

Operation Manual, Parts Directory, and Price List

Glastender®

A Family Company Manufacturing
In The USA Since 1969

LP COOLERS - **2010 AND AFTER***

LP60, LP84, LP108

*COOLER SERIAL NUMBER INFORMATION

This manual is specific to self-contained LP coolers **manufactured in 2010 and after** beginning with the serial numbers and dates listed below.

LP60R	SN 134128786F	09-28-10
LP60L	SN 134128783F	09-28-10
LP84R	SN 134129050N	09-28-10
LP84L	SN 134128771N	09-28-10
LP108R	SN 134131070N	09-28-10
LP108L	SN 134129406N	09-28-10



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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.

To see the set point - push and immediately release the SET button. The set point will be displayed.

To return to normal visualization - Push and immediately release the SET button or wait five seconds.

To change the set point - push and hold the SET button for more than two seconds. When the ° F display begins flashing, push the up arrow or down arrow buttons to adjust the set point to the desired value.

To save the new set point and return to the temperature display mode - push and release the SET button or wait ten seconds.

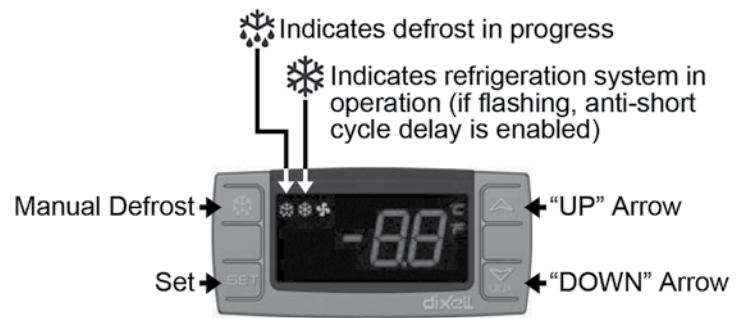
	Factory Settings		Range of Adjustment	
	Set Point	Operating Range†	Minimum Set Point	Maximum Set Point
Standard Cooler Setting	34° F	34° F to 39° F	33° F	65° F
Two Zone Cooler Settings*				
B = Beer	34° F	34° F to 39° F	33° F	65° F
White Wine	50° F	50° F to 55° F	33° F	65° F
Red Wine	60° F	60° F to 65° F	33° F	65° F

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

* To determine a Two Zone Cooler refrigeration configuration, refer to the 2 digits immediately preceding the first hyphen of the model number found on the cooler data tag. These 2 digits will always be BW (Beer/White Wine), BR (Beer/Red Wine), or WR (White Wine/Red Wine). Example: MODEL: LP60**BR**-L1-SS(LR).

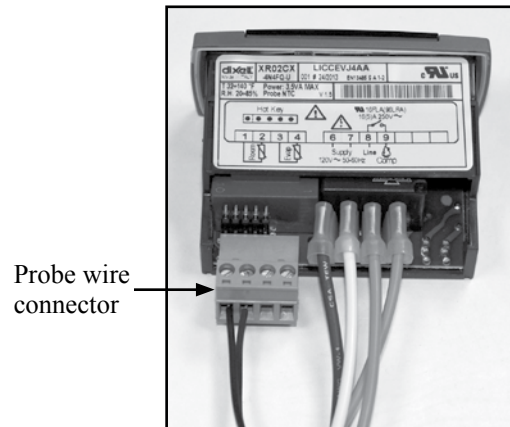
The refrigerator is programmed to automatically defrost four times daily for approximately twenty minutes. During defrost, the fan inside the cooler will remain on and the refrigeration system will turn off. To initiate defrost manually, push and hold the DEFROST button for more than two seconds.

The thermostat controller does not have an “OFF” function. To turn refrigerator off, the unit must be unplugged or power to the electrical branch circuit has to be turned off via a circuit breaker or switch.



Models BB, ND, LP, FV, MFV, UCR Self Contained Coolers using Dixell digital thermostat controller

The thermostat control probe wire connector may become disconnected when the compressor compartment cover and/or grill are removed. This will result in thermostat P1 code. While the P1 code is flashing the compressor will cycle 5 minutes on and 5 minutes off and may cause icing of the evaporator coil. Service calls to reconnect the probe wiring are not covered by factory warranty.



INSTALLATION

INTRODUCTION

This manual describes the operational features of self-contained BB60, BB84, BB108, ND52, ND72, and ND92 coolers and two zone coolers. Please review this information before attempting installation and operation.

Long term, trouble-free service will follow if good housekeeping and maintenance procedures are followed. Thank you for selecting Glastender, Inc. products.

UTILITY REQUIREMENTS AND CONNECTIONS

- **Electrical:** 115 Volt AC, 1 Phase, 60 Hz. A separate 15 Amp circuit is recommended. A 6-foot grounded cord and plug is included with self-contained models.
- **Plumbing:** Automatic condensate evaporator is included. No drain connection required.

UNCRATING AND START-UP INSTRUCTIONS

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

1. If legs or casters are included, bolt them to the base with the bolts provided.
2. Unwrap power cord from base if included.
3. Position unit and level and/or seal as required (see page 4 and 5).
4. All units intended for draft beer must be plumbed to an external drain. On self-contained models with draft beer and a factory installed finished top, the beer tower drain pan is plumbed through the cabinet and stubs out in the 3" space below the compressor compartment. Connection to an external drain must be made from that point.
5. Place shelves in desired location.
6. Plug into 115 volt AC outlet.
7. Load with bottles or cans and allow time for products to cool.
8. Your Glastender equipment is now ready for use.

OPERATION

The operating temperature range is 34°F (1°C) to 40°F (5°C).

Self-contained models include an automatic defrost system. The refrigerator will defrost four times daily for approximately 20 minutes. During the defrost, the fan inside the cooler will remain on and the refrigeration system will turn off.

CLEANING INSTRUCTIONS

Cleaning is essential to sustaining the integrity of your equipment and preventing corrosion.

ESTIMATED CLEANING TIME: 5 to 10 minutes per unit daily, 45 minutes quarterly

FREQUENCY: Daily cleaning of exterior & door gaskets. Monthly cleaning of condenser filter. Quarterly cleaning of interior, including shelves.

(Cleaning Instructions continued on page 4)

INSTALLATION

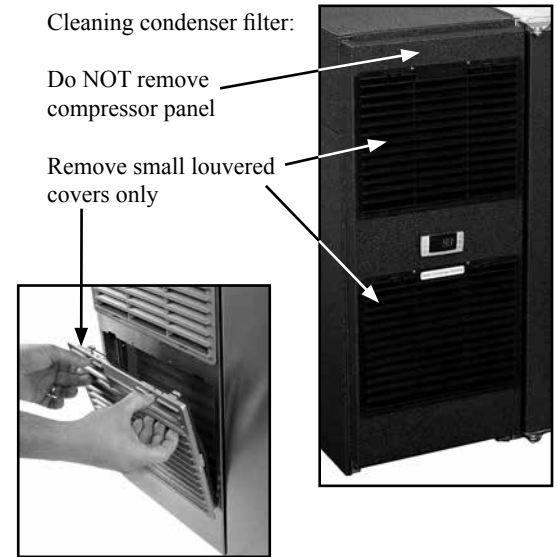
(Cleaning Instructions continued from page 3)

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. Condenser filter - remove small louvered covers only. Do NOT remove compressor cover panel as thermostat control probe wire will become disconnected and cause operation failure not covered by factory warranty (see page 2).

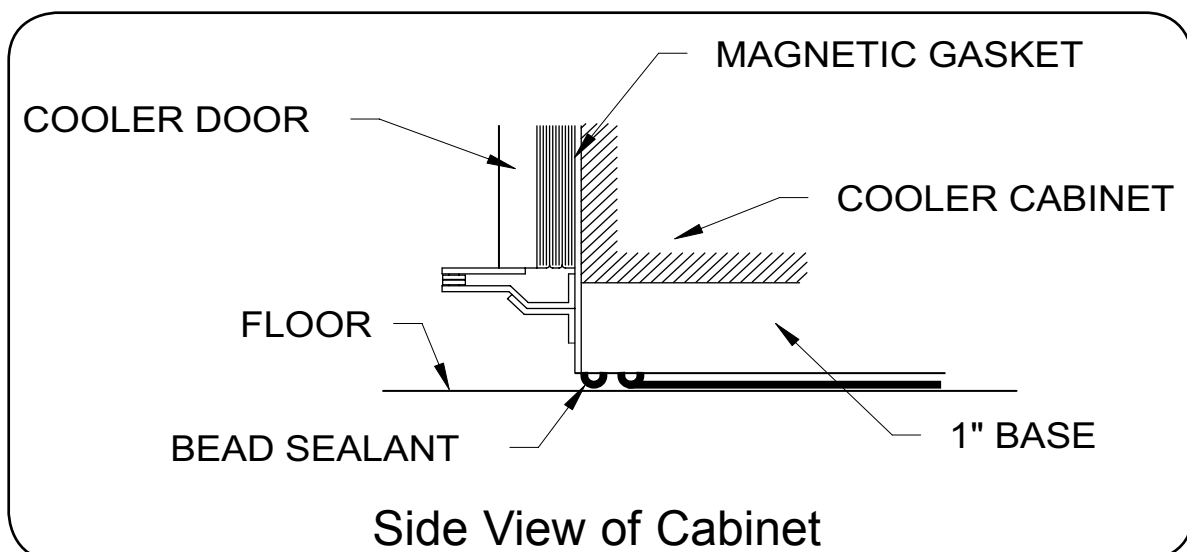
NOTES:

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. Repeated cleaning may dry up black-vinyl-clad steel (exterior) surfaces of the cooler. Armor All® or similar product can bring back the shine. Apply the product to a cloth and then rub into the surface, rather than spraying it directly onto the black-vinyl-clad surface.
5. The cooler 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.



SEALING VERTICAL DOOR COOLER TO FLOOR

To comply with NSF & health codes, the cooler base must be sealed to the floor using NSF listed sealant. Place a bead of sealant along outer edges of the base and remove excess with disposable towel. The floor sealing procedure does not apply to models that include legs or casters.

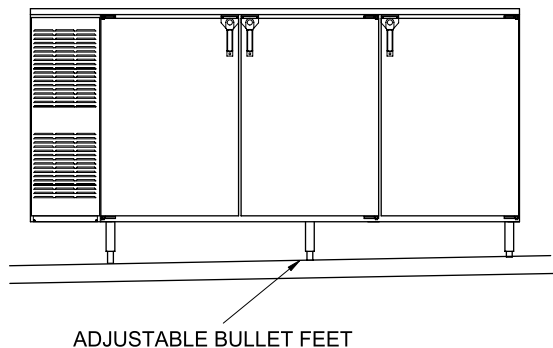


INSTALLATION

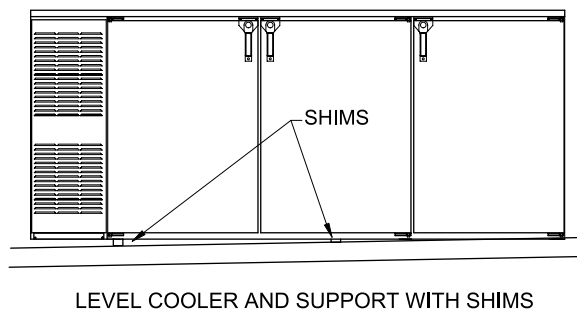
ATTENTION INSTALLER: WARNING!!

Failure to level this cooler WILL VOID THE FACTORY WARRANTY. Doors will not close properly causing damage to hinges, handles, and/or gaskets which will adversely affect the refrigeration systems.

COOLER WITH 6" LEGS



COOLER WITHOUT LEGS



COOLER INSTALLATION CHECKLIST

- Is the unit evenly and solidly supported, either upon legs, or flat on the base; check for high spots?
- If the unit was designed for legs, are they attached?
- Is the unit level at the base, from end to end?
- Do the doors open and close freely, without touching any other part of the unit in travel?
- Are there open holes to the outside of the cabinet which are not plugged or insulated?
- Are there obstructions of any kind to air flow into or out of the condensing unit?
- Is product tubing or are other lines installed in such a manner to not allow shelf access?

ELECTRICAL AND REFRIGERATION SPECIFICATIONS

LP60, LP84, LP108 MODELS

ELECTRICAL

120V, 1 phase, 60 Hz, 6.5 full load amps, 1/4 HP

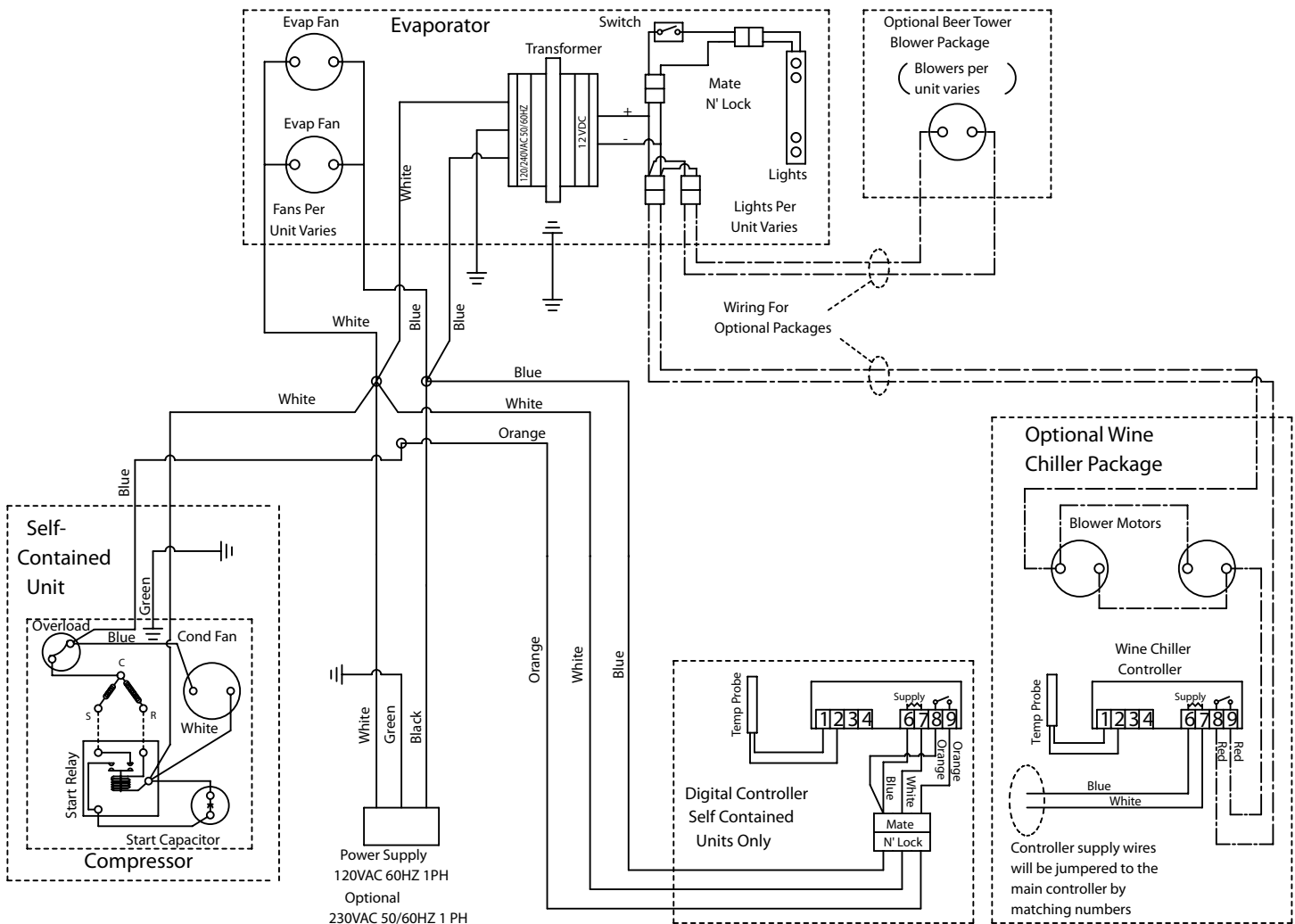
REFRIGERANT

TYPE R134a, CHARGE 16.0 oz.

PRESSURE P.S.I.G

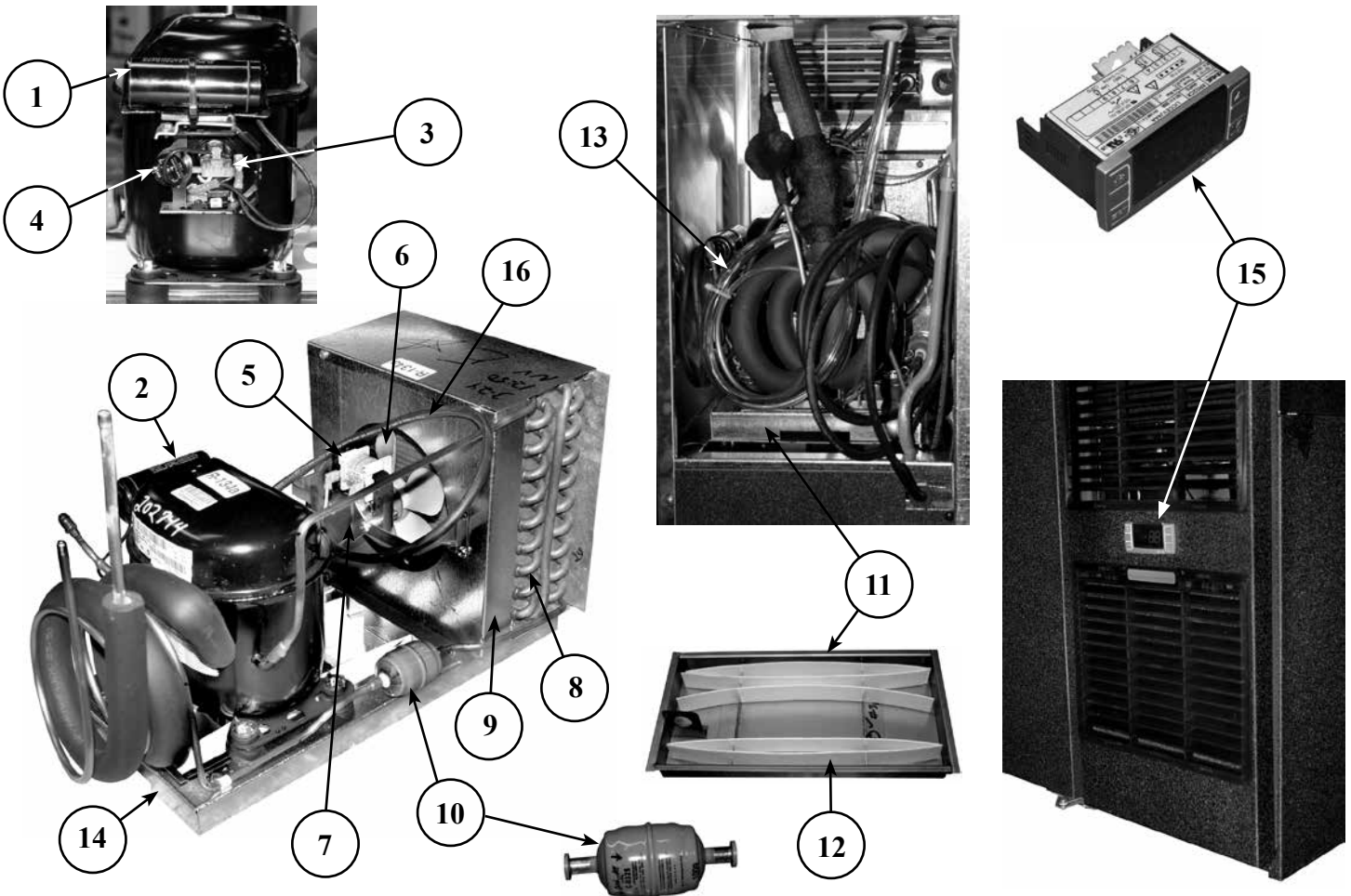
HIGH 350, Low 88

WIRING DIAGRAM



COMPRESSOR AND CONDENSER RELATED PARTS

PART NO.	DESCRIPTION	PRICE
1. 11000084	1/4 HP Tecumseh compressor, R134a	\$390.00
2. 06001382	Start capacitor for 1/4 HP Tecumseh R134a compressor	25.00
3. 04000243	Relay for 1/4 HP Tecumseh R134a compressor	18.00
4. 06001303	Overload protector for 1/4 HP Tecumseh R134a compressor	25.00
5. 06001445	Condenser fan motor	45.00
6. 06001395	Fan blade, 5 blade, white	5.00
7. 06004180	Bracket, fan, evaporator	14.00
8. 06001393	Condenser coil	230.00
9. 06006088	Fan shroud, condenser	20.00
10. 06001385	Filter dryer, 1/4" x 1/4"	20.00
11. 06000846	Drain pan, condensing unit, endwall cooler	9.00
12. 07000234	Wicking material	24.00
13. 06001350	Tubing, drain, clear plastic, per foot, 3/4" ID	3.50
14. 06000845	Base, condensing unit	22.00
15. 06007476	Thermostat, switch, digital temperature, LED display	165.00
06003951	Probe, PVC 5' cable, for use with digital temperature switch 06003950	30.00
16. 06001313	Condensing unit power cord	20.00
06006096	Expansion valve, 1/8 ton, 134a, cooler/slide top	135.00



EVAPORATORS AND RELATED PARTS

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
06001383	Evaporator fan guard	12.00
06004394	Evaporator fan motor	36.00
09000298	Fan blade, 5 blade, black	5.00
06004180	Bracket, fan evaporator	14.00
06003950	Thermostat, switch, digital temp, LED display	165.00
06006108	LED light strip	25.00
06009684	Power supply kit, LED light, end wall cooler	60.00
06001412	Switch	5.00
06003951	Digital temperature probe	30.00
06007548	Line cover, left, LP60	45.00
06007549	Line cover, right, LP60	45.00
06007550	Line cover, left, LP84	48.00
06007551	Line cover, right, LP84	48.00
06007552	Line cover, left, LP108	62.00
06007553	Line cover, right, LP108	62.00

SHELVING, RACKS AND RELATED PARTS

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
06004389	Shelf (fits end doors)	77.00
06004396	Shelf for middle door	77.00
06006013	Shelf divider	18.00
06001557	Pilaster	3.00
06001574	Thumbscrew, stainless steel, for pilaster	2.00
06001565	Clip, for pilaster, stainless steel	2.00
06001579	ABS Scuff Channel with mounting screws	26.00
06006264	Wine rack shelf for BB, stainless steel with slots for 7 bottles	126.00

DOORS AND RELATED PARTS

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
06001462	Door handle, stainless	60.00
06001653	Door handle, brass	110.00
06001536	Door lock, stainless	36.00
06004009	Key, #806, for stainless cooler door lock (06001536)	4.00
06001535	Door lock, brass	43.00
06004010	Key, #606, for brass cooler door lock (06001535)	4.00
06001677	Plug for door handle, stainless	1.00
06001678	Plug for door handle, brass	1.00
00000200	Screws for top of handle, stainless (set of 2), 10/32 x 1" PFH Machine Screw	1.00
00000016	Screws for top of handle, brass (set of 2), 10/32 x 5/8" PFH Machine Screw	1.00
00000046	Screw for bottom of handle, stainless, and screws for old style brackets	.50
00000043	Screw for bottom of handle, black	.50
06006207	Hinge set and brackets, 180° swing, left (complete with screws)	35.00
06006208	Hinge set and brackets, 180° swing, right (complete with screws)	35.00
07000356	Lock bracket	5.00
06006596	Hinge set & brackets for wood doors, 180° swing, left (complete with screws)	45.00
06006597	Hinge set & brackets for wood doors, 180° swing, right (complete with screws)	45.00
06006269	Lock bracket for raised wood panel doors	10.00
06006106	Gasket, door, low profile cooler push in style, grey	45.00
00000067	Screw for door hinges (4 required)	.50 ea.
00000041	Bolts for brackets (6 required)	.50 ea.
06001485	Plastic washer for hinge	1.00
06001569	Bushing for hinge (gray)	1.00
06007608	LP laminated door trim rail kit	35.00

REPLACEMENT DOORS FOR LP60, LP84, AND LP108 MODELS

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
06007595	Black vinyl clad door, LP	308.00
06007597	Unlaminated door, LP	308.00
06006319	Laminated door, LP	428.00
06007593	Stainless door, LP	358.00
06007594	Stainless Steel Glass Door, LP	648.00
06007596	Black Vinyl Clad Glass Door, LP	598.00
06006320	Laminated Glass Door, LP	718.00

REFRIGERATION COMPARTMENT COVERS

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
06001360	Grill insert, refrigeration compartment cover, polypropylene, black	25.00
06001361	Grill insert, refrigeration compartment cover, polypropylene, gray	25.00
06001546	Filter, refrigeration compartment grill insert	7.00
06007609	Laminated compressor compartment trim rail kit, LP	35.00

220 VOLT ELECTRICAL PARTS

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
06006103	Compressor, 1/4 HP, 134a, 220VAC, 60Hz, AEA4430YXD	\$665.00
06006175	Compressor relay	15.00
06006176	Compressor overload	17.00
06006174	Compressor capacitor	15.00
06006101	Motor, evaporator fan, 220 volt, 1000 rpm (SA 145-232)	30.00
06001448	Motor, fan, 220 volt 1300RPM	57.00
06004232	Digital controller (220V version 06004232 - TS2-020)	200.00

ELECTRICAL COMPONENTS

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
06006121	Replacement powercord assembly, includes (06001572 06009527)	\$40.00

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 15 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 United States and Canada only.

Remote refrigeration models and beer line chillers include a one-year parts warranty only. There is no labor warranty on these products.

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 \$150. 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, excluding beer line chillers, can be extended to two years with the purchase of a two year parts and labor warranty. Specify part number EWR2 (\$150 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.

04-19-17

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.

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:

- Glasswashers - Class 125
- All Underbar Equipment (including Bar Die) – Class 150
- Portable Bars - Class 150
- Remote refrigerators (i.e., no compressor) or dry storage back bar equipment - Class 125
- Self-contained refrigeration equipment - Class 150
- Ice Display Units (IDU and GDU) - Class 85
- Lighted Liquor Displays - Class 85
- Beer line chillers and beer towers (beverage dispensing equipment) - Class 92.5
- Bottle Disintegration System - Class 150
- Ice Cream Freezers - Class 77.5

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.

07/21/16