![merco logo]

SERVING QUALITY ON DEMAND ®

Forced Air Holding Cabinet (MHB)
Original Instructions

Installation, Operation and Maintenance Manual
This manual is updated as new information and models are released. Visit our website for the latest manual.

8197385

WELBILT

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 children under the age of 16 or persons 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.

> **⚠ Warning**
>
> This appliance shall not be installed where the public has access.

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

Table of Contents

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.

Service Personnel

All service on Merco equipment must be performed by qualified, certified, licensed, and/or authorized or service personnel.

Qualified service personnel are those who are familiar with Merco equipment and who have been authorized by Merco to perform service on the equipment. All authorized service personnel are required to be equipped with a complete set of service and parts manuals, and to stock a minimum amount of parts for Merco equipment. A list of Merco Factory Authorized Servicers (FAS's) is located on the Merco website at http://www.mercoproducts.com/Service#Service. Failure to use qualified service personnel will void the Merco warranty on your equipment.

Shipping Damage Claim Procedure

What to do if your equipment arrives damaged:
Please note that this equipment was carefully inspected and packed by skilled personnel before leaving the factory. The freight company assumes full responsibility for safe delivery upon acceptance of the equipment.

1. **File Claim for Damages Immediately** - regardless of extent of damage.
2. **Inspect For and Record All Visible Loss or Damage,** and ensure that this information is noted on the freight bill or express receipt and is signed by the person making the delivery.
3. **Concealed Loss or Damage** - If damage is unnoticed until equipment is unpacked, notify the freight company or carrier **immediately** upon discovery and file a concealed damage claim. This must be submitted within 15 days of date of delivery. Be sure to retain container for inspection.

MERCO DOES NOT ASSUME RESPONSIBILITY FOR DAMAGE OR LOSS INCURRED IN TRANSIT.

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/Service#Warranty 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

Connect the power cord ensuring the plug is fully seated in the receptacle.

If connecting to a Kitchen Minder system see Appendix A.

If connecting to a Duke Visor system see Appendix B.

If connecting to a Sicom Chef Minder system see Appendix C.

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.
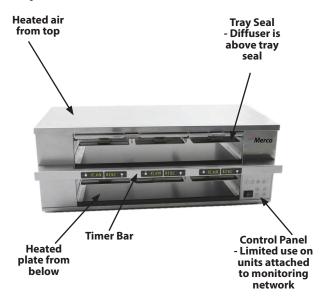
⚠ Caution

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

Heated air from top

Tray Seal - Diffuser is above tray seal

Timer Bar

Heated plate from below

Control Panel - Limited use on units attached to monitoring network

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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).
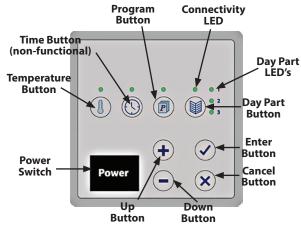
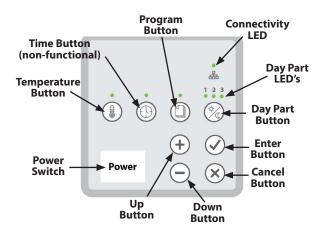**LED ON**: Unit is managed by network.

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.

Top row ▲

2nd row ▲

3rd row ▼

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.

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

AMBER — Use Green Product 1st

GREEN — Near expiration, cook more if needed

AMBER — Near expiration, cook more if needed

RED — Expired, discard product, press
button with the arrow.

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

Off, no product needed (KM™ only)

Section 4
Maintenance

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

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.
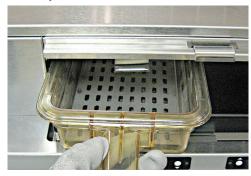
Unit must be cool to touch and disconnected from power source.
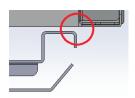
1. Wipe the stainless steel outer case with a damp cloth, rubbing with the grain of the steel. If an excessive amount of food particles/grease has collected, hot sudsy water (non-abrasive) may be used.

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.

7. Reinstall cleaned air diffusers and tray seals.

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

8. Reinstall the cleaned trays.

9. Plug the unit in.

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).
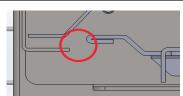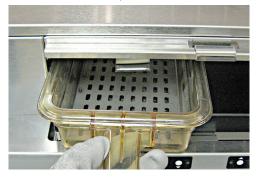
Section 5
Troubleshooting

Troubleshooting Chart

Problem	Cause	Correction
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.	Contact FAS
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 on ICC translator box is not illuminated. B. COMM LED on ICC translator box is flashing at 1 sec interval. C. COMM LED on ICC translator box 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.

COMMUNICATION ERROR MESSAGES

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

HEATER/THERMOCOUPLE ERROR MESSAGES

If any of the error messages below are displayed call your FAS. Turning Off and On a unit will clear all thermocouple error displays.

Display	Probable Cause	Corrective Action
ErU1	Upper heater/thermocouple is shorted.	Call your FAS.
ErL1	Lower heater/thermocouple is shorted.	Call your FAS.
ErU2	Upper heater/thermocouple is open.	Call your FAS.
ErL2	Lower heater/thermocouple is open.	Call your FAS.
ErU3	Upper heater/thermocouple is below range.	Call your FAS.
ErL3	Lower heater/thermocouple is below range.	Call your FAS.
ErU4	Upper heater/thermocouple is above range.	Call your FAS.
ErL4	Lower heater/thermocouple is above range.	Call your FAS.

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. Minimum requirements for operation are:

ICC PC Minder – Version 6.0 or greater
ICC Kitchen Minder – Version 6.01 or greater

Follow the steps below to install the holding unit on a Kitchen Minder II network with Version 6 software. If the Kitchen Minder system is not compatible, 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.

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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 pull-down. 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.
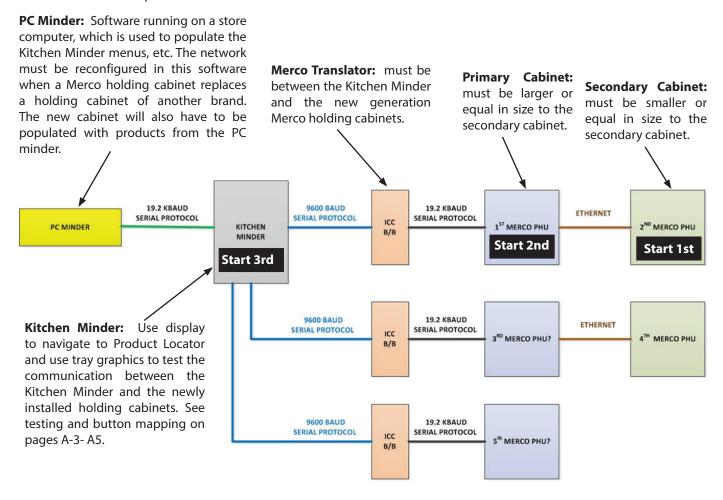
Store Network Overview and Component Start Up Sequence

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 letters on the graphic turn red when pressed. A red LED should light on the Merco holding cabinet with the pressing of the pan graphic.

• Press Menu button to display graphic choices for the Kitchen Minder.
• Use the arrows under the Select button to move the cursor to Product Location.
• Press Select.
• Product Location is displayed.
• Pressing the pan graphics will illuminate a red LED on the cabinet, indicating communication.

NOTE: The position of the pan graphic doesn't align with the position on the cabinet. The mapping of the Kitchen Minder buttons to the cabinet is explained in a graphic and schematic on pages A-4 - A-5.

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

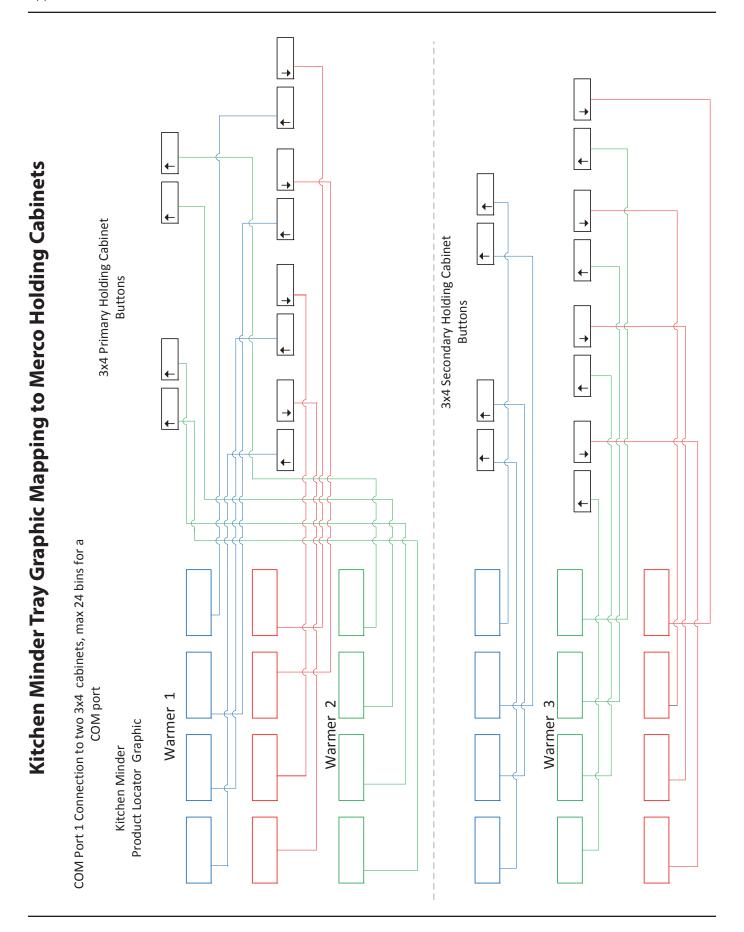## Testing Merco Holding Cabinets/Kitchen Minder Communication

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.

Secondary Cabinet

Primary Cabinet

Press pan graphics on top row of Kitchen Minder Warmer 1 graphic to illuminate the up buttons on the bottom row of the primary holding cabinet on COM Port 1.

Press pan graphics on bottom row of Kitchen Minder Warmer 1 graphic to illuminate the down buttons on the bottom row of the primary holding cabinet on COM Port 1.

Press pan graphics on top row of Kitchen Minder Warmer 2 graphic to illuminate the up buttons on the top row of the primary holding cabinet on COM Port 1.

Press pan graphics on bottom row of Kitchen Minder Warmer 2 graphic to illuminate the top row buttons of the secondary holding cabinet on COM Port 1.

Press pan graphics on top row of Kitchen Minder Warmer 3 graphic to illuminate the up buttons on the bottom row of the secondary holding cabinet on COM Port 1.

Press pan graphics on bottom row of Kitchen Minder Warmer 3 graphic to illuminate the down buttons on the bottom row of the secondary holding cabinet on COM Port 1.

Kitchen Minder Product Locator Display

Warmer 1

Warmer 2

Warmer 3

COM Port 1

Kitchen Minder Tray Graphic Mapping to Merco Holding Cabinets

COM Port 1 Connection to two 3x4 cabinets, max 24 bins for a
COM port

Kitchen Minder
Product Locator Graphic

3x4 Primary Holding Cabinet
Buttons

3x4 Secondary Holding Cabinet
Buttons

Warmer 1

Warmer 2

Warmer 3

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