



Enodis

**PARTS AND SERVICE MANUAL
FOR
MERCO HOLDING CABINET
MODEL MHC-22-TDL**



Garland Commercial Ranges
1177 Kamato Road
Mississauga, Ontario L4W 1X4
Canada

Facsimile: (905) 624-5669
Telephone: (905) 624-0260

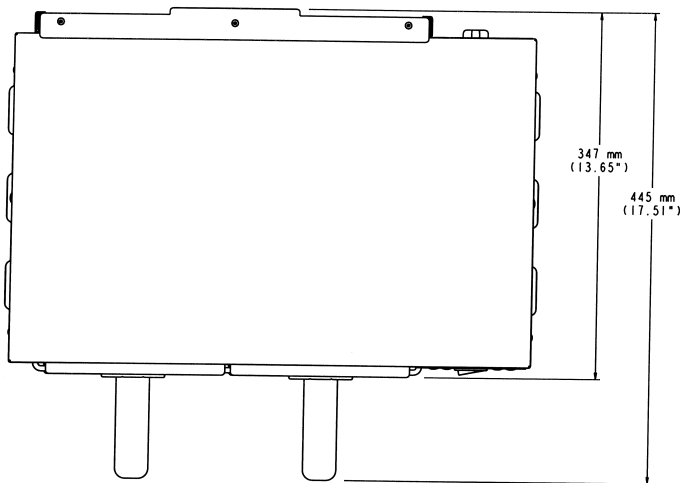
SEQUENCE OF OPERATION

SPECIFICATIONS

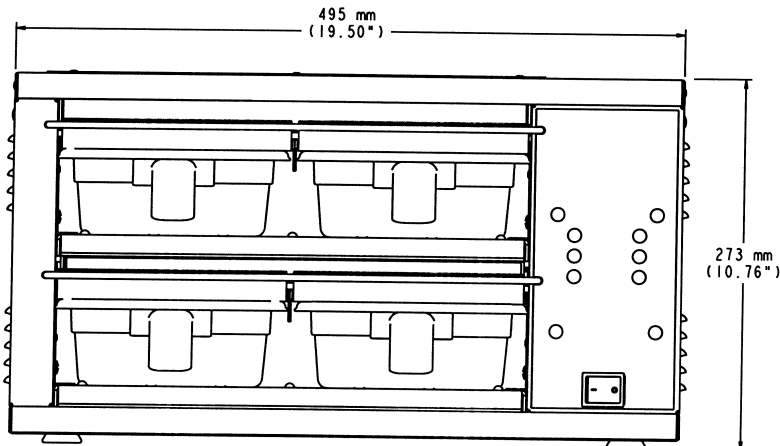
Model #	Voltage	Amps	Watts	Hz.	Net Wt. lbs./kg	Plug
MHC-22-TDL	120	10.4	1250	60	30/14	Nema 5-15P

TESTING VALUES

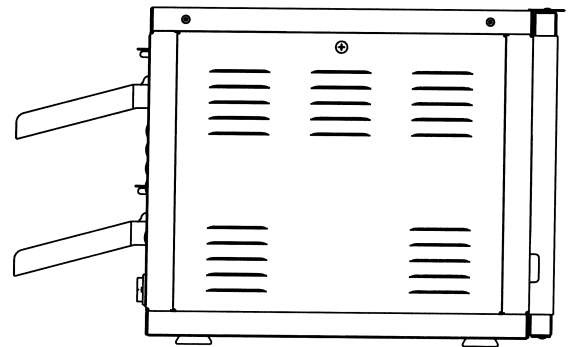
TEST	VALUE
OHMS on elements	87 Ohms
AMP draw per element	1.3 Amps
OHMS on Temp Probes / Heater Plate	4.2 to 5.0 (depending on room temperature)
TRIAK testing / values	100 – 120 Volts



TOP VIEW

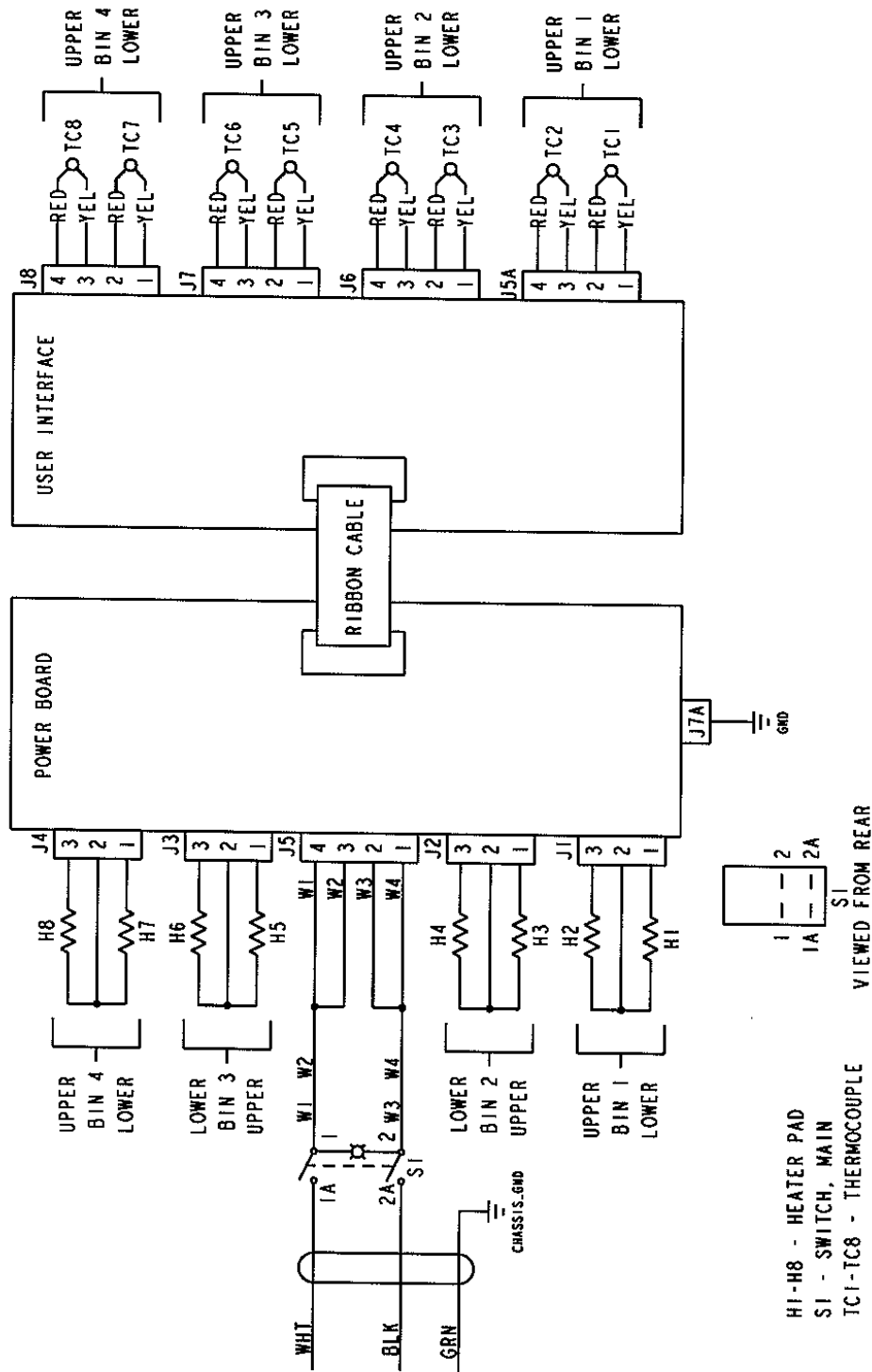


FRONT VIEW



SIDE VIEW

WIRING DIAGRAM



TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	EVALUATION
Holding Cabinet will not heat	Incoming Power Supply	Verify power cord is secured firmly in receptacle. Measure the incoming voltage. Check circuit breakers. Reset if required. Call power company if needed.
	Power Switch	Check continuity between switch terminals. Replace switch as needed.
Unit doesn't reach desired temperature	Thermocouple	Check for continuity in circuit.
	Heat Element	Compare cavity temperature with display reading. Insert temperature probe into center of cavity. Acceptable temperature variation is +/- 20° from display reading. Check for loose connection. Check the Amp draw on each element for proper load. Check page 2 for rating information. If the amp draw is high or low, check the individual elements for opens, shorts and proper resistance. WITH POWER OFF: To check resistance of the elements, remove all leads from the elements and use a digital multimeter. The element resistance should be as follows: 120V – 87 ohms Replace heating element (shelf) as needed.
		Check thermostat (common wire). Please note that if thermostat is bad, both circuits will be bad.
Temperature is too high	Thermocouple	Check for incorrectly wired thermocouple. Thermocouple wire polarities are reversed.
	Heat Element	Compare cavity temperature with display reading. Insert temperature probe into center of cavity. Acceptable temperature variation is +/- 20° from display reading. Check for loose connection. Check the Amp draw on each element for proper load. Check page 2 for rating information. If the amp draw is high or low, check the individual elements for opens, shorts and proper resistance. WITH POWER OFF: To check resistance of the elements, remove all leads from the elements and use a digital multimeter. The element resistance should be as follows: 120V – 87 ohms Replace heating element (shelf) as needed.

TROUBLESHOOTING GUIDE (CONT'D)

Display reads unusual characters		Make sure wires are connected properly (grounded).
		If wires are grounded properly, new control board is needed.
On/Off switch doesn't light (but unit works properly)	Power Switch	Check wiring to switch.

HEAT SHELF – REPLACEMENT

1. Disconnect power.
2. Take out screws holding “L Brackets” in cavity.
3. Disconnect thermocouple and all power connections to board. Mark all wires for reassembly.
4. Take out power board.
5. Take out shelf mounting screws from both sides.
6. Remove shelves and feed wiring out of unit.



WARNING: Be careful to avoid tearing the aluminum foil while working with wire connections.

7. Reassemble in reverse order.

USER INTERFACE (U.I.) BOARD – REPLACEMENT

1. Remove four (4) screws.
2. Disconnect thermocouples.
3. Disconnect ribbon cable.
4. Remove board.
5. Reassemble in reverse order.

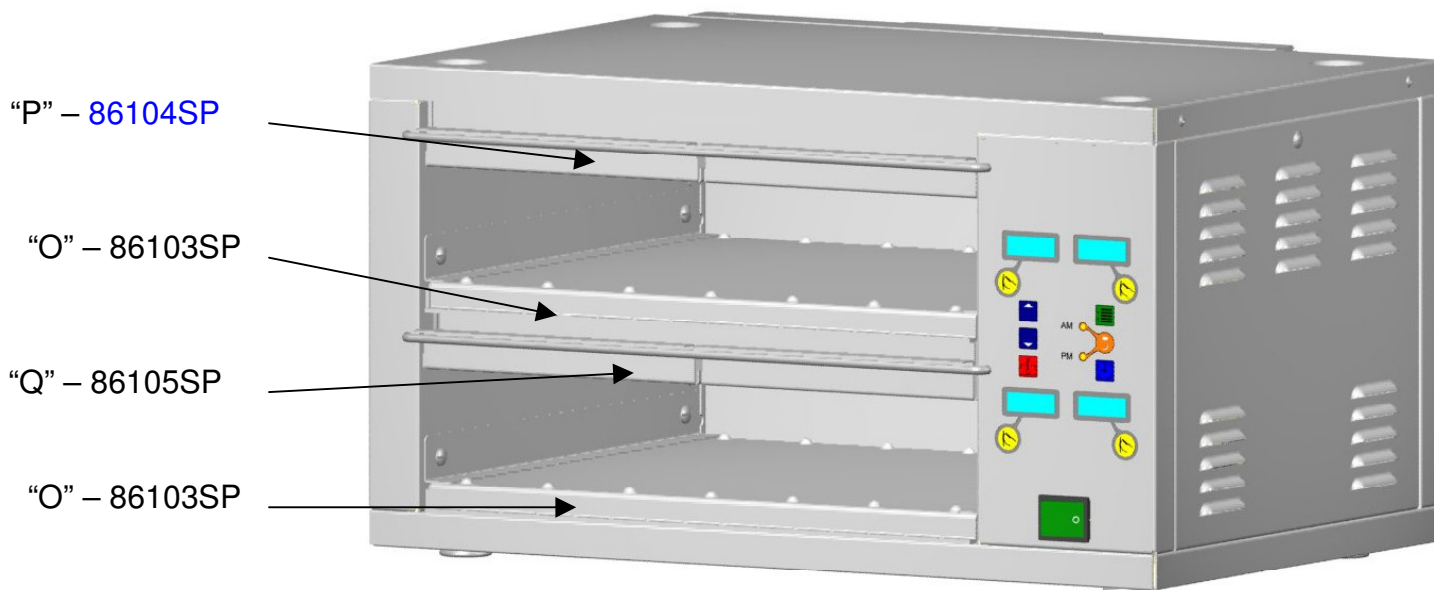


When replacing U.I. board, be sure ribbon cable is connected so that blue wire is facing towards interior of unit.

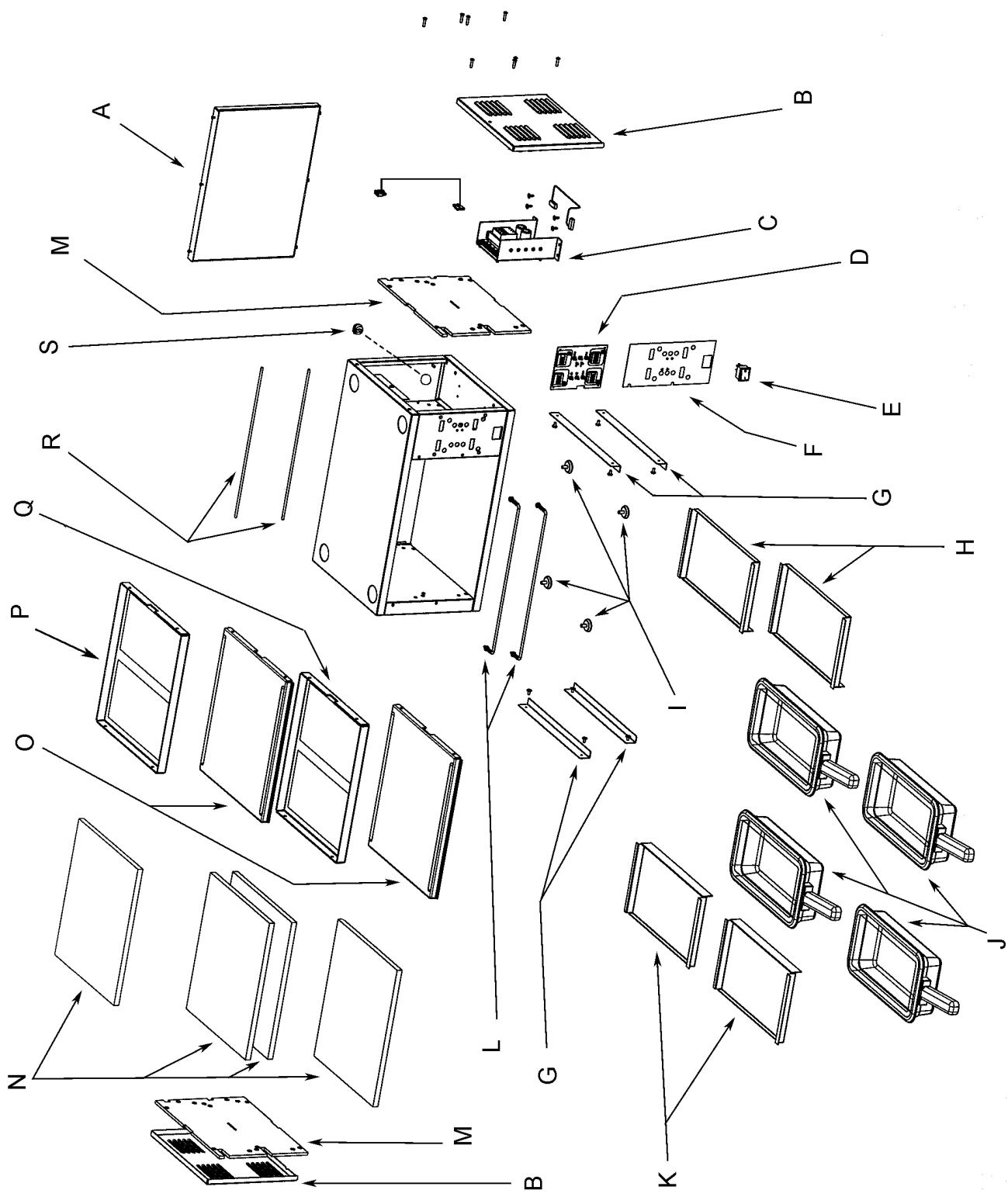
PARTS BREAKDOWN

LABEL	PART NUMBER	PART DESCRIPTION	REC. STOCK QUANTITY
A	10000940	Back Panel Assembly	2
B	10000935	Side Panel	
C	10000988	Power Board Assembly	2
D	86101SP	Controller, User Interface	2
E	27511SP	Switch, Rocker, Lighted	2
F	86102SP	Overlay, Control Panel	
G	10000948	Bracket, Heater Side	
H, K	10001335	Tray Seal	
I	10000989	Leg	4
J	10000947	Tray, Plastic	4
L	10000957	Tray Cover, Front Retention Rod, Assembly	
M	10000968	Insulation, Side	2
N	10000969	Insulation, Top / Bottom	
O	86103SP	Lower Shelf Assembly **	2
P	86104SP	Upper-Upper Shelf Assembly **	2
Q	86105SP	Lower-Upper Shelf Assembly **	2
R	10000964	Rod, Rear Tray Seal Retainer	2
S	000170	Strain Relief	
Not Shown	10001063	Power Cord, NEMA 5-15P	1
Not Shown	10001053	Cable – Power Board	2

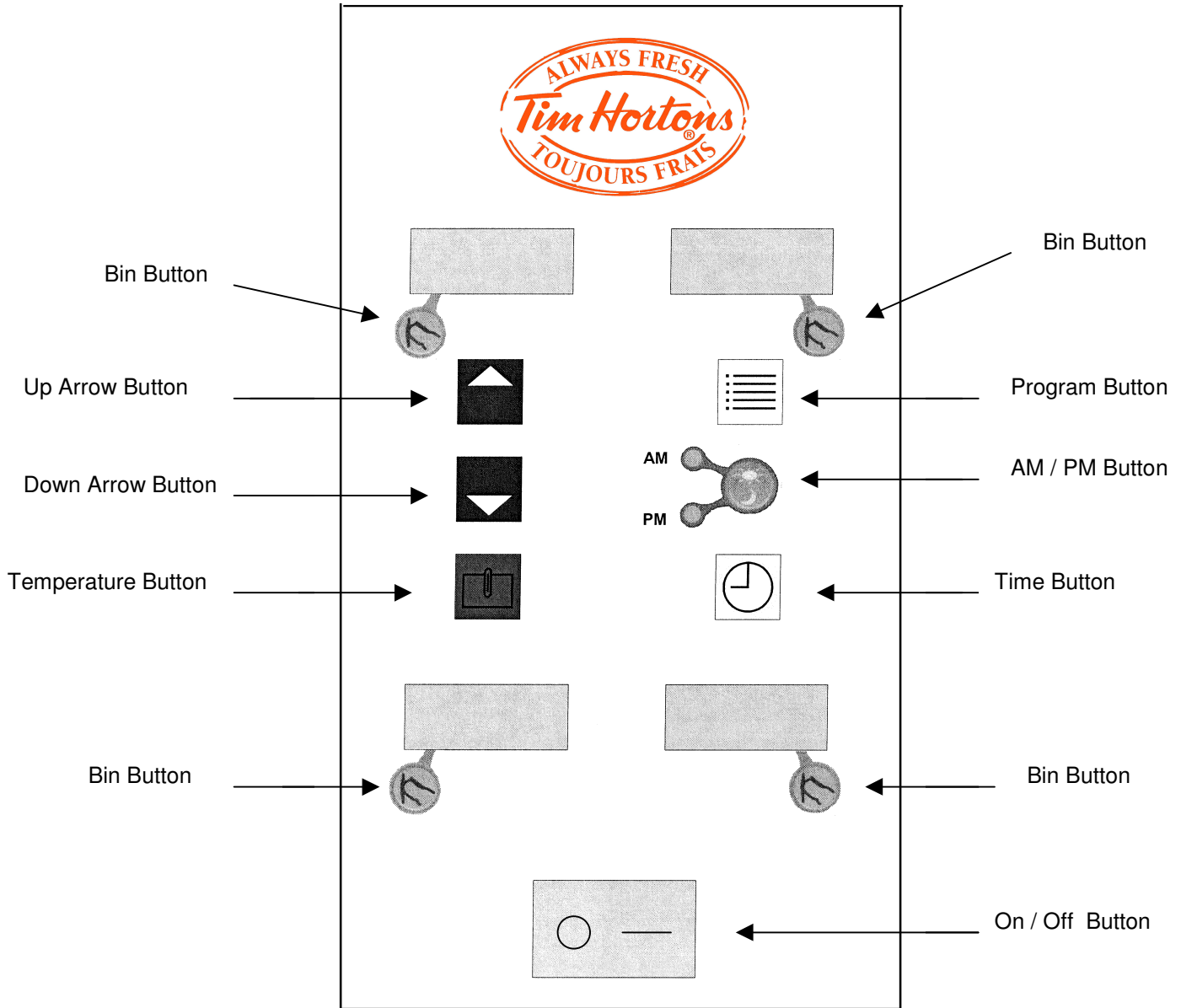
**SHELF ASSEMBLY DIAGRAM



GENERAL VIEW



MERCO HOLDING CABINET CONTROL PANEL



DIAGNOSTIC MODE

- ▶ Press and hold down the “Temperature” button until you hear a short, double-beep sound. In this mode all displays indicate temperatures for either the upper or lower heaters for each bin. Pressing the “Up” and “Down” arrow buttons will select the upper and lower heaters respectively.

In this mode, pressing the “Time” button will also display the PWM output power duty cycle. This is shown as a percent for the corresponding heater.

- ▶ To reset the holding bin controller to the factory configuration, hold down the upper-left “Bin” button while powering on the controller. Release the “Bin” button as soon as the displays illuminate. This resets the following settings:
 - ~ AM and PM menus
 - ~ All product names
 - ~ Upper and lower temperature for each product
 - ~ “Expiration” and “Cook More” time for each product

NOTE: For additional information concerning Menu and Product programming, please refer to Merco Holding Cabinet Installation & Operation Manual.

WARRANTY INFORMATION

COVERAGE PERIOD

One (1) year parts and labor on-site service from the date of installation or eighteen (18) months from the date the unit is shipped from Garland, whichever comes first.

EXCLUSIONS

Labor charges will not be paid for travel costs beyond 150 Kilometers / 100 Miles and two (2) hours travel round trip other than over land, holiday charges or any special arrangements requiring other than normal time.

Normal maintenance items such as *light bulbs, fuses, gaskets, O-Rings, interior & exterior finishes, lubrication, demiling, broken glass, etc.*

Improper or unauthorized repairs

Damage in shipment

Adjustments and calibrations after 90 days from installation

Failure caused by erratic voltages, gas supply or improper installation

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