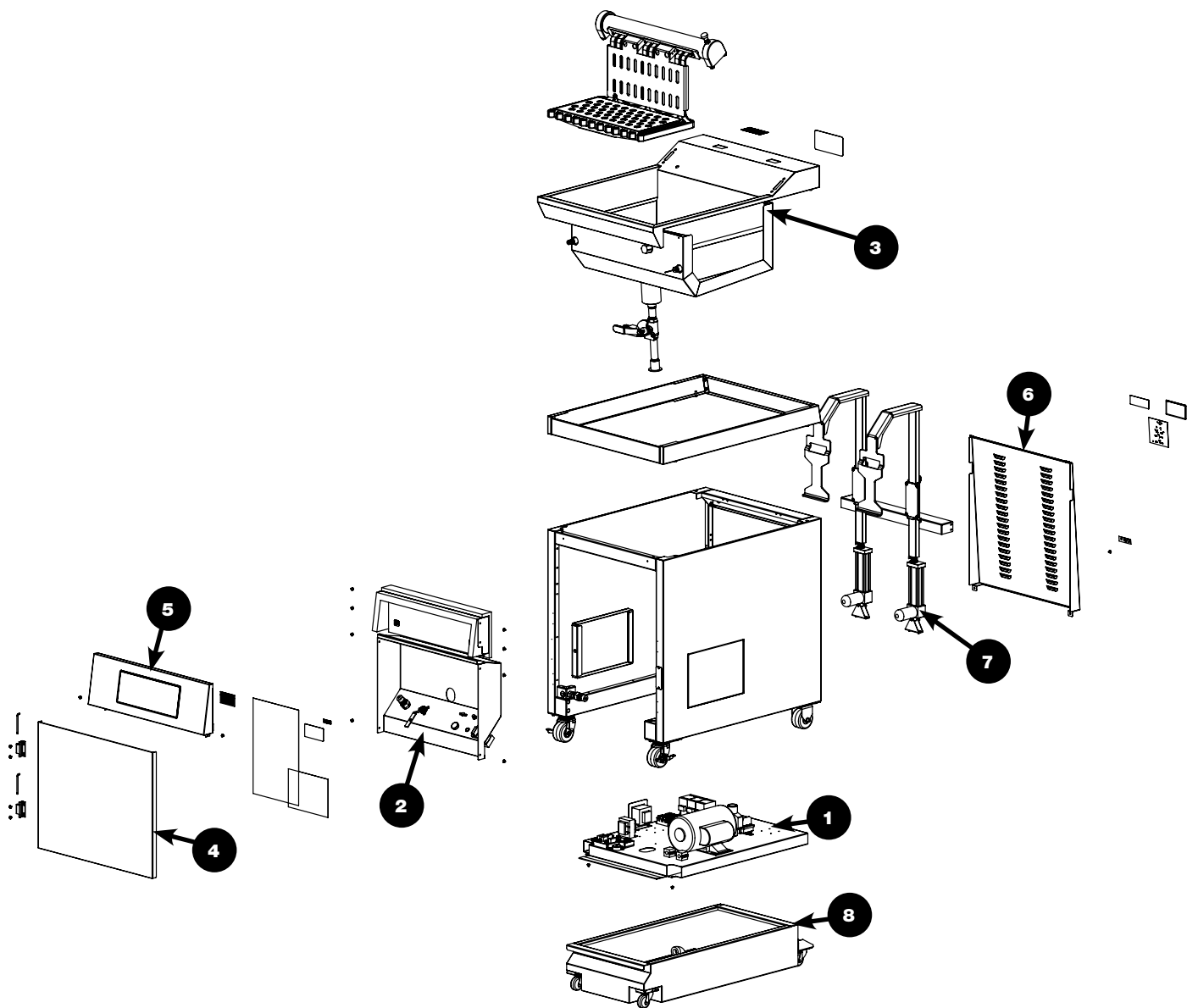
See details for these assemblies on following pages:

ITEM	PART NO	DESCRIPTION	QTY
1	5009735	MOUNT-MOTOR AND ELECTRICAL	1
2	5009636	PANEL, LOWER ASSY W/FILTRATION	1
3	5009628	KETTLE, 208-220	1
4	5009179	DOOR	1
5	5008595	CONTROL PANEL	1
6	1009361	BACK PANEL	1
7	5009630	LIFT ASSEMBLY	1
8	5008588	FAT DRAWER ASSEMBLY	1

5009179   **DOOR ASSEMBLY**

ITEM	PART NO	DESCRIPTION	QTY
1	5009177	DOOR	1
2	1006303	MAGNET BRACKET	1
3	RI-2097	#42 STAINLESS RIVET	6
4	MA-25734	DOOR MAGNET	1
5	1009689	ELEMENT LIFT BRACKET	1
6	RL-27690	ELEMENT LIFT	1
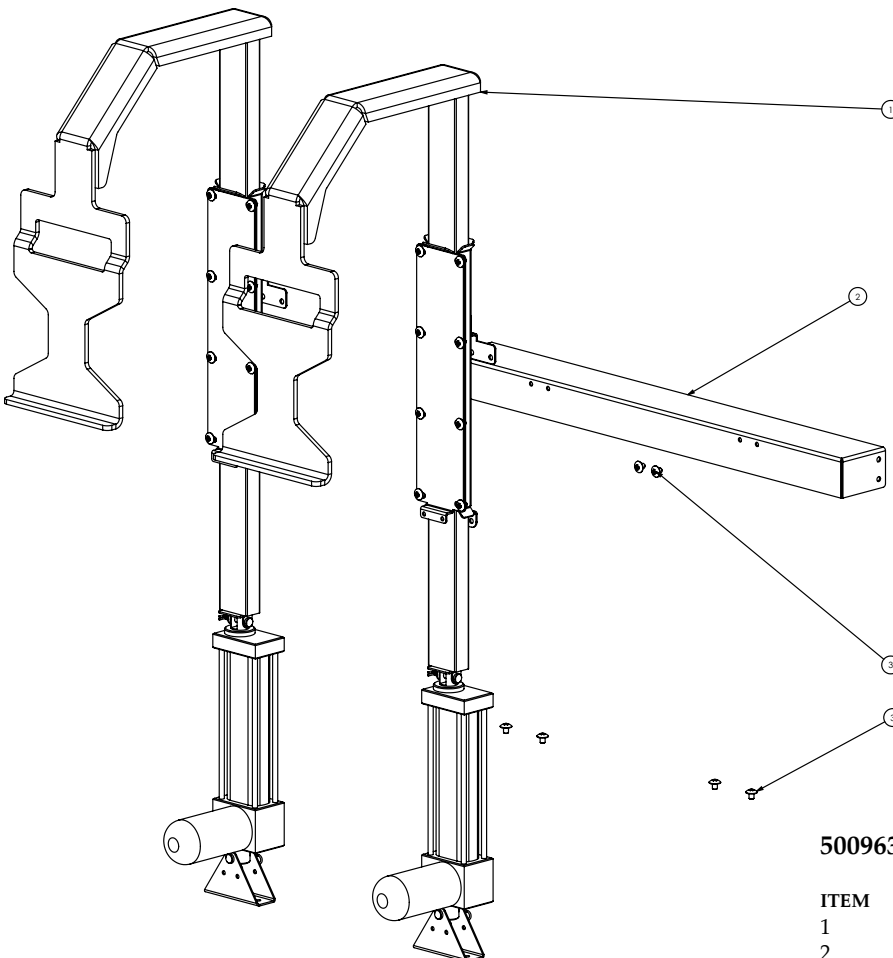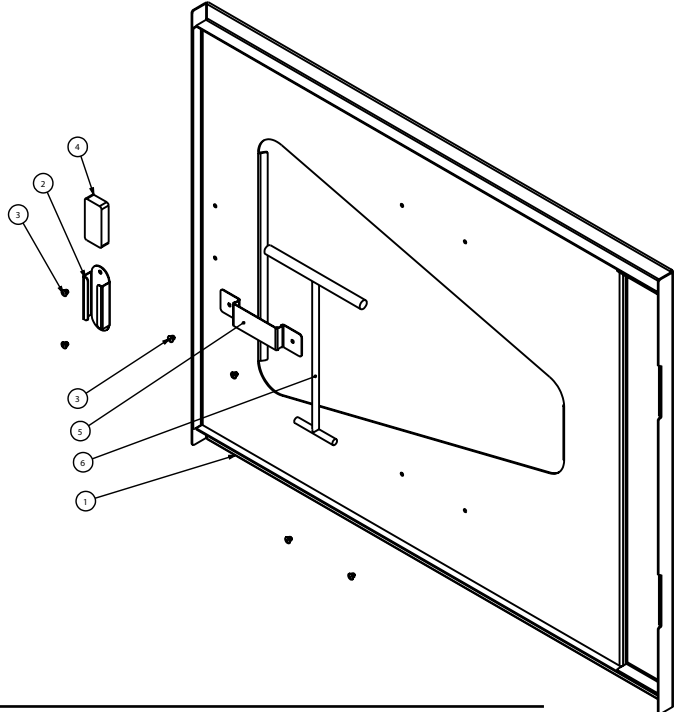
5009630   **LIFT ASSEMBLY**

ITEM	PART NO	DESCRIPTION	QTY
1	5009631	SINGLE LIFT ASSEMBLY	2
2	1010240	BRACKET, LIFT SUPPORT	1
3	SC-26791	SCREW 10-32 X 1/4" PAN HEAD	8

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
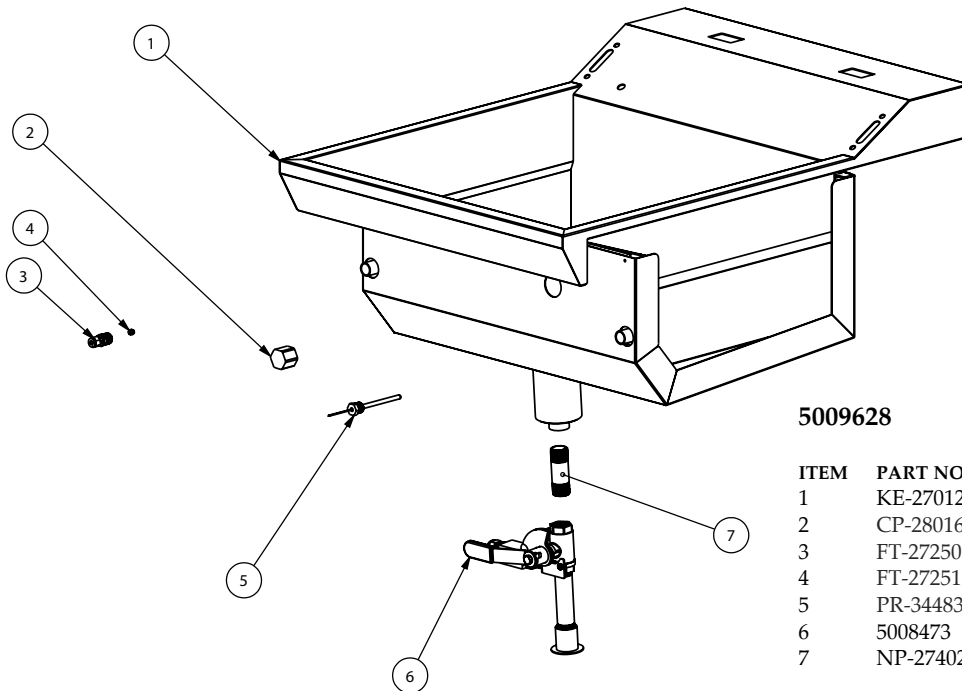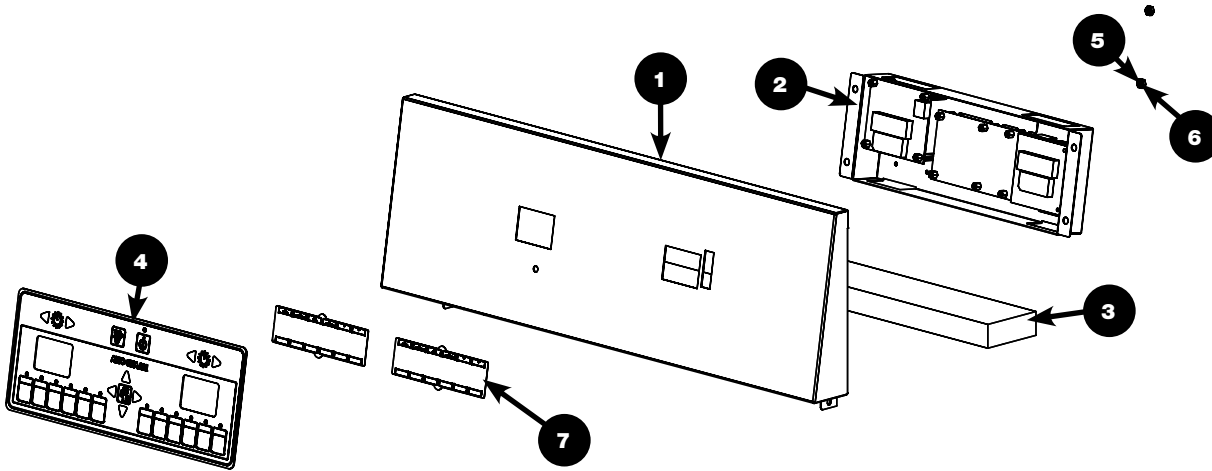
5009628   **KETTLE, 208-220**

ITEM	PART NO	DESCRIPTION	QTY
1	KE-27012	ASF-75E KETTLE ASSY.	1
2	CP-28016	CAP-3/4 NPT	1
3	FT-27250	FITTING-1/4" COMPRESSION	1
4	FT-27251	FERRULE, COMPRESSION, 6MM	1
5	PR-34483	PROBE-NTC THERMISTOR	1
6	5008473	DRAIN ASSEMBLY	1
7	NP-27402	PIPE NIPPLE, 3/4NPT X 10" LG	1
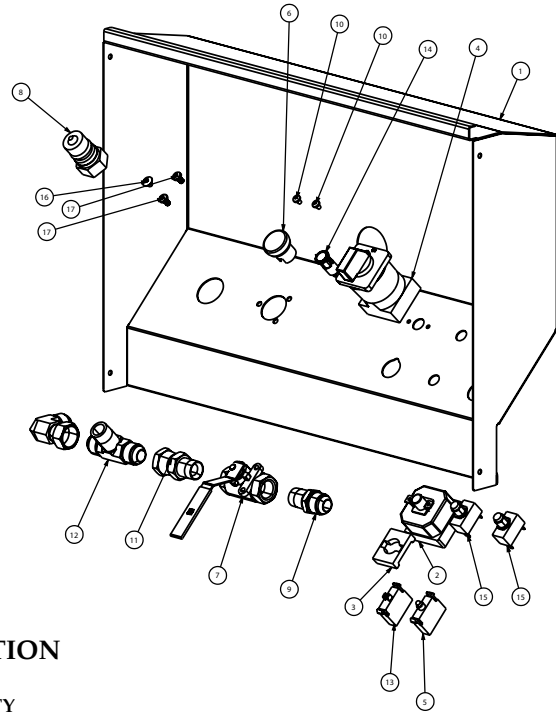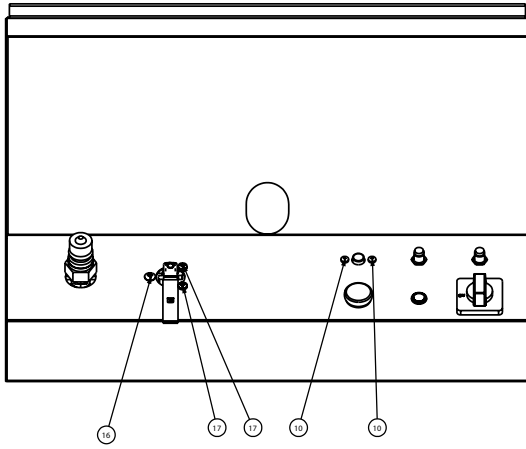
5009636   **PANEL, LOWER ASSY W/ FILTRATION**

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
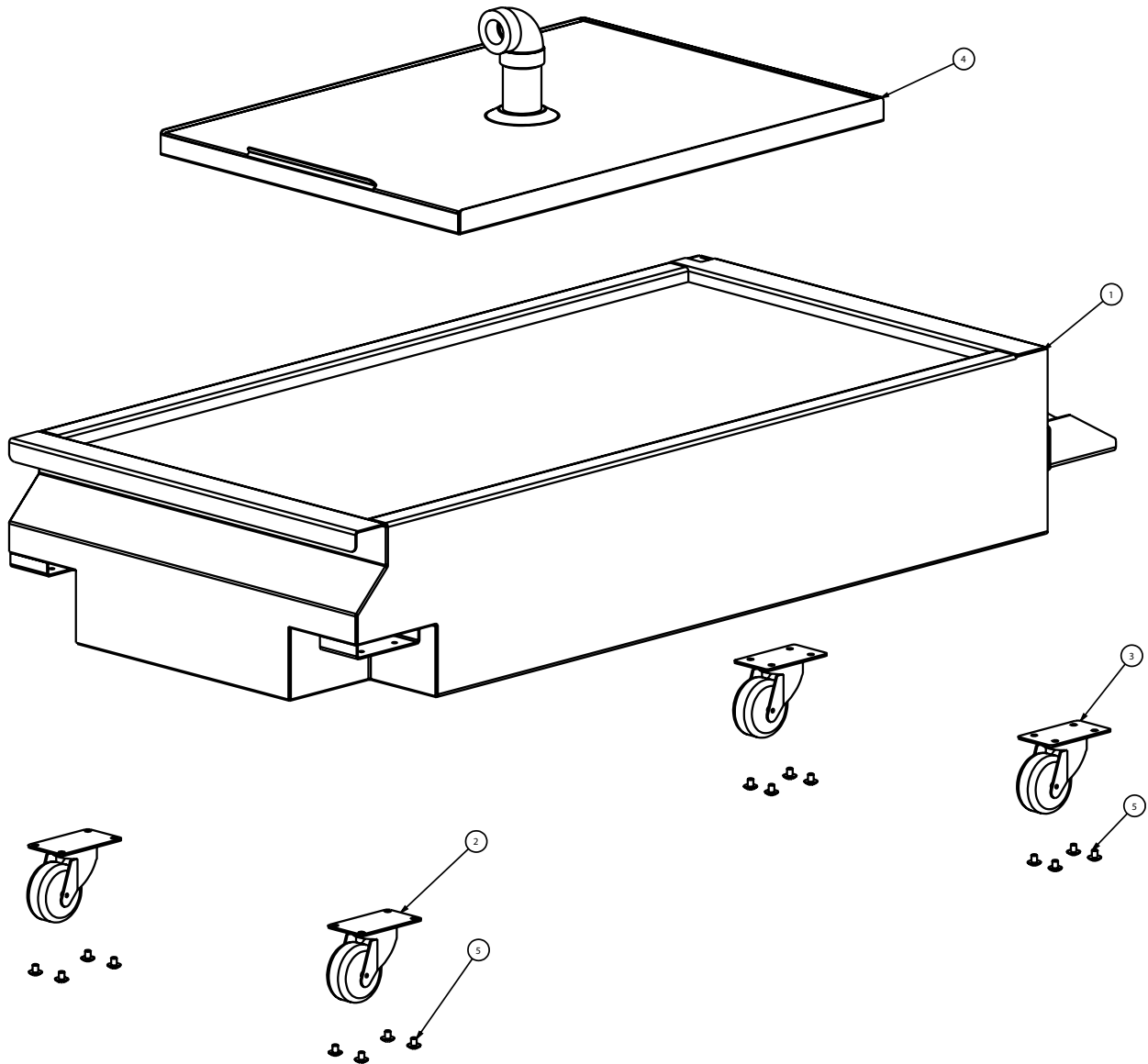
5008588   **FAT DRAWER ASSEMBLY**

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
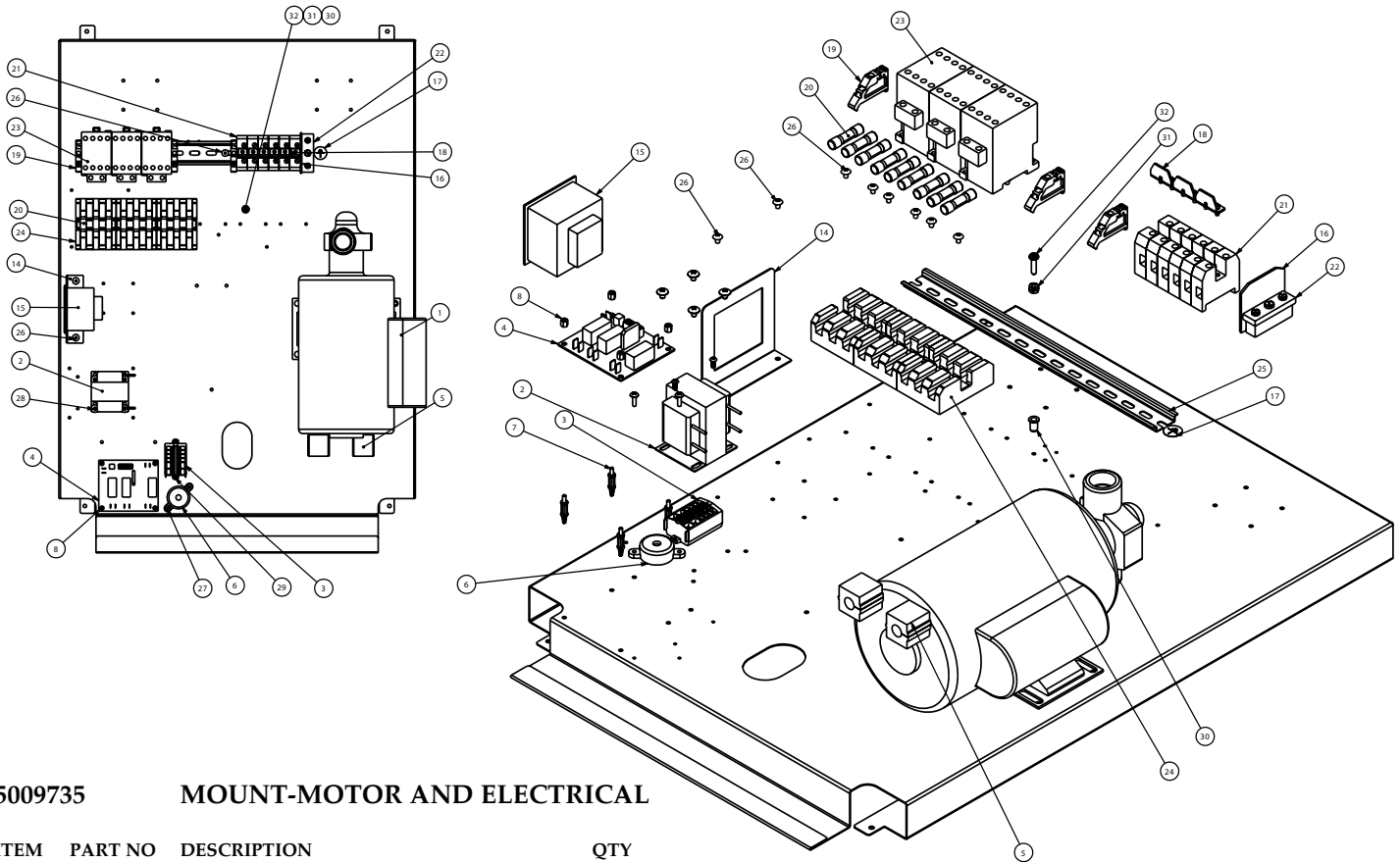
5009735 **MOUNT-MOTOR AND ELECTRICAL**

ITEM	PART NO	DESCRIPTION	QTY
1	1009269	MOTORPLATE-ASF-75	1
2	TN-33282	TRANSFORMER, 230V/24V, 50A,	1
3	BK-34372	T-BLOCK,MODULAR	1
4	BA-34490	RELAY BOARD-ASF-60	1
5	FI-33406	FERRITE FILTER-CLAMP	2
6	BP-3567	BEEPER	1
7	SP-33901	SPACER, 7/16 FOR .125 HOLE IN .062" BRD	4
8	SP-33707	SPACER, SUPPORT, NYL, 1.4"	4
9	FU-34355	FUSE-2A 250V, T-LAG, GLS, MOL	1
10	CD-34380	CORD, SOOW 16GA, 3COND.	1
11	CR-3226	CONNECTOR, TERM., #10 STUD RING	1
12	5007274	WIRESET, ASF-75E, 208-220V	1
13	FU-34274	FUSE-4A SECONDARY, 3AG TYPE	1
14	1006917	BRACKET, HI-LIMIT CONTROLLER	1
15	CC- 34378	CONTROLLER,HI-LIMIT	1
16	TM-3786	TERMINAL, CT, 35MM WALL, PART	1
17	LA-33002	INTERNAL GROUND LABEL	1
18	TM-33837	JUMPER STRIP	3
19	TM-3926	TERMINALS, *CT, PLUG, 6.10	3
20	FU-3860	FUSE-30A, CLASS G, QC	9
21	TM-3780	TERMINAL, CT, MARK, L	6
22	TM-3782	TERMINAL, GROUND, 35MM	1
23	CN-3652	CONTACTOR	3
24	FU-3773	FUSE HOLDER	3
25	1006484	DIN RAIL	1
26	SC-2459	8-32X1/4" PHIL SCREW	12
27	SC-2472	SCREW, 6-32X1/2, NC PHIL TRUSS M/S	2
28	SC-26791	SCREW10-32X1/4" PAN HEAD	4
29	SC-23455	6-32X3/8 RD HD	2
30	HG-22672	10-32 THREADED INSERT	1
31	NU-2215	NUT, 10-32, NF HEX MS, #18-8 S/S	2
32	SC-2071	10-32X3/4 PAN HD	1
33	MO-34469	5EW/S74 MOTOR-230V CE	1
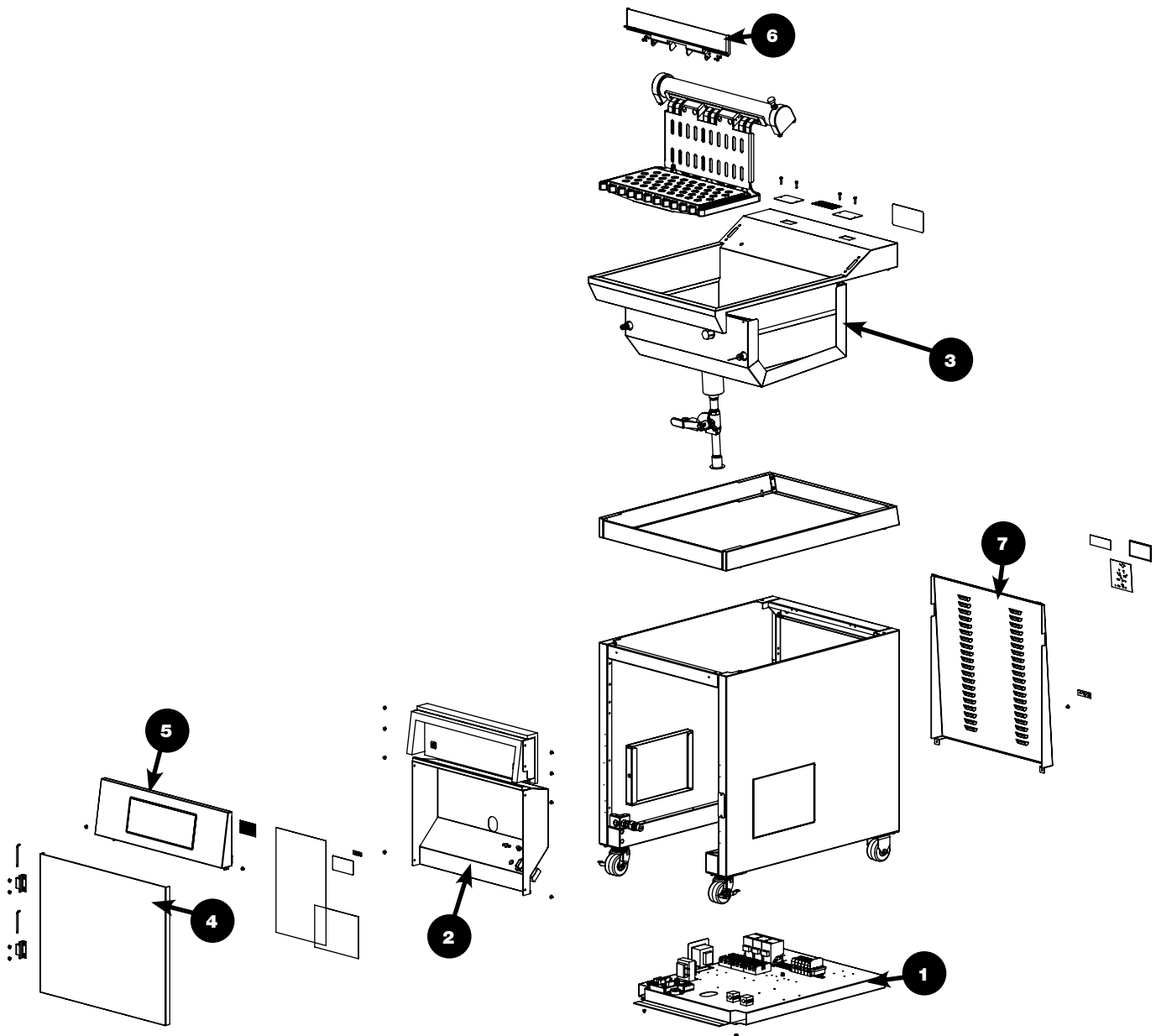
See details for these assemblies on following pages:

ITEM	PART NO	DESCRIPTION	QTY
1	5009634	MOUNT-MOTOR AND ELECTRICAL	1
2	5009217	PANEL, LOWER ASSY	1
3	5009628	KETTLE-75E, 208-220 BSC	1
4	5009179	DOOR	1
5	5008595	CONTROL PANEL-ASF-75	1
6	5009645	BASKET HANGER	1
7	1009361	PANEL-BACK	1

5009179   **DOOR ASSEMBLY**

ITEM	PART NO	DESCRIPTION	QTY
1	5009177	DOOR	1
2	1006303	MAGNET BRACKET	1
3	RI-2097	#42 STAINLESS RIVET	6
4	MA-25734	DOOR MAGNET	1
5	1009689	ELEMENT LIFT BRACKET	1
6	RL-27690	ELEMENT LIFT	1
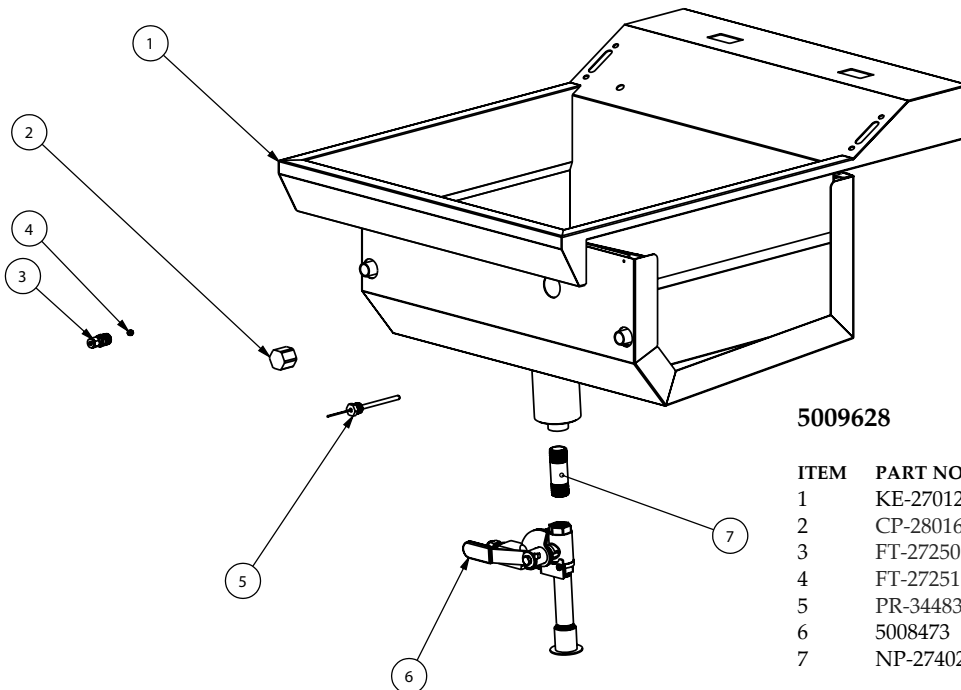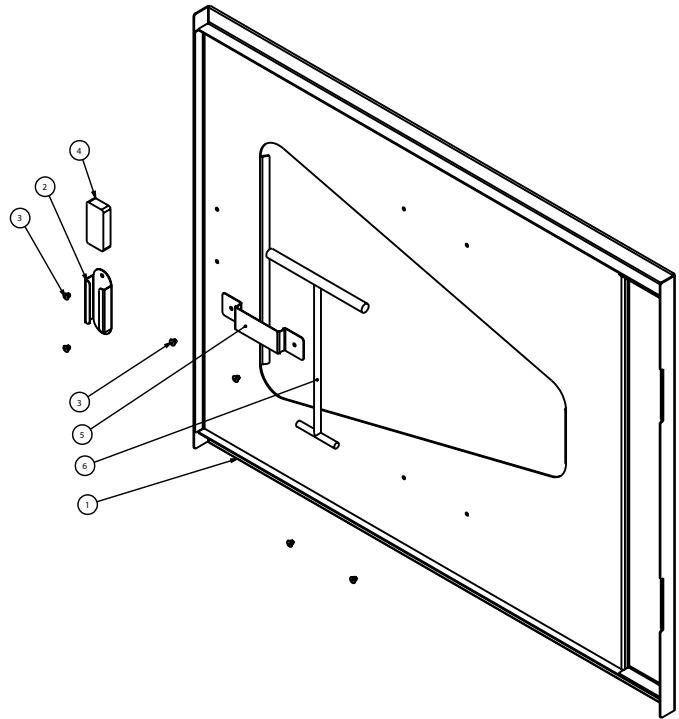
5009628   **KETTLE, 208-220**

ITEM	PART NO	DESCRIPTION	QTY
1	KE-27012	ASF-75E KETTLE ASSY.	1
2	CP-28016	CAP-3/4 NPT	1
3	FT-27250	FITTING-1/4" COMPRESSION	1
4	FT-27251	FERRULE, COMPRESSION, 6MM	1
5	PR-34483	PROBE-NTC THERMISTOR	1
6	5008473	DRAIN ASSEMBLY	1
7	NP-27402	PIPE NIPPLE, 3/4NPT X 10" LG	1
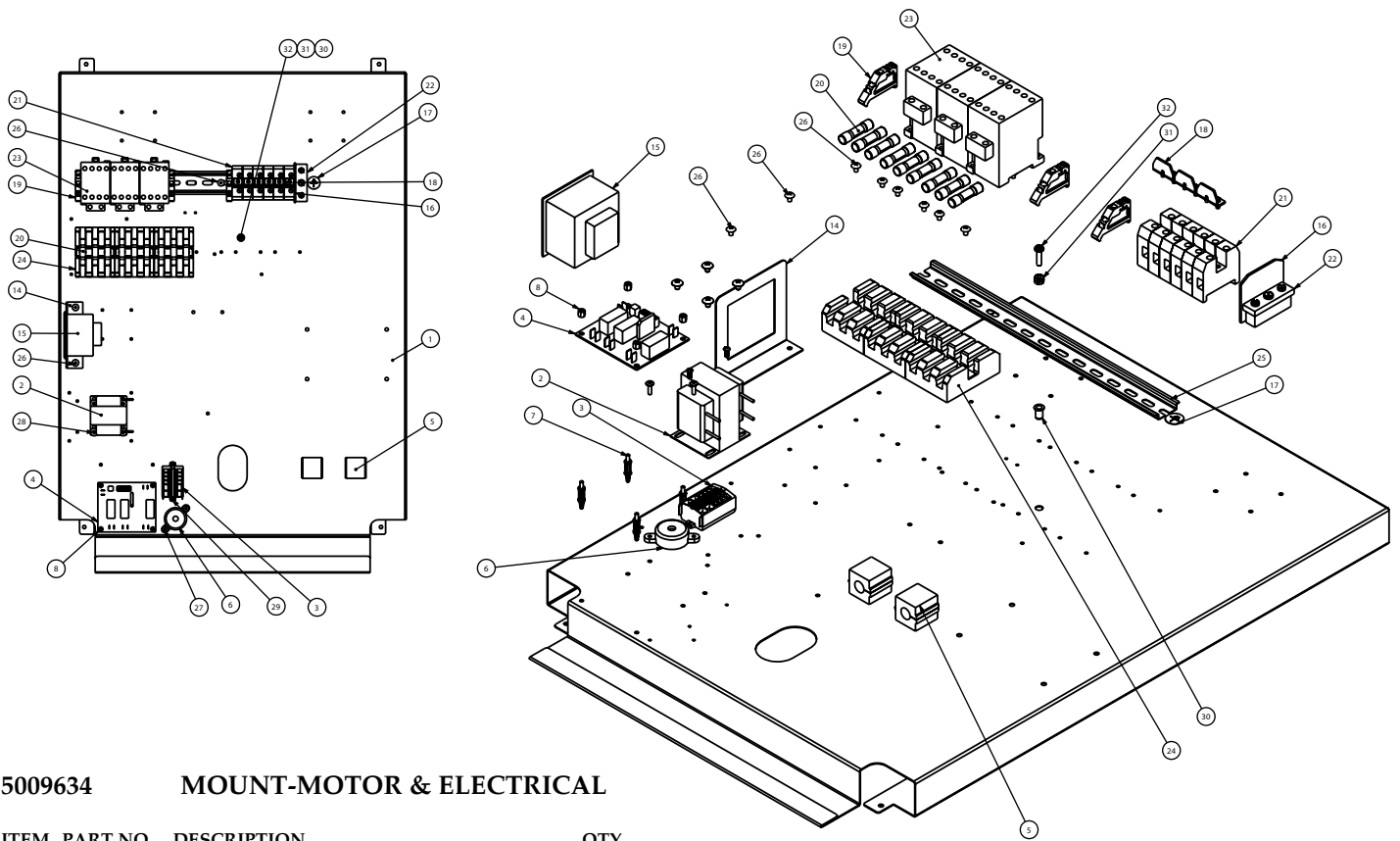
5009634   MOUNT-MOTOR & ELECTRICAL

ITEM	PART NO	DESCRIPTION	QTY
1	1009269	MOTOR PLATE	
2	TN-33282	TRANSFORMER, 230V/24V,50A	1
3	BK-34372	T-BLOCK, MODULAR	1
4	BA-34490	RELAY BOARD ASF-60	1
5	FI-33406	FERRITE FILTER-CLAMP	2
6	BP-3567	BEEPER	1
7	SP-33901	SPACER, 7/16 FOR .125 HOLE IN .062" BRD	4
8	SP-33707	SPACER, SUPPORT, NYL, 1.4"	
9	FU-34355	FUSE-2A250V, T-LAG, GLS, MOL	1
10	CD-34380	5CORD, SOOW 16 GA, 3 COND.	
11	CR-3226	CONNECTOR, TERM., # 10 STUD RING	1
12	5007274	WIRESET, ASF-75E, 208-220V	1
13	FU-34274	FUSE-4 A SECONDARY, 3AG TYPE	1
14	1006917	BRACKET, HI-LIMIT CONTROLLER	1
15	CC-34378	CONTROLLER, HI-LIMIT	1
16	TM-3786	TERMINAL, CT, 35MM WALL, PART	1
17	LA-33002	INTERNAL GROUND LABEL	1
18	TM-33837	JUMPER STRIP	
19	TM-3926	TERMINALS, *CT, PLUG, 6.10	
20	FU-3860	FUSE-30A, CLASSG, QC	9
21	TM-3780	TERMINAL, CT,MARK, L	6
22	TM-3782	TERMINAL, GROUND, 35MM	1
23	CN-3652	CONTACTOR	3
24	FU-3773	FUSEHOLDER	3
25	1006484	DINRAIL	1
26	SC-2459	8-32X1/4" PHILSCREW	12
27	SC-2472	SCREW, 6-32X1/2, NC PHIL TRUSS	2
28	SC-26791	SCREW10-32X1/4"PANHEAD	4
29	SC-23455	66-32X3/8 RD HD	2
30	HG-22672	10-32 THREADED INSERT	1
31	NU-2215	NUT,10-32,NF HEX MS,# 18-8 S/S	2
32	SC-2071	10-32X3/4 PAN HD	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
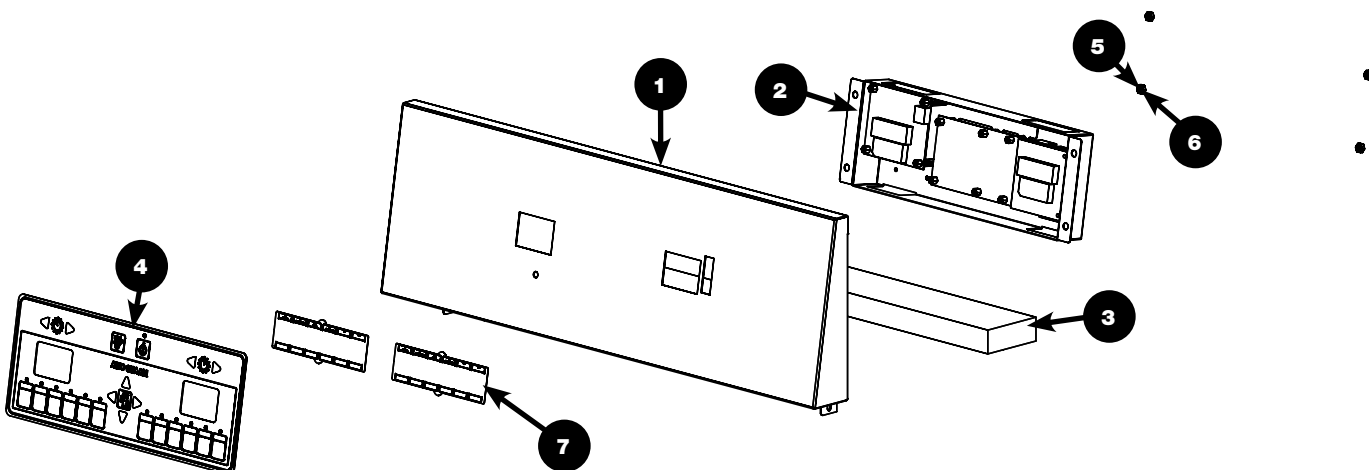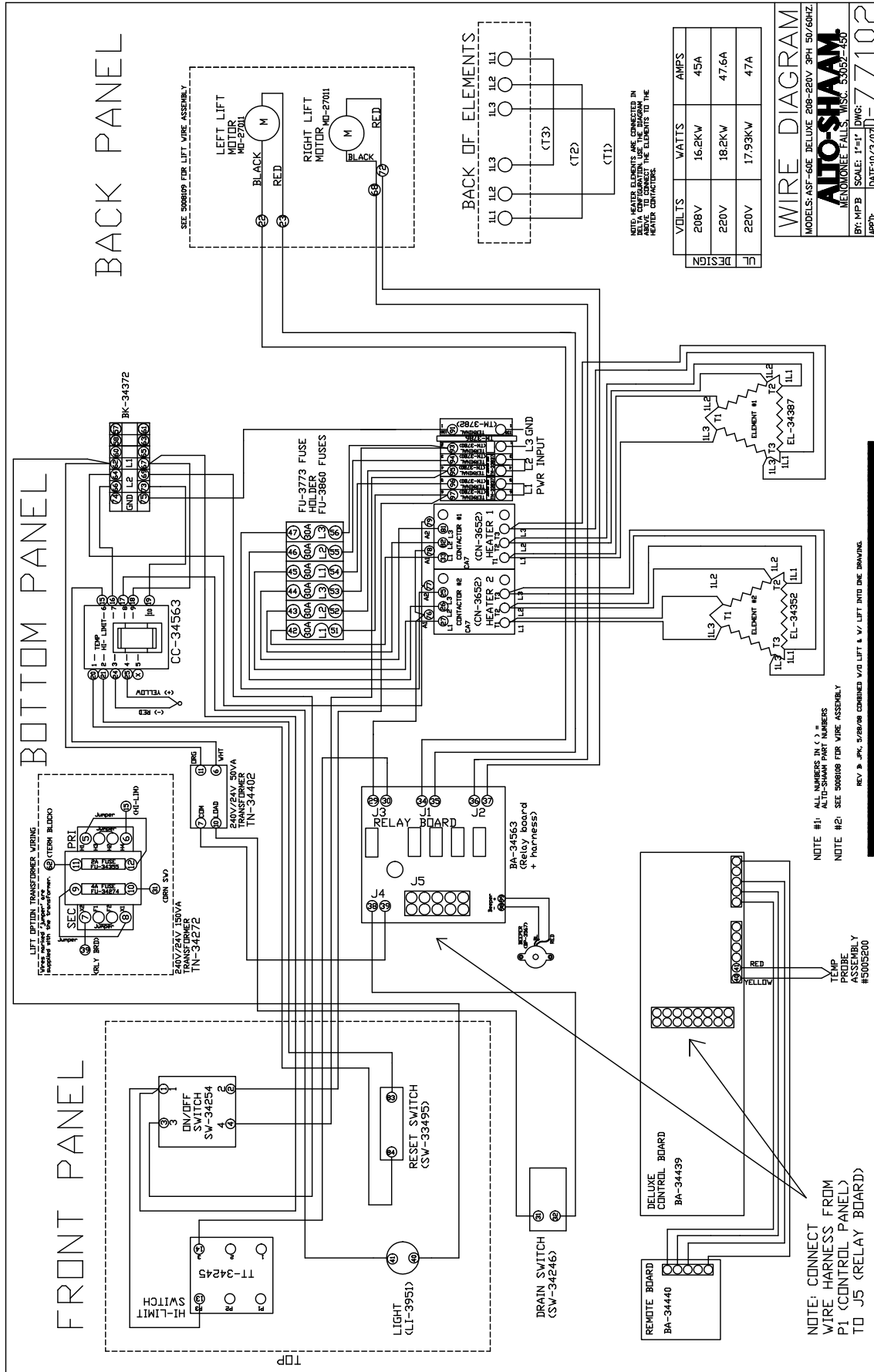
WIRE DIAGRAM

MODELS: ASF-60E DELUXE 240V 3PH 50/60HZ.
ALTO-SHAAM
MENOMONEE FALLS, WISC. 53052-450
BY: MPB   SCALE: 1"=1'   DWG: D-77106
DATE:10/3/07   APP'D:

UL	VOLTS	WATTS	AMPS
DESIGN	240V	17000W	41A
	240V	17930W	43.1A

WIRE DIAGRAM

ALTO-SHAAM.
MENOMONEE FALLS, WISC. 53052-450

MODELS:ASF-60E DELUXE 380-415V 3PH 50HZ

VOLTS	WATTS	AMPS
380V	15.4KV	23.4A
415V	18.3KV	25.4A
X	X	X

BACK PANEL

BOTTOM PANEL

FRONT PANEL

NOTE: CONNECT
WIRE HARNESS
P1 (CONTROL PANEL)
TO J5 (RELAY BOARD)

NOTE #1: ALL NUMBERS IN < > =
ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW. 5008114
FOR WIRE ASSEMBLIES

BACK PANEL

SEE 5008109 FOR LIFT WIRE ASSEMBLY

LEFT LIFT MOTOR MO-27011

RIGHT LIFT MOTOR MO-27011

BLACK
RED
BLACK
RED

NOTE: 440-480V CONNECT X2 TO X3 AND CONNECT H2 TO H3 WITH BUTT CONN. CP20660

PRIMARY VOLTS 480V
TN-34401 TRANSFORMER #2
SECONDARY VOLTS 240V

H1 H4 X1 X4

	VOLTS	WATTS	AMPS
	440V	15.5KW	20.4A
	480V	18.5KW	22.2A
	440-480V	18.1KW	21.8A

WIRE DIAGRAM

AUTO-SHAAM
MENOMONEE FALLS, WISC. 53052-450

MODELS: ASF-60E DELUXE 440-480V 50/60 HZ
BY: MP.B   SCALE: 1"=1"   DWG: D-77114
DESIGN   APP'D: DATE:11/27/07

BOTTOM PANEL
BACK PANEL

BK-34372

FU-3773 FUSE HOLDER
FU-3860 FUSES

TM-3782
L3 GND
PWR INPUT

CONTACTOR #1 (CN-3652) HEATER 1

CONTACTOR #2 (CN-3652) HEATER 2

CC-34378

TEMP
HI-LIMIT

YELLOW (+)
RED (-)

1L3
1L2
1L1
EL-34390

1L3
1L2
1L1
EL-34354

REV A: JPK, 5/28/08 COMBINED W/ LIFTS AND W/O LIFTS

240V/24V 50VA TRANSFORMER TN-34402

LIFT OPTION TRANSFORMER WIRING
Wires marked "Jumper" are supplied with the transformer.

TERM BLOCK
PRI
HI-LIMO
JUMPER

SEC
8A FUSE FU-34355
5A FUSE FU-34274

CORN SW

RLY BRD
Jumper

240V/24V 150VA TRANSFORMER TN-34272

J3 J1 J2
RELAY BOARD

J4 J5

BA-34563 (Relay board + harness)

NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW. 5008118 FOR WIRE ASSEMBLIES

FRONT PANEL

ON/OFF SWITCH SW-34254

RESET SWITCH (SW-33495)

HI-LIMIT SWITCH TT-34245

LIGHT (LI-3951)

DRAIN SWITCH (SW-34246)

DELUXE CONTROL BOARD BA-34439

RED
YELLOW
TEMP PROBE ASSEMBLY #5005200

REMOTE BOARD BA-34440

NOTE: CONNECT WIRE HARNESS P1(CONTROL PANEL) TO J5 (RELAY BOARD)

TOP

WIRE DIAGRAM

ALTO-SHAAM.
MENOMONEE FALLS, WISC.
MODELS: ASF-75E DELUXE 208-220V 3PH 60HZ
MSC: 5005279-450
DWG: D-77016
BY: MP'B
SCALE: 1"=1"
APP'D:
DATE:

NO.	REVISION	BY
1	7/11/08	JPK

ON/OFF SWITCH SW-34254

HI-LIMIT SWITCH TT-34245

RESET SWITCH (SW-33495)

PUMP SWITCH SW-34240

LI-39511

LIFT OPTION TRANSFORMER WIRING
PRI (TERM BLOCK)
8A FUSE
4A FUSE FU-34274
SEC (RLY BRD)
240V/24V 150VA TRANSFORMER TN-34272

240V/24V 50VA TRANSFORMER TN-34402

CON (LOAD)

PWR INPUT
GND

TERMINAL BLOCK BK-34372

DRAIN SWITCH SW-34246

CONTROL BOARD BA-34439

BA-34563 (Relay board + harness)

RELAY BOARD

REMOTE BOARD BA-34440

LIFT OPTION - SEE WIRE ASSEMBLY 5009038
RIGHT LIFT MOTOR MD-27011
LEFT LIFT MOTOR MD-27011

TEMP PROBE ASSEMBLY #5005200

HEATER 1 (CN-36520) CONTACTOR #1
HEATER 2 (CN-36520) CONTACTOR #2
HEATER 3 (CN-36520) CONTACTOR #3

ELEMENT #1 EL-34387
ELEMENT #2 EL-34352
ELEMENT #3 EL-34352

FU-3773 FUSE HOLDER
FU-3860 FUSES

VOLTS	WATTS	AMPS
208V	XXXX W	66.6A
220V	27KW	70.8A
208-220V	26KW	68.2A

FILTRATION OPTION

CONNECTION FOR 240V MOTOR

PUMP MOTOR MD-26635 (CR-3851)

BACK OF ELEMENTS

NOTE: CONNECT WIRE HARNESS FROM P1 CONTROL PANEL TO J5 ON RELAY BOARD

NOTE: SEPARATE THE HIGH VOLTAGE LINES ON THE RELAY BOARD FROM THE LOW VOLTAGE LINES ON PLUG J2 OF THE RELAY BOARD

NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS

NOTE #2: SEE DRW. 5005279 FOR WIRE ASSEMBLIES

NOTE: HEATER ELEMENTS ARE CONNECTED IN DELTA CONFIGURATION. USE THE DIAGRAM ABOVE TO CONNECT THE ELEMENTS TO THE HEATER CONTACTORS.

WIRE DIAGRAM

ALTO-SHAAM
MENOMONEE FALLS, WISC. 53052-450

MODELS: ASF-75E DELUXE 240V 3PH 60Hz
SCALE: 1"=1' DWG: D-77017
BY: MPB
APP'D:
DATE:

NO.	REVISION	BY
1	7/13/08	JPK

ON/OFF SWITCH SW-34254

LI-3951

HI-LIMIT SWITCH TT-34245

RESET SWITCH (SW-33495)

PUMP SWITCH SW-34240
LI-34252 (LIGHT)
LI-34251 (PUSHBUTTON)

SWITCH LIGHT

TERMINAL BLOCK BK-34372

LIFT OPTION TRANSFORMER WIRING
(wires marked "jumper" are supplied with the transformer.)

PRI

SEC

2A FUSE FU-34355
4A FUSE FU-34274

240V/24V 150VA TRANSFORMER TN-34272

240V/24V 50VA TRANSFORMER TN-34402

TERM BLOCK TT-3782

PWR INPUT

GND

LIFT OPTION - SEE WIRE ASSEMBLY 5009038
RIGHT LIFT MOTOR MO-27011
LEFT LIFT MOTOR MO-27011

RED
BLACK
RED
BLACK

CONTROL BOARD BA-34439

BA-34563 (Relay board + harness)

RELAY BOARD

J2 J3 J4 J5

REMOTE BOARD BA-34440

NOTE: SEPARATE THE HIGH VOLTAGE LINES FROM THE LOW VOLTAGE LINES ON PLUG J3 OF THE RELAY BOARD

NOTE: CONNECT WIRE HARNESS FROM P1 (CONTROL PANEL) TO J5 (RELAY BOARD)

TEMP PROBE ASSEMBLY #5005E00

DRAIN SWITCH SW-34246

RED
YELLOW

HEATER (SP-36837)

FILTRATION OPTION

CONNECTION FOR 240V MOTOR
P1 - L1 (BLACK) BLACK CR-3880 WIRE NUTS
INSULATE
INSULATE
L2 (WHITE) WIRED BLACK GREEN NUT

NOTE: TO CHANGE THE ROTATION OF THE PUMP MOTOR INTER CHANGE T5 WITH T8 LEADS

PUMP MOTOR MO-26835 (CR-3851)

HEATER 1 (CN-36582)
HEATER 2 (CN-36582)
HEATER 3 (CN-36582)
CONTACTOR #1
CONTACTOR #2
CONTACTOR #3

FU-2773 FUSE HOLDER
FU-3860 FUSES

HEATER 1 EL-34388
HEATER 2 EL-34353
HEATER 3 EL-34353

1L1 1L2 1L3

VOLTS	WATTS	AMPS		DESIGN
240V	25.5KW	615A		UL
240V	27.8KW	66.8A		

NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS

NOTE #2: SEE DRW. 5006937 FOR WIRE ASSEMBLIES

NOTE: HEATER ELEMENTS ARE CONNECTED IN DELTA CONFIGURATION. USE THE DIAGRAM ABOVE TO CONNECT THE ELEMENTS TO THE HEATER CONTACTORS.

WIRE DIAGRAM

MODELS: ASF-75E DELUXE 380-415V 3PH 50HZ.

MENOMONEE FALLS, WISC. 53052-450

ALTO-SHAAM

BY: EDF SCALE: 1"=1' DWG: D-77022

APP'D: DATE:

NO.	REVISION	BY
1	7/29/08	JPK

ON/OFF SWITCH SW-34254

LL-3951

240V/24V 50VA CE APPROVED TRANSFORMER TN-34613

150VA WITH LIFT OPTION TN-34614

PRI

2A FUSE FU-34385

4A FUSE FU-34274

SEC

FUSE BLOCK FU-34624

Wires marked "Jumper" are supplied with the fuse block.

GND

N T1 T2 T3
PWR INPUT

(TN-37827)

HI-LIMIT SWITCH
TT-34245

RESET SWITCH (SW-33495)

CC-34578

NOTE: PROBE IS
ATTACHED TO
HEATING ELEMENT

PUMP SWITCH SW-34240

LL-3452 (LIGHT)
CR-3851 (SWITCH)

SWITCH
LIGHT

TERMINAL BLOCK BK-34578

HEATER 1 EL-34389
1L3 1L1 1L2

DRAIN SWITCH SW-34246

LIFT OPTION - SEE WIRE ASSEMBLY 5006908

LEFT LIFT MOTOR MD-27011
RIGHT LIFT MOTOR MD-27011

BLACK RED BLACK RED

CONTROL BOARD BA-34439

NOTE: CONNECT WIRE HARNESS FROM P1 CONTROL PANEL TO J5 (RELAY BOARD)

TEMP PROBE ASSEMBLY #5005200

RED
YELLOW

35A FUSES (FU-34608)
9 FUSE ASSY
(FU-33611)/(FU-33441)/(FU-33445)

NOTE: ADD IN-LINE FILTER TO THE COIL OF THE CONTACTOR.

IN-LINE FILTER LF-33900

HEATER 1 (CN-36582)
CONTACTOR #1

HEATER 2 (CN-36582)
CONTACTOR #2

HEATER 3 (CN-36582)
CONTACTOR #3

HEATER 2 EL-34385
1L3 1L1 1L2

HEATER 3 EL-34385
1L3 1L1 1L2

BA-34666 (Relay board + harness)

RELAY BOARD

J2 J3 J4 J5

Jumper

LED CD-34660

PROX SENSOR SN-34662

NOTE: SEPARATE THE HIGH VOLTAGE LINES FROM THE LOW VOLTAGE LINES IN PLUG J8 OF THE RELAY BOARD.

HEATING ELEMENTS IN POSITION GROUND

REMOTE BOARD BA-34440

FILTRATION OPTION

CD-34380

CONNECTION FOR 240V MOTOR

P1 - L1 (BLACK) WIRED BLACK GR-388BD WIRE NUTS
T2 - INSULATE BLACK GR-388BD WIRE NUT
P2 - INSULATE CD GREY (GR-3587) WIRE NUT
T6 - L2 (WHITE) WIRED BLACK GR-388BD WIRE NUTS

NOTE: TO CHANGE THE ROTATION OF THE PUMP MOTOR INTER CHANGE T5 WITH T8 LEADS

CE APPROVED PUMP MOTOR MD-34612

(CR-3851)

VOLTS	WATTS	AMPS
380V	23.2KW	35.2A
415V	27.5KW	38.2A
380-415V	27.45KW	38.1A

DESIGN   CE
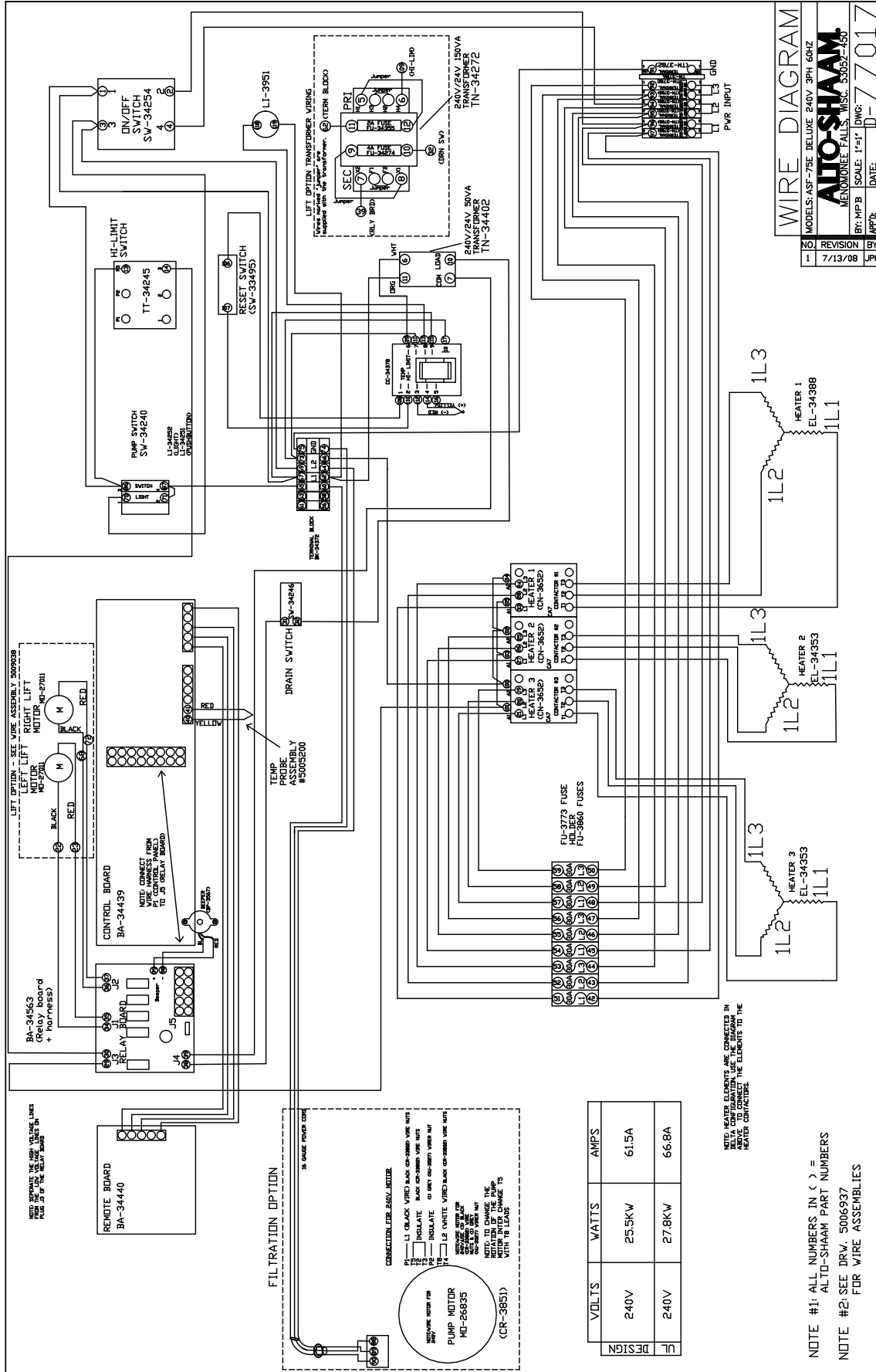
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS

NOTE #2: SEE DRW. 5006952 FOR WIRE ASSEMBLIES
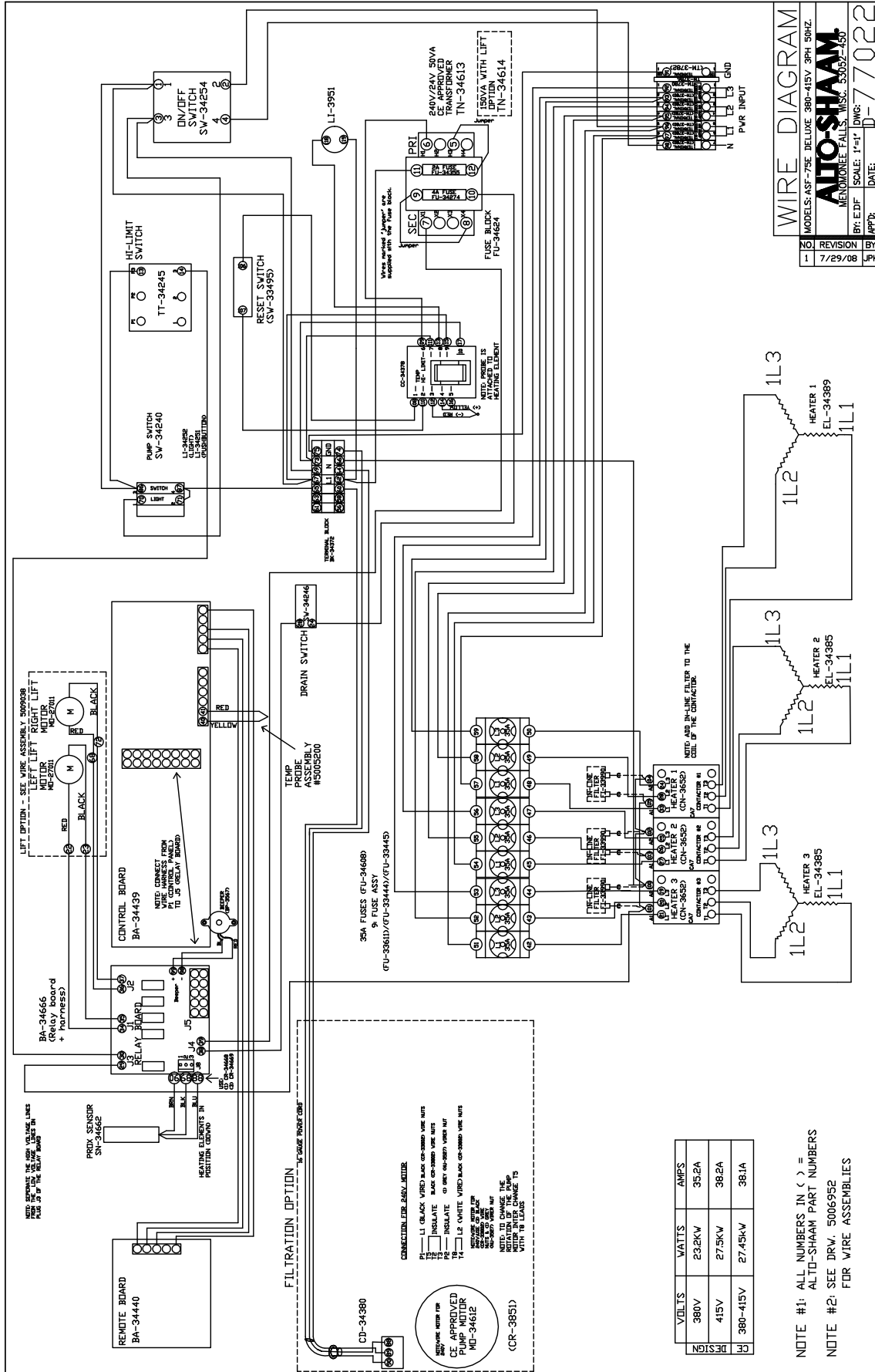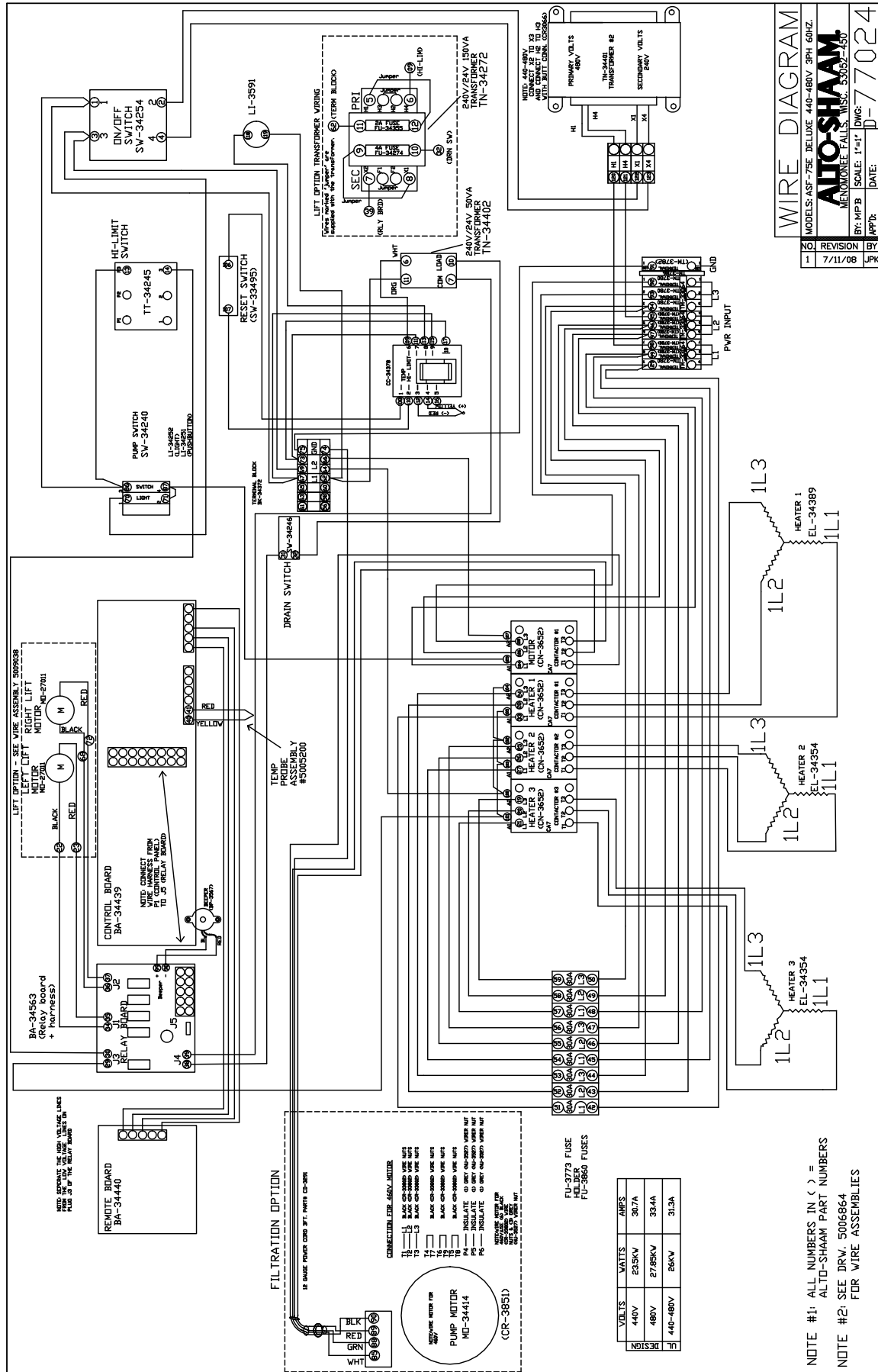
TRANSPORTATION DAMAGE and CLAIMS

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® cooking and holding ovens, as long as the original purchaser owns the oven. This excludes holding only equipment.

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, food product, revenue, 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.

ALTO-SHAAM®

Effective November 1, 2011

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: _____