Aladdin Temp-Rite®

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1-800-888-8018 or 615-537-3600
Fax 1-800-812-9956 www.aladdintemprite.com

...better by degrees.

# CONVECT-RITE™ III

## Air Cooled

## Convect-Rite™ III Docking Stations

*24 Meal Capacity (CR3D0XXX1)*
*30 Meal Capacity (CR3D1XXX1)*

Used with
Convect-Rite™III Cart manual 98893
or
Convect-Rite™ Trans-Tray System manual 98871

**U.S. Patent Number 7,025,121**

**Manual P/N 97394**
**Rev. K 10/23/2009**

# INSTALLATION & SERVICE MANUAL

## IDLE

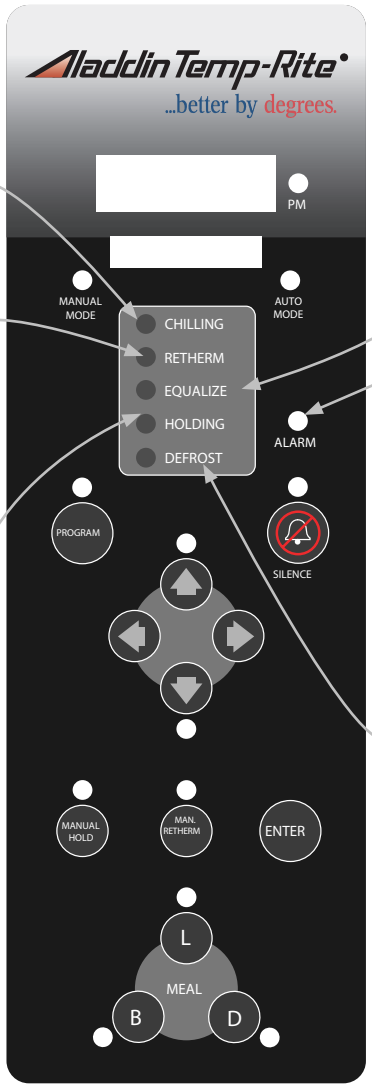
Mode: (Red **AUTO MODE** or Red **MANUAL MODE** LED illuminated) The Convect-Rite™ III system is powered up. No cart is engaged. The alphanumeric display shows the word "Idle".

## CHILLING

Mode: (Green LED illuminated) Cart is engaged. After a 5 second delay, both the hot side and cold side chambers will be subjected to refrigeration cooling to satisfy temperature set points programmed into the controller.

## EQUALIZE

Mode: (Green LED illuminated) After the Convect-Rite III finishes the **RETHERM** mode, it will automatically move into the **EQUALIZE** mode (default duration for the 24 meal dock is 10 minute, for the 30 meal dock is 5 minute). During this mode, the temperature set point for the hot side chamber has a lower setting to allow for temperature saturation throughout the cart. The fans will continue to run to enhance the saturation process. The cold side chamber will continue to receive refrigeration cooling.




## RETHERM

Mode: (Green LED illuminated) The hot side chamber will receive heating while the cold side chamber will receive refrigeration cooling. This cycle is used to rethermalize food on the hot side of the cart. This mode can be started using either the **MANUAL RETHERM** key or pre-programmed meal times **(AUTO MODE)**. The timer will display the number of remaining minutes in the retherm cycle and count down to zero.

| Default Time (Minutes) | 24 Meal | 30 Meal |
|---|---|---|
| Breakfast | 38 | 45 |
| Lunch & Dinner | 48 | 55 |

## ALARMS

An alarm can arise at any point during the operation of the Docking Station. A buzzer will sound to indicate an alarm has been activated and both the Red ALARM LED and the red SILENCE LED will blink on and off. The alphanumeric display will show which alarm occurred. Press SILENCE key to silence the alarm buzzer (the Red ALARM LED will remain illuminated if the alarm condition exists). The alarm will terminate once the alarm condition is satisfied. See the Owner's Manual for all alarm displays and descriptions.

## HOLDING

Mode: (Red LED illuminated) The HOLDING mode includes a sounding alarm to indicate the rethermalization process (RETHERM + EQUALIZE) is complete. The cart can be removed at any time. The temperature set point for the hot side chamber has a lower setting than the EQUALIZE mode. The fans will continue to run to enhance the saturation process. The timer will display the number of minutes held and count up to the duration setting (default 10 minute duration, max. hold 60 minute duration). Once the programmed holding time is reached, all heating and refrigeration will cease operation and a second alarm will sound continuously until the cart is removed.

## DEFROST

Mode: (Green LED illuminated) If CHILLING mode continues for an extended amount of time, the DEFROST mode may be automatically activated. During this mode, the refrigeration cooling used during the CHILLING mode will turn off for the programmed duration (default 10 minutes) of the DEFROST mode. The fans will still operate. This mode ensures the coils inside the dock do not freeze while receiving extended periods of refrigeration cooling in the CHILLING mode. Once the DEFROST duration expires ,the system will return to the CHILLING mode. This mode will not activate during the rethermalization cycle.

# CONTENTS

# I. INTRODUCTION

## Convect-Rite™ III Docking Stations

The Convect-Rite™ III Docking Stations are installed and electrically connected in the ward pantry for a decentralized operation or grouped in one area for a centralized operation. Operation and programming of these units is shown in the Owners Manual. The Convect-Rite™ III Docking Station is a dual cold and hot air-generator, which may be used up to three times a day in the Auto mode:

- To keep the meals at the recommended and safe temperature of 37/41°F (+3°C/+5°C) during stand-by periods prior to rethermalization.
- To rethermalize starters, soups, hot desserts or main-courses in approximately 50-60 minutes before service.
- **IMPORTANT NOTE:** The food products in the cold section, should be at maximum homogeneous 50°F (10°C) temperature when loaded inside the cart, so that the Convect-Rite™ III System can keep them between 37 and 41°F (+3° and +5°C) at the end of the chill-down and rethermalization cycle.
- A minimum chill-down cycle of 50 minutes is recommended prior to rethermalization to assure the lowest possible cold food temperatures.

## MODELS

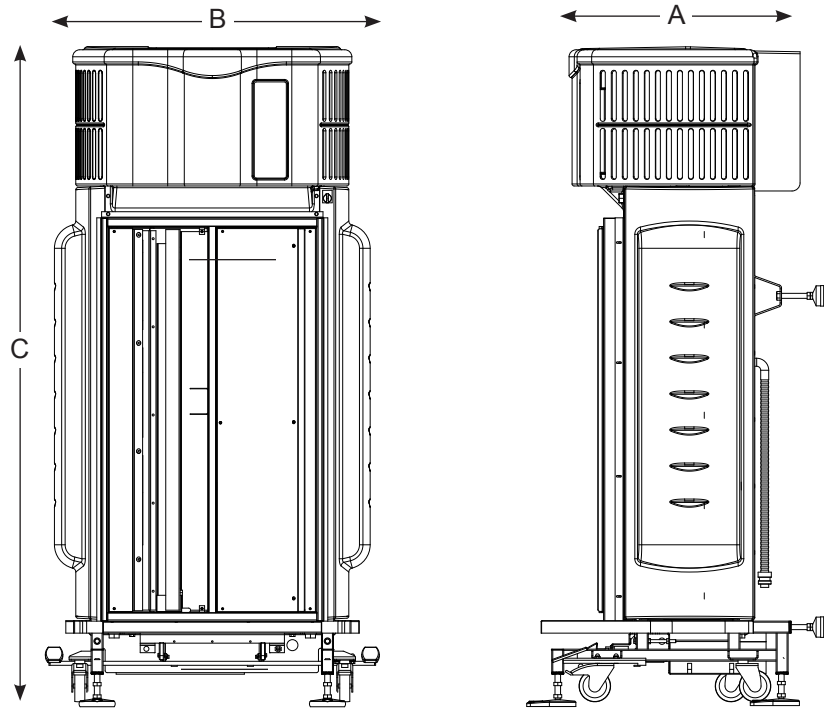
This manual covers the standard models for the Convect-Rite™ III Docking Station that accommodates 24 or 30 meals depending on the unit. Information for the Convect-Rite™ III System is listed in the table below. See below for dimensions.

**TABLE 1-1**

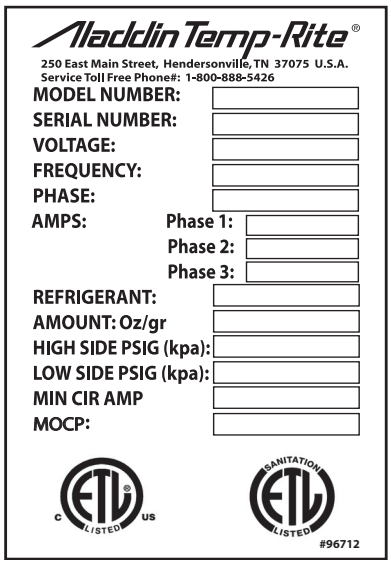
| Tray Capacity, Dimensions, Weight, Electrical Data, & Heat Load Requirements | | | |
|---|---|---|---|
| DIM | CONVECT RITE™ SYSTEM MODELS | Docking Station 24 Meal | 30 Meal |
| | ALADDIN SALES CODE FOR STANDARD MODELS | CR3D0XXX1 | CR3D1XXX1 |
| | TRAY CAPACITY<br>TRAY SPACING | n/a | n/a |
| A | LENGTH/DEPTH<br>(OFF WALL FOR Docking Station) | 32.56" (82.7 cm) | 32.56" (82.7 cm) |
| B | WIDTH | 41.69" (108.89 cm) | 41.69" (108.89 cm) |
| C | HEIGHT | 77.63" (197.18cm) | 82.08" (208.5 cm) |
| | WEIGHT<br>SHIPPING WEIGHT | 530 lb (240.4 kg)<br>550 lb (249.5kg) | 573 lb (259.9 kg)<br>593 lb (268.9 kg) |
| | Cart TURNING RADIUS | n/a | n/a |
| | MAX HEAT EMISSIONS<br>@ 70°F AMBIENT | 7900 BTU/HR | 9900 BTU/HR |
| | COOLING CAPACITY | 6000 BTU/HR | 7500 BTU/HR |
| | ELECTRICAL REQUIREMENTS | 208V - 3 Phase - 60 HZ / 4 Wire - 30 Amp (Hard wire connection required) | |

## SPECIFICATIONS

CONVECT RITE™ III Docking Station



### SERIAL / PRODUCT INFORMATION PLATES




During manufacture, Convect-Rite™ III Docking Stations are assigned individual serial numbers. The serial number plate is located on the top left hand side of the black plastic top cover. The product information plate lists the model number, serial number, voltage, power and wiring requirements, amount and kind of refrigerant, pressure, and ETL listed mark. (See Figure 1-3)

**Figure 1-3**

# II. RECEIVING INSPECTIONS

Your Aladdin Convect-Rite™ III Docking Station is factory tested for performance and is free from defects when shipped. The utmost care has been taken in packaging this product to protect against damage in transit. All interior fittings have been secured to prevent damage.

You should carefully inspect your Convect Rite™ III components to assure that no damage has occurred in transit. If however, damage is detected, you should save all the packaging materials and make note on the carriers Bill of Lading describing this shipment. A freight claim should be filed immediately. If damage is subsequently noted during or immediately after installation, contact the respective carrier and file a freight claim. Under no condition may a damaged unit be returned to Aladdin Temp-Rite without first obtaining written permission (return authorization).

PACKAGING:
Your Convect Rite™ III Docking Station is packaged with care and shipped on dedicated carriers to you from the factory.

**IMPORTANT NOTE:**
**Aladdin Temp-Rite does not recommend laying the unit down on its front, side or back**. However, if you must, please be certain to allow the unit to remain in an upright position for 24 to 48 hours before attempting to place the unit into service, to assure that the compressor oils and refrigerant may settle.

ALADDIN DAMAGED GOODS POLICY
There are two types of damaged merchandise:
A. VISIBLE DAMAGE OR SHORTAGE
B. CONCEALED DAMAGE

A. VISIBLE DAMAGE OR SHORTAGE - (All claims should be reported within 10 business days)
1. Receiver should refuse the damaged portion of the shipment.
2. Receiver should sign the bill of lading indicating (delivery receipt) what merchandise is being "refused due to damage" and have the driver initial the notation.
3. Receiver should note any shortages on the bill of lading (delivery receipt) in the same manner.
4. Receiver should contact Aladdin Customer Service at 1-800-888-8018 and alert them to the situation.

B. CONCEALED DAMAGE- (All claims should be reported within 10 business days)
Any receiving operation should inspect for this type of damage.

IF PRODUCT IS DAMAGED
1. Receiver should hold the shipping container and its contents in the same condition as when the damage was discovered insofar as possible and call the delivering carrier to arrange on site inspection within 10 days of delivery.
2. Receiver should contact Aladdin Customer Service at 1-800-888-8018 for claims processing after inspection has been completed.

# III. INSTALLATION INSTRUCTIONS

**IMPORTANT NOTE:**

**DO NOT INSTALL** a Convect-Rite™ III Docking Station if damage is suspected.

**INJURY & EQUIPMENT DAMAGE** could result from improper installation of the Convect-Rite™ III Docking Station or from installation of a unit damaged during shipment or storage. **Either of these conditions will void the equipment warranty.**

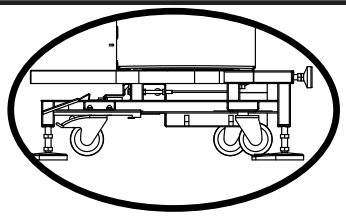
## ⚠ WARNING ⚠

**DO NOT** move a Convect-Rite™ III Docking Station up a slope greater than 10°.

**DO NOT EVER** tow a Convect-Rite™ III Docking Station

**DO NOT** push a Convect-Rite™ III Docking Station from the front or back side

## ⚠ CAUTION ⚠



Casters are **ONLY** intended for use during **installation or service**.

Unit **MUST** be positioned securely against a wall during operation!

## INTRODUCTION

Install the Convect-Rite™ III Docking Station according to the policies and procedures outlined in this manual. After selecting and preparing the Convect-Rite™ III Docking Station operating location, the unit can be positioned and installed. When installation is complete, perform all start-up checks to verify proper installation and operation.

This section is a guide for installation of the Convect-Rite™ III models identified in the Introduction section of this manual. This guide is for use by qualified professionals, and does not include all procedures and precautions in the common domain of licensed plumbers, pipe fitters, and electricians or experienced food service equipment installers.

This guide MUST be used in conjunction with professional experience and thorough understanding of the local and national utility, construction & sanitation codes.

**Before starting installation, the owner and the installer should read through this chapter and thoroughly understand and agree upon:**

- The installation policies of Aladdin Temp-Rite® as stated in Installation Policies Section.
- An installation plan based on the Installation Instructions and Start-Up Check List

## INSTALLATION POLICIES

The Convect-Rite™ III Docking Station must be installed by qualified electrical, mechanical, or refrigeration personnel, working to all applicable national and local codes. Equipment installation must comply with the local and national codes.

- All models of the Convect-Rite™ III Docking Station comply with the applicable standards for manufacturers. Included among those certification agencies are: ETL Safety and ETL Sanitation.
- The Convect-Rite™ III Docking Station is certified for safe operation only when permanently installed in accordance with local and/or national codes. Many local codes exist, and it is the responsibility of the owner and installer to comply with these codes.
- In no event shall Aladdin Temp-Rite assume any liability for damage or injury resulting from installations which are not in strict compliance with the Installation, Instructions and the codes cited above. Specifically, Aladdin Temp-Rite will not assume any liability for damage or injury resulting from improper installation of equipment, including but not limited to temporary or mobile installations.

## ELECTRIC POWER REQUIREMENTS

Unit should be **hard wired** to electrical disconnect requirements specified which can also be found on the product identification plate. The plate is secured to the top on the left hand side as you look at the front of the unit as mentioned in serial/product information plate section. 208 volts / 3 phase / 30 amp circuit / 4 wire (3 hots & 1 ground)

## SELECTING THE OPERATING LOCATION

For safe and efficient operation, observe the following criteria when selecting an operating location for the Convect-Rite™ III Docking Station.

**IMPORTANT NOTE**:
The flooring directly under this unit must be made of non-combustible material and be capable of supporting the weight of this equipment.

1. Do not install these units in areas where combustibles are stored or may accumulate. The surrounding area must be clear of combustibles, including the space under the unit.
2. A proper air supply for ventilation is critical to safe, efficient operation of the Docking Station. The area around the Docking Station must have adequate ventilation and the ambient temperature should never be above 85°F (35°C).
3. Do not block the louvers or panels. Do not install any heat producing equipment near the louvers of the unit. Ventilation occurs through open slots on the dock's right side and through louvers on the back of the dock.

4. The dimension drawings in Figure 3-1 specify all dimensions and clearances required for proper installation operation and service of the Convect-Rite™ III Docking Station, covered in this manual. **Maintain at least a 6" (15.2 cm) operating clearance between foot pedals of units, at least 10" (25.4 cm) between foot pedal and sidewall, at least 18" above the unit, and at least a 5 3/4" (14.6 cm) clearance at the back of the unit. The front and rear door swing of the cart is 30" (750 cm).**
5. The condensing unit and controller can be accessed by removing the black plastic top cover. Removable side panels provide access for service of various components; the right side for the cold side blowers and control panel and the left side for the hot side motors. The back access panel permits service to the cold side motors and expansion valves. Removing the left side perforation panels allows access to the hot side heaters and blowers. **A minimum 6" (15.16 cm) clearance should be available on both sides of the unit.** For access to the back and side panels the Docking Station should be lowered onto the casters and pulled away from the wall where it can be turned 90°-180° for ease of service.
6. The location selected must be capable of supporting the operational weight of the Convect-Rite™ III system including the weight of the Convect-Rite™ III cart loaded with trays, crockery, and food-products. See Table 1-1 for equipment weights.
7. **The floor surface under the unit must be level and continuous with the flooring in front of the unit**. The cart must roll smoothly to the Docking Station for ease of operation and maintenance of the seal between the Docking Station and the cart.

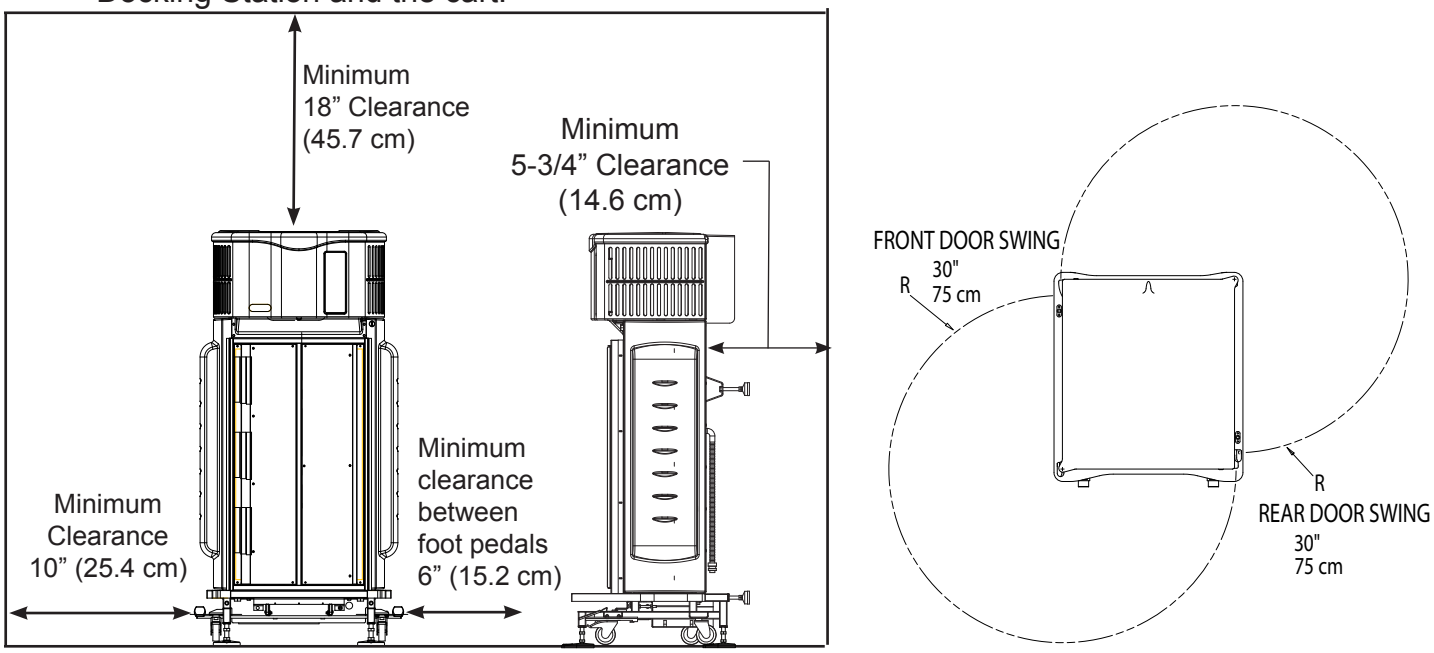
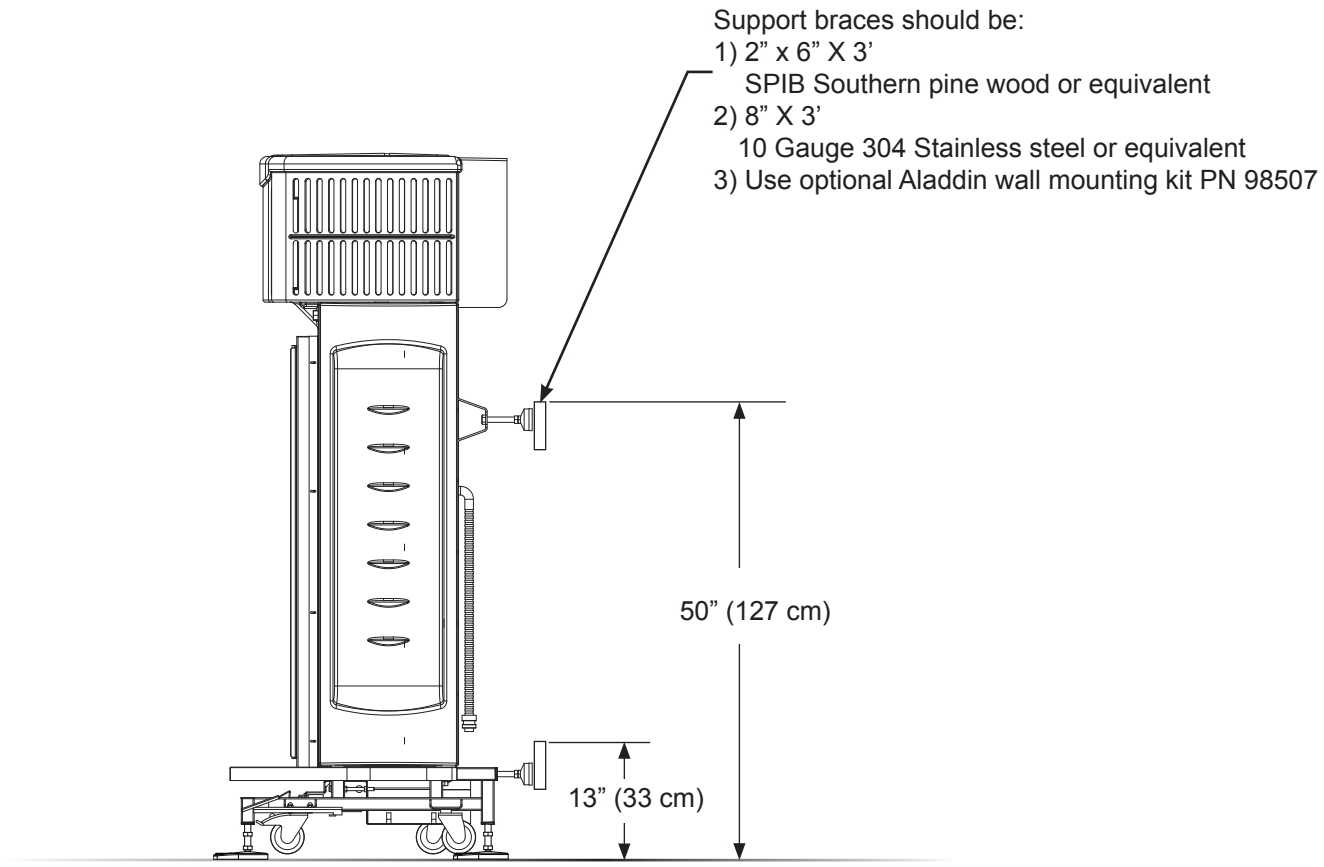



**Figure 3-1**

## WALL MOUNTING INSTRUCTIONS

**IMPORTANT NOTE:**

The wall directly behind the Docking Station must be able to support the average cart Docking force of 550 lbs. Based on the condition of the support wall, a reinforcing horizontal or vertical brace may be required at the upper and lower wall contact points, for better stability. See figure below for details.



☑ **INSPECTED FOR SHIPPING DAMAGE** *(see Section II. RECEIVING INSPECTION)*

## ☑ CONNECT ELECTRICAL LINE

Electrical schematic diagrams can be found in Section *VI. PREVENTIVE MAINTENANCE.* Connect the electrical cord to the electric connection box as described in Figure below. Refer to Table 3-1 for amperage distribution

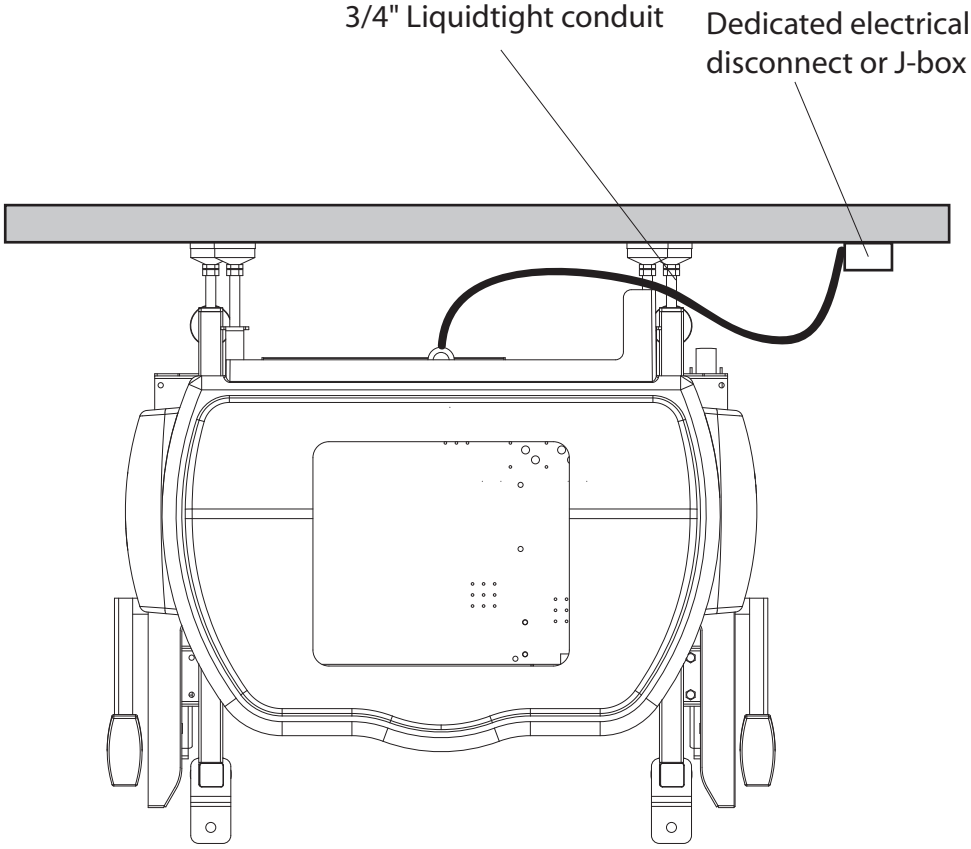



**Table 3-1**

| Convect-Rite™ III Docking Station | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 208V / 3PH /4 WIRE/ (3 hot, 1 ground)/ 60 HZ | 24 Meal Unit (CR3D0XXX1) | | | | 30 Meal Unit (CR3D1XXX1) | | | |
| | Power Watts | PH1 Amps | PH2 Amps | PH3 Amps | Power Watts | PH1 Amps | PH2 Amps | PH3 Amps |
| Product Total | **9.3 kw MAX*** | 26 | 25 | 25 | **10 kw MAX*** | 28 | 27 | 27 |

*Actual duty load during rethermalization cycle is approximately 75% of maximum power requirements.

## ☑ TEST BOOT

With the unit still on all four casters, and after the hard wire connection is complete, switch the breaker on for the unit and then turn on the unit (the switch located on the upper right front of the unit). The unit should boot up and the screen should display the time & "Idle" (see figure to right) Turn the unit and breaker back off. If the unit does not boot correctly check electrical connection. For further information call Aladdin Tech Service 1 (800) 888-5426.


## ☑ SETTING AGAINST THE WALL

Make adequate space and thoroughly clean the location before you begin the install.The Docking Station has eight adjustable feet (four on the back & four on the bottom). When starting the install process all eight feet should be completely seated. Gently push unit within 1/4" of the wall. Loosen the 7/8" jam nuts on the back four feet. Adjust all four back feet close to the wall but not touching it. Extend one foot at a time to touch the wall, trying to keep the unit parallel to the wall as possible (due to wall inconsistency all four feet may be adjusted to different lengths) NOTE: Recommend adjusting the top feet until the Docking Station sits at a 5° angle away from the wall as a starting position.

## ☑ LIFTING THE UNIT OFF THE CASTERS

**NOTE: If feet are unevenly set the unit's frame may be damaged by racking.**

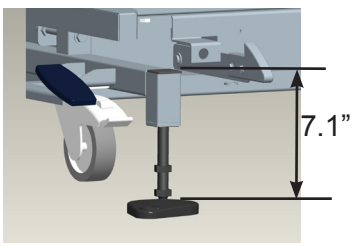
The Convect-Rite™ III Docking Station MUST BE LEVEL BOTH FRONT TO BACK AND SIDE TO SIDE. Depending on floor condition reference gasket alignment between the cart and Docking Station to insure proper gasket seal for correct positioning.

Ensure that both caster locks point away from the wall, and are 90˚ to the wall in the locked position.

The four feet on the base of the Docking Station are adjustable to achieve this. Be mindful when setting the feet that:

- A Docking Station set too low can result in interference between the lower cart hinge and the Docking Station interface channel.
- A Docking Station set out of level right-to-left can result in an insufficient seal between the unit and the gaskets on the cart.
- A Docking Station set out of level front-to-back can result in an insufficient seal between the unit and cart and possibly make mating the cart more difficult.

Loosen the 7/8" jam nuts on the four bottom feet. Then adjust the four feet close to the floor, but not touching it. Slowly continue to extend each foot a turn at a time, until the top of the base is 7.1" (see diagram) off the ground (the caster should be off the ground at this point). However, due to floor inconsistency, all four feet may be adjusted to different lengths

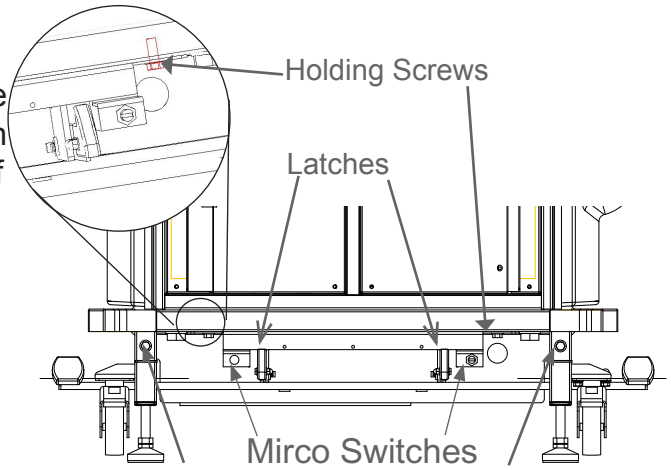


## ☑ EXTENDING THE REAR FEET AGAINST THE WALL

**NOTE:** Shims should NOT be used.

Adjust back feet until they are tight against the wall. Check that the feet are not bowed, skewed, or have less than 3 threads protruding from rear brackets. If any of these conditions occur, the dock should be lowered back on its casters and moved closer to the wall.

## ☑ ADJUSTING THE SEAL & LATCHES

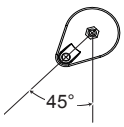



Roll a Convect Rite III Retherm Cart up to the front of the Docking Station with the door open on the non-handle end of the cart. NOTE: if Docking Station is too low the cart will run into the door support. If the cart does not hit the door support, dock the cart to the unit. Adjust any necessary feet until a uniform compression seal is formed around the cart. You many need to dock & undock the cart several time to ensure a proper fit.

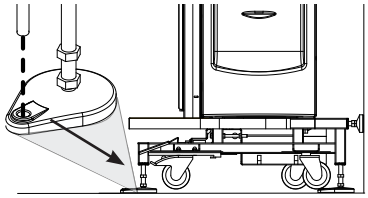
If the cart does not depress the latches when engaged to the dock, (see diagram for location) the latches need to be adjusted. To adjust first loosen the holding screws, adjust the latch bolts so the switches are in contact with the cart. To move the switches forward, turn the bolts clockwise. To move backward, turn counter clockwise. Tighten the holding screws.

## ☑ MOUNTING TO THE FLOOR

The Docking Station should be secured to the floor with floor anchors that are included with the unit.




Turn the feet out 45°, for better stability . Select a carbide drill bit equal to the anchor diameter, 1/2". Drill hole to desired depth suitable for the floor type. A minimum embedment of 1-7/8" is required for concrete. Clean hole or continue drilling additional depth to accommodate floor finish. Assemble washer and nut, leaving nut flush with end of anchor to protect threads. Drive anchor through the foot until the washer is flush. Expand anchor by tightening nut 3 to 5 turns past the hand tight position, or 25 ft-lbs. torque.



## ☑ STARTUP CHECK LIST

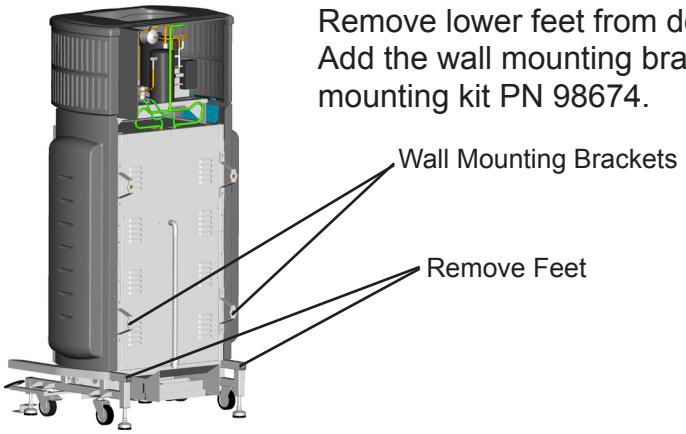
This inspection checks for proper electrical wiring to the Convect-Rite™ III Docking Station and verifies basic operation of the unit.

**IMPORTANT NOTE:**
Equipment damage and faulty operation will result if electrical supply falls below requirements. This may be caused by other equipment on the same supply line. **Supply a dedicated electric service for each unit.**

- Refer to the appropriate dimension drawing and verify that the specified clearances are met (Fig 3.1).
- Verify that the voltage supplied complies with the voltage requirements specified on the Product Identification Plate, located on top of the unit. Verify that the wiring connections are correct for these voltage requirements.
- Connect the Convect-Rite™ III Cart to the Convect-Rite™ III Docking Station with both cart doors opened.
- Turn the unit power-switch to the on position. **After an 5 second delay,** fan-motor rotation should start.
- Operate a complete cycle (make sure door opposite Docking Station is closed) to check every function of the Convect-Rite™ III unit. Temperatures set points for the cold and hot sections are pre-set at the factory. Both can be adjusted to meet customer's requirements. (Refer to **Section V of the owners manual programming instructions**)
- Verify cold air blowing and hot air ventilation functions.

## OPTIONAL WALL MOUNT *(required for OSHPD where applicable)*

△ BACK MOUNTING BRACKETS




Remove lower feet from dock.
Add the wall mounting bracket (98076) to the dock from the OSHPD mounting kit PN 98674.

△ **STANDARD UPPER MOUNTING ASSEMBLY**

The following is for wall mounting of a 24 shelf unit, refer to Figure 3-2 for 30 shelf units.

Step 1: To secure top horizontal support channel assembly measure 49-13/16" from finished floor to center of 1-5/8" channel (See Figure 3-2). Confirm 1⅝" x 1⅝" Unistrut channel is level and fasten to vertical wall surface using appropriate fastening devices for wall surface encountered to insure equipment stability.

Step 2: Next measure 6-5/8" from center of "Unistrut" channel down to center of lower channel and fasten to wall surface as directed above.

This "Unistrut" assembly will serve as an attachment point for the wall mounting hardware detailed in Figure 3-3.

Note: Utilize an 8'-0" span of "Unistrut" when mounting two Docking Stations adjacent to one another, and maintain 15" spacing between units for serviceability.

Step 3: Assemble mounting hardware to support brackets located at the rear of Docking Station and fasten to "Unistrut" support channel assembly previously described and detailed in Figure 3-3.

Note: Fasten Floor Mounts only after unit has been adjusted for proper fit and seal with retherm cart.

△ **OPTIONAL LOWER MOUNT:**

If a lower mount assembly is utilized then the following instructions apply. The lower wall mount is identical to the upper mounting assembly. Mount upper "Unistrut" channel 23-5/16 to center of channel and proceed as directed in step 2 above.

## POSITION & LEVEL THE CONVECT-RITE™ III Docking Station

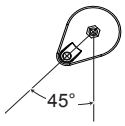
1. The Convect-Rite™ III Docking Station MUST BE LEVEL BOTH FRONT TO BACK AND SIDE TO SIDE. Depending on floor condition reference gasket alignment between the cart and Docking Station to insure proper gasket seal for correct positioning.
2. The floor must be flat and smooth.
3. Make adequate space and thoroughly clean the location.
4. Leave the minimum clearances (see Figure 3-1**)** on each side of the Docking Station for better ventilation and access for technical service.

The unit **must** sit level on a level floor. The unit must be level both front-to-back and right-to-left. The four lower Docking Station feet are adjustable to achieve this. Be mindful when setting the feet that:

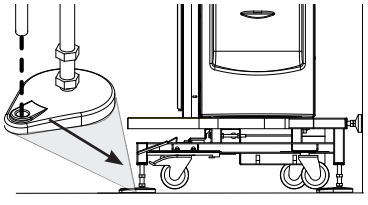
- A Docking Station set too low can result in interference between the lower cart hinge and the Docking Station interface channel.
- A Docking Station set out of level right-to-left can result in an insufficient seal between the unit and the gaskets on the cart.
- A Docking Station set out of level front-to-back can result in an insufficient seal between the unit and cart and possibly make mating a cart more difficult.

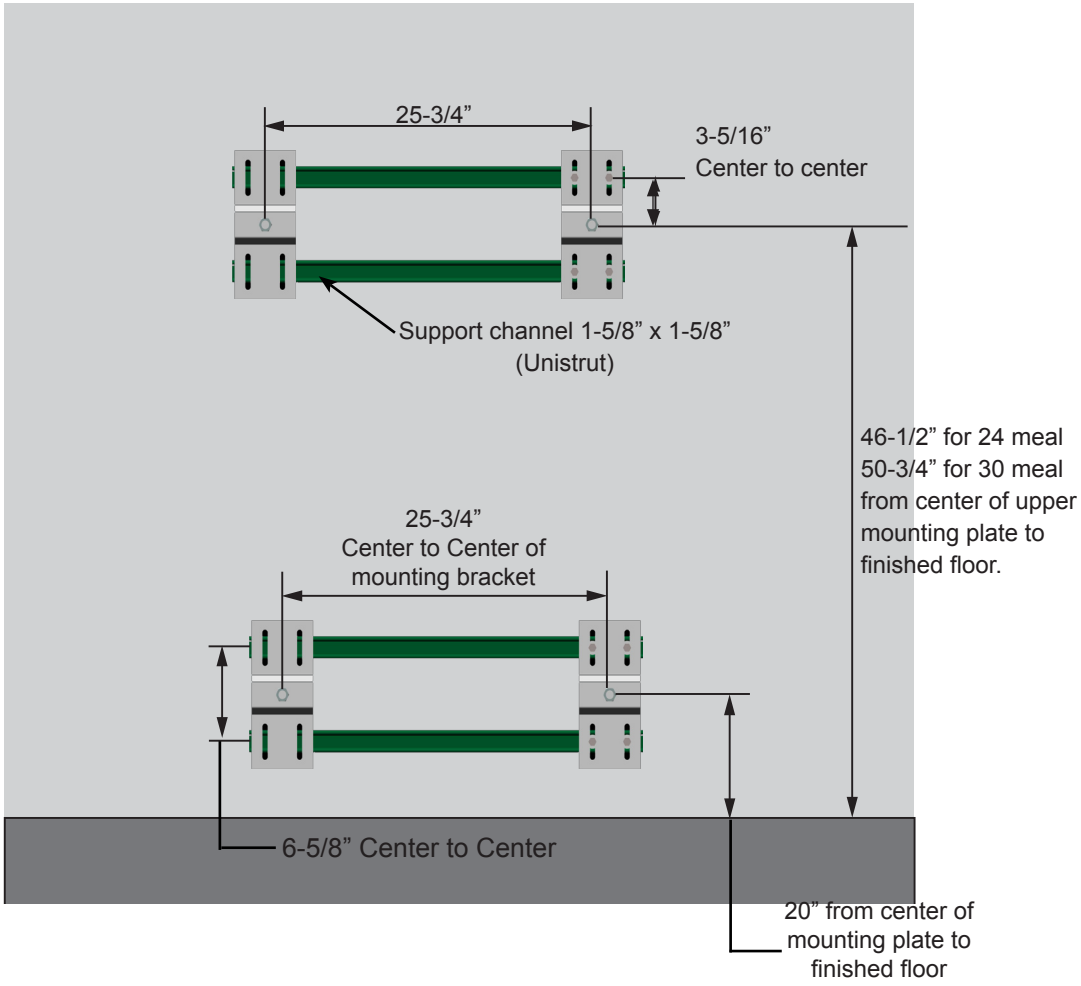
Open the door of the Convect-Rite™ III Cart opposite the handles and mate the cart to the Convect-Rite™ III Dock Station. Confirm that the cart gasket seals against the docking Stations interface channel around its full perimeter. Make the proper adjustments to the Docking Station if the mating is not correct. Once the Docking Station level is set, tighten all wall 7/8” jam nut to final torque settings. Once the Docking Station is secure, anchor the unit to the floor with provided hardware. If cart does not latch properly adjust latch position (see “Adjusting the latches”)

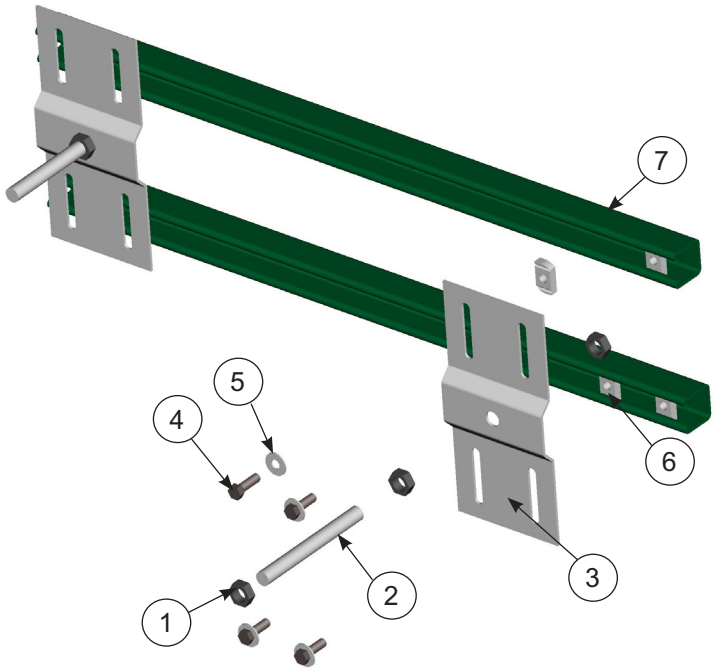
## MOUNTING TO THE FLOOR




The dock should be secured to the floor with the floor mounting brackets. Turn the feet out 45°, for better stability . Select a carbide drill bit equal to the anchor diameter, 1/2”. Drill hole to desired depth suitable for the floor type. A minimum embedment of 1-7/8” is required for concrete. Clean hole or continue drilling additional depth to accommodate floor finish. Assemble washer and nut, leaving nut flush with end of anchor to protect threads. Drive anchor through the foot until the washer is flush. Expand anchor by tightening nut 3 to 5 turns past the hand tight position, or 25 ft-lbs. torque.






**OSHPD Mounting Kit Components**

| # | Description | PN |
|---|---|---|
| 1 | 5/8”-11 jam nut | 98627 |
| 2 | 5/8”-11x 6” full-thread stud | 98626 |
| 3 | Mounting plate for OSHPD | 98672 |
| 4 | 3/8”-16 x 1-1/4” hex head bolt | 39618 |
| 5 | 3/8” Belleville washer | 97765 |
| 6 | 3/8”-16 channel nut | 96332 |
| 7* | Unistrut channel | na |
| *Item not supplied by ATR | | |

△OPTIONAL WALL MOUNT REQUIRED FOR OSHPD

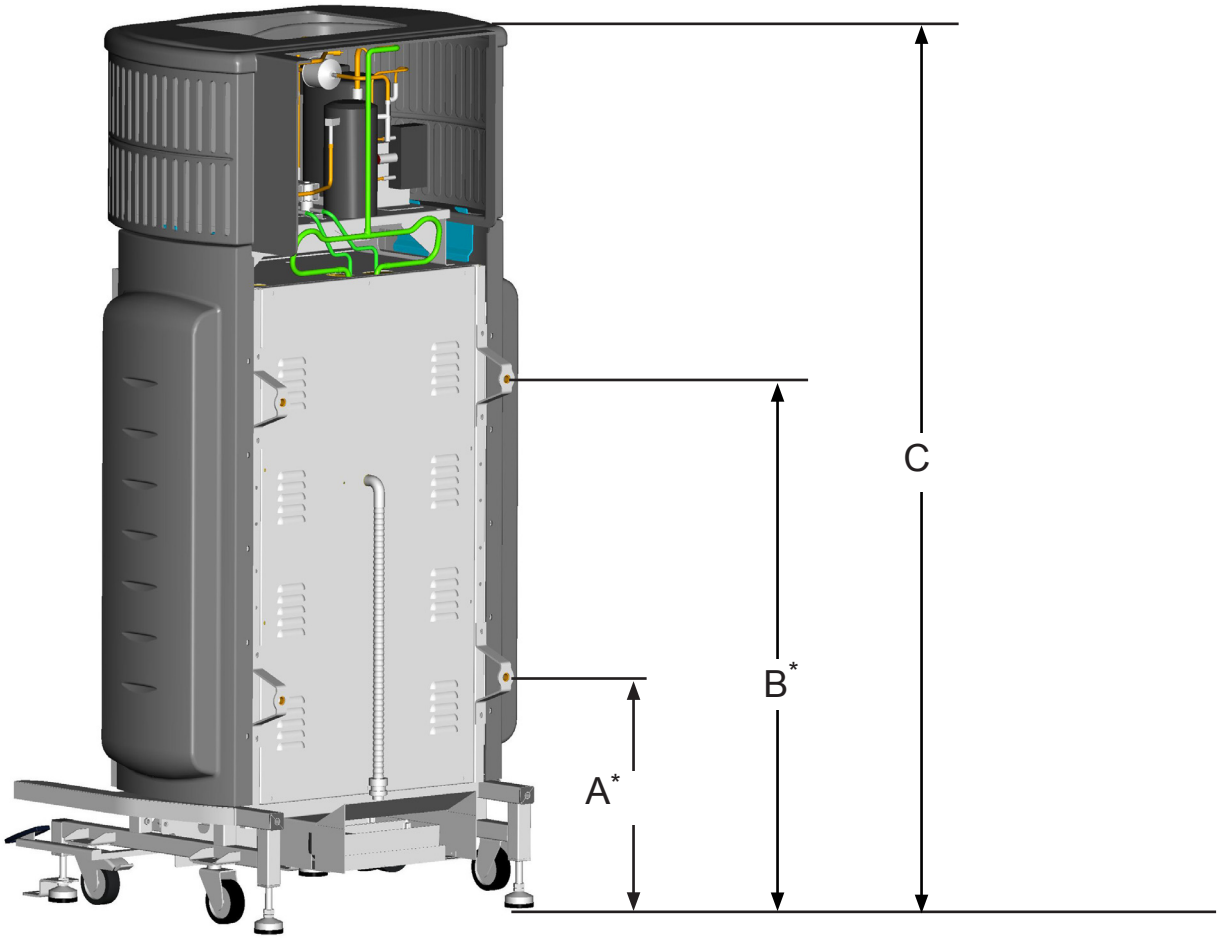



**FIGURE 3-3**

| | 24 Unit | 30 Unit |
|---|---|---|
| A | 20” | 20” |
| B | 46-1/2” | 50-3/4” |
| C | 77-5/8” | 82-1/16” |

* From center of mounting plate to finished floor.

# IV. PARTS LIST & ILLUSTRATION

## 24- Meal (CR3D0XXX1)

### Convect-Rite™ III Docking Station Parts List
### (See Figures: 4-1 and 4-2)

| ITEM# | PART# | DESCRIPTION |
|---|---|---|
| *1 | 98837 | anchor, floor,1/2",3/8"-16 |
| *2 | 98774 | compressor |
| 3 | 96897 | angle bracket |
| 4 | 96734 | blower wheel, cold side |
| 5 | 96887 | blower,wheel, hot side |
| 6 | 96768 | brass latch, foot pedal |
| 7 | 98086 | caster 4" swivel |
| 8 | 98087 | caster 4" swivel with brake |
| 9 | 96783 | clevis pin,3/8",5/32" hole,1" lg |
| 10 | 96996 | condensing unit |
| 11 | 96702 | controller membrane ONLY, N7 |
| 12 | 96703 | controller N7 |
| 13 | 96784 | cotter pin,5/32" d,3/4"L |
| 14 | 96717 | cover,perf,cold,return |
| 15 | 96713 | cover,perf,cold,supply |
| 16 | 96773 | cover,perf,hot,return |
| 17 | 96779 | cover,perf,hot,supply |
| 18 | 96758 | dryer |
| 19 | 96830 | eps, vane,cold side |
| 20 | 98191 | evap pan bracket |
| 21 | 98164 | evap pan shroud |
| 22 | 98117 | evaporative pan assy |
| 23 | 96816 | extrusion, gasket,al,hold |
| 24 | na | na |
| 25 | 99763 | foot pedal cover |
| 26a | 98838 | foot, floor, tear drop |
| 26b | 98839 | foot, back, round |
| *27 | 98189 | gasket, interface |
| 28 | 96742 | heater coils for 8.5in dia blower |

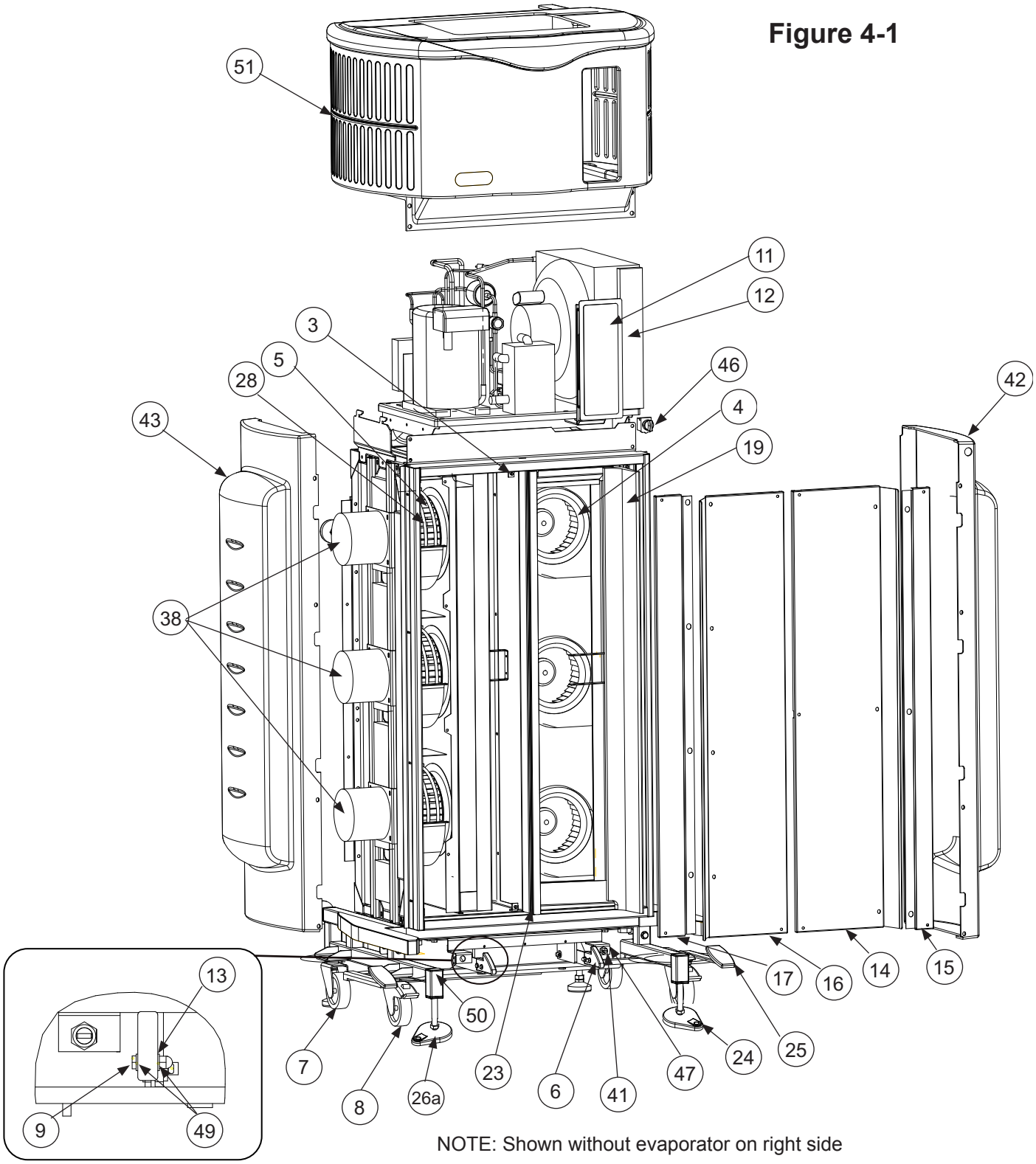
| ITEM# | PART# | DESCRIPTION |
|---|---|---|
| *29 | 96688 | heater gasket, silicone |
| *30 | 96811 | housing eps |
| *31 | 96801 | insulation, left hot side |
| *32 | 96889 | insulation, lft fwd hot side |
| *33 | 96798 | insulation, rear left cold side |
| *34 | 96800 | insulation, rear mid cold side |
| *35 | 96799 | insulation, rear right cold side |
| *36 | 96855 | insulation, right cold side back |
| *37 | 96802 | insulation, right cold side fwd |
| 38 | 96728 | motor, fan cold side and hot side |
| 39 | 96898 | receiver,copeland,577-0315-02 |
| *40 | 96156 | safe temp thermocouple (white wire) |
| 41 | 96787 | sensor nut,m14x1,260 brass |
| 42 | 97751 | side panel plastic(COLD) |
| 43 | 97758 | side panel plastic (HOT) |
| 44 | 96759 | site glass |
| 45 | 96756 | solenoid |
| 46 | 96716 | switch, on-off with light knob |
| 47 | 96766 | switch, limit, roller plunger, 9ft cable |
| *48 | 96792 | thermocouple (right hand side of pair) |
| 49 | 96785 | thrust bearing,3/8" shft d, 3/4" od,1/8" t |
| 50 | 98073 | cap plastic |
| 51 | 97754 | top cover plastic |
| *52 | 98126 | trim strip left & right side |
| *53 | 98348 | trim strip top |
| 54a | 96993 | valve, thermal expansion (cold) |
| 54b | 96993 | valve,thermal expansion (hot) |
| 55 | 98076 | wall mount brackets |
| *56 | 98571 | solenoid repair kit |

The parts listed above are noted in **Figures 4-1 and 4-2**
**Note:** "*" Indicates items not shown in the diagram.

# 24- Meal (CR3D0XXX1)

## Convect-Rite™ III Docking Station Illustration

**Figure 4-1**




NOTE: Shown without evaporator on right side

## 24- Meal (CR3D0XXX1)

### Convect-Rite™ III Docking Station Illustration

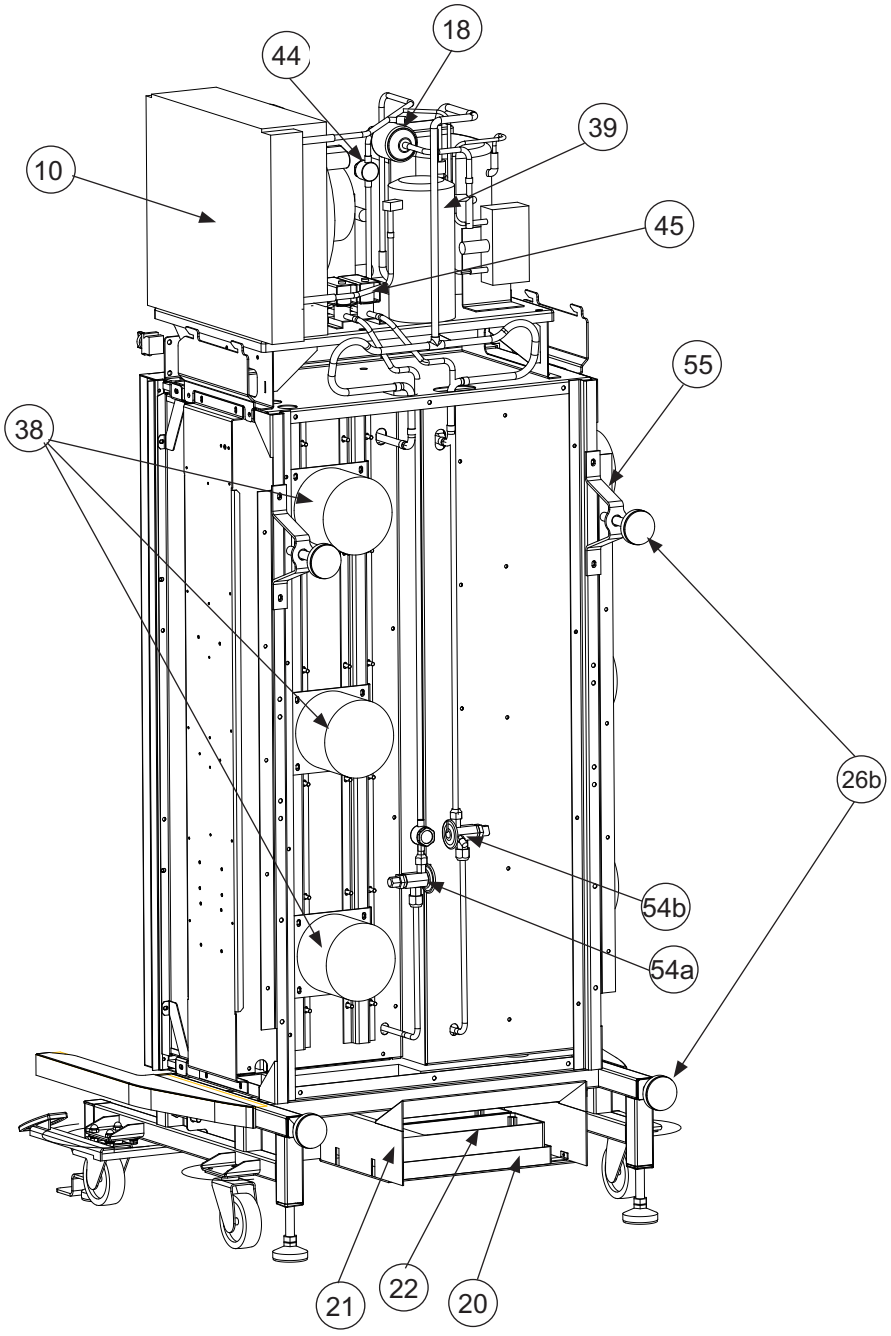
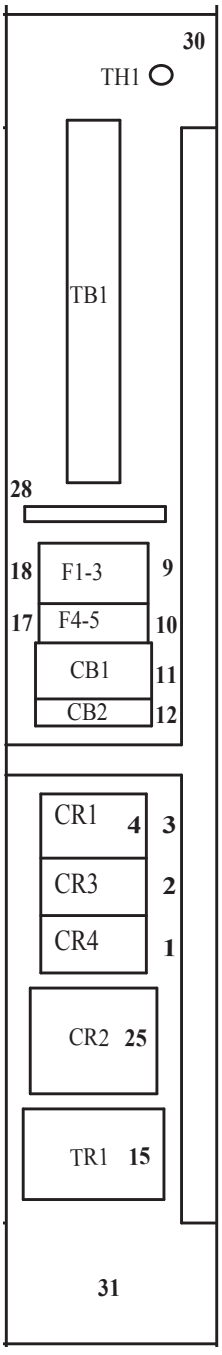



**Figure 4-2**

# 24- Meal (CR3D0XXX1)
## Convect-Rite™ III Electrical Layout and Parts List

The electrical parts list below notes all “KEY” numbers in the control panel layout and illustrated in Figure 4-3.




### Electrical Parts List

| KEY | QTY | SUPPLIER | PART NUMBER | DESCRIPTION |
|---|---|---|---|---|
| 1 | 1 | Aladdin | 96910 | Contactor,IEC 9 Amp,208 VAC,4 Pole |
| 2 | 1 | Aladdin | 96940 | Contactor,IEC 9 Amp,24 VAC,4 Pole |
| 3 | 1 | Aladdin | 96911 | Contactor,IEC 30 Amp,208 VAC,3 Pole |
| 4 | 1 | Aladdin | 98231 | Auxiliary Contact Block |
| *5 | 2 | Aladdin | 96913 | Jumper,2 Pole |
| *6 | 3 | Aladdin | 96914 | Jumper,3 Pole |
| *7 | 6 | Aladdin | 96915 | End Anchor,DIN 35mm |
| *8 | 5 | Aladdin | 96916 | End Barrier |
| 9 | 1 | Aladdin | 96917 | Fuse Block,Class CC,3 Pole,600 V,W/Indication |
| 10 | 1 | Aladdin | 96918 | Fuse Block,Class CC,2 Pole,600 V,W/Indication |
| 11 | 1 | Aladdin | 96920 | Supplementary Protector,15AMP,3 Pole |
| 12 | 1 | Aladdin | 96919 | Supplementary Protector, 4AMP,1 Pole |
| *13 | 30 | Aladdin | 96921 | Terminal,30 Amp,Gray,600V,22-10 Awg |
| *14 | 12 | Aladdin | 96922 | Terminal,30 Amp,Red,600V,22-10 Awg |
| 15 | 1 | Aladdin | 96923 | Transformer,208V/24V,63VA |
| *16 | 3 | Aladdin | 96924 | Terminal,Grounding,22-12 Awg |
| 17 | 2 | Aladdin | 96925 | Fuse,600V,4 Amp,Class CC |
| 18 | 3 | Aladdin | 96926 | Fuse,600V,30 Amp,Class CC |
| *19 | 1 | Allen Bradley | 1492-SM6X12V1-10 | Terminal Strip Marker,Vertical 1-10 |
| *20 | 1 | Allen Bradley | 1492-SM6X12V11-20 | Terminal Strip Marker,Vertical 11-20 |
| *21 | 1 | Allen Bradley | 1492-SM6X12V21-30 | Terminal Strip Marker,Vertical 21-30 |
| *22 | 1 | Allen Bradley | 1492-SM6X12V31-40 | Terminal Strip Marker,Vertical 31-40 |
| *23 | 1 | Allen Bradley | 1492-SM6X12V41-50 | Terminal Strip Marker,Vertical 41-50 |
| *24 | 9 | Thomas & Betts | C10-10 | Ring Terminal,Un-insulated,10-12 Awg,#10 |
| 25 | 1 | Aladdin | 96927 | Contactor,E-Safe,3 Pole,20 Amp,24 Vac Control |
| 25 | 1 | Aladdin | 99221 | Contactor, E-Safe 2**, For SN after J0017-1** |
| *26 | 1 | Molex | 43025-1600 | Housing,16 Pin Connector |
| *27 | 4 | Molex | 43030-0007 | Pin,Femal,Molex |
| 28 | 1 | Square D | PK9GTA | Ground Bar |
| *29 | 1 | Acco | TS-35 | Din Rail,Steel,7x35mm,(1) 12”,(1) 7”,(1) 6.5” |
| 30 | 1 | Aladdin | 96928 | Thermostat,15A,250V Contact, 200C Fixed SP |
| 31 | 1 | Quality Ind. | | Custom Panel |
| 32 | A/R | Thomas & Betts | T1XHDG | Wire Duct,1 x 2” Gray |
| 33 | A/R | Thomas & Betts | T1CG | Wire Duct Cover,1” Gray |

**Figure 4-3**

## 30- Meal (CR3D1XXX1)

### Convect-Rite™ III Docking Station Parts List
### (See Figures: 4-5 and 4-6)

| ITEM# | PART# | DESCRIPTION |
|---|---|---|
| *1 | 98837 | anchor, floor,1/2",3/8"-16 |
| *2 | 98773 | compressor |
| 3 | 96897 | angle bracket |
| 4 | 96734 | blower wheel, cold side |
| 5 | 96887 | blower,wheel, hot side,8.5" dia |
| 6 | 96768 | brass latch, foot pedal |
| 7 | 98086 | caster 4" swivel |
| 8 | 98087 | caster 4" swivel with brake |
| 9 | 96783 | clevis pin,3/8",5/32" hole,1" lg |
| 10 | 96943 | condensing unit |
| 11 | 96703 | controller N7 |
| 12 | 96702 | controller membrane only N7 |
| 13 | 96784 | cotter pin,5/32" d,3/4"L |
| 14 | 96955 | cover,perf,cold,return |
| 15 | 96954 | cover,perf,cold,supply |
| 16 | 96956 | cover,perf,hot,return |
| 17 | 96941 | cover,perf,hot,supply |
| 18 | 96758 | dryer |
| 19 | 96938 | eps, vane,cold side |
| 20 | 98191 | evap pan bracket |
| 21 | 98164 | evap pan shroud |
| 22 | 98117 | evaporative pan assy |
| 23 | 96974 | extrusion, gasket,al,hold |
| 24 | na | na |
| 25 | 99763 | foot pedal cover |
| 26a | 98838 | foot, floor, tear drop shape |
| 26b | 98839 | foot, back, round |
| *27 | 98190 | gasket, interface |
| 28 | 96742 | heater coils for 8.5in dia blower |
| *29 | 96937 | housing eps |

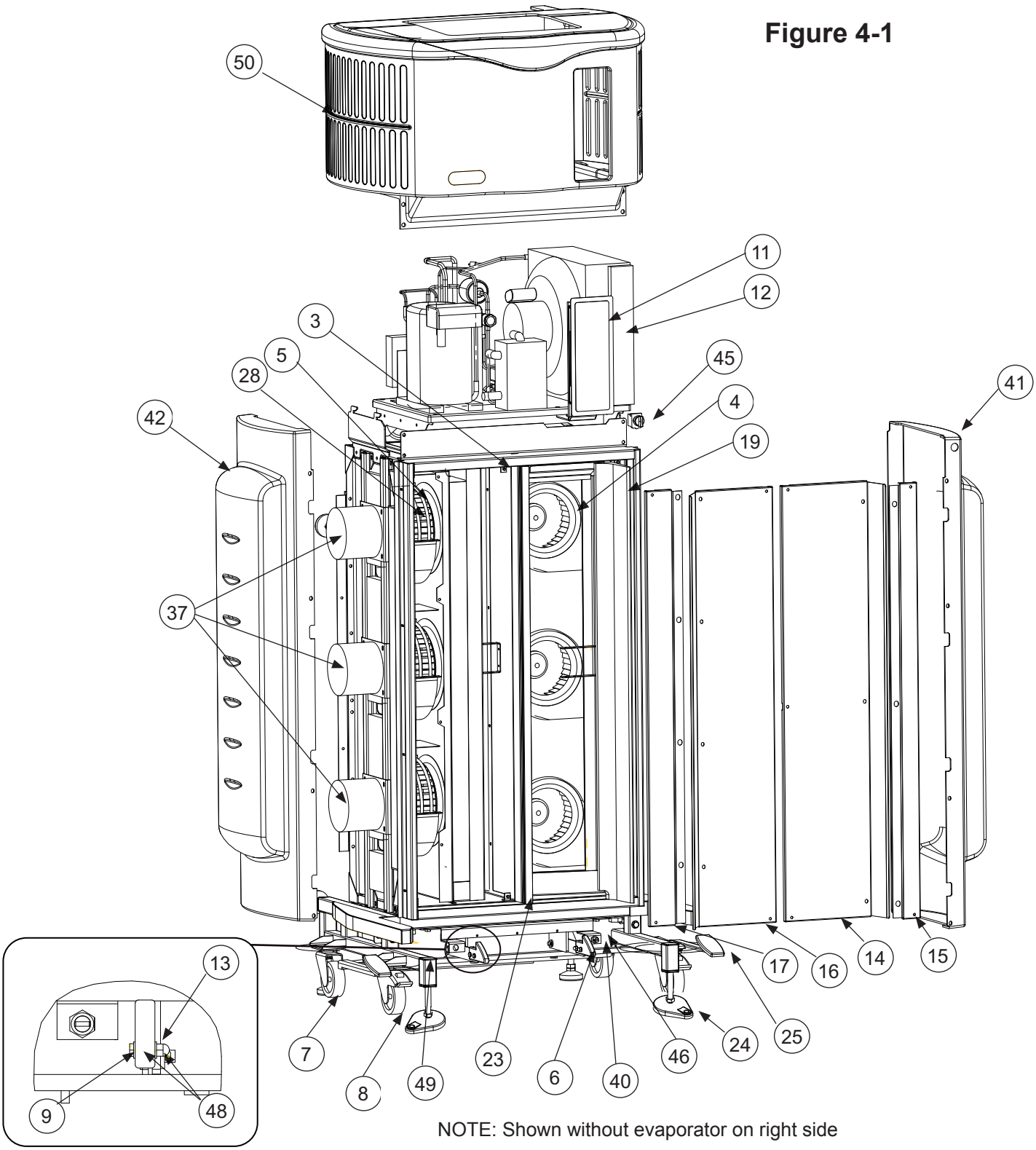
| ITEM# | PART# | DESCRIPTION |
|---|---|---|
| *30 | 96966 | insulation, left hot side |
| *31 | 96972 | insulation, lft fwd hot side |
| *32 | 96964 | insulation, rear left cold side |
| *33 | 96965 | insulation, rear mid cold side |
| *34 | 96963 | insulation, rear right cold side |
| *35 | 96968 | insulation, right cold side back |
| *36 | 96967 | insulation, right cold side fwd |
| 37 | 96728 | motor, fan cold side and hot side |
| 38 | 96898 | receiver,copeland,577-0315-02 |
| *39 | 96156 | safe temp thermocouple (white wire) |
| 40 | 96787 | sensor nut,m14x1,260 brass |
| 41 | 97764 | side panel plastic (COLD) |
| 42 | 97763 | side panel plastic (HOT) |
| 43 | 96759 | site glass |
| 44 | 96756 | solenoid |
| 45 | 96716 | switch, on-off with light knob |
| 46 | 96766 | switch,limit,roller plunger,9ft cable |
| *47 | 96792 | thermocouple (left hand side of pair) |
| 48 | 96785 | thrust bearing,3/8" shft d, 3/4" od,1/8" |
| 49 | 98073 | cap plastic |
| 50 | 97754 | top cover |
| *51 | 98127 | trim strip left & right |
| *52 | 98348 | trim strip top |
| 53 | 97718 | valve,thermal expansion (cold) |
| 54 | 97719 | valve,thermal expansion (hot) |
| 55 | 98076 | wall mount bracket |
| *56 | 98571 | solenoid repair kit |

The parts listed above are noted in **Figures 4-5 and 4-6** and display the specific location of each part.
**Note:** "*" Indicates items not shown in the diagram.

# 30- Meal (CR3D1XXX1)

## Convect-Rite™ III Docking Station Illustration

**Figure 4-1**




NOTE: Shown without evaporator on right side

## 30- Meal (CR3D1XXX1)

### Convect-Rite™ III Docking Station Illustration

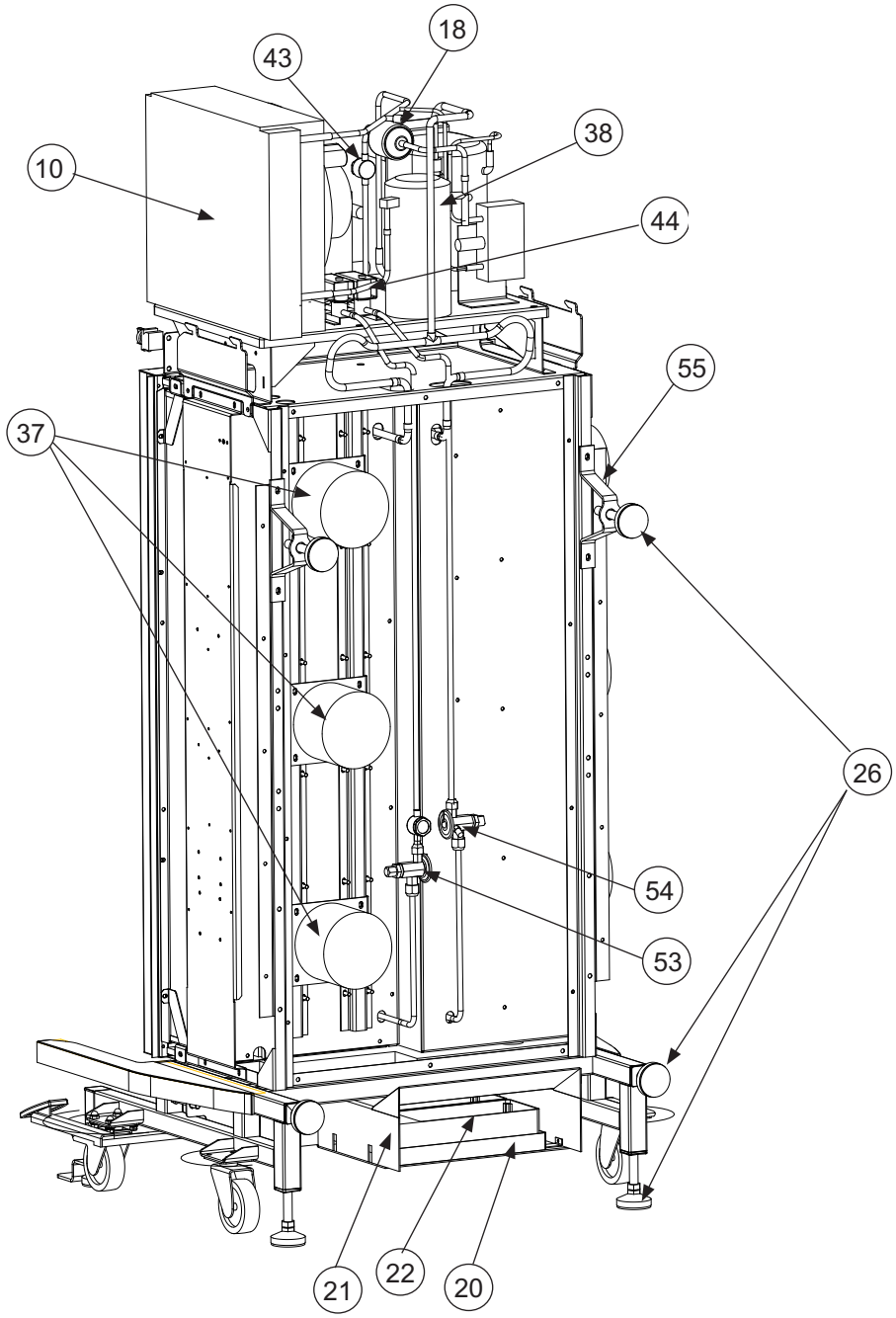
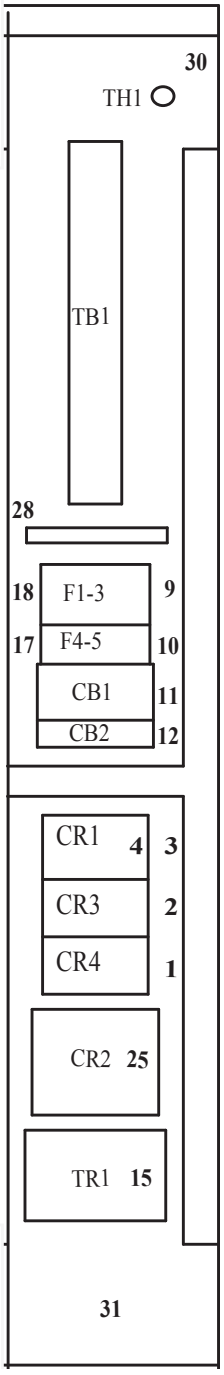



**Figure 4-6**

# 30- Meal (CR3D1XXX1)

## Convect-Rite™ III Electrical Layout and Parts List

The electrical parts list below notes all “KEY” numbers in the control panel layout and illustrated in Figure 3-3.




### Electrical Parts List

| KEY | QTY | SUPPLIER | PART NUMBER | DESCRIPTION |
|---|---|---|---|---|
| 1 | 1 | Aladdin | 96910 | Contactor,IEC 9 Amp,208 VAC,4 Pole |
| 2 | 1 | Aladdin | 96940 | Contactor,IEC 9 Amp,24 VAC,4 Pole |
| 3 | 1 | Aladdin | 96911 | Contactor,IEC 30 Amp,208 VAC,3 Pole |
| 4 | 1 | Aladdin | 98231 | Auxiliary Contact Block |
| *5 | 2 | Aladdin | 96913 | Jumper,2 Pole |
| *6 | 3 | Aladdin | 96914 | Jumper,3 Pole |
| *7 | 6 | Aladdin | 96915 | End Anchor,DIN 35mm |
| *8 | 5 | Aladdin | 96916 | End Barrier |
| 9 | 1 | Aladdin | 96917 | Fuse Block,Class CC,3 Pole,600 V,W/Indication |
| 10 | 1 | Aladdin | 96918 | Fuse Block,Class CC,2 Pole,600 V,W/Indication |
| 11 | 1 | Aladdin | 96920 | Supplementary Protector,15AMP,3 Pole |
| 12 | 1 | Aladdin | 96919 | Supplementary Protector, 4AMP,1 Pole |
| *13 | 30 | Aladdin | 96921 | Terminal,30 Amp,Gray,600V,22-10 Awg |
| *14 | 12 | Aladdin | 96922 | Terminal,30 Amp,Red,600V,22-10 Awg |
| 15 | 1 | Aladdin | 96923 | Transformer,208V/24V,63VA |
| *16 | 3 | Aladdin | 96924 | Terminal,Grounding,22-12 Awg |
| 17 | 2 | Aladdin | 96925 | Fuse,600V,4 Amp,Class CC |
| 18 | 3 | Aladdin | 96926 | Fuse,600V,30 Amp,Class CC |
| *19 | 1 | Allen Bradley | 1492-SM6X12V1-10 | Terminal Strip Marker,Vertical 1-10 |
| *20 | 1 | Allen Bradley | 1492-SM6X12V11-20 | Terminal Strip Marker,Vertical 11-20 |
| *21 | 1 | Allen Bradley | 1492-SM6X12V21-30 | Terminal Strip Marker,Vertical 21-30 |
| *22 | 1 | Allen Bradley | 1492-SM6X12V31-40 | Terminal Strip Marker,Vertical 31-40 |
| *23 | 1 | Allen Bradley | 1492-SM6X12V41-50 | Terminal Strip Marker,Vertical 41-50 |
| *24 | 9 | Thomas & Betts | C10-10 | Ring Terminal,Un-insulated,10-12 Awg,#10 |
| 25 | 1 | Aladdin | 96927 | Contactor,E-Safe,3 Pole,20 Amp,24 Vac Control |
| 25 | 1 | Aladdin | 99221 | Contactor, E-Safe 2**, For SN after J0017-1** |
| *26 | 1 | Molex | 43025-1600 | Housing,16 Pin Connector |
| *27 | 4 | Molex | 43030-0007 | Pin,Femal,Molex |
| 28 | 1 | Square D | PK9GTA | Ground Bar |
| *29 | 1 | Acco | TS-35 | Din Rail,Steel,7x35mm,(1) 12",(1) 7",(1) 6.5" |
| 30 | 1 | Aladdin | 96928 | Thermostat,15A,250V Contact, 200C Fixed SP |
| 31 | 1 | Quality Ind. | | Custom Panel |
| 32 | A/R | Thomas & Betts | T1XHDG | Wire Duct,1 x 2" Gray |
| 33 | A/R | Thomas & Betts | T1CG | Wire Duct Cover,1" Gray |

**Figure 4-7**

### Safe-Temp Parts

| Description | Analog | DIGITAL |
|---|---|---|
| Temperature transmitter (Hot & Cold side) | 96151 | 99139 |
| On/Off switch transmitter | 96152 | 99135 |
| Thermalcouple (Hot & Cold side) | 96156 | 96156 |
| Address label | 98315 | 98315 |

*NOTE:* DIGITAL *transmitters have blue wire terminals*

# V. OPERATION & PROGRAMMING

The Convect-Rite™ III System is safe and easy to operate. The system uses the most advanced rethermalization methods available. Please refer to the Owner's Manual Operating & Programing section for details on how to operate the Convect-Rite™ III System.

# VI. PREVENTIVE MAINTENANCE

## PREVENTIVE MAINTENANCE AND CLEANING

### INTRODUCTION

Maintenance on the Convect-Rite™ III equipment must be performed on a regular basis to keep the units operating properly. Follow the maintenance instructions in this chapter and problems will be kept to a minimum. If problems do occur, refer to the Troubleshooting Guide.

**⚠ WARNING ⚠**

**DEATH, INJURY, OR EQUIPMENT DAMAGE** may result from improper service or maintenance practices. Always turn the main power switch or breaker on the Docking Station switch to the OFF position on each unit before starting service, maintenance or repairs.

### Convect-Rite™ III Docking Station

**Daily**

- Clean the exterior of the unit only. As with any other piece of equipment containing electrical components, it should be cleaned on a regular basis with a wet sponge. Wipe it dry with a smooth cotton cloth. Avoid the use of abrasive products or chlorides. Do not spray Docking Station with **hose or steam wand.**

**Monthly**

- Check and adjust the Docking Station micro limit switches as required.
- Check and tighten all adjustment bolts both at the wall and on the floor.

**Biannually**

- Remove the black plastic top cover of the Docking Station. Vacuum the condensing unit coil to remove dust and dirt.

**⚠ CAUTION ⚠**

Inside and outside front panel of the hot section of the Convect-Rite™ III Docking Station stays hot for a short period of time after rethermalization; allow 15 minutes for cool-down before cleaning.

## Cleaning of plastic top and side panels:

**NOTE:** It is extremely important to read the following instructions for cleaning plastic ancillary equipment.

- It is sufficient to wipe the plastic components of the Convect-Rite™ III Docking Station with a soft cloth using warm water (Not to Exceed 140°F/60°C) to which has been added diluted detergent; the detergent used must have a low alkaline value and contain a very low percentage of caustic soda. The detergent must not exceed the dilution rate recommended by the supplier.
- After cleaning these components, wipe down with a soft cloth using clear water.
- Make sure that all plastic components are thoroughly dried before using.
- Manufacturer accepts no responsibility if the above instructions are not strictly adhered to.

## OPERATOR'S TROUBLESHOOTING GUIDE FOR OPERATIONAL SAFETY

**⚠ WARNING ⚠**

**DEATH, INJURY, OR SHOCK** can occur by touching electrical components and wires inside the Docking Station when the main power switch is in the ON position.

**NEVER REMOVE THE PLASTIC TOP OR SERVICE ACCESS PANELS** of the Docking Station while main power switch is in the ON position. Allow only authorized factory trained service representatives to perform service, maintenance and repairs that require the removal of any plastic top or service access panels.

This troubleshooting guide includes a list of conditions that may be encountered during routine operation and maintenance. The first column on the left describes these symptoms. The second column in the middle lists the causes for the conditions listed in column one. The third column on the right lists remedies and/or references for the conditions and causes in columns one and two.

**DO NOT TRY** to correct the condition that requires an authorized service representative as this may adversely affect the warranty coverage.

## TROUBLESHOOTING NOTES

1. **If problem is inside the Docking Station, call the Aladdin Temp-Rite® Service Department at 1-800-888-5426. Aladdin will not pay for warranty repairs by unauthorized repair centers.**
2. **Repairs to external wiring should be done by a Licensed Electrician.**
3. **Proper installation of the Convect-Rite™ III Docking Station is the responsibility of the owner or installer.**
4. **Repairs to external plumbing (if required) should be done by a Licensed mechanical contractor.**
5. **Repairs to compressor-condensing unit should be done by a Licensed Refrigeration Engineer.**

| Condition is occurring when: | Condition/symptom: | Solutions and things to check: |
|---|---|---|
| *Moving the Docking Station* | Leveling feet hit thresholds and other floor imperfections. | Raise feet to full up positions. |
| | | Use ramp to roll dock over obstruction |
| | Casters do not roll | Check that lock is not depressed on either front caster. |
| *Installing the Docking Station.* | Leveling feet will not lower or raise. | Unlock 7/8" jam nut |
| | | Adjust feet by turning 7/8" nut |
| | | Check that black tube caps are not in the tube. |
| | Leveling feet will not reach wall due to wall imperfections. | Securely fasten a 2"X8"X4' wood board to the wall to close gap between leveling feet and wall. |
| | Wall CANNOT take Docking force of 550 lbs. | Securely fasten a 2"X8"X4' wood board to the wall to distribute force. |
| *Engaging the cart to the Docking Station.* | Gap exist between cart and dock when cart is engaged. | Adjust appropriate feet to close gap |
| | Cart does not depress one or both switches | Check that the dock is parallel to cart interface. |
| | | Adjust one or both bolts that move latches from front to back |
| | Docking Station rolls or creeps in location over time. | Check that dock is not resting on casters. |
| | | Use floor mounting brackets to secure front leveling feet. |
| | | Check that leveling feet have rubber grips. |
| *Loading trays* | Tray does not slide in slot | Check that the tray is not warped or damaged |
| | | Divider bar may be present |
| *Shutting doors* | Doors on cart won't close | Tray not completely pushed in |
| | | Check latch and door alignment |
| | | Check gasket fit |
| *Keeping cart door open* | Door not engaged in detent latch | Push door completely to the side of the cart (270°) |
| | | Check that door at hinge is completely seated |
| | | Check that no debris is around detent latch |
| *Engaging cart to Docking Station* | Cart doesn't engage | **Check that dockside door is open** |
| | | Check that dock is secured against the wall |
| | | Check that dock is level |

| Condition is occurring when: | Condition/symptom: | Solutions and things to check: |
|---|---|---|
| | | Check that the optional safety doors on the Docking Station are not closed |
| | | Check that the side of the cart with the locking casters is facing away from the dock |
| | | Check that the dock is at the appropriate height for the cart |
| | Doesn't show cart engaged | Check micro switch position (see section III for location) |
| | | Check "on/off" switch |
| | | Check safety switches |
| | | Check unit breaker in control panel |
| | | Check all wiring is properly seated |
| | | Check plug or junction box |
| *Chill Down* | Cart engaged--compressor hums, but does not start up | Contact ATR technical service representative |
| | Cart engaged--compressor does not hum and does not start up | Contact ATR technical service representative |
| | Cart engaged but evaporator fans do not turn on | Check component(s) electrical contractor |
| | Unit does not chill down (reach programmed settings) in one hour | Check that cart doors are completely closed |
| | | Make sure doors are adjusted to prevent air leak around doors |
| | | Check that there is no air leak between dock and cart |
| | | Initial temperature of food may be too high |
| | | Make sure ambient air temperature is less than 85 degrees F. |
| | Compressor does not cycle off in one hour | Check that cart doors are completely closed |
| | | Make sure doors are adjusted to prevent air leak around doors |
| | | Check that there is no air leak between dock and cart |
| | | Check condenser for proper spacing and air ventilation |
| *Cold holding overnight* | A significant amount of water appears on floor the following morning | Check that water in evaporator drain tubes drains into condensate pans |

| Condition is occurring when: | Condition/symptom: | Solutions and things to check: |
|---|---|---|
| | | Check the connection between the condensate evaporating pans to insure it is not clogged. |
| | | Check any air leaks between cart and dock |
| | | Check that evap pans are getting hot. |
| | | Check any air leaks around cart doors |
| | Evaporator has frost exceeding 10% of coil | Defrost occurrence and duration is not often or long enough. Adjust as necessary to eliminated condition. |
| | | Check any air leaks between cart and dock |
| | | Check any air leaks around cart doors |
| *Rethermalization Cycle* | Does not start Retherm cycle | Check that automatic programmed start time window has not passed |
| | | Check that controller is in automatic or manual retherm mode |
| | | Check time AM-PM |
| | Retherm cycle is too long/short | Check meal setting in program |
| | | Check time of meal settings |
| | | Wrong meal may have been selected in manual mode |
| | | Cart was disengaged too soon or during cycle |
| | Unit does not reach retherm temperature setting at end of cycle and hot food temperature is NOT acceptable | Slots in cart center panel may be missing tray(s) or divider bar(s)) |
| | | Check that all fans are turning |
| | | One or more heater elements may not be functioning. |
| | | Check any air leaks between cart and dock |
| | | Check any air leaks around cart doors |
| | Heater element(s) do not get hot | Check components) electrical contractor |
| *Equalization Cycle* | Does not start Equalization | Check that Equalization time is programmed |
| | Equalization cycle is too long/short | Adjust Equalization cycle temperature setting(s) and duration(s) |
| | | |
| *Hold Cycle after Equalization* | Does not start Hold | Check that Hold time is programmed |
| | Hold cycle is too long/short | Adjust Hold cycle temperature setting(s) and duration(s) |

| Condition is occurring when: | Condition/symptom: | Solutions and things to check: |
|---|---|---|
| *Disengaging cart* | Cart will not disengage | Depress either foot pedal release |
| | | Check cart caster locks |
| | Dock continues to run when cart is disengaged | Check that micro switch is not sticking closed |
| *Hot food temperatures* | Hot food temperatures not hot enough after retherm and equalization | Check Retherm/Equalization cycle temperature setting(s) and duration(s) |
| | | Check any air leaks between cart and dock |
| | | Check any air leaks around cart doors |
| | | Slots in cart center panel may be missing tray(s) or divider bar(s) |
| | | Inappropriate entrée dome, mug & soup bowl may be in use |
| | | Check that all fans are turning |
| | | One or more heater elements may not be functioning. |
| | | Wrong meal may have been selected in Manual mode |
| | | Adjust temperature setting and tolerance |
| | Hot food temperatures too hot after retherm and equalization | Wrong meal may have been selected in Manual mode |
| | | Inappropriate entrée dome, mug & soup bowl may be in use |
| | | Adjust Retherm/Equalization cycle temperature setting(s) and duration(s) |
| | | Food input temperature may have been too high. |
| | Hot food temperatures have more than 20°F difference from tray to tray | slots in cart center panel may be missing tray(s) or divider bar(s) |
| | | Check that all fans are turning |
| | | Check for presence of air deflectors inside the supply plenum on the cart |
| | | One or more heater elements may not be functioning. |
| *Cold food temperatures* | Cold food temperatures not cold enough after one hour of Chill down cycle | Check any air leaks between cart and dock |
| | | Check any air leaks around cart doors |
| | | Check that all fans are turning |
| | | Check to see if compressor is running |

| Condition is occurring when: | Condition/symptom: | Solutions and things to check: |
|---|---|---|
| | | Check to see if system is generating cold air (possible refrigerant leak) |
| | | Adjust temperature setting and tolerance |
| | Cold food temperatures have more than 5°F difference from tray to tray | Check that all fans are turning |
| | | Check for presence of air deflectors inside the supply plenum on the cart |
| | | Slots in cart center panel may be missing tray(s) or divider bar(s) |
| *Controller Display* | Improper temperature units | Check program for proper unit - °C or °F |

## SERVICING PROCEDURES

FOR SERVICE ACCESS:

Adjust the four feet on the base of the Docking Station, lower the unit onto the casters. Remove floor brackets. Pull unit away from the wall and turn 90°-180° for ease of service.

MOTOR, HOT SIDE

1. See “FOR SERVICE ACCESS” then remove the bolts from the back flange, - slide the cover back, slightly rotating it towards yourself; - pull the panel towards yourself. (Only the back flange is bolted onto the frame; the front flange slides onto studs)
2. Disconnect wiring for the failed motor. (Time-saving tip: splice the wiring of new motor into existing wiring)
3. Remove the perforated plates from the front of the unit and then remove the orifice plate. Mark the location of the blower on the shaft.
4. Remove the front part of the shroud, and then loosen the blower wheel mounted to the shaft of the failed motor to easily slide it off.
5. Remove the motor mount bracket with the failed motor still mounted on it.
6. Replace the failed motor, and attach it to the motor mount bracket using (4) 10-32 nylock nuts and (4) #10 flat washers with the capacitor mounted toward the left of the bracket and back of the dock.
7. Place the motor mount bracket against the rails and locate it using (4) ¼-20 bolts and (4) ¼” flat washers. Center the motor shaft inside the housing hole and then tighten the bolts down.
8. Attach the fan blower wheel to the shaft of the motor and slide down so it is set at the depth on the shaft marked previously. Tighten setscrew on the “**FLATS**” of the shaft.
9. Reattach all removed components.

MOTOR, COLD SIDE

1. See “FOR SERVICE ACCESS”, slide forward, and floor, slide forward, and remove back cover and right side panel.
2. Remove the right side panel: - remove the bolts from the back flange, -slide panel back, slightly rotating it towards yourself; - pull panel towards yourself. (Only the back flange is bolted onto the frame; the front flange slides onto studs)

3. Disconnect wiring for the failed motor. (Time-saving tip: splice the wiring of new motor into existing wiring)
4. Remove the control panel, housing side cover and EPS vane.
5. Mark the location of the blower on the shaft and then loosen setscrew on the blower wheel so it can slide off the shaft.
6. Remove the motor mount bracket with failed motor still mounted on it.
7. Replace the failed motor, and attach it to the motor mount bracket using 10-32 nylock nuts and #10 flat washers with the capacitor mounted towards the top of the bracket.
8. Place the motor mount bracket against the rails and locate it using (4) ¼-20 bolts and (4) ¼" flat washers. Center the motor shaft inside the housing hole and then tighten the bolts down.
9. Attach the fan blower wheel to the shaft of the motor and slide down so it is set at the depth on the shaft marked previously. Tighten setscrew on the "**FLATS**" of the shaft.
10. Reattach all removed components

HEATERS

1. Remove left side panel: - remove the bolts from the back flange, -slide the panel back, slightly rotating it towards yourself; - pull the panel towards yourself. (Only the back flange is bolted onto the frame; the front flange slides onto studs)
2. Disconnect the wiring for the failed heater.
3. Remove the perforated plates from the front of the unit and then remove the orifice plate. Mark the location of the blower on the shaft.
4. Remove front part of the shroud, and then loosen the blower wheel mounted to the shaft of the motor so you can easily slide it off.
5. Replace the failed heater and rectangular silicone insulator. Be careful to attach the wires to the same terminal locations.
6. Attach the fan blower wheel to the shaft of the motor and slide down so it is set at a depth on the shaft marked previously. Tighten setscrew on the "**FLATS**" of the shaft.
7. Reattach all removed components.

GASKET

1. Remove damaged gasket.
2. Obtain a new gasket and **install the corners or ends first**, and then continue towards the center, spreading gasket uniformly so no buckling occurs.

LIMIT SWITCH

1. Remove right side panel: - remove the bolts from the back flange, -slide the panel back, slightly rotating it towards yourself; - pull the panel towards yourself. (Only the back flange is bolted onto the frame; the front flange slides onto studs)
2. Disconnect the limit switch wiring.
3. Remove protective brass nut from the front of failed limit switch.
4. Remove thin nut and pull failed switch out.
5. Obtain new limit switch and install it onto the base bracket. Locate and secure the switch with thin nuts that come with the switch and tighten down completely with protective brass nut. Make sure that new limit switch extends to the same level as existing one.
6. Connect wiring and reattach all removed components
7. Dock cart to check engagement. Adjust the limit switch accordingly.

EVAPORATIVE PAN

1. Remove right side panel: - remove the bolts from the back flange, -slide the panel back, slightly rotating it towards yourself; - pull the panel towards yourself. (Only the back flange is bolted onto the frame; the front flange slides onto studs)
2. Disconnect failed evaporative pan wiring.
3. Remove evap pan bracket.
4. Replace the pans and install new pans, making sure that drain piping goes inside the pans.
5. Replace evap pan bracket.
6. Connect wiring and reattach removed components.

## REPAIRING THE REFRIGERATION SYSTEM

PUMP DOWN

1. Close the receiver outlet valve and operate the compressor until the suction pressure gauge levels off to 3-5 psi.
2. Close the receiver valve and stop the compressor.
3. The system can now be opened for repair.

LEAK CHECKING

1. Once a repair has been made, pressurize and leak test the entire system including the condensing unit, evaporator, and all connecting tubing, fittings, and brazed joints using the intended operating refrigerant for leak testing.
2. **DO NOT USE OXYGEN OR COMBUSTIBLE GASES FOR LEAK TESTING.**
3. A pressure equal to the low side test pressure marked on the unit nameplate is recommended for leak testing.
4. Again, repair any leaks found.

EVACUATION

1. Connect a vacuum pump to both the low and high side evacuation valves with copper tube or high vacuum tube (3/8” ID MIN.) and draw a deep vacuum of at least 1500 microns.
2. **DO NOT USE THE MOTOR-COMPRESSOR TO PULL A VACUUM.**
3. **DO NOT OPERATE THE MOTOR-COMPRESSOR IN A VACUUM.**
4. Break the vacuum with nitrogen.
5. Evacuate the system to hold at 500 microns and break the vacuum with refrigerant.
6. Remove the vacuum pump.
7. The system is now ready for charging.

CHARGING

1. Charge the system with the correct amount of refrigerant as listed on the data nameplate on the right hand side of the unit.
2. **DO NOT CHARGE THE UNIT BY THE SITE GLASS LOCATED ON THE CONDENSING UNIT.**
3. **BE SURE NOT TO OVERCHARGE THE UNIT. AN OVERCHARGE MIGHT PERMIT LIQUID REFRIGERANT TO ENTER THE MOTOR-COMPRESSOR AND DAMAGE THE VALVES, RODS, PISTONS, ETC.**
4. Make sure all flare caps and valve caps are tight.

NORMAL OPERATING CONDITIONS FOR BOTH 24 AND 30 MEAL Docking Stations

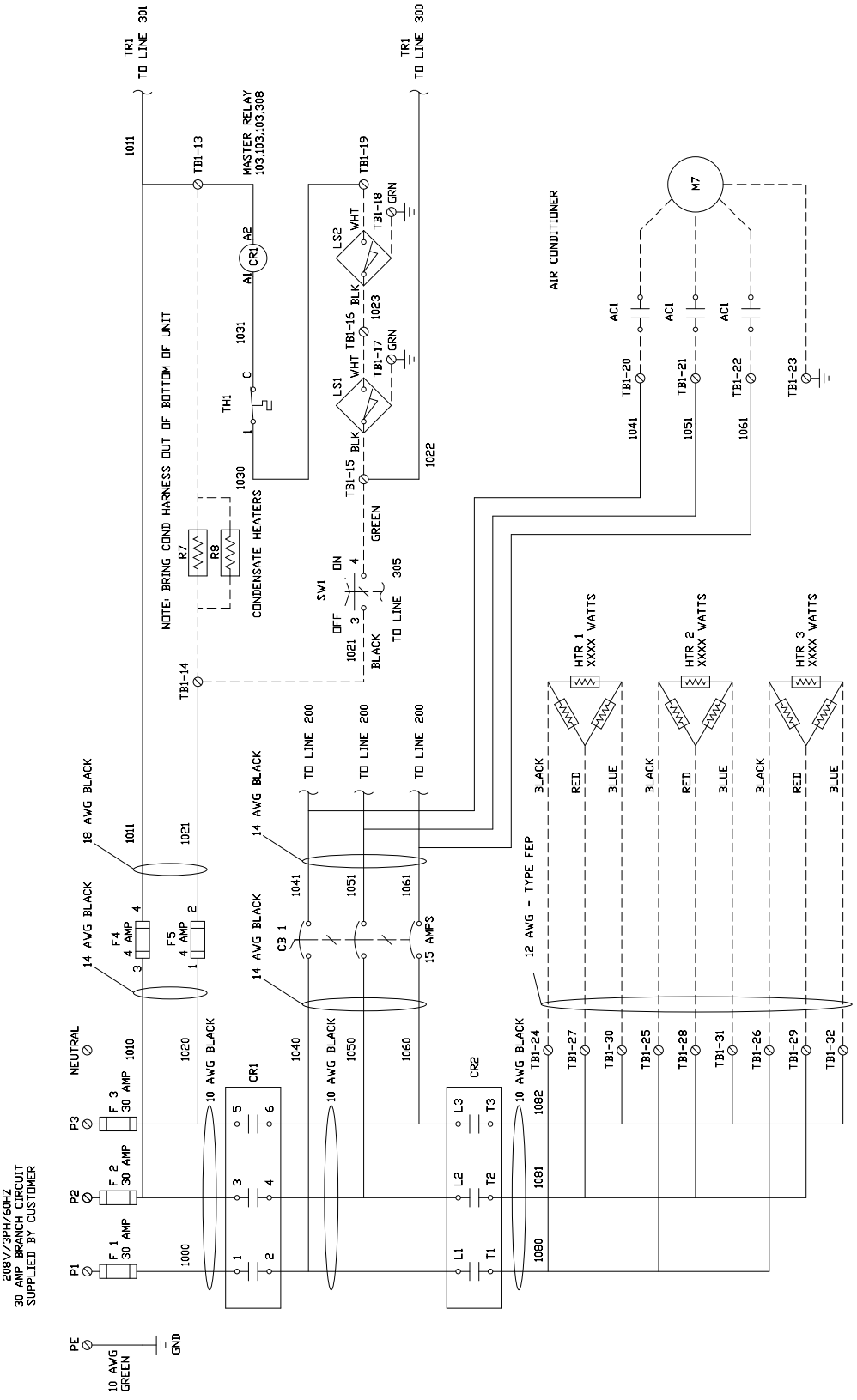
These are the operating temperatures and pressures for both the 24 and 30 meal models JUST BEFORE THE COMPRESSOR CYCLES OFF:

| TEV Open | Lo Pressure | Lo Temp | Super Heat Temp |
|---|---|---|---|
| Both | 55-60psi | 25-35°F | 3-15°F |
| Cold Only | 45-50psi | 25-35°F | 3-15°F |
| Hot Only | 50-55psi | 25-35°F | 3-15°F |

| TEV Open | Hi Pressure | Hi Temp | Subcooling |
|---|---|---|---|
| Both | 250psi | 90-100°F | 5-10°F |
| Cold Only | 240psi | 90-100°F | 5-10°F |
| Hot Only | 245psi | 90-100°F | 5-10°F |

## Wiring Diagrams

# 24 Meal (CR3D0XXX1)



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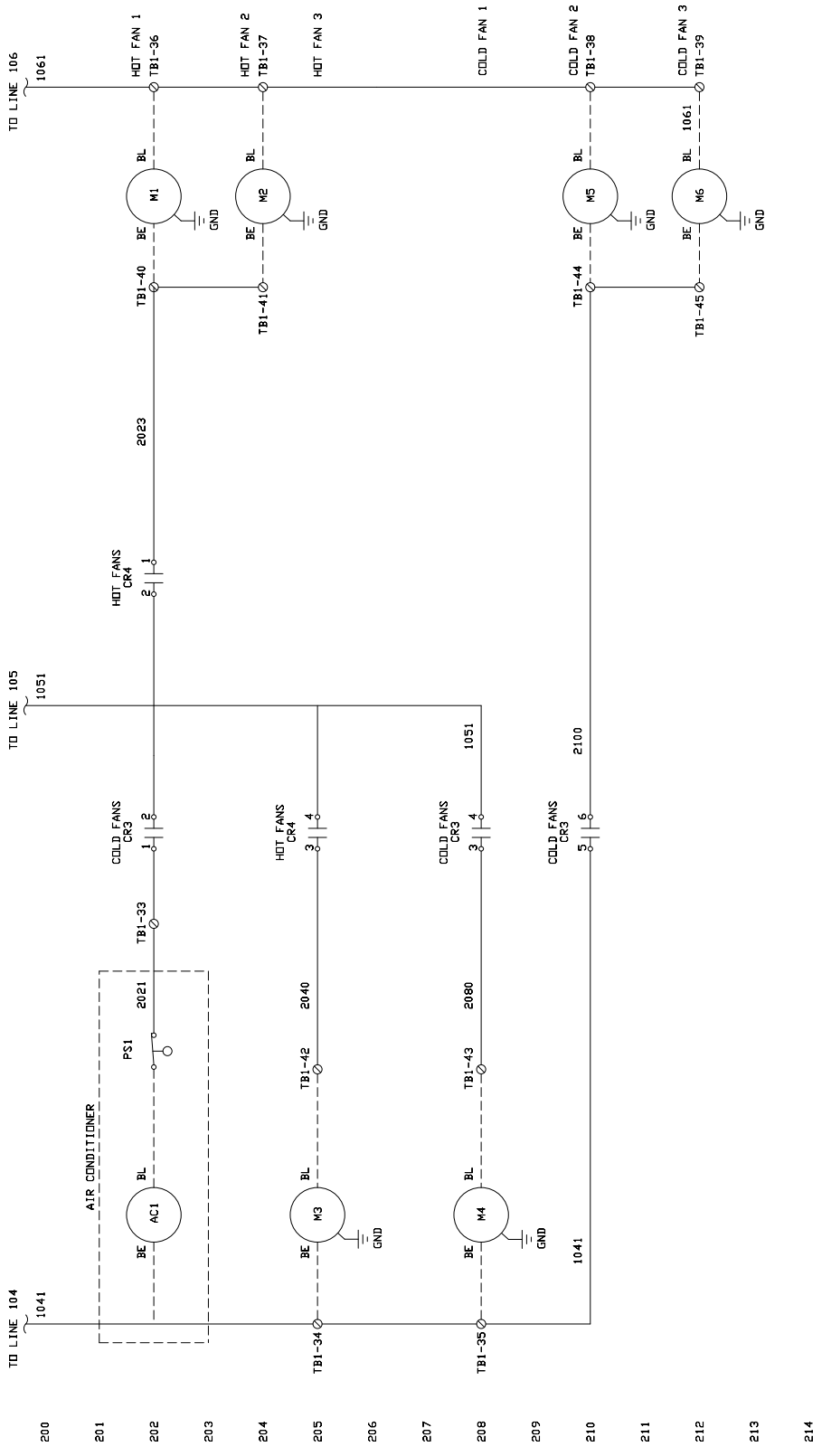

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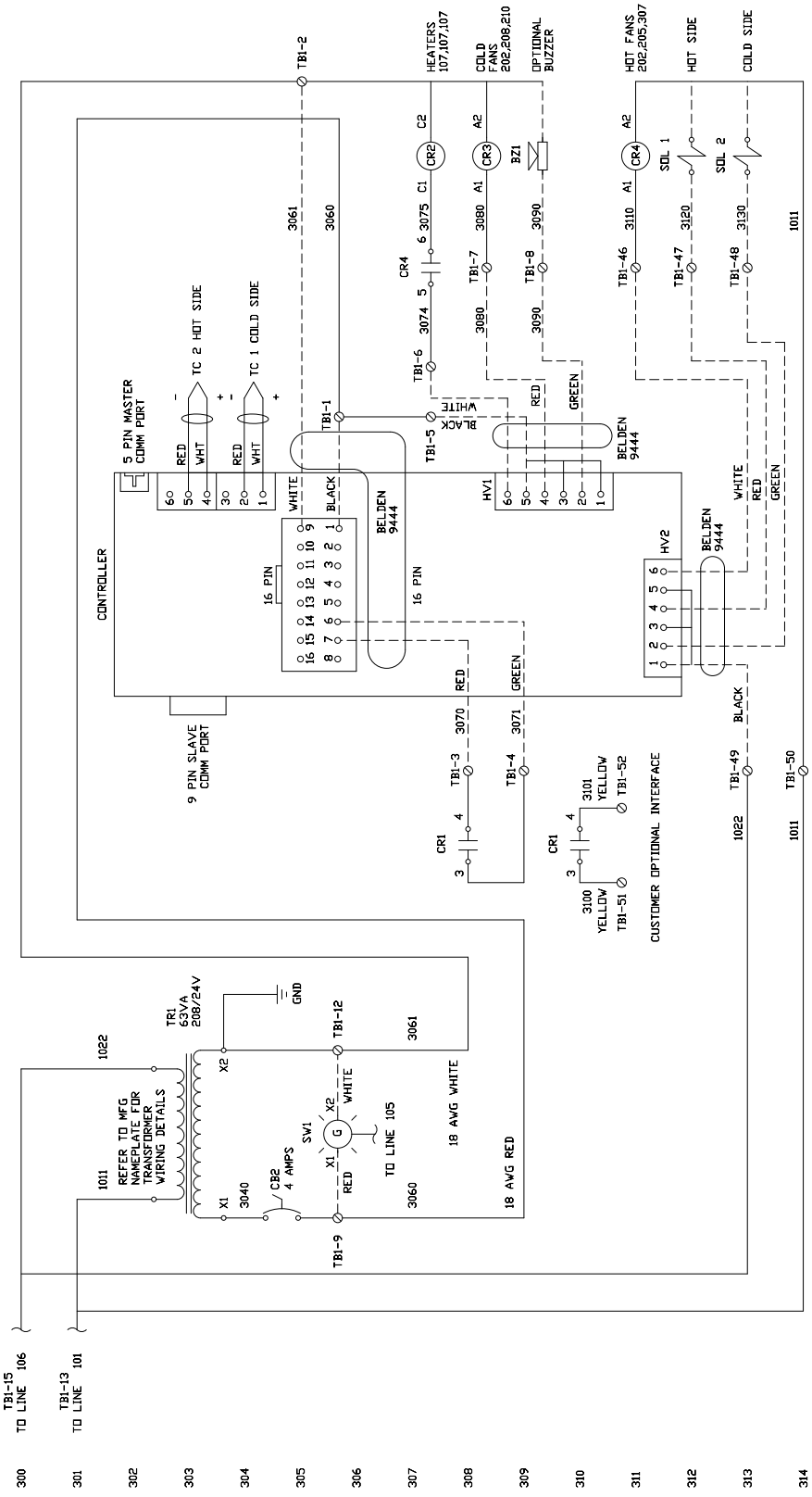

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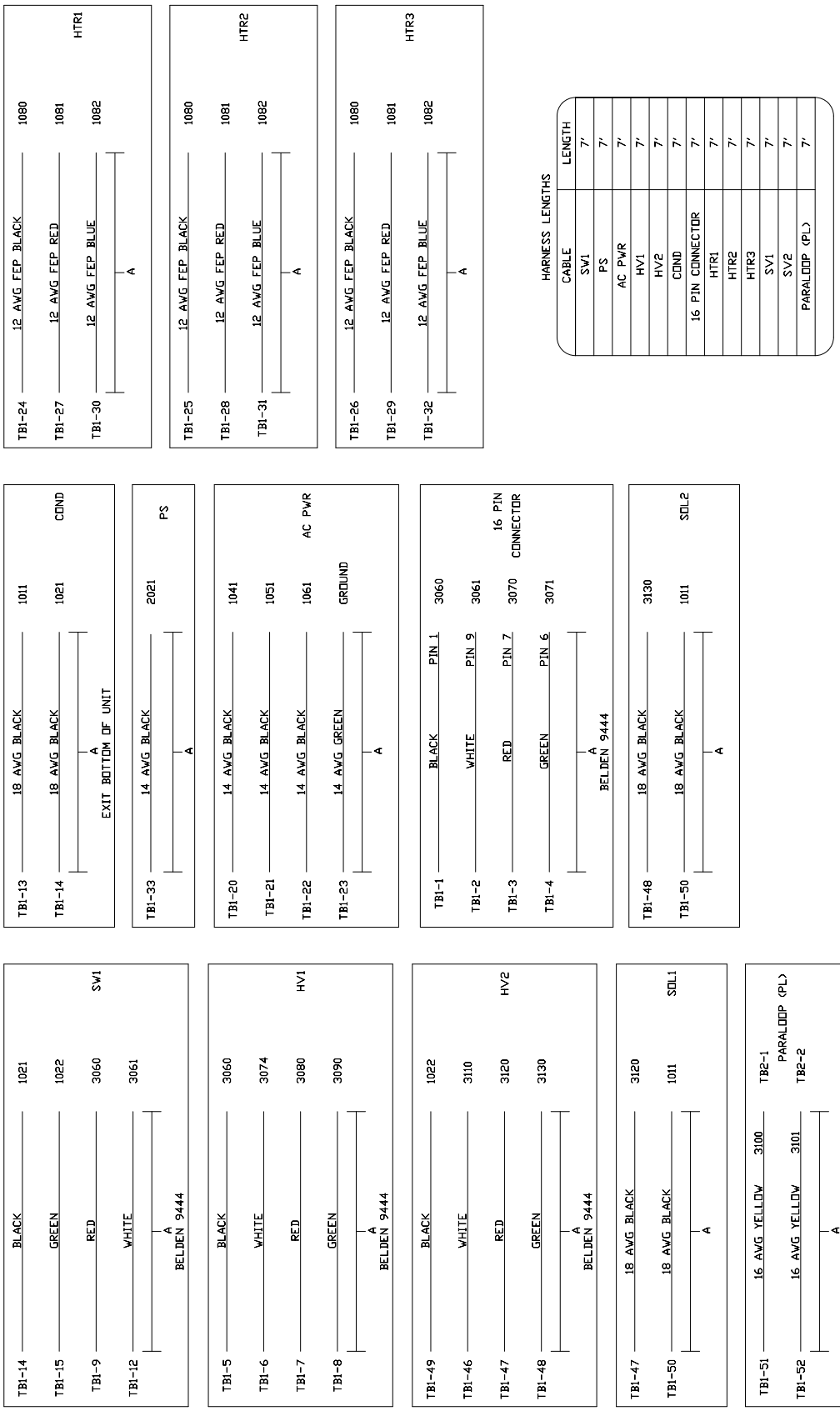

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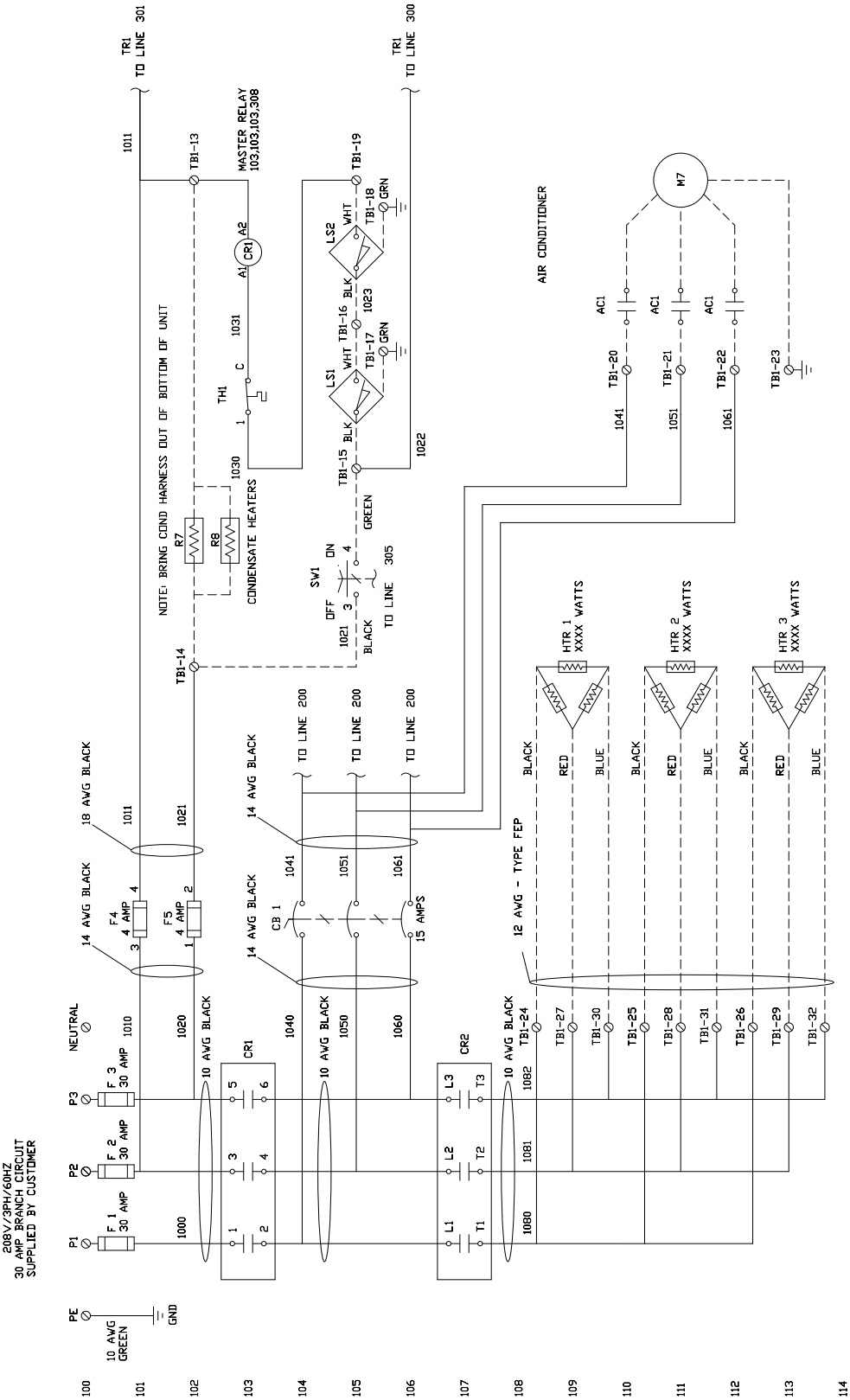

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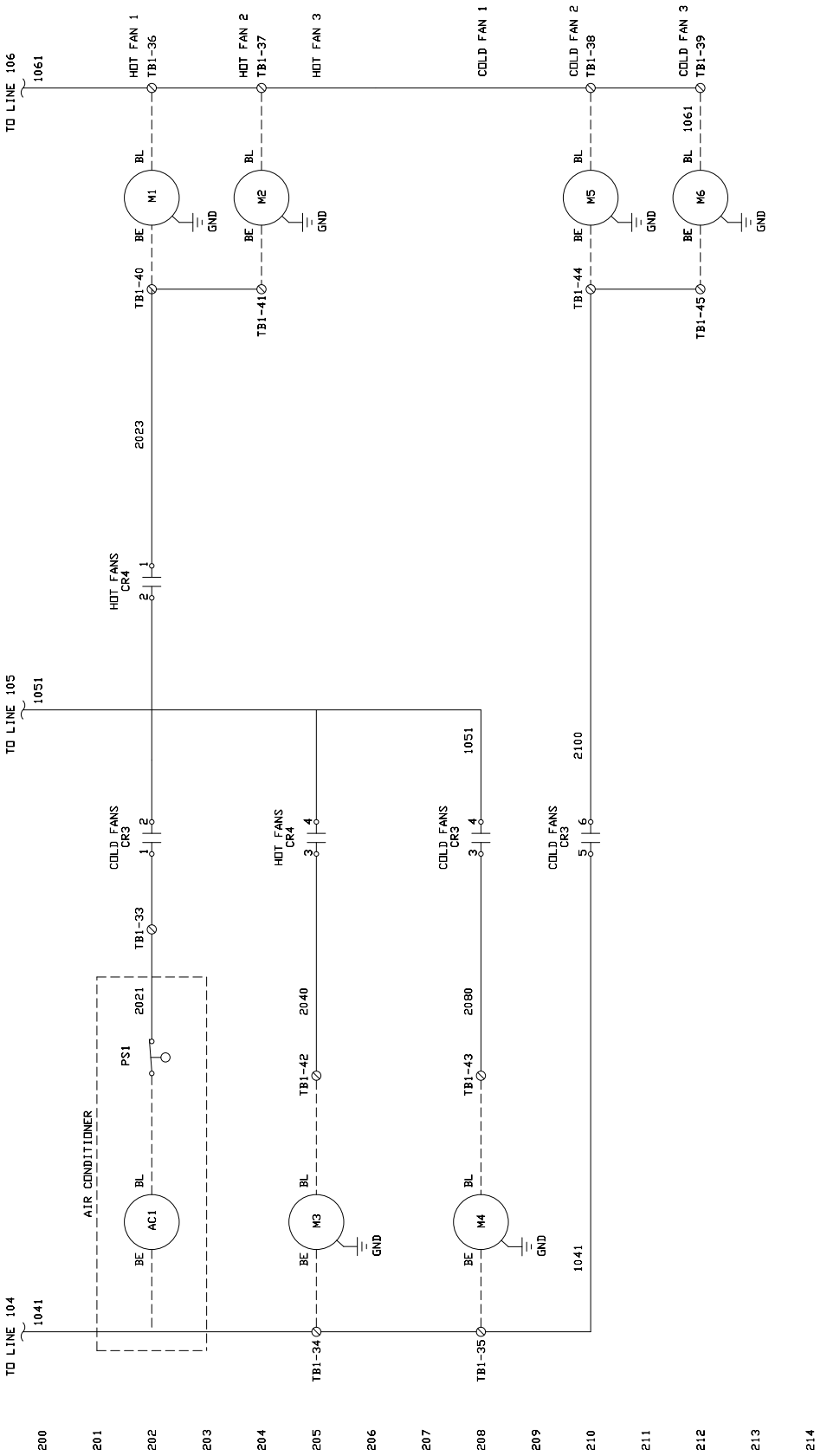

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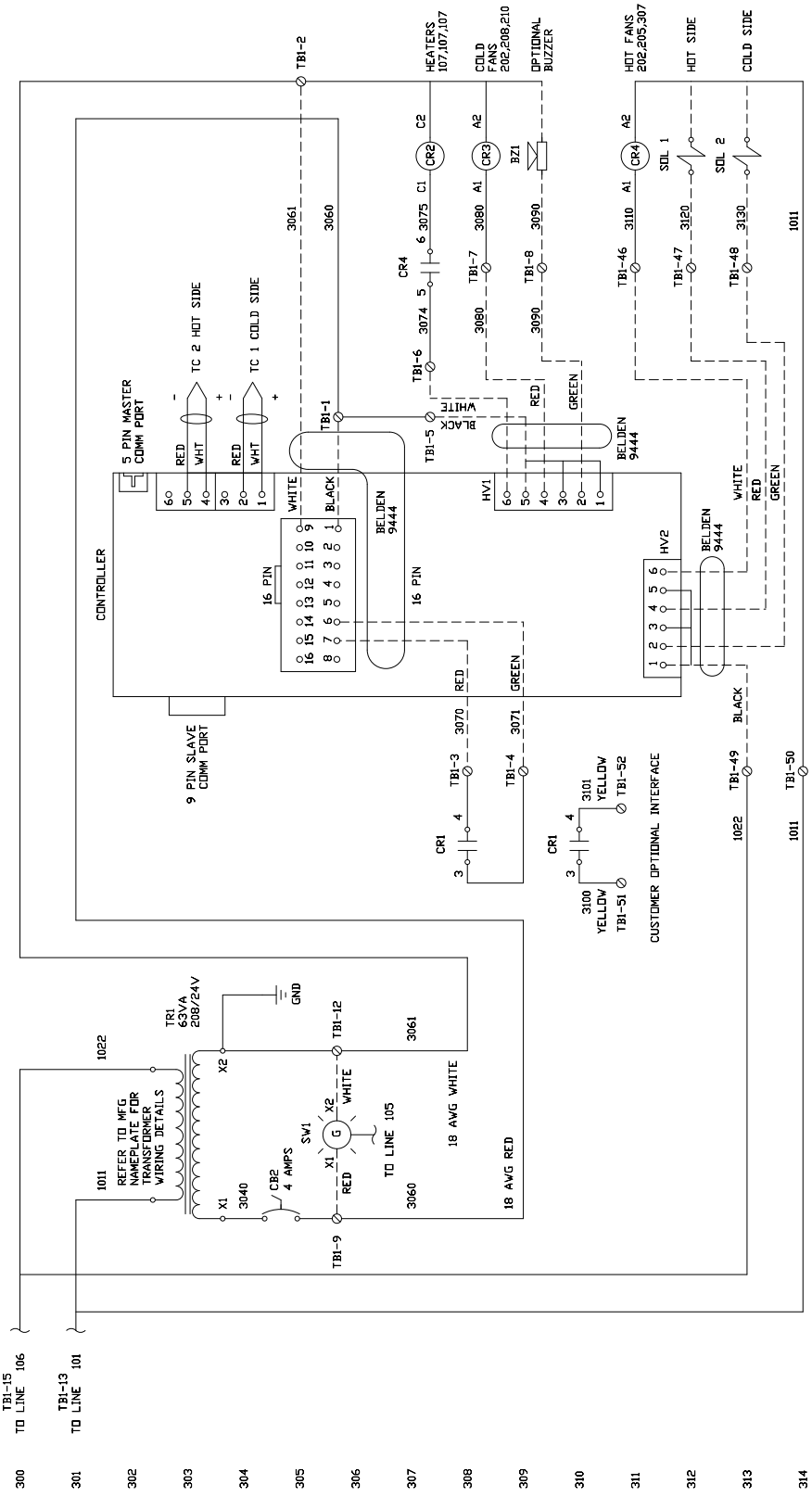

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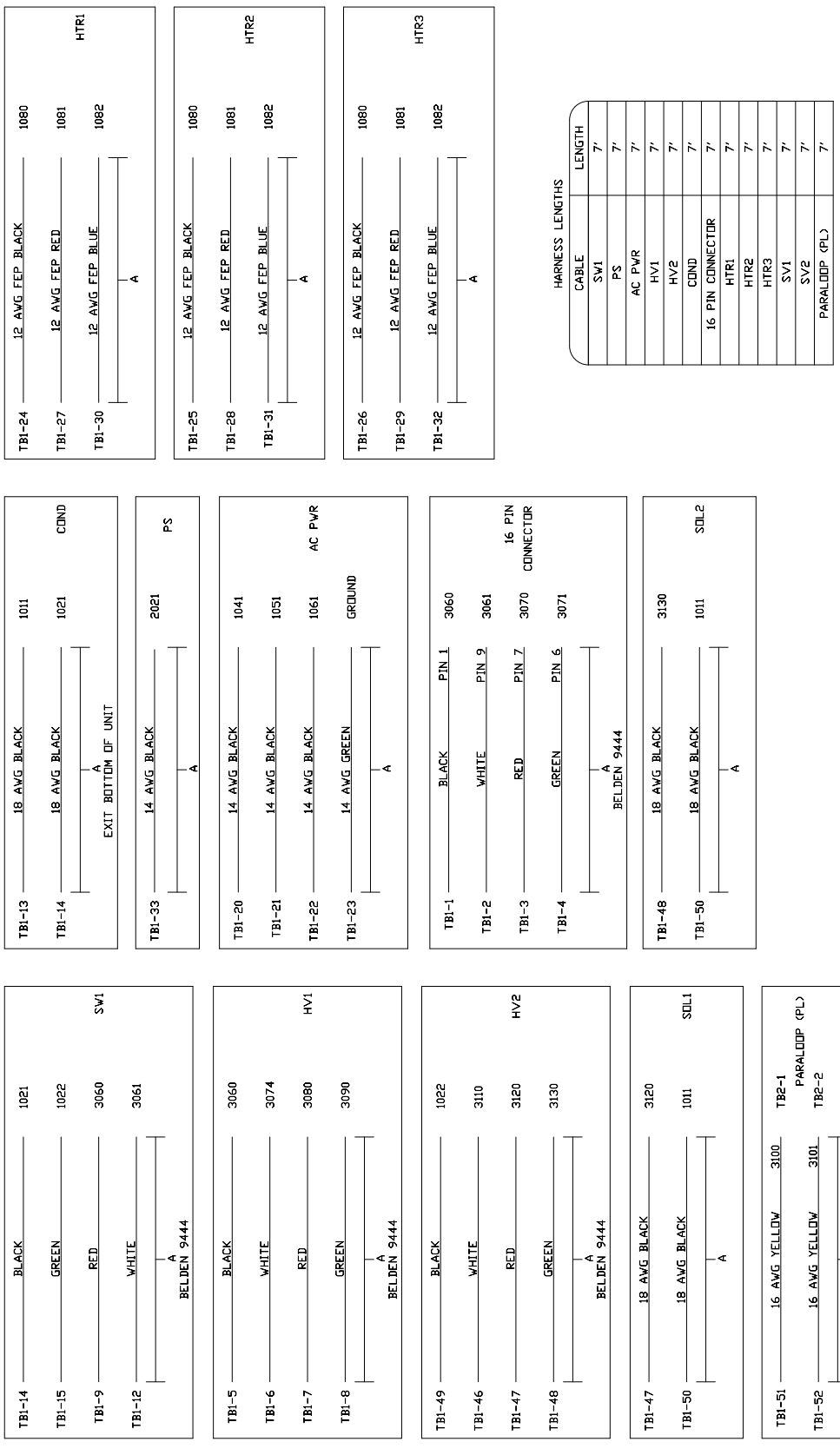

# VII. WARRANTY

ALADDIN TEMP-RITE
EQUIPMENT
LIMITED WARRANTY

Effective March 24, 2004

Aladdin Temp-Rite ("ATR") warrants to the original purchaser that the equipment listed below shall be free from defects in material and workmanship under normal use for the applicable warranty term set forth below. ATR's obligation under this warranty is limited to the repair or replacement , at the sole option of ATR, of any part which upon inspection and examination by ATR or its authorized agent is found to be defective. A written description detailing the nature of the claimed defect, together with the equipment claimed to be defective if required by ATR, must be delivered to ATR or its authorized agent within 30 days of discovery of the claimed defect (but in no event later than 30 days after the expiration of the applicable warranty term).

| CONVECT-RITE™III EQUIPMENT* | WARRANTY TERMS* | | COMPRESSOR WARRANTY TERM* PARTS ONLY** |
|---|---|---|---|
| | PARTS | LABOR | |
| CONVECT-RITE™ III DOCKING STATION | 1 Year | 1 Year | 5 Years |
| CONVECT-RITE™ III DOCKING STATION HEATING ELEMENTS | 2 Years | 1 Year | na |

*The warranty term commences 30 days after the date of ATR's invoice for the equipment. All our reusable crockery such as: plates, dishes, bowls, covers are not included in our manufactures equipment warranty.

**The compressor warranty covers the compressor only and does not include any shipping charges, other transportation costs, any external parts or electrical components, labor, refrigerants and taxes. Max 85°F Ambient operating environment.

THE WARRANTIES AND REPRESENTATIONS OF ATR CONTAINED HEREIN ARE EXPRESSLY IN LIEU OF, AND THE BUYER WAIVES, ANY AND ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ANY OTHER REMEDIES AGAINST ATR, WHETHER BASED UPON CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE. ATR SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OR ECONOMIC LOSS OF ANY NATURE (INCLUDING WITHOUT LIMITATION LOSS OF REVENUES AND/OR PROFITS) THAT MAY BE CLAIMED TO RESULT FROM ANY NEGLIGENCE OR BREACH OF WARRANTY OR CONTRACT BY ATR.

Exceptions and Exclusions

This warranty is issued only to the original purchaser, and is not transferable and applies only to the products installed within the United States of America, its territories and Canada. During the term of any labor warranty, ATR will pay all pre-approved shipping charges incurred in returning defective equipment to ATR and labor costs incurred in the removal and reinstallation of such equipment. Contact ATR before returning any defective equipment or otherwise performing any warranty repairs. ATR assumes no liability for any work or repair performed without its prior approval. After the expiration of any labor warranty, the original purchaser is responsible for all shipping charges incurred in returning defective equipment to ATR and labor for removing and reinstalling such equipment. ATR shall not be responsible for the replacement of expendable items like lamps and fuses or product failure resulting from normal wear and tear, improper installation, misuse, sabotage, abuse, neglect, accident, unauthorized alterations to repair, or other factors beyond the control of ATR. Neither this warranty, not the liability of ATR may be modified or extended by action of any agent, distributor or other person or by custom or practice.

CALL ATR TOLL FREE AT 1-800-888-5426 IF YOU HAVE ANY QUESTIONS ABOUT THIS WARRANTY OR YOUR ATR PRODUCT.