

ALTO SHAAM®

OPERATION and CARE MANUAL



HOT DISPLAY CASE

MODELS:	TY-96	TYSYS-96
	TY-96/PR	TYSYS-96/PR
	TY-96/PL	TYSYS-96/PL
	TYSYS-96/4L	TYSYS-96/4R
	TYSYS-96/41L	TYSYS-96/41R



HALO HEAT COOK/HOLD/SERVE SYSTEMS

W164 N9221 Water Street • P.O. Box 450 • Menomonee Falls, Wisconsin 53052-0450 U.S.A.

PHONE: 262.251.3800
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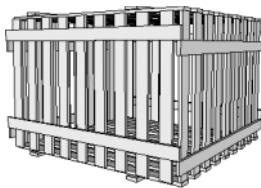
FAX: 262.251.7067 • 800.329.8744 U.S.A. ONLY
262.251.1907 INTERNATIONAL

WEBSITE:
www.alto-shaam.com

ALTO-SHAAM® HOT DISPLAY CASES

UNPACKING and SET-UP

The Alto-Shaam Hot Display Case has been thoroughly tested, checked for calibration, and inspected to insure only the highest quality cabinet is provided. When you receive your display case, check for any possible shipping damage and report it at once to the delivering carrier.



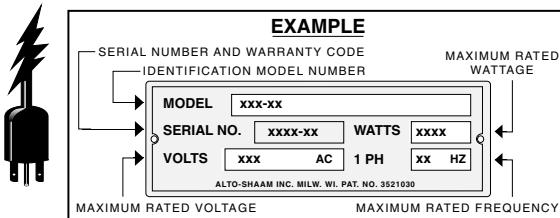
In order to maintain established National Sanitation Foundation standards, all floor models must be sealed to the floor with a R.T.V. or silastic meeting N.S.F. requirements or have 6" (152mm) unobstructed clearance beneath the unit. Counter and table units must be mounted on legs of a sufficient 4" (102mm) height to provide minimum unobstructed space beneath the unit. These legs are supplied with the unit. Warranty will become null and void if these directions are not followed.

Save all the information and instructions packed inside the display case. Complete and return the warranty card to the factory as soon as possible to assure prompt service in the event of a warranty parts and labor claim.

NOTE: Any and all claims for warranty must include the full model and serial number of the display case.

ELECTRICAL INSTALLATION

The unit must be installed by an authorized service agent in accordance with national codes.



1. An identification tag is permanently mounted on case.
2. Plug the case into a properly grounded receptacle ONLY.

Arcing will occur when connecting or disconnecting the display case unless all controls are in the OFF position.



**ENSURE POWER SOURCE MATCHES
VOLTAGE STAMPED
ON NAMEPLATE OF UNIT**

3. REGARDING INTERNATIONAL STANDARD UNITS:
If the unit is not equipped with flexible cord with plug, an all-pole country approved disconnection device which has a contact separation of at least 3mm in all poles must be incorporated in the fixed wiring for disconnection. When using a cord without a plug, the green/yellow conductor shall be connected to the terminal which is marked with the ground symbol. If a plug is used, the socket outlet must be easily accessible. If power cord needs replacement, use a similar one obtained from the distributor.

PROCEDURES

1. DO NOT ADD WATER TO THE DISPLAY CASE

Halo Heat display cases maintain a constant but gentle temperature and eliminate much of the moisture loss associated with conventional display cases. Because of this gentle heat, it is not necessary to add water to the unit. As a matter of fact, **adding water is not recommended** since water will accelerate the deterioration of the product and may damage the unit.

2. PLACE DIVIDERS and SERVING PANS IN CASE

Refer to the pan layout diagrams for different types of pan accommodations. A complete pan configuration layout is located in this manual. *It is VERY important to note*, no matter what type of pan configuration you choose, *pan divider bars with the desired pans must be in place prior to preheating the unit*. If air gaps are not closed, heat distribution will be uneven, and uniform temperature will be difficult to maintain. Additional pan divider bars are available if needed.

3. TURN DISPLAY LIGHTS "ON" AND SET THE THERMOSTAT(s) AT NUMBER "10" TO PREHEAT

An indicator light will illuminate when the thermostat(s) is (are) turned "ON." The indicator(s) will remain lit as long as the unit is preheating or calling for heat. The unit should be preheated, at the number 10 setting, for a minimum of twenty minutes before loading the case with food. When preheating is completed, or whenever the unit reaches any temperature set by the operator between 1 and 10, the indicator light(s) will go "OUT".

4. LOAD HOT FOODS INTO THE CASE

Be certain only hot food is transferred into the case. Before loading food into the case, use a pocket-type meat thermometer to make certain all products have reached an internal temperature of 140° to 160° F (60° to 71°C). If any food product is not at proper serving temperature, use a Halo Heat cooking and holding oven, set at 250° to 275°F (121° to 135°C), or use an Alto-Shaam Combitherm oven to bring the product within the correct temperature range. **Be certain only hot PREPACKAGED foods are used in the self-service section of the deli case.**

5. RESET THERMOSTAT AS NEEDED

After all products are loaded into the display case and the doors are closed, reset the thermostat(s) to the number "8" setting. **THIS WILL NOT NECESSARILY BE THE FINAL SETTING**. Since proper temperature range depends on the type of products and the quantities being held, it is necessary to periodically use a pocket thermometer to check each item to make certain the correct temperatures are being maintained. Proper temperature range is between 140° and 160°F (60° and 71°C). Normally, this will require a thermostat setting of between number "6" and "8," although a higher or lower setting may sometimes be required.

6. MULTIPLE TIMER/PROBE OPTION

A multiple timer/probe system is available for this case. This system is a timer-based food management system, utilized with HACCP programs, that ensures proper rotation, food integrity, safety and quality. The multiple-timer station keys correspond to various pan locations

in the display case. Please contact the factory for further information.

7. PLACEMENT OF FOOD PROBE (OPTIONAL)

If the unit is equipped with the probe accessory, wipe each probe and probe tip with a disposable alcohol pad to clean and sanitize before using. If the probe is left in its bracket, the LED temperature display will indicate the ambient air temperature inside the case. To place a probe into food kept in the case, remove the probe from the bracket and push the probe tip halfway into the product, positioning the tip at the center of the food mass. If placing into solid foods such as meat roast or poultry breasts, push the probe in from a straight downward position or in from the side to the center position.

If placing into a semi-liquid or liquid product, the probe cable will probably need to be secured to keep the probe positioned properly. Do not let the probe tip touch the edges or side of the container. Tape the probe cable to the lip or edge of the container. Wipe each probe tip with a clean paper towel to remove food debris after each use. Follow by wiping probes with a disposable alcohol pad. Return each probe to the proper bracket position.

8. SERVE FRESH HOT FOOD

Keep hot foods looking fresh. Occasionally stir or rotate foods as needed. Serve products in the proper package or container. Keep doors closed after serving. Wipe spills immediately – assuring maximum eye appeal.

CARE and CLEANING

THOROUGHLY CLEAN THE DISPLAY CASE DAILY

1. Turn lights and adjustable thermostat(s) to the "OFF" position. Remove, cover or wrap, and store unused products under refrigeration.
2. Clean the interior metal surfaces of the cabinet with a damp cloth and any good alkaline or alkaline chlorinated based commercial detergent or grease solvent at the recommended strength. Use a plastic scouring pad or oven cleaner for difficult areas. Avoid the use of abrasive cleaning compounds, chloride based cleaners, or cleaners containing quaternary salts. Rinse well to remove all residue and wipe dry.



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

3. Clean the glass with glass cleaner.
4. Maintain the protective film coating on polished stainless steel by cleaning the exterior with a cleaner recommended for stainless steel. Spray the cleaning agent on a clean cloth and wipe with the grain of the stainless steel.

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

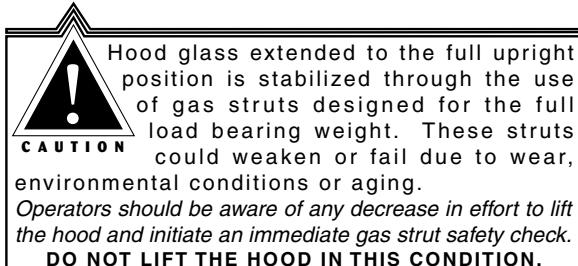
DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.



AT NO TIME SHOULD THE CASE BE STEAM CLEANED, FLOODED WITH WATER OR LIQUID SOLUTION. NEVER STEAM CLEAN. SEVERE DAMAGE OR ELECTRICAL HAZARD COULD RESULT.

CLEAN THE PROBES DAILY

Remove all food soil from probes. Wipe entire probe and cable assembly with warm detergent solution and a clean cloth. Remove detergent by wiping each probe and cable with clean rinse water and a cloth. Wipe probes with disposable alcohol pad or sanitizing solution recommended for food contact surfaces. Allow probe and cable to air dry in probe holding bracket.



SAFETY ALERT

This units performance has been optimized using the factory provided lamps. These lamps should be replaced with an exact replacement or with a factory recommended replacement. These lamps have been treated to resist breakage and must be replaced with similarly treated lamps in order to maintain compliance with NSF standards.



SANITATION GUIDELINE

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 no 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.

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°F TO 40°F (2°C 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)	

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 are both cost effective and relatively simple. While HACCP guidelines go far beyond the scope of this manual, additional information is available by contacting the USDA/FDA Food-borne Illness Education Information Center at (301)504-6803.

GENERAL HOLDING GUIDELINE

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.

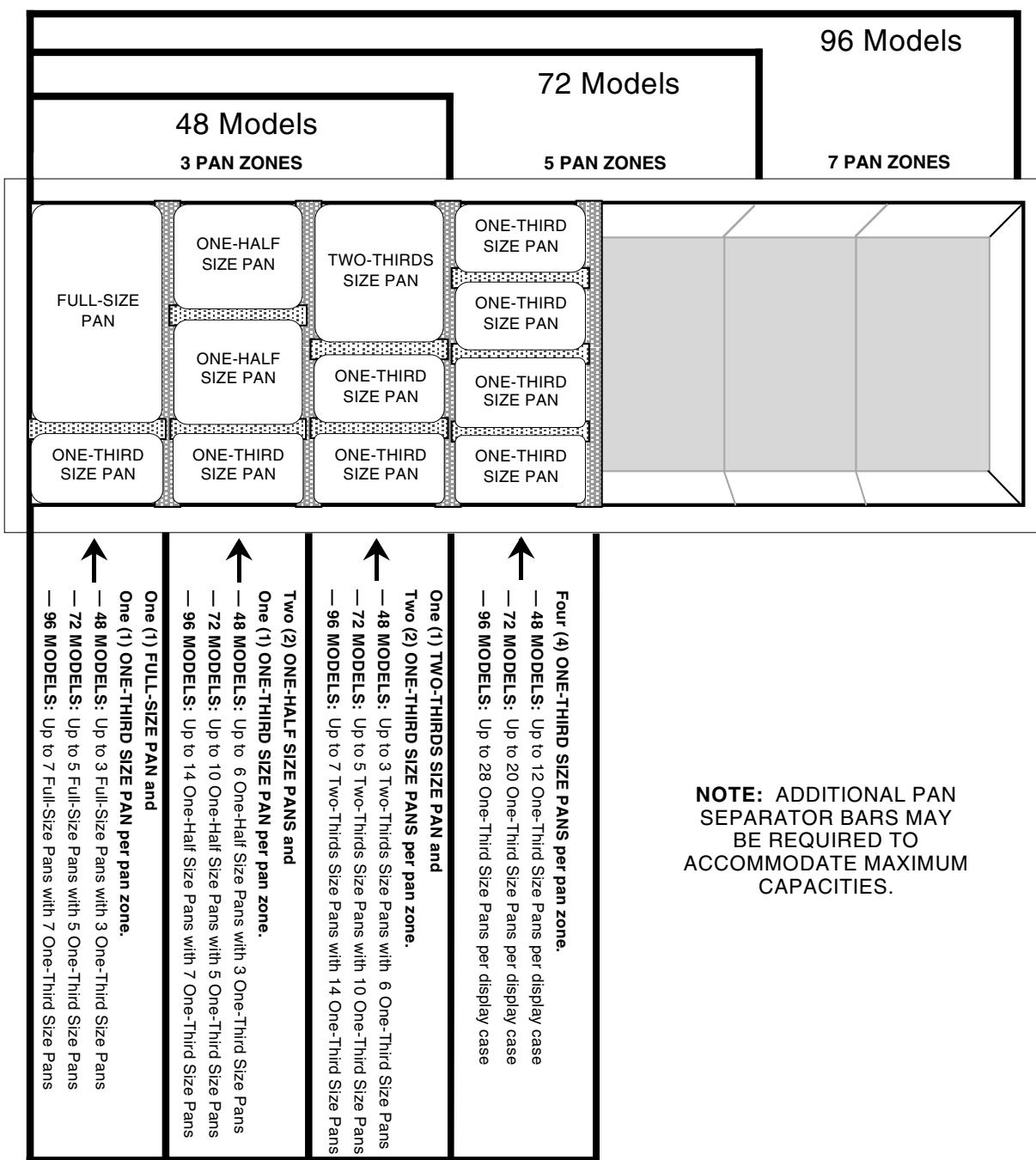
Most Halo Heat Holding Equipment is provided with a thermostat control between 60° and 200°F (16° to 93°C). If the unit is equipped with vents, close the vents for moist holding and open the vents for crisp holding.

If the unit is equipped with a thermostat indicating a range of between 1 and 10, use a metal-stemmed indicating thermometer to measure the internal temperature of the product(s) being held. Adjust the thermostat setting to achieve the best overall setting based on internal product temperature.

HOLDING TEMPERATURE RANGE		
MEAT	FAHRENHEIT	Celsius
BEEF ROAST — Rare	140°F	60°C
BEEF ROAST — Med/Well Done	160°F	71°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	140°F	60°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	180°F	82°C
SAUCES	140° — 200°F	60° — 93°C
SOUP	140° — 200°F	60° — 93°C
VEGETABLES	160° — 175°F	71° — 79°C

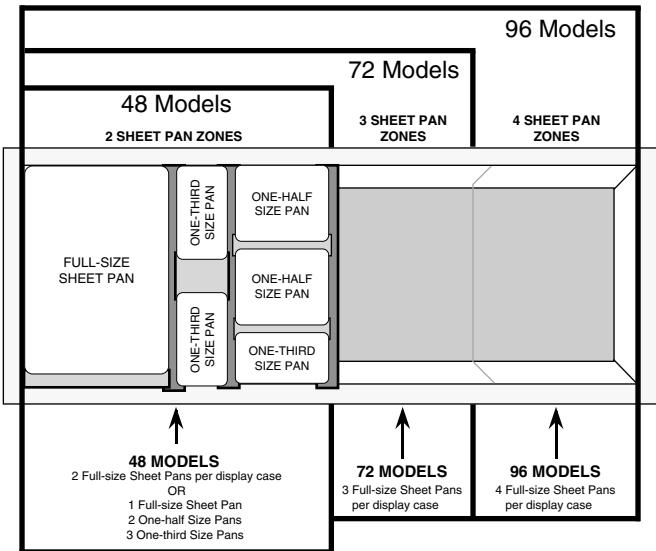
THE HOLDING TEMPERATURES LISTED ARE SUGGESTED GUIDELINES.

PAN CONFIGURATIONS • HOT DELI DISPLAY CASES



ITEM NO.	DESCRIPTION	SIZE (W x L)	MODELS			
			48	72	96	
11046	SHEET PAN DIVIDER BAR	1-3/8" x 27-13/16"	(35mm x 706mm)	1	—	—
11047	ONE-THIRD SIZE PAN	3-1/4" x 7"	(83mm x 178mm)	1	—	—
11317	FULL, HALF & THIRD SIZE - LONG	1" x 27-7/8"	(25mm x 708mm)	2	4	6
11318	FULL, HALF & THIRD SIZE - SHORT	1" x 12-3/4"	(25mm x 324mm)	9	15	21
11319	SHEET PAN DIVIDER BAR	3-1/4" x 27-3/16"	(83mm x 706mm)	1	—	—
11320	SHEET PAN DIVIDER BAR	1-3/4" x 17-3/4"	(45mm x 451mm)	2	3	4
11357	SHEET PAN DIVIDER BAR	5-29/32" x 27-13/16"	(150mm x 706mm)	—	2	3
11732	SHEET PAN FILLER	3-3/4" x 27-13/16"	(95mm x 706mm)	—	4	1
1865	GASTRONORM DIVIDER (220V)	7/8" x 27-7/8"	(22mm x 708mm)	2	—	6

SHEET PAN CONFIGURATIONS • HOT DELI DISPLAY CASES



ACCESSORIES

Custom Panel, End Panel & Bumper Colors FACTORY QUOTE
End Panels

- Black Patch PE-22708
- Solid Black Patch, Right Hand PE-23674
- Solid Black Patch, Left Hand PE-23675
- End Patch/Kiosk Assembly Kit, s/s, TY ONLY 14600
- Bulbs
- 100 Watt, 120V STANDARD LP-3333
- 100 Watt, 130V LP-33253
- 100 Watt, 230V LP-3384
- Independent Circuit Cordset Pkg, TY 120V ONLY 14221
- Independent Load Center Pkg, TYSYS 120V ONLY 14220

NOT CSA APPROVED

- Interior Ambient Temperature Gauge GU-33384
- Menu Board System (two required) MB-23092
- Pocket Thermometer °F TH-3300
- Pocket Thermometer °C TH-3412
- Product Probe Package: 120V ONLY
- TY-96 5297
- TY-96/PL, /PR 5296
- TY-96/4L, /4R, /41L, /41R 5295
- Reflective Tempered Glass Case End Panes
- RIGHT-HAND GL-22539
- LEFT-HAND GL-22538
- Scale Platform Package 120V ONLY 14102
- Stainless Steel Front Panel 12646
- Tempered Glass End Spacer GL-22719
- Display Case Multiple Timer/Probe FACTORY QUOTE

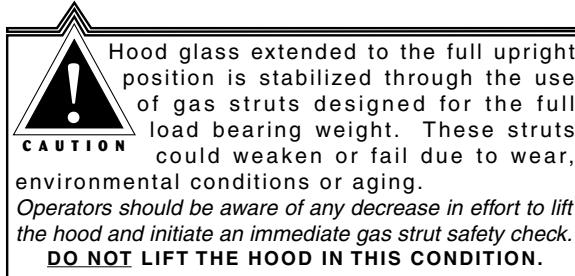
SAFETY ALERT



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CAUTION



Cable Heating Service Kits for TY-96/PL & TY-96/PR and TYSYS-96/PL or PR Nos. 4881 & 4878

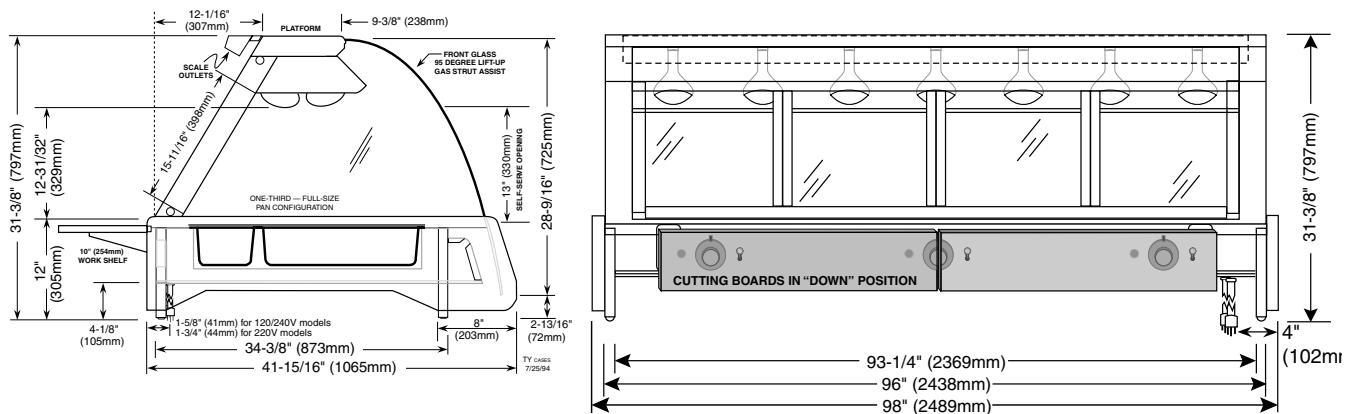
include:

CB-3045	Cable Heating Element	210'	72'
CR-3226	Ring Connector	12	4
IN-3488	Insulation Corner	1'	1'
BU-3105	Shoulder Bushing	12	4
BU-3106	Cup Bushing	12	4
SL-3063	Insulating Sleeve	12	4
TA-3540	Electrical Tape	1 roll	1 roll
NU-2215	10x32 Hex Nut	24	8
ST-2439	Stud	12	4



At no time should the inside or outside of the cabinet be washed down, flooded with water or liquid solution. **NEVER STEAM CLEAN.** Severe damage or electrical hazard could result.

TY-96 HOT DISPLAY CASE

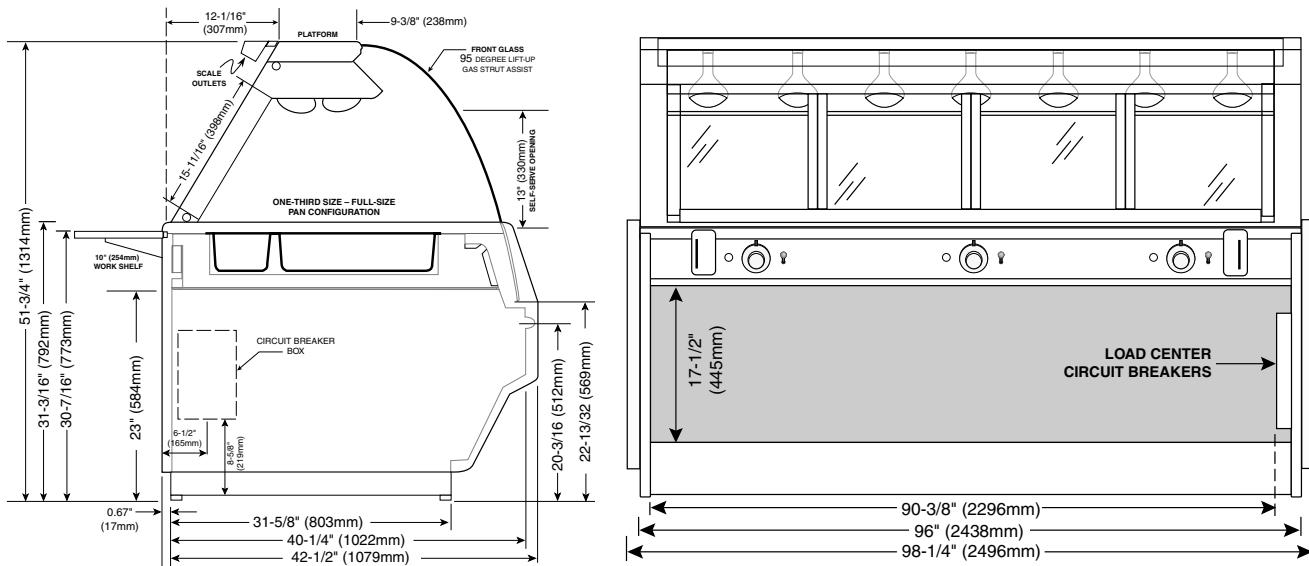


Cable Heating Service Kit No. 14228 for TY-96 & TYSYS-96

includes:

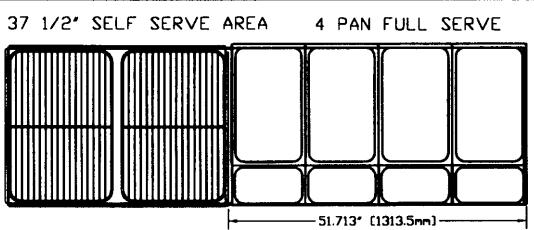
CB-3045	Cable Heating Element	265 feet
CR-3226	Ring Connector	8
IN-3488	Insulation Corner	1 foot
BU-3105	Shoulder Bushing	8
BU-3106	Cup Bushing	8
SL-3063	Insulating Sleeve	8
TA-3540	Electrical Tape	1 roll
NU-2215	10x32 Hex Nut	32
ST-2439	Stud	8

TYSYS-96 HOT DISPLAY CASE

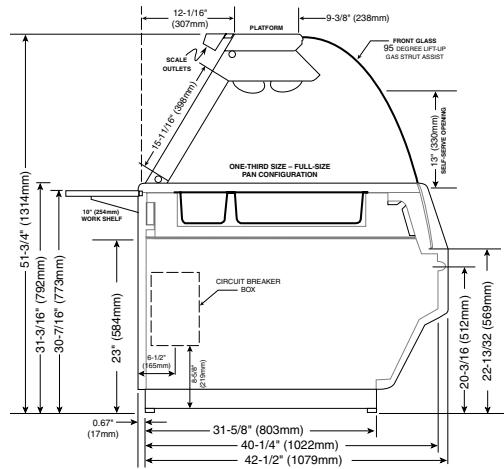
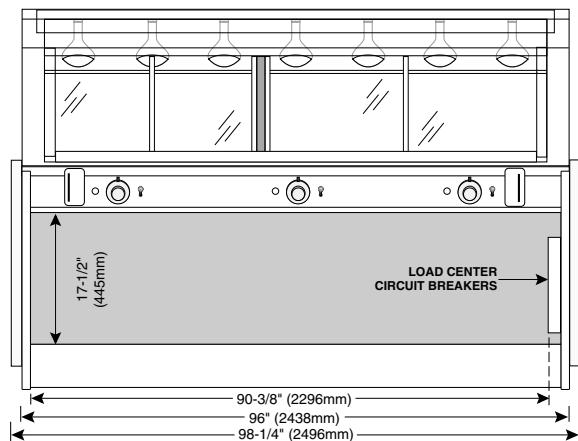


TYSYS-96/41R

- CUSTOMER SIDE -

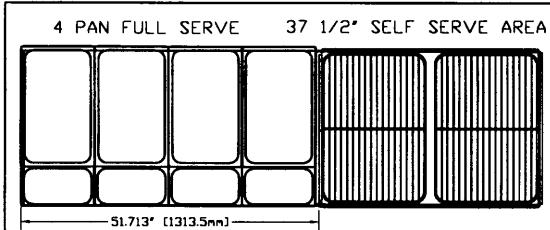


- OPERATOR SIDE -

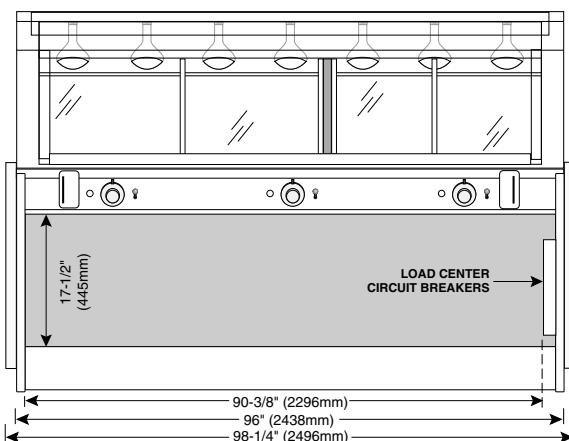


TYSYS-96/41L

- CUSTOMER SIDE -



- OPERATOR SIDE -



Cable Heating Service Kit No. 14228 for TYSYS-96/4L & TYSYS-96/4R TYSYS-96/41L & TYSYS-96/41R

includes:

CB-3045	Cable Heating Element	265 feet
CR-3226	Ring Connector	8
IN-3488	Insulation Corner	1 foot
BU-3105	Shoulder Bushing	8
BU-3106	Cup Bushing	8
SL-3063	Insulating Sleeve	8
TA-3540	Electrical Tape	1 roll
NU-2215	10x32 Hex Nut	32
ST-2439	Stud	8

TY-96

9/16/99

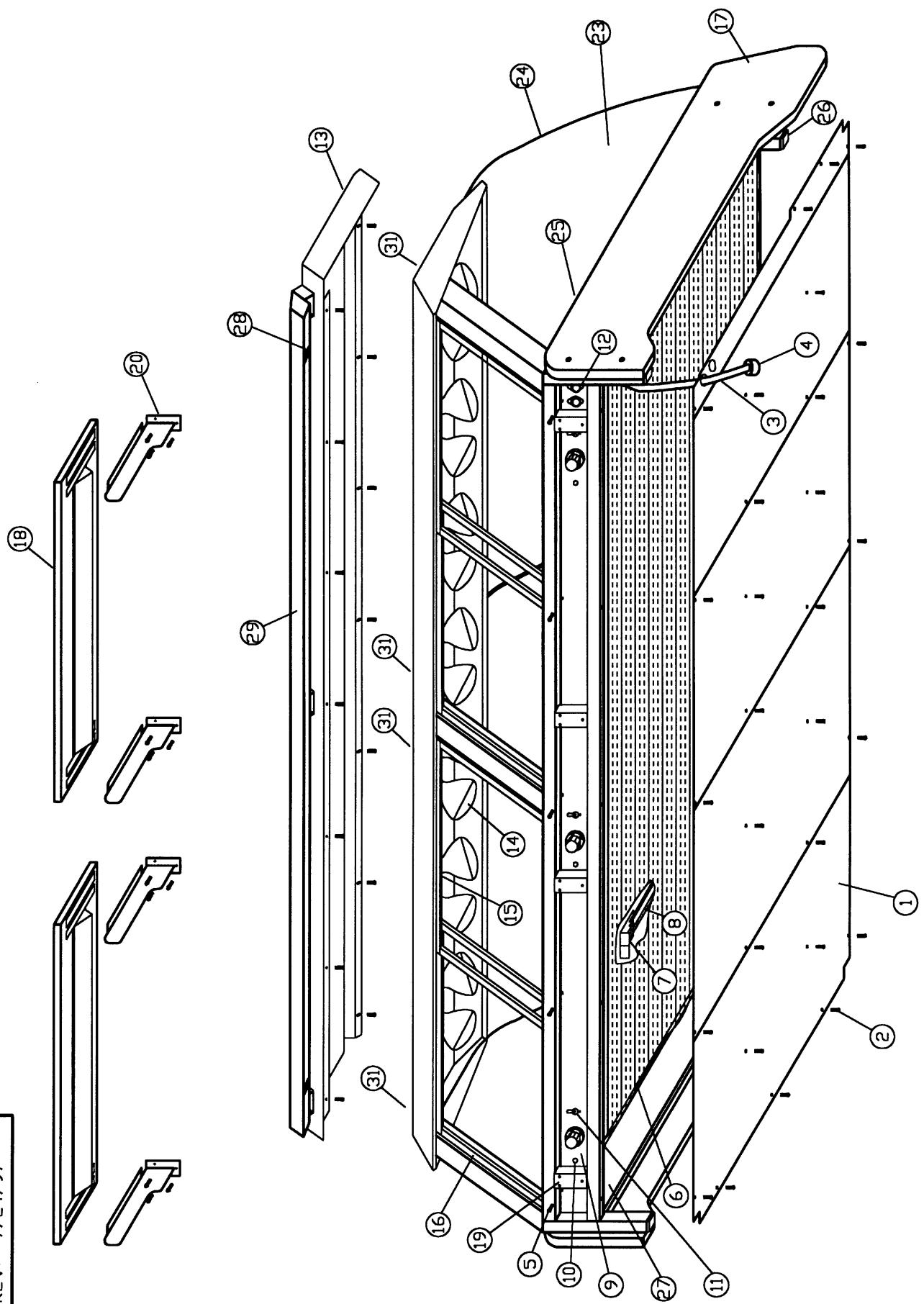
PART DESCRIPTION	QTY	A/S PT NO.
1. END PANEL BOTTOM, 120V	1	13028
END PANEL BOTTOM, 230V	1	13986
4' (1219mm) RIGHT-HAND BOTTOM PANEL	1	13029
8' (2438mm) BOTTOM PANEL	1	13032
6' (1829mm) BOTTOM PANEL	1	13031
4' (1219mm) LEFT-HAND BOTTOM PANEL	1	13030
2. 8-32X1/2" S/S TRUSS HEAD SCREWS	29	SC-2425
8-32X1/4" S/S TRUSS HEAD SCREWS	2	SC-2459
3. CORD, 125V	1	CD-3987
CORD, 230V	1	CD-33489
4. PLUG 120/240V	1	PG-3988
5. CONTROL PANEL MOUNTING SCREWS	5	SC-2459
6. INSULATION: 34" x 95" (864mm x 2413mm)	2	IN-22364
7. CABLE CONNECTION HARDWARE		
8. HEATING CABLE		CB-3045
9. THERMOSTAT	3	TT-3498
THERMOSTAT KNOB	3	KN-3473
10. INDICATOR LIGHT, 125V	3	LI-3025
INDICATOR LIGHT, 230V	3	LI-3951
INDICATOR LIGHT MOUNTING NUT	3	NU-3335
11. LAMP SWITCH	3	SW-3616
12. FUSEHOLDER (120V UNITS) INCLUDES:	2	FU-33041
FUSE, 15 AMP	2	FU-3775
FUSEHOLDER MOUNTING SCREWS	4	SC-2077
13. TOP	1	4449
TOP MOUNTING SCREWS	7	SC-2425
TOP MOUNTING SCREWS	7	SC-2459
14. BULB, 120V	14	LP-3333
BULB, 230V	14	LP-3384
15. BULB SOCKETS, 120V	14	RP-3952
BULB SOCKETS, 230V	14	RP-3955
16. DOOR ASSEMBLY INCLUDES:	1	DR-22482
LEFT HAND GLASS DOOR - IN	2	DR-22482A
RIGHT HAND GLASS DOOR - OUT	2	DR-22482B
TOP TRACK	2	TK-23750
BOTTOM TRACK, 8' (2438mm)	2	TK-24267
GUIDES #44049	16	DR-22480F
DOOR BUMPER ASSEMBLY	2	DR-22480G
17. END PANEL	2	PE-22585
18. CUTTING BOARD ASSEMBLY	2	4016
19. CUTTING BOARD BRACKET (BASE) CUTTING BOARD BRACKET MTG. SCREWS	4	12069
	12	SC-24520
20. CUTTING BOARD BRACKET	4	BT-2342
23. END GLASS	2	GL-22479
END GLASS GASKET: 5' (1524mm)	1	GS-22547
24. FRONT GLASS	2	GL-22477
25. PAN DIVIDER BARS (not shown)		
FULL/HALF/THIRD (LONG BAR)	6	11317
FULL/HALF/THIRD (SHORT BAR)	21	11318
SHEET PAN	4	11320
S-PAN DIVIDER (LONG)	3	11357
SHEET PAN FILLER BAR: 3-3/4" (95mm)	1	11732
26. ADJUSTABLE LEGS	4	LG-22686
27. TERMINAL BLOCK, 4 POS.	2	BK-3597
28. SNAP-IN RECEPTACLES	2	RP-3396
RECEPTACLE FUSE, 15A	1	FU-33351
RECEPTACLE FUSEHOLDER, 15A	1	FU-33352
29. OUTLET HOUSING COVER	1	4981
30. 8' PROBE PACKAGE OPTION (not shown)	1	120-208V
31. FRONT GLASS STRUTS	4	SU-22702
32. OPTION (not shown) *NOT CSA APPROVED		
INDEPENDENT CIRCUIT CORDSET 120V	1	14221
INDEPENDENT CIRCUIT CORDSET 220V	1	14222

TYSYS-96

PART DESCRIPTION	QTY	A/S PT NO.
1. END PANEL BOTTOM, 120V	1	13028
END PANEL BOTTOM, 230V	1	13986
4' (1219mm) RIGHT-HAND BOTTOM PANEL	1	13029
8' (2438mm) BOTTOM PANEL	1	13032
6' (1829mm) BOTTOM PANEL	1	13031
4' (1219mm) LEFT-HAND BOTTOM PANEL	1	13030
2. 8-32X1/2" S/S TRUSS HEAD SCREWS	29	SC-2425
8-32X1/4" S/S TRUSS HEAD SCREWS	2	SC-2459
3. CONTROL PANEL MOUNTING SCREWS	5	SC-2459
4. CONDUIT TUBING: 6" (152.4mm)	2	TU-3874
5. INSULATION: 34" x 95" (864mm x 2413mm)	2	IN-22364
6. CABLE CONNECTION HARDWARE		
7. HEATING CABLE		CB-3045
8. THERMOSTAT	3	TT-3498
THERMOSTAT KNOB	3	KN-3473
9. INDICATOR LIGHT, 125V	3	LI-3025
INDICATOR LIGHT, 230V	3	LI-3951
INDICATOR LIGHT MOUNTING NUT	3	NU-3335
10. LAMP SWITCH	3	SW-3616
11. TOP	1	4449
TOP MOUNTING SCREWS	7	SC-2425
TOP MOUNTING SCREWS	7	SC-2459
12. BULB, 120V	14	LP-3333
BULB, 230V	14	LP-3384
13. BULB SOCKET, 120V	14	RP-3952
BULB SOCKET, 230V	14	RP-3955
14. CIRCUIT BOX (120V & 220V) INCLUDES: BREAKER, 15 AMP	1	CI-3906
BREAKER, 30 AMP	2	CI-33071
GROUND BAR KIT	1	CI-3878
15. DOOR ASSEMBLY INCLUDES: LEFT HAND GLASS DOOR - IN	1	DR-22482
RIGHT HAND GLASS DOOR - OUT	2	DR-22482A
TOP TRACK	2	DR-22482B
BOTTOM TRACK, 8' (2438mm)	2	TK-23750
GUIDES #44049	16	TK-24267
DOOR BUMPER ASSEMBLY	2	GUIDES #44049
16. END PANEL	2	DR-22480F
17. CUTTING BOARD ASSEMBLY	2	DR-22480G
18. CUTTING BOARD BRACKET (BASE) CUTTING BOARD BRACKET MTG. SCREWS	4	4016
	12	SC-24520
19. CUTTING BOARD BRACKET	4	4016
22. END GLASS	2	BT-2342
END GLASS GASKET: 5' (1524mm)	1	GL-22479
23. FRONT GLASS	2	GS-22547
24. BASE BOTTOM	1	GL-22477
25. PAN DIVIDER BARS (not shown)		
FULL/HALF/THIRD (LONG BAR)	6	1420
FULL/HALF/THIRD (SHORT BAR)	21	11317
SHEET PAN	4	11318
S-PAN DIVIDER (LONG)	3	11320
SHEET PAN FILLER BAR: 3-3/4" (95mm)	1	11357
26. SNAP-IN RECEPTACLES	2	11732
27. OUTLET HOUSING COVER	1	RP-3396
28. RECEPTACLE FUSE, 15A RECEPTACLE FUSEHOLDER, 15A	1	4981
	1	FU-33351
	1	FU-33352
29. FRONT GLASS STRUTS	4	FU-33351
30. 8' PROBE PACKAGE OPTION (not shown)	1	FU-33352
31. OPTIONAL LOAD CENTER PACKAGE (not shown)	1	5297
INCLUDES: LOAD CENTER	1	14220
GROUND BAR KIT	1	CI-3877
BREAKER, 15 AMP	1	CI-33071
CONNECTOR	1	CR-3953
NUT	1	NU-3954

TY-96
SERVICE VIEW
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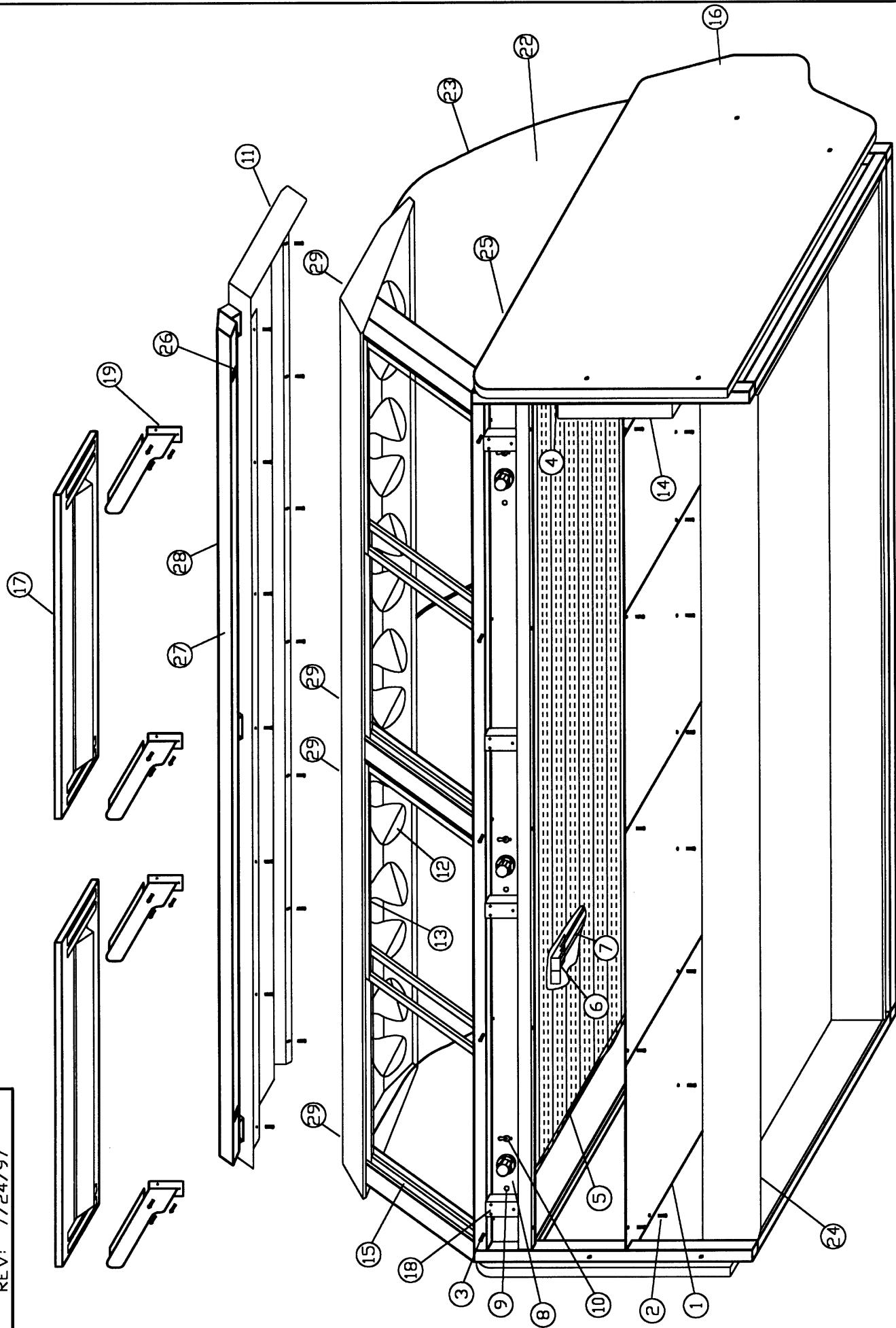


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TYSSYSS-96
SERVICE VIEW
REV: 7/24/97

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TY-96/PL PASS-THRU LEFT

12/16/99			
PART DESCRIPTION	QTY	A/S PT NO.	
1. END PANEL BOTTOM, 120V	1	13028	
END PANEL BOTTOM, 230V	1	13986	
4' (1219mm) RIGHT-HAND BOTTOM PANEL	1	13029	
8' (2438mm) BOTTOM PANEL	1	13032	
6' (1829mm) BOTTOM PANEL	1	13031	
4' (1219mm) LEFT-HAND BOTTOM PANEL	1	13030	
2. 8-32X1/2" S/S TRUSS HEAD SCREWS	29	SC-2425	
8-32X1/4" S/S TRUSS HEAD SCREWS	2	SC-2459	
3. CORD, 120V	1	CD-3987	
CORD, 230V	1	CD-33489	
4. PLUG 120/240V	1	PG-3988	
5. CONTROL PANEL MOUNTING SCREWS	5	SC-2459	
6. INSULATION: 34" x 71" (864mm x 1803mm)	1	IN-22364	
7. CABLE CONNECTION HARDWARE			
8. HEATING CABLE: 66' (20117mm)		CB-3045	
HEATING CABLE: 205' (62484mm)		CB-3045	
9. THERMOSTAT	4	TT-3498	
THERMOSTAT KNOB	4	KN-3473	
10. INDICATOR LIGHT, 120V	4	LI-3025	
INDICATOR LIGHT, 230V	4	LI-3951	
INDICATOR LIGHT MOUNTING NUT	4	NU-3335	
11. LAMP SWITCH	3	SW-3616	
12. TOP	1	4469	
TOP MOUNTING SCREWS	7	SC-2425	
TOP MOUNTING SCREWS	7	SC-2459	
13. BULBS, 120V	14	LP-3333	
BULBS, 230V	14	LP-3384	
14. BULB SOCKETS, 120V	14	RP-3952	
BULB SOCKETS, 230V	14	RP-3955	
15. DOOR ASSEMBLY	1	DR-22481	
INCLUDES: LEFT HAND GLASS DOOR - IN	1	DR-22481A	
RIGHT HAND GLASS DOOR - IN	1	DR-22481B	
TOP TRACK	1	TK-23749	
BOTTOM TRACK, 6' (2438mm)	1	TK-24266	
CENTER GLASS - DOOR OUT	2	DR-22481E	
GUIDES #44049	16	DR-22480F	
DOOR BUMPER ASSEMBLY	2	DR-22480G	
16. SELF-SERVE DOOR, LEFT HAND	1	4407	
HINGE, LEFT-HAND	2	HG-22167	
17. SELF-SERVE DOOR, RIGHT-HAND	1	4409	
HINGE, RIGHT-HAND	2	HG-22168	
HINGE BUSHING	4	BU-2722	
HINGE MOUNTING SCREWS	8	SC-2352	
18. END PANEL	2	PE-22585	
19. CUTTING BOARD ASSEMBLY	1	4017	
20. CUTTING BOARD BRACKET (BASE)	2	12069	
CUTTING BOARD BRACKET MTG. SCREWS	6	SC-24520	
21. CUTTING BOARD BRACKET	2	BT-2342	
24. END GLASS	2	GL-22479	
END GLASS GASKET: 4' (1219mm)	1	GS-22547	
25. INNER END GLASS	1	GL-22497	
DIVIDER GLASS GASKET: 3' (914mm)	1	GS-22548	
26. FRONT GLASS: 4' (1219mm)	1	GL-22478	
27. SELF-SERVE GLASS: 2' (610mm)	1	GL-22474	
28. CUSTOMER HEAT GUARD, 2' (610mm)	1	11115	
29. PAN DIVIDER BARS (not shown)			
FULL/HALF/THIRD SIZE (LONG BAR)	6	11317	
FULL/HALF/THIRD SIZE (SHORT BAR)	21	11318	
SHEET PAN	4	11320	
S-PAN DIVIDER (LONG)	3	11357	
PAN GRID	1	PN-2115	
SELF-SERVE PAN	1	1405	
SHEET PAN FILLER BAR: 3-3/4" (95mm)	1	11732	
30. ADJUSTABLE LEGS	4	LG-22686	
31. TERMINAL BLOCKS, 4 POS.	2	BK-3597	
32. SNAP-IN RECEPTACLES	2	RP-3396	
RECEPTACLE FUSE, 15 AMP	1	FU-33351	
RECEPTACLE FUSEHOLDER, 15 AMP	1	FU-33352	
33. OUTLET HOUSING COVER	1	4980	
34. 6' PROBE PKG. OPTION (not shown) 120-208V	1	5296	
35. FRONT GLASS STRUTS	2	SU-2870	
36. FUSEHOLDER (120V UNITS)	2	FU-33041	
INCLUDES: FUSE, 15 AMP	2	FU-3775	
FUSEHOLDER MTG SCREWS	4	SC-2077	
37. OPTION (not shown) *NOT CSA APPROVED			
INDEPENDENT CIRCUIT CORDSET 120V	1	14221	
INDEPENDENT CIRCUIT CORDSET 220V	1	14222	

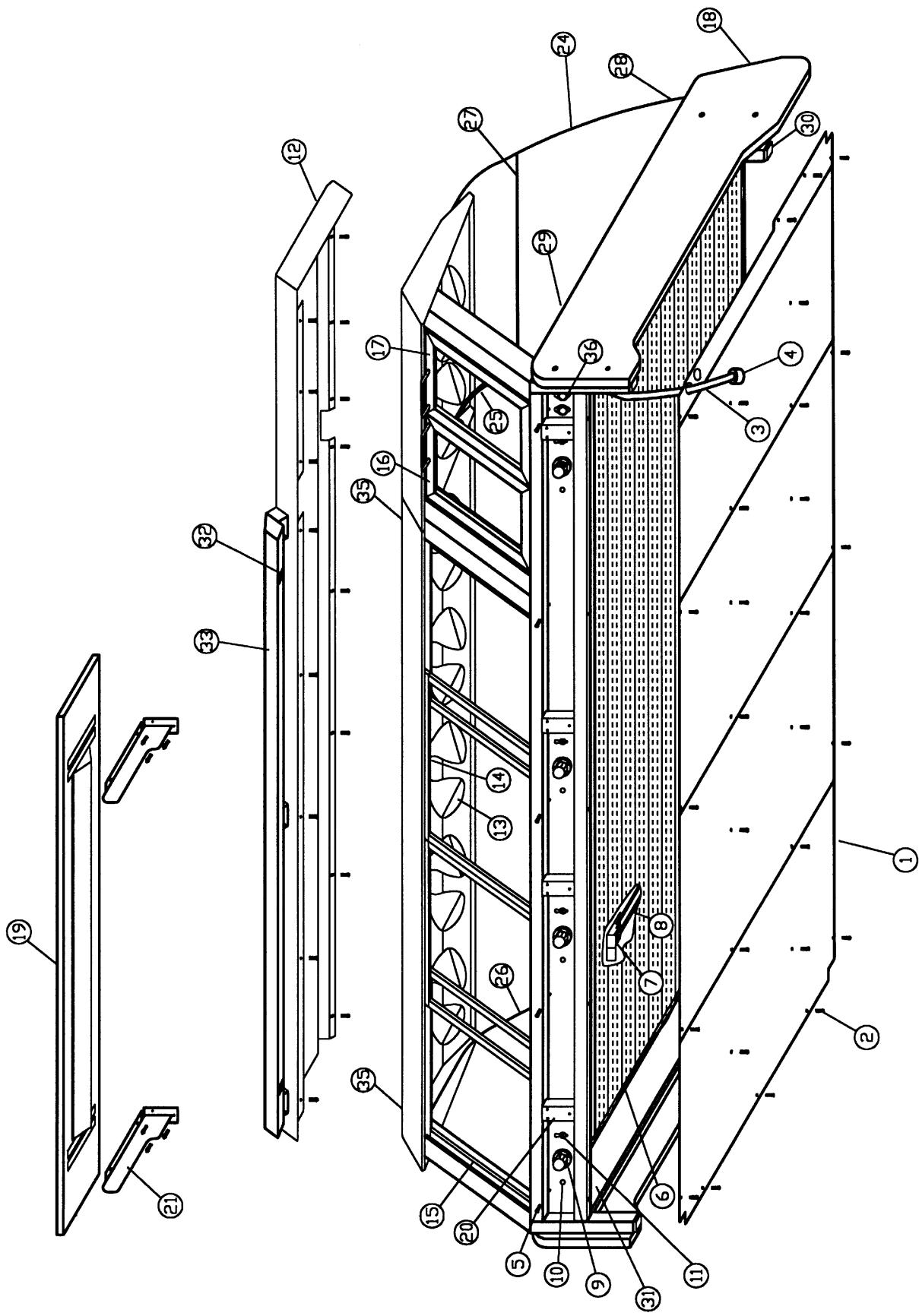
TYSYS-96/PL PASS-THRU LEFT

12/16/99			
PART DESCRIPTION	QTY	A/S PT NO.	
1. END PANEL BOTTOM, 120V	1	13028	
END PANEL BOTTOM, 230V	1	13986	
4' (1219mm) RIGHT-HAND BOTTOM PANEL	1	13029	
8' (2438mm) BOTTOM PANEL	1	13032	
6' (1829mm) BOTTOM PANEL	1	13031	
4' (1219mm) LEFT-HAND BOTTOM PANEL	1	13030	
2. 8-32X1/2" S/S TRUSS HEAD SCREWS	29	SC-2425	
8-32X1/4" S/S TRUSS HEAD SCREWS	2	SC-2459	
3. CONTROL PANEL MOUNTING SCREWS	5	SC-2459	
4. CONDUIT TUBING: 6" (152,4mm)	3	TU-3874	
5. INSULATION: 34" x 95" (864mm x 2413mm)	2	IN-22364	
6. CABLE CONNECTION HARDWARE			
7. HEATING CABLE: 66' (20117mm)		CB-3045	
HEATING CABLE: 205' (62484mm)		CB-3045	
8. THERMOSTAT	4	TT-3498	
THERMOSTAT KNOB	4	KN-3473	
9. INDICATOR LIGHT, 120V	4	LI-3025	
INDICATOR LIGHT, 230V	4	LI-3951	
INDICATOR LIGHT MOUNTING NUT	4	NU-3335	
10. LAMP SWITCH	4	SW-3616	
11. TOP	1	4469	
TOP MOUNTING SCREWS	7	SC-2425	
TOP MOUNTING SCREWS	7	SC-2459	
12. BULB, 120V	14	LP-3333	
BULB, 230V	14	LP-3384	
13. BULB SOCKET, 120V	14	RP-3952	
BULB SOCKET, 230V	14	RP-3955	
14. CIRCUIT BOX (120V)	1	CI-3906	
INCLUDES: BREAKER, 15 AMP	2	CI-33071	
BREAKER, 20 AMP	3	CI-3907	
GROUND BAR KIT	1	CI-3878	
CIRCUIT BOX (220V)	1	CI-3906	
INCLUDES: BREAKER, 15 AMP	2	CI-33071	
BREAKER, 20 AMP	4	CI-3907	
GROUND BAR KIT	1	CI-3878	
15. DOOR ASSEMBLY	1	DR-22481	
INCLUDES: LEFT HAND GLASS DOOR - IN	1	DR-22481A	
RIGHT HAND GLASS DOOR - IN	1	DR-22481B	
TOP TRACK	1	TK-23749	
BOTTOM TRACK, 6' (2438mm)	1	TK-24266	
CENTER GLASS - DOOR OUT	2	DR-22481E	
GUIDES #44049	16	DR-22480F	
DOOR BUMPER ASSEMBLY	2	DR-22480G	
16. SELF-SERVE DOOR, LEFT-HAND	1	4407	
HINGE, LEFT-HAND	2	HG-22167	
17. SELF-SERVE DOOR, RIGHT-HAND	1	4409	
HINGE, RIGHT-HAND	2	HG-22168	
HINGE BUSHING	4	BU-2722	
HINGE MOUNTING SCREWS	8	SC-2352	
18. END PANEL	2	PE-22493	
19. CUTTING BOARD ASSEMBLY	1	4017	
20. CUTTING BOARD BRACKET (BASE)	2	12069	
CUTTING BOARD BRACKET MTG. SCREWS	6	SC-24520	
21. CUTTING BOARD BRACKET	2	BT-2342	
24. END GLASS	2	GL-22479	
END GLASS GASKET: 4' (1219mm)	1	GS-22547	
25. INNER END GLASS	1	GL-22497	
DIVIDER GLASS GASKET: 3' (914mm)	1	GS-22548	
26. FRONT GLASS: 6' (1829mm)	1	GL-22478	
27. SELF-SERVE GLASS: 2' (610mm)	1	GL-22474	
28. BASE BOTTOM	1	1420	
29. CUSTOMER HEAT GUARD: 2' (610mm)	1	11115	
30. PAN DIVIDER BARS (not shown)			
FULL/HALF/THIRD SIZE (LONG BAR)	6	11317	
FULL/HALF/THIRD SIZE (SHORT BAR)	21	11318	
SHEET PAN	4	11320	
S-PAN DIVIDER (LONG)	3	11357	
PAN GRID	1	PN-2115	
SELF-SERVE PAN	1	1405	
SHEET PAN FILLER BAR: 3-3/4" (95mm)	1	11732	
31. SNAP-IN RECEPTACLES	2	RP-3396	
32. OUTLET HOUSING COVER	1	4980	
33. RECEPTACLE FUSE, 15 AMP	1	FU-33351	
RECEPTACLE FUSEHOLDER, 15 AMP	1	FU-33352	
34. FRONT GLASS STRUTS	2	SU-2870	
35. 6' PROBE PKG. OPTION (not shown) 120-208V	1	5296	
36. OPTIONAL LOAD CENTER PKG. (not shown)			
INCLUDES: LOAD CENTER	1	CI-3877	
GROUND BAR KIT	1	CI-3878	
BREAKER, 15 AMP	1	CI-33071	
CONNECTOR	1	CR-3953	
NUT	1	NU-3954	

TY-96/PL
SERVICE VIEW
REV: 7/24/97

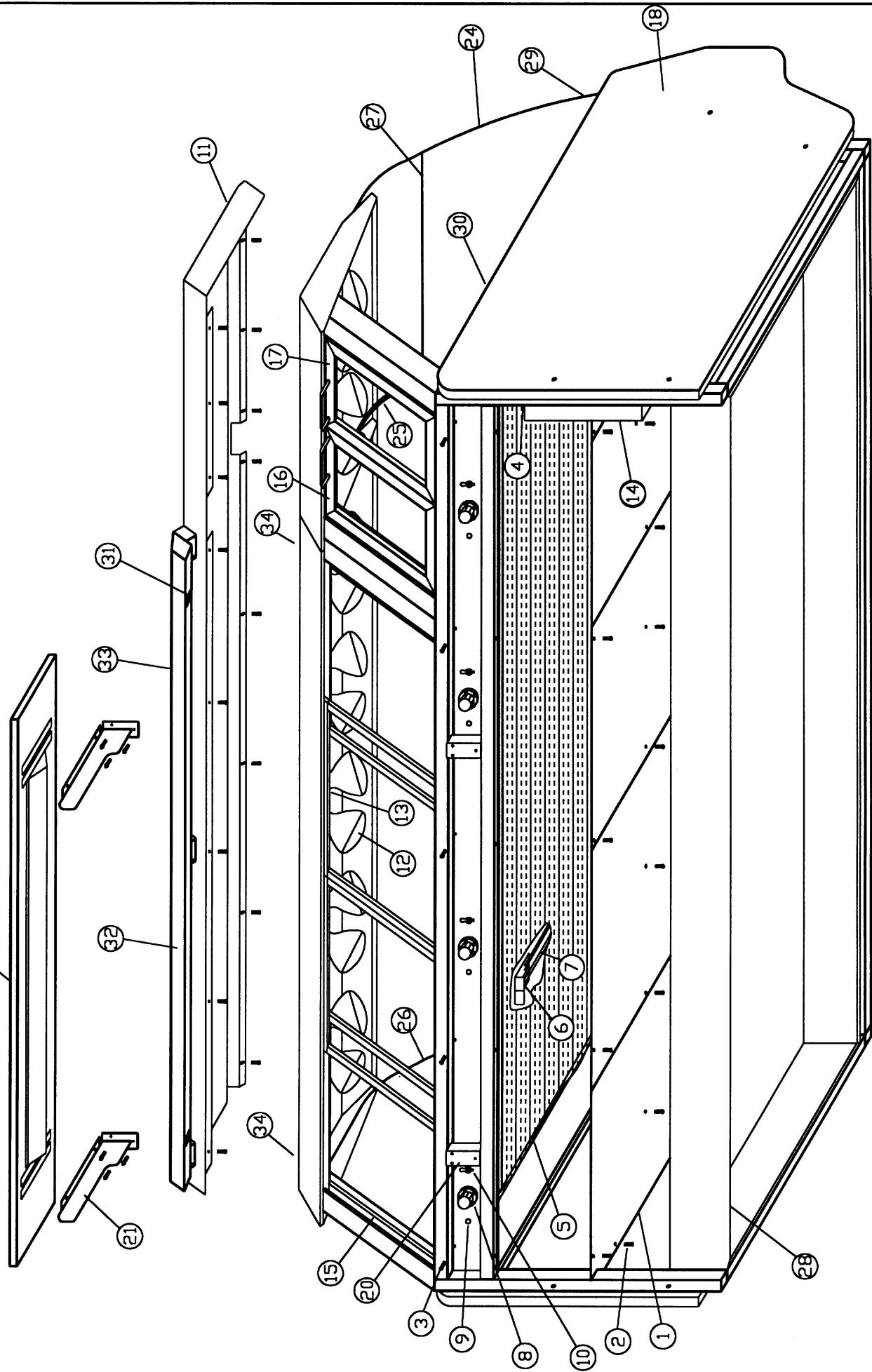
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SERVICE VIEW
REV: 7/24/97

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TY-96/PR PASS-THRU RIGHT

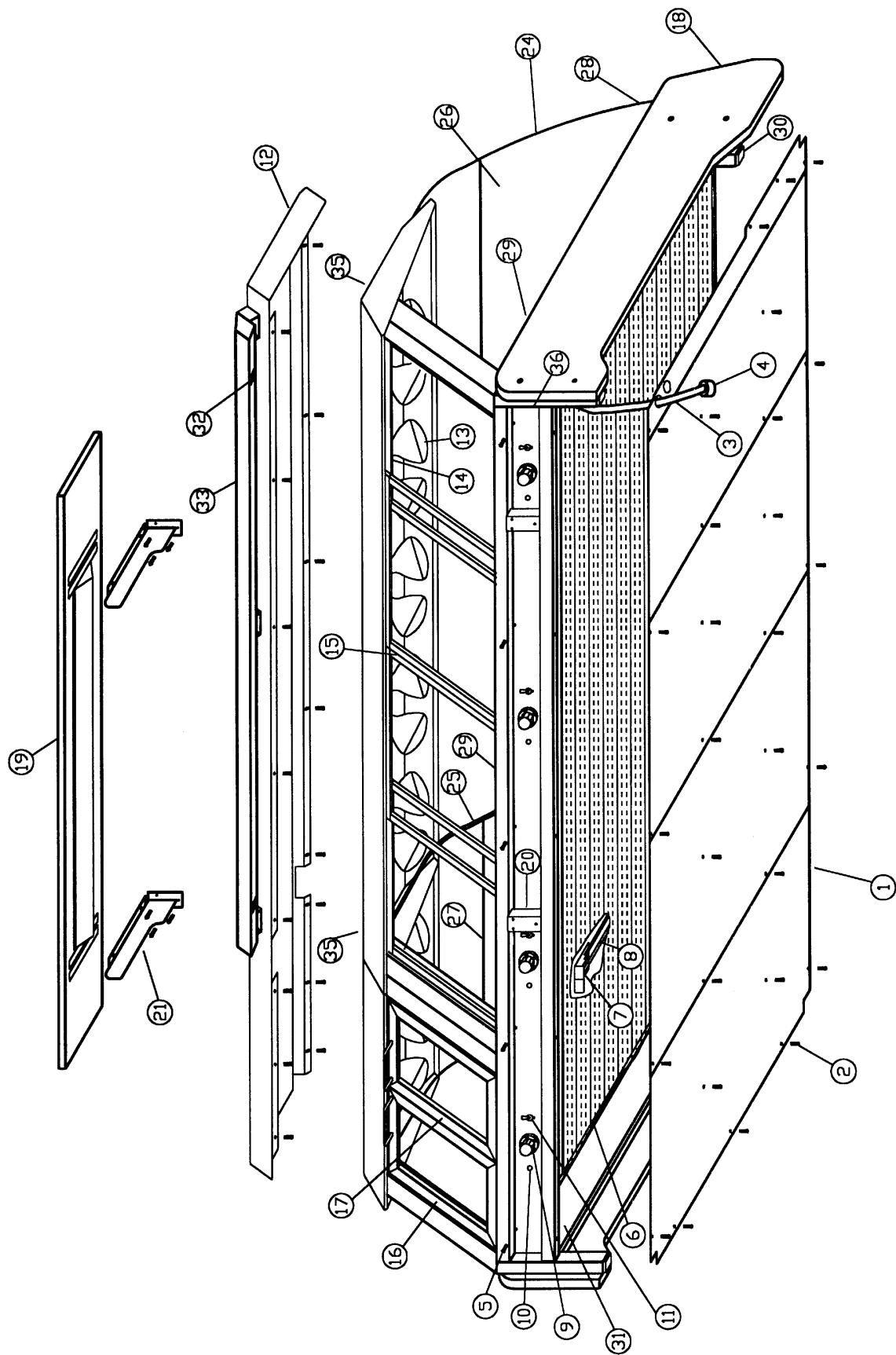
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PART DESCRIPTION	QTY	A/S PT NO.
1. END PANEL BOTTOM, 120V	1	13028
END PANEL BOTTOM, 230V	1	13986
4' (1219mm) RIGHT-HAND BOTTOM PANEL	1	13029
8' (2438mm) BOTTOM PANEL	1	13032
6' (1829mm) BOTTOM PANEL	1	13031
4' (1219mm) LEFT-HAND BOTTOM PANEL	1	13030
2. 8-32X1/2" S/S TRUSS HEAD SCREWS	29	SC-2425
8-32X1/4" S/S TRUSS HEAD SCREWS	2	SC-2459
3. CORD, 120V	1	CD-3987
CORD, 230V	1	CD-33489
4. PLUG 120V	1	PG-3988
5. CONTROL PANEL MOUNTING SCREWS	5	SC-2459
6. INSULATION: 34" x 71" (864mm x 1803mm)	1	IN-22364
7. CABLE CONNECTION HARDWARE		
8. HEATING CABLE: 66' (20117mm)		CB-3045
HEATING CABLE: 205' (62484mm)		CB-3045
9. THERMOSTAT	4	TT-3498
THERMOSTAT KNOB	4	KN-3473
10. INDICATOR LIGHT, 120V	4	LI-3025
INDICATOR LIGHT, 230V	4	LI-3951
INDICATOR LIGHT MOUNTING NUT	4	NU-3335
11. LAMP SWITCH	4	SW-3616
12. TOP	1	4456
TOP MOUNTING SCREWS	7	SC-2425
TOP MOUNTING SCREWS	7	SC-2459
13. BULB, 120V	14	LP-3333
BULB, 230V	14	LP-3384
14. BULB SOCKET, 120V	14	RP-3952
BULB SOCKET, 230V	14	RP-3955
15. DOOR ASSEMBLY	1	DR-22481
INCLUDES: LEFT HAND GLASS DOOR - IN	1	DR-22481A
RIGHT HAND GLASS DOOR - IN	1	DR-22481B
TOP TRACK	1	TK-23479
BOTTOM TRACK, 6' (2438mm)	1	TK-24266
CENTER GLASS - DOOR OUT	2	DR-22481E
GUIDES #44049	16	DR-22480F
DOOR BUMPER ASSEMBLY	2	DR-22480G
16. SELF-SERVE DOOR, LEFT-HAND	1	4407
HINGE, LEFT-HAND	2	HG-22167
17. SELF-SERVE DOOR, RIGHT-HAND	1	4409
HINGE, RIGHT-HAND	2	HG-22168
HINGE BUSHING	4	BU-2722
HINGE MOUNTING SCREWS	8	SC-2352
18. END PANEL	2	PE-22585
19. CUTTING BOARD ASSEMBLY	1	4017
20. CUTTING BOARD BRACKET (BASE)	2	12069
CUTTING BOARD BRACKET MTG. SCREWS	6	SC-24520
21. CUTTING BOARD BRACKET	2	BT-2342
24. END GLASS	2	GL-22479
END GLASS GASKET: 4' (1219mm)	1	GS-22547
25. INNER END GLASS	1	GL-22497
DIVIDER GLASS GASKET: 3' (914mm)	1	GS-22548
26. FRONT GLASS: 6' (1829mm)	1	GL-22478
27. SELF-SERVE GLASS: 2' (610mm)	1	GL-22474
28. CUSTOMER HEAT GUARD: 2' (610mm)	1	11115
29. PAN DIVIDER BARS (not shown)		
FULL/HALF/THIRD SIZE (LONG BAR)	6	11317
FULL/HALF/THIRD SIZE (SHORT BAR)	21	11318
SHEET PAN	4	11320
S-PAN DIVIDER (LONG)	3	11357
PAN GRID	1	PN-2115
SELF-SERVE PAN	1	1405
SHELF	1	1407
SHEET PAN FILLER BAR: 3-3/4" (95mm)	1	11732
30. ADJUSTABLE LEGS	4	LG-22686
31. TERMINAL BLOCKS, 4 POS	2	BK-3597
32. SNAP-IN RECEPTACLES	2	RP-3396
RECEPTACLE FUSE, 15 AMP	1	FU-33351
RECEPTACLE FUSEHOLDER, 15 AMP	1	FU-33352
33. OUTLET HOUSING COVER	1	4980
34. 6' PROBE PACKAGE OPTION (not shown)	1	120V
35. FRONT GLASS STRUTS	2	SU-2870
36. FUSEHOLDER (120V UNITS)	2	FU-33041
INCLUDES: FUSE, 15 AMP	2	FU-3775
FUSEHOLDER MTG SCREWS	4	SC-2077
37. OPTION (not shown) *NOT CSA APPROVED		
INDEPENDENT CIRCUIT CORDSET, 120V	1	14221
INDEPENDENT CIRCUIT CORDSET, 220V	1	14222

TYSYS-96/PR PASS-THRU RIGHT

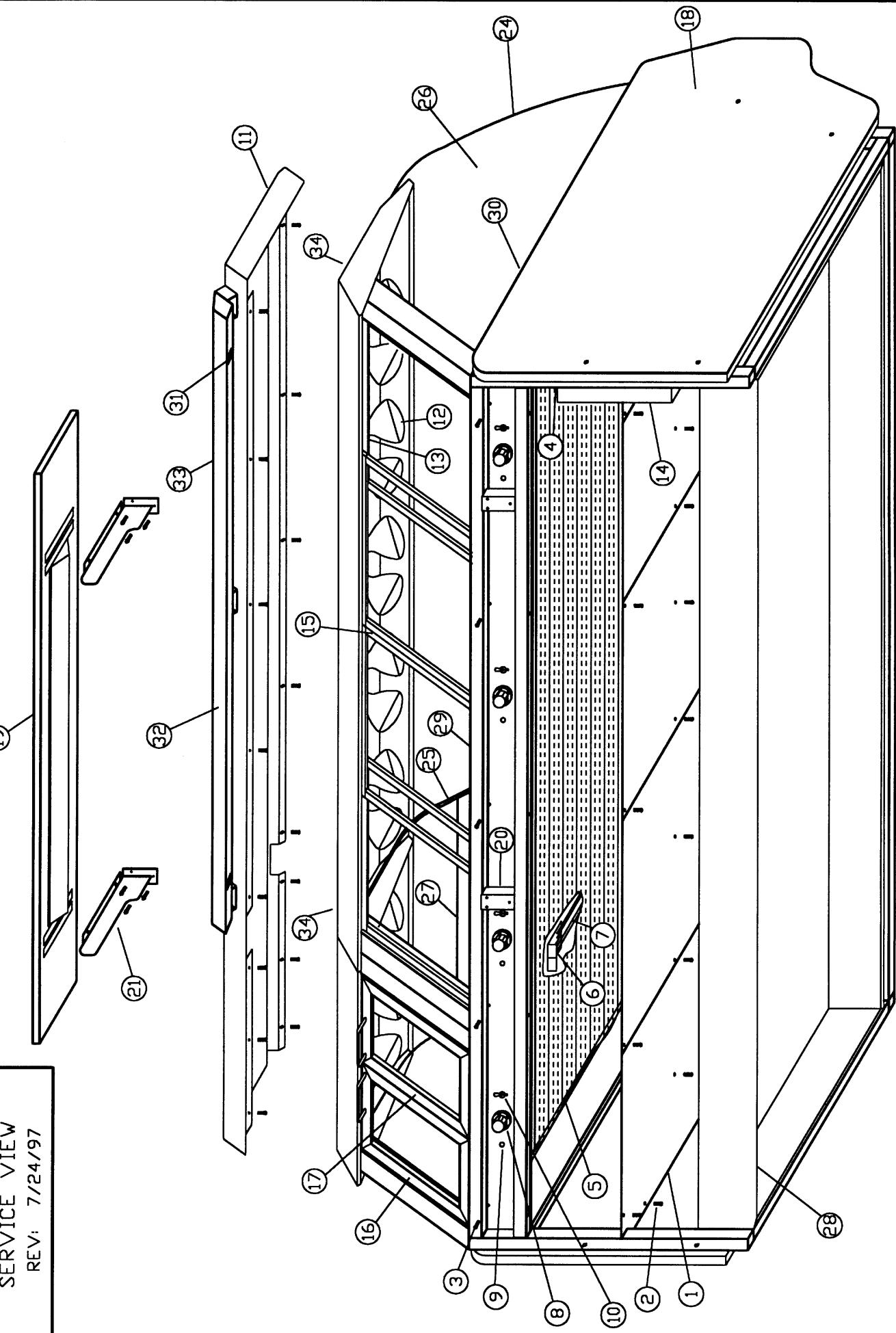
12/16/99

PART DESCRIPTION	QTY	A/S PT NO.
1. END PANEL BOTTOM, 120V	1	13028
END PANEL BOTTOM, 230V	1	13986
4' (1219mm) RIGHT-HAND BOTTOM PANEL	1	13029
8' (2438mm) BOTTOM PANEL	1	13032
6' (1829mm) BOTTOM PANEL	1	13031
4' (1219mm) LEFT-HAND BOTTOM PANEL	1	13030
2. 8-32X1/2" S/S TRUSS HEAD SCREWS	29	SC-2425
8-32X1/4" S/S TRUSS HEAD SCREWS	2	SC-2459
3. CONTROL PANEL MOUNTING SCREWS	5	SC-2459
4. CONDUIT TUBING: 6" (152.4mm)	3	TU-3874
5. INSULATION: 34" x 95" (864mm x 2413mm)	2	IN-22364
6. CABLE CONNECTION HARDWARE		
7. HEATING CABLE: 66' (20117mm)		CB-3045
HEATING CABLE: 205' (62484mm)		CB-3045
8. THERMOSTAT	4	TT-3498
THERMOSTAT KNOB	4	KN-3473
9. INDICATOR LIGHT, 120V	4	LI-3025
INDICATOR LIGHT, 230V	4	LI-3951
INDICATOR LIGHT MOUNTING NUT	4	NU-3335
10. LAMP SWITCH	4	SW-3616
11. TOP	1	4456
TOP MOUNTING SCREWS	7	SC-2425
TOP MOUNTING SCREWS	7	SC-2459
12. BULB, 120V	14	LP-3333
BULB, 230V	14	LP-3384
13. BULB SOCKET, 120V	14	RP-3952
BULB SOCKET, 230V	14	RP-3955
14. CIRCUIT BOX (120V)	1	CI-3906
INCLUDES: BREAKER, 15 AMP	2	CI-33071
BREAKER, 20 AMP	3	CI-3907
GROUNDBAR KIT	1	CI-3878
CIRCUIT BOX (220V)	1	CI-3906
INCLUDES: BREAKER, 15 AMP	2	CI-33071
BREAKER, 20 AMP	4	CI-3907
GROUNDBAR KIT	1	CI-3878
15. DOOR ASSEMBLY	1	DR-22481
INCLUDES: LEFT HAND GLASS DOOR - IN	1	DR-22481A
RIGHT HAND GLASS DOOR - IN	1	DR-22481B
TOP TRACK	1	TK-23479
BOTTOM TRACK, 6' (2438mm)	1	TK-24266
CENTER GLASS - DOOR OUT	2	DR-22481E
GUIDES #44049	16	DR-22480F
16. SELF-SERVE DOOR, LEFT-HAND	1	4407
HINGE, LEFT-HAND	2	HG-22167
17. SELF-SERVE DOOR, RIGHT-HAND	1	4409
HINGE, RIGHT-HAND	2	HG-22168
HINGE BUSHING	4	BU-2722
HINGE MOUNTING SCREWS	8	SC-2352
18. END PANEL	2	PE-22493
19. CUTTING BOARD ASSEMBLY	1	4017
20. CUTTING BOARD BRACKET (BASE)	2	12069
CUTTING BOARD BRACKET MTG. SCREWS	6	SC-24520
21. CUTTING BOARD BRACKET	2	BT-2342
24. END GLASS	2	GL-22479
END GLASS GASKET: 4' (1219mm)	1	GS-22547
25. INNER END GLASS	1	GL-22497
DIVIDER GLASS GASKET: 3' (914mm)	1	GS-22548
26. FRONT GLASS: 6' (1829mm)	1	GL-22478
27. SELF-SERVE GLASS: 2' (610mm)	1	GL-22474
28. BASE BOTTOM	1	1420
29. CUSTOMER HEAT GUARD: 2' (610mm)	1	GD-22502
30. PAN DIVIDER BARS (not shown)		
FULL/HALF/THIRD SIZE (LONG BAR)	6	11317
FULL/HALF/THIRD SIZE (SHORT BAR)	21	11318
SHEET PAN	4	11320
S-PAN DIVIDER (LONG)	3	11357
PAN GRID	1	PN-2115
SELF-SERVE PAN	1	1405
SHELF	1	1407
SHEET PAN FILLER BAR: 3-3/4" (95mm)	1	11732
31. SNAP-IN RECEPTACLES	2	RP-3396
32. OUTLET HOUSING COVER	1	4980
33. RECEPTACLE FUSE, 15 AMP	1	FU-33351
RECEPTACLE FUSEHOLDER, 15 AMP	1	FU-33352
34. FRONT GLASS STRUTS	2	SU-2870
35. 6' PROBE PACKAGE OPTION (not shown)	1	120V
36. OPTIONAL LOAD CENTER PKG. (not shown)	1	14220
INCLUDES: LOAD CENTER	1	CI-3877
GROUND BAR KIT	1	CI-3878
BREAKER, 15 AMP	1	CI-33071
CONNECTOR	1	CR-3953
NUT	1	NU-3954



TYSSYSS-96/PR
SERVICE VIEW
REV: 7/24/97

11-08-94

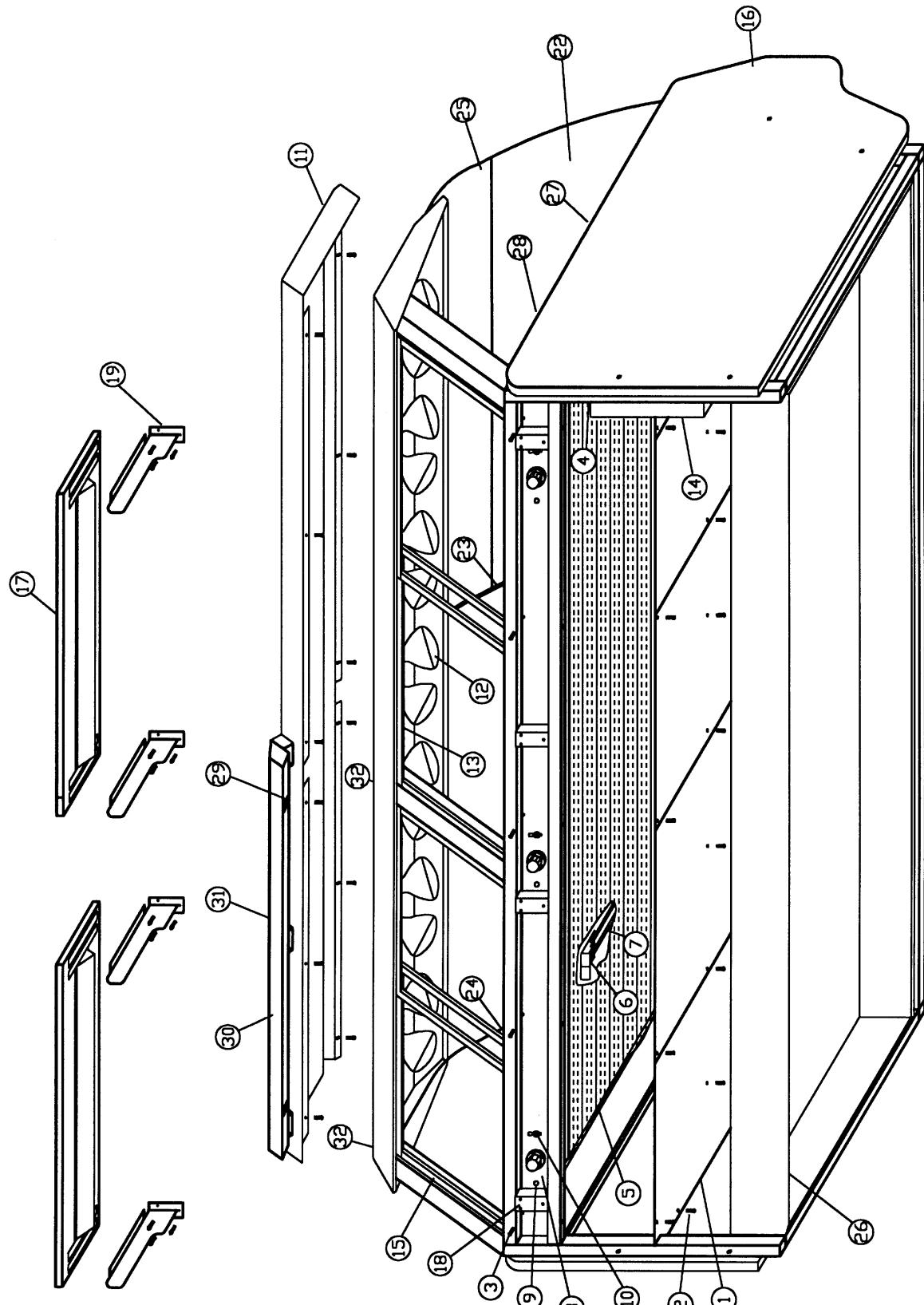


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TYSYS-96/4L PASS-THRU LEFT				TYSYS-96/4R PASS-THRU RIGHT			
12/16/99				12/16/99			
PART DESCRIPTION	QTY	A/S PT NO.	PART DESCRIPTION	QTY	A/S PT NO.		
1. END PANEL BOTTOM, 120V END PANEL BOTTOM, 230V	1	13028	1. END PANEL BOTTOM, 120V END PANEL BOTTOM, 230V	1	13986		
4' (1219mm) RIGHT-HAND BOTTOM PANEL	1	13029	4' (1219mm) RIGHT-HAND BOTTOM PANEL	1	13029		
8' (2438mm) BOTTOM PANEL	1	13032	8' (2438mm) BOTTOM PANEL	1	13032		
6' (1829mm) BOTTOM PANEL	1	13031	6' (1829mm) BOTTOM PANEL	1	13031		
4' (1219mm) LEFT-HAND BOTTOM PANEL	1	13030	4' (1219mm) LEFT-HAND BOTTOM PANEL	1	13030		
2. 8-32X1/2" S/S TRUSS HEAD SCREWS 8-32X1/4" S/S TRUSS HEAD SCREWS	29	SC-2425	2. 8-32X1/2" S/S TRUSS HEAD SCREWS 8-32X1/4" S/S TRUSS HEAD SCREWS	29	SC-2425		
3. CONTROL PANEL MOUNTING SCREWS	5	SC-2459	3. CONTROL PANEL MOUNTING SCREWS	5	SC-2459		
4. CONDUIT TUBING: 6" (152mm)	2	TU-3874	4. CONDUIT TUBING: 6" (152mm)	2	TU-3874		
5. INSULATION: 34" x 95" (864mm x 2413mm)	2	IN-22364	5. INSULATION: 34" x 95" (864mm x 2413mm)	2	IN-22364		
6. CABLE CONNECTION HARDWARE			6. CABLE CONNECTION HARDWARE				
7. HEATING CABLE: 264' (80467mm)	1	CB-3045	7. HEATING CABLE: 264' (80467mm)	1	CB-3045		
8. THERMOSTAT THERMOSTAT KNOB	3	TT-3498	8. THERMOSTAT THERMOSTAT KNOB	3	KN-3473		
9. INDICATOR LIGHT, 120V INDICATOR LIGHT, 230V INDICATOR LIGHT MOUNTING NUT	3	LI-3025	9. INDICATOR LIGHT, 120V INDICATOR LIGHT, 230V INDICATOR LIGHT MOUNTING NUT	3	LI-3951		
10. LAMP SWITCH	3	SW-3616	10. LAMP SWITCH	3	SW-3616		
11. TOP TOP MOUNTING SCREWS TOP MOUNTING SCREWS	1	14025	11. TOP TOP MOUNTING SCREWS TOP MOUNTING SCREWS	1	SC-2425		
12. BULBS	14	LP-3333	12. BULBS	14	RP-3952		
13. BULB SOCKET	14	RP-3952	13. BULB SOCKET	14	CI-3906		
14. CIRCUIT BOX (120V) INCLUDES: BREAKER, 15 AMP BREAKER, 20 AMP GROUND BAR KIT	1	CI-33071	14. CIRCUIT BOX (120V) INCLUDES: BREAKER, 15 AMP BREAKER, 20 AMP GROUND BAR KIT	2	CI-3908		
15. DOOR ASSEMBLY	1	DR-22807	15. DOOR ASSEMBLY	1	CI-3878		
16. BLACK END PANEL	2	PE-22708	16. BLACK END PANEL	2	DR-22807		
17. CUTTING BOARD ASSEMBLY	2	4016	17. CUTTING BOARD ASSEMBLY	2	PE-22708		
18. CUTTING BOARD BRACKET (BASE) CUTTING BOARD BRACKET MTG. SCREWS	4	12069	18. CUTTING BOARD BRACKET (BASE) CUTTING BOARD BRACKET MTG. SCREWS	4	4016		
19. CUTTING BOARD BRACKET	12	SC-24520	19. CUTTING BOARD BRACKET	12	12069		
20. CUTTING BOARD BRACKET	4	BT-2342	20. CUTTING BOARD BRACKET	4	SC-24520		
21. END GLASS, RIGHT-HAND, MIRRORED END GLASS, LEFT-HAND, MIRRORED END GLASS GASKET: 5' (1524mm)	1	GL-22539	21. END GLASS, RIGHT-HAND, MIRRORED	1	BT-2342		
22. END GLASS, LEFT-HAND, MIRRORED	1	GL-22538	22. END GLASS, LEFT-HAND, MIRRORED	1	GL-22539		
END GLASS GASKET: 5' (1524mm)	1	GS-22547	22. END GLASS GASKET: 5' (1524mm)	1	GL-22538		
23. DIVIDER GLASS DIVIDER GLASS GASKET: 3' (914mm)	1	GL-22719	23. DIVIDER GLASS DIVIDER GLASS GASKET: 3' (914mm)	1	GS-22547		
24. FRONT DOUBLE CURVED GLASS	1	GS-22548	24. FRONT DOUBLE CURVED GLASS	1	GL-22719		
25. SELF-SERVE GLASS	1	GL-22808	25. SELF-SERVE GLASS	1	GS-22548		
26. BASE BOTTOM	1	GL-22809	26. BASE BOTTOM	1	GL-22808		
27. CUSTOMER HEAT GUARD	1	1420	27. CUSTOMER HEAT GUARD	1	GL-22809		
28. PAN DIVIDER BARS (not shown) FULL/HALF/THIRD SIZE (LONG BAR)	1	14021	28. PAN DIVIDER BARS (not shown) FULL/HALF/THIRD SIZE (LONG BAR)	1	1420		
FULL/HALF/THIRD SIZE (SHORT BAR)	2	11317	FULL/HALF/THIRD SIZE (SHORT BAR)	2	11318		
SHEET PAN	9	11318	SHEET PAN	2	11320		
PAN GRID	2	11320	PAN GRID	2	PN-22805		
SELF-SERVE PAN ASSEMBLY	1	11320	SELF-SERVE PAN ASSEMBLY	1	14021		
29. SNAP-IN RECEPTACLES	1	14021	29. SNAP-IN RECEPTACLES	1	RP-3396		
30. OUTLET HOUSING COVER	1	4951	30. OUTLET HOUSING COVER	1	4951		
31. RECEPTACLE FUSE, 15 AMP RECEPTACLE FUSEHOLDER, 15 AMP	1	FU-33351	31. RECEPTACLE FUSE, 15 AMP RECEPTACLE FUSEHOLDER, 15 AMP	1	FU-33351		
32. FRONT GLASS STRUTS	1	FU-33352	32. FRONT GLASS STRUTS	1	FU-33352		
33. 4' PROBE PKG. OPTION (not shown) 120-280V	1	SU-22702	33. 4' PROBE PKG. OPTION (not shown) 120-208V	1	SU-22702		
34. OPTIONAL LOAD CENTER PKG. (not shown) INCLUDES: LOAD CENTER	1	5295	34. OPTIONAL LOAD CENTER PKG. (not shown) INCLUDES: LOAD CENTER	1	5295		
GROUND BAR KIT	1	14220	GROUND BAR KIT	1	14220		
BREAKER, 15 AMP	1	CI-3877	BREAKER, 15 AMP	1	CI-3877		
CONNECTOR	1	CI-33071	CONNECTOR	1	CI-33071		
NUT	1	CR-3953	NUT	1	CR-3953		
	1	NU-3954		1	NU-3954		

TYSYS-96/4L
SERVICE VIEW 1/16"=1'
REV: 7/24/97

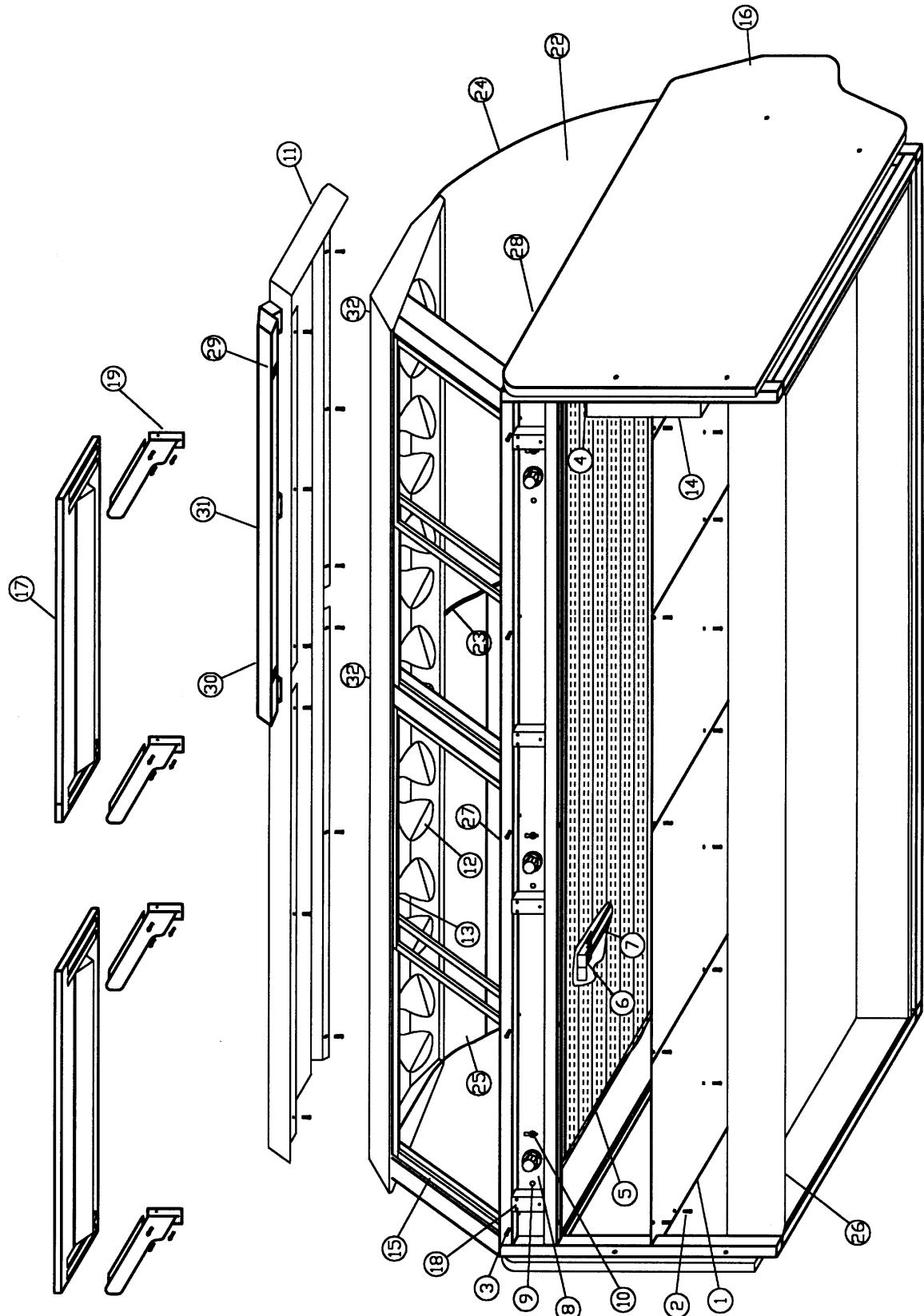
11/28/94 LRP



K:\SM\TYS96-4L.DWG

TYSS-96/4R
SERVICE VIEW 1/16"=1"
REV: 7/24/97

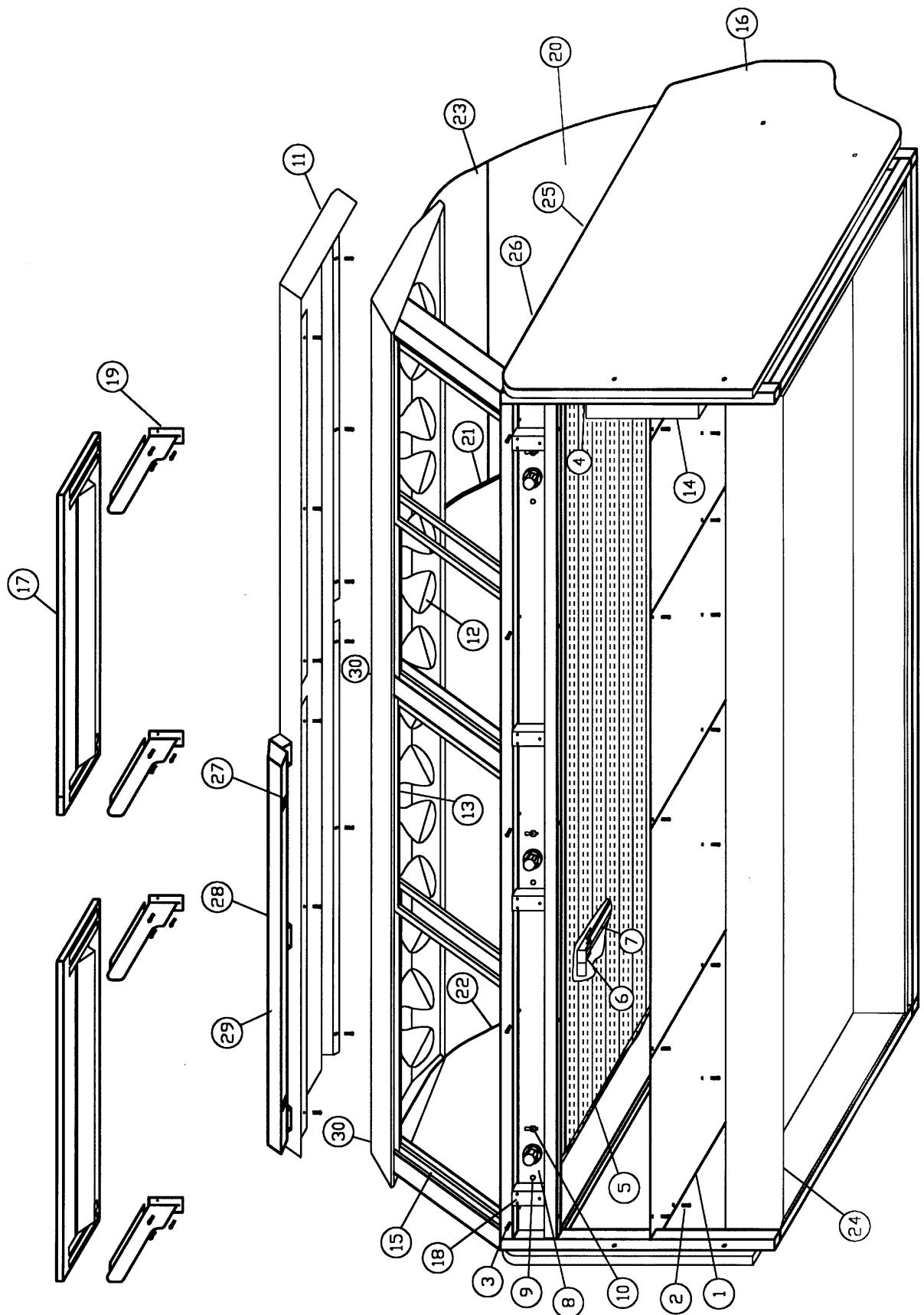
11/28/94 LRP



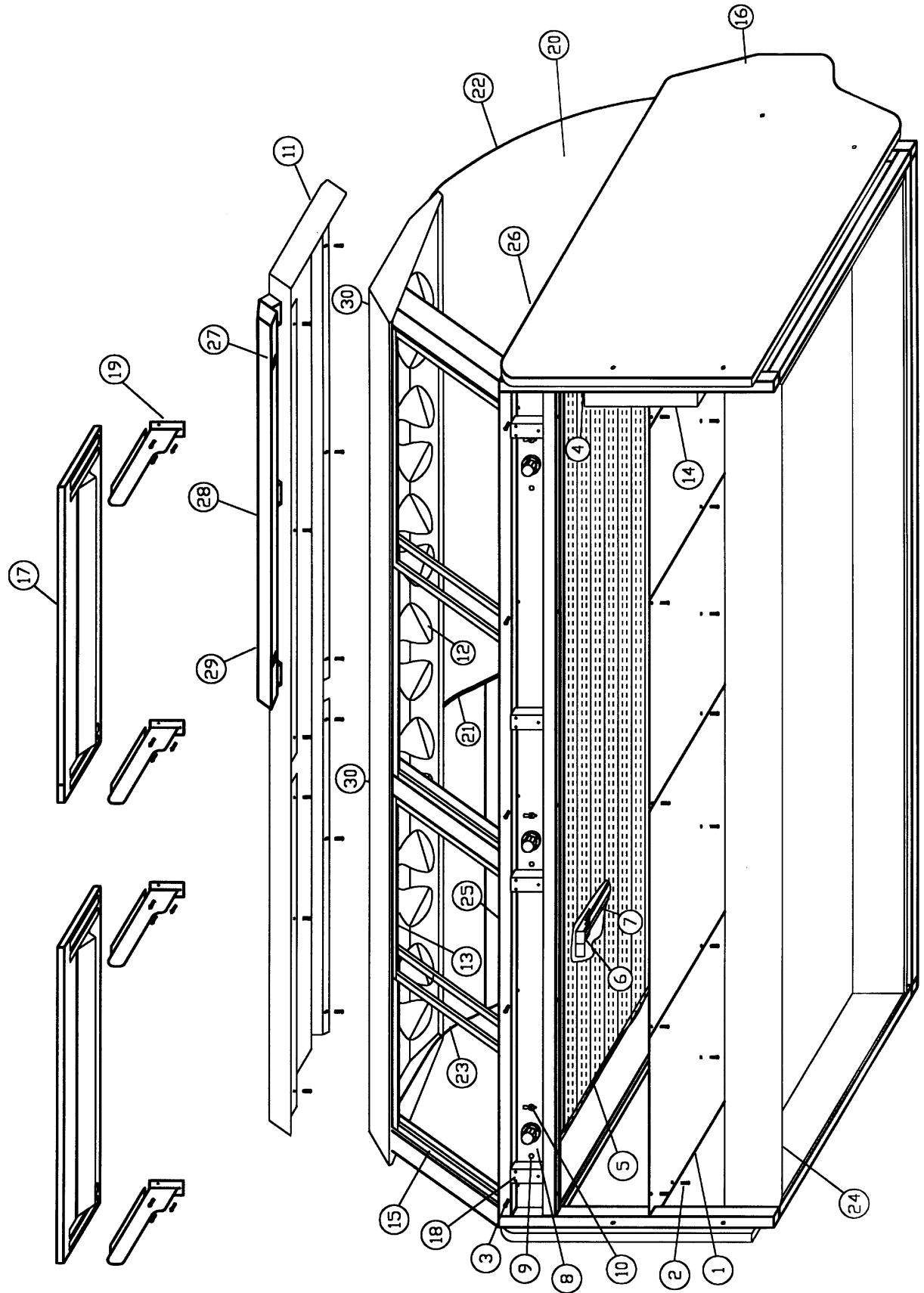
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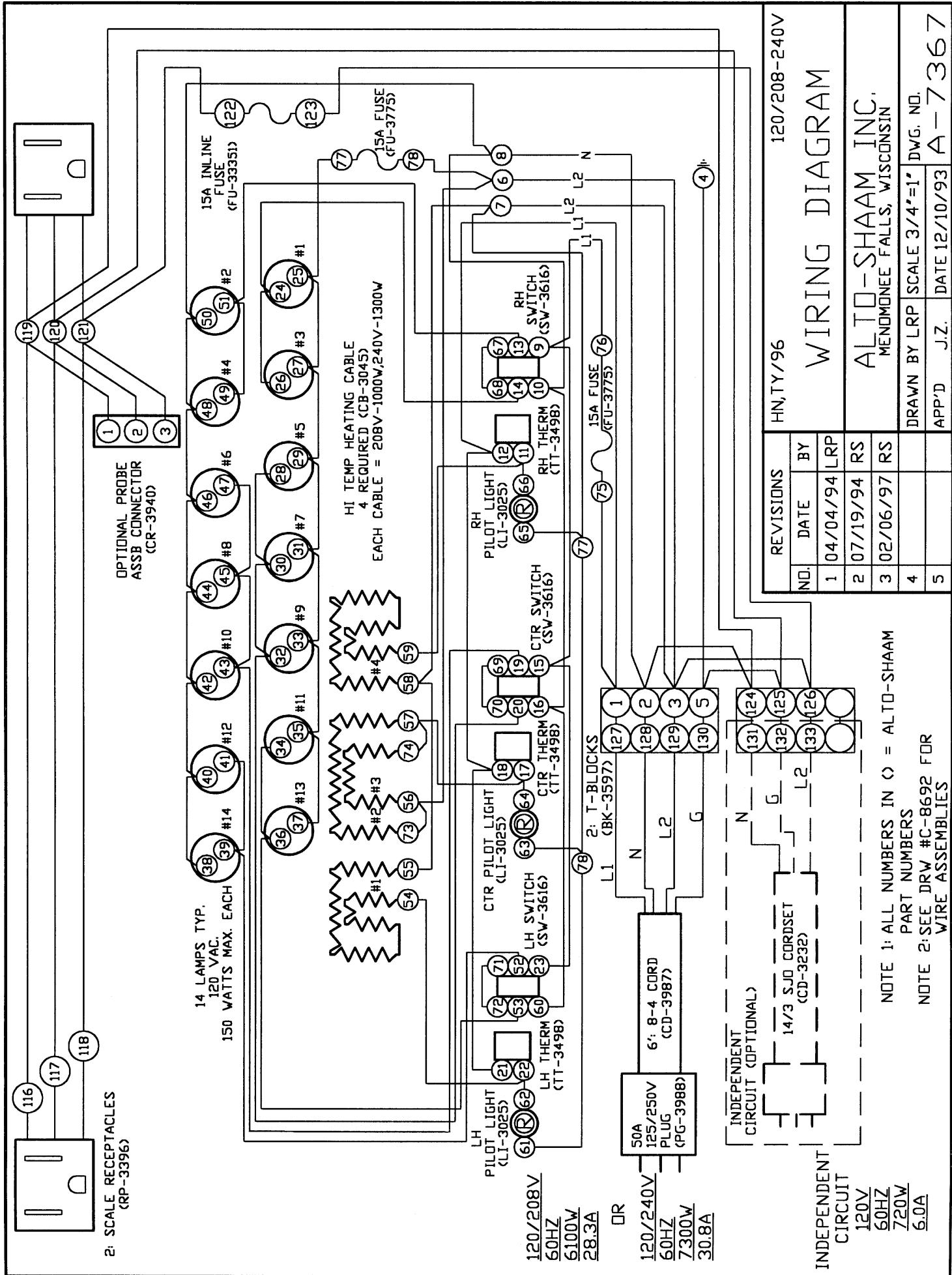
TYSYS-96/41L PASS-THRU LEFT				TYSYS-96/41R PASS-THRU RIGHT			
2/16/00	PART DESCRIPTION	QTY	A/S PT NO.	2/16/00	PART DESCRIPTION	QTY	A/S PT NO.
1. END PANEL BOTTOM, 120V		1	13028	1. END PANEL BOTTOM, 120V		1	13028
END PANEL BOTTOM, 230V		1	13986	END PANEL BOTTOM, 230V		1	13986
4' (1219mm) RIGHT-HAND BOTTOM PANEL		1	13029	4' (1219mm) RIGHT-HAND BOTTOM PANEL		1	13029
8' (2438mm) BOTTOM PANEL		1	13032	8' (2438mm) BOTTOM PANEL		1	13032
6' (1829mm) BOTTOM PANEL		1	13031	6' (1829mm) BOTTOM PANEL		1	13031
4' (1219mm) LEFT-HAND BOTTOM PANEL		1	13030	4' (1219mm) LEFT-HAND BOTTOM PANEL		1	13030
2. 8-32X1/2" S/S TRUSS HEAD SCREWS	29	SC-2425		2. 8-32X1/2" S/S TRUSS HEAD SCREWS	29	SC-2425	
8-32X1/4" S/S TRUSS HEAD SCREWS	2	SC-2459		8-32X1/4" S/S TRUSS HEAD SCREWS	2	SC-2459	
3. CONTROL PANEL MOUNTING SCREWS	5	SC-2459		3. CONTROL PANEL MOUNTING SCREWS	5	SC-2459	
4. CONDUIT TUBING: 6" (152mm)	2	TU-3874		4. CONDUIT TUBING: 6" (152mm)	2	TU-3874	
5. INSULATION: 34" x 95" (864mm x 2413mm)	2	IN-22364		5. INSULATION: 34" x 95" (864mm x 2413mm)	2	IN-22364	
6. CABLE CONNECTION HARDWARE				6. CABLE CONNECTION HARDWARE			
7. HEATING CABLE: 264' (80467mm)		CB-3045		7. HEATING CABLE: 264' (80467mm)		CB-3045	
8. THERMOSTAT	3	TT-3498		8. THERMOSTAT	3	TT-3498	
THERMOSTAT KNOB	3	KN-3473		THERMOSTAT KNOB	3	KN-3473	
9. INDICATOR LIGHT, 120V	3	LI-3025		9. INDICATOR LIGHT, 120V	3	LI-3025	
INDICATOR LIGHT, 230V	3	LI-3951		INDICATOR LIGHT, 230V	3	LI-3951	
INDICATOR LIGHT MOUNTING NUT	3	NU-3335		INDICATOR LIGHT MOUNTING NUT	3	NU-3335	
10. LAMP SWITCH	3	SW-3616		10. LAMP SWITCH	3	SW-3616	
11. TOP	1	14477		11. TOP	1	14482	
TOP MOUNTING SCREWS	7	SC-2425		TOP MOUNTING SCREWS	7	SC-2425	
TOP MOUNTING SCREWS	7	SC-2459		TOP MOUNTING SCREWS	7	SC-2459	
12. BULB, 120V	14	LP-3333		12. BULB, 120V	14	LP-3333	
BULB, 230V	14	LP-3384		BULB, 230V	14	LP-3384	
13. BULB SOCKET, 120V	14	RP-3952		13. BULB SOCKET, 120V	14	RP-3952	
BULB SOCKET, 230V	14	RP-3955		BULB SOCKET, 230V	14	RP-3955	
14. CIRCUIT BOX (120V) INCLUDES:	1	CI-3906		14. CIRCUIT BOX (120V) INCLUDES:	1	CI-3906	
BREAKER, 15 AMP	2	CI-33071		BREAKER, 15 AMP	2	CI-33071	
BREAKER, 20 AMP	2	CI-3908		BREAKER, 20 AMP	2	CI-3908	
GROUND BAR KIT	1	CI-3878		GROUND BAR KIT	1	CI-3878	
15. DOOR ASSEMBLY	1	DR-22807C		15. DOOR ASSEMBLY	1	DR-22807D	
16. BLACK END PANEL	2	PE-22708		16. BLACK END PANEL	2	PE-22708	
17. CUTTING BOARD ASSEMBLY	2	4016		17. CUTTING BOARD ASSEMBLY	2	4016	
18. CUTTING BOARD BRACKET (BASE)	4	12069		18. CUTTING BOARD BRACKET (BASE)	4	12069	
CUTTING BOARD BRACKET MTG. SCREWS	12	SC-24520		CUTTING BOARD BRACKET MTG. SCREWS	12	SC-24520	
19. CUTTING BOARD BRACKET	4	BT-2342		19. CUTTING BOARD BRACKET	4	BT-2342	
20. END GLASS, RIGHT-HAND, MIRRORED	1	GL-22539		20. END GLASS, RIGHT-HAND, MIRRORED	1	GL-22539	
END GLASS, LEFT-HAND, MIRRORED	1	GL-22538		END GLASS, LEFT-HAND, MIRRORED	1	GL-22538	
END GLASS GASKET: 5' (1524mm)	1	GS-22547		END GLASS GASKET: 5' (1524mm)	1	GS-22547	
21. DIVIDER GLASS	1	GL-22719		21. DIVIDER GLASS	1	GL-22719	
DIVIDER GLASS GASKET: 3' (914mm)	1	GS-22548		DIVIDER GLASS GASKET: 3' (914mm)	1	GS-22548	
22. FRONT DOUBLE CURVED GLASS	1	GL-23958		22. FRONT DOUBLE CURVED GLASS	1	GL-23958	
23. SELF-SERVE GLASS	1	GL-23959		23. SELF-SERVE GLASS	1	GL-23959	
24. BASE BOTTOM	1	1420		24. BASE BOTTOM	1	1420	
25. CUSTOMER HEAT GUARD	1	11118		25. CUSTOMER HEAT GUARD	1	11118	
26. PAN DIVIDER BARS (not shown)				26. PAN DIVIDER BARS (not shown)			
FULL/HALF/THIRD SIZE (LONG BAR)	3	11317		FULL/HALF/THIRD SIZE (LONG BAR)	3	11317	
FULL/HALF/THIRD SIZE (SHORT BAR)	12	11318		FULL/HALF/THIRD SIZE (SHORT BAR)	12	11318	
SHEET PAN	2	11320		SHEET PAN	2	11320	
PAN GRID	2	PN-22048		PAN GRID	2	PN-22048	
SELF-SERVE PAN ASSEMBLY	1	14481		SELF-SERVE PAN ASSEMBLY	1	14481	
27. SNAP-IN RECEPTACLES	2	RP-3396		27. SNAP-IN RECEPTACLES	2	RP-3396	
28. RECEPTACLE FUSE, 15 AMP	1	FU-33351		28. RECEPTACLE FUSE, 15 AMP	1	FU-33351	
RECEPTACLE FUSEHOLDER, 15 AMP	1	FU-33352		RECEPTACLE FUSEHOLDER, 15 AMP	1	FU-33352	
29. OUTLET HOUSING COVER	1	4951		29. OUTLET HOUSING COVER	1	4951	
30. FRONT GLASS STRUTS	2	SU-22702		30. FRONT GLASS STRUTS	2	SU-22702	
31. 4' PROBE PACKAGE OPTION (not shown)	1	5295		31. 4' PROBE PACKAGE OPTION (not shown)	1	5295	
32. OPTIONAL LOAD CTR. PKG. (not shown) 120-280V	1	14220		32. OPTIONAL LOAD CTR. PKG. (not shown) 120-208V	1	14220	
INCLUDES: LOAD CENTER	1	CI-3877		INCLUDES: LOAD CENTER	1	CI-3877	
GROUND BAR KIT	1	CI-3878		GROUND BAR KIT	1	CI-3878	
BREAKER, 15 AMP	1	CI-33071		BREAKER, 15 AMP	1	CI-33071	
CONNECTOR	1	CR-3953		CONNECTOR	1	CR-3953	
NUT	1	NU-3954		NUT	1	NU-3954	

TYSYSS-96/41L
SERVICE VIEW 1/16"=1'
1/23/98 RS



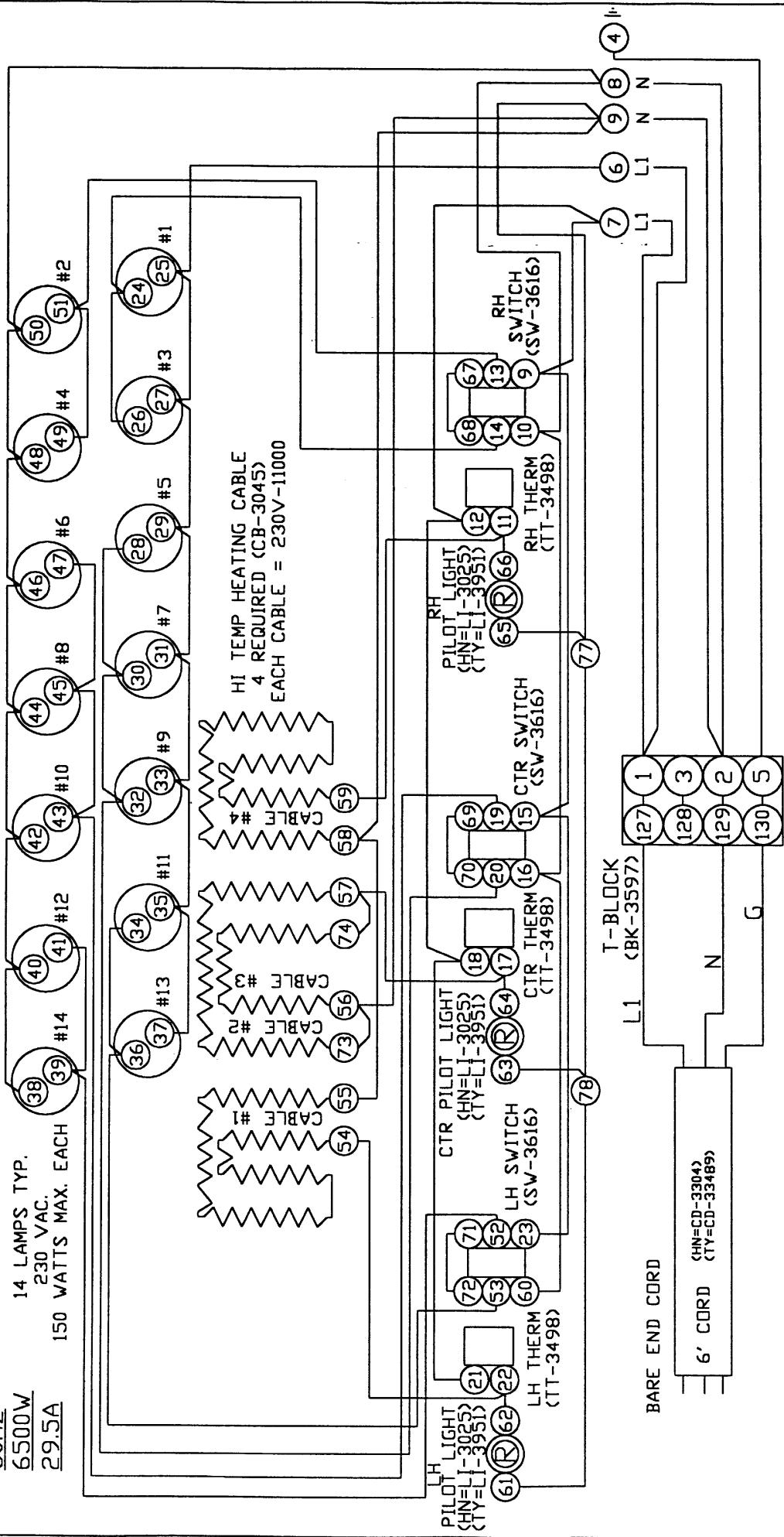
TYSSYS-96/41R
SERVICE VIEW 1/16"=1'
1/23/98 RS





230V
50HZ
6500W
29.5A

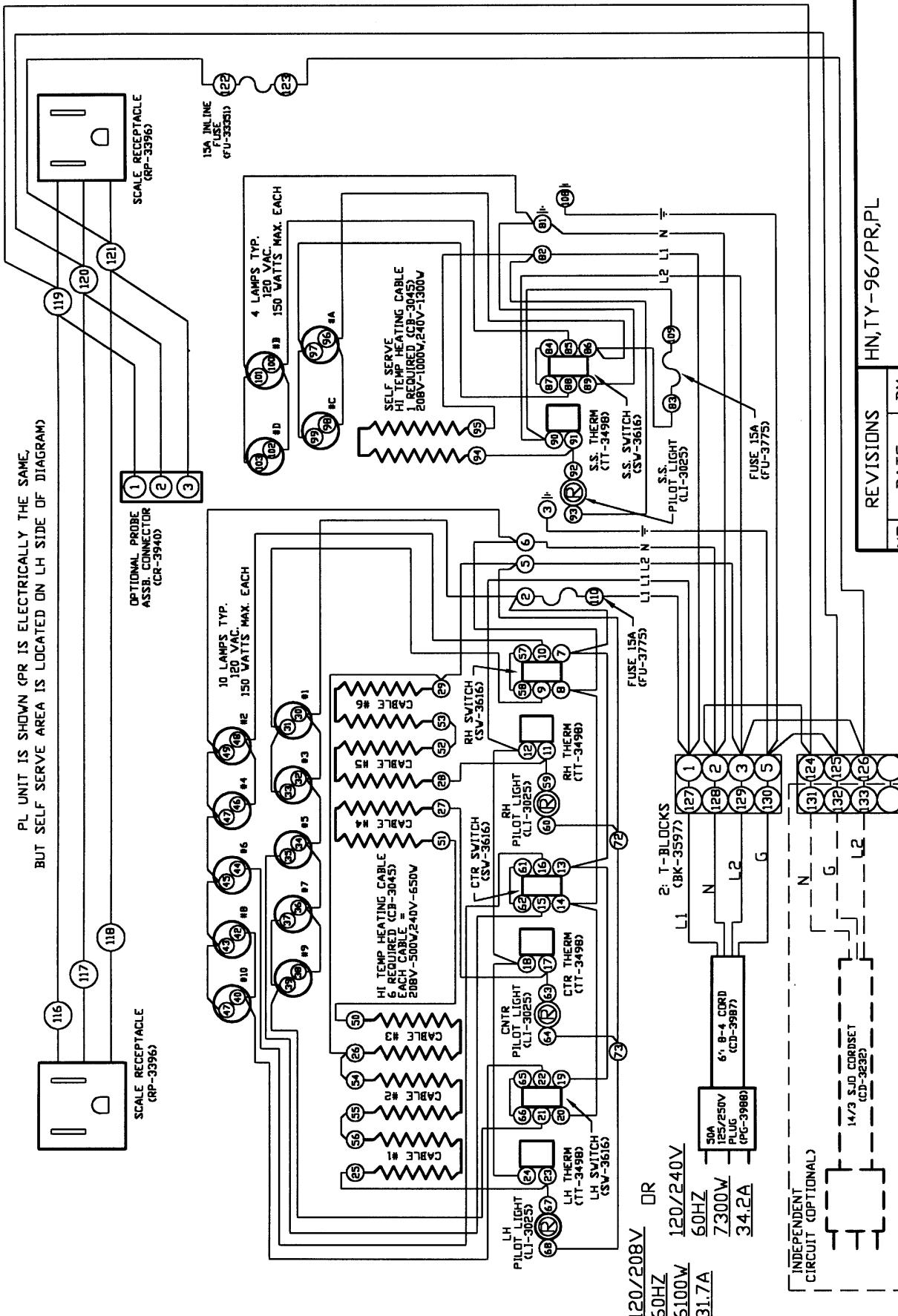
14 LAMPS TYP.
230 VAC.
150 WATTS MAX. EACH



REVISIONS			HN.TY-96		WIRING DIAGRAM	
NO.	DATE	BY				
1	02/06/97	RS				
2	06/18/98	RS				
3	03/02/99	JMM				
4			DRAWN BY RS	SCALE 3/4"=1"	ALT □ - SHAAM INC.	DWG. NO.
5			APP'D MSM	DATE 11-22-94	MENDOMEE FALLS, WISCONSIN	A-7400

NOTE 1: ALL NUMBERS IN () = ALT-SHAAM
PART NUMBERS
NOTE 2: SEE DRW #C-8723 FOR
WIRE ASSEMBLIES

PL UNIT IS SHOWN (P) IS ELECTRICALLY THE SAME,
BUT SELF SERVE AREA IS LOCATED ON LH SIDE OF DIAGRAM



HN/TY-96/PR.PL
120/240V

WIRING DIAGRAM

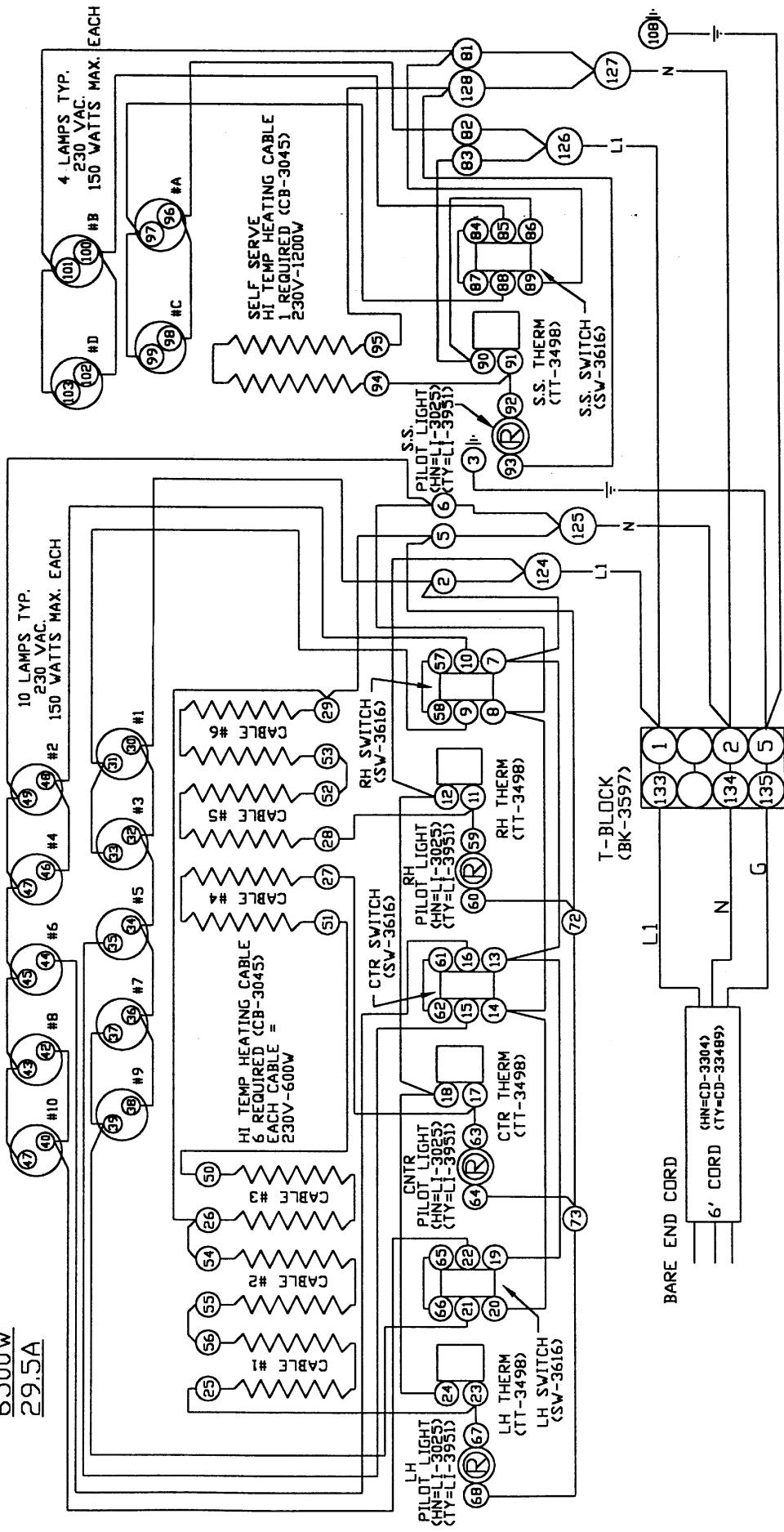
INDEPENDENT CIRCUIT
120V
60HZ
720W
6.0A

NOTE #1:	ALL NUMBERS IN < > = ALTO-SHAAM PART NO'S	4	DRAWN BY RS	SCALE	NONE	DWG. NO.
NOTE #2: SEE DRW. #C-B724 FOR WIRE ASSEMBLIES	5	APP'D	J.Z.	DATE 11-28-94	A - 7401	

NOTE #1:	ALL NUMBERS IN < > = ALTO-SHAAM PART NO'S	4	DRAWN BY RS	SCALE	NONE	DWG. NO.
NOTE #2: SEE DRW. #C-B724 FOR WIRE ASSEMBLIES	5	APP'D	J.Z.	DATE 11-28-94	A - 7401	

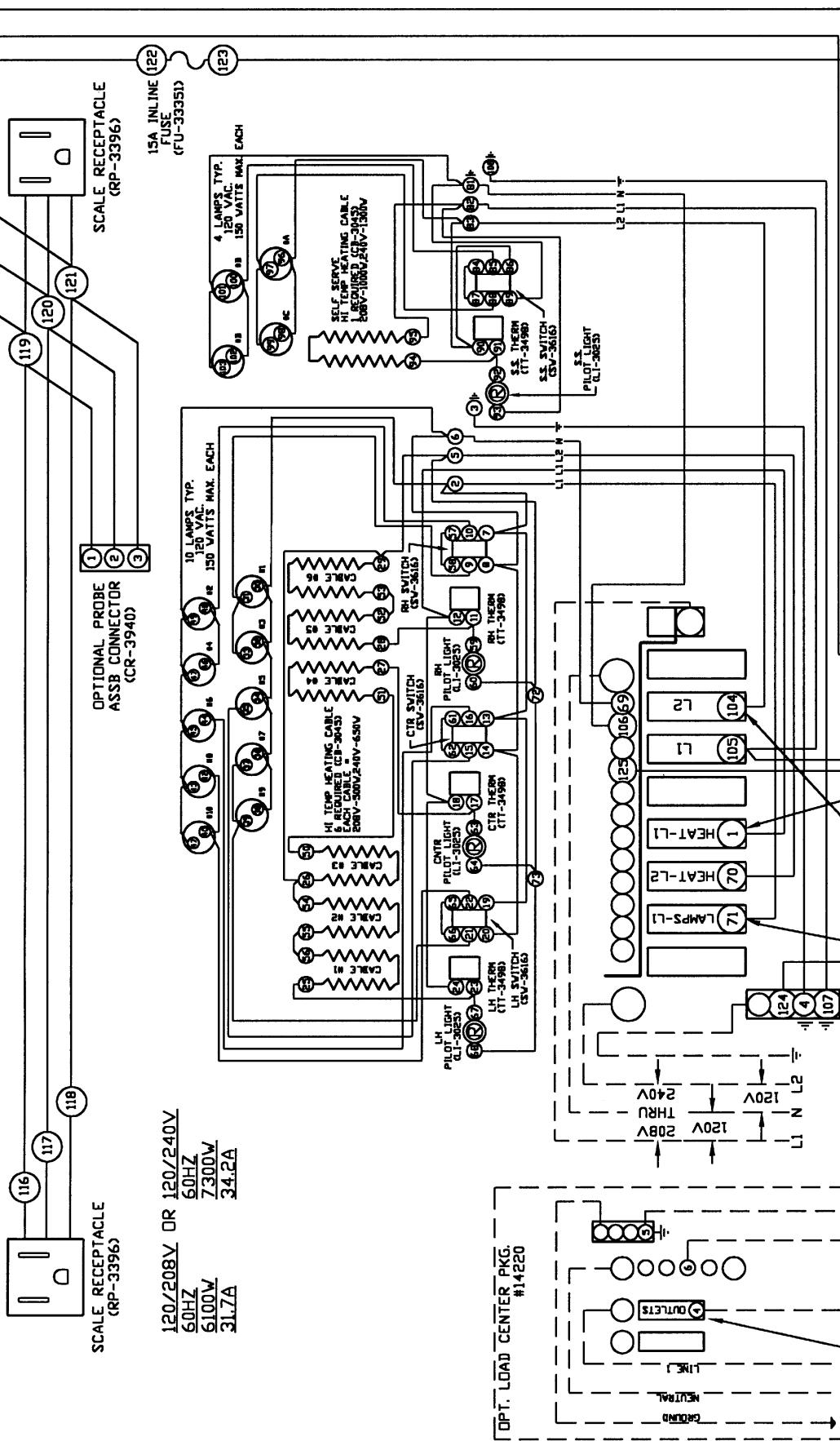
NOTE #1:	ALL NUMBERS IN < > = ALTO-SHAAM PART NO'S	4	DRAWN BY RS	SCALE	NONE	DWG. NO.
NOTE #2: SEE DRW. #C-B724 FOR WIRE ASSEMBLIES	5	APP'D	J.Z.	DATE 11-28-94	A - 7401	

230V
50HZ
6500W
29.5A



REVISIONS		
NO.	DATE	BY
1	02/06/97	RS
2	06/18/98	RS
3	03/02/99	JMM
4		DRAWN BY RS SCALE NONE DWG. NO.
5		APP'D MSM DATE 11-22-94 A-7402

PL UNIT IS SHOWN CPR IS ELECTRICALLY THE SAME,
BUT SELF SERVE AREA IS LOCATED ON LH SIDE OF DIAGRAM



230V
50HZ
6500W
29.5A

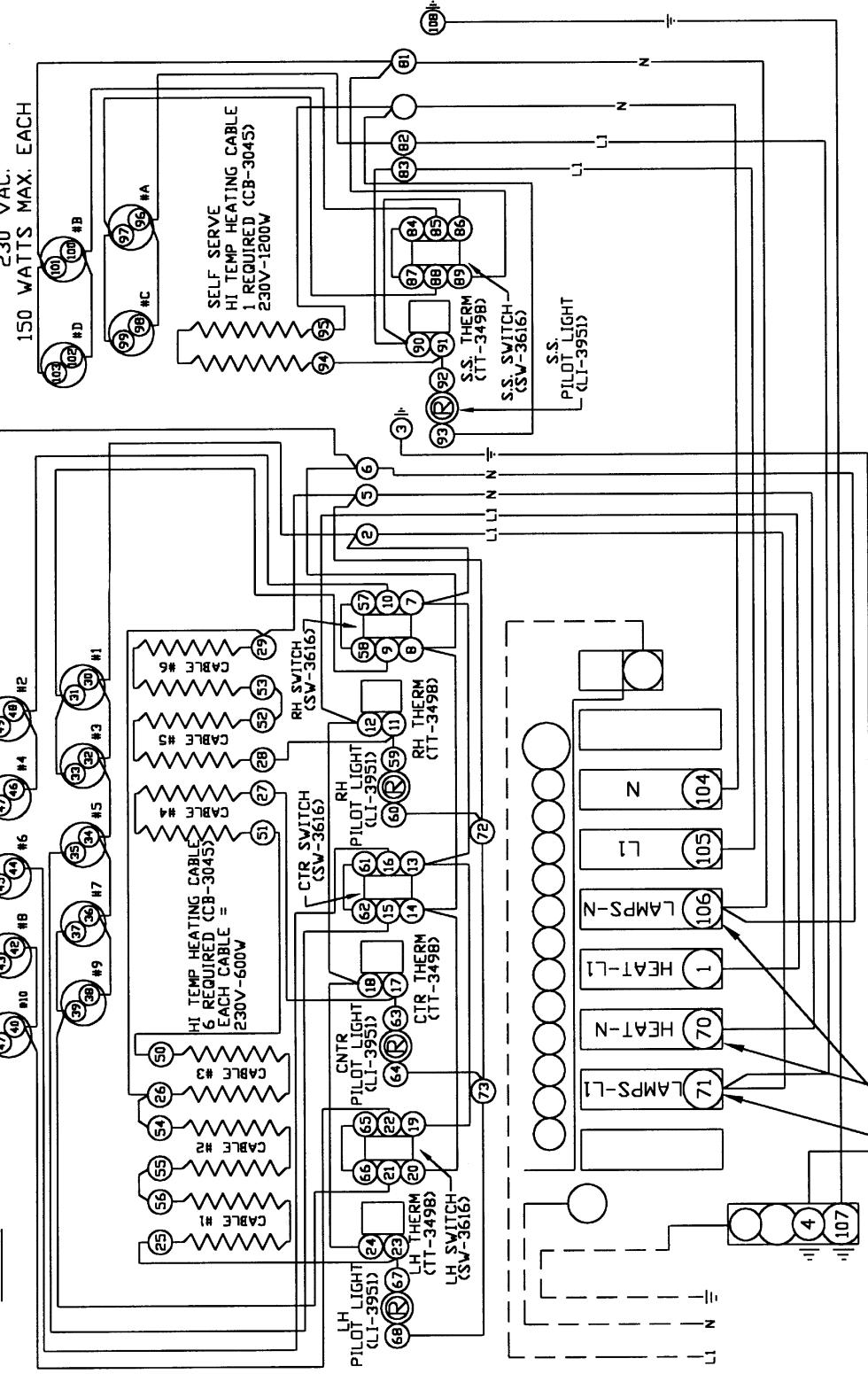
10 LAMPS TYP.
230 VAC.
150 WATTS MAX. EACH

4 LAMPS TYP.

230 VAC.
150 WATTS MAX. EACH

4 LAMPS TYP.

230 VAC.
150 WATTS MAX. EACH



2: 15A CIRCUIT
BREAKERS (CI-3307) -

4: 20A UNIT CIRCUIT
BREAKERS (CI-3907)

REVISIONS	
NO.	DATE
1	02/11/97 RS
2	06/18/98 RS
3	03/02/99 JMM
4	
5	

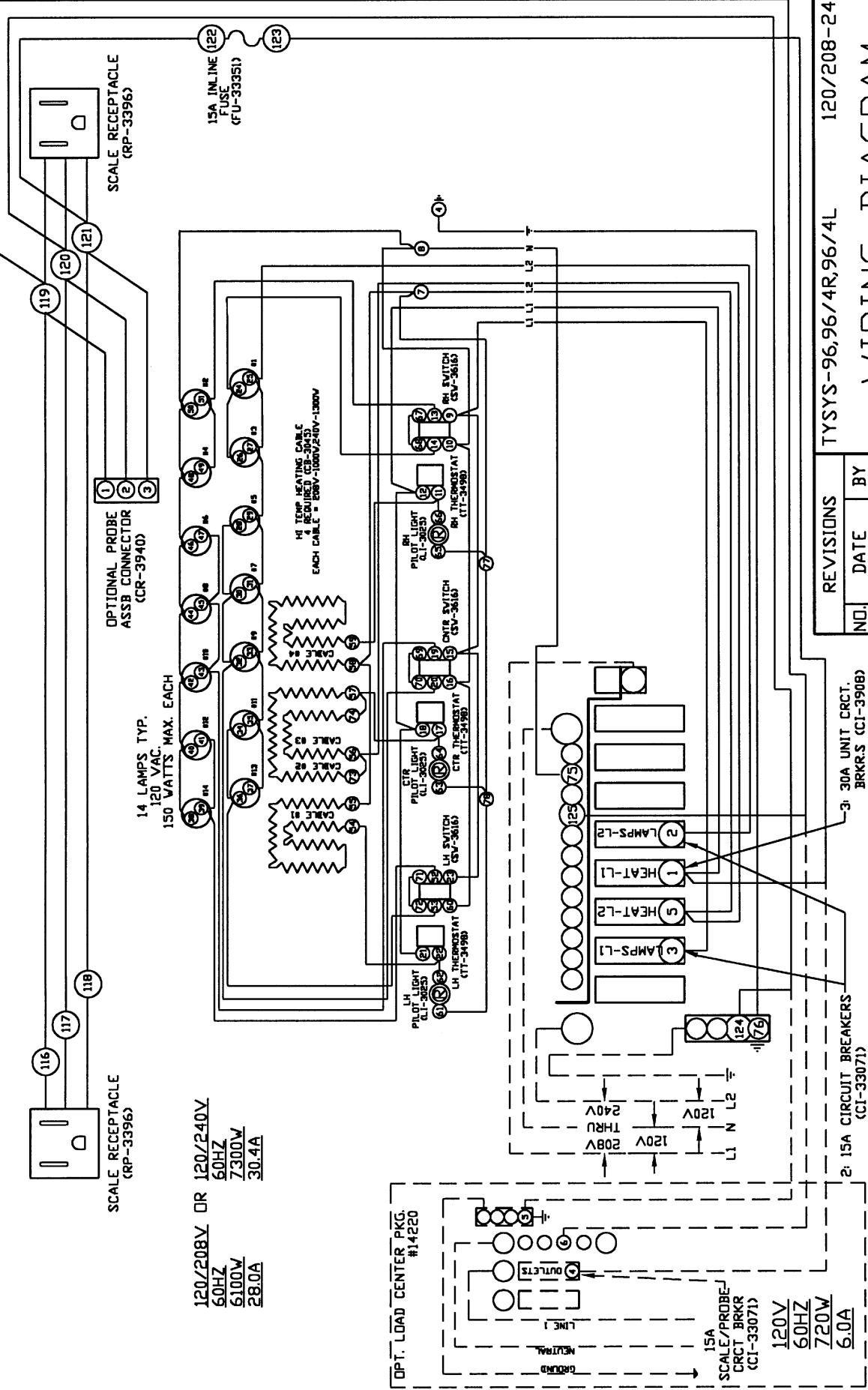
TYSYS-96/PR,PL
230V

WIRING DIAGRAM

ALTO-SHAAM INC.
MENOMONEE FALLS, WISCONSIN

DRAWN BY	RS	SCALE	NONE	DWG. NO.
APP'D	MSM	DATE 11-28-94	A-7405	

NOTE #1: ALL NUMBERS IN < > = ALTO-SHAAM PART NOS
NOTE #2: SEE DRW. #B-8781 FOR WIRE ASSEMBLIES



TYSYS-96,96/4R,96/4L 120/208-240V

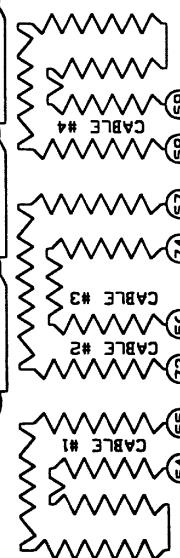
WIRING DIAGRAM

ALTO-SHAAM INC.
MENOMONEE FALLS, WISCONSIN

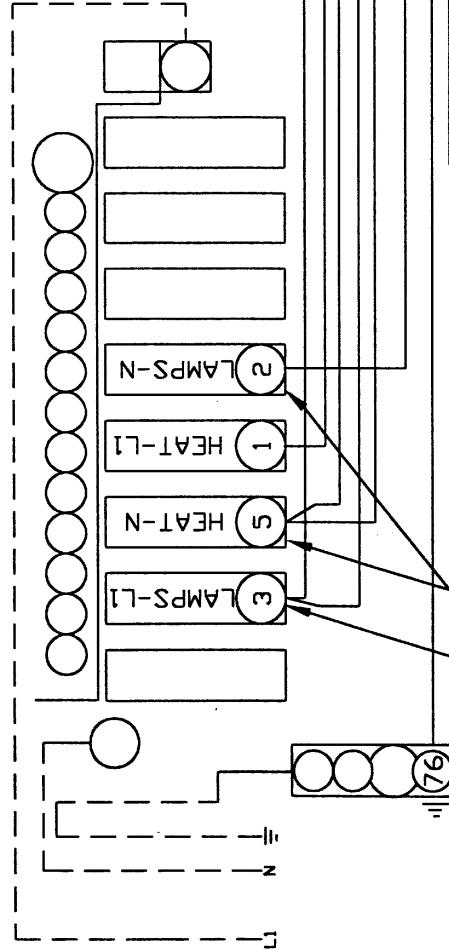
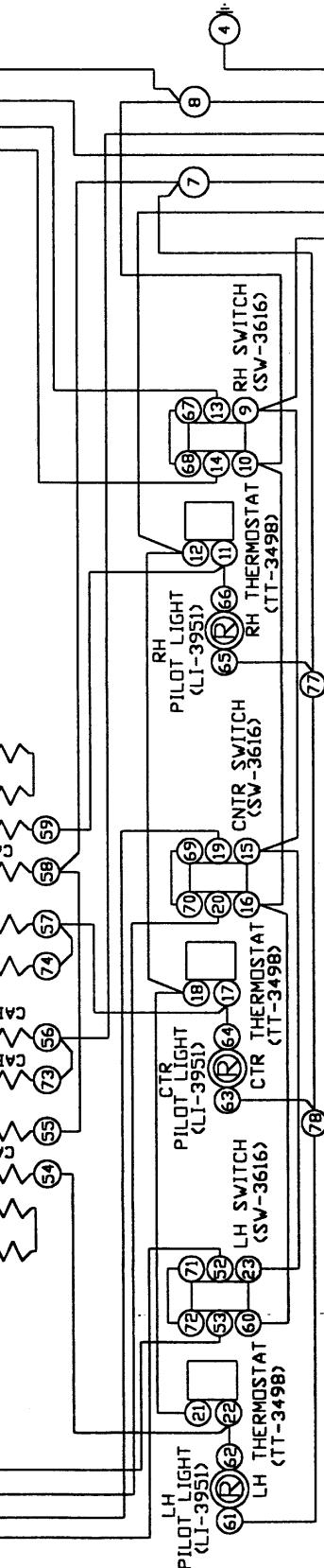
DRAWN BY LRP SCALE 1/2"=1"
DWG. NO.
A-7339

14 LAMPS TYP.
230 VAC.
150 WATTS MAX. EACH

230V
50HZ
6500W
29.5A



HI TEMP HEATING CABLE
4 REQUIRED (CB-3045)
EACH CABLE = 230V-1200W

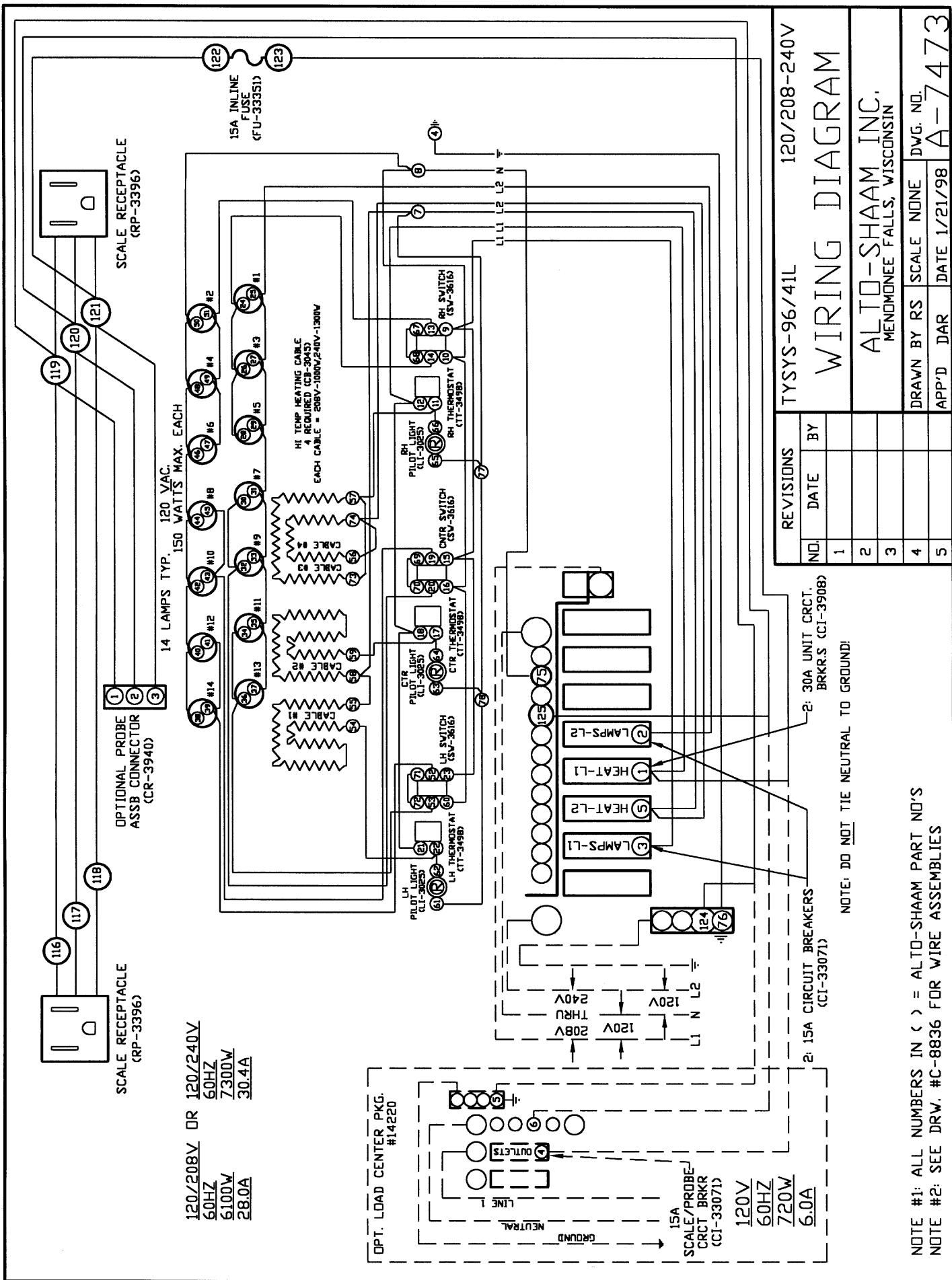


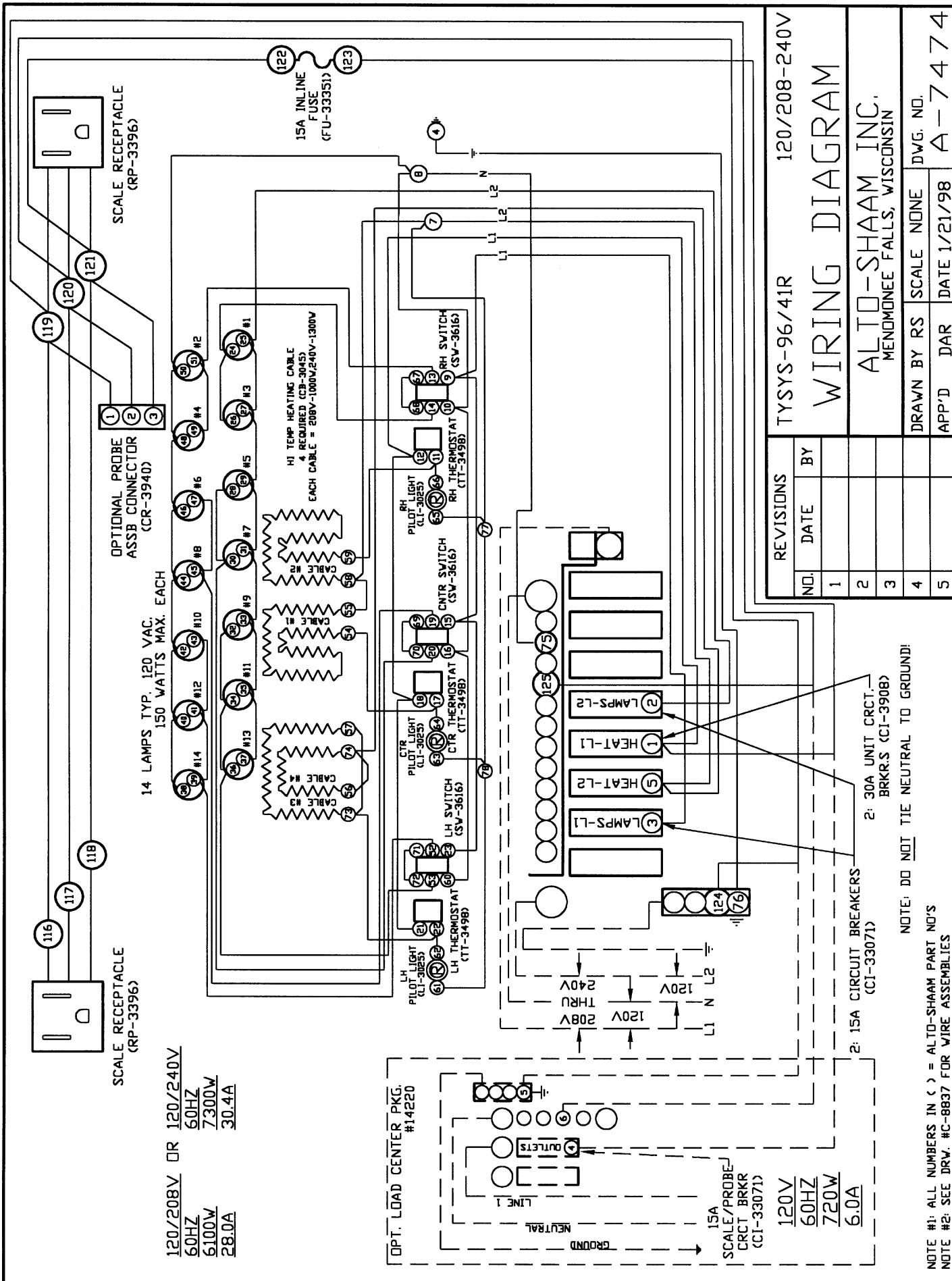
2: 15A CIRCUIT
BREAKERS (CI-33071)

REVISIONS
NO. DATE BY
1 02/11/97 RS
2 07/22/97 RS
3 06/18/98 RS
4 03/2/99 JMM DRAWN BY RS
5 APP'D MSM DATE 11-28-94

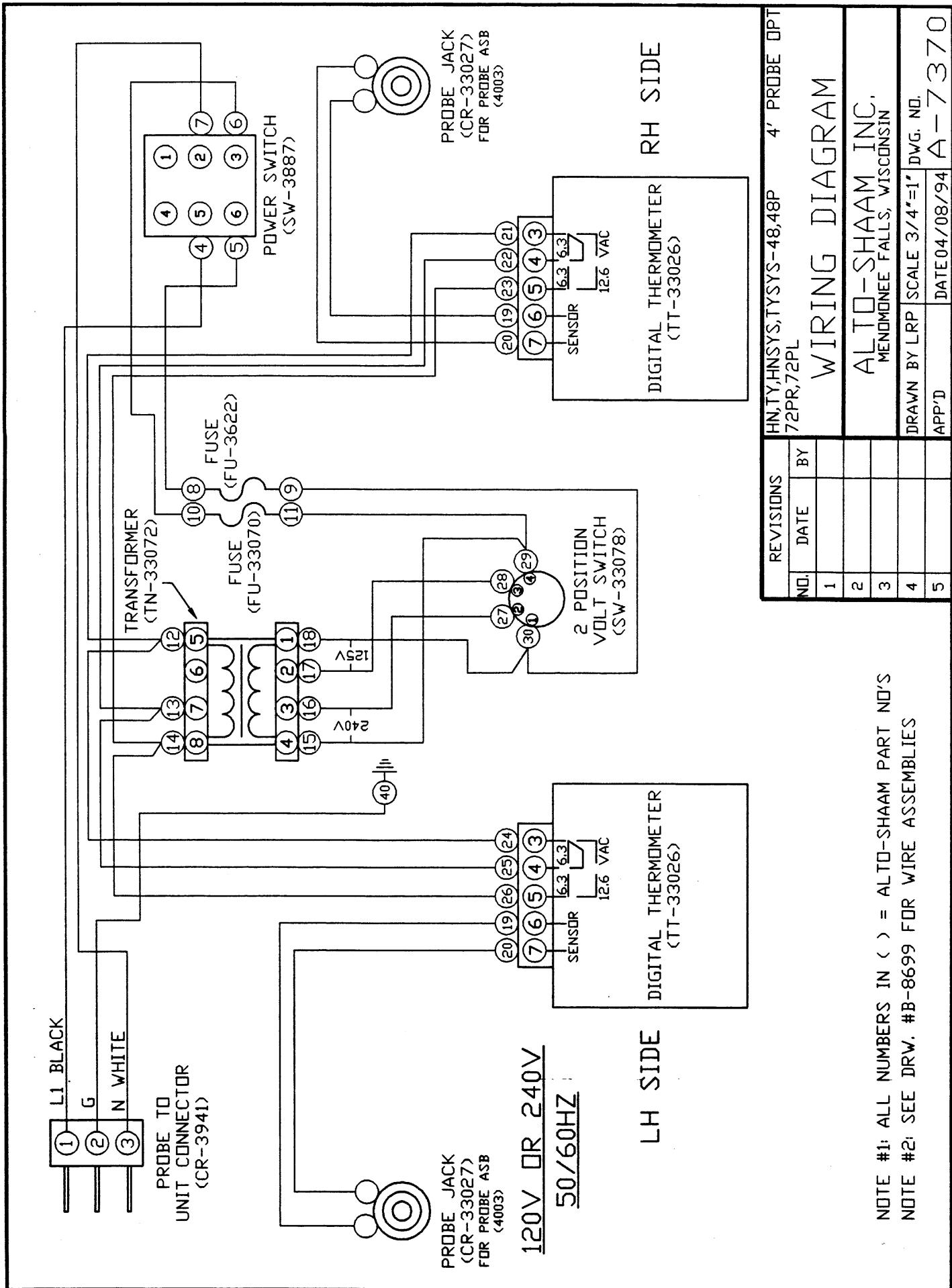
TYSYS-96,96/4L,4R
WIRING DIAGRAM
230V

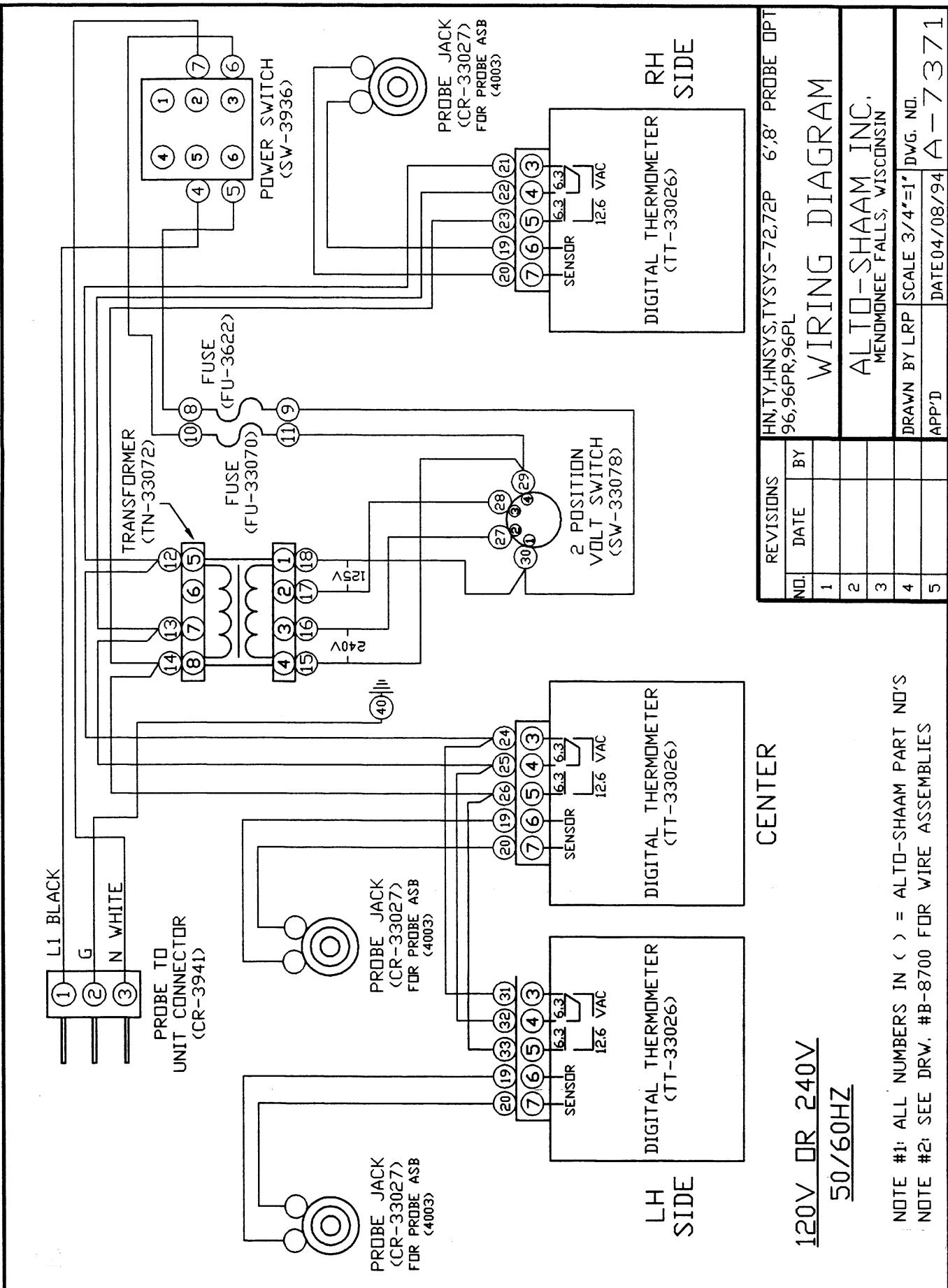
NOTE #1: ALL NUMBERS IN () = ALTO-SHAAM PART NO'S
NOTE #2: SEE DRW. #C-8780 FOR WIRE ASSEMBLIES





NOTE #1: ALL NUMBERS IN () = ALTO-SHAAM PART NOS
NOTE #2: SEE DRW. #C-8837 FOR WIRE ASSEMBLIES





TRANSPORTATION DAMAGE and CLAIMS



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

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

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

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

ALTO-SHAAM® LIMITED WARRANTY

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

The labor warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

The parts warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

Exceptions to the one year part warranty period are as listed:

- A. Halo Heat cook/hold ovens include a five (5) year parts warranty on the heating element. Labor will be covered under the terms of the standard warranty period of one (1) year or fifteen (15) months.
- B. Alto-Shaam Quickchillers include a five (5) year parts warranty on the refrigeration compressor. Labor will be covered under the terms of the standard warranty period of one (1) year or fifteen (15) months.

This warranty does not apply to:

1. Calibration
2. Replacement of light bulbs and/or the replacement of display case 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.
5. Any losses or damage resulting from malfunction, including loss of product or consequential or incidental damages of any kind.
6. 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, expressed or implied, including the implied warranties of merchantability and fitness for purpose. In no event shall the Company be liable for loss of use, loss of revenue, or loss of product or profit, or for indirect or consequential damages. This warranty is in lieu of all other warranties expressed or implied and Alto-Shaam, Inc. neither assumes or authorizes any persons to assume for it any other obligation or liability in connection with Alto-Shaam equipment.

ALTO-SHAAM, INC.

Warranty effective January 1, 2000

Record the model and serial numbers of the unit for easy reference.

Always refer to both model and serial numbers in your correspondence regarding the unit.

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

HALO HEAT COOK/HOLD/SERVE SYSTEMS BY ALTO-SHAAM®

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