Forced Air Holding Cabinet (MHB)

Original Instructions

Service Manual

This manual is updated as new information and models are released. Visit our website for the latest manual.

8197386

Part Number: MER_SM_8197386 03/2017

Safety Notices

⚠Warning

Read this manual thoroughly before operating, installing or performing maintenance on the equipment. Failure to follow instructions in this manual can cause property damage, injury or death.

⚠ DANGER

Do not install or operate equipment that has been misused, abused, neglected, damaged, or altered/ modified from that of original manufactured specifications.

⚠ DANGER

Keep power cord AWAY from HEATED surfaces. DO NOT immerse power cord or plug in water. DO NOT let power cord hang over edge of table or counter.

⚠Warning

Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, local/national regulations for disconnection / lock out / tag out procedures for all utilities including electric, gas, water and steam.

⚠Warning

Do Not Store Or Use Gasoline Or Other Flammable Vapors Or Liquids In The Vicinity Of This Or Any Other Appliance. Never use flammable oil soaked cloths or combustible cleaning solutions, for cleaning.

⚠Warning

This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm. Operation, installation, and servicing of this product could expose you to airborne particles of glasswool or ceramic fibers, crystalline silica, and/or carbon monoxide. Inhalation of airborne particles of glasswool or ceramic fibers is known to the State of California to cause cancer. Inhalation of carbon monoxide is known to the State of California to cause birth defects or other reproductive harm.

⚠Warning

Do not use electrical appliances or accessories other than those supplied by the manufacturer.

⚠Warning

Use caution when handling metal surface edges of all equipment.

⚠Warning

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision concerning use of the appliance by a person responsible for their safety. Do not allow children to play with this appliance.

⚠Warning

DO NOT use this product near water – for example, near a kitchen sink, in a wet basement, near a swimming pool, or similar locations.

NOTE: Proper installation, care and maintenance are essential for maximum performance and trouble-free operation of your equipment. Visit our website www.mtwkitchencare.com for manual updates, translations, or contact information for service agents in your area.

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Section 1
General Information

Model Numbers

Domestic Models
MHB22SAB1E, 23, 24, 34
MHB22SAR2E, 23, 24, 34
MHB22SAB2E, 23, 24, 34

Understanding Model Numbers									
M	H	B	2	2	S	A	B	2	E
Merco	Hot Holding Cabinet	Customer	Rows	Columns (Trays per shelf)	Lower Heat	Upper Heat	Display	Control Faces	Connectivity
		B- Burger King	1-5	1-4	S- Standard	A- Forced Air	B-Timer Bar R-Timer Ready	1- One Side 2- Two Sided	E- Ethernet

Serial Number Information

MHB holding cabinet serial and model numbers are located on the data plate. Data plates are located on the bottom and the right end of the unit.

Always have the serial number of your unit available when calling for parts or service.

Kitchen Management Contact Information

For Kitchen Minder connection questions and issues call - ICC Tech Division 631-673-5100 or 877-422-8788 (North America only).

For SICOM Chef Minder connection questions and issues call - 800-547-4266 (North America only).

Warranty Information

Visit http://www.mercoproducts.com/minisite/service/warranty_info to:

- Register your product for warranty.
- Verify warranty information.
- View and download a copy of your warranty.

Regulatory Certifications

Domestic Models are certified by:

- Underwriters Laboratories Sanitation
- Underwriters Laboratories (UL)
- Underwriters Laboratories of Canada (ULC)

Section 2
Installation

⚠ DANGER

Installation must comply with all applicable fire and health codes in your jurisdiction.

⚠ DANGER

Legs must be installed and the legs must be screwed in completely.

⚠ DANGER

Use appropriate safety equipment during installation and servicing.

⚠ Warning

Only trained and authorized service personnel or store manager should access the service screens. If changes to these settings are made incorrectly they will cause the unit to malfunction.

Location

⚠ Warning

This equipment must be positioned so that the plug is accessible unless other means for disconnection from the power supply (e.g., circuit breaker or disconnect switch) is provided.

⚠ Warning

Adequate means must be provided to limit the movement of this appliance without depending on or transmitting stress to the electrical conduit or gas lines.

⚠ Warning

To avoid instability the installation area must be capable of supporting the combined weight of the equipment and product. Additionally the equipment must be level side to side and front to back.

⚠ Warning

This equipment is intended for indoor use only. Do not install or operate this equipment in outdoor areas.

⚠ Caution

Do not position the air intake vent near steam or heat exhaust of another appliance.

The location selected for the equipment must meet the following criteria. If any of these criteria are not met, select another location.

- Holding cabinets are intended for indoor use only.
- The location MUST be level, stable and capable of supporting the weight of the equipment.
- The location MUST be free from and clear of combustible materials.
- Equipment MUST be level both front to back and side to side.
- Position the equipment so it will not tip or slide.
- Recommended air temperature is 41° - 86°F (5° - 30°C) .
- Proper air supply for ventilation is REQUIRED AND CRITICAL for safe and efficient operation. Refer to Clearance Requirements chart on page 2-2
- Do not obstruct the flow of ventilation air. Make sure the air vents of the equipment are not blocked.

Weight of Equipment

Domestic Model	Weight
MHB22	50lbs/23kg
MHB23	65lbs/30kg
MHB24	115lbs/52kg
MHB34	150lbs/68kg

Clearance Requirements

⚠ DANGER

Minimum clearance requirements are the same for noncombustible locations as for combustible locations. The flooring under the appliance must be made of a noncombustible material.

⚠ DANGER

Risk of fire/shock. All minimum clearances must be maintained. Do not obstruct vents or openings.

Sides/Back
1.0" (25mm)

Dimensions

Domestic Model	Width	Depth	Depth incl Timer Bars	Height
MHB22SAB1E	19.20" (488mm)	13.00" (330mm)	15.60" (396mm)	11.00" (279mm)
MHB22SAR2E			N/A	10.60" (269mm)
MHB22SAB2E			18.10" (460mm)	11.00" (279mm)
MHB23SAB1E	29.70" (754mm)		15.60" (396mm)	11.00" (279mm)
MHB23SAR2E			N/A	10.60" (269mm)
MHB23SAB2E			18.10" (460mm)	11.00" (279mm)
MHB24SAB1E	36.50" (927mm)		15.60" (396mm)	11.00" (279mm)
MHB24SAR2E			N/A	10.60" (269mm)
MHB24SAB2E			18.10" (460mm)	11.00" (279mm)
MHB34SAB1E			15.60" (396mm)	15.90" (404mm)
MHB34SAR2E			N/A	15.90" (404mm)
MHB34SAB2E			18.10" (460mm)	15.90" (404mm)

Electrical Service

⚠ DANGER

Check all wiring connections, including factory terminals, before operation. Connections can become loose during shipment and installation.

⚠ DANGER

Copper wire suitable for at least 167°F (75°C) must be used for power connections.

⚠ Warning

This appliance must be grounded and all field wiring must conform to all applicable local and national codes. Refer to rating plate for proper voltage. It is the responsibility of the end user to provide the disconnect means to satisfy the authority having jurisdiction.

VOLTAGE, WATTS, RATED AMPERAGES & POWER CORD CHART

All electrical work, including wire routing and grounding, must conform to local, state and national electrical codes. The following precautions must be observed:

- The equipment must be grounded.
- A separate fuse/circuit breaker must be provided for each unit.
- A qualified electrician must determine proper wire size dependent upon location, materials used and length of run (minimum circuit amp capacity can be used to help select the wire size).
- The maximum allowable voltage variation is ±10% of the rated voltage at equipment start-up (when the electrical load is highest).
- Check all green ground screws, cables and wire connections to verify they are tight before start-up.

Units with plugs are supplied with approximately 9ft cords, maximum 10ft.

Domestic Model	Voltage, Cycle, Phase	Watts	Amps	Plug
MHB22	120, 60, 1	1920	16.0	5-20P
MHB23	208-230, 60, 1	3174	13.8	6-20P
MHB24	208-230, 60, 1	3680	16.0	6-20P
MHB34	208, 60, 1	3120	15.0	6-20P

Section 3
Operation

⚠ DANGER

The on-site supervisor is responsible for ensuring that operators are made aware of the inherent dangers of operating this equipment.

⚠ DANGER

Do not operate any appliance with a damaged cord or plug. All repairs must be performed by a qualified service company.

⚠ DANGER

Never stand on the unit! They are not designed to hold the weight of an adult, and may collapse or tip if misused in this manner.

⚠ Warning

Do not contact moving parts.

⚠ Warning

All covers and access panels must be in place and properly secured, before operating this equipment.

⚠ Warning

Liquids such as water, coffee, or tea can be overheated beyond the boiling point without appearing to be boiling due to surface tension of the liquid. Visible bubbling or boiling when the container is removed from the microwave oven is not always present. THIS COULD RESULT IN VERY HOT LIQUIDS SUDDENLY BOILING OVER WHEN A SPOON OR OTHER UTENSIL IS INSERTED INTO THE LIQUID. To reduce the risk of injury to persons: Do not overheat the liquid. Stir the liquid both before and halfway through heating it.

⚠ Warning

Do not heat sealed containers or plastic bags in oven. Food or liquid could expand quickly and cause container or bag to break. Pierce or open container or bag before heating.

⚠ Warning

Racks, utensils, rack guides, and oven surfaces may become hot during or after use. Use utensils or protective clothing, like pan grips or dry oven mitts, when necessary to avoid burns.

⚠ Warning

DO NOT use the cavity for storage. DO NOT leave paper products, cooking utensils, or food in the cavity when not in use.

⚠ Caution

Do not block the supply and return air grills or the air space around the air grills. Keep plastic wrappings, paper, labels, etc. from being airborne and lodging in the grills. Failure to keep the air grills clear will result in unsatisfactory operation of the system.

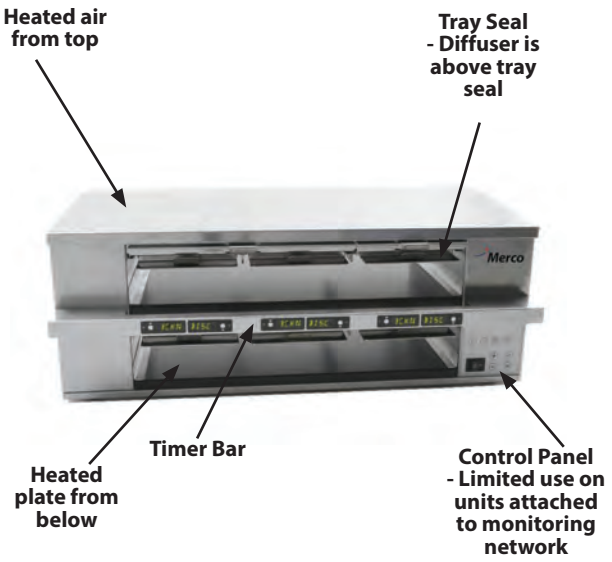
⚠ Caution

Some products such as whole eggs or sealed containers – for example, closed glass jars – are able to explode and SHOULD NOT be HEATED in this oven. Pressure may build up and erupt. Pierce yolk with fork or knife before cooking. Pierce skin of potatoes, tomatoes, and similar foods before cooking with microwave energy. When skin is pierced, steam escapes evenly.

⚠ Caution

DO NOT cover racks or any other part of the oven with metal foil. Airflow restriction will cause overheating of the oven.

Component Identification



Control Zones

The rows are divided to zones, which are heated individually. Two bins will fit in one zone.

The cabinet is designed to operate on a network, which configures the PHU and monitors food usage. The unit's network connection status is shown by an LED (see arrow above).

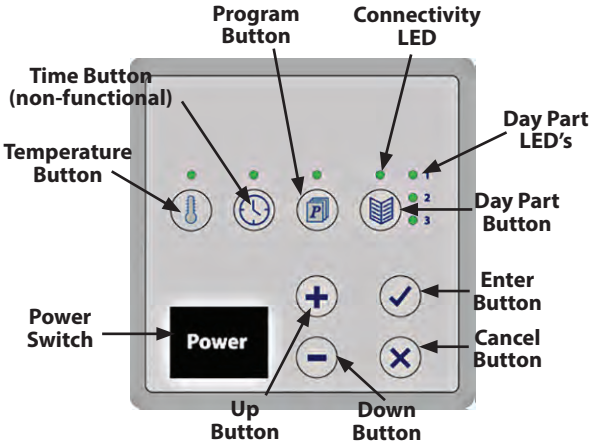
LED ON: Unit is managed by network.

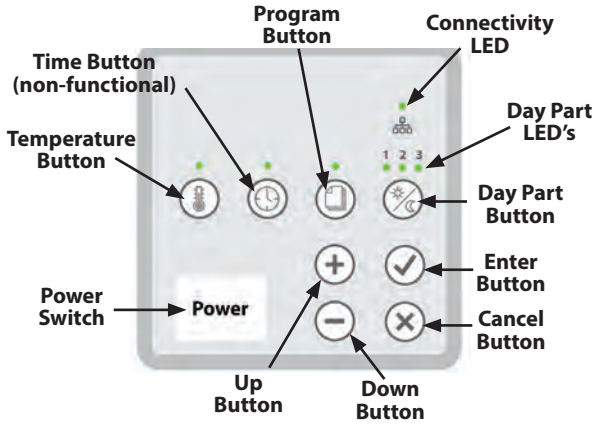
LED OFF: Standalone operation; day parts can be changed.

NOTE: In standalone mode, the unit works in a default bin configuration that can't be revised with the controller.

Control Panel

Use the illustration below for the display that matches the unit.





Controls/Programming/Settings

The Merco Holding Cabinet has been designed to afford food service operators the ability to cook menu components in advance and then gently store that product in the holding bins until an order is received. Once that order has been placed, the crew can assemble the order using hot and fresh menu components from the holding bins. This allows for operators to serve to order, helping increase speed of service while maintaining high product quality standards.

- The holding cabinet blows heated air down from the upper platen to the food in the trays.
- Heated air removes moisture from the food surface, maintaining a crispy exterior and hot and moist interior.
- Airflow passes over the food items and exits through holes in the tray sidewalls.
- Dual function for grilled and fried food holding

TYPICAL OPERATOR ACTIONS

Action	Instructions
Turn Unit On	Push Power button.
Load bin with product	Pull out tray, load product and reinsert tray.
Empty bin	Pull out tray and remove product. Reinsert tray.

When the unit is first powered ON, it will begin to preheat. The displays will display PRE-HEAT alternating with the product name.

The holding cabinet will operate in a stand alone mode or will be controlled by a kitchen system.

In stand alone mode the holding cabinet will heat up to the pre-set default temperature. The holding cabinet will have a default menu and zone assignment. These can not be adjusted from the cabinet. Adjustment of bin locations, times and temperatures can be performed from a PC application.

In stand alone mode only day-parts can be changed. Zones and temperatures can not be adjusted.

The holding bin controller is, at all times, operating in one of the following modes. The indents indicate the sub-modes. Sub-modes are defined based on the navigation to the mode. I.e., to get to diagnostic mode you must be in active heating mode then enter programming mode.

- Pre-Heat Mode
- Active Heating Mode
  - » Diagnostic Mode
  - Temperature View Mode
    - » Diagnostic Temperature View Mode

PRE-HEAT MODE

The displays shall scroll PRE-HEAT alternating with the product temperature during the pre-heat mode until the heater reaches set point minus 15°F. The timer bar will display the product name once the pre-heat mode completes. If a product is not assigned to the bin, the timer bar will display "- - - -". The LED corresponding to the active Day Part menu configuration will be on.

During Pre-Heat mode, all button presses will be ignored except the check mark (ENTER) button.

ACTIVE HEATING MODE

This is the active heating mode of operation. In active heating mode the displays will be blank and the day part LED light will be ON.

During active heating mode, press and hold enter for three (3) seconds to scroll the software version on the display.

TIME BUTTON

The displays alternate between the actual hold time and the product name. Pressing the time button will switch off the timers and only display the product names.

TEMPERATURE VIEW MODE

Enter the temperature view mode by pressing the temperature button. The average temperature for each zone is displayed. Press the cancel button to exit.

CHANGING THE DAY PART

Pressing the Day Part button will change to one of three day parts for ICC systems and six day parts for Duke/Sicom in stand alone mode (see matrix for which day part menu is displayed). Illuminated day part LED indicates the unit is in stand alone mode. The day part switch is disabled when controlled by a network.

Default Day Part Menus			
Day Part #	**LED 1**	**LED 2**	**LED3**
1 (Breakfast)	•		
2 (Change Over 1)	•	•	
3 (Lunch)		•	
4 (Change Over 2)		•	•
5 (Dinner)			•
6 (Change Over 3)	•		•

TIMER BARS

- Two timer bars on a 3-row cabinet.
- Top timer controls the top slots.
- Bottom timers control 2nd and 3rd slots.
- Note arrows at menu names.

LED INDICATORS

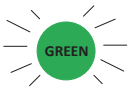
The timer bar's LED's indicate:

- Trays to pull from first
- When a product is near expiration.
- Product is expired.
- Bin is out of product

See next page for legend.

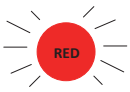
Use 1st, when pan is empty
press the button with the arrow.

Use Green Product 1st



Near expiration, cook more if needed

Near expiration, cook more if needed



Expired, discard product, press
button with the arrow.

Out of product, pull pan out.
Refer to Kitchen Minder.

Off, no product needed (KM™ only)

Section 4
Maintenance

⚠ DANGER

All utility connections and fixtures must be maintained in accordance with Local and national codes.

⚠ DANGER

It is the responsibility of the equipment owner to perform a Personal Protective Equipment Hazard Assessment to ensure adequate protection during maintenance procedures.

⚠ DANGER

Failure to disconnect the power at the main power supply disconnect could result in serious injury or death. The power switch DOES NOT disconnect all incoming power.

⚠ DANGER

Always discharge the ht capacitors before working on the oven using a suitably insulated 10mo resistor.

⚠ DANGER

Disconnect electric power at the main power disconnect for all equipment being serviced. Observe correct polarity of incoming line voltage. Incorrect polarity can lead to erratic operation.

⚠ Warning

When using cleaning fluids or chemicals, rubber gloves and eye protection (and/or face shield) must be worn.

⚠ Caution

Maintenance and servicing work other than cleaning as described in this manual must be done by an authorized service personnel.

Cleaning and Sanitizing Procedures

GENERAL

You are responsible for maintaining the equipment in accordance with the instructions in this manual. Maintenance procedures are not covered by the warranty.

Maintenance	Daily	After Prolonged Shutdown	At Start-Up
Exterior	X	X	X
Interior	X	X	X
Tray Seal & Air Diffuser	X	X	X
Plastic Tray	X	X	X

EXTERIOR CLEANING

⚠ Warning

Never use a high-pressure water jet for cleaning or hose down or flood interior or exterior of units with water. Do not use power cleaning equipment, steel wool, scrapers or wire brushes on stainless steel or painted surfaces.

⚠ Caution

Never use an acid based cleaning solution on exterior panels! Many food products have an acidic content, which can deteriorate the finish. Be sure to clean the stainless steel surfaces of ALL food products.

The stainless steel outer case requires nothing more than a daily wiping with a damp cloth. If, however, an excessive amount of food particles/grease are allowed to collect, a non-abrasive cleaner (hot sudsy water) may be used. Wipe dry with a clean, soft cloth.

Always rub with the “grain” of the stainless steel to avoid marring the finish. Never use steel wool or abrasive pads for cleaning. Never use chlorinated, citrus based or abrasive cleaners.

Stainless steel exterior panels have a clear coating that is stain resistant and easy to clean. Products containing abrasives will damage the coating and scratch the panels. Daily cleaning may be followed by an application of stainless steel cleaner which will eliminate water spotting and fingerprints. Early signs of stainless steel breakdown are small pits and cracks. If this has begun, clean thoroughly and start to apply stainless steel cleaners in an attempt to restore the steel.

INTERIOR CLEANING

⚠Caution

Do not use caustic cleaners on any part of the oven or oven cavity . Use mild, non abrasive soaps or detergents, applied with a sponge or soft cloth. Never use sharp implements or harsh abrasives on any part of the oven.

The product trays, tray seals and air diffusers may be cleaned via dishwasher or with warm soapy water. Care must be taken to prevent water or cleaning compounds from getting on internal parts, especially the switches on the control panel.

PLASTIC TRAY CLEANING

⚠Caution

Environmental stress cracking can occur. Proper dilution and rinsing per detergent manufacturers' directions are mandatory.

Food-approved detergents can be used if they are diluted per manufacturers' directions and adequately rinsed away prior to high temp drying cycle. Basic alcohols such as isopropyl are acceptable for hard-to-remove stains. Otherwise, do not use organic solvents.

DAILY CLEANING INSTRUCTIONS

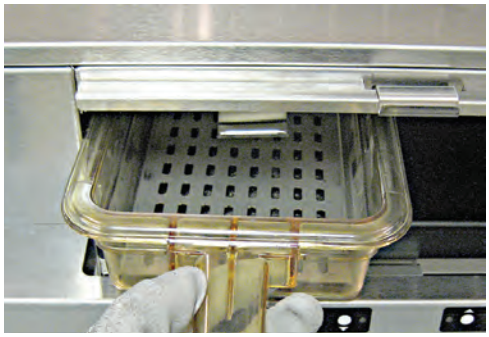
⚠Caution

The unit must be cool to the touch and disconnected from the power source prior to cleaning, to avoid contact with hot surfaces which may cause burns or injury. Use caution and wear appropriate safety equipment to avoid contact with hot surfaces that may cause severe burns or injury.

Unit must be cool to touch and disconnected from power source.

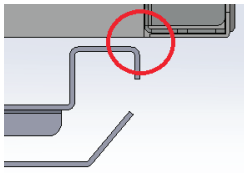
1. Wipe the stainless steel outer case with a damp cloth, rubbing with the grain of the steel. If an excessive amount of food particles/grease has collected, hot sudsy water (non-abrasive) may be used.

2. Remove trays.

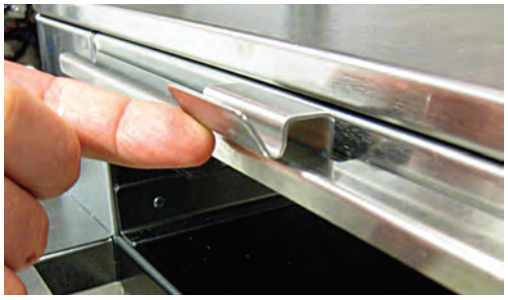


⚠Caution

Use caution when raising the locking clips to avoid pinching a finger between the air diffuser assembly and the back of the timer bar (see illustration below).



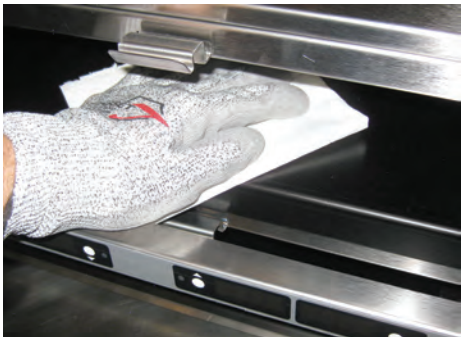
3. Raise/lift the locking clips to remove the air diffusers and/or tray seals.



4. Remove air diffuser assemblies

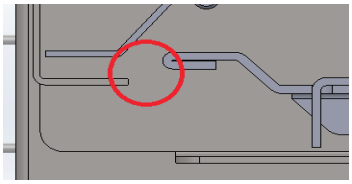
5. The product trays, tray seals and air diffusers may be cleaned via dishwasher or with warm soapy water.

6. Wipe the interior shelf with a damp cloth. If, however, an excessive amount of food particles/grease has collected, hot sudsy water (non-abrasive) may be used on the cloth.



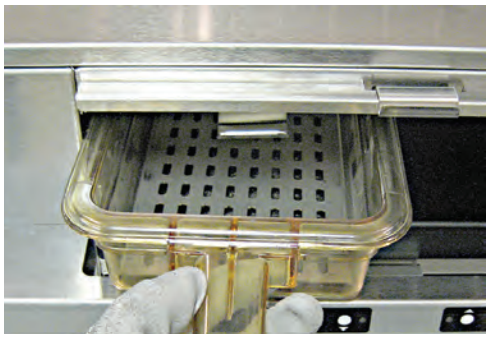
⚠Caution

Use caution when inserting the air diffuser into the unit to avoid pinching a finger between the air diffuser assembly and the back of the air plenum assembly on the rear of the unit (see illustration below).



7. Reinstall cleaned air diffusers and tray seals.

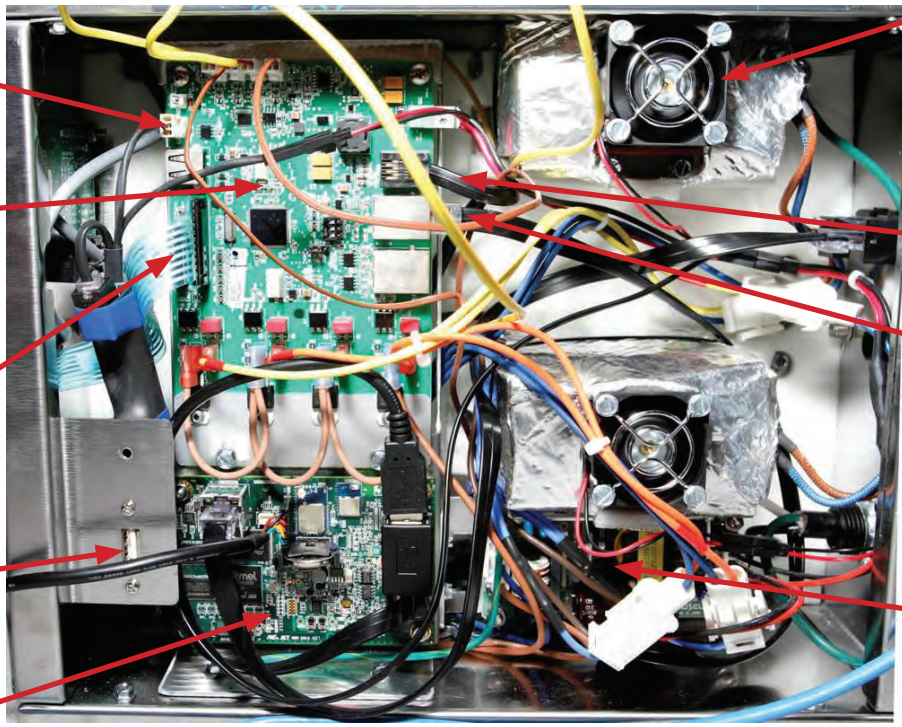
8. Reinstall the cleaned trays.



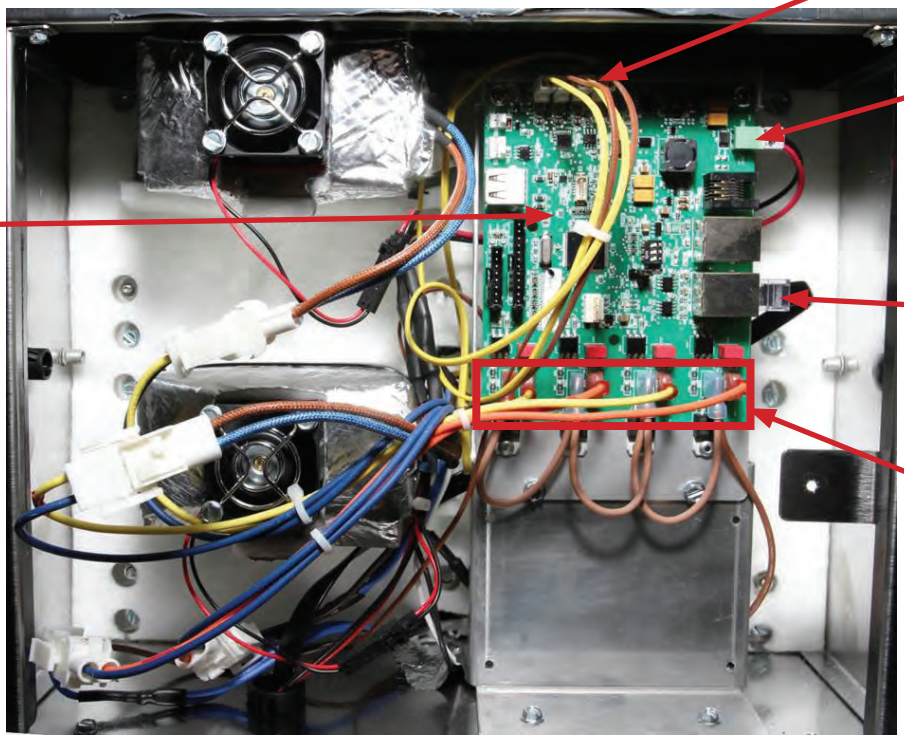
9. Plug the unit in.

Component Identification

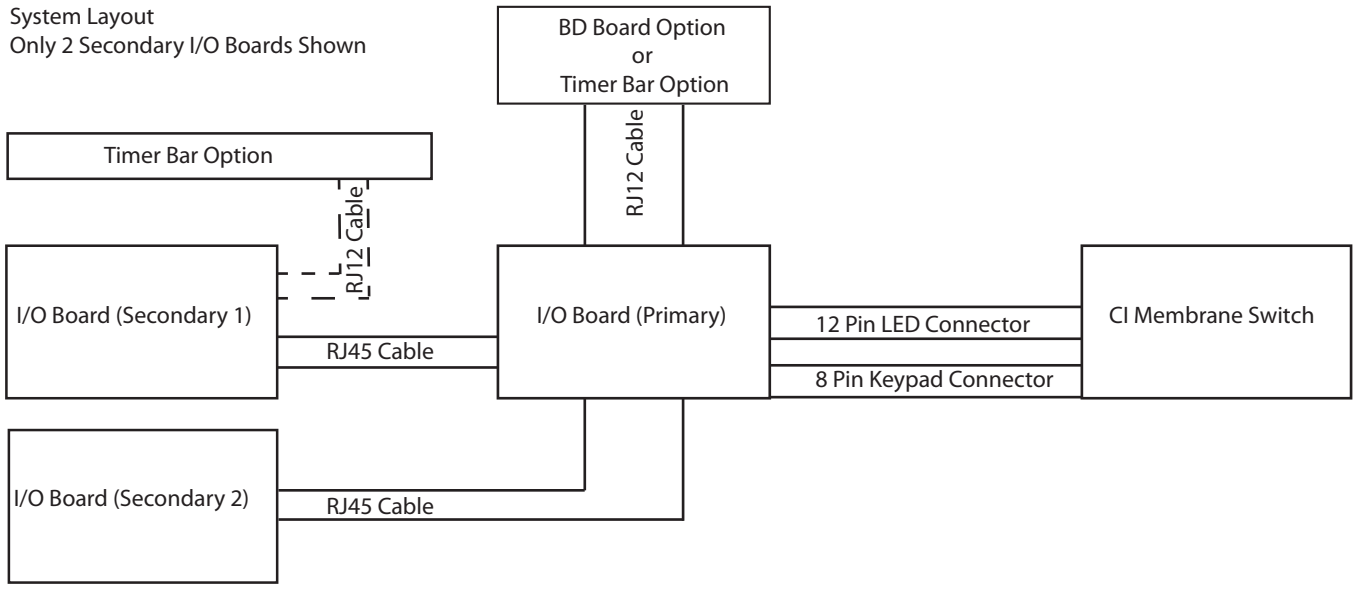
RIGHT SIDE



LEFT SIDE
(Opposite Control Side)

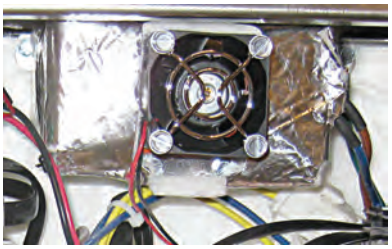


System Layout



INSTRUCTIONS FOR REPLACING AN AIR HEATER

1. Remove end panel.
2. Disconnect heater coil wire and fan wire from harness.
3. Remove the fasteners securing the air heater to the chassis.



4. Install new air heater with fasteners.
5. Reconnect electrical and reinstall end panel.

INSTRUCTIONS FOR REPLACING AN AIR HEATER PROBE

Air heater probes are located in the panel above the zone.

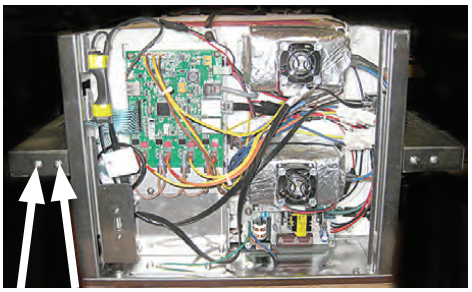
Top Zone Air Heater Probe Replacement

1. Remove the unit top.
2. Remove the insulation.
3. Remove probe, it will be thoroughly taped in place.
4. Attach a new probe in it's place and secure with aluminum tape.
5. Reverse steps to reassemble.

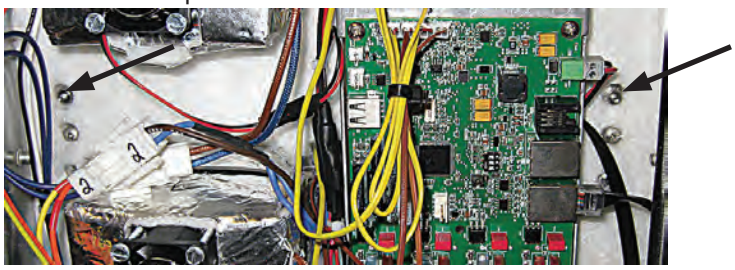
Lower Zone Air Heater Probe Replacement

These air heater probes are taped in the aluminum plate above the zone.

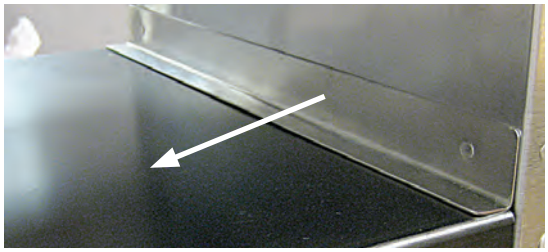
1. Remove air diffusers above pad heater by raising the locking clips and sliding the diffusers out of the cabinet.
2. Remove the end panels by sliding up and away from the cabinet.
3. Remove the timer bar above the zone by removing the two screws at each end and carefully lowering the bars.



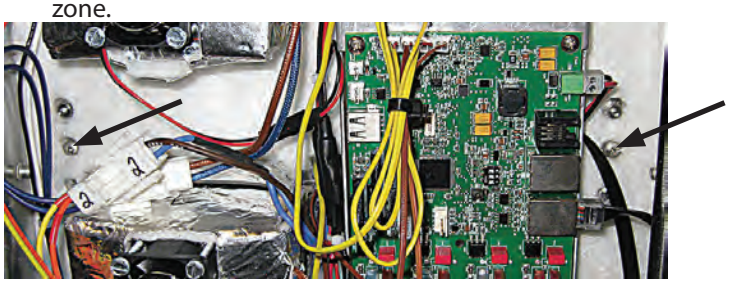
4. From each side remove nuts attached to the studs of both end clips.



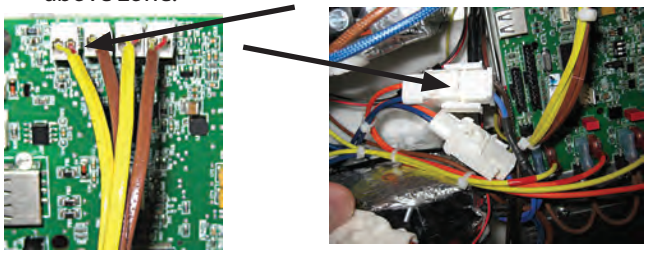
5. Remove the end clips by pulling away from the cabinet wall.



6. From each side remove hex shoulder screw and standard screws holding aluminum heater plate above zone.



7. Thermocouple connections, on both sides of the cabinet, are at the top of the IO board. Brown wires attach heater-plate related thermocouples. Yellow wires attach air heater thermocouples. Pay close attention to their placement. From both sides of the cabinet unplug heaters and probes associated with aluminum plate above zone.



8. Raise heater plate and slide out the insulation under the plate to gain access to air heater probe below.

9. Remove and replace air heater probe. Ensure the

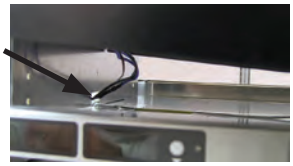
probe is secured with aluminum tape.

10. Reverse steps to reassemble.

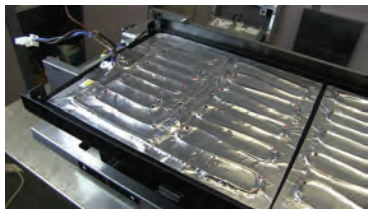
INSTRUCTIONS FOR REPLACING A HEATER PAD OR PAD HEATER PROBE

Pad heater probes are located in the heater pad assembly. **NOTE : Failed thermocouples require a heater pad replacement.**

1. Follow steps 1-7 in previous section.
2. Route the power coupling through the cabinet interior.



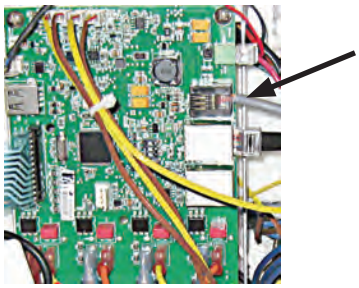
3. Pull the heater plate out carefully.
4. Flip the aluminum plate over. Peel the old heater pad off and attach the new one.



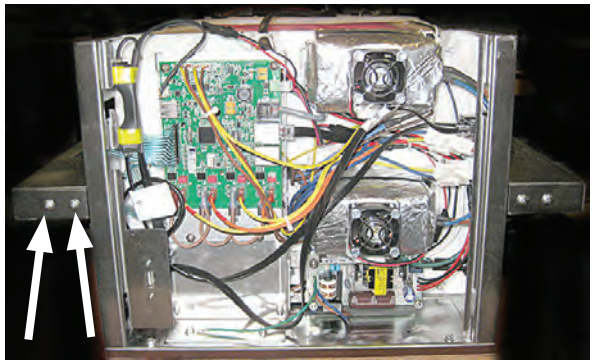
5. Reverse the steps to reassemble the cabinet.

INSTRUCTIONS FOR REPLACING A TIMER BAR

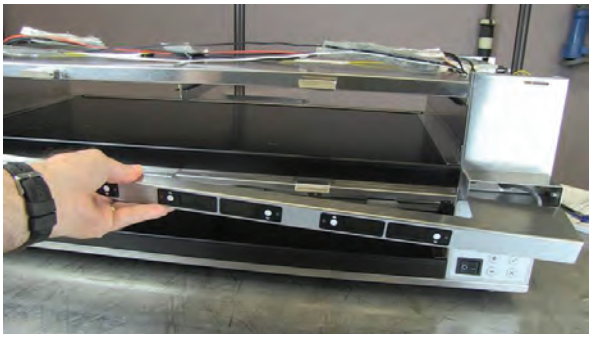
1. Remove the end panels by sliding up and away from the cabinet.
2. Disconnect the timer bar from the IO board.



3. Timer bars are secured with four screws and are connected to the IO board. Remove the timer bar by removing the two screws at each end and carefully lowering the bars.



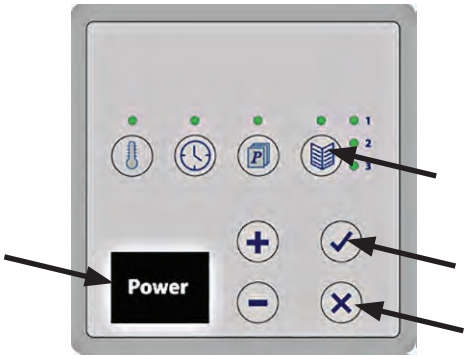
4. Remove and replace the faulty timer bar.



5. Reverse the steps to reassemble the cabinet.
6. When a timer bar is replaced it must be re-addressed, a process that establishes the positions it controls on the cabinet.
7. Readdress the timer bar using the steps in the next section.

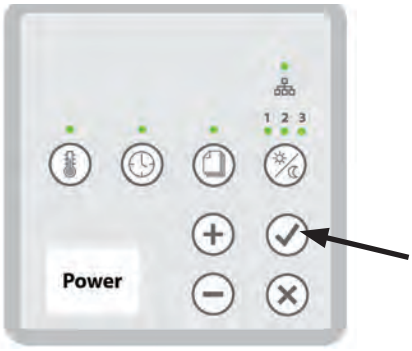
INSTRUCTIONS FOR SETTING REPLACEMENT TIMER BAR ADDRESS SWITCHES

1. Identify the location of the timer bar address on the illustration on the next page, to identify the address of the timer displays (example Zone 1 Left Side = Address 1; Zone 1 Right Side = Address 2).
2. With the power off, press and hold at the same time the Cancel(X), Enter(√) and Day Part (book icon) buttons.
3. Switch the power on with the buttons depressed.
4. Press the Cancel(X), Enter(√) and Day Part buttons simultaneously and cycle the power to ON to enter the timer address mode.



5. With addresses displayed press the Up and Down button on the timer display to adjust the address of each timer display.

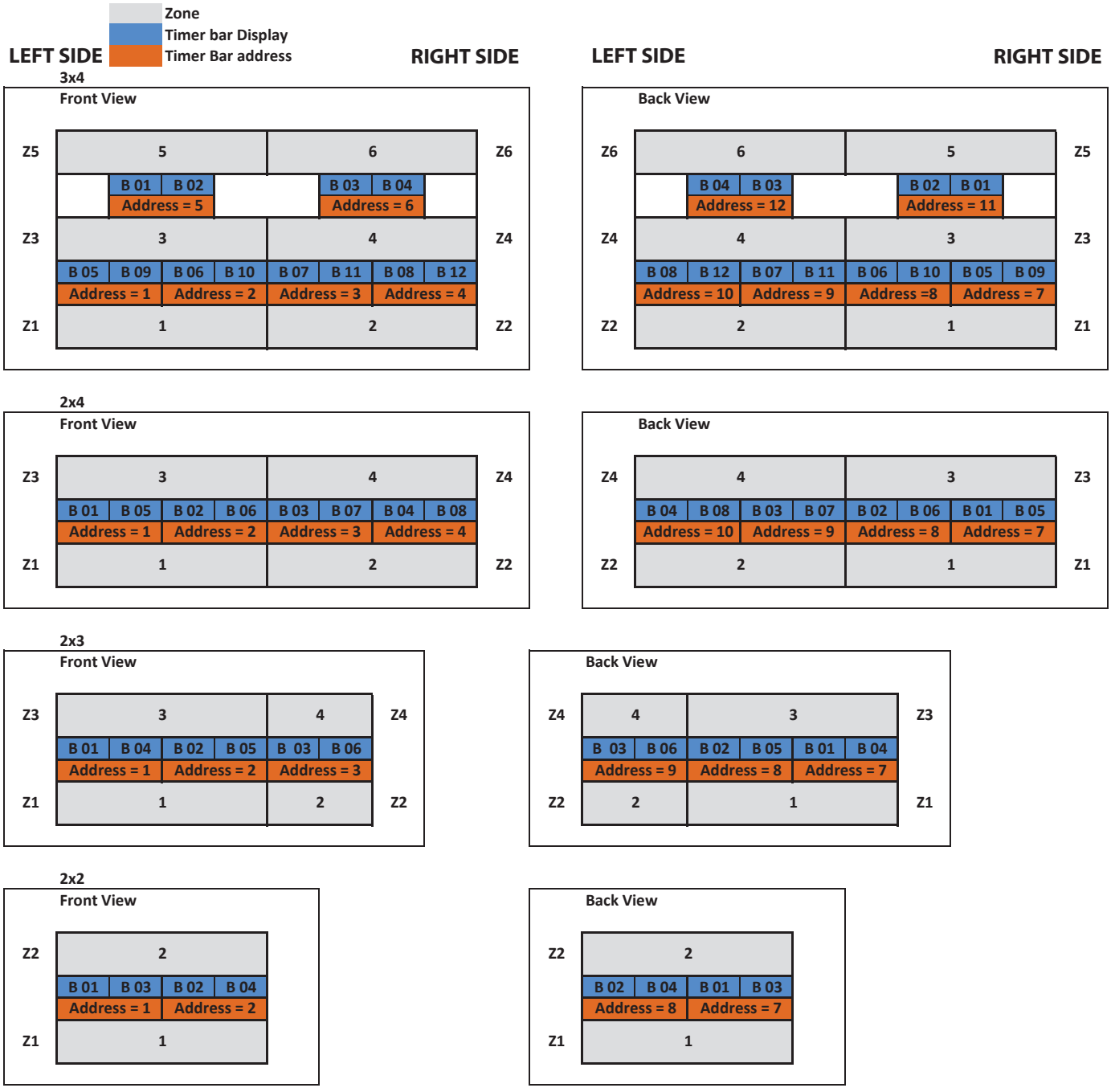
6. Once addresses have been properly configured press the Enter (√) button to save the addresses and the unit will reboot.



NOTE: If two or more timer boards are configured with the same address those boards shall display a warning message "ADD ERRx" (x=configured address).

The 2x4 cabinet (below) operates on the same operating system as the 3x4 although it lacks the bigger cabinet's top row, positions where the 5 and 6 displays reside. In assigning display numbers during a re-address of a 2x4, the 5 and 6 positions are left out. The numbering on the back begins at 7.

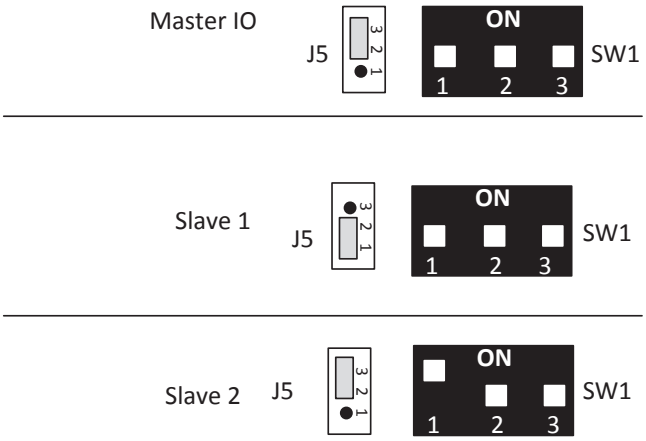
Below is a 3x4 cabinet with the 5 and 6 positions populated.


Zone
Timer bar Display
Timer Bar address
LEFT SIDE
RIGHT SIDE
3x4
Front View
Z5
5
6
Z6
B 01 B 02
Address = 5
B 03 B 04
Address = 6
Z3
3
4
Z4
B 05 B 09 B 06 B 10 B 07 B 11 B 08 B 12
Address = 1 Address = 2 Address = 3 Address = 4
Z1
1
2
Z2
LEFT SIDE
RIGHT SIDE
Back View
Z6
6
5
Z5
B 04 B 03
Address = 12
B 02 B 01
Address = 11
Z4
4
3
Z3
B 08 B 12 B 07 B 11 B 06 B 10 B 05 B 09
Address = 10 Address = 9 Address =8 Address = 7
Z2
2
1
Z1
2x4
Front View
Z3
3
4
Z4
B 01 B 05 B 02 B 06 B 03 B 07 B 04 B 08
Address = 1 Address = 2 Address = 3 Address = 4
Z1
1
2
Z2
Back View
Z4
4
3
Z3
B 04 B 08 B 03 B 07 B 02 B 06 B 01 B 05
Address = 10 Address = 9 Address = 8 Address = 7
Z2
2
1
Z1
2x3
Front View
Z3
3
4
Z4
B 01 B 04 B 02 B 05 B 03 B 06
Address = 1 Address = 2 Address = 3
Z1
1
2
Z2
Back View
Z4
4
3
Z3
B 03 B 06 B 02 B 05 B 01 B 04
Address = 9 Address = 8 Address = 7
Z2
2
1
Z1
2x2
Front View
Z2
2
B 01 B 03 B 02 B 04
Address = 1 Address = 2
Z1
1
Back View
Z2
2
B 02 B 04 B 01 B 03
Address = 8 Address = 7
Z1
1

INSTRUCTIONS FOR REPLACING AN IO BOARD

1. Disconnect power.
2. Remove the side of the cabinet associated with the IO board that needs replaced.
3. Mark wires and harnesses locations for easy reassembly.
4. Disconnect wires and harnesses.
5. Remove the existing IO board.
6. Service boards come with the DIP switch and jumper set to default positions. They must be repositioned to reflect the board being replaced. Reposition the settings on new IO board on J5 and SW 1 the same as the removed IO board (see illustrations to the right and below).
7. Carefully reattach all wires and harnesses.
8. Replace the cabinet side and reconnect to power to return to service.

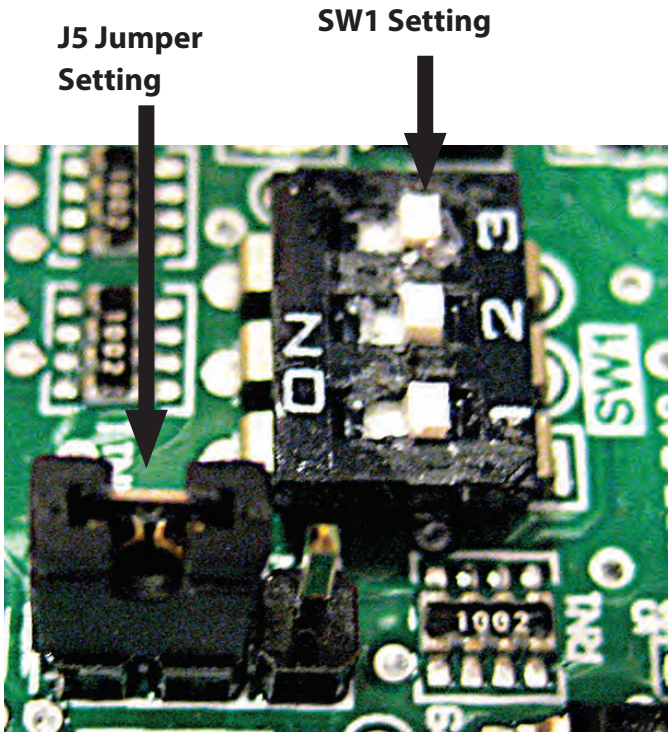
I/O Board Switch and Jumper Settings

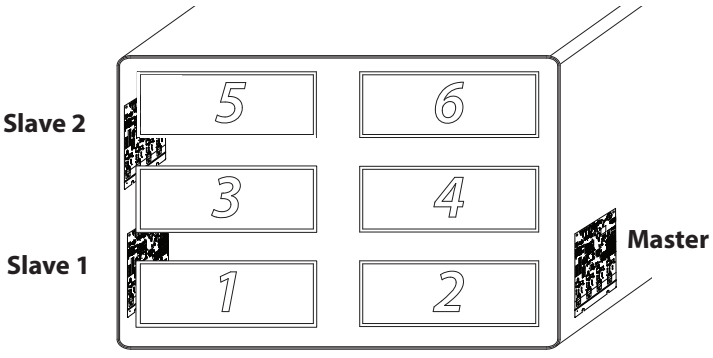


⚠Caution

Ensure SW1 dip switches and J5 jumper match the old I/O Board upon replacement. When the jumper is in the wrong position, zones will not display when checking temperature.

SW1 and J5 settings together define the system address.

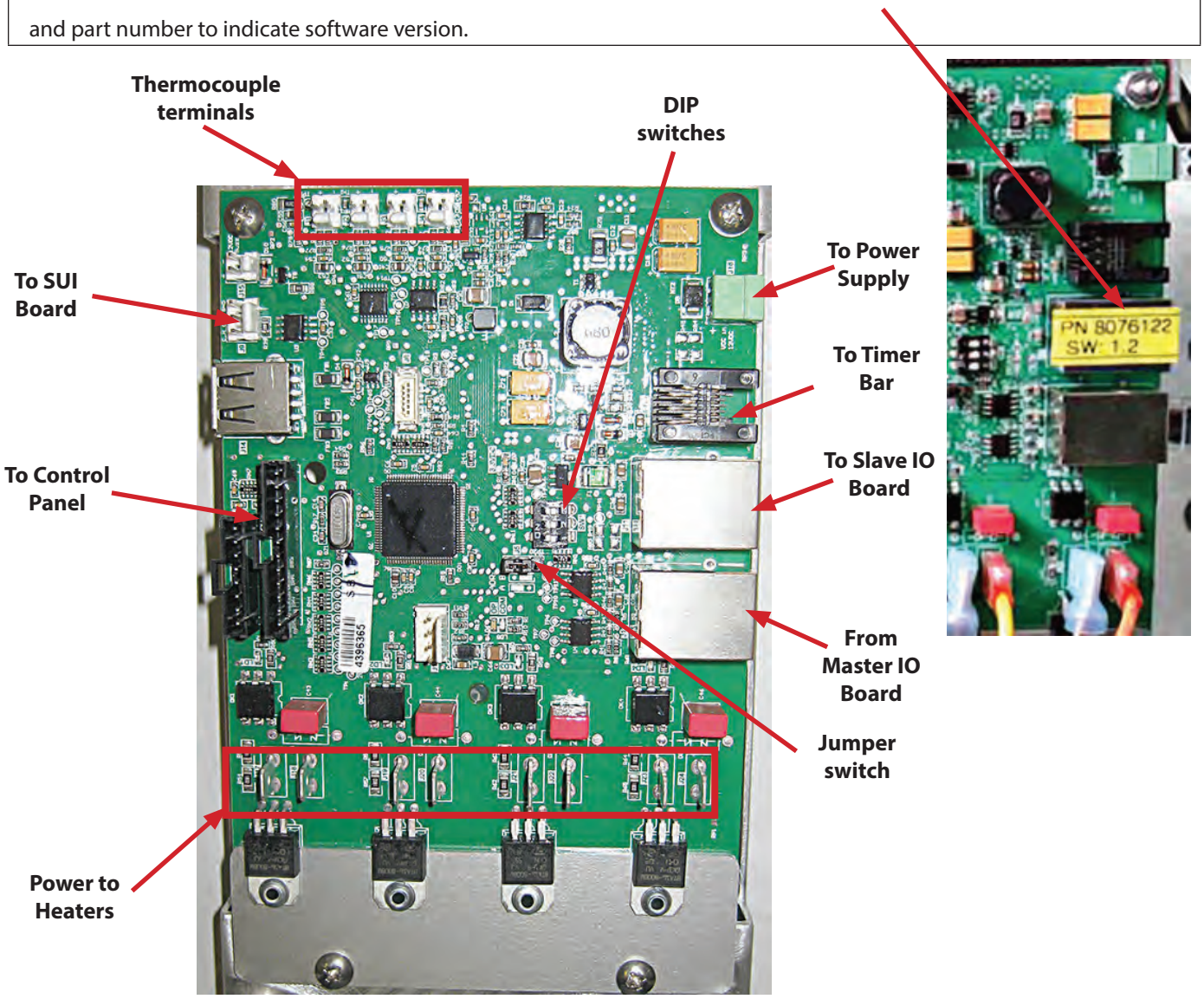




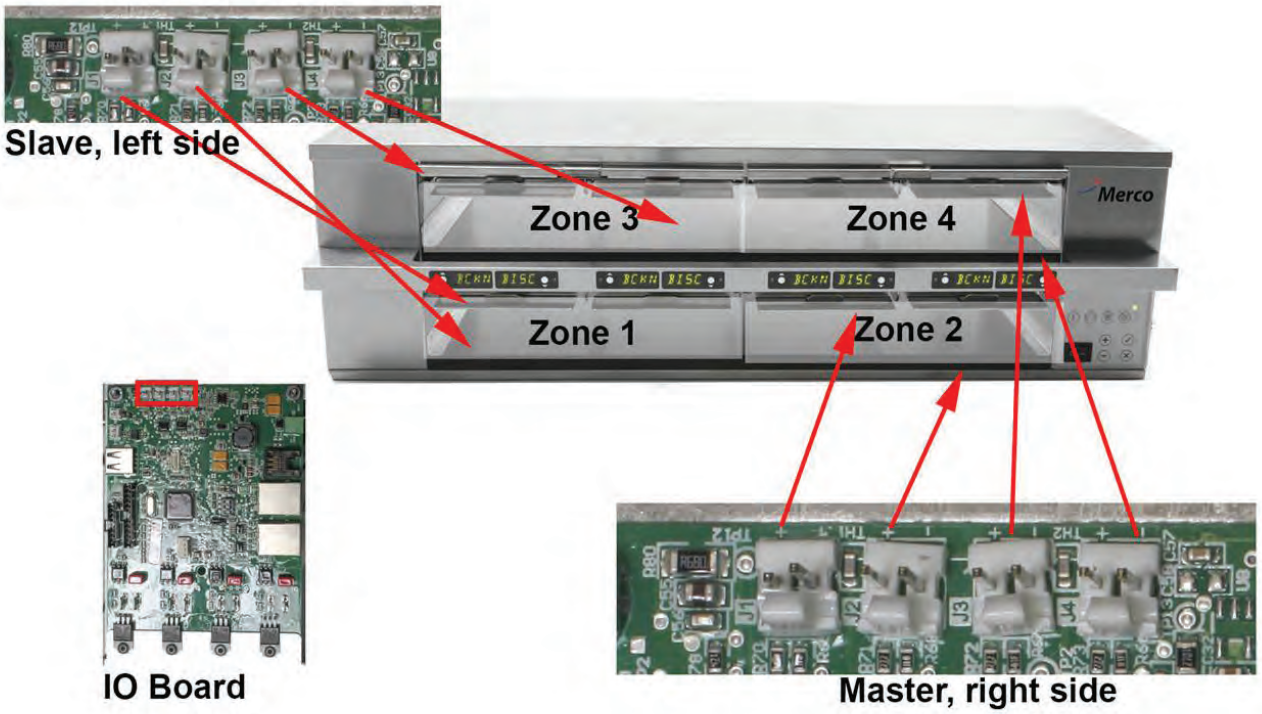
I/O Board

⚠Caution

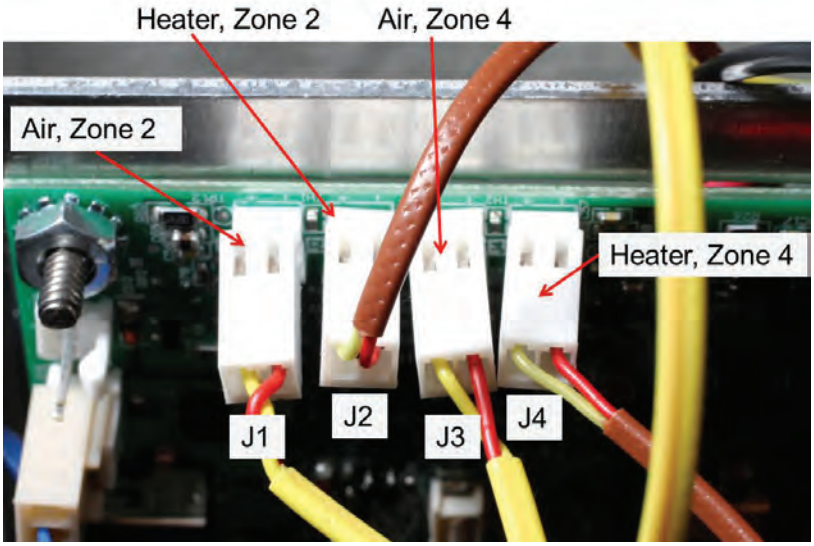
I/O Board must be loaded with software. A colored sticker will indicate when software is loaded and the color and part number to indicate software version.



Thermocouples monitors zones of the cabinet. The master, or right side IO board, monitors zones 2, 4, right side slots. The slave 1 board monitors zones 1,3, the left side slots.



THERMOCOUPLE CONNECTIONS ON MASTER IO BOARD



Section 5
Troubleshooting

Troubleshooting Charts

CABINET ISSUES

Problem	Probable Cause	Corrective Action
Cabinet not running	Fuse blown or circuit breaker tripped.	Replace fuse or reset circuit breaker.
	Power cord unplugged.	Plug in power cord.
	Thermostat set too high.	Set thermostat to lower temperature on PC Minder.
	Main power switch turned off.	Turn main power switch on.
Cabinet temperature is too high	Thermostat set too high.	Set thermostat to lower temperature on PC Minder.
	Poor air circulation in cabinet.	Re-arrange product to allow proper air circulation.
	Exterior thermometer is out of calibration.	Replace thermocouple if defective.
Cabinet temperature is too low	Air diffuser out of unit.	Reinstall air diffuser.
	Product trays out of unit.	Reinstall product trays in unit.
Cabinet is not communicating with Kitchen Management System	Disconnected cables	• Ensure all cables are securely connected to the Kitchen Management system and the PHU's. Check for defective or damaged cables. • Ensure the communication LED on the control panel is illuminated.
ICC Kitchen Minder Only Cabinet is not communicating with Kitchen Minder A. PWR LED is not illuminated. B. COMM LED is flashing at 1 sec interval. C. COMM LED is flashing bright.	A. Translator box is not attached to Kitchen Minder.	A. Ensure the cable between the translator box and Kitchen Minder is connected.
	B. Translator box is not connected or communicating with the primary cabinet.	B. Ensure the cable between the translator box and primary cabinet is connected.
	C. A network communication issue exists.	C. Check network cables and ensure they are securely connected. Check for defective or damaged cables.

HEATER/THERMOCOUPLE ERROR MESSAGES

The software shall track the state of each thermocouple and the state of the thermocouple reading compared to the set point. If the software finds an error, it will begin to time it. When the timer reaches 15 minutes, an error code(s) will display (flash) on the screen. This shall continue indefinitely. Turning Off and On a unit will clear all thermocouple error displays.

Display	Probable Cause	Corrective Action
ErU1	Upper heater/thermocouple is shorted.	Check heater/thermocouple. If necessary replace part.
ErL1	Lower heater/thermocouple is shorted.	Check heater/thermocouple. If necessary replace part.
ErU2	Upper heater/thermocouple is open.	Check heater/thermocouple. If necessary replace part.
ErL2	Lower heater/thermocouple is open.	Check heater/thermocouple. If necessary replace part.
ErU3	Upper heater/thermocouple is below range.	Check heater/thermocouple. If necessary replace part.
ErL3	Lower heater/thermocouple is below range.	Check heater/thermocouple. If necessary replace part.
ErU4	Upper heater/thermocouple is above range.	Check heater/thermocouple. If necessary replace part.
ErL4	Lower heater/thermocouple is above range.	Check heater/thermocouple. If necessary replace part.

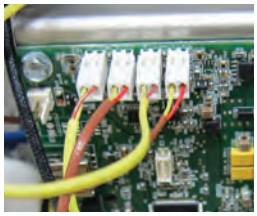
Heater/Thermocouple Troubleshooting

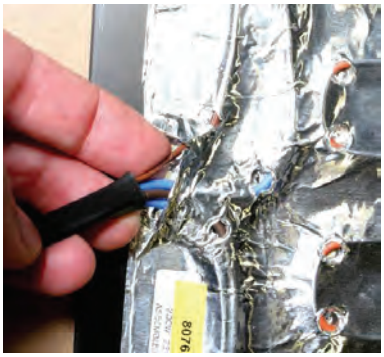
Upper Zone Thermocouple Shorted - Right Display Error Code ErU1

1. Remove the air diffuser and inspect the air heater probe near the upper baffle.
2. If end of probe is touching metal, move it. If the error clears, repair the end by adding high temp heat tape rated at 392°F or silicone sleeve to the probe end.
3. If moving or taping probe end doesn't fix error code, short is some place else.
4. Remove side panel.
5. Inspect probe wire where it connects to I/O board.
6. Check probe continuity to chassis.
7. Check continuity through probe.
8. Swap probe with error with an error free probe. Thermocouple state checks every 5 seconds. If error location switches, replace probe.

Lower Zone Thermocouple Shorted - Right Display Error Code ErL1

1. There is no physical inspection for the hot end of the pad heater probe.
2. Inspect probe wire where it connects to I/O board.
3. Check probe continuity to chassis. If probe is grounded to chassis replace probe.
4. Swap probe with error with an error free probe. Thermocouple state checks every 5 seconds. If error location switches, replace probe or pad.





The heater thermocouple (brown wire) is under the same tape as the heater. Failed thermocouples require a heater replacement.

Thermocouple Is Open - Right Display Error Code ErU2 or ErL2

1. Unplug the probe from the I/O board.
2. Check that end of probe has a ramp shape and there is no visible oxidation.
3. Plug probe back into I/O board, confirm connection snaps.
4. Check continuity through probe, if probe is open probe must be replaced.
5. Swap probe with error with an error free probe. Thermocouple state checks every 5 seconds. If error location switches, replace probe.

Thermocouple Reading is Below or Above Set Point - Right Display Error Code ErU3, ErL3, ErU4 or ErL4

1. Document all temperature readings for unit, each zone, upper and lower.
2. If the zone probes are switched, there will be two errors, one high and one low.
3. Check the I/O boards where the probes with errors plug in. There is yellow insulation jacket on the air probes and brown insulation jacket on the pad probes. Check that the probes alternate (yellow brown yellow brown) and are plugged in properly.
4. Heater outputs could be swapped, there will be two errors. Air heaters have yellow fiberglass wire. Pad heaters have brown silicone wire. Check that the wires alternate (fiberglass silicone fiberglass silicone).
5. The I/O board triac could be shorted or open. An orange LED is associated with each triac, it signals if the triac should be on or off.
6. Isolate each triac wire and check the amperage.
   - If the triac is supposed to be open and there is no current, the problem could be a heater. Check continuity through heating element.
   - If the triac light does not match the amperage, the triac is failing and the I/O board needs to be replaced.
   - Check input and output of triac, this could signal an I/O board failure.

COMMUNICATION ERROR MESSAGES

Display	Probable Cause	Corrective Action
MOD-ERR1	Timer bar lost communication with I/O board.	Check the timer bar connection on I/O board.
MOD-ERR2	Master I/O board lost communication with the slave I/O board.	Check the connections between I/O boards.
CAN-ERR	Communication lost between KCCM SUI communication board and I/O board.	Check the connections between master I/O boards and the KCCM SUI communication board.
***STANDALONE**	Communication lost between PHU and KMS (Kitchen Management System).	Ensure all connections between PHU and KMS (Kitchen Management System) are secure.

*** NOTE:** Cabinet has moved to a default bin configuration in the absence of communication from the store's monitoring network.

The standalone message is eliminated by pressing the X button. The absence of the network connection is also noted by the LED on the membrane.

DIAGNOSTIC MODE

The software shall track the state of each thermocouple and the state of the thermocouple reading compared to the set point.

If the software finds an error, it will begin to time it. When the timer reaches 15 minutes, an error code(s) will display (flash) on the screen. This shall continue indefinitely.

Turning Off and On a unit will clear all TC State Display flags and reset all TC temp timer's to 0.

TEMPERATURE VIEW MODE

Enter the temperature view mode by pressing the temperature button. The average temperature of the lower and upper heaters for each zone is displayed. Press the X button or the cancel button to exit.

DIAGNOSTIC TEMPERATURE VIEW MODE

Press the temperature button or when already in the temperature view mode press and the hold temperature button for 3 seconds to display the actual thermocouple temperature. The upper temperature is displayed with a "U" and the lower temperature is displayed with an "L" (example : U180 = Upper temperature of 180F). Press the X button or the cancel button to exit.

TIME BUTTON

The time button has no function currently. Time will be displayed on the Timer Bar.

LOAD NEW SOFTWARE VIA USB

With unit running at temperature, insert the USB drive with the new software into the USB port.

Below are the displays as the software loads:

- **Bottom Left Timer:** USB COPY SUCCESS
- **Bottom Left Timer:** SW UPGRADE IN PROGRESS.
- **Other Timers:** - - - -.
- **Timer LED's:** red/green until update is complete.
- **Bottom Left Timer:**

…blank as it is updated,
…returns to SW UPGRADE IN PROGRESS
…SW UPGRADE SUCCESS
…Software versions.

- Complete upgrade by pressing √

Remove the USB drive.

LOAD NEW MENUS VIA USB

A PC program allows cabinets to be configured on the screen. The resulting file is transferred to the cabinet with a flash drive.

Six day parts are possible on a Sicom cabinet; three on a Kitchen Minder cabinet.

The menu file (mercomenu.cbr) must be loaded to the root menu of USB.

While the unit is ON, insert the USB with the mercomenu. cbr file into the port. The unit will detect the new menu file and begin installation.

Once the menu file is loaded the display will scroll MENU UPLOAD SUCCESS, then Preheating. When Preheating is scrolling it is clear to remove the USB.

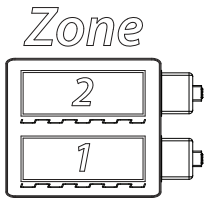
If the menu failed to load the display will scroll MENU UPLOAD FAILED. Press the √ button to acknowledge.

Section 6
Charts

Zone Diagrams & Heating Element Specifications

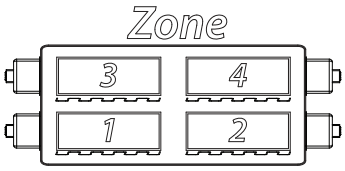
Key	Air Heater	Pad Heater

MHB22SAB*E



Location	Heater	Model	Description	Cold Resistance	Part Number
All Zones	Air Heater	MHB22SAB*E	700W, 120V	19.6Ω +/- 5%	8263392
All Zones	Pad Heater	MHB22SAB*E	330W, 120V	43.33Ω +/- 10%	8263396
There are two bins per zone.					

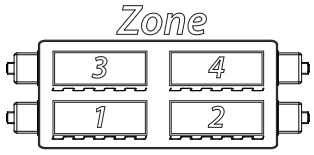
MHB23SAB*E



Location	Heater	Model	Description	Cold Resistance	Part Number
Zones 1, 2, 3 & 4	Air Heater	MHB23SAB*E	700W, 230V *	71.8Ω +/- 5%	8263393
Zones 2 & 4	Pad Heater	MHB22SAB*E	100W, 230V	529Ω +/- 10%	8263394
Zones 1 & 3	Pad Heater	All Models	200W, 230V	265.5Ω +/- 10%	8263395

In zones 1 & 3 there are two bins per zone.
In zones 2 & 4 there is one bin per zone.
***NOTE: If voltage is greater than 230V use Air Heater 8263391 (450W, 230V)**

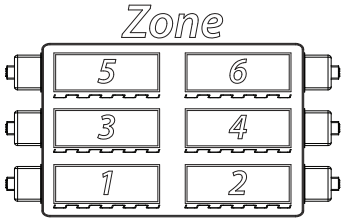
MHB24SAB*E



Location	Heater	Model	Description	Cold Resistance	Part Number
All Zones	Air Heater	MHB24SAB*E	700W, 230V*	71.8Ω +/- 5%	8263393
All Zones	Pad Heater	All Models	200W, 230V	265.5Ω +/- 10%	8263395

There are two bins per zone.
***NOTE: If voltage is greater than 230V use Air Heater 8263391 (450W, 230V)**

MHB34SAB*E

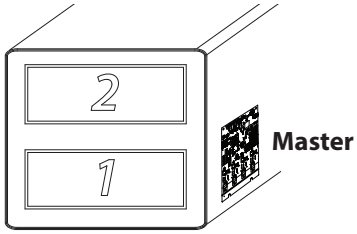


Location	Heater	Model	Description	Resistance	Part Number
All Zones	Air Heater	MHB34SAB*E	450W, 230V	111.7Ω +/- 5%	8263391
Zones 1-5	Pad Heater	MHB34SAB*E	200W, 230V	265.5Ω +/- 10%	8263395
Zone 6	Pad Heater	MHB34SAB*E	200W, 230V	265.5Ω +/- 10%	8263397
There are two bins per zone.					

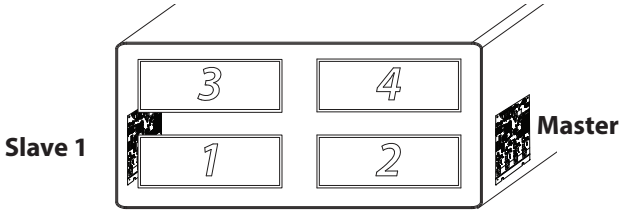
I/O Board Connections

MHB22

Primary 0A I/O Board			
Zone	**Heater Type**	**Heater Connect to:**	**Probe Connect to:**
2	Air	J22	J3
	Pad	J24	J4
1	Air	J18	J1
	Pad	J20	J2



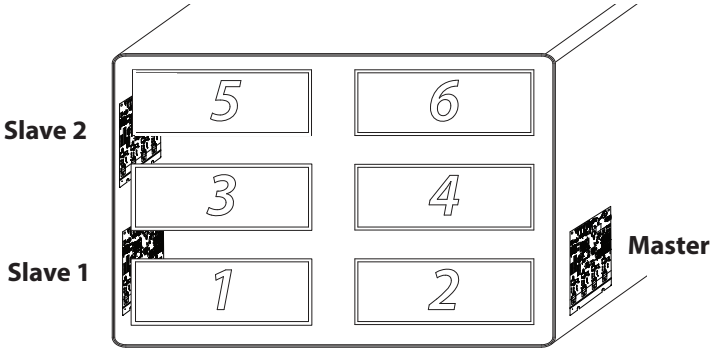
MHB23 & MHB24



Primary 0A I/O Board			
Zone	**Heater Type**	**Heater Connect to:**	**Probe Connect to:**
4	Air	J22	J3
	Pad	J24	J4
2	Air	J18	J1
	Pad	J20	J2

Secondary 0B I/O Board			
Zone	**Heater Type**	**Heater Connect to:**	**Probe Connect to:**
3	Air	J22	J3
	Pad	J24	J4
1	Air	J18	J1
	Pad	J20	J2

MHB34

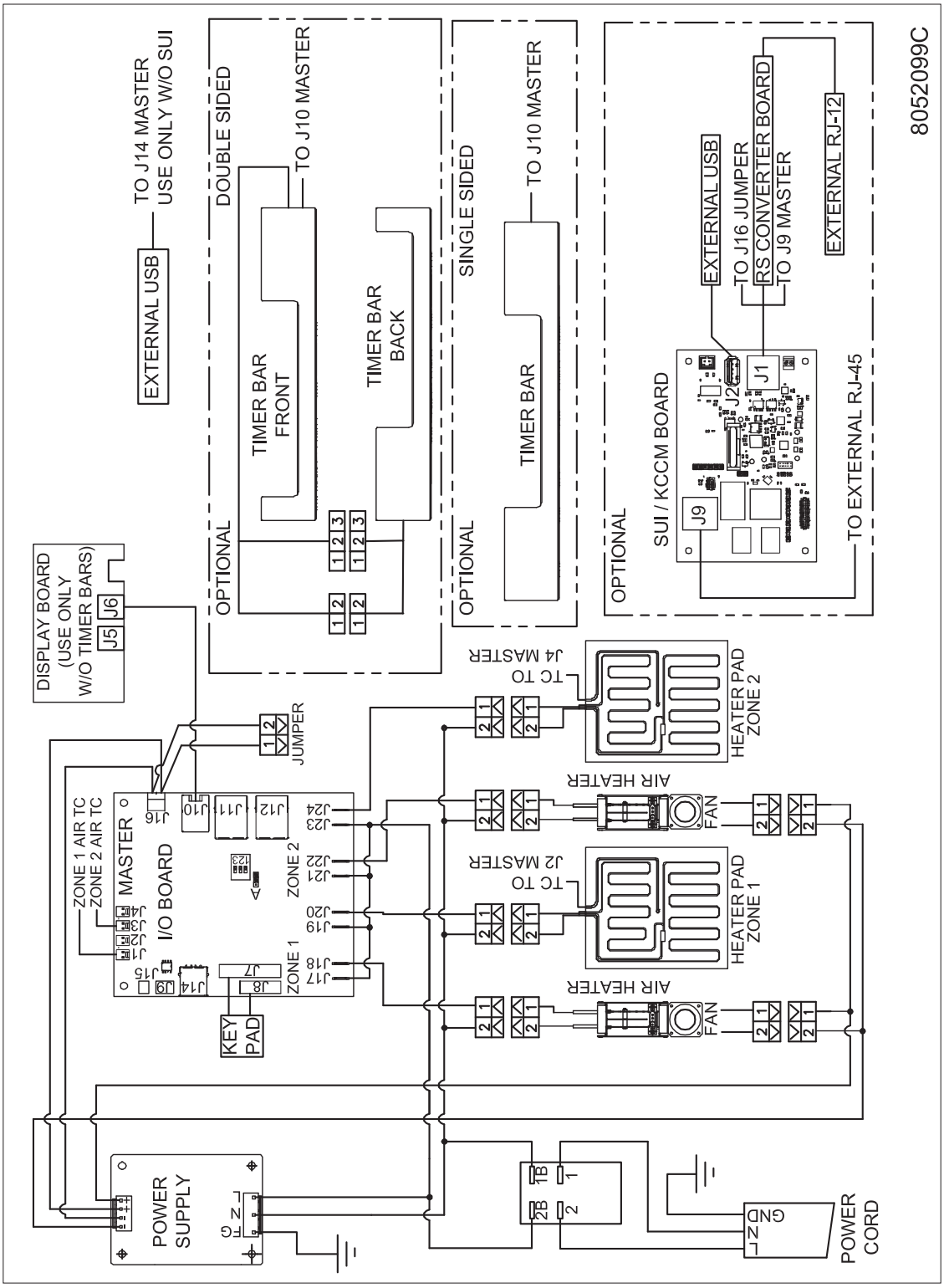


Secondary 1A I/O Board			
Zone	**Heater Type**	**Heater Connect to:**	**Probe Connect to:**
6	Air	J22	J3
	Pad	J24	J4
5	Air	J18	J1
	Pad	J20	J2
Primary 0A I/O Board			
4	Air	J22	J3
	Pad	J24	J4
2	Air	J18	J1
	Pad	J20	J2

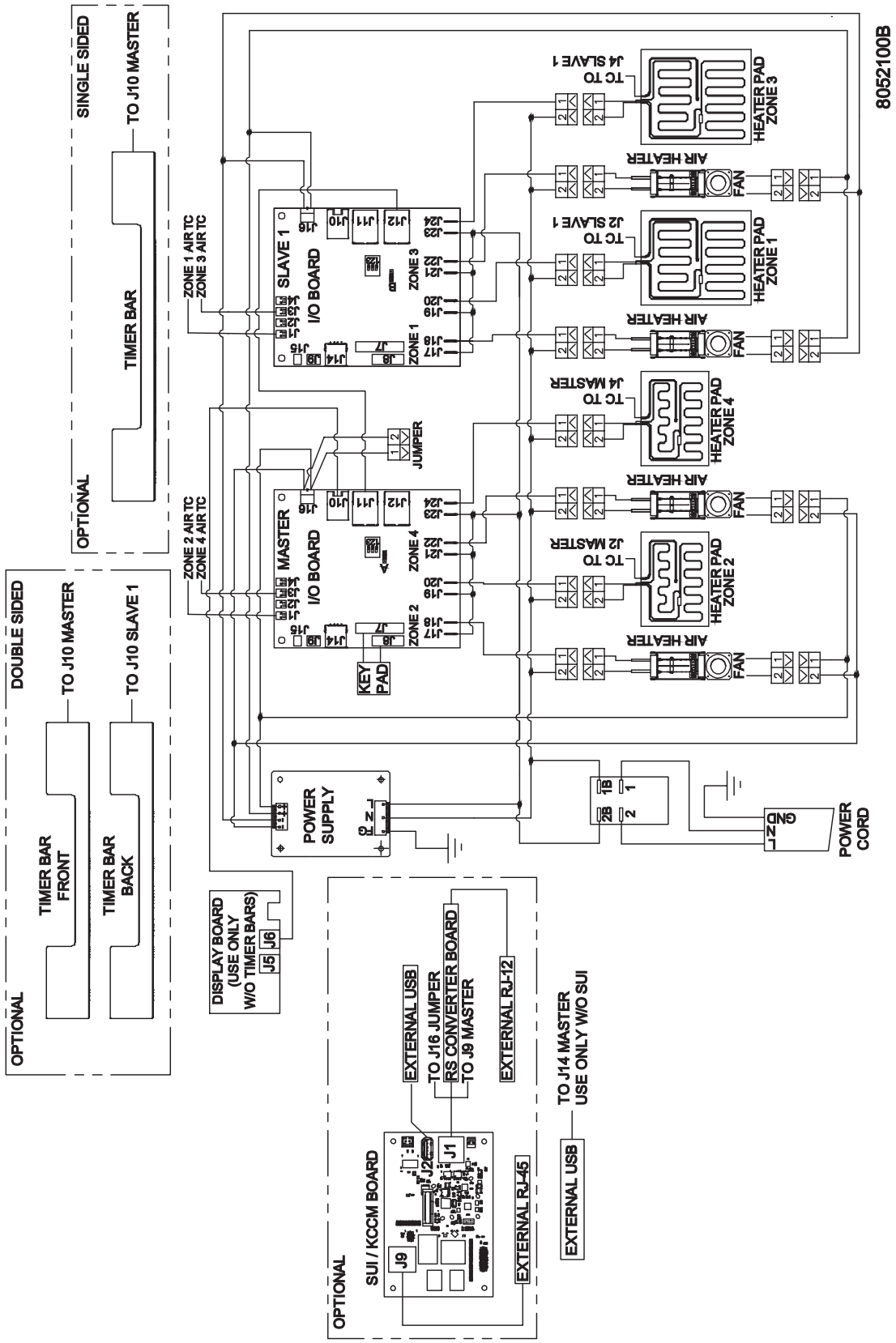
Secondary 0B I/O Board			
Zone	**Heater Type**	**Heater Connect to:**	**Probe Connect to:**
3	Air	J22	J3
	Pad	J24	J4
1	Air	J18	J1
	Pad	J20	J2

Section 7
Wiring Diagrams

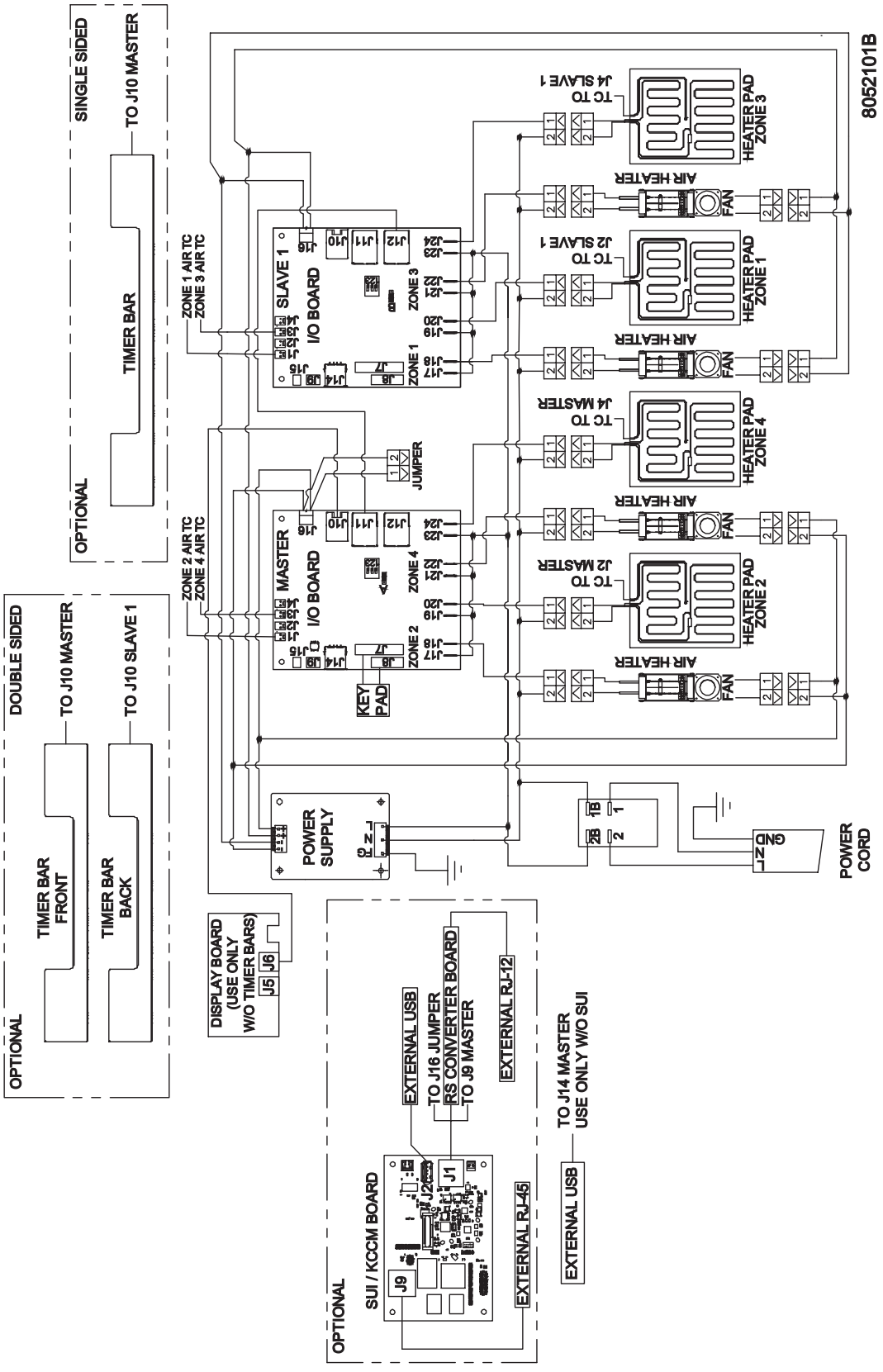
MHB22 - 2x2



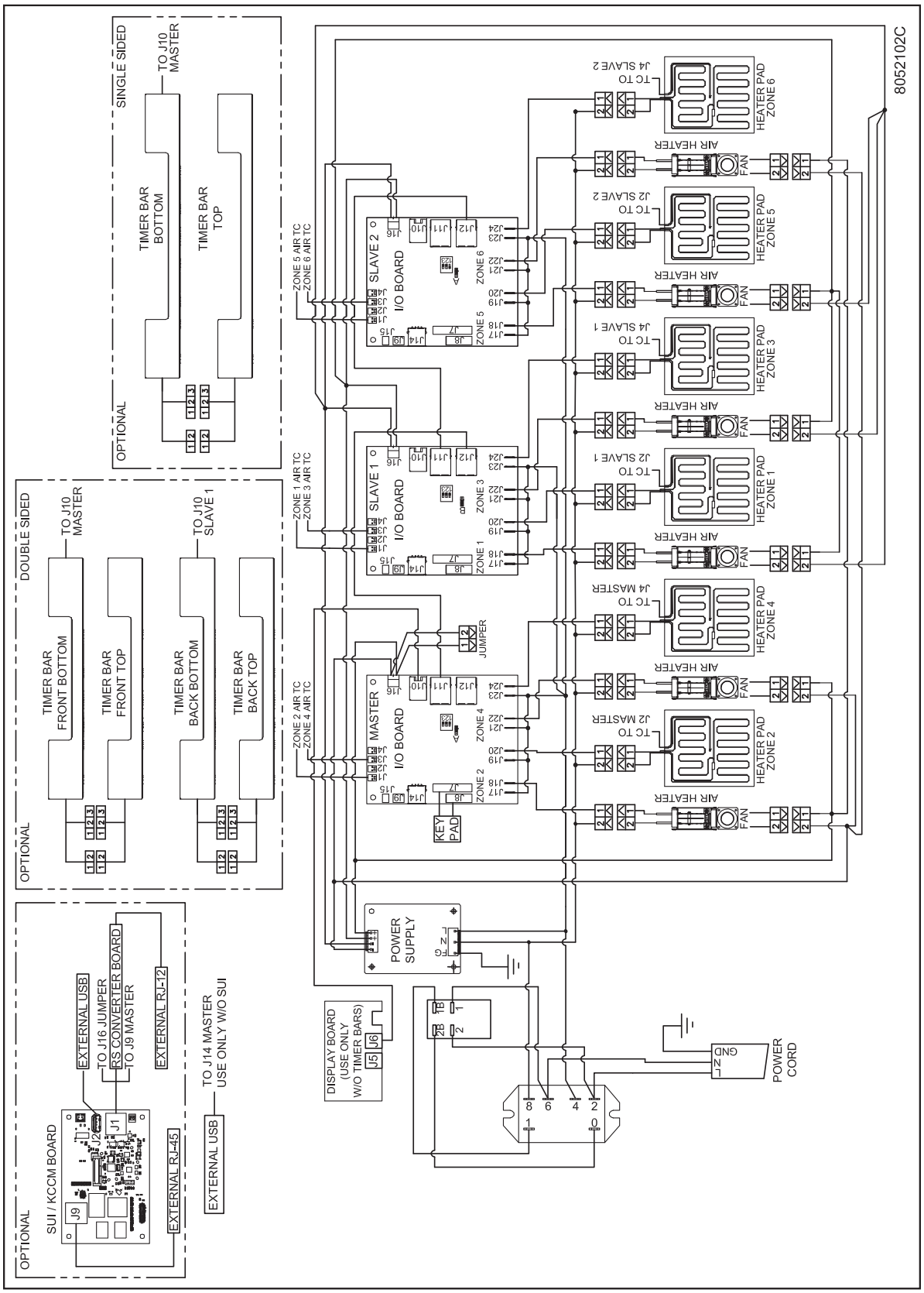
MHB23 - 2x3


8052100B
SINGLE SIDED
TO J10 MASTER
TIMER BAR
OPTIONAL
DOUBLE SIDED
TO J10 MASTER
TO J10 SLAVE 1
TIMER BAR FRONT
TIMER BAR BACK
OPTIONAL
ZONE 1 AIR TC
ZONE 3 AIR TC
ZONE 2 AIR TC
ZONE 4 AIR TC
SLAVE 1 I/O BOARD
MASTER I/O BOARD
JUMPER
KEY PAD
POWER SUPPLY
J4 SLAVE 1 TC TO
J2 SLAVE 1 TC TO
J4 MASTER TC TO
J2 MASTER TC TO
HEATER PAD ZONE 3
HEATER PAD ZONE 1
HEATER PAD ZONE 4
HEATER PAD ZONE 2
AIR HEATER FAN
POWER CORD
DISPLAY BOARD (USE ONLY W/O TIMER BARS)
J5
J6
OPTIONAL
SUI / KCCM BOARD
J9
J1
J2
EXTERNAL USB
TO J16 JUMPER
RS CONVERTER BOARD
TO J9 MASTER
EXTERNAL RJ-12
EXTERNAL RJ-45
TO J14 MASTER
USE ONLY W/O SUI
EXTERNAL USB

MHB24 - 2x4


8052101B
SINGLE SIDED
TO J10 MASTER
TIMER BAR
OPTIONAL
DOUBLE SIDED
TO J10 MASTER
TO J10 SLAVE 1
TIMER BAR FRONT
TIMER BAR BACK
OPTIONAL
ZONE 1 AIR TC
ZONE 3 AIR TC
ZONE 2 AIR TC
ZONE 4 AIR TC
SLAVE 1 I/O BOARD
MASTER I/O BOARD
JUMPER
KEY PAD
POWER SUPPLY
DISPLAY BOARD (USE ONLY W/O TIMER BARS)
J5 J6
TC TO J4 SLAVE 1
TC TO J2 SLAVE 1
TC TO J4 MASTER
TC TO J2 MASTER
HEATER PAD ZONE 3
HEATER PAD ZONE 1
HEATER PAD ZONE 4
HEATER PAD ZONE 2
AIR HEATER FAN
POWER CORD
GND
OPTIONAL
SUI / KCCM BOARD
EXTERNAL USB
TO J16 JUMPER
RS CONVERTER BOARD
TO J9 MASTER
EXTERNAL RJ-12
EXTERNAL RJ-45
TO J14 MASTER
USE ONLY W/O SUI
EXTERNAL USB

MHB34 - 3x4


8052102C
SINGLE SIDED
OPTIONAL
TO J10 MASTER
TIMER BAR BOTTOM
TIMER BAR TOP
DOUBLE SIDED
OPTIONAL
TO J10 MASTER
TO J10 SLAVE 1
TIMER BAR FRONT BOTTOM
TIMER BAR FRONT TOP
TIMER BAR BACK BOTTOM
TIMER BAR BACK TOP
OPTIONAL
SUI / KCCM BOARD
EXTERNAL USB
TO J16 JUMPER
RS CONVERTER BOARD
TO J9 MASTER
EXTERNAL RJ-12
EXTERNAL RJ-45
TO J14 MASTER
USE ONLY W/O SUI
EXTERNAL USB
ZONE 5 AIR TC
ZONE 6 AIR TC
ZONE 1 AIR TC
ZONE 3 AIR TC
ZONE 2 AIR TC
ZONE 4 AIR TC
SLAVE 2 I/O BOARD
SLAVE 1 I/O BOARD
MASTER I/O BOARD
ZONE 6
ZONE 5
ZONE 3
ZONE 1
ZONE 4
ZONE 2
J2 JUMPER
KEY PAD
POWER SUPPLY
DISPLAY BOARD (USE ONLY W/O TIMER BARS)
POWER CORD
GND
TC TO J4 SLAVE 2
TC TO J2 SLAVE 2
TC TO J4 SLAVE 1
TC TO J2 SLAVE 1
TC TO J4 MASTER
TC TO J2 MASTER
HEATER PAD ZONE 6
HEATER PAD ZONE 5
HEATER PAD ZONE 3
HEATER PAD ZONE 1
HEATER PAD ZONE 4
HEATER PAD ZONE 2
AIR HEATER
FAN

Appendix A
Installing Merco PHU's on a Kitchen Minder Network

NOTICE

The Merco holding cabinet is incompatible with older Kitchen Minder networks and software. Follow the steps below to install the holding unit on a Kitchen Minder II network with Version 6 software. If the the Kitchen Minder system is not compatable, the holding cabinet will need to be operated in stand alone mode.

NOTICE

If a Merco holding cabinet is replacing another brand holding cabinet on the network, store management will have to reacquire the Merco holding cabinet under its brand name in the PC Minder software. The menu of the Merco holding cabinet will also have to be configured with the PC Minder software.

1. Remove existing holding cabinets.
2. Route new cable if necessary.
3. Position new Merco holding cabinets. (**See Store Network Overview and Component Start Up Sequence on Page A-2**). Be attentive to the placement of the cabinets that are to be the primary or the initial unit on a COM port. It will be daisy chained to a secondary cabinet. The primary cabinet must be larger or equal in size to the secondary unit. The combined bin count cannot exceed 24 on a COM Port.
4. Position Merco Translator boxes near the Primary cabinet on each COM port. A Merco Translator is required for each COM Port. Translators are not required for Primary to Secondary cabinet connections.
5. Connect CAT 5 cable to the COM Ports of the Kitchen Minder (**See Figure 1**) and route to the Merco translator for the primary cabinets. Connect the translator to the primary cabinet with the RJ12 cable.
6. Connect the secondary cabinet (**See Figure 2**) to the primary with CAT 5 cable.
7. With all cabinets in place and connected, turn on all secondary cabinets. (The Secondary cabinet must be visible to the Primary cabinet during its start up sequence.). **See Network and Start Up Sequence Graphic on page A-2**.
8. Turn on Primary cabinets.
9. Turn on Kitchen Minder.
10. If the Merco holding cabinet is replacing another brand holding cabinet, store management will have to acquire the new cabinet from the PC Minder software and select Merco from the brand pulldown. The cabinet will also have to be repopulated with menu items.
11. Use the test outlined in the following graphics to ensure all cabinets are visible on the network. **See testing and Kitchen Minder graphic button mapping diagrams on pages A3-A5.**

Troubleshooting Connection Issues

A healthy communication signal between the Kitchen Minder and the Merco Translator is indicated by LED's. The PWR ON LED should be on solid. There should be a faint and irregular light on the COMM LED. A solid but regularly flashing COMM LED indicates a communication issue, which is often associated with cables or plugs.

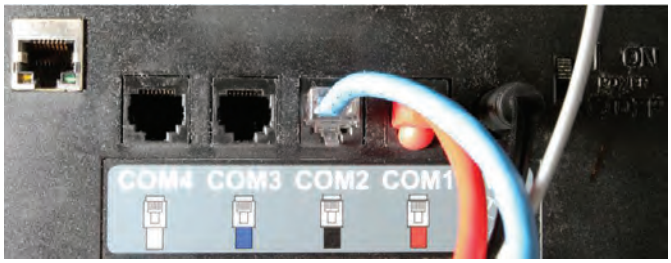


Figure 1: COM ports on the back of the Kitchen Minder are connected to Merco Translators, which are in turn connected to a Merco holding cabinet.

Figure 2: The translator connects to the primary holding cabinet with RJ12 cable (right). The secondary cabinet, if present, is connected with CAT 5 cable (left). The primary cabinet must be larger or equal in size to the secondary cabinet.

Figure 3: The PWR LED is illuminated when the network is active. The COMM LED should only show a weak intermittent blink, which indicates successful network activity. A bright flashing COMM LED is indicative of a network communication issue, often associated with cables. The translator box above is unplugged from the holding cabinet.

Store Network Overview and Component Start Up Sequence

This network map of a typical store installation has been annotated, indicating the roles of the components.
Follow this sequence when starting up Merco holding cabinets on a Kitchen Minder network:

1. Start the Secondary holding cabinets.
2. Start the Primary holding cabinets.
3. Start the Kitchen Minder. The Merco Translator's Power LED will glow solidly when the network is on and the COM LED will emit a weak blink as data moves on the line.

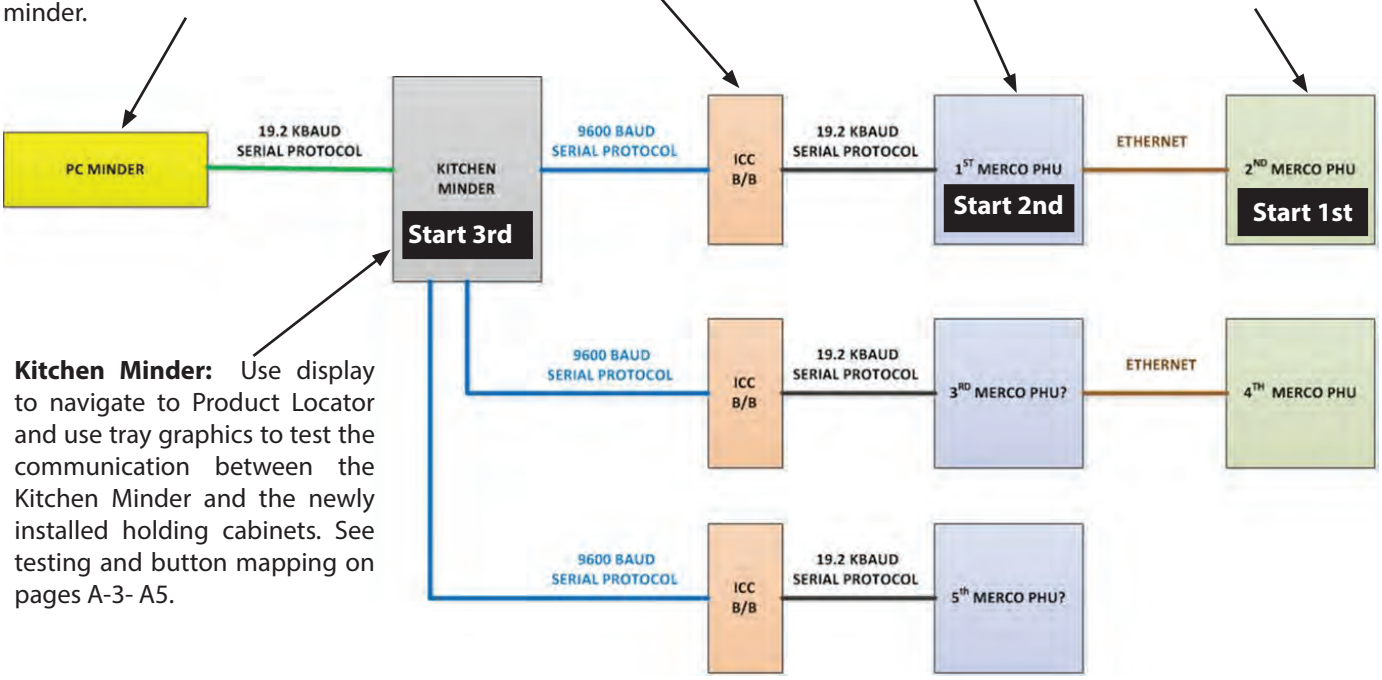
A CAT 5 cable connects the translator to the first cabinet, or primary, in the series. A RS232 cable connects the translator to the primary holding cabinet. The CAT 5 is also used to connect the secondary cabinet. The total number of bins on the Kitchen Minder's COM port connections cannot exceed 24.

PC Minder: Software running on a store computer, which is used to populate the Kitchen Minder menus, etc. The network must be reconfigured in this software when a Merco holding cabinet replaces a holding cabinet of another brand. The new cabinet will also have to be populated with products from the PC minder.

Merco Translator: must be between the Kitchen Minder and the new generation Merco holding cabinets.

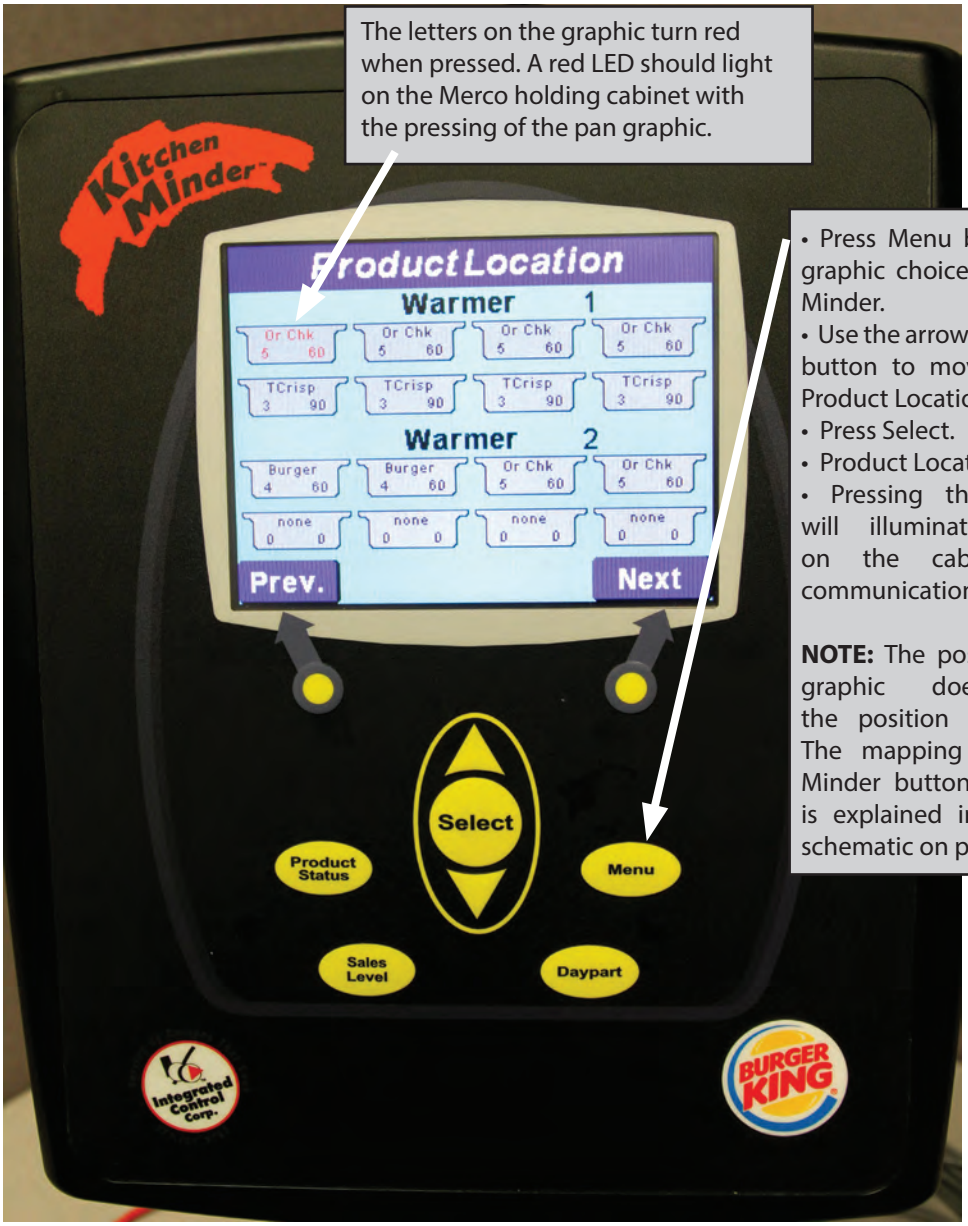
Primary Cabinet: must be larger or equal in size to the secondary cabinet.

Secondary Cabinet: must be smaller or equal in size to the secondary cabinet.



Kitchen Minder: Use display to navigate to Product Locator and use tray graphics to test the communication between the Kitchen Minder and the newly installed holding cabinets. See testing and button mapping on pages A-3- A5.

Testing Merco Holding Cabinet Communication on Network



The graphics on the following pages describe how to use the Kitchen Minder interface to ensure the holding cabinets are communicating on the network. The touchscreen graphics on the Kitchen Minder do not correspond visually to rows on the holding cabinets. **See button mapping graphic on page A-5.** Holding cabinets connected to COM port 1 will be shown in Warmer graphics 1, 2, 3. Holding cabinets connected to COM port 2 will be shown in warmer graphics 4, 5, 6. Holding cabinets connected to COM port 3 will be shown in Warmer graphic 7, 8 and 9. This means that a configuration of two 3x4 holding cabinets on COM port 1 will be seen on warmer graphics 1, 2 and 3. See COM port 1 graphic on page A-4. Two 3x4's on COM port 2 will be seen as Warmer graphics 4, 5 and 6 and a single 2x3 holding cabinet on COM port 3 will be seen on Warmer graphic 7.

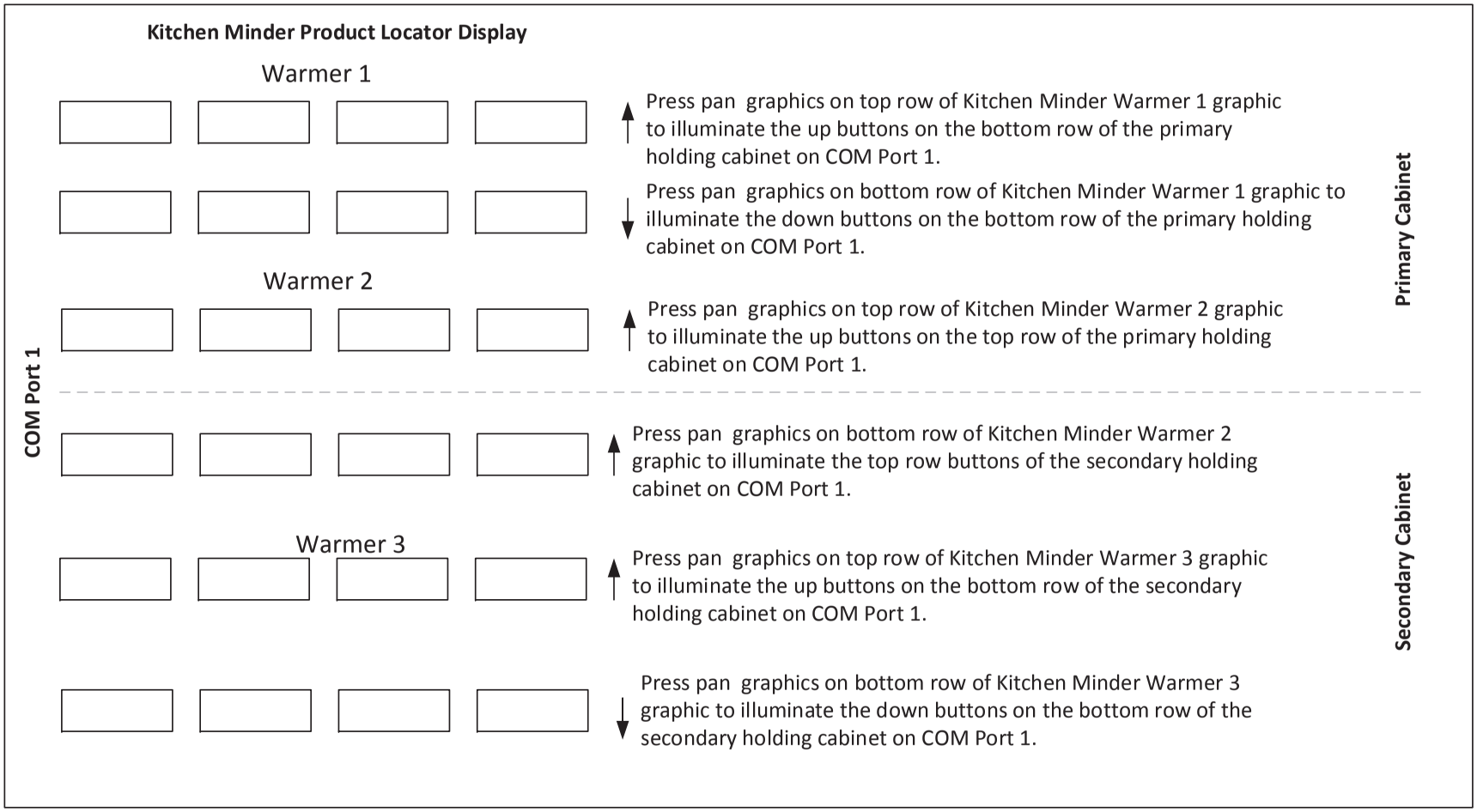
Testing Merco Holding Cabinets/Kitchen Minder Communication

Testing Merco Holding Cabinets/Kitchen Minder Communication

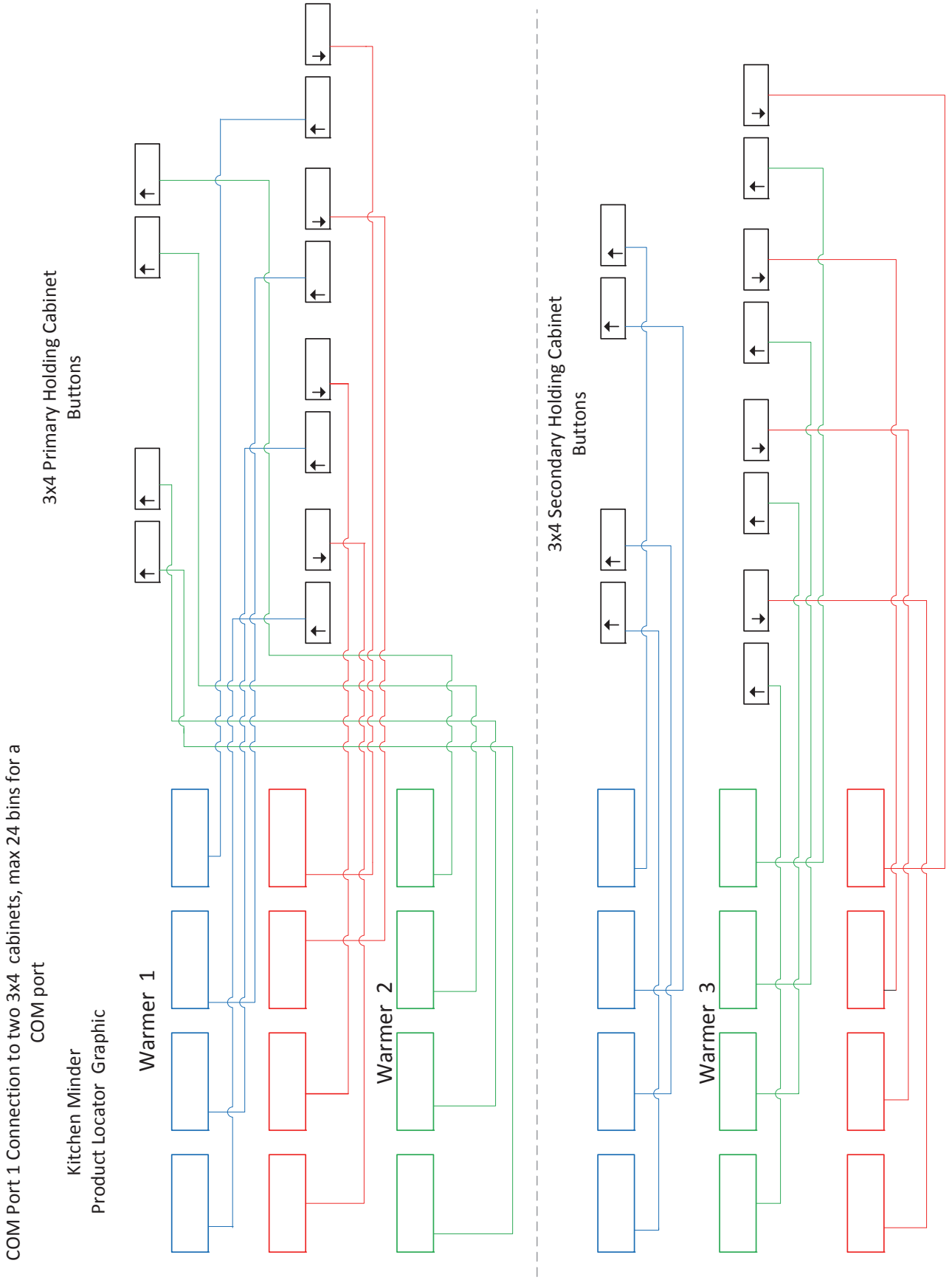
Follow these steps to ensure all Merco Holding Cabinet's on the Kitchen Minder network are communicating.

1. Navigate to the Product Locator screen of the Kitchen Minder: Press the Menu button and scroll the cursor to the Product Locator with the up or down arrows.
2. Press the select button with cursor on the Product Locator.
3. Press the graphics in the numbered warmer graphics. The text in the graphic will turn red. There should be a corresponding illumination of a red LED on the same cabinet position. Follow the directions below and see the visual guide to the mapping of the cabinet buttons and the Kitchen Minder Product Locator.

The example below shows a primary and secondary cabinet attached to COM Port 1.



Kitchen Minder Tray Graphic Mapping to Merco Holding Cabinets



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LifeCare – Install & equipment orientation, planned maintenance, KitchenConnect™, MenuConnect

To learn how Welbilt and its leading brands can equip you, visit our global web site at www.welbilt.com, then discover the regional or local resources available to you.

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