

Holding Cabinet

Deluxe or Simple Control

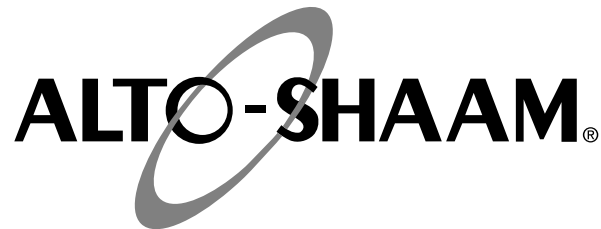


Models:
300-S
500-S
750-S
1000-S
1200-S
1000-UP
1200-UP

- **INSTALLATION**
- **OPERATION**
- **MAINTENANCE**



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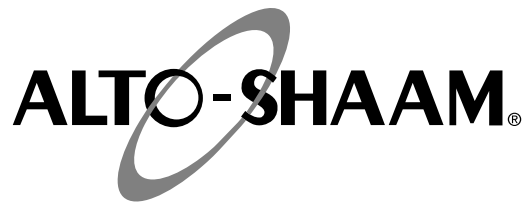
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Wire Diagrams

Always refer to the wire diagram(s) included with the unit for most current version.

Warranty

Transportation Damage and Claims Back Cover
Limited Warranty Back Cover



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.

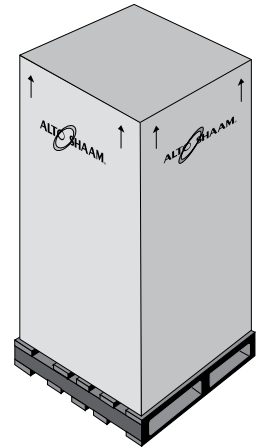
This manual must be read and understood by all people using or installing the equipment model. Contact the Alto-Shaam Tech Team Service Department if you have any questions concerning installation, operation, or maintenance.

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.

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.

INSTALLATION

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.

CAUTION



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

CAUTION



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



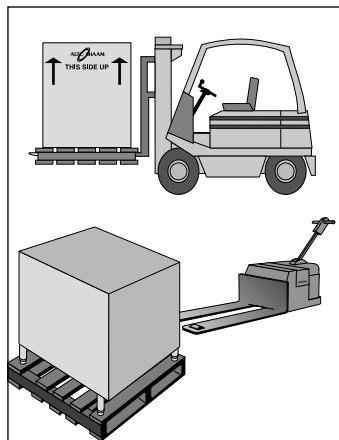
DANGER



DO NOT store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

SITE INSTALLATION

The Alto-Shaam Holding Cabinet must be installed in a location that will permit the oven to function for its intended purpose and to allow adequate clearance for ventilation, proper cleaning, and maintenance access.



1. The oven must be installed on a stable and level surface.
2. **DO NOT** install this appliance in any area where it may be affected by any adverse conditions such as steam, grease, dripping water, high temperatures, or any other severely adverse conditions.
3. **DO NOT** store or use any flammable liquids or allow flammable vapors in the vicinity of this oven or any other appliance.
4. This appliance must be kept free and clear of any combustible materials.
5. This appliance must be kept free and clear of any obstructions blocking access for maintenance or service.

Emissions testing conducted by Underwriters Laboratories, Inc.® was found to be in compliance with the applicable requirements of NFPA96: 2004 Edition, Par. 4.1.1.2. U.L emissions sampling of grease laden vapor resulted in a total of 0.55 milligrams per cubic meter with no visible smoke and is considered representative of all oven models in the line. Based on these results, hood installation and/or outside venting should not be a requirement in most areas. Verify local codes for locations where more restrictive codes are applicable.

MINIMUM CLEARANCE REQUIREMENTS

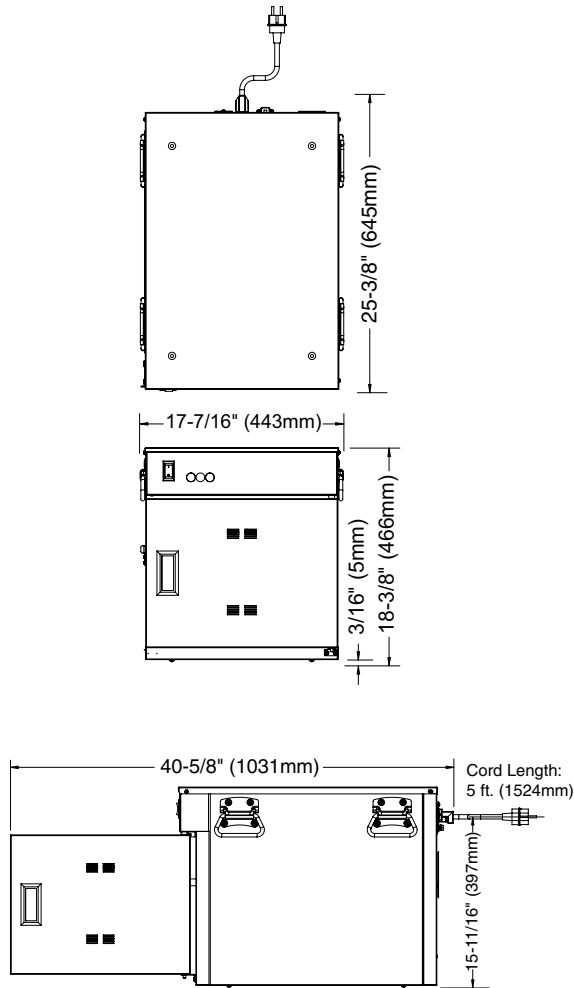
BACK	3" (76mm)
LEFT SIDE	1" (25mm)
RIGHT SIDE	1" (25mm)
TOP	2" (51mm)

NOTE

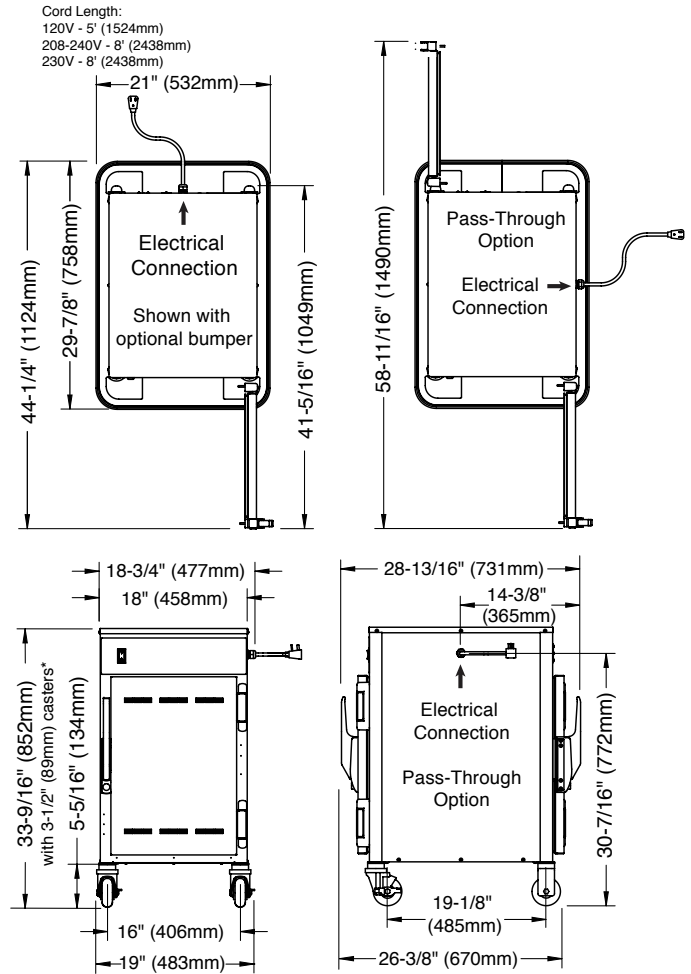
If the appliance has been unplugged for an extended period of time, the Real Time Clock may require recharging. Turn main breaker to the unit off for 10 seconds and then restore power. For more information, see Error Code E-60 in the Troubleshooting section of this manual.

INSTALLATION

Model 300-S



Model 500-S



*31-7/8" (809mm) - with optional 2-1/2" (64mm) casters
 *35-1/4" (895mm) - with optional 5" (127mm) casters
 *33-15/16" (861mm) - with optional 6" (152mm) legs

WEIGHTS AND CAPACITIES

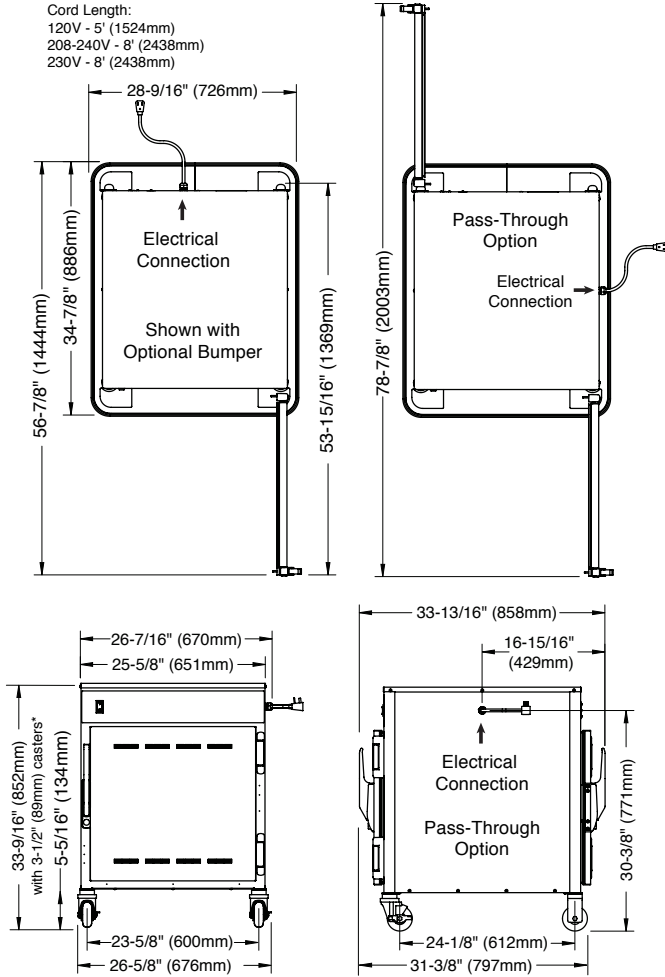
300-S	
WEIGHT	
NET	65 lb (29 kg)
SHIP	125 lb (57 kg)
CAPACITY	
36 lbs (16 kg) MAXIMUM	
VOLUME MAXIMUM: 22.5 QUARTS (28,5 LITERS)	
FULL-SIZE PANS: GASTRONORM 1/1: Three (3) 20" x 12" x 2-1/2" (530mm x 325mm x 65mm) Two (2) 20" x 12" x 4" (530mm x 325mm x 100mm)	
ON WIRE SHELVES ONLY	
HALF-SIZE PANS: Six (6) 10" x 12" x 2-1/2" (265mm x 325mm x 65mm) Four (4) 10" x 12" x 4" (265mm x 325mm x 100mm)	

500-S	
WEIGHT	
NET	110 lb (50kg) EST.
SHIP	150 lb (68kg)
CAPACITY	
60 lbs (27 kg) MAXIMUM	
VOLUME MAXIMUM: 50 QUARTS (47.5 LITERS)	
FULL-SIZE PANS: GASTRONORM 1/1: Six (6) 20" x 12" x 2-1/2" 530mm x 325mm x 65mm Three (3) 20" x 12" x 4" 530mm x 325mm x 100mm	
HALF-SIZE SHEET PANS: Eleven (11) 18" x 13" x 1" 457mm x 330mm x 25mm	

INSTALLATION

Model 750-S

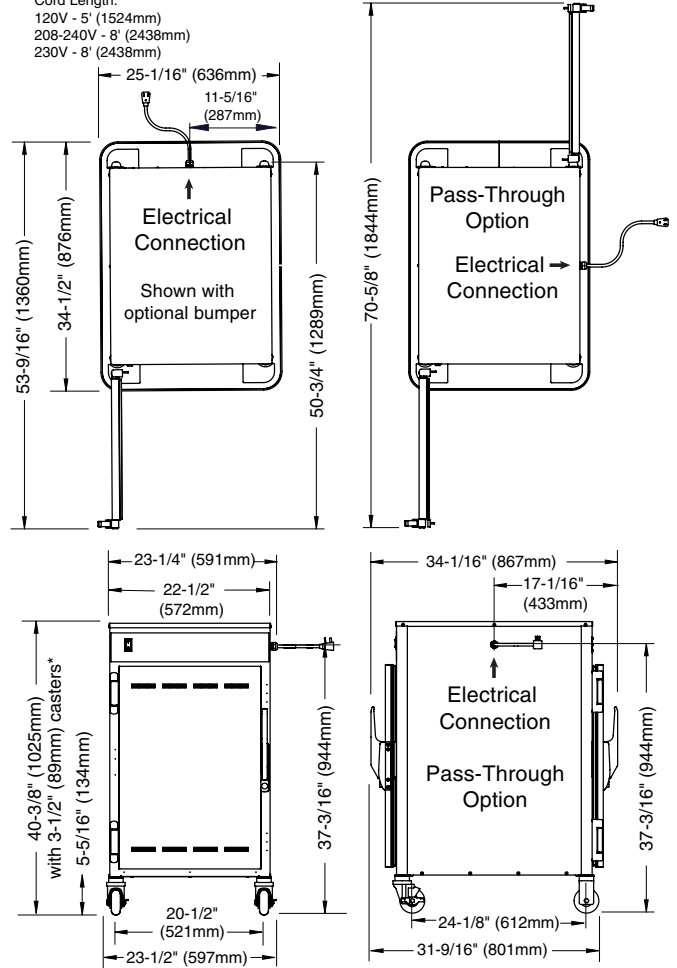
Cord Length:
120V - 5' (1524mm)
208-240V - 8' (2438mm)
230V - 8' (2438mm)



*31-7/8" (809mm) - with optional 2-1/2" (64mm) casters
*35-1/4" (895mm) - with optional 5" (127mm) casters
*33-15/16" (861mm) - with optional 6" (152mm) legs

Model 1000-S

Cord Length:
120V - 5' (1524mm)
208-240V - 8' (2438mm)
230V - 8' (2438mm)



*38-11/16" (982mm) - with optional 2-1/2" (64mm) casters
*42-1/16" (1068mm) - with optional 5" (127mm) casters
*40-3/4" (1034mm) - with optional 6" (152mm) legs

WEIGHTS AND CAPACITIES

750-S

WEIGHT

NET	157 lb (69kg)
SHIP	228 lb (103kg) EST.

CAPACITY

120 lbs (54 kg) MAXIMUM
VOLUME MAXIMUM: 100 QUARTS (95 LITERS)

FULL-SIZE PANS:		GASTRONORM 1/1:	
Ten (10)	20" x 12" x 2-1/2"	530mm x 325mm x 65mm	
Six (6)	20" x 12" x 4"	530mm x 325mm x 100mm	
Four (4)	20" x 12" x 6"	530mm x 325mm x 150mm	

FULL-SIZE SHEET PANS (ON WIRE SHELVES ONLY):

Up to Six (6) 18" x 26" x 1" - WITH ADDITIONAL SHELVES

1000-S

WEIGHT

NET	175 lb (79kg) EST.
SHIP	223 lb (101kg) EST.

CAPACITY

120 lbs (54kg) MAXIMUM
VOLUME MAXIMUM: 60 QUARTS (76 LITERS)

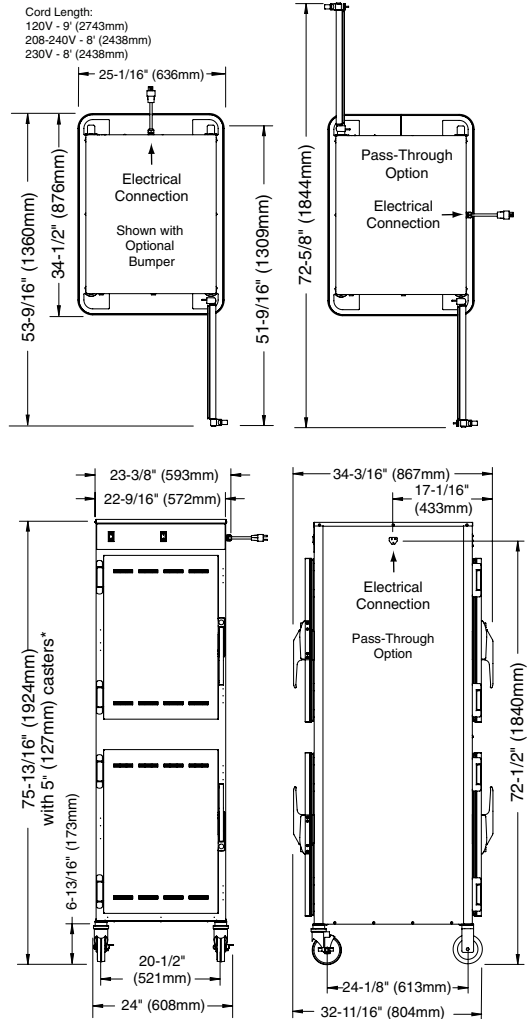
FULL-SIZE PANS:		GASTRONORM 1/1:	
Four (4)	20" x 12" x 2-1/2"	530mm x 325mm x 65mm	
— ON OPTIONAL WIRE SHELVES ONLY			

FULL-SIZE SHEET PANS:

Eight (8) 18" x 26" x 1"

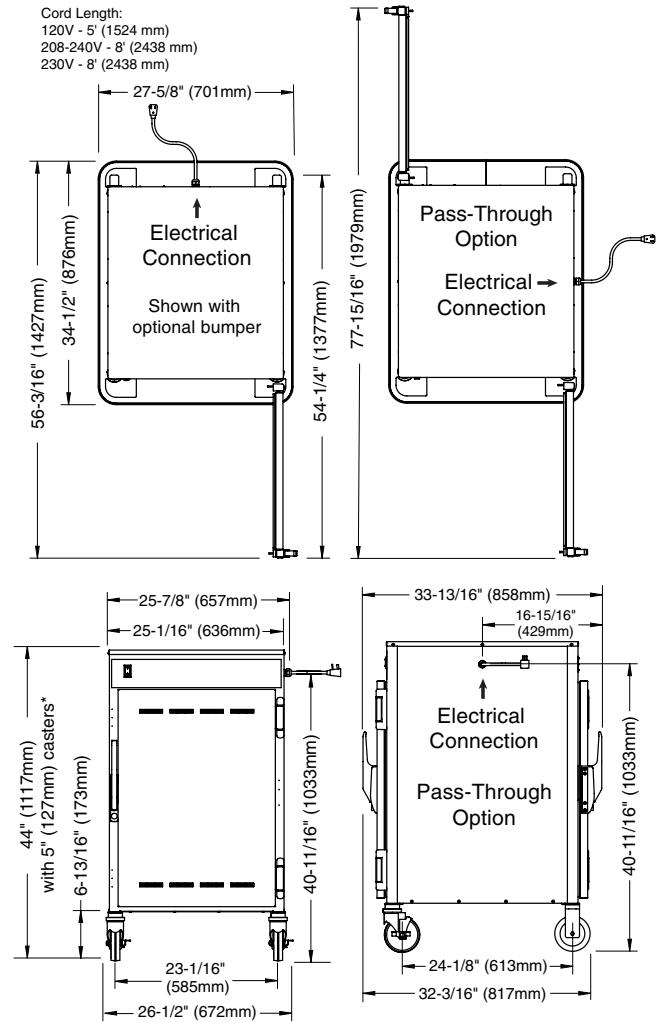
INSTALLATION

Model 1000-UP



*74-1/16" (1881mm) - with optional 3-1/2" (89mm) casters
 *75-5/8" (1921mm) - with optional 6" (152mm) legs

Model 1200-S



*45-11/16" (1161mm) - with optional 3-1/2" (89mm) casters
 *43-7/8" (1113mm) - with optional 6" (152mm) legs

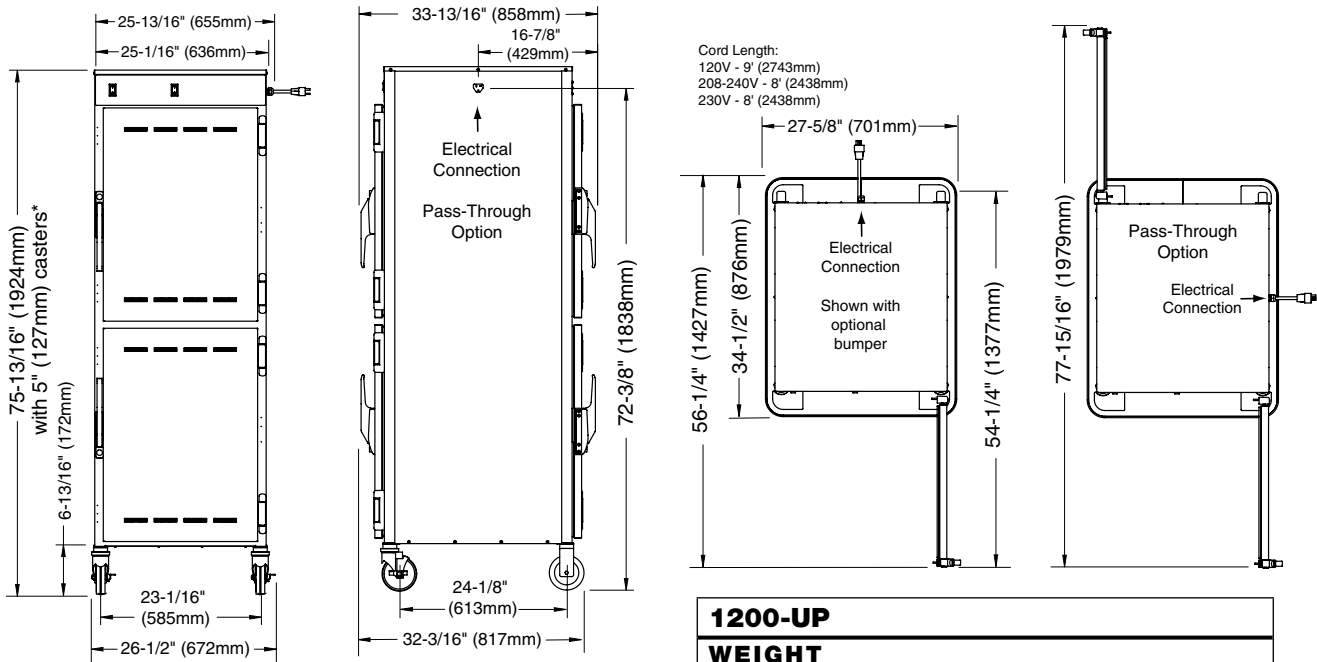
WEIGHTS AND CAPACITIES

1000-UP	
WEIGHT	
NET	282 lb (128kg)
SHIP	360 lb (163kg) EST.
CAPACITY (PER COMPARTMENT)	
120 lbs (54kg) MAXIMUM	
VOLUME MAXIMUM: 60 QTS (76 LITERS)	
FULL-SIZE PANS:	GASTRONORM 1/1:
Four (4) 20" x 12" x 2-1/2"	530mm x 325mm x 65mm
— ON OPTIONAL WIRE SHELVES ONLY	
FULL-SIZE SHEET PANS:	
Eight (8) 18" x 26" x 1"	

1200-S	
WEIGHT	
NET	179 lb (81kg) EST.
SHIP	224 lb (102kg) EST.
CAPACITY	
SEE NEXT PAGE	

INSTALLATION

Model 1200-UP



*74-1/16" (1881mm) - with optional 3-1/2" (89mm) casters
 *75-5/8" (1921mm) - with optional 6" (152mm) legs

1200-UP	
WEIGHT	
NET:	333 lb (151 kg)
SHIP: (EST.)	393 lb (178 kg)

1200-S, 1200-UP CAPACITIES

CAPACITY - 1200-S, 1200-UP (PER COMPARTMENT)		
192 lbs (87kg) MAXIMUM • VOLUME MAXIMUM: 120 QUARTS (152 LITERS)		
Pan slides (2 per set) - 1-3/4 (44mm) centers		
Pan Size	Four (4) sets of pan slides provided	Maximum capacity with additional pan slides
FULL SIZE: 20" x 12" x 2-1/2" GN1/1: 530mm x 325mm x 65mm	Eight (8) pans - 2 per set of slides	Sixteen (16) pans - with 4 additional sets of pan slides
FULL SIZE: 20" x 12" x 4" GN1/1: 530mm x 325mm x 100mm	Eight (8) pans - 2 per set of slides	NO ADDITIONAL CAPACITY
FULL SIZE: 20" x 12" x 6" 530mm x 325mm x 150mm	Eight (8) pans - 2 per set of slides	NO ADDITIONAL CAPACITY
FULL SIZE SHEET PANS: 18" x 26" x 1"	Four (4) pans - 1 per set of slides	Sixteen (16) pans - with 12 additional sets of pan slides
Side Racks and Shelves		
Pan Size	Three (3) shelves provided	Maximum capacity with additional shelves
FULL SIZE: 20" x 12" x 2-1/2" GN1/1: 530mm x 325mm x 65mm	Sixteen (16) pans - 2 per side rack	NO ADDITIONAL CAPACITY
FULL SIZE: 20" x 12" x 4" GN1/1: 530mm x 325mm x 100mm	Eight (8) pans - 2 per side rack	NO ADDITIONAL CAPACITY
FULL SIZE: 20" x 12" x 6" GN1/1: 530mm x 325mm x 150mm	Eight (8) pans - 2 per side rack	NO ADDITIONAL CAPACITY
FULL SIZE SHEET PANS: 18" x 26" x 1"	Three (3) pans - 1 per shelf	Eight (8) pans with 5 additional shelves

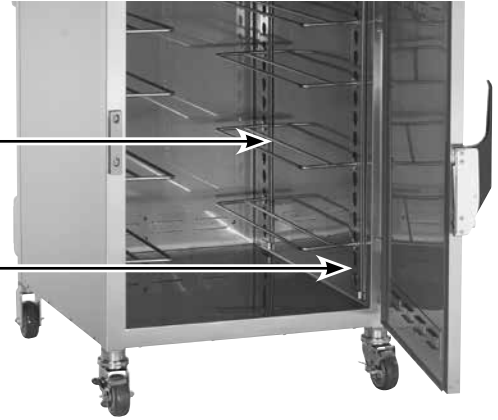
INSTALLATION

UNIVERSAL PAN SLIDES

Shown with universal pan slides.
Two (2) slides needed per pan.

Universal Pan Slides,
SR-24762, stainless steel
SR-24447, chrome plate

Side Rail
1011741

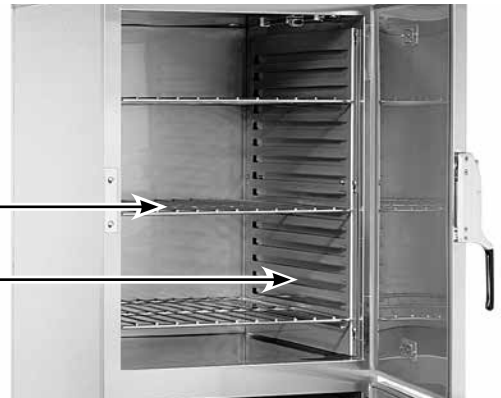


SIDE RACKS AND SHELVES (optional)

As an alternative to universal pan slides, this unit can be ordered as a "side rack" model which is equipped with two (2) side racks and three (3) chrome plated wire shelves. It will accommodate full and half size US hotel and European gastronorm pans on the side racks or shelves, or sheet pans on shelves.

Shelf
SH-23738, stainless steel
SH-2733, chrome plate

Side Rack
1011743



INSTALLATION

OPTIONS AND ACCESSORIES

MODEL >	300-S	500-S	750-S	1000-S	1200-S	1000-UP	1200-UP
DESCRIPTION	PART NUMBER						
Bumper, Full Perimeter	—	5011161	5010371	5009767	5012932	5009767	5012932
Carving Holder, Prime Rib	HL-2635	HL-2635	HL-2635	—	—	—	—
Carving Holder, Steamship (Cafeteria) Round	—	4459	4459	—	—	—	—
Caster Package	2-1/2" (64mm)	—	5008022	5008022	5008022	—	—
	3-1/2" (89mm)	—	STANDARD	STANDARD	STANDARD	5008017	5008017
	5" (127mm)	—	5004862	5004862	5004862	STANDARD	STANDARD
Door Assembly, Window	—	—	5013129	5012806	5012822	5012806	5012822
Door Lock with Key	—	LK-22567	LK-22567	LK-22567	LK-22567	LK-22567	LK-22567
Drip Pan	with Drain	—	14813	14831	5005616	5014448	5005616
	without Drain	PN-2122	11898	—	11906	—	11906
Drip Tray, Door	—	5010736	5010391	5009716	—	—	—
Deluxe Control (FACTORY INSTALLED)	—	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE
Exterior Color Options	Stainless Steel	—	STANDARD	—	—	—	—
	Burgundy	—	AVAILABLE	—	—	—	—
	Custom Color	—	AVAILABLE	—	—	—	—
Handle Kit, Push/Pull (SET OF FOUR)	STANDARD	55662	55662	55662	55662	55662	55662
Legs, 6" (152mm), Flanged	—	5011149	5011149	5011149	5011149	5011149	5011149
Pan Grid, Wire 18" x 26" (457mm x 660mm)	—	—	PN-2115	PN-2115	PN-2115	PN-2115	PN-2115
Probe, Internal Product Temp. (DELUXE ONLY)	—	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE
Security Panel with Key Lock	—	5013939	5013936	5013934	5013936	5013934	5013936
Shelf	Chrome Wire	SH-2107	SH-2107	SH-2105	—	SH-2733	—
	Chrome Wire, Pass-Through	—	—	SH-2327	—	—	—
	Stainless Steel Wire	—	SH-2326	SH-2324	SH-2325	SH-23738	SH-2325
	Stainless Steel, Rib Rack	—	—	SH-2743	—	—	—
Stainless Steel, Pass-Through	—	—	—	SH-2346	—	SH-2346	—
Side Rack Kit (FACTORY INSTALLED)	—	—	—	—	AVAILABLE	—	AVAILABLE
Stacking Hardware	—	5004864	5004864	5004864	5004864	—	—
Universal Angle Pan Slides	Chrome	—	—	—	—	SR-24447	—
	Stainless Steel	—	—	—	—	SR-24762	—
Water Reservoir, Pan	—	—	—	1775	1775	1775	1775
Water Reservoir, Pan Cover	—	—	—	1774	1774	1774	1774

CAUTION

Pass-through models with same side door hinging must be installed with flanged feet bolted to the floor to avoid tipping hazards.

INSTALLATION

STACKING INSTRUCTIONS

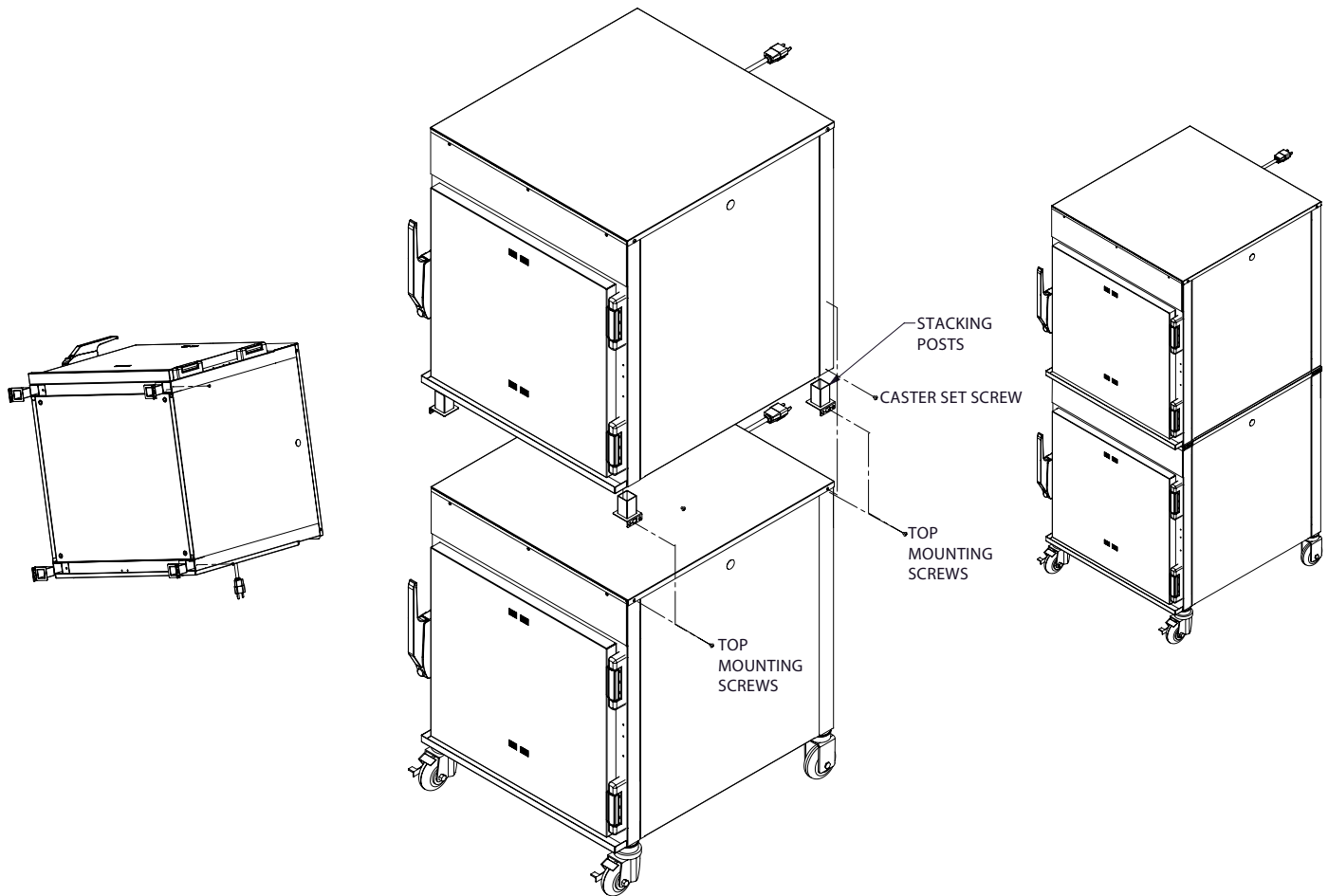
- 1) If the two appliances were shipped together from the factory, the top unit will have the casters already removed. A stacking kit will be included with the shipment.**

If casters need to be removed: lay the unit on its back, and remove the set screw on each caster. Pull the casters out of the unit.

- 2) While appliance is laid on its back, insert one stacking post in each of the four corners of the upper unit. Secure the stacking posts using one screw and two flat washers that come with the stacking kit.**

Note: The flange on the stacking posts must face the outside of the unit.

- 3) Remove the four top mounting screws from the lower unit. Place the upper appliance, which has the stacking posts installed, on top of the bottom unit. Center the top unit from front to back. Re-install the four screws through the flange of the four stacking posts.**



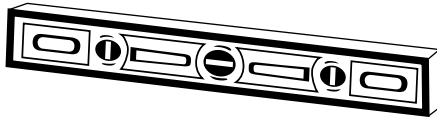
Stacking Configurations	
Model	Can be stacked with:
300-S	300-S or 300-TH/III No Stacking Hardware needed. Align dimples at top and bottom of units. It is recommended that the legs be removed from the top unit before stacking.
500-S	500-S, 500-TH-II or 500-TH/III
750-S	750-S, 750-TH-II, 750-TH/III, 767-SK or 767-SK/III
1000-S	1000-S, 1000-TH/III, 1000-SK/II or 1000-SK/III

INSTALLATION

SITE INSTALLATION

A number of adjustments are associated with initial installation and start-up. It is important that these adjustments be conducted by a qualified service technician. Installation and start-up adjustments are the responsibility of the dealer or user. These adjustments include but are not limited to thermostat calibration, door adjustment, leveling, electrical hook-up and installation of optional casters or legs.

LEVELING



Level the oven from side-to-side and front-to-back with the use of a spirit level. For ovens installed with casters, it is important that the installation surface be level due to the probability of frequent oven repositioning.

We recommend checking the level of the oven periodically to make certain the floor has not shifted nor the oven moved.

NOTE: Failure to properly level this oven may result spills from a semi-liquid product.

RESTRAINT REQUIREMENTS —MOBILE EQUIPMENT

 WARNING	
	RISK OF ELECTRIC SHOCK. Appliance must be secured to building structure.

Any appliance that is not furnished with a power supply cord but that includes a set of casters must be installed with a tether. 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:

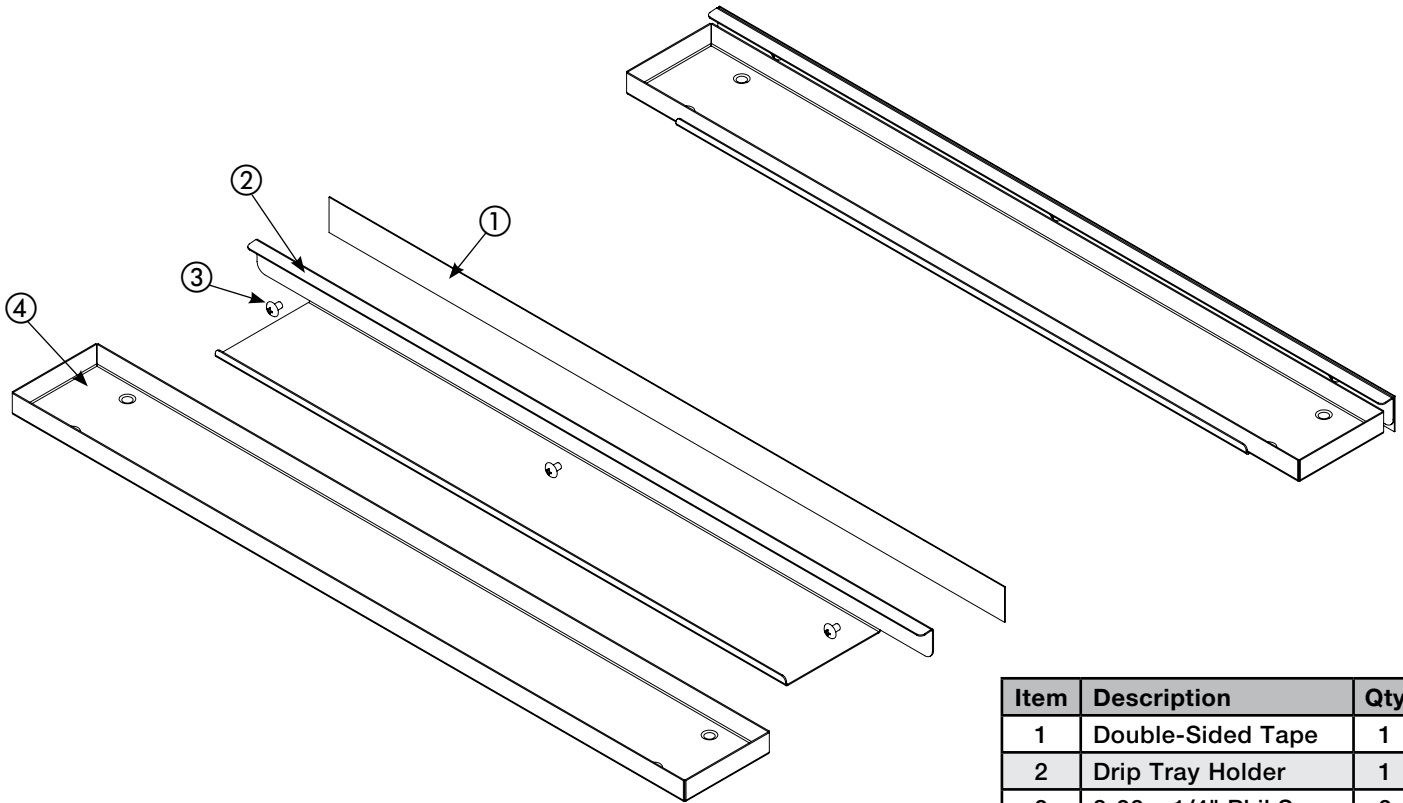
1. Maximum height of casters is 6" (152mm).
2. Two of the casters must of be the locking type.
3. Such mobile appliances or appliances on mobile stands must be installed with the use of a flexible connector secured to the building structure.

A mounting connector for a restraining device is located on the upper back flange of the appliance. A flexible connector is not supplied by nor is it available from the factory.

INSTALLATION


SITE INSTALLATION

DRIP TRAY INSTALLATION INSTRUCTIONS




Item	Description	Qty
1	Double-Sided Tape	1
2	Drip Tray Holder	1
3	8-32 x 1/4" Phil Screw	3
4	Drip Tray	1

1. Poke holes through double-sided tape ① which is attached to the back of drip tray holder ②.
2. Remove backing on double-sided tape ①.
3. Put screws ③ through holes and attach drip tray holder ② to unit.
4. Optional - apply a line of food-grade silicone caulk along top edge of drip tray holder ② to seal.
5. Place drip tray ④ in drip tray holder ②.



WARNING



FAILURE TO PROPERLY INSTALL THE DRIP TRAY CAN OR WILL CAUSE MAJOR EQUIPMENT DAMAGE AND WILL RESULT IN A LEAKAGE HAZARD THAT CAN CAUSE PERSONAL INJURY.

INSTALLATION

ELECTRICAL

1. An identification tag is permanently mounted on the cabinet.
2. Plug cabinet into a properly grounded receptacle ONLY, positioning the unit so the power supply cord is easily accessible in case of an emergency.
Arcing will occur when connecting or disconnecting the unit unless all controls are in the "OFF" position.
3. If necessary, a proper receptacle or outlet configuration as required for this unit, must be installed by a licensed electrician in accordance with applicable, local electrical codes.

For CE approved units: 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.

NOTE: Where local codes and CE regulatory requirements apply, appliances must be connected to an electrical circuit that is protected by an external GFCI outlet.

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.



DANGER



ENSURE POWER SOURCE MATCHES VOLTAGE IDENTIFIED ON APPLIANCE RATING TAG.



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.




INSTALLATION





ELECTRICAL




300-S					
VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	1	60	6.7	.80	NEMA 5-15P, 15A-125V PLUG 
230	1	50/60	3.9	.80	CEE 7/7 220-230V PLUG 





500-S					
VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	1	60	8.4	1.0	NEMA 5-15P, 15A-125V PLUG 
208	1	60	3.7	.76	NEMA 6-15P, 15A-250V PLUG 
240	1	60	4.2	1.0	15A-250V PLUG (USA ONLY)
230	1	50/60	4.1	.95	CEE 7/7, 220-230V PLUG 

750-S					
VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	1	60	9.0	1.1	NEMA 5-15P, 15A-125V PLUG 
208	1	60	3.9	.81	NEMA 6-15P, 15A-250V PLUG 
240	1	60	4.5	1.1	15A-250V PLUG (USA ONLY)
230	1	50/60	4.3	1.0	CEE 7/7, 220-230V PLUG 

1000-S					
VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	1	60	8.0	.96	NEMA 5-15P, 15A-125V PLUG 
208	1	60	3.5	.72	NEMA 6-15P, 15A-250V PLUG 
240	1	60	4.0	.96	15A-250V PLUG (USA ONLY)
230	1	50/60	3.9	.88	CEE 7/7, 220-230V PLUG 

1200-S						
	VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	120	1	60	8.0	.96	NEMA 5-15P, 15A-125V PLUG 
	208	1	60	3.5	.72	NEMA 6-15P, 15A-250V PLUG 
208 - 240 2000W	240	1	60	4.0	.96	15A-250V PLUG (USA ONLY)
	208	1	60	6.9	1.4	NO CORD
230	240	1	60	8.0	1.9	OR PLUG
	230 1000W	1	50/60	3.9	.88	CEE 7/7, 220-230V PLUG 
	230 2000W	1	50/60	7.7	1.8	220-230V PLUG 

1000-UP					
VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	1	60	16.0	1.9	NEMA 5-20P, 20A-125V PLUG 
208	1	60	7.0	1.4	NEMA 6-15P, 15A-250V PLUG 
240	1	60	8.0	1.9	15A-250V PLUG (USA ONLY)
230	1	50/60	7.7	1.8	CEE 7/7, 220-230V PLUG 

1200-UP						
	VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	120	1	60	16.0	1.9	NEMA 5-20P, 20A-125V PLUG 
	208	1	60	7.0	1.4	NEMA 6-15P, 15A-250V PLUG 
208 - 240 4000W	240	1	60	8.0	1.9	15A-250V PLUG (USA ONLY)
	208	1	60	14.0	2.9	NO CORD
230	240	1	60	16.0	3.8	OR PLUG
	230 2000W	1	50/60	7.7	1.8	CEE 7/7, 220-230V PLUG 
	230 4000W	1	50/60	15.4	3.5	220-230V PLUG 

Wire diagrams are located inside the bonnet of the unit.

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.



DANGER



ENSURE POWER SOURCE MATCHES VOLTAGE IDENTIFIED ON APPLIANCE RATING TAG.


INSTALLATION

USER INFORMATION

USER SAFETY INFORMATION

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.

1. Unit must be connected to the appropriate power source.
2. Use hand protection when handling hot items.
3. Preheat the unit for 30 minutes before use.
4. Be certain only hot foods are placed into the unit.

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

BEFORE INITIAL USE:

1. Clean both the interior and exterior of the unit with a damp, clean cloth and mild soap solution. Rinse carefully.
2. Clean and install the cabinet side racks. Shelves should be positioned with the curved end up and toward the back of the unit (reach-in models).

HEATING CHARACTERISTICS

The cabinet is equipped with a special heating cable. Through this Halo Heat concept, the heating cable is mounted against the walls of the unit to provide an evenly applied heat source controlled by a thermostat. The design and operational characteristics of the unit eliminate the need for a moisture pan or a heat circulating fan. Through even heat application, the quality of food products is maintained up to several hours or more.

OPERATION

OPERATING INSTRUCTIONS

1. PREHEAT AT 200°F (93°C) FOR 30 MINUTES BEFORE LOADING FOOD.

Push power switch to "ON" position. The unit will begin operating at the previous set temperature.

2. Press the **Up** or **Down Arrow Keys** to 200°F (93°C). Pressing and releasing the Arrow Keys will increase the set point by 1 degree. Pressing and holding the Arrow Key will increase set point by 10 degrees. When Arrow Key is released, a new set point temperature is set. The **Set** temperature will appear in the **Digital Display** and the **Heat Indicator Light** will illuminate. Press the **Temperature Display Key** for three seconds at any time to display the **Actual** inside air temperature.

To toggle between Set and Actual:

Factory default is to display **Set** temperature in the **Digital Display**. To display **Actual** temperature:

Press and hold the **Temperature Display Key** and the **Up Arrow Key** for 5 seconds. The control will show **ACT**, then show the **Actual** temperature.

Repeat to toggle to **Set** point **SET**.

Press the **Temperature Display Key** at any time to display the alternate temperature.

3. When the inside air temperature reaches the desired holding temperature, the **Heat Indicator Light** will turn off.

4. Load the cabinet with hot food only.

The purpose of the holding cabinet is to maintain hot food at proper serving temperatures. Only hot food should be placed into the cabinet. Before loading the unit with food, use a food thermometer to make certain all food products are at an internal temperature range of 140° to 160°F (60° to 71°C). All food not within the proper temperature range should be heated before loading into the holding cabinet.

5. Check to make certain the cabinet door is securely closed, and using the **Up** and **Down Arrow Keys**, set the temperature to 160°F (71°C).

THIS WILL NOT NECESSARILY BE THE FINAL SETTING.

The proper temperature range for the food being held will depend on the type and quantity of product. Whether or not the door vents should be open or closed will also depend on the type of food being held. When holding food for prolonged periods, it is advisable to periodically check the internal temperature of each item to assure maintenance of the proper temperature range. Reset the holding temperature accordingly.

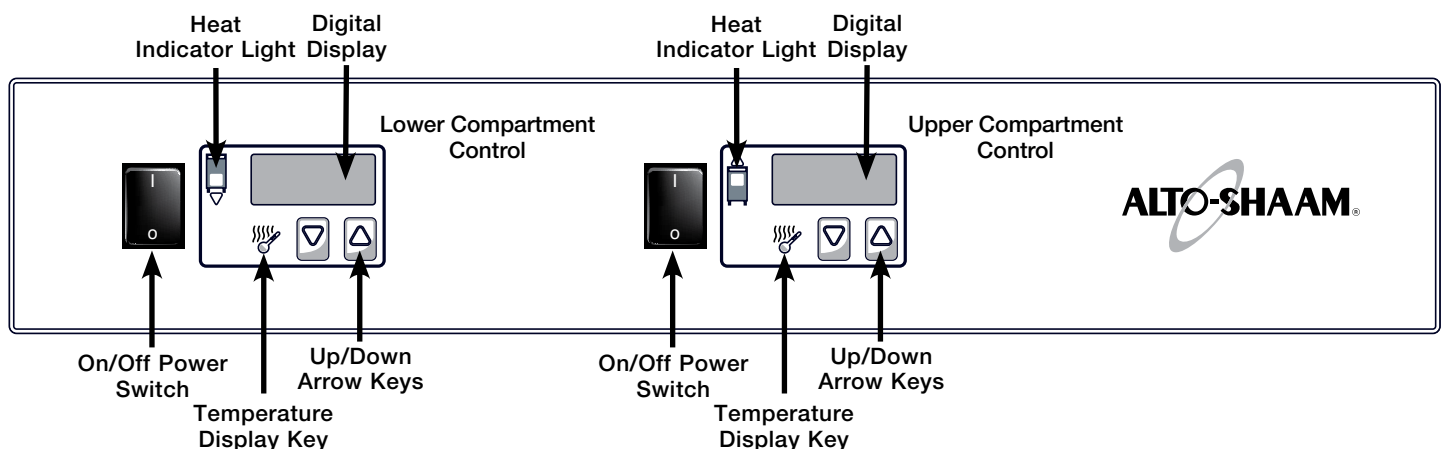
TO TOGGLE BETWEEN FAHRENHEIT AND CELSIUS

Press the **Temperature Display Key** at any time to display the alternate temperature.

The factory default is Fahrenheit. To change to Celsius:

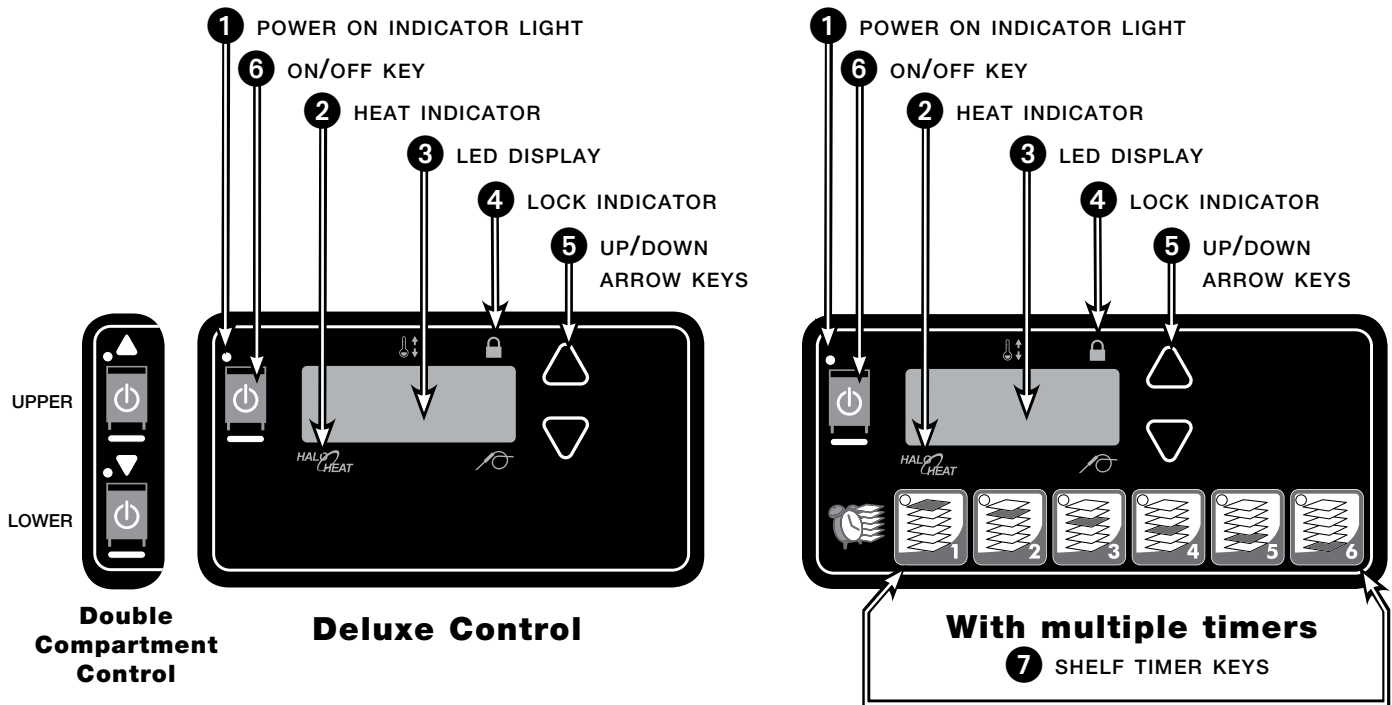
1. Press and hold the **Temperature Display Key** and the **Down Arrow Key** for 5 seconds.
2. The control will show **°C** for 3 seconds to verify selection and then show the temperature. (Set Point or Actual, whichever the user has selected) in °C.
3. Repeat to toggle to Fahrenheit.

Note: With a power failure, factory test, etc., the control will retain the °C or °F setting selected by the user when power is restored.



OPERATION

DELUXE CONTROL OPTION



DELUXE CONTROL SET-UP

ON/OFF KEY



Press the ON/OFF key once and the power indicator light will illuminate. Press and hold the ON/OFF key until the LED display turns off (at least three seconds) and power indicator light goes out.

UP/DOWN ARROW KEY



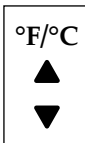
The UP and DOWN arrow keys are used for a variety of settings when selecting the holding temperature. If an arrow key is pressed and released the display will show the current set temperature for four seconds. If an arrow key is held (at least eight seconds), the value will change at a rapid rate. Pressing an arrow key when the set temperature is displayed will increase/decrease the temperature by 1°. Pressing and holding an arrow will increase/decrease the temperature by 10°.

ENABLE / DISABLE BEEPER



A beeper sounds when an error code is displayed. To choose between beeper on and beeper off mode, the control must be off, then press and hold the DOWN arrow key until either "ON" or "OFF" is shown in the LED display. Press either arrow button to toggle the beeper mode.

FAHRENHEIT/CELSIUS



With the control off, to choose between Fahrenheit and Celsius, press and hold the UP arrow key until either °F or °C is shown in LED display. Press either arrow key to toggle the temperature scale.

The control has a four-digit LED display. When the display is on, it will show current holding temperature, as well as diagnostic information.

CONTROL LOCK

The warmer controls can be locked so that no changes can be made to the set temperature.



To lock the display, press and hold the ON/OFF key and the Up Arrow key at the same time. The lock LED will illuminate. When the lock LED is illuminated, additional programming will not be functional other than the key sequence required to unlock the panel. To unlock the display, press and hold the ON/OFF key and the Down Arrow key at the same time. The lock LED will extinguish. The panel keys will resume normal function.

OPERATION

DELUXE CONTROL OPERATION

1. Preheat at 200°F (93°C) for 30 minutes.

Press the ON key, and set the temperature to 200°F (93°) by using the UP/DOWN arrow keys. Allow a minimum of 30 minutes preheating time before loading the holding cabinet with food. Closing the vents on the inside of the door will speed the preheating process. The LED heat indicator light will go “Out” after approximately 30 minutes preheat time, or when the air temperature inside the unit reaches the temperature set by the operator. The Set indicator will light up anytime the temperature is set or reset.

2. Load with hot food only.

The purpose of the holding cabinet is to maintain hot food at proper serving temperature. Only hot food should be placed into the cabinet. Before loading the cabinet with food, use a food thermometer to make certain all products are at an internal temperature range of 140° to 160°F (60° to 71°C). Any food product not within the proper temperature range should be heated before loading into the holding cabinet.

3. Reset the control to 160°F (71°C).

Check to make certain the cabinet door is securely closed, and reset to 160°F (71°C) by using the UP/DOWN keys

**THIS WILL NOT NECESSARILY
BE THE FINAL SETTING.**

The proper temperature range and OPEN or CLOSED door vent position will depend on the type and quantity of product. When holding food for prolonged periods, it is advisable to periodically check the internal temperature of each item with a food thermometer to assure maintenance of the proper temperature range of 140° to 160°F (60° to 71°C).

SureTemp™ Heat Recovery

The patented SureTemp™ heat recovery system in this unit will immediately compensate for any loss of heat when the door is opened. In order to maintain a more consistent cavity temperature, the control will automatically apply heat to the unit's interior while the door is open and for a short time after the door is closed. If the door remains open for more than three minutes, the control will sound three rapid beeps every ten seconds until the door is closed.

DOUGH PROOFING INSTRUCTIONS

SIMPLE AND DELUXE CABINETS

With the addition of a pan of water, warming cabinets can be used for proofing dough. A water reservoir pan (#1775) and pan cover (#1774) is available as an option from Alto-Shaam.

1. Remove dough from retarder or refrigerator and allow covered product to set up at room temperature.
2. Set holding thermostat temperature to 95°F (35°C).
3. Pour approximately 2 quarts (c. 2 liters) of hot water into the optional water reservoir pan and place the pan on the bottom surface of the compartment. The temperature of the water should be 140° to 180°F (60° to 82°C).
4. Allow the cabinet to preheat for 45 to 60 minutes.
5. Remove covering and place dough in preheated cabinet.
6. Allow dough to remain in the cabinet until it nearly doubles in size.
7. Remove product from cabinet and bake according to product manufacturer's directions. Brush with eggwash if desired.

NOTE: The above proofing procedure is a suggested guideline only. Due to variation from product to product, including quality and product weight, close adherence the product manufacturer's instructions is strongly recommended.

OPERATION

DELUXE CONTROL TIMER PROGRAMMING

Timer Programming Information

1. Turn On/Off Control Key OFF.



Press the On/Off Key until the display turns OFF (at least 3 seconds) and On/Off Key's Power Indicator Light goes out.

Note: The following steps can only be done when the Control is OFF.

2. Set Shelf Timer Keys.



Press and hold a Shelf Timer Key (at least 3 seconds) until the countdown time is shown in the LED display. Use the Up or Down Arrow Key to change the time desired.

Time will display as HH:MM.

3. Set Additional Timer Keys.



Repeat step 2 for each Shelf Timer Key to be programmed.

4. Turn On/Off Power Key ON.



Using the timer, press the On/Off key to turn ON unit. Power Indicator Light will illuminate.

The Multiple Shelf Timer Key option is available for hot food holding units with the Deluxe Control. These keys monitor food safety by using a timer-based "First-In, First-Out" product management system. Products should be cooked to HACCP recommended internal temperature and then held in the unit. The Timer system allows operator to select holding times when the unit is loaded. Multiple timer keys correspond to various pan locations in the holding unit. As the timers expire, the LED will flash quickly in order to notify the operator.

5. Press Shelf Timer Key.



Activate the shelf timer by pressing the corresponding button. Shelf LED display will illuminate and the count down will begin. The timer will display as HH:MM when the remaining time is >60 minutes. It will display as MM:SS when the remaining time is <60 minutes.

The timer LED's will illuminate as follows:

- All expired timers will flash quickly (may be more than one)
- The timer with the shortest amount of time remaining will flash slowly.
- All other active timers will be illuminated (may be more than one).

6. Acknowledge expired timers.

The LED will quickly flash when time expires. Press expired Shelf Timer Key to acknowledge expired timer.

To Cancel a Timer:

Press and hold desired Shelf Timer Key for two seconds.

Power Failure:

The Power Indicator Light by On/Off Power Key will blink to indicate a power failure. To stop the blinking, simply depress On/Off Key. The memory will not be impaired.

OPERATION

GENERAL HOLDING GUIDELINES

Chefs, cooks and other specialized food service personnel employ varied methods of cooking. Proper holding temperatures for a specific food product must be based on the moisture content of the product, product density, volume, and proper serving temperatures. Safe holding temperatures must also be correlated with palatability in determining the length of holding time for a specific product.

Halo Heat maintains the maximum amount of product moisture content without the addition of water, water vapor, or steam. Maintaining maximum natural product moisture preserves the natural flavor of the product and provides a more genuine taste. In addition to product moisture retention, the gentle properties of Halo Heat maintain a consistent temperature throughout the cabinet without the necessity of a heat distribution fan, thereby preventing further moisture loss due to evaporation or dehydration.

In an enclosed holding environment, too much moisture content is a condition which can be relieved. A product achieving extremely high temperatures in preparation must be allowed to decrease in temperature before being placed in a controlled holding atmosphere. If the product is not allowed to decrease in temperature, excessive condensation will form increasing the moisture content on the outside of the product. To preserve the safety and quality of freshly cooked foods however, a maximum of 1 to 2 minutes must be the only time period allowed for the initial heat to be released from the product.

Most Halo Heat holding equipment is provided with a thermostat control between 60° and 200°F (16° to 93°C). If the unit is equipped with vents, close the vents for moist holding and open the vents for crisp holding.

HOLDING TEMPERATURE RANGE		
MEAT	FAHRENHEIT	CELSIUS
BEEF ROAST — Rare	130°F	54°C
BEEF ROAST — Med/Well Done	155°F	68°C
BEEF BRISKET	160° — 175°F	71° — 79°C
CORN BEEF	160° — 175°F	71° — 79°C
PASTRAMI	160° — 175°F	71° — 79°C
PRIME RIB — Rare	130°F	54°C
STEAKS — Broiled/Fried	140° — 160°F	60° — 71°C
RIBS — Beef or Pork	160°F	71°C
VEAL	160° — 175°F	71° — 79°C
HAM	160° — 175°F	71° — 79°C
PORK	160° — 175°F	71° — 79°C
LAMB	160° — 175°F	71° — 79°C
POULTRY		
CHICKEN — Fried/Baked	160° — 175°F	71° — 79°C
DUCK	160° — 175°F	71° — 79°C
TURKEY	160° — 175°F	71° — 79°C
GENERAL	160° — 175°F	71° — 79°C
FISH/SEAFOOD		
FISH — Baked/Fried	160° — 175°F	71° — 79°C
LOBSTER	160° — 175°F	71° — 79°C
SHRIMP — Fried	160° — 175°F	71° — 79°C
BAKED GOODS		
BREADS/ROLLS	120° — 140°F	49° — 60°C
MISCELLANEOUS		
CASSEROLES	160° — 175°F	71° — 79°C
DOUGH — Proofing	80° — 100°F	27° — 38°C
EGGS — Fried	150° — 160°F	66° — 71°C
FROZEN ENTREES	160° — 175°F	71° — 79°C
HORS D'OEUVRES	160° — 180°F	71° — 82°C
PASTA	160° — 180°F	71° — 82°C
PIZZA	160° — 180°F	71° — 82°C
POTATOES	180°F	82°C
PLATED MEALS	140° — 165°F	60° — 74°C
SAUCES	140° — 200°F	60° — 93°C
SOUP	140° — 200°F	60° — 93°C
VEGETABLES	160° — 175°F	71° — 79°C
THE HOLDING TEMPERATURES LISTED ARE SUGGESTED GUIDELINES ONLY. ALL FOOD HOLDING SHOULD BE BASED ON INTERNAL PRODUCT TEMPERATURES. ALWAYS FOLLOW LOCAL HEALTH (HYGIENE) REGULATIONS FOR ALL INTERNAL TEMPERATURE REQUIREMENTS.		

CARE AND CLEANING

CLEANING AND PREVENTATIVE MAINTENANCE

PROTECTING STAINLESS STEEL SURFACES



It is important to guard against corrosion in the care of stainless steel surfaces. Harsh, corrosive, or inappropriate chemicals can completely destroy the protective surface layer of stainless steel. Abrasive

pads, steel wool, or metal implements will abrade surfaces causing damage to this protective coating and will eventually result in areas of corrosion. Even water, particularly hard water that contains high to moderate concentrations of chloride, will cause oxidation and pitting that result in rust and corrosion. In addition, many acidic foods spilled and left to remain on metal surfaces are contributing factors that will corrode surfaces.

Proper cleaning agents, materials, and methods are vital to maintaining the appearance and life of this appliance. Spilled foods should be removed and the area wiped as soon as possible but at the very least, a minimum of once a day. Always thoroughly rinse surfaces after using a cleaning agent and wipe standing water as quickly as possible after rinsing.

CLEANING AGENTS

Use non-abrasive cleaning products designed for use on stainless steel surfaces. Cleaning agents must be chloride-free compounds and must not contain quaternary salts. Never use hydrochloric acid (muriatic acid) on stainless steel surfaces. Always use the proper cleaning agent at the manufacturer's recommended strength. Contact your local cleaning supplier for product recommendations.

CLEANING MATERIALS

The cleaning function can usually be accomplished with the proper cleaning agent and a soft, clean cloth. When more aggressive methods must be employed, use a non-abrasive scouring pad on difficult areas and make certain to scrub with the visible grain of surface metal to avoid surface scratches. Never use wire brushes, metal scouring pads, or scrapers to remove food residue.

 CAUTION	
	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.
	
	

CARE AND CLEANING



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

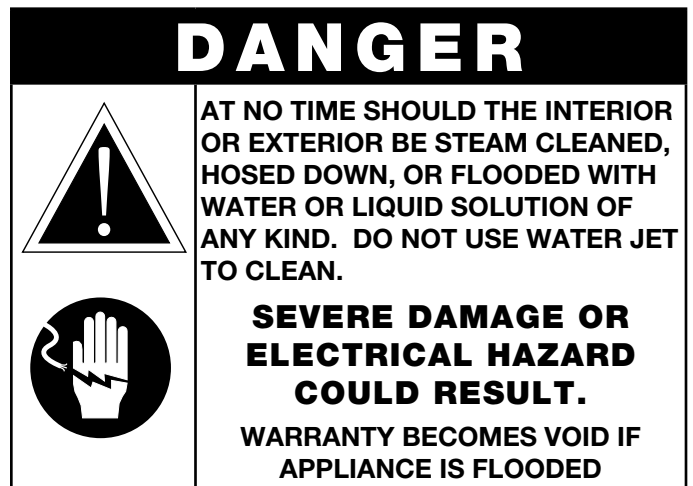
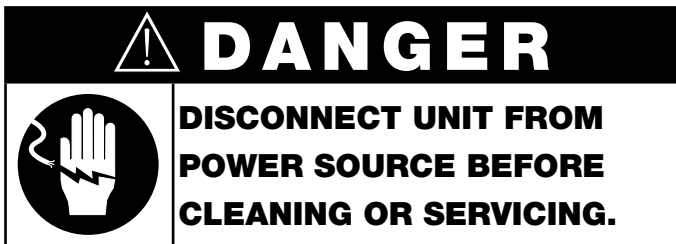
CLEAN THE HOLDING CABINET DAILY:

1. Disconnect unit from power source, and let cool.
2. Remove all detachable items such as shelves, side racks, and drip pan. Clean these items separately with a good grease solvent or commercial detergent. Rinse well and dry.
3. Clean interior metal surfaces of the unit with a damp, clean cloth and any good commercial detergent or grease solvent at the recommended strength. Spray heavily soiled areas with a water soluble degreaser and let stand for 10 minutes, then remove soil with a plastic scouring pad. Rinse by wiping with a sponge and clean warm water to remove all residue. Remove excess water with sponge and wipe dry with a clean cloth or air dry. Replace side racks and shelves.
4. 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.
5. Interior can be wiped with a sanitizing solution after cleaning and rinsing. This solution must be approved for use on stainless steel food contact surfaces.
6. 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 food service equipment.



SANITATION

Food flavor and aroma are usually so closely related that it is difficult, if not impossible, to separate them. There is also an important, inseparable relationship between cleanliness and food flavor. Cleanliness, top operating efficiency, and appearance of equipment contribute considerably to savory, appetizing foods. Good equipment that is kept clean, works better and lasts longer.

Most food imparts its own particular aroma and many foods also absorb existing odors. Unfortunately, during this absorption there is not distinction between GOOD and BAD odors. The majority of objectionable flavors and odors troubling food service operations are caused by bacteria growth. Sourness, rancidity, mustiness, stale or other OFF flavors are usually the result of germ activity.

The easiest way to insure full, natural food flavor is through comprehensive cleanliness. This means good control of both visible soil (dirt) and invisible soil (germs). A thorough approach to sanitation will provide essential cleanliness. It will assure an attractive appearance of equipment, along with maximum efficiency and utility. More importantly, a good sanitation program provides one of the key elements in the prevention of food-borne illnesses.

A controlled holding environment for prepared foods is just one of the important factors involved in the prevention of food-borne illnesses. Temperature monitoring and control during receiving, storage, preparation, and the service of foods are of equal importance.

The most accurate method of measuring safe temperatures of both hot and cold foods is by internal product temperature. A quality thermometer is an effective tool for this purpose, and should be routinely used on all products that require holding at a specific temperature.

A comprehensive sanitation program should focus on the training of staff in basic sanitation procedures. This includes personal hygiene, proper handling of raw foods, cooking to a safe internal product temperature, and the routine monitoring of internal temperatures from receiving through service.

Most food-borne illnesses can be prevented through proper temperature control and a comprehensive program of sanitation. Both these factors are important to build quality service as the foundation of customer satisfaction. Safe food handling practices to prevent food-borne illness is of critical importance to the health and safety of your customers.

HACCP, an acronym for Hazard Analysis (at) Critical Control Points, is a quality control program of operating procedures to assure food integrity, quality, and safety. Taking steps necessary to augment food safety practices is both cost effective and relatively simple. While HACCP guidelines go far beyond the scope of this manual, additional information is available by contacting:

**CENTER FOR FOOD SAFETY AND APPLIED
NUTRITION FOOD AND DRUG ADMINISTRATION
1-888-SAFEFOOD**

INTERNAL FOOD PRODUCT TEMPERATURES		
HOT FOODS		
DANGER ZONE	40° TO 140°F	(4° TO 60°C)
CRITICAL ZONE	70° TO 120°F	(21° TO 49°C)
SAFE ZONE	140° TO 165°F	(60° TO 74°C)
COLD FOODS		
DANGER ZONE	ABOVE 40°F	(ABOVE 4°C)
SAFE ZONE	36° TO 40°F	(2° TO 4°C)
FROZEN FOODS		
DANGER ZONE	ABOVE 32°F	(ABOVE 0°C)
CRITICAL ZONE	0° TO 32°F	(-18° TO 0°C)
SAFE ZONE	0°F or below	(-18°C or below)

SERVICE

THERMOSTAT ACCURACY

The electronic thermostat is a precise instrument and is designed to offer trouble free service. If you suspect the temperature inside the holding compartment does not match the temperature indicated on the digital display, follow the instructions listed below.

1. Check to make certain the unit voltage matches the power source. A power source less than that required to operate the unit will result in inaccurate temperatures.
2. Verify the temperature inside the holding compartment with a quality thermal indicator.
 - a. With the exception of the wire shelves, completely empty the holding compartment.
 - b. Make certain the holding cabinet sensor, located inside the holding compartment at the left side of the unit, is completely clean.
 - c. Suspend the thermal indicator in the center of the holding compartment.
 - d. Allow the temperature set on the electronic thermostat to stabilize for a minimum of one hour before comparing the digital display with the reading on the thermal indicator.

DO NOT OPEN THE CABINET DOOR(S) DURING THE TEMPERATURE STABILIZATION PERIOD.

If the reading on the thermal indicator does not match the digital display, there may be a problem with the air sensor. See troubleshooting guide in this manual; or call the factory service department for advice.



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.



TROUBLESHOOTING

This section is provided for the assistance of qualified technicians only and is not intended for use by untrained or unauthorized service personnel. If your Alto-Shaam® unit is not operating properly, check the following before calling your Authorized Alto-Shaam Service Agent:

- Check main power circuit breaker to the unit and verify that the circuit breaker on the back of the unit is turned on, if applicable.
Do not attempt to repair or service the unit beyond this point. Contact Alto-Shaam for the nearest authorized service agent. Repairs made by any other service agents without prior authorization by Alto-Shaam® will void the warranty on the unit.



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.

SERVICE

TROUBLESHOOTING

Code	Description	Possible Cause
E-10	Cavity air sensor shorted	Cavity air sensor reading < 5°F. Verify sensor integrity. See sensor test instructions below.
E-11	Cavity air sensor open	Cavity air sensor reading > 517°F. Verify sensor integrity. See sensor test instructions below.
E-20	Product probe is shorted <i>Oven will cook in time only</i>	Product probe reading < 5°F. Verify sensor integrity. See sensor test instructions below.
E-21	Product probe is open <i>Oven will cook in time only</i>	Product Probe reading > 517°F. Verify sensor integrity. See sensor test instructions below.
E-30	Under temperature	Unit has not reached (set-point - 25°F) for more than 90 minutes.
E-31	Over temperature	Unit has been higher than 25°F above the maximum cavity set-point for more than 2 minutes. Note: Holding Cabinets with this error code are more than 145°F higher than the maximum set-point.
E-50	Temp. measurement error	Contact factory.
E-51	Temp. measurement error	Contact factory.
E-60	Real time clock error	Data set to factory default. Ensure that date and time are correct if applicable.
E-61	Real time clock error	Contact factory.
E-64	Clock is not oscillating	Contact factory.
E-70	Configuration connector error (DIP switch)	Refer to wiring diagram for the particular model and ensure dip switches on the control match the settings called out on the WD. If the dip switch settings are correct according to the print replace the control.
E-78	Voltage low	Voltage below 90 VAC on a 125 VAC unit, or below 190 VAC on a 208-240 VAC unit. Correct voltage.
E-79	Voltage high	Voltage over 135 VAC on a 125 VAC unit, or over 250 VAC on a 208-240 VAC unit. Correct voltage.
E-80	EEPROM Error	Ensure that all temperatures and times are properly set. Contact factory if problem persists.
E-81	EEPROM Error	Contact factory.
E-82	EEPROM Error	Contact factory.
E-83	EEPROM Error	Contact factory.
E-85	EEPROM Error	All timers, if previously on, are now off. Possible bad EEPROM.
E-86	EEPROM Error	Stored HACCP memory corrupted. HACCP Address reset to 1. Possible bad EEPROM. Contact factory if problem persists.
E-87	EEPROM Error	Stored offsets corrupted. Offsets reset to 0. Control may need a recalibration. Possible bad EEPROM. Contact factory if problem persists.
E-88	EEPROM Error	All timer set-points are reset to 1 minute. Timers, if previously on, are now off. Possible bad EEPROM.
E-90	Button stuck	A button has been held down for >60 seconds. Adjust control. Error will reset when the problem has been resolved.
E-dS	Datakey error	Datakey digital signature incompatible. Cycle power, and install compatible Datakey if error persists.
E-dT	Datakey error	Datakey incompatible with control. Install compatible Datakey.
E-dU	Datakey unplugged	Install Datakey and cycle power to control to clear error.
dLto	Datalogger has timed out	Cycle power. Contact factory if error persists.
dLSD	Micro SD card not plugged in	Plug in SD card and cycle power. Contact factory if error persists.

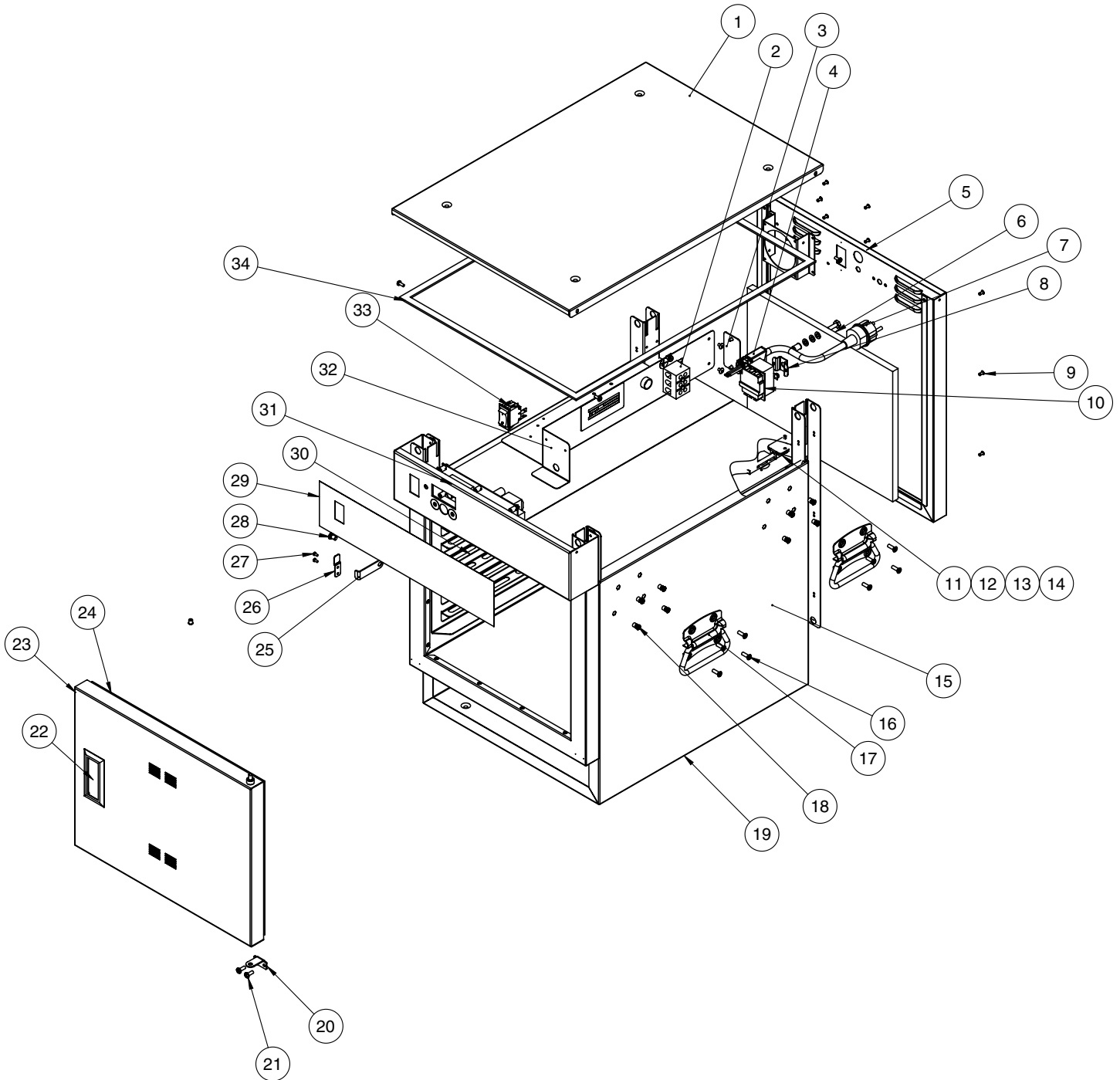
Note: *If in doubt, always cycle the power to the control and contact factory if the problem persists.*

To test probe and air sensor:

Test probe and air sensor by placing sensor in ice water bath and using an ohmmeter set on the ohm scale. The reading should be 100 ohms resistance. If it is more than 2 ohms higher or lower, sensor needs to be replaced.

SERVICE

SINGLE COMPARTMENT - 300-S



Part numbers and drawings are subject to change without notice.

SERVICE

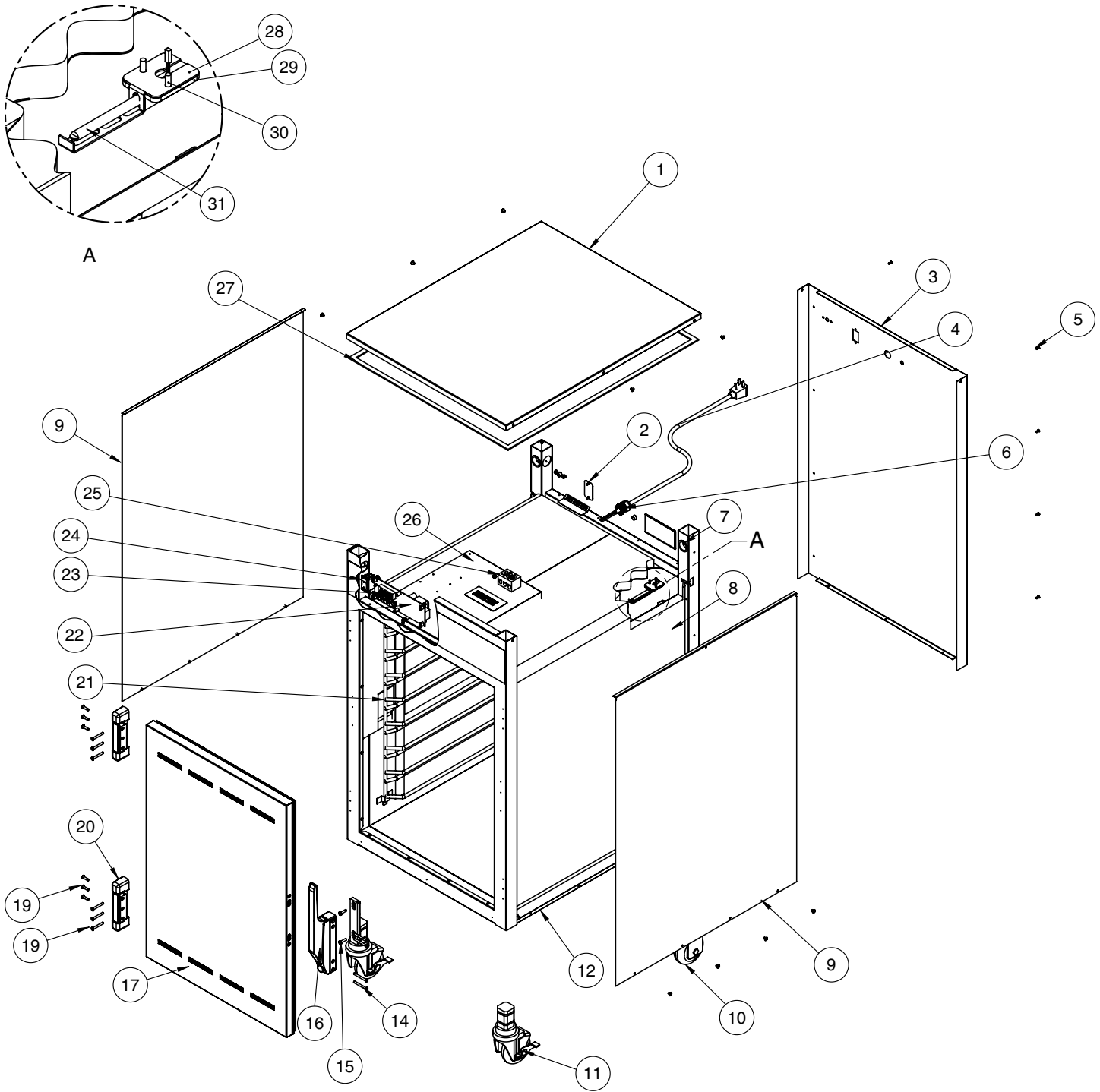
SINGLE COMPARTMENT - 300-S

ITEM	DESCRIPTION	PART NO.	QTY
1	BONNET TOP COVER	1012831	1
2	T-BLOCK	BK-3019	1
3	BREAKER SWITCH CUTOFF COVER	11133	1
4	BUSHING, STRAIGHT, STRAIN RELIEF	BU-34898	1
5	REAR TRIM	5014525	1
6	INSULATION	IN-2003	1
7	CORDSET, 230V	CD-3922	1
	CORDSET, 120V	CD-3232	1
8	HI-LIMIT PROTECTION COVER	1003936	1
9	RIVET, BLIND, #44, S/S	RI-2100	16
10	HI-LIMIT THERMOSTAT	TT-33476	1
11	SENSOR MOUNTING BRACKET	1008272	1
12	BLOCK, SENSOR	BK-29606	1
13	SCREW, 6-32 X 1/2, NC PHIL, FLAT	SC-2254	2
14	SENSOR, OVEN TEMPERATURE	PR-34494	1
15	INSULATION	IN-22364	1
16	SCREW, M5 X 0.8 X 16MM FLAT	SC-22281	16
17	TRANSPORT HANDLE	HD-2021	4
18	NUT, HEX INSERT M5	NU-23909	16
19	OUTER CASING SPOT	5014538	1
20	HINGE PLATE, BOTTOM		
		RIGHT HAND	1012999
		LEFT HAND*	1014661
21	SCREW, 8-32 X 1/4" TRH PHH	SC-2459	12
22	HANDLE, PULL, RECESSED	HD-28789	5
23	DOOR ASSEMBLY	5014458	1
24	DOOR GASKET	GS-35092	1
25	DOOR LATCH	1013803	1
26	DOOR LATCH RECEIVER	1013809	1
27	SCREW, M3 X 0.5 X 6MM PAN	SC-22266	2
28	STUD, SHOULDER, SHORT, S/S	ST-2546	1
29	PANEL, OVERLAY	PE-35188	1
30	SIDE RACKS	1012872	2
31	CONTROL	CC-34970	1
32	ELECTRIC CHASSIS SPOT	5014530	1
33	SWITCH, ROCKER, 125-277V, 20A	SW-34769	1
34	GASKETS, ADHESIVE, .125X.375	GS-23622	1
35	PROBE COVER	1008807	1
36*	BUSHING, 3/4" SNAP	BU-3008	1
37*	NUT, 6-32 HEX, S/S	NU-2361	4
38*	SCREW, 10-32 X 1/4 PAN HD GROUND	SC-2190	1
39*	SCREWS, M4-0.7 X 6MM PHIL	SC-22271	2
40*	SCREW, HHCS M6 X 20, W/NO MKGS	SC-22924	1
41*	SCREW, 6-32 X 1-1/4" ROUND HD	SC-2365	2
42*	SCREW, M6 X 1.0 X 10 PAN	SC-27078	2
43*	SHELVES	SH-2107	2
44*	SPACER, SNAP-IN, 7/16", CONTROL	SP-29392	6
45*	WASHER, FLAT	WS-22297	2
46*	WASHER, SPLIT LOCK	WS-22302	2
47*	WASHER, 6-32, FLAT, NYL	WS-23148	4
48*	WASHER, STAR LOCK	WS-2467	1
49*	FOIL PAD HEATER, 230V	EL-29740	1
50*	FOIL PAD HEATER, 120V	EL-35173	1

*NOT SHOWN

SERVICE

SINGLE COMPARTMENT - 500-S, 750-S, 1000-S, 1200-S (1000-S Shown)



Part numbers and drawings are subject to change without notice.

SERVICE

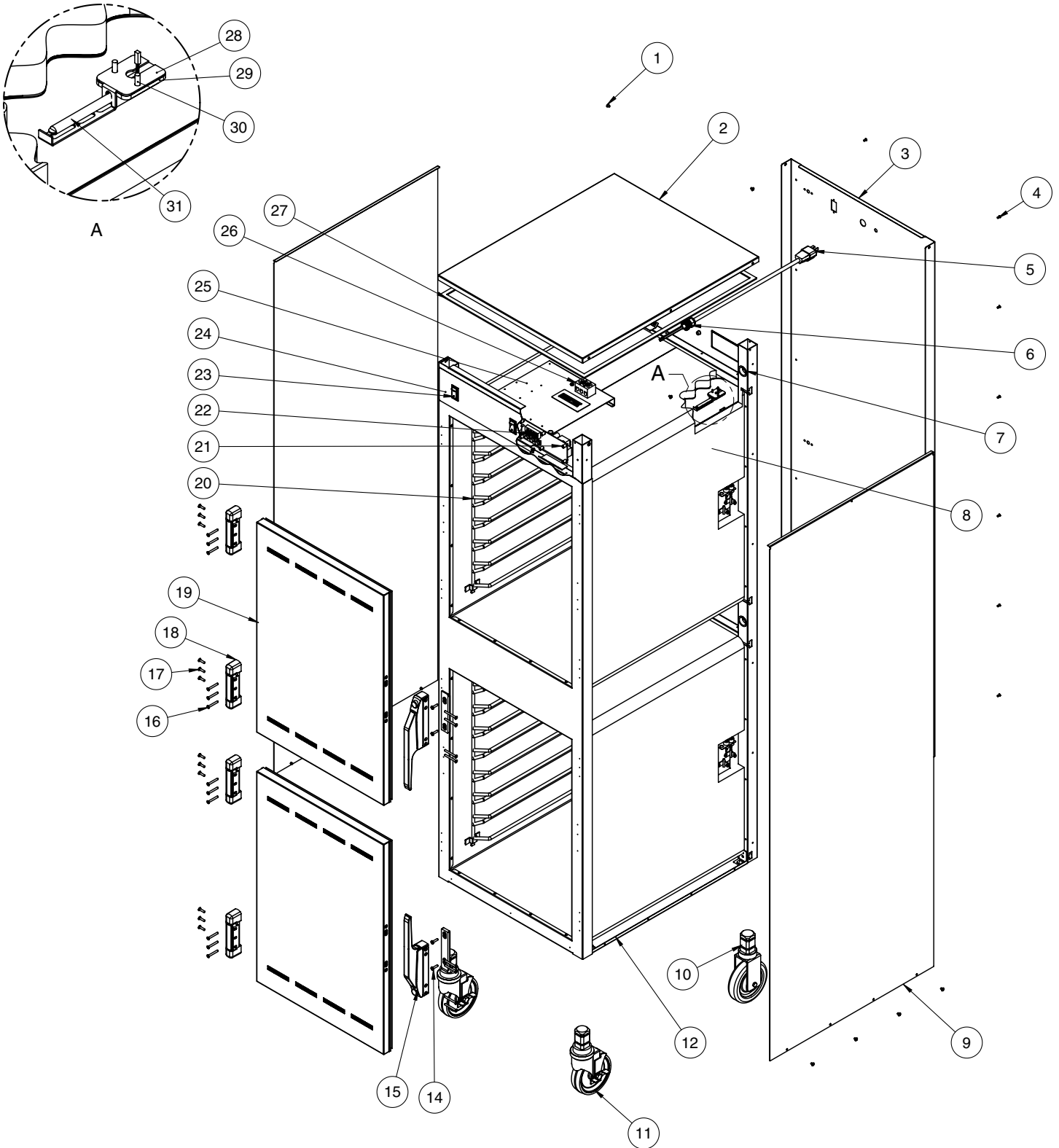
SINGLE COMPARTMENT - 500-S, 750-S, 1000-S, 1200-S

MODEL >		500-S		750-S		1000-S		1200-S	
ITEM	DESCRIPTION	PART NO.	QTY	PART NO.	QTY	PART NO.	QTY	PART NO.	QTY
1	BONNET TOP COVER	1011946	1	1011872	1	1011534	1	1011653	1
2	BREAKER SWITCH CUTOFF COVER	1011697	1	1011697	1	1011697	1	1011697	1
3	REAR TRIM	1011944	1	1011873	1	1011618	1	1011752	1
4	CORDSET, 120V	CD-3232	1	CD-3232	1	CD-3232	1	CD-3232	1
	CORDSET, 208-240V	CD-3551	1	CD-3551	11	CD-3551	1	CD-3551	1
	CORDSET, 230V	CD-3922	1	CD-3922	1	CD-3922	1	CD-3922	1
5	RIVET, BLIND, #44, S/S	RI-2100	24	RI-2100	24	RI-2100	24	RI-2100	24
6	BUSHING, STRAIGHT, STRAIN RELIEF	BU-3964	1	BU-3964	1	BU-3964	1	BU-3964	1
7	BUSHING, 1-1/8" SNAP	BU-3378	4	BU-3378	4	BU-3378	4	BU-3378	4
8	INSULATION	IN-22364	1	IN-22364	1	IN-22364	1	IN-22364	1
9	SIDE PANEL	5015081	2	5015083	2	5015088	2	5015092	2
10	CASTER, 3-1/2" (89mm) RIGID	CS-24674	2	CS-24674	2	CS-24674	2	—	—
	CASTER, 5" (127mm) RIGID	—	—	—	—	—	—	CS-24874	2
11	CASTER, 3-1/2" (89mm) SWIVEL WITH BRAKE	CS-24675	2	CS-24675	2	CS-24675	2	—	—
	CASTER, 5" (127mm) SWIVEL WITH BRAKE	—	—	—	—	—	—	CS-24875	2
12	BOTTOM PANEL	1010774	1	1010394	1	1009941	1	1011650	1
13*	NOT SHOWN	—	—	—	—	—	—	—	—
14	SCREW, 10-32X1-3/4, NF, PHIL, FLAT M/S,18-8 S/S	SC-29387	4	SC-29387	4	SC-29387	4	SC-29387	4
15	SCREW, 10-32X3/4 PHILLIPS PAN HD	SC-2071	2	SC-2071	2	SC-2071	2	SC-2071	2
16	HANDLE, OFFSET MAG LATCH	HD-27080	1	HD-27080	1	HD-27080	1	HD-27080	1
17	DOOR ASSEMBLY	5013132	1	5012938	1	5012801	1	5012663	1
	WINDOWED DOOR	—	—	5013129	1	5012806	1	5012822	1
	DOOR GASKET	GS-23790	1	GS-22951	1	GS-22952	1	GS-22952	1
18	SCREW, 10-32X1-1/2, NF, PHIL, FLAT M/S,18-8 S/S	SC-2073	6	SC-2073	6	SC-2073	6	SC-2073	6
19	SCREW, 10-32X3/4, NF PHIL, FLAT M/S, 18-8 S/S	SC-2072	6	SC-2072	6	SC-2072	6	SC-2072	6
20	HINGE, 1-3/8" OFFSET, PAIR, CHROME	HG-22338	2	HG-22338	2	HG-22338	1	HG-22338	1
21	SIDE RACK	SR-28402	2	SR-28404	2	SR-2120	2	—	—
	*PAN SLIDES	—	—	—	—	—	—	SR-24447	8
	*PAN SLIDE RAIL	—	—	—	—	—	—	1011741	4
22	FRONT TRIM, CONTROL	5013104	1	5012940	1	5012285	1	5012731	1
23	CONTROL	CC-34970	1	CC-34970	1	CC-34970	1	CC-34970	1
24	SWITCH, ROCKER, 125-277V, 20A	SW-34769	1	SW-34769	1	SW-34769	1	SW-34769	1
25	T-BLOCK	BK-3019	1	BK-3019	1	BK-3019	1	BK-3019	1
26	ELECTRIC CHASSIS	5012122	1	5012122	1	5012122	1	5012122	1
27	GASKETS, ADHESIVE,.125X.375 [lin ft]	GS-23622	1	GS-23622	1	GS-23622	1	GS-23622	1
28	BRACKET, SENSOR MTG.	1008272	1	1008272	1	1008272	1	1008272	1
29	BLOCK, SENSOR	BK-29606	1	BK-29606	1	BK-29606	1	BK-29606	1
30	SCREW, 6-32 X 1/2, NC PHIL, FLAT	SC-2254	2	SC-2254	2	SC-2254	2	SC-2254	2
31	SENSOR, OVEN TEMPERATURE	PR-34494	1	PR-34494	1	PR-34494	1	PR-34494	1
32*	NON-PRODUCT PROBE SEAL	1006871	1	1006871	1	1006871	1	1006871	1
33*	INNER BACK PANEL	1011938	1	1011861	1	1011529	1	1011654	1
34*	NUT, M4-0.7 HEX 18-8	NU-22286	2	NU-22286	2	NU-22286	2	NU-22286	2
35*	NUT, HEX #8-32	NU-2296	2	NU-2296	2	NU-2296	2	NU-2296	2
36*	NUT, 6-32 HEX, S/S	NU-2361	4	NU-2361	4	NU-2361	4	NU-2361	4
37*	PANEL, OVERLAY	PE-29399	1	PE-29398	1	PE-29396	1	PE-29397	1
38*	PLUG, 3/8" HOLE	PG-25574	2	PG-25574	2	PG-25574	2	PG-25574	2
39*	SCREW, 10-32 X 1/4 PAN HD GROUND	—	—	SC-2190	1	SC-2190	1	SC-2190	1
40*	SCREWS, M4-0.7 X 6MM PHIL	SC-22271	2	SC-22271	2	SC-22271	2	SC-22271	2
41*	SCREW, 1/4-20 X 1/2, NC SLOT RND	SC-2332	4	SC-2332	4	SC-2332	4	SC-2332	4
42*	SCREW, 6-32 X 1-1/4" ROUND HD	—	—	SC-2365	2	SC-2365	2	SC-2365	2
43*	SCREWS, 8-32 X 1/2" PHIL S/S	SC-2425	6	SC-2425	6	SC-2425	6	SC-2425	6
44*	SPACER, SNAP-IN, 7/16", CONTROL	SP-29392	6	SP-29392	6	SP-29392	6	SP-29392	6
45*	SHELF, CHROME PLATED	SH-2107	2	SH-2105	2	—	—	—	—
46*	TAPE, 1/2" WIDE X 25 MIL VHB	TA-24637	9	TA-24637	9	TA-24637	9	TA-24637	18
47*	WASHER, 6-32, FLAT, NYL	WS-23148	4	WS-23148	4	WS-23148	4	WS-23148	4
48*	WASHER, STAR LOCK	WS-2467	1	WS-2467	1	WS-2467	1	WS-2467	1

*NOT SHOWN

SERVICE

DOUBLE COMPARTMENT - 1000-UP, 1200-UP (1000-UP SHOWN)



Part numbers and drawings are subject to change without notice.

SERVICE

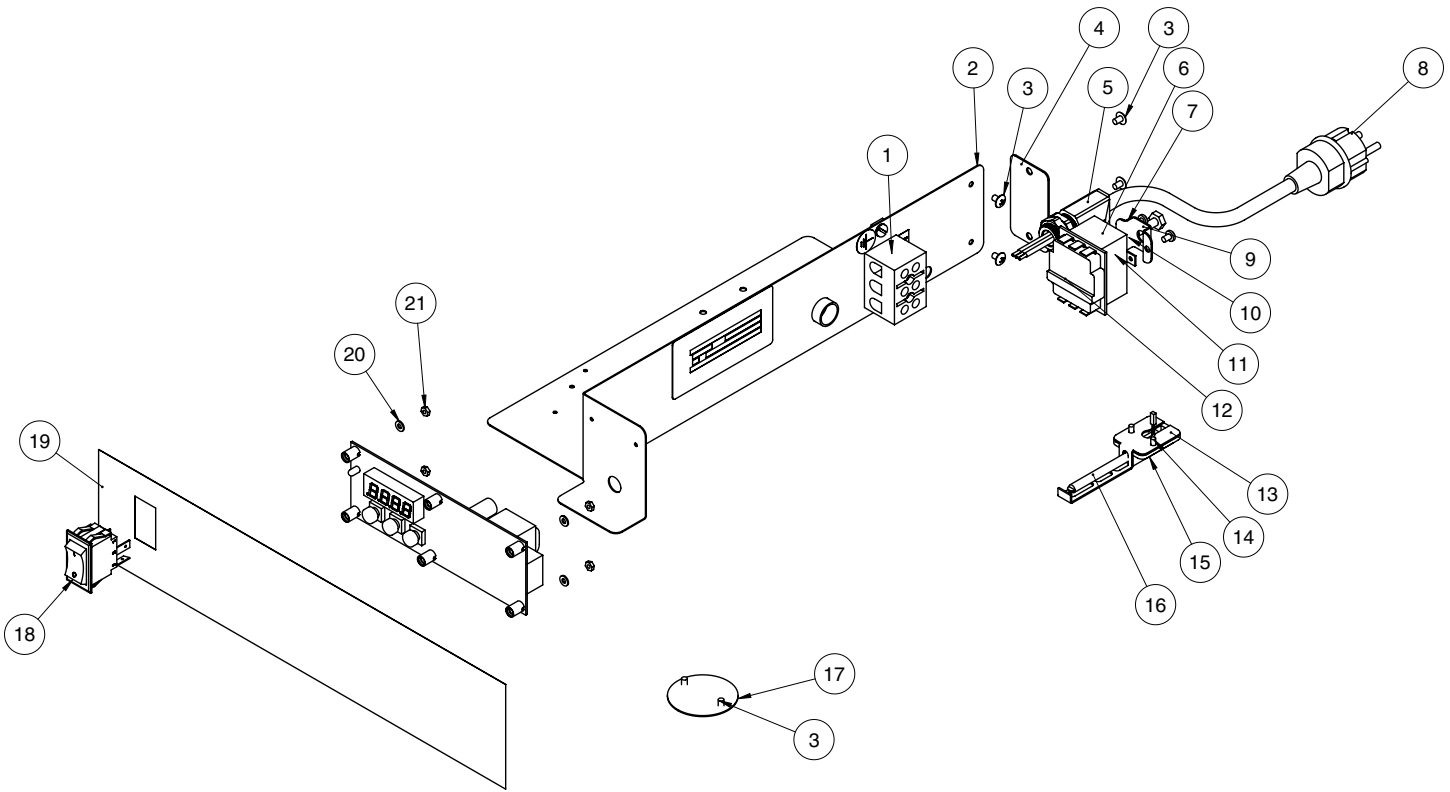
DOUBLE COMPARTMENT - 1000-UP, 1200-UP

ITEM	DESCRIPTION	1000-UP		1200-UP	
		PART NO.	QTY	PART NO.	QTY
1	SCREW, 8-32 X 1/4" PHIL	SC-2459	30	SC-2459	32
2	BONNET TOP COVER	1011534	1	1011653	1
3	REAR TRIM	1011532	1	1011652	1
4	RIVET, BLIND, #44, S/S	RI-2100	44	RI-2100	44
5	CORDSET, 120V	CD-33824	1	CD-33824	1
	CORDSET, 208-240V	CD-3551	1	CD-3551	1
	CORDSET, 230V	CD-3922	1	CD-3922	1
6	BUSHING, STRAIGHT, STRAIN RELIEF	BU-3964	1	BU-3964	1
7	BUSHING, 1 1/8" SNAP	BU-3378	8	BU-3378	8
8	INSULATION	IN-22364	1	IN-22364	1
9	SIDE PANEL	5015105	2	5015105	2
10	CASTER, 5" (127mm) RIGID	CS-24874	2	CS-24874	2
11	CASTER, 5" (127mm) SWIVEL WITH BRAKE	CS-24875	2	CS-24875	2
12	BOTTOM PANEL	1009941	1	1011650	1
13*	NOT SHOWN	—	—	—	—
14	SCREW, 10-32 X 3/4 PHILLIPS PAN HD	SC-2071	4	SC-2071	4
15	HANDLE, OFFSET MAG LATCH	HD-27080	2	HD-27080	2
16	SCREW, 10-32 X 1-1/2, NF, PHIL, FLAT M/S, 18-8 S/S	SC-2073	12	SC-2073	12
17	SCREW, 10-32 X 3/4, NF PHIL, FLAT M/S, #18-8 S/S	SC-2072	12	SC-2072	12
18	HINGE, 1-3/8 OFFSET, PAIR, CHROME	HG-22338	2	HG-22338	2
19	DOOR ASSEMBLY	5012801	2	5012663	2
	WINDOWED DOOR	5012806	1	5012822	1
	DOOR GASKET	GS-22952	1	GS-22952	1
20	SIDE RACK	SR-2120	4	—	—
21	FRONT TRIM, CONTROL	5012113	1	5012345	1
22	CONTROL	CC-34970	2	CC-34970	2
23	SWITCH, ROCKER, 125-277V, 20A	SW-34769	2	SW-34769	2
24	PANEL, OVERLAY	PE-29394	1	PE-29395	1
25	ELECTRIC CHASSIS	5012122	1	5012122	1
26	T-BLOCK	BK-3019	1	BK-3019	1
27	GASKETS, ADHESIVE, .125X.375 [lin ft]	GS-23622	1	GS-23622	1
28	BRACKET, SENSOR MTG.	1008272	2	1008272	2
29	BLOCK, SENSOR	BK-29606	2	BK-29606	2
30	SCREW, 6-32 X 1/2, NC PHIL, FLAT	SC-2254	2	SC-2254	2
31	SENSOR, OVEN TEMPERATURE	PR-34494	2	PR-34494	2
32*	NON-PRODUCT PROBE SEAL	1006871	2	1006871	2
33*	INNER BACK PANEL	1011529	2	1011654	2
34*	BREAKER SWITCH CUTOFF COVER	1011697	1	1011397	1
35*	NUT, M4-0.7 HEX 18-8	NU-22286	4	NU-22286	4
36*	NUT, HEX #8-32	NU-2296	2	NU-2296	2
37*	NUT, 6-32 HEX, S/S	NU-2361	8	NU-2361	8
38*	PLUG, 3/8" HOLE	PG-25574	3	PG-25574	3
39*	SCREW, 10-32 X 1/4 PAN HD GROUND	SC-2190	1	SC-2190	1
40*	SCREWS, M4-0.7X6MM PHIL	SC-22271	4	SC-22271	4
41*	SCREW, 1/4-20 X 1/2, NC SLOT RND	SC-2332	4	SC-2332	4
42*	SCREW, 6-32 X 1 1/4" ROUND HD	SC-2365	2	SC-2365	2
43*	SCREW, 10-32 X 1-3/4, NF, PHIL, FLAT M/S, 18-8 S/S	SC-29387	8	SC-29387	8
44*	SPACER, SNAP-IN, 7/16", CONTROL	SP-29392	12	SP-29392	12
	*PAN SLIDE	—	—	SR-24447	16
	*PAN SLIDE RAIL	—	—	1011741	8
45*	TAPE, 1/2" WIDE X 25 MIL VHB	TA-24637	2	—	—
46*	WASHER, 6-32, FLAT, NYL	WS-23148	8	WS-23148	8
47*	WASHER, STAR LOCK	WS-2467	1	WS-2467	1

*NOT SHOWN

SERVICE

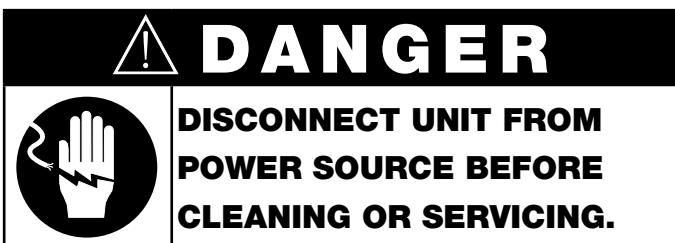
ELECTRONIC COMPONENTS - 300-S



Part numbers and drawings are subject to change without notice.

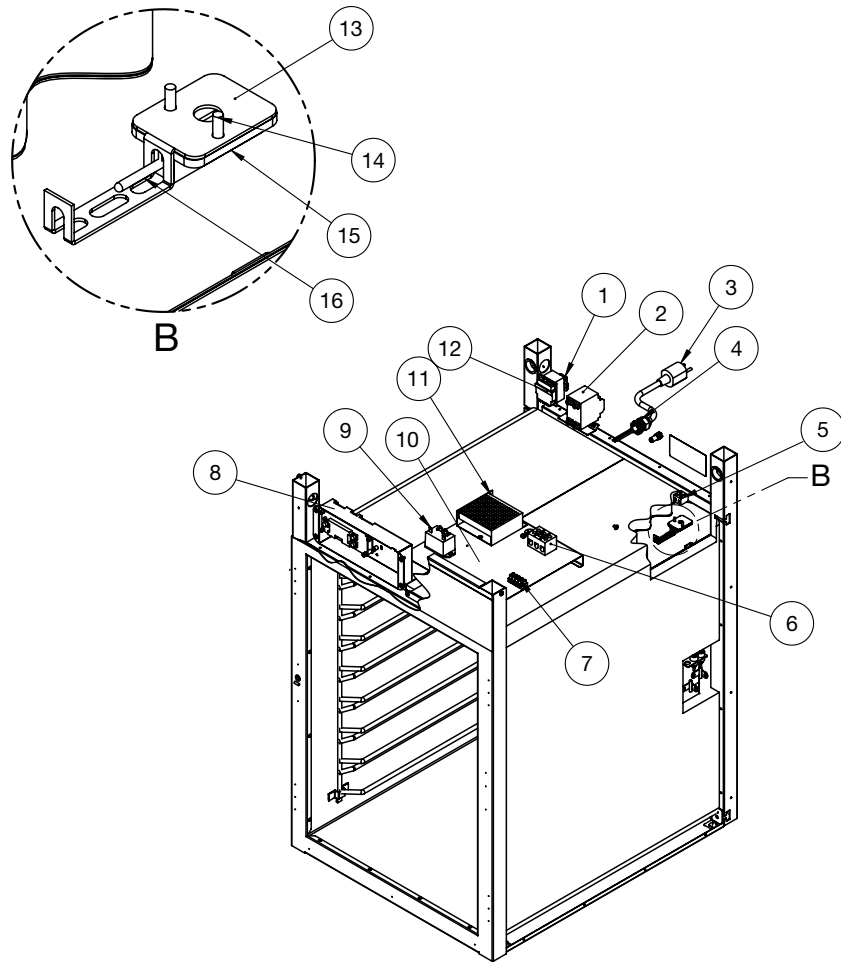
ITEM	DESCRIPTION	PART NO.	QTY	ITEM	DESCRIPTION	PART NO.	QTY
1	T-BLOCK	BK-3019	1	12	NUT, THREADED INSERT, M6	NU-22770	1
2	ELECTRIC CHASSIS ASSEMBLY	5015058	1	13	BRACKET, SENSOR MTG.	1008272	1
3	SCREW, 8-32 X 1/4" PHIL	SC-2459	4	14	SCREW, 6-32 X 3/8" RND PHH	SC-2254	2
4	SWITCH COVER	11133	1	15	SENSOR BLOCK	BK-29606	1
5	BUSHING, STRAIN RELIEF, 90°, BLK	BU-34898	1	16	PROBE	PR-34494	1
6	HI-LIMIT THERMOSTAT	TT-33476	1	17	PROBE COVER	1008807	1
7	HI-LIMIT PROTECTION COVER	1003936	1	18	SWITCH, ROCKER, 125-277V, 20A	SW-34769	1
8	CORDSET, 120V	CD-3232	1	19	PANEL, OVERLAY, 300-S SIMPLE	PE-35188	1
	CORDSET, 230V	CD-3922	1	20	WASHER, 6-32, FLAT, NYLON	WS-23148	4
9	SCREW, HHCS, M6 X 20, NO MKGS	SC-22924	1	21	NUT, 6-32 HEX, S/S	NU-2361	4
10	WASHER, FLAT	WS-22297	2	22*	SCREWS, M4-0.7X6MM PHIL	SC-22271	2
11	WASHER, SPLIT LOCK	WS-22302	2				

*NOT SHOWN



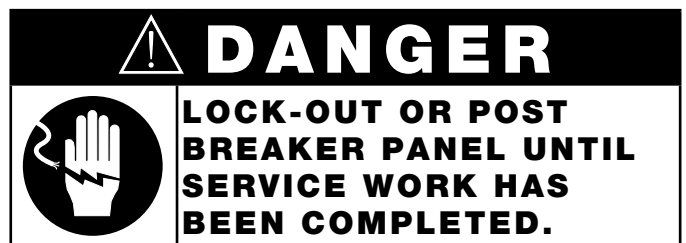
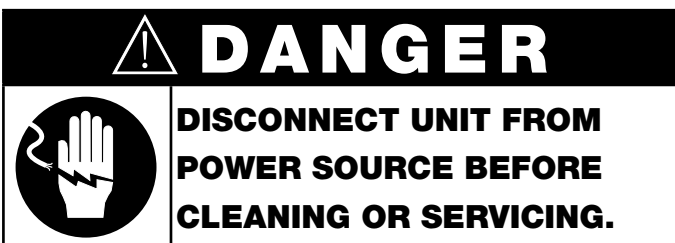
SERVICE

DELUXE CONTROL ELECTRONIC COMPONENTS



Part numbers and drawings are subject to change without notice.

ITEM	DESCRIPTION	PART NO.	QTY	ITEM	DESCRIPTION	PART NO.	QTY
1	HI-LIMIT PROTECTION COVER	1003936	1	8	CONTROL WITHOUT TIMERS	5012946	1
2	SWITCH, CIRCUIT BREAKER	SW-34769	1	9	RELAY	RL-33558	1
3	CORDSET, 120V	CD-3232	1	10	ELECTRIC CHASSIS	5012122	1
	CORDSET, 208-240V	CD-3551	1	11	POWER SUPPLY BOARD	BA-33554	1
	CORDSET, 230V	CD-3922	1	12	T-STAT, HI-LIMIT	TT-33476	1
4	BUSHING, STRAIGHT, STRAIN RELIEF	BU-3964	1	13	SENSOR GUARD	1493	1
5	TERMINAL BLOCK, SENSOR	BK-33546	1	14	SCREW, 6-32X1/2, NC PHIL, FLAT	SC-2254	2
6	T-BLOCK	BK-3019	1	15	BLOCK, MOUNTING SENSOR	BK-29605	1
7	TERMINAL STRIP	TM-33560	1	16	SENSOR	SN-33541	1



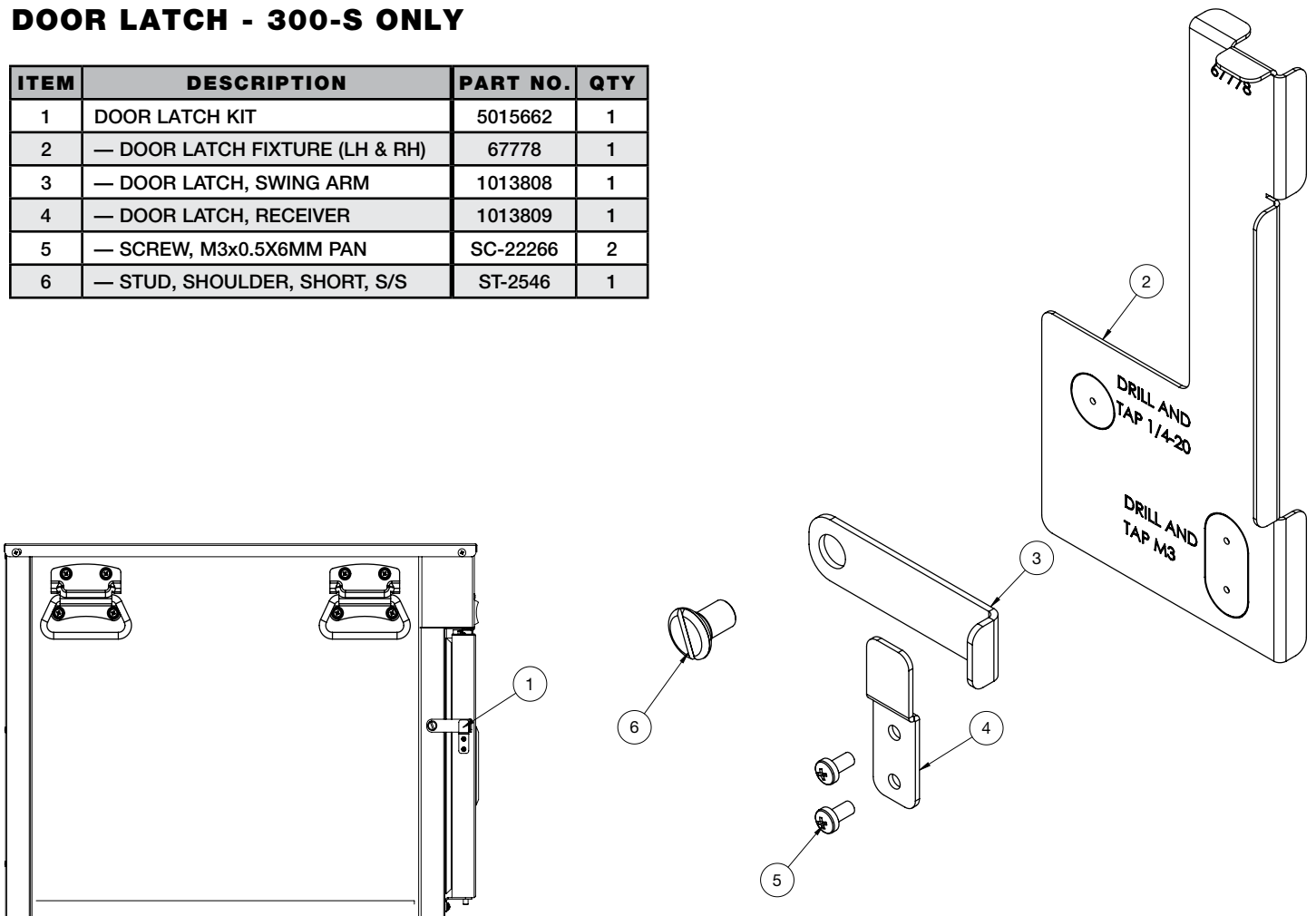
SERVICE

CABLE HEATING SERVICE KITS

CABLE HEATING KIT > (ONE KIT REQUIRED PER CAVITY)		#4874 (500, 750, 1000)	#4881 (1200 - 4000W)	#4878 (1200 - ALL EXCEPT 4000W)
PART NO.	DESCRIPTION	QTY	QTY	QTY
CB-3045	CABLE HEATING ELEMENT	---	210 feet (6401cm)	90 feet (2591cm)
CB-3044	CABLE HEATING ELEMENT	120 feet (3658cm)	---	---
CR-3226	RING CONNECTOR	4	12	4
IN-3488	INSULATION CORNER	1 foot (30,5cm)	1 foot (30,5cm)	1 foot (30,5cm)
BU-3105	SHOULDER BUSHING	4	12	4
BU-3106	CUP BUSHING	4	12	4
ST-2439	STUD	4	12	4
NU-2215	HEX NUT	8	24	8
SL-3063	INSULATING SLEEVE	4	12	4
TA-3540	ELECTRICAL TAPE	1 roll	1 roll	1 roll

DOOR LATCH - 300-S ONLY

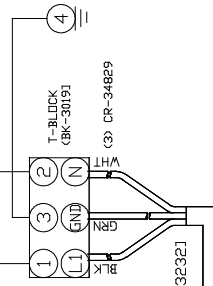
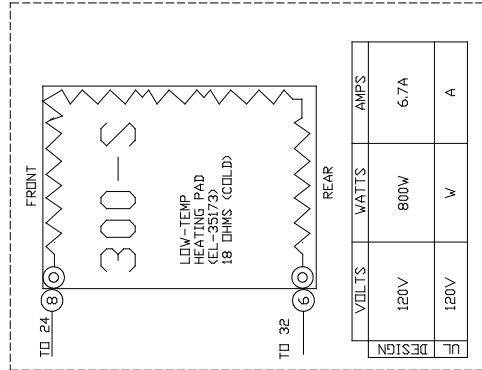
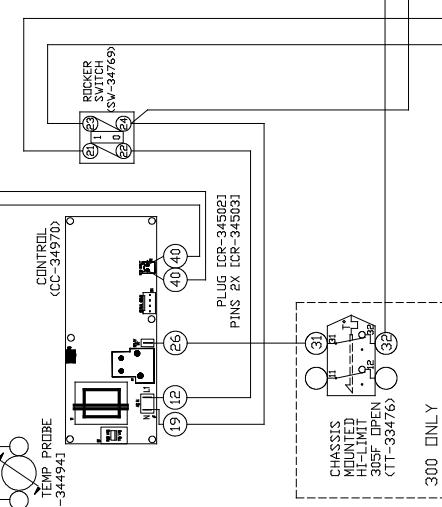
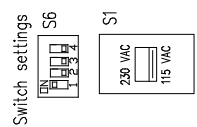
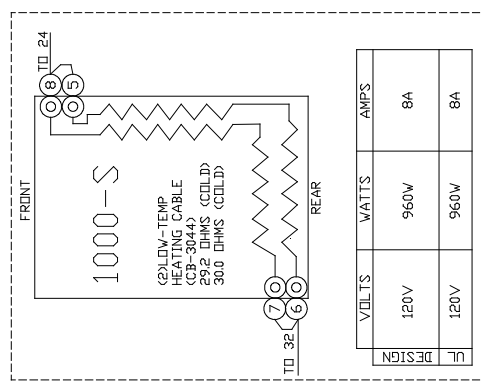
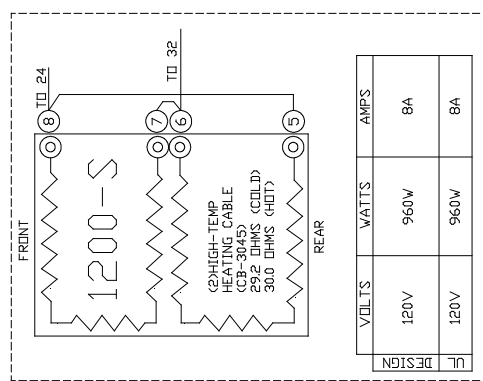
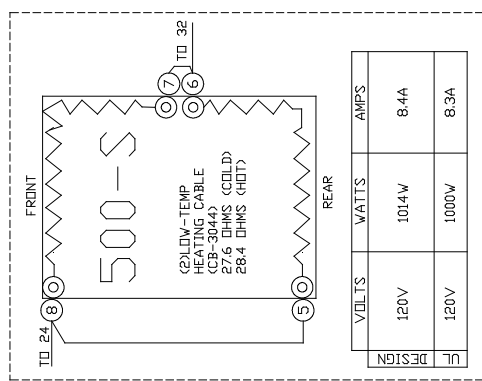
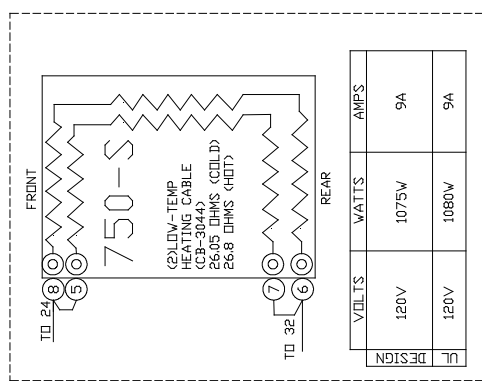
ITEM	DESCRIPTION	PART NO.	QTY
1	DOOR LATCH KIT	5015662	1
2	— DOOR LATCH FIXTURE (LH & RH)	67778	1
3	— DOOR LATCH, SWING ARM	1013808	1
4	— DOOR LATCH, RECEIVER	1013809	1
5	— SCREW, M3x0.5X6MM PAN	SC-22266	2
6	— STUD, SHOULDER, SHORT, S/S	ST-2546	1



Part numbers and drawings are subject to change without notice.

VIEW FROM REAR OF BONNET

<FRONT>



PLUG: 15A-125V NEMA 5-15P



14/3 120V CORD SET [CD-3232]

NOTE #1: ALL NUMBERS IN () = ALTO-SHAAM PART NUMBERS
 NOTE #2: SEE DRW. 5012835 FOR MAIN WIRE ASSEMBLY [FOR 500, 750, 1000 AND 1200]
 SEE DRW. 5012836 FOR 120V WIRE ASSEMBLY [FOR 500, 750, 1000 AND 1200]
 SEE DRW. 5015444 FOR MAIN WIRE ASSEMBLY [FOR 300]
 SEE DRW. 5015445 FOR 120V WIRE ASSEMBLY [FOR 300]

<REAR>

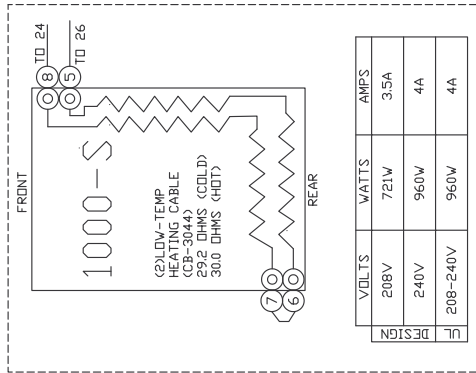
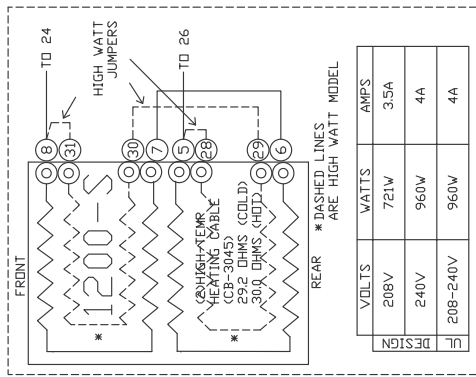
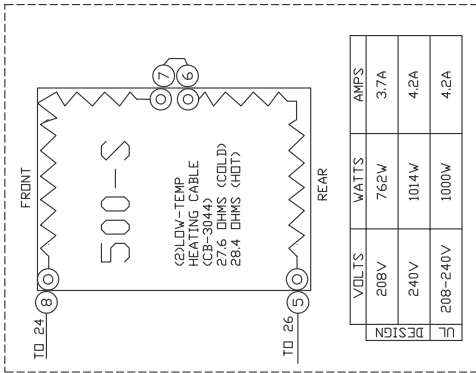
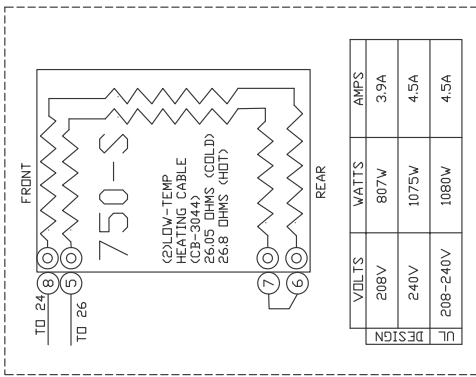
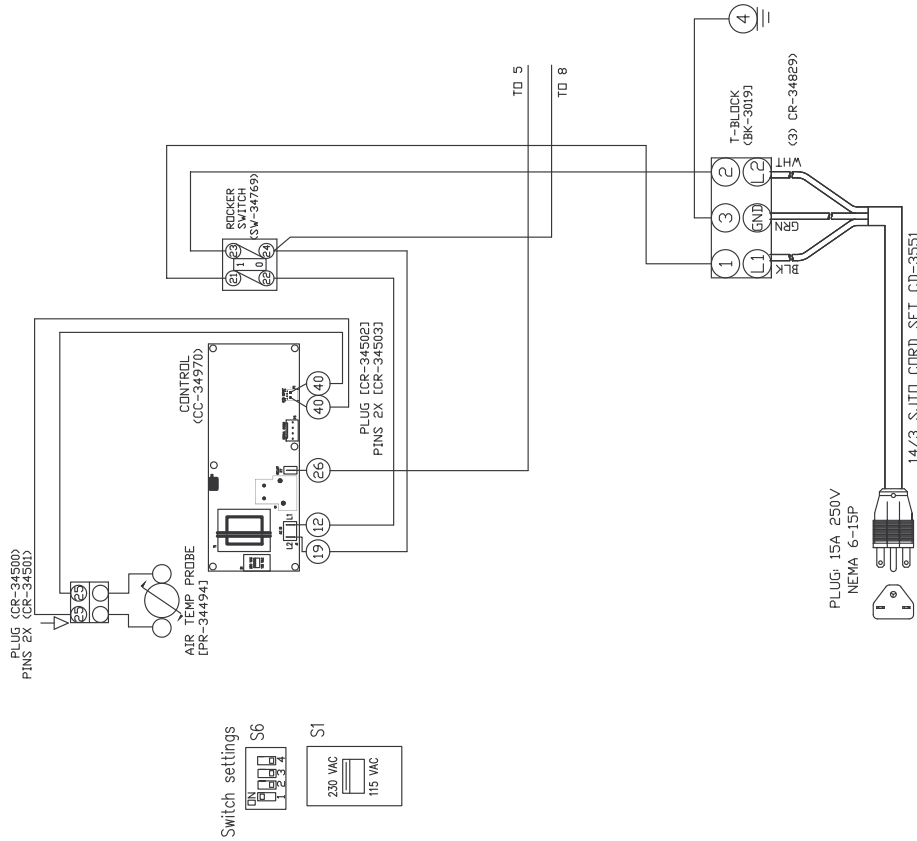
REV	ECO	DESCRIPTION	DATE	APP
10	6327	Add 300-S HI-LIMIT	4/23/12	TJG
9	5904	REDUCE 1200-S WATTS	2-18-11	JPK
8	-	HIG CBL POST CHNG	1-4-11	JPK

300, 500, 750, 1000, 1200-S, 120V, 60HZ

ALTO-SHAAM WIRING DIAGRAM SHEET
 DWG: 77194
 BY: JPK DATE: 1/16/08 L_DF_1

VIEW FROM REAR OF BONNET

(FRONT)



REV	ECO	DESCRIPTION	DATE	APP
8	5904	REDUCE 1200-S WATTS	2-18-11	JPK
7	5727	FIX WIRE ASSEMBLY TYPO	1-20-10	JPK
6	-	HTG CBL POST CHNG	1-4-11	JPK

500,750,1000,1200-S 208-240V 60HZ

WIRING DIAGRAM

ALTO-SHAAM DWG: 77195

BY: JPK DATE: 1/16/08 SHEET 1 OF 1

1200-S 2000W MODEL		
VOLTS	WATTS	AMPS
208V	1442W	6.9A
240V	1920W	8A
208-240V	1920W	8A

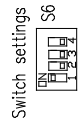
DESIGN

FILE

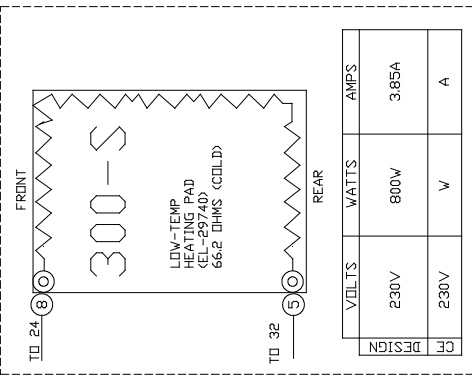
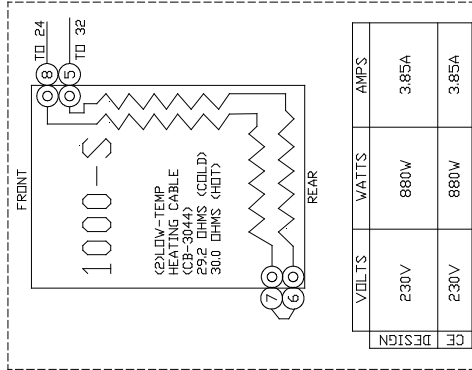
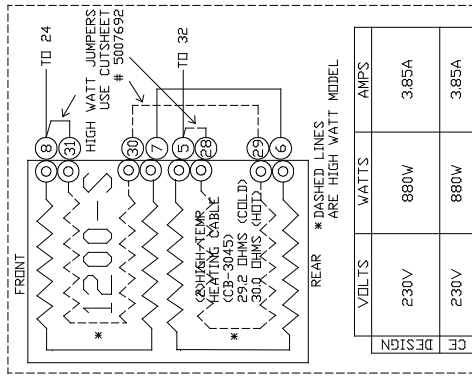
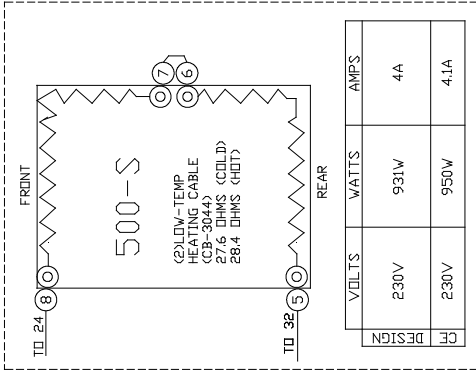
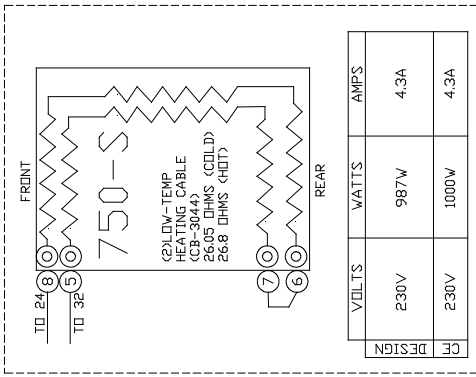
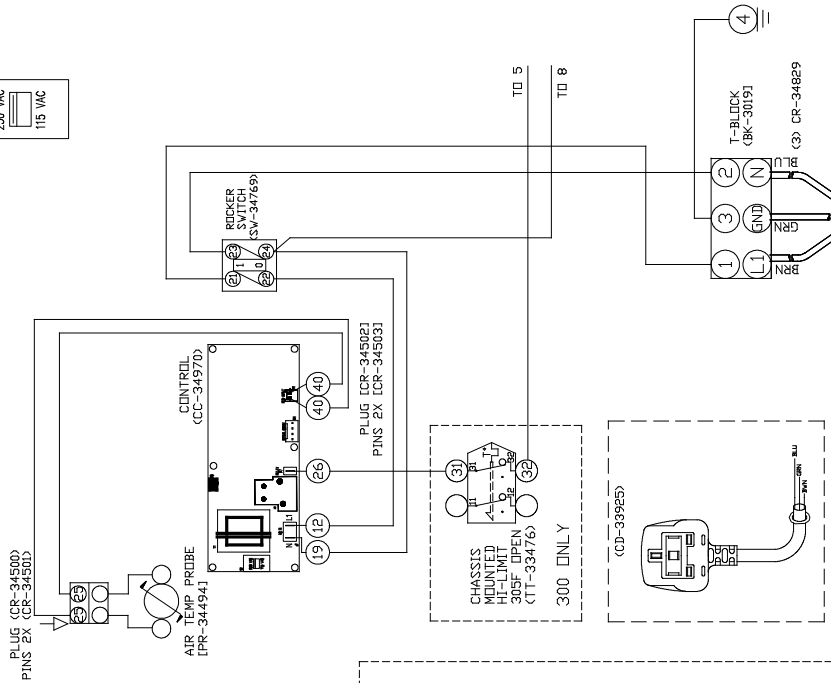
NOTE #1: ALL NUMBERS IN () = ALTO-SHAAM PART NUMBERS

NOTE #2: SEE DRW. 5012835 FOR MAIN WIRE ASSEMBLY
SEE DRW. 5012837 FOR 208-240V WIRE ASSEMBLY
SEE DRW. 5007592 FOR HIGH WATT JUMPERS

VIEW FROM REAR OF BONNET



<FRONT>



REV	ECO	DESCRIPTION	DATE	JPK	APP
13	6327	Add 300-S HI-LIMIT	5/04/12	TJG	
12	6291	ADD CD-3925 FOR UK	2/27/12	NVA	
11	5904	REDUCE 1200-S WATTS	2-18-11	JPK	

300, 500, 750, 1000, 1200-S 230V 50HZ

ALTO-SHAAM WIRING DIAGRAM
 DWG: 77196
 BY: JPK DATE: 1/16/08 SHEET 1 OF 1

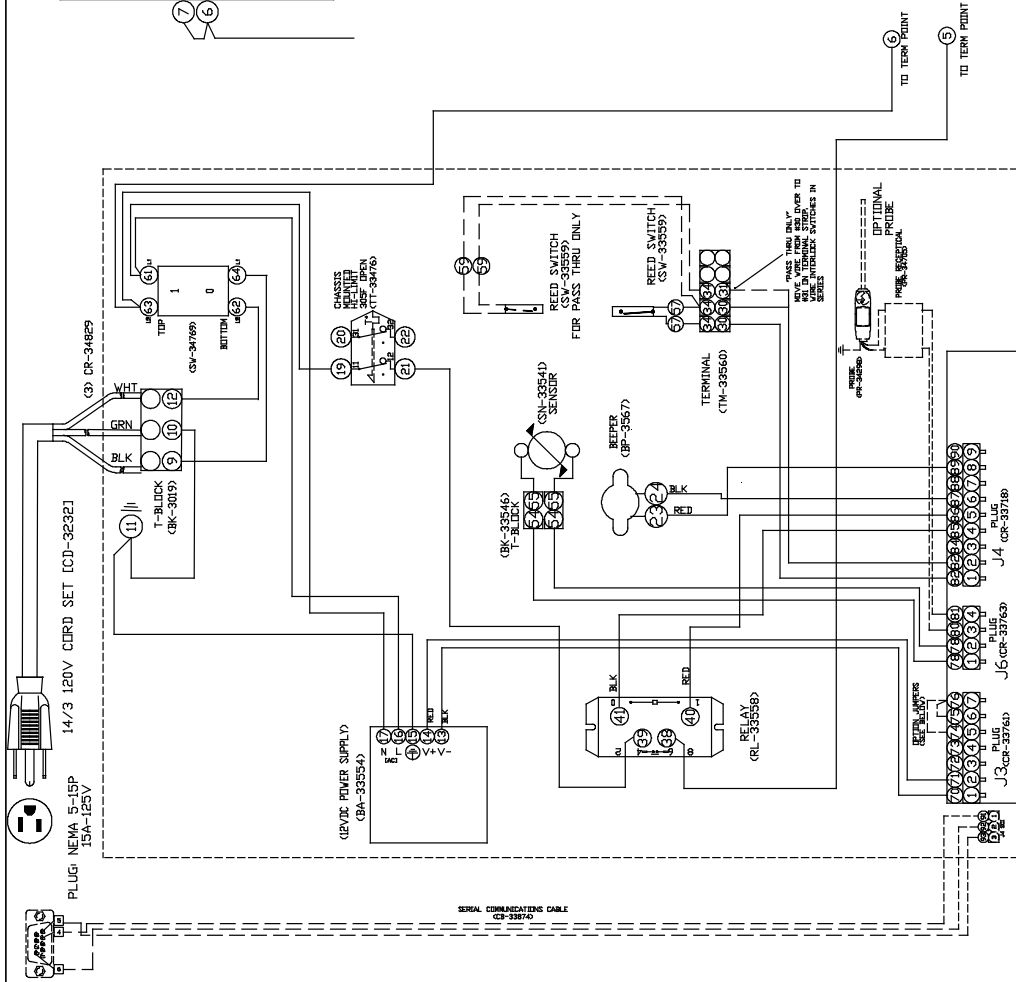
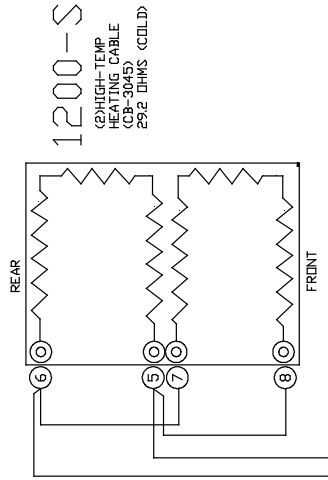
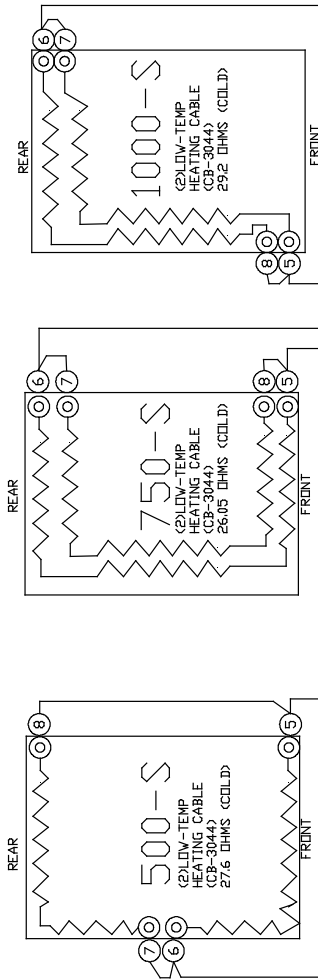
VOLTS	WATTS	AMPS
230V	1760W	7.65A
230V	1760W	7.65A

1200-S HIGH WATT MODEL

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

NOTE #2: SEE DRW. 5012835 FOR MAIN WIRE ASSEMBLY [FOR 500, 750, 1000 AND 1200]
 SEE DRW. 5012838 FOR 230V WIRE ASSEMBLY [FOR 500, 750, 1000 AND 1200]
 SEE DRW. 5015444 FOR MAIN WIRE ASSEMBLY [FOR 300]
 SEE DRW. 5015446 FOR 230V WIRE ASSEMBLY [FOR 300]
 SEE DRW. 5007692 FOR HIGH WATT JUMPERS [FOR 500, 750, 1000 AND 1200]

TOP VIEW OF CABLE CONFIGURATION



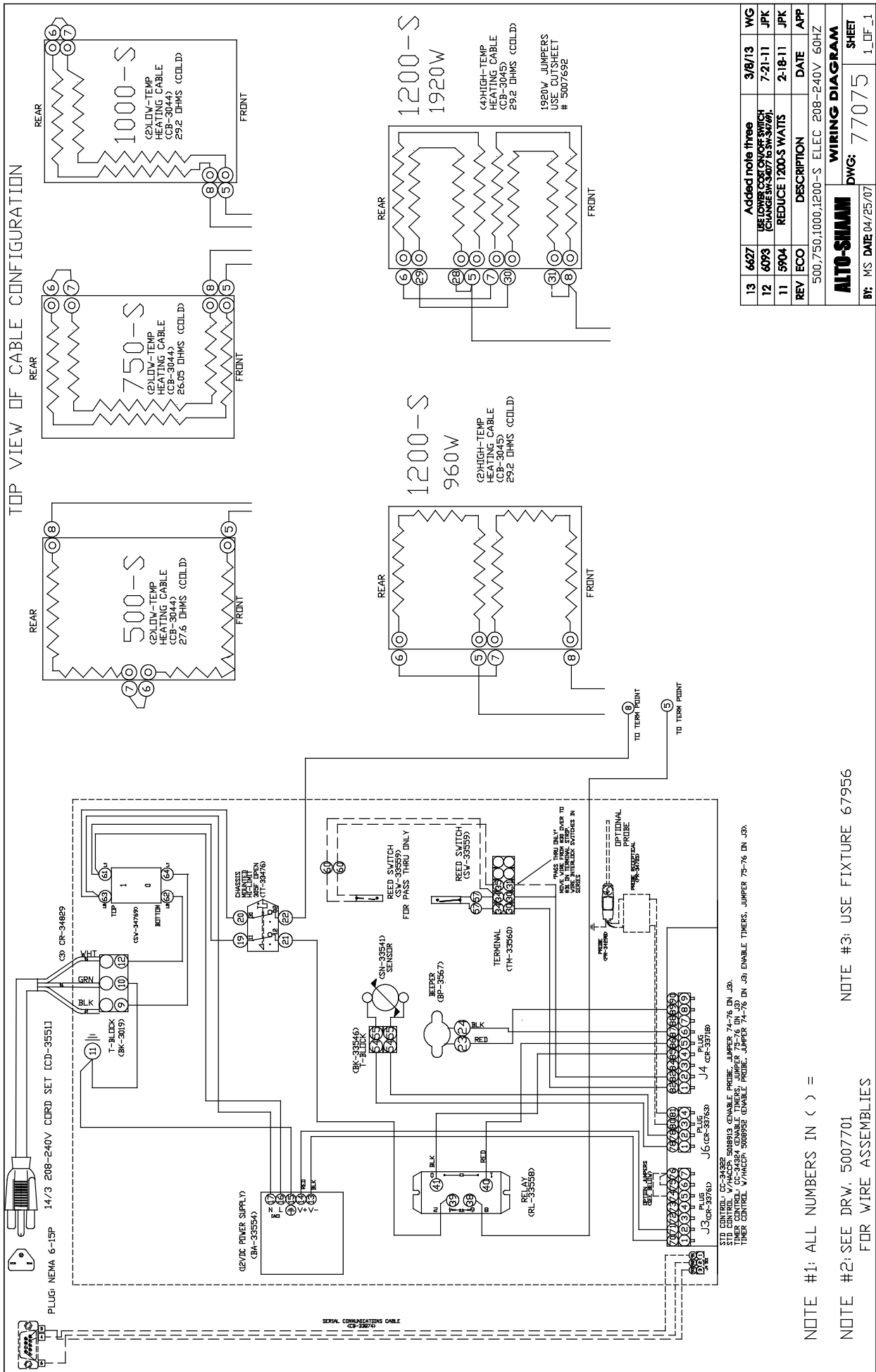
STD CONTROL CS-3438P
 STD CONTROL W/HOLDER 5008918 CABLE PROBE, JUMPER 74-76 DN J3)
 TIMER CONTROL CC-3438A CABLE PROBE, JUMPER 75-76 DN J3)
 TIMER CONTROL W/HOLDER 5008918 CABLE PROBE, JUMPER 74-76 DN J3), ENABLE TIMERS, JUMPER 75-76 DN J3).

NOTE #1: ALL NUMBERS IN () = ALTO-SHAAM PART NUMBERS
 NOTE #2: SEE DRW. 5006457 FOR WIRE ASSEMBLIES
 NOTE #3: USE FIXTURE 67956

REV	ECO	DESCRIPTION	DATE	APP
13	6627	Added note three	3/16/13	WG
12	6093	USE LOWER COST ON/OFF SWITCH (CHANGE SW-3407 TO SW-3226P)	7-21-11	JPK
11	5904	REDUCE 1200-S WATTS	2-18-11	JPK

REV	ECO	DESCRIPTION	DATE	APP
500.750.1000.1200-S		ELEC 120V 60HZ		

WIRING DIAGRAM	
DWG:	7862
BY: MS. DATE: 02/13/07	SHEET 1_OF_1

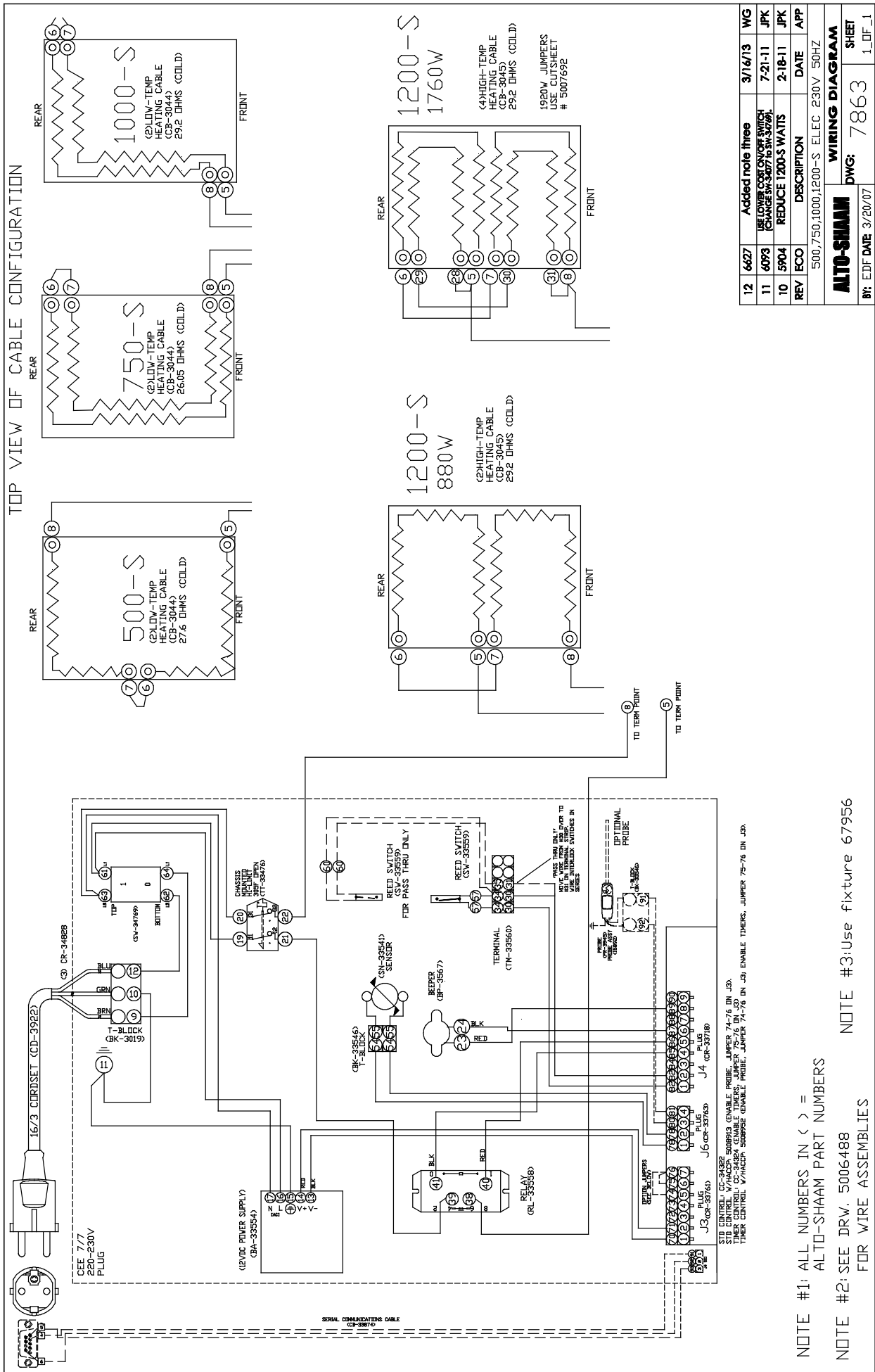


NOTE #1: ALL NUMBERS IN () =

NOTE #2: SEE DRV. 5007701

NOTE #3: USE FIXTURE 67956 FOR WIRE ASSEMBLIES

NOTE #3: USE FIXTURE 67956



NOTE #1: ALL NUMBERS IN () =

ALTO-SHAAM PART NUMBERS

NOTE #2: SEE DRW. 5006488

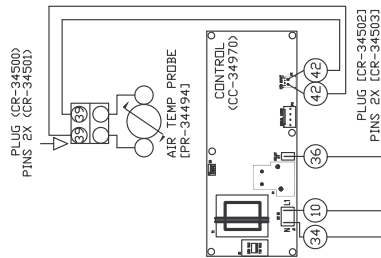
FOR WIRE ASSEMBLIES

NOTE #3: Use fixture 67956

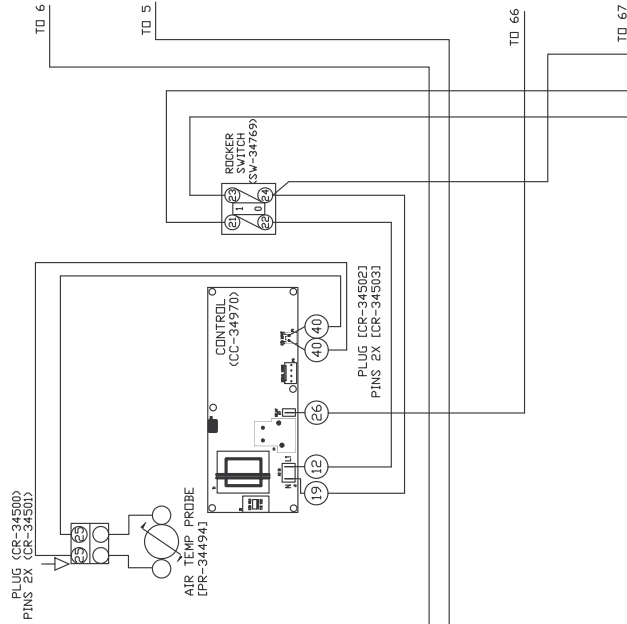
VIEW FROM REAR OF BONNET

(FRONT)

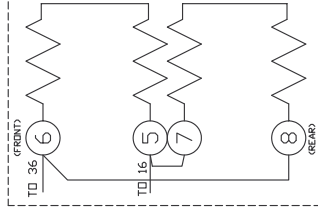
UPPER CONTROLS



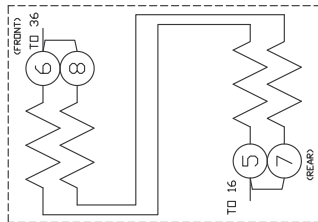
LOWER CONTROLS



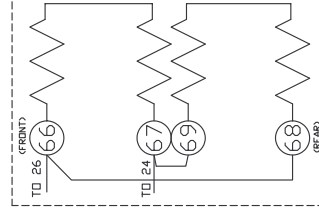
1200-UP UPPER
HI-TEMP
HEATING CABLE
2 LENGTHS OF (CB-3045)
29.2 OHMS EA COLD
30 OHMS EA HOT



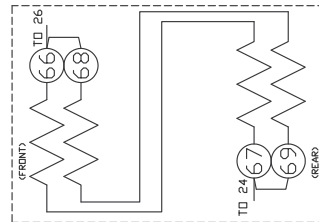
1000-UP UPPER
LOW-TEMP
HEATING CABLE
2 LENGTHS OF (CB-3044)
29.2 OHMS EA COLD
30 OHMS EA HOT



1200-UP LOWER
HI-TEMP
HEATING CABLE
2 LENGTHS OF (CB-3045)
29.2 OHMS EA COLD
30 OHMS EA HOT

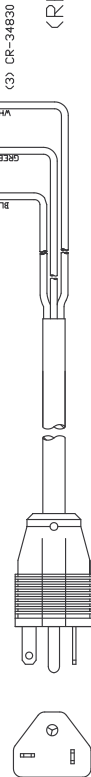


1000-UP LOWER
LOW-TEMP
HEATING CABLE
2 LENGTHS OF (CB-3044)
29.2 OHMS EA COLD
30 OHMS EA HOT



DESIGN	VOLTS	WATTS	AMPS
F	120V	1920W	16A
C	120V	1920W	16A

PLUG, NEMA 5-20P
20 AMP 125 VOLTS



12/3 CORD SET [CD-33824]

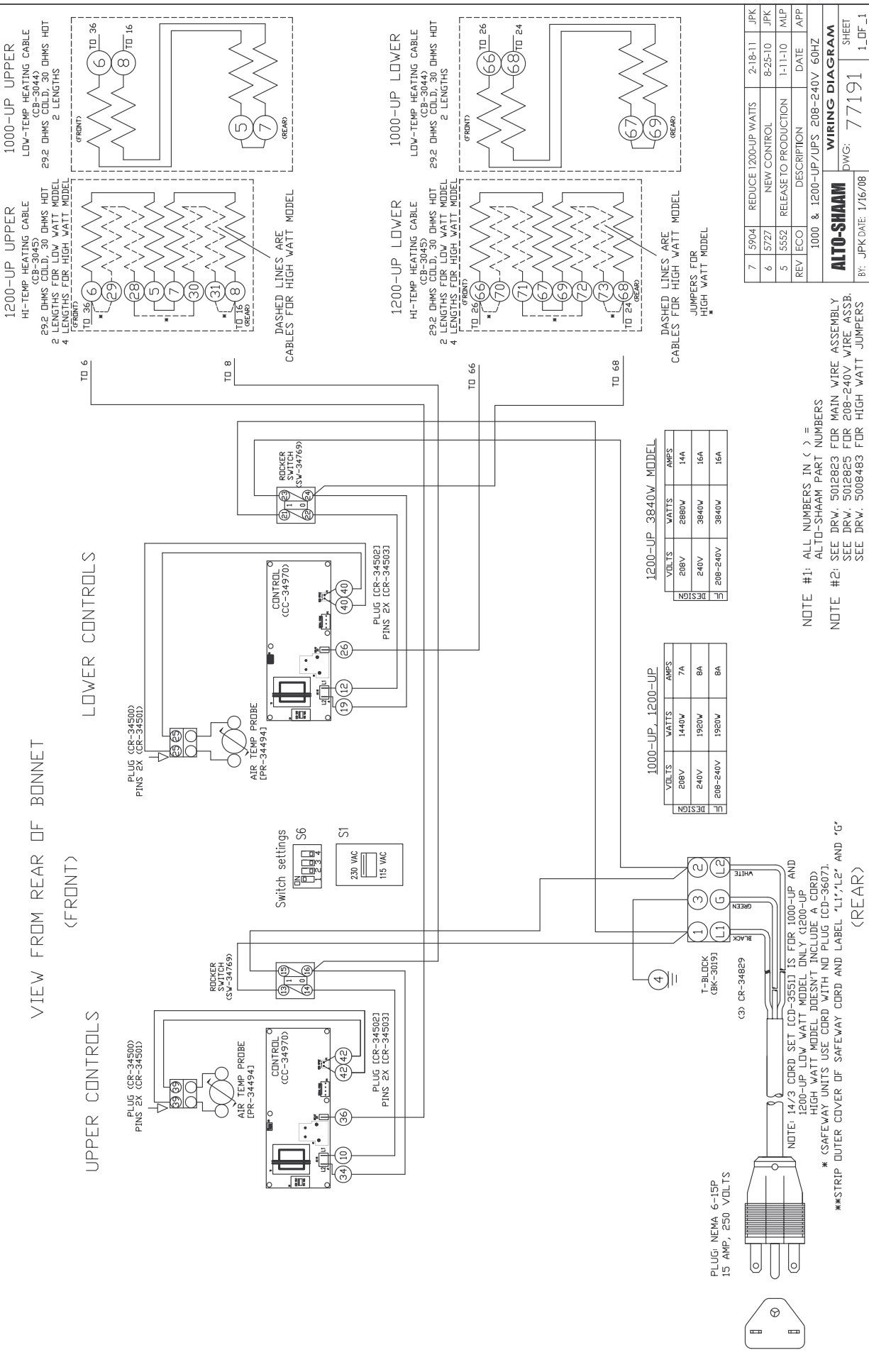
(REAR)

NOTE #1: ALL NUMBERS IN () =
ALTO-SHAM PART NUMBERS
NOTE #2: SEE DRW. 5012823 FOR MAIN WIRE ASSEMBLY
SEE DRW. 5012824 FOR 120V WIRE ASSEMBLY

REV	ECO	DESCRIPTION	DATE	APP
6	5904	REMOVE HTG CABLE LENGTHS	2-18-11	JPK
5	5727	NEW CONTROL	8-25-10	JPK
4	5552	RELEASE TO PRODUCTION	1-11-10	MJP

1000 & 1200-UP/UPS 120V 60HZ

ALTO-SHAM
WIRING DIAGRAM
BY: JPK DATE: 1/16/08 DWG: 77190 SHEET 1_DF_1

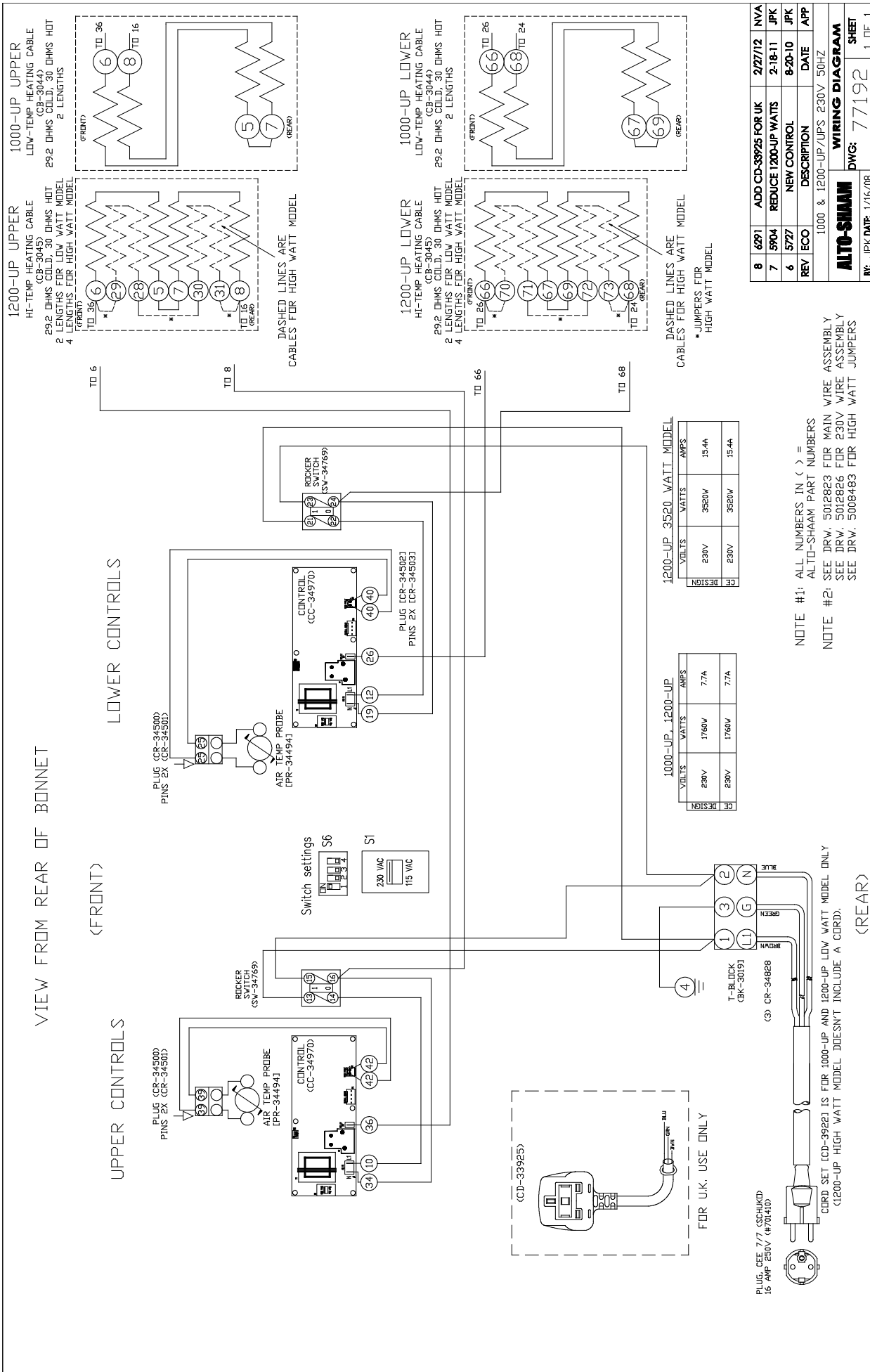


VIEW FROM REAR OF BONNET

<FRONT>

UPPER CONTROLS

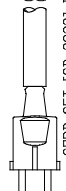
LOWER CONTROLS



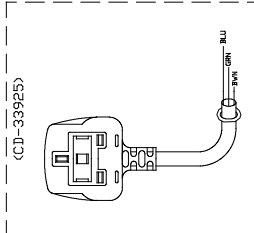
PLUG, CEE 7/7 (SCHUKO)
16 AMP 250V (#701410)



CORD SET (CD-39922) IS FOR 1000-UP AND 1200-UP LOW WATT MODEL ONLY
(1200-UP HIGH WATT MODEL DOESN'T INCLUDE A CORD).



FOR U.K. USE ONLY

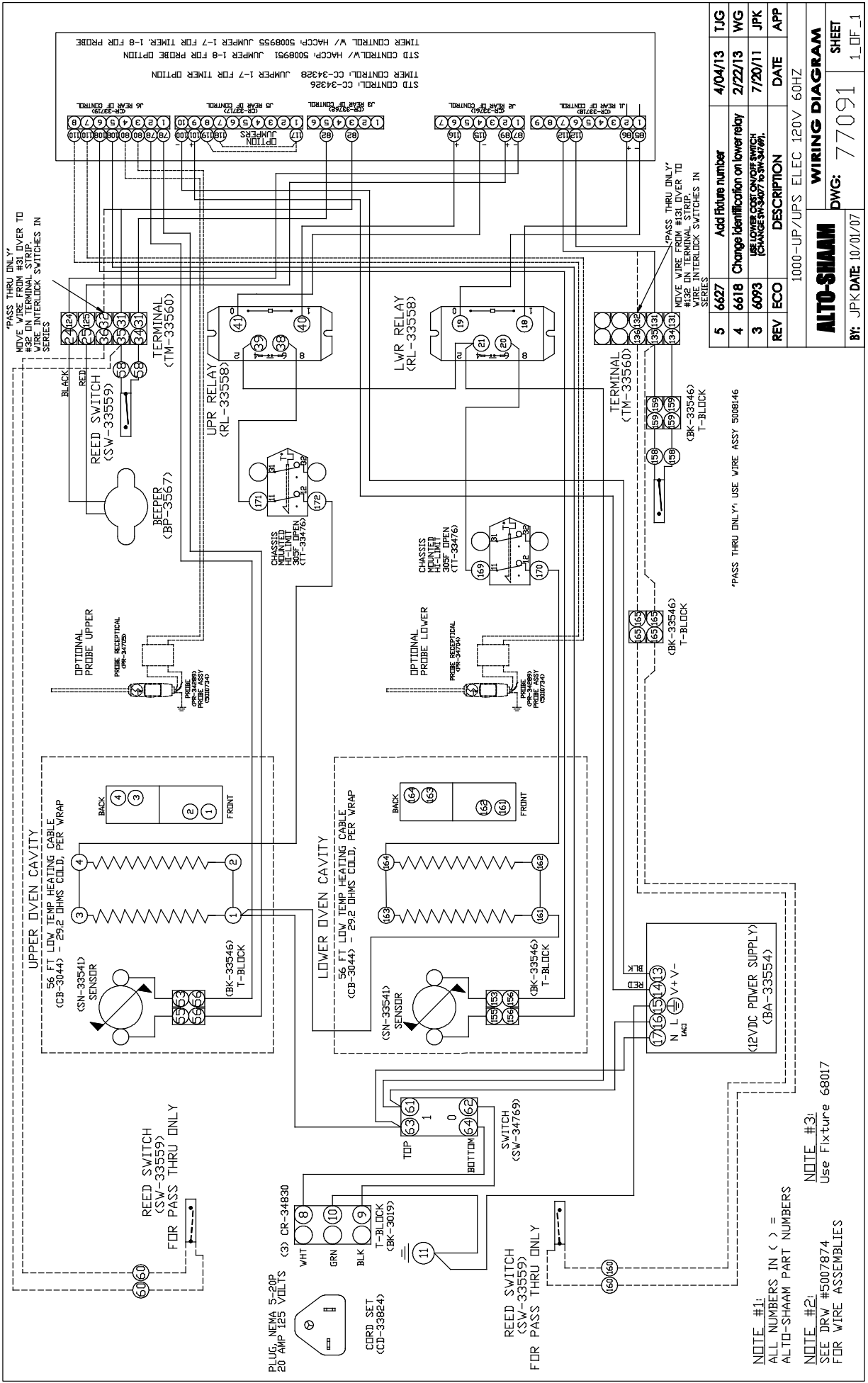


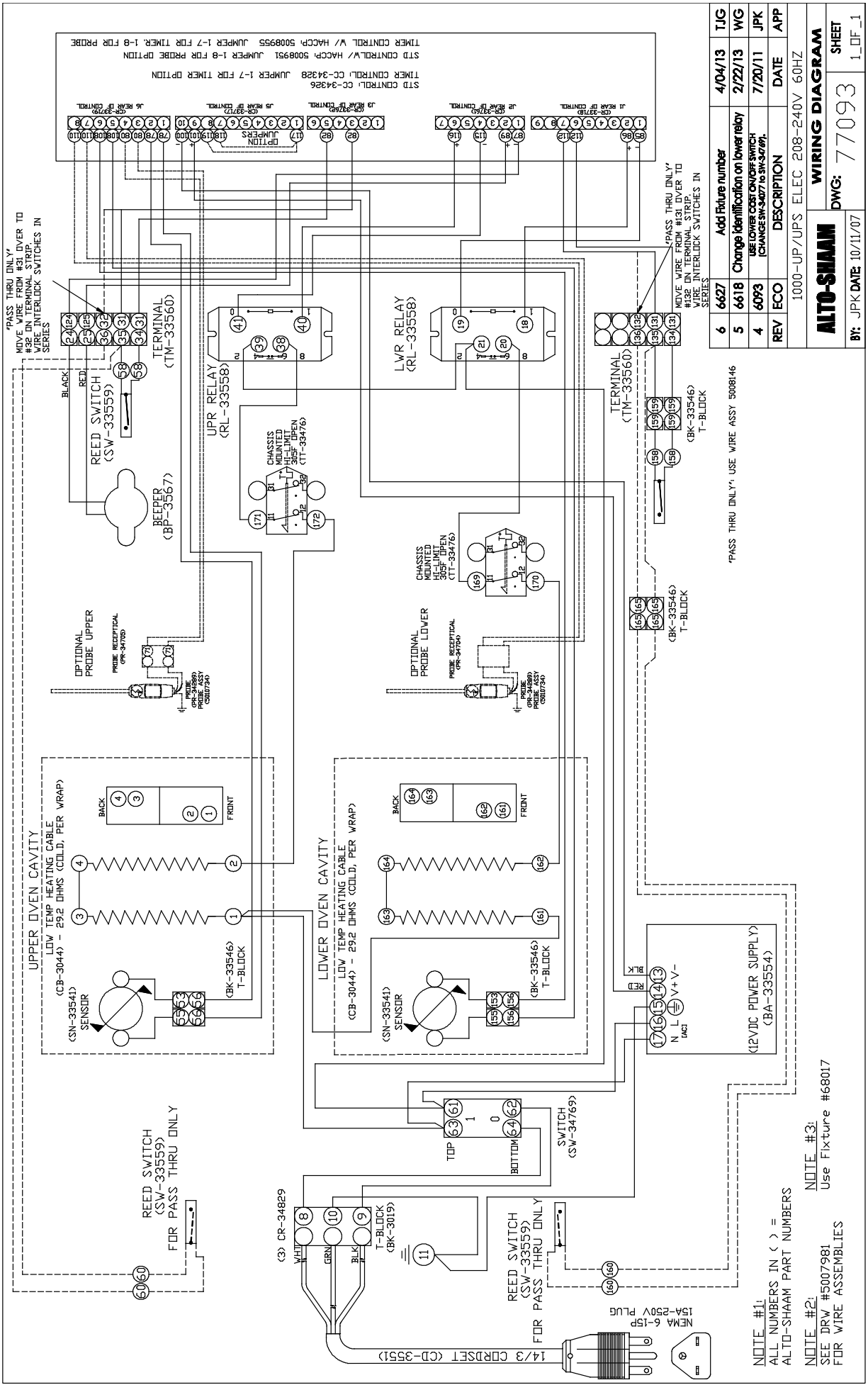
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REV	ECO	DESCRIPTION	DATE	APP
8	6291	ADD CD-39925 FOR UK	2/27/12	NVA
7	5904	REDUCE 1200-UP WATS	2-18-11	JPK
6	5727	NEW CONTROL	8-20-10	JPK

1000 & 1200-UP/UPS 230V 50HZ

ALTO-SHAAM WIRING DIAGRAM
DWG: 77192
BY: JPK/DATE: 1/16/08
SHEET 1 OF 1





REV	ECO	DESCRIPTION	DATE	APP
6	6627	Add fixture number	4/04/13	TJG
5	6618	Change Identification on lower relay	2/22/13	WG
4	6093	Get lower cost ON/OFF switch (change SN-34829 to SN-34767)	7/20/11	JPK

REV	ECO	DESCRIPTION	DATE	APP
1000-UP/UPS	ELEC	208-240V 60HZ		

WIRING DIAGRAM	
DWG: 77093	SHEET 1_OF_1
BY: JPK DATE 10/11/07	

PASS THRU ONLY USE WIRE ASSY 5008146

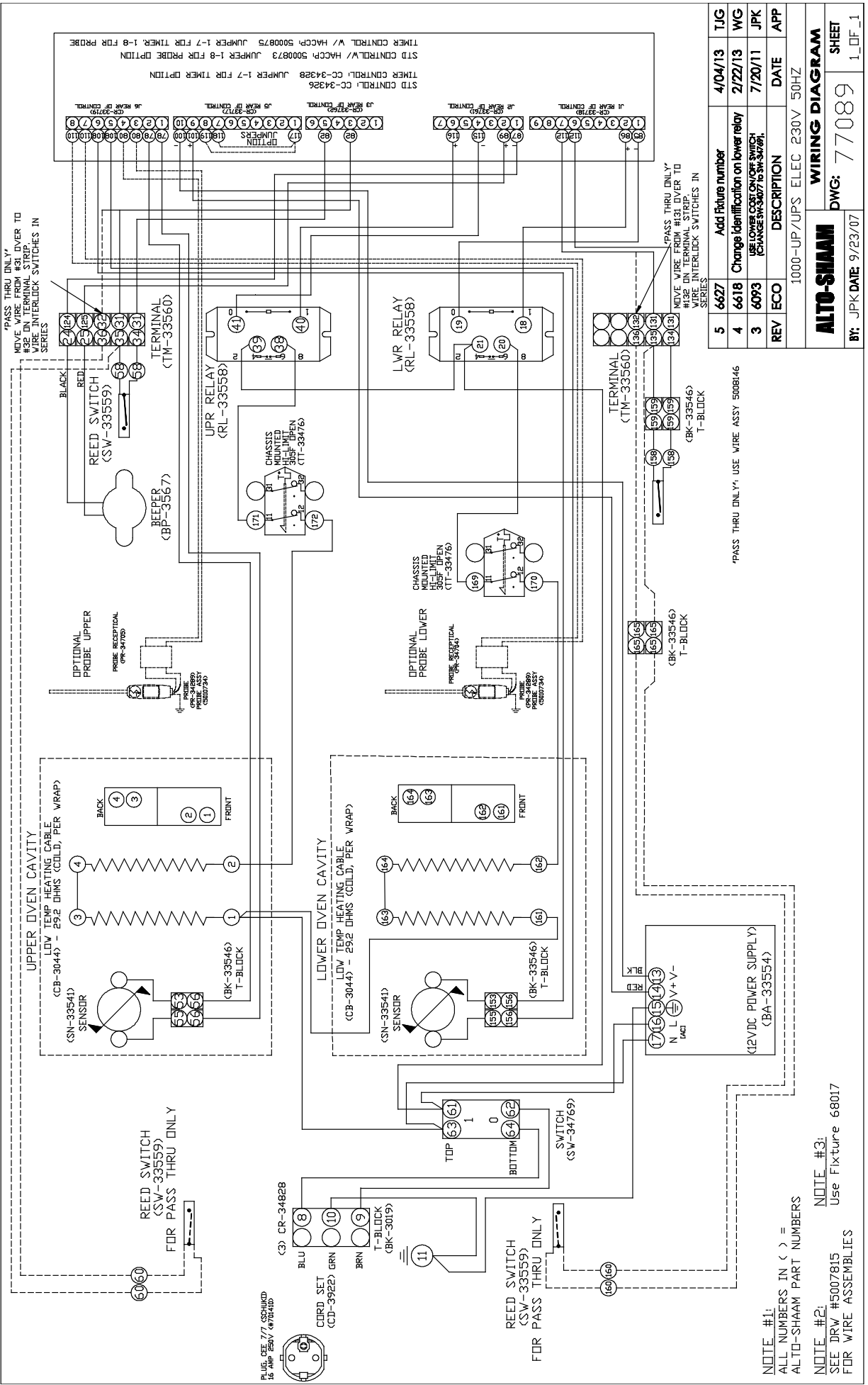
PASS THRU ONLY MOVE WIRE FROM #131 OVER TO #132 ON TERMINAL STRIP. WIRE INTERLOCK SWITCHES IN SERIES.

PASS THRU ONLY MOVE WIRE FROM #31 OVER TO #32 ON TERMINAL STRIP. WIRE INTERLOCK SWITCHES IN SERIES.

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

NOTE #2:
SEE DRW #5007981 FOR WIRE ASSEMBLIES

NOTE #3:
Use Fixture #68017



REV	ECO	DESCRIPTION	DATE	APP
5	6627	Add Fixture number	4/04/13	TJG
4	6618	Change Identification on lower relay REPLACE SW-33559 WITH SW-33554	2/22/13	WG
3	6093	REPLACE SW-33559 WITH SW-33547	7/20/11	JPK

REV	ECO	DESCRIPTION	DATE	APP
1000	UP/JPS	ELEC 230V 50HZ		

ALTO-SHAAM

WIRING DIAGRAM
DWG: 77089
BY: JPK DATE: 9/23/07

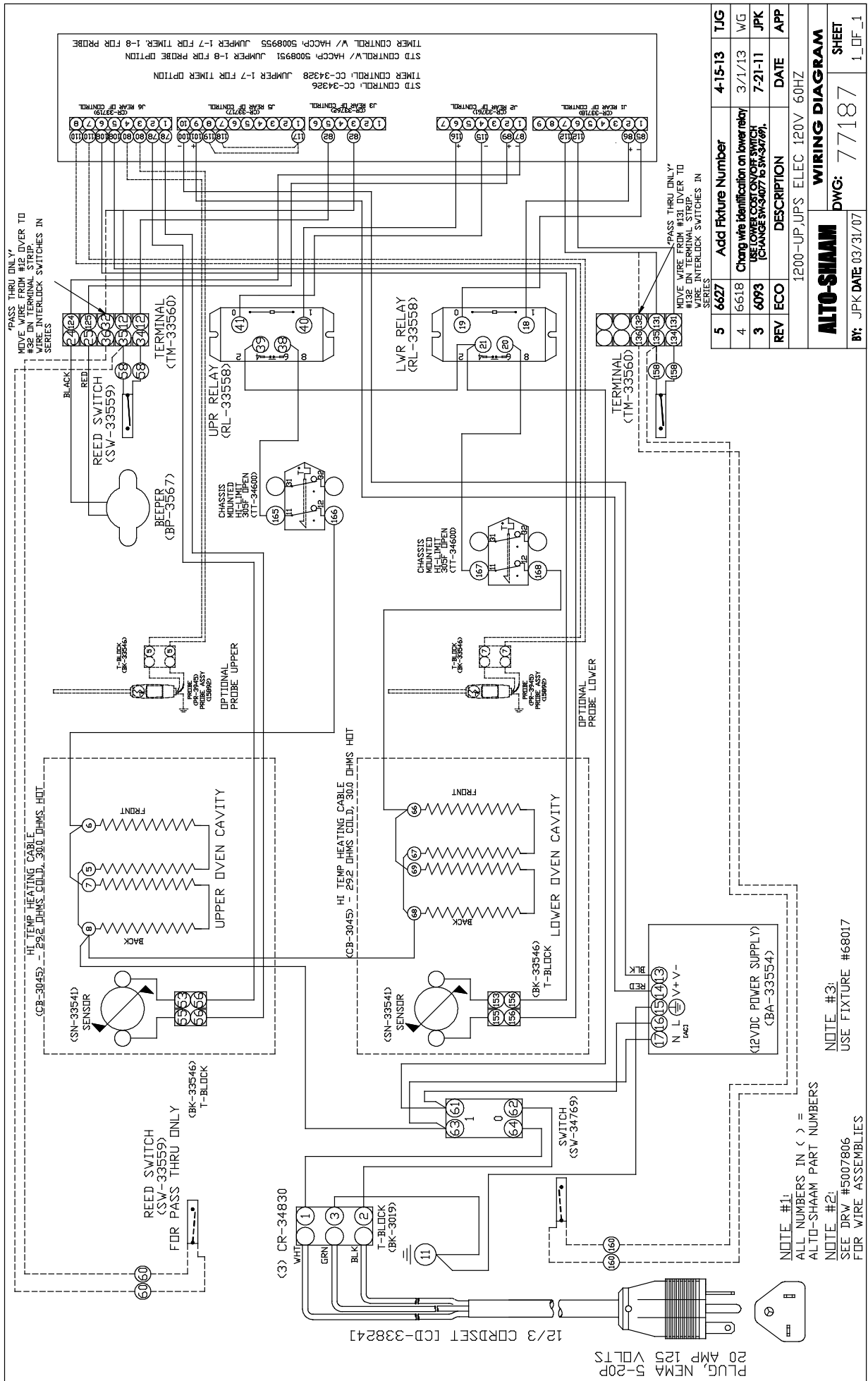
NOTE #1:
ALL NUMBERS IN () =
ALTO-SHAAM PART NUMBERS

NOTE #2:
SEE DRW #5007815
FOR WIRE ASSEMBLIES

NOTE #3:
Use Fixture 68017

PASS THRU ONLY USE WIRE ASSY 5008146

PASS THRU ONLY
MOVE WIRE FROM #31 DIVER TO
#13E ON TERMINAL STRIP
LEAVE INTERLOCK SWITCHES IN
SERIES.



PLUG, NEMA 5-20P
 20 AMP 125 VOLTS
 12/3 CORDSET ICD-33824

- NOTE #1:
 ALL NUMBERS IN () =
 ALTO-SHAAM PART NUMBERS
- NOTE #2:
 SEE DRW #5007806
 FOR WIRE ASSEMBLIES

- NOTE #3:
 USE FIXTURE #68017

5	6627	Add Fixture Number	4-15-13	TJG
4	6618	Change wire identification on lower relay	3/1/13	W/G
3	6093	Change COB on upper switch (CHANGE SW-33571 to SW-34971).	7-21-11	JKP
REV	ECO	DESCRIPTION	DATE	APP
1200-UP,UPS ELEC 120V 60HZ				

ALTO-SHAAM
 DWG: 77187
 SHEET 1_OF_1

STD CONTROL, CC-34326
 JUMPER 1-7 FOR TIMER OPTION

STD CONTROL, CC-34328
 JUMPER 1-7 FOR TIMER OPTION

STD CONTROL, CC-34326
 JUMPER 1-8 FOR PROBE OPTION

STD CONTROL, HAACP, 5008951
 JUMPER 1-8 FOR PROBE OPTION

REED SWITCH (SW-33559)
 FOR PASS THRU ONLY
 (CBK-33546)
 T-BLOCK

BEOPER (BP-3567)

UPPER OVEN CAVITY
 FRONT BACK
 HI TEMP HEATING CABLE
 (CB-3045) - 29.2 DHMS COLD, 30.0 DHMS HOT

OPTIONAL PROBE UPPER
 CHASSIS MOUNTED HET PROBE (TT-3460D)

UPR RELAY (RL-33558)

REED SWITCH (SW-33559)

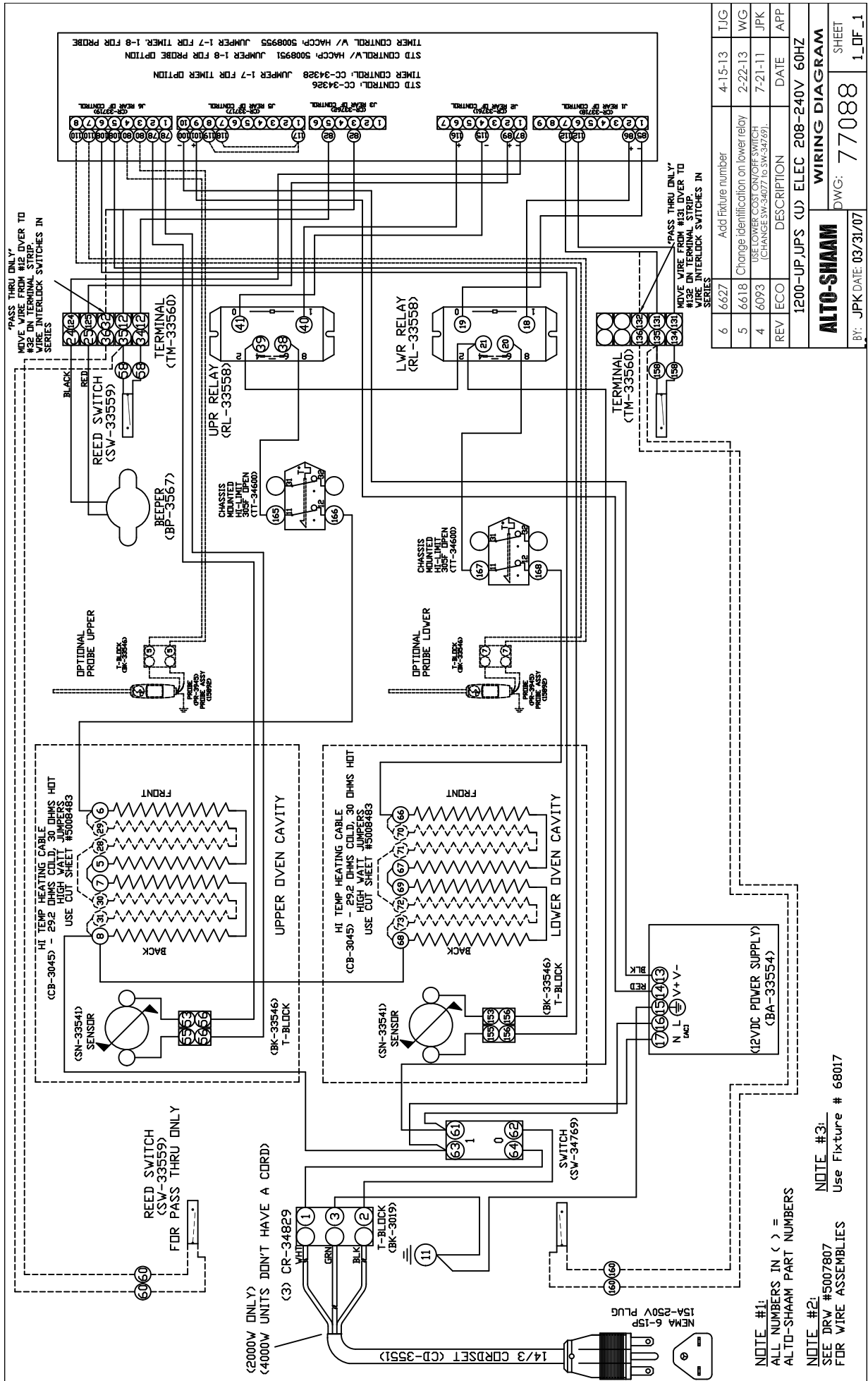
HI TEMP HEATING CABLE (CB-304S) - 29.2 DHMS COLD, 30.0 DHMS HOT

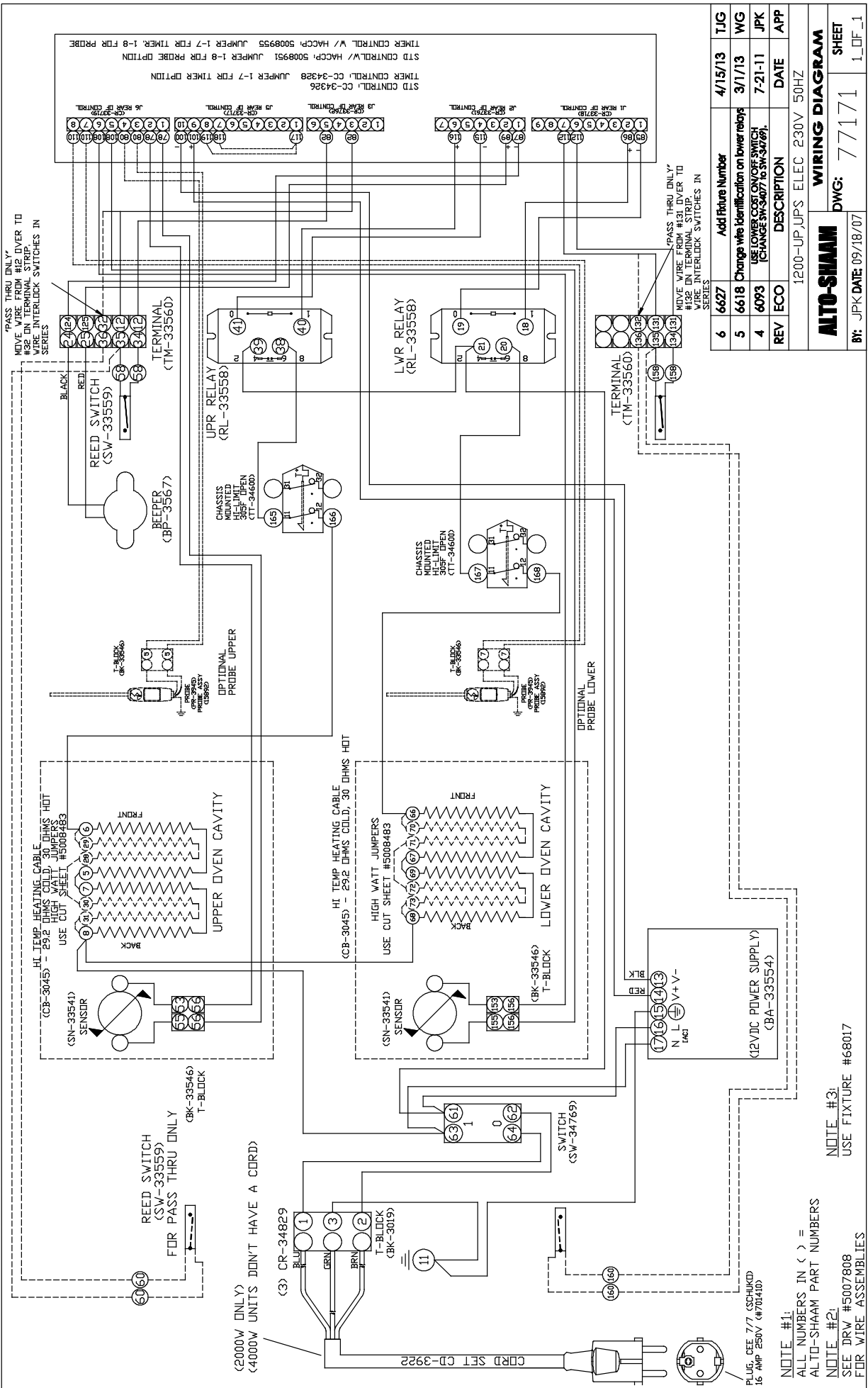
LOWER OVEN CAVITY
 FRONT BACK
 HI TEMP HEATING CABLE (CB-304S) - 29.2 DHMS COLD, 30.0 DHMS HOT

OPTIONAL PROBE LOWER
 CHASSIS MOUNTED HET PROBE (TT-3460D)

LVR RELAY (RL-33558)

REAR OF CONTROL
 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000





REV	ECO	DESCRIPTION	DATE	APP
6	6627	Add fixture Number	4/15/13	TJG
5	6618	Change wire identification on lower relays	3/1/13	WG
4	6093	USE LOWER COAST ON/OFF SWITCH (CHANGE SW-3407 TO SW-3407F).	7-21-11	JPK

REV	ECO	DESCRIPTION	DATE	APP
1200-UP,UPS	ELEC	230V 50HZ		

ALTO-SHAAM
WIRING DIAGRAM
 DWG: 77171
 SHEET 1 OF 1

DATE: 05/18/07
 JPK

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

NOTE #2:
 SEE DRW #5007808
 FOR WIRE ASSEMBLIES

NOTE #3:
 USE FIXTURE #68017

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 original parts warranty period is as follows:

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

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 original parts, one (1) year from the date of installation of appliance 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.



Effective November 1, 2012

RECORD THE MODEL AND SERIAL NUMBER OF THE APPLIANCE FOR EASY REFERENCE.

ALWAYS REFER TO BOTH MODEL AND SERIAL NUMBER IN ANY CONTACT WITH ALTO-SHAAM REGARDING THIS APPLIANCE.

Model: _____ Date Installed: _____
Voltage: _____ Purchased From: _____
Serial Number: _____

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