

# Operation Manual

---

---

# Glastender®

A Family Company Manufacturing In The USA Since 1969

**Lettuce Crisper\* - LC**

**Countertop Merchandiser\* - CM24**

**Wall-Mount Refrigerator\* - WMR24S-L, WMR24S-R,  
WMR24X-L, WMR24X-R**

---

---

**\*This manual is specific to Lettuce Crispers, Countertop Merchandisers, and Wall-Mount Refrigerators manufactured beginning with SN 290188989 and on June 17, 2019 and after**



---

Glastender, Inc. · 5400 North Michigan Road · Saginaw, MI · 48604-9780  
800.748.0423 · 989.752.4275 · Fax 989.752.4444 · <https://glastender.com>



# Index

<u>Topic</u>	<u>Page</u>
Utility Requirements and Connections .....	2
Uncrating and Start-up Instructions.....	2
Mounting Instructions .....	3
Cleaning Instructions.....	4
Digital Controller Operation .....	5
Electrical and Refrigeration Specifications.....	6
Electrical Diagrams .....	6-8
Terms and Conditions .....	9
Warranty .....	10

For replacement part information, visit:  
<https://www.glastender.com/support/parts>

**WARNING: Components shall be replaced with like components only.  
Service shall be done by factory authorized service personnel only,  
so as to minimize the risk of possible ignition due to incorrect parts  
or improper service.**

# Introduction

This manual describes the operation features of the Lettuce Crisper, Countertop Merchandiser, and Wall-Mount Refrigerator. Please review this information before attempting installation and operation. Long term, trouble-free operation will follow if good housekeeping and maintenance procedures are followed. Thank you for selecting Glastender, Inc. products.

## Utility Requirements and Connections

**Electrical:** 120 Volt AC, 1 Phase, 60 Hz, 2.5 full load amps. A separate 15 amp circuit is required. A 9-foot grounded cord is included.

**Plumbing:** Automatic condensate evaporator. No drain connection required.

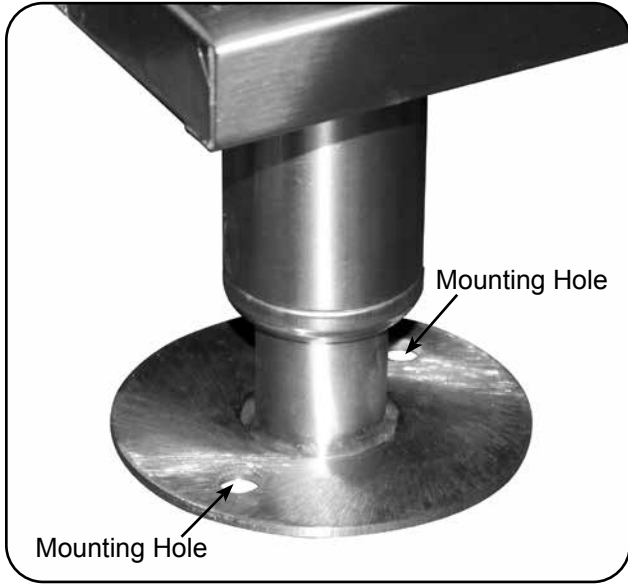
## Uncrating and Start-up Instructions

**Caution - This Refrigerator contains Flammable R290 Refrigerant. When moving and handling this equipment take care not to damage the refrigerant tubing or components.**

All models are shipped in one carton. These steps should be followed:

1. If legs are included, bolt them to the base with bolts provided. Follow installation guide on page 3.
2. For lettuce crisper and wall-mount refrigerator mounting instructions, see page 3.
3. Position unit. It must be level and plumb.
4. Plug into 120 volt AC outlet.
5. Your Glastender equipment is now ready for use.

# Mounting Instructions



## LEG MOUNTING INSTRUCTIONS:

NOTE: Mounting instruction applies to the lettuce crisper, countertop merchandiser, and wall-mount refrigerator.

NOTE: 8" of air space is required above unit to allow for air flow out. WARNING: Compressor failure due to restriction or blockage of air flow will void warranty.

1. Locate the unit on countertop in final position.
2. Level the unit (front to back and side to side).
3. Mark the countertop through the holes in the flanged foot of the leg.
4. Drill out the marked locations and secure the unit to the countertop using fasteners.

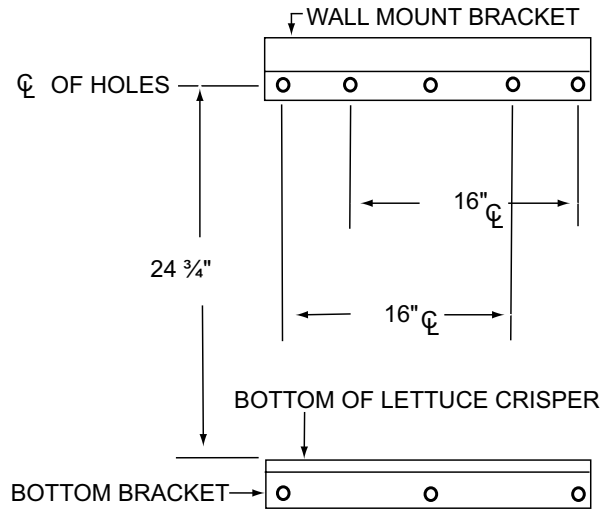
## WALL MOUNTING INSTRUCTIONS:

NOTE: Mounting instruction applies to both the lettuce crisper and wall-mount refrigerator. Lettuce crisper shown in illustration.

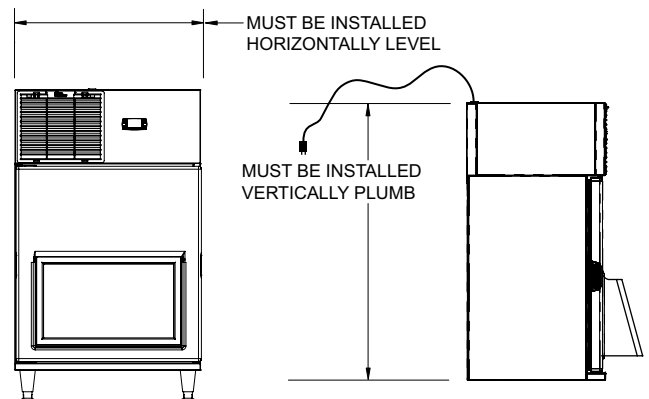
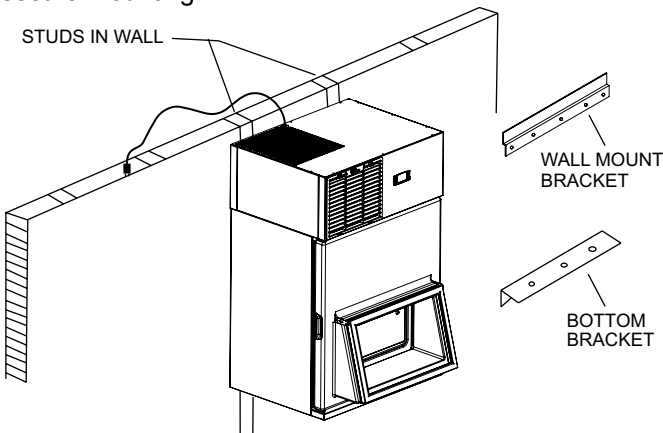
NOTE: 8" of air space is required above unit to allow for air flow out. WARNING: Compressor failure due to restriction or blockage of air flow will void warranty.

1. Mark a level line at the bottom of the lettuce crisper / wall-mount refrigerator.
2. From this line measure up 24<sup>3</sup>/<sub>4</sub>" and mark another level line.
3. On this line drill holes to match the holes in the wall mount bracket.
4. Install wall mount bracket.
5. Attach lettuce crisper / wall-mount refrigerator.
6. If lettuce crisper / wall-mount refrigerator is not on an existing shelf, secure with bottom bracket.

NOTE: At least two (2) of the mounting holes in the bracket should line up with studs in the wall for safe, secure mounting.



**To establish proper sanitation operation and to comply with NSF & health codes, the cooler base or back must be sealed to the surface to which it is mounted using an NSF listed sealant.** Place a bead of sealant along outer edges of the base or back and remove any excessive amount. Make sure there are no gaps in the sealant as the intent is to prevent liquid spillage from adjacent surfaces from passing under inaccessible portions of the equipment. This sealing procedure does not apply to models that include legs or casters.



**Glastender**

Glastender, Inc. • 5400 North Michigan Road • Saginaw, MI • 48604-9780  
800.748.0423 • 989.752.4275 • Fax 989.752.4444 • <https://glastender.com>

# Cleaning Instructions

**ESTIMATED CLEANING TIME:** 5 to 10 minutes per unit daily, 20 minutes weekly.

**FREQUENCY:** Daily cleaning of exterior & door gaskets. Weekly cleaning of interior.

**PROCEDURE:**

1. A non-chlorine based cleaner or mild detergent and warm water applied with a soft cloth or sponge to all contact surfaces.
2. Immediately rinse off cleaning agent(s), using clean warm water, clean soft cloth or sponge.
3. Dry with a soft clean cloth, removing standing water as soon as possible.
4. A more thorough cleaning of the interior should be done weekly (more frequently as necessary).
5. The condensing unit air filter (front top left) should be removed and thoroughly rinsed in hot clean water at least once per quarter.

**NOTES:**

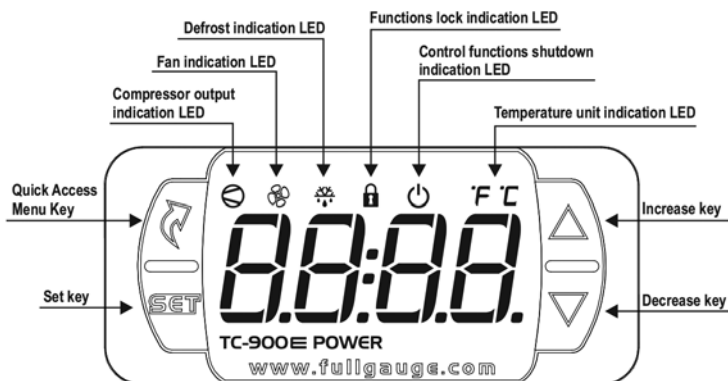
1. Never use hydrochloric acid, wire brushes, steel wool, scrapers, or chlorine based cleaners on stainless steel surfaces, since they will break down the passivity layer and allow corrosion to occur.
2. On stainless steel surfaces, you may use a soft bristle brush or Scotch-Brite® pad for more stubborn stains. Always scrub with the direction of the grain. Follow with a thorough cleaning as described above.
3. Deposits from food preparation must be properly removed. Even hard water deposits will rust stainless steel, if not removed.
4. Door gaskets are most often overlooked when cleaning. Failure to clean them regularly will lead to premature failure, since alcohol and moisture build-up breaks down the gasket material.

# Digital Controller Operation

The operating temperature range is preset at the factory according to the table below and can be adjusted up or down within the limits shown.

## Setting the desired temperature-

To access the setpoints setup menu, press Set for 2 seconds. The message *SP* will appear on the display followed by the normal setpoint set value. Use the Increase key or Decrease key to modify the value and confirm by pressing Set. Immediately, the message *SP-E* appears indicating the setting of the economic setpoint. Again, use the Increase key or Decrease key to modify the value and confirm by pressing Set. Finally, the *---* indication signals the set up completion. The setpoints can also be adjusted individually in the quick access menu.



	Factory Settings		Range of Adjustment	
	Set Point	Operating Range†	Minimum Set Point	Maximum Set Point
<b>LC, CM, WMR - Standard Cooler Setting</b>	34° F	34° F to 39° F	33° F	65° F
<b>CM, WMR - White Wine Cooler Setting</b>	50° F	50° F to 55° F	33° F	65° F
<b>CM, WMR - Red Wine Cooler Setting</b>	60° F	60° F to 65° F	33° F	65° F

† Adjusting the factory set point will also adjust the operating range by the same amount

The lettuce crisper, countertop merchandiser, and wall-mount refrigerator are programmed to automatically defrost four times daily for approximately twenty minutes. During defrost, the fan inside the cooler will remain on and the refrigeration system will turn off. The defrost process can be activated/deactivated manually in the quick access menu through the *dEFr* or pressing the Increase key for 4 seconds. Activation or deactivation will be indicated by the messages *dEFr On* or *dEFr OFF* respectively.

**For units manufactured prior to June 2021:** The thermostat controller has an “OFF” function. The shutdown of the control functions allows the controller to operate only as a temperature indicator, keeping the control outputs and alarms off. The use of this feature is enabled or disabled by the shutdown function of the control functions. When enabled, the control functions and alarms are switched off *Ctrl OFF* or on *Ctrl On* in the quick access menu through the *Ctrl* option. When the control functions are off, the message *OFF* is displayed alternating with the temperature and other messages. Also is possible turn on/turn off the control functions by pressing the Increase key for 5 seconds.

**Models LC, CM24, and WMR24 -** The thermostat control probe wire may become disconnected when the compressor compartment cover and/or grill are removed. This will result in thermostat *Err 1* or *Err 3* code. Service calls to reconnect the probe wiring are not covered by factory warranty.

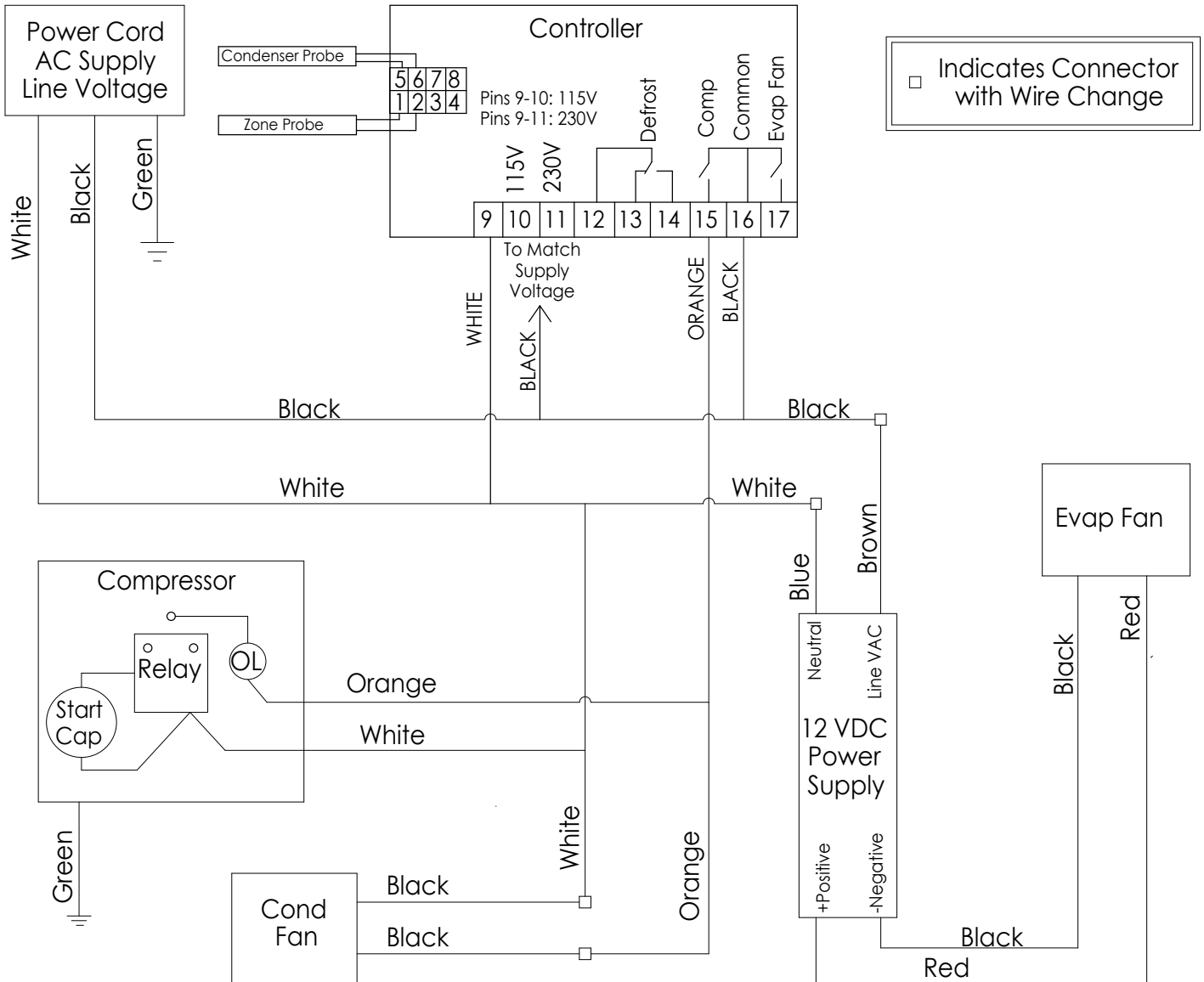
Signals	
<i>Err 1</i>	Ambient sensor disconnected or out of range.
<i>Err 3</i>	Sensor 3 disconnected or out of range.
<i>ECD</i>	Operation with economic setpoint.
<i>Athi</i>	High ambient temperature alarm (sensor1).
<i>AtLo</i>	Low ambient temperature alarm (sensor1).
<i>AC1</i>	High temperature in condenser alarm (level 1). If this signal occurs, condenser may need cleaning.
<i>AC2</i>	High temperature in condenser alarm (level 2). If this signal occurs, condenser may need cleaning.
<i>ALrC</i>	Compressor reached the maximum time on without reaching the SP.
<i>OFF</i>	Control routines off.
<i>---</i>	It indicates that the temperature for end of defrost has not been reached.
<i>ECAL</i>	Please contact Full Gauge Controls.
<i>PPPP</i>	Reconfigure the values of the functions.

# Electrical and Refrigeration Specifications

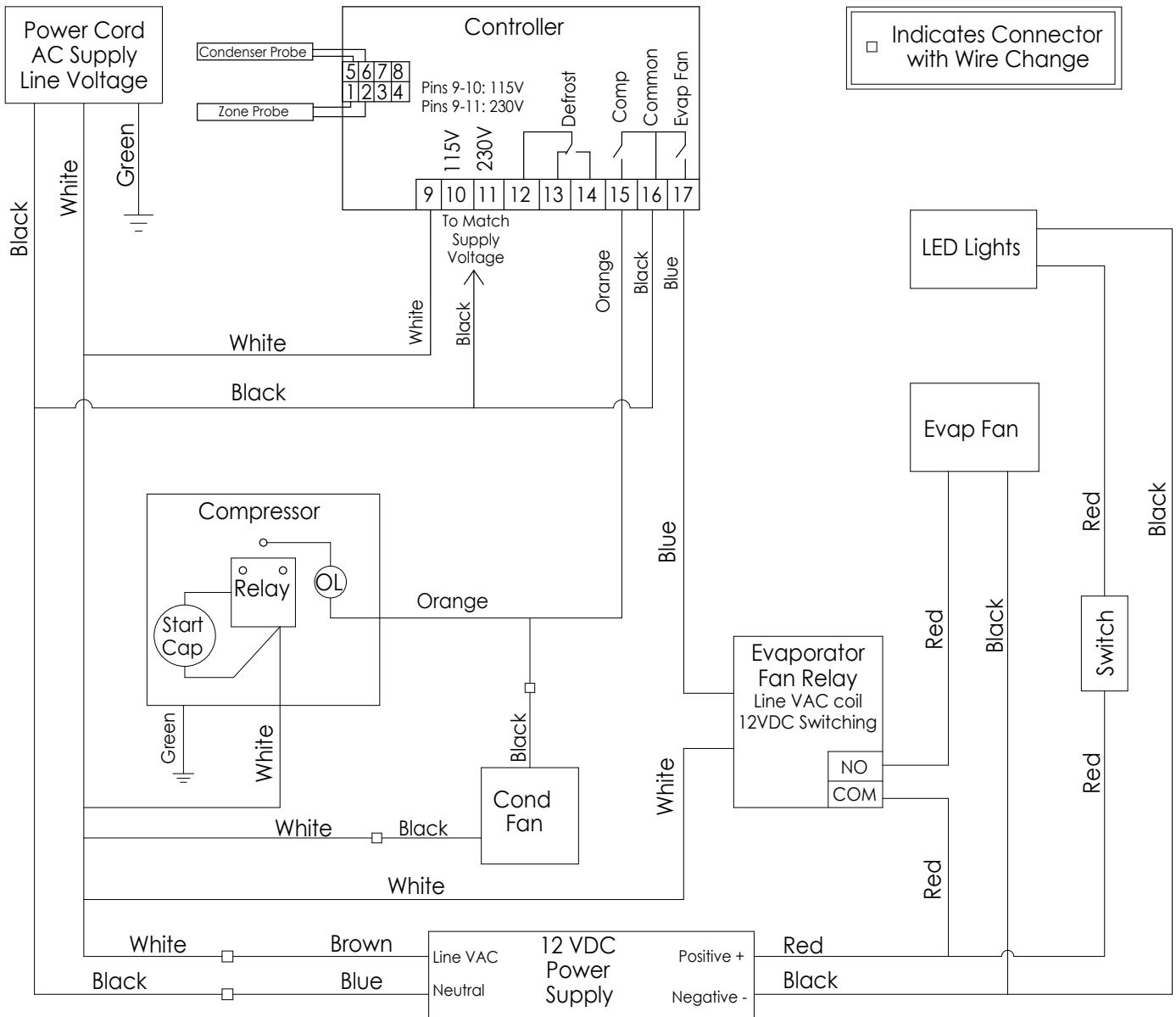
The following electrical and refrigeration specifications apply:

<u>ELECTRICAL</u>	<u>REFRIGERANT</u>		<u>DESIGN PRESSURE</u>	
	<u>TYPE</u>	<u>CHARGE</u>	<u>HIGH</u>	<u>LOW</u>
120V, 1 Ph., 60 Hz., 2.5 AMP	R290	4.23 oz.	245	130

## LC Electrical Diagram

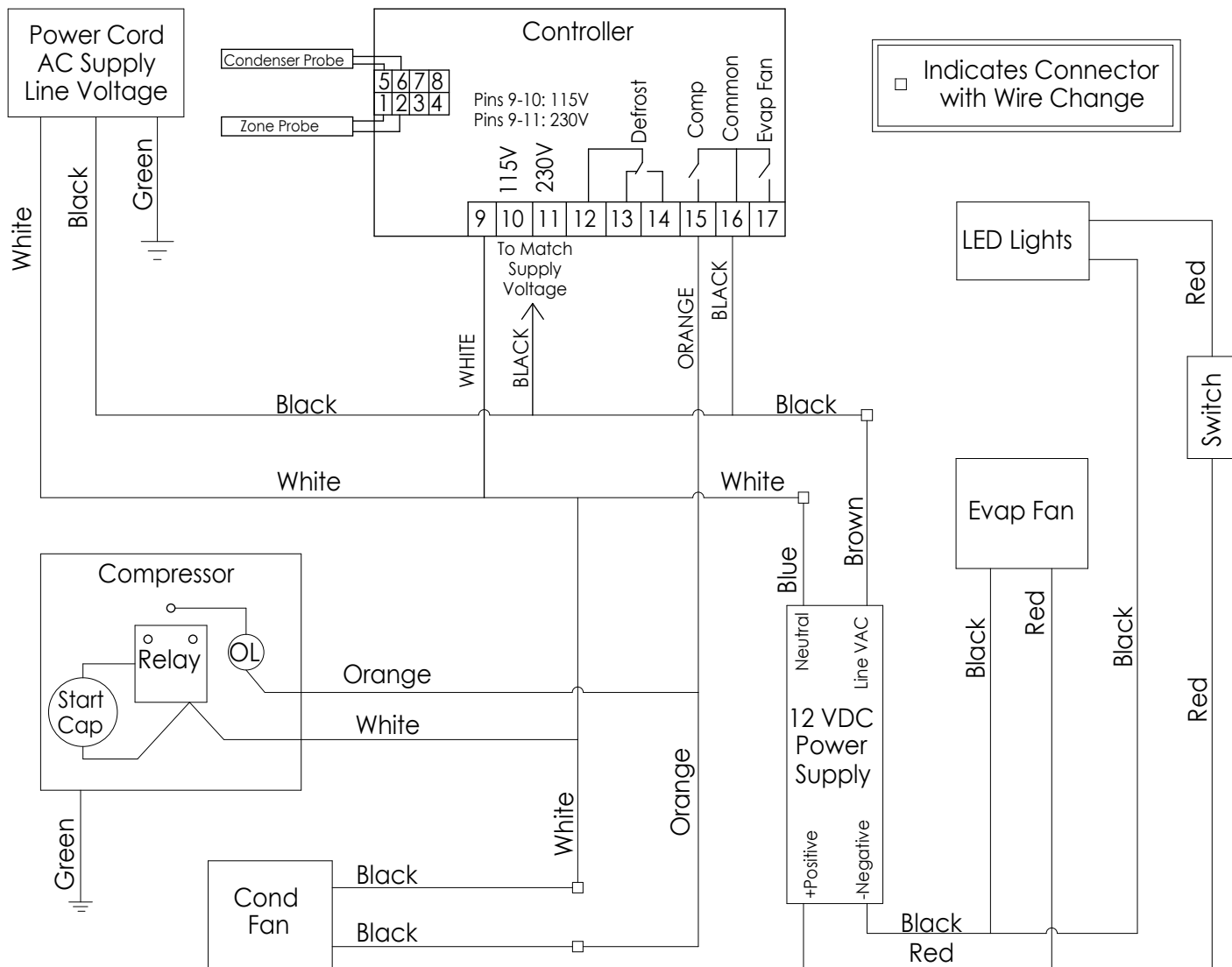


# CM24 Electrical Diagram





# WMR Electrical Diagram



# Terms and Conditions

## Prices:

All prices are LIST. Applicable taxes will be added.

## Quotations:

Unless otherwise stated, quotations are effective for 30 days only.

## Acceptance:

All orders are subject to acceptance by Glastender, Inc.'s headquarters in Saginaw, Michigan. Possession of the Product Directory and Price List is not an offer to sell.

## Shipments:

F.O.B. factory in Saginaw, Michigan. Freight terms are Third Party or Collect if shipped directly to you. Prepay and Add to Invoice freight terms are available upon request. The approximate shipping weights of all products are listed with the prices. Partial shipments will be made unless otherwise specified by the customer. Surface freight classifications are:

- GT-24/GT-30/GW24 Glasswashers - Class 175
- GT-18 Glasswashers - Class 175
- All Underbar Equipment - Class 175
- Bar Die Orders - Class 250
- Portable Bars - Class 175
- Remote refrigerators (i.e., no compressor) or dry storage back bar equipment - Class 175
- Self-contained refrigeration equipment - Class 150
- Ice Display Units (IDU and GDU) - Class 175
- Lighted Liquor Displays - Class 175
- Beer line chillers and beer towers (beverage dispensing equipment) - Class 175
- Bottle Disintegration System - Class 150
- Ice Cream Freezers - Class 125

All small items are evaluated to see the most cost effective means for shipment. Many small items ship via UPS or FedEx; however, when dimensional weight is excessive, LTL carriers are the most cost effective choice. Spare parts orders received before 1:00 PM EST can usually be shipped the same day.

The order department is happy to assist with routing or shipping questions.

## Payment Terms:

Cash should be included with all orders unless credit terms have been arranged. To establish credit, banking and trade references are required. A convenient credit application is available upon request. Payment via credit card is not our normal means of receiving payment. Visa and MasterCard will be accepted, but must be charged at the time of shipment. In addition, a payment via credit card for orders totaling more than \$500 will incur a 3% convenience fee on the total transaction amount.

## Delivery:

The majority of equipment is manufactured to order and typically ships within three to six weeks after complete order information is received by the factory. In-stock equipment typically ships within two to three days of the factory receiving complete order information.

## Returns:

Items specified as "Manufactured to Order" are NOT returnable. A Return Authorization number must be issued by the factory in advance for any items that are returnable. The number MUST be noted on the outside of the returned package. Returns must be received within 90 days of the issue date. Shipping charges must be prepaid. A minimum 20% restocking charge will be applied to all authorized returns if received in new, unused condition in the original packaging.

The above conditions apply to spare part returns, except spare part returns must be received within 30 days of original shipment for electronic or electrical parts or within 90 days for all other parts.

## Loss or Damage:

For customer routed shipments, Glastender, Inc. is not responsible for any loss, damage, or delay of merchandise during shipment. Such transit claims must be filed with the carrier. Merchandise must be examined on arrival. If shortages occur, Glastender,

Inc. must be notified in writing within five (5) days of delivery to honor any shortage claim. Glastender will assume responsibility for freight claims on Prepay and Add shipments but the customer must inspect freight and note any damage upon receipt. Failure to do so may result in losses at the customer's expense.

## Custom Orders:

Custom orders must be paid in advance and are not subject to cancellation.

## Laminates:

Some products include common, readily available plastic laminates of the customer's selection. There may be an additional charge if uncommon varieties are ordered.

## Glastender Freight Program

### Program Conditions

Glastender, Inc. equipment pricing includes standard freight costs under the following conditions:

- Equipment order is for a minimum of \$2,500, shipped to a single destination at the same time.
- Freight carrier is selected by Glastender, Inc. and may vary based on destination, transit times, performance history, customer service, or other factors.
- Shipping destination is within the continental United States and Canada. Non-continental or other international destinations are shipped to port of export.
- Combining equipment orders is allowed to reach the minimum order level if combined orders are shipped to the same destination at the same time.
- Equipment order terms of sale are FOB Saginaw MI / Freight Prepaid.
- Equipment returns are not covered.
- Parts orders do not qualify and will be charged shipping accordingly.

### Customer Responsibilities

In addition to the program conditions listed above, the receiving customer must:

- Note all damage on the delivery receipt at the time of delivery.
- Open and inspect any items that look suspicious or raise concern, even if the carrier tells you it is not allowed.
- Refuse only the damaged items and keep the other items on the order.
- When in doubt, sign the delivery receipt as damaged.

The only way to hold the carrier liable is to sign the delivery as damaged.

### Additional Fees

Additional carrier-related services and fees over and above standard freight costs are not covered. Such services and fees will be invoiced at the time of order or after the order has shipped. Examples of additional fees include the following:

Split shipment.....	Cost difference between single shipment and split shipment
Lift gate.....	\$55 (Only available for items under 96" in total packaged length)
Inside delivery.....	\$100 per pallet/piece
Residential delivery .....	\$100
Limited access site .....	\$100
Expedited delivery .....	Difference from standard rate
Special delivery time.....	Carrier rate
Storage .....	Carrier rate
Re-delivery.....	Carrier rate
Re-consignment.....	Carrier rate
Other additional services not listed...	Carrier rate

### Questions

For questions regarding the Glastender Freight Program, please contact Shipping & Receiving:

Steve Gunn, Shipping & Receiving Supervisor  
989.752.4275, ext 141 • [sgunn@glastender.com](mailto:sgunn@glastender.com)

11/14/2023

Glastender, Inc. • 5400 North Michigan Road • Saginaw, MI • 48604-9780  
800.748.0423 • 989.752.4275 • Fax 989.752.4444 • <https://glastender.com>

# Warranty Statement

## **APPLICABLE TO ALL PRODUCTS SOLD WITHIN THE UNITED STATES AND CANADA**

Glastender, Inc. warrants all products to be free of defects in material and workmanship. One-year labor and parts warranty applies to all glasswashers, self-contained refrigeration models, and BDS model bottle disintegration units. In established areas, a start up is included with GT-24 and GT-30 model glasswashers. Warranty is effective for one year from the date of installation or up to 18 months from date of factory shipment, whichever occurs sooner. Glastender, Inc. will replace any part or assembly found defective under normal use and service.

For warranty labor claims beyond 12 months from the date of factory shipment, proof of date of installation or occupancy must be provided. Authorization for labor must be obtained from Glastender within the warranty period and prior to the service being performed.

Labor warranty applies to the 50 states of the USA and Canada only.

Remote refrigeration models exclude the labor warranty for the condensing unit and issues related to the field installation and test of the completed refrigeration system, provided by others.

Field replacement parts not covered under the original warranty include a 90-day part warranty from the date of installation.

### **FOUR YEAR ADDITIONAL COMPRESSOR WARRANTY**

Glastender will warrant to the original user the compressor for all self-contained refrigeration models for an additional four years following the regular one-year warranty period. This plan applies to the compressor only.

A completed warranty claim form **MUST** accompany all returned defective parts or assemblies. Upon request, a defective part or assembly must be returned to Glastender, Inc., Saginaw, Michigan, with all transportation and delivery charges prepaid. Warranty repairs or replacements will be shipped FOB factory in Saginaw, Michigan. Reimbursement for applicable freight charges covers ground service only.

Glastender provides in-warranty repairs during a service company's regular working days and hours. There is no provision for payment of a premium rate during "overtime" hours. When warranty service is requested during other than normal working hours, the end user will be charged the premium portion of the overtime rate.

The warranty covers substantiated travel expenses for up to 2 hours / 100 miles round trip up to a maximum of \$225. Any additional costs due to installations that require extra work, time, or travel to gain access for service are the sole responsibility of the equipment purchaser. Any exceptions to these travel and access limitations must be pre-approved by a factory representative.

The warranty does not cover door gaskets, chemical tubing, pump squeeze tubing, and/or any equipment subjected to accidents, freight damage, alterations from the original design, improper power and/or plumbing hookups, improper chemical use, general misuse, or lack of routine required maintenance as determined by Glastender, Inc. Installation, normal control adjustments, general maintenance, correcting an installation error, or service calls that reveal the unit is functioning normally will not be reimbursed under warranty.

Condenser coils on self-contained refrigeration products must be cleaned regularly. Failure to provide adequate air flow to a refrigeration unit will void the warranty.

Glastender shall not be liable for loss of use, revenue, or profit, or for any other indirect, incidental, special, or consequential damage including, but not limited to, product spoilage or loss.

This warranty is conditioned upon Glastender receiving notice of any defect subject to this warranty within sixty (60) days of its discovery by the end user or dealer. All products are warranted only for the initial place of installation. Removal of a product automatically terminates this warranty.

### **SECOND YEAR EXTENDED PARTS & LABOR WARRANTY**

Glastender's one-year parts and labor warranty on self-contained refrigeration units can be extended to two years with the purchase of a two year parts and labor warranty. Specify part number EWR2 (\$250 net price) when ordering.

**EXPORT WARRANTY** - One year parts only.

### **EXCLUSION OF WARRANTIES**

EXCEPT AS PROVIDED ABOVE, GLASTENDER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT.

### **LIMITATION OF REMEDIES AND DAMAGES**

If Buyer makes a valid and timely claim as outlined above, Glastender's liability and Buyer's remedies under this agreement will be limited solely to labor charges authorized and/or replacement or credit, at Glastender's option, with respect to Products returned at Buyer's expense within thirty (30) days after warranty repair. GLASTENDER'S LIABILITY WILL IN NO EVENT BE GREATER IN AMOUNT THAN THE PURCHASE PRICE OF THE RETURNED PRODUCTS. GLASTENDER WILL NOT BE LIABLE UNDER ANY CIRCUMSTANCE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LABOR COSTS EXCEPT AS COVERED UNDER OUR WARRANTY, LOST PROFITS OR THE LOSS OF PERISHABLE PRODUCTS RESULTING FROM THE USE OF OR INABILITY TO USE OUR PRODUCTS OR FROM OUR PRODUCTS' INCORPORATION INTO OR BECOMING A COMPONENT OF ANY OTHER PRODUCT. NEITHER PARTY WILL HAVE ANY NEGLIGENCE OR OTHER TORT LIABILITY TO THE OTHER, OR TO ANY THIRD PARTY, ARISING FROM ANY BREACH OF THIS AGREEMENT.

### **GOVERNING LAW - JURISDICTION**

The terms and conditions of an order are to be governed and construed according to the laws of the State of Michigan, without regard to conflict of laws principles. Buyer hereby consents to the jurisdiction and venue of the courts located in Saginaw County, Michigan.

No representative, distributor, dealer, or any other person is authorized to modify this warranty. This warranty replaces all other written or verbal warranties.

NOTE: Glastender, Inc.'s policy of constant quality improvement means that prices, specifications, and policies are subject to change without notice. Questions regarding this warranty should be directed to Glastender's Warranty Administrator.

02-16-23

## **IMPORTANT!! Attention Service Companies**

Please review the important warranty information on this page. If you believe a service call should be covered by the factory, please call the factory for authorization between 8AM and 5PM EST, Monday through Friday.