



Service & Installation Instructions

Keep this booklet for Future Reference

- **BLF SERIES**
- **BLF-CR SERIES**
- **BLF-RB SERIES**
- **KBC SERIES**

For Additional Copies Please Contact:

Hillphoenix Barker Specialty Products
703 Franklin Street
P.O. Box 478
Keosauqua, Iowa 52565
Tel: 319/ 293-3777
Fax: 319/ 293-3776

Or Visit:
www.hillphoenix.com

Table of Contents

General Information

Case Descriptions	-3
Shipping Information	-3
Case Sections	
BLF Service Series	-4
BLF Self-Service Series	-4
BLF Cake Deco Series	-5
BLF-RB Series	-5
KBC Service Series	-6
KBC Self-Service Series	-6
Mechanical View	-6

Installation Instructions

Location	-7
Crate Removal	-7
Compressor	-7
Drain, Electrical and Refrigeration	
Connections for remote Cases	-7
Cases Exterior Loading	-8
Leveling	-8
Joining Lineup	-8
Doors	-8
Glass Adjustment	-8
Shelving	-9
Installation Checklist	-9
Cart Bumper Installation	-10

Refrigeration Information

Case Operation	-11
Typical Component Settings	-11
Refrigeration Loads	-11
Electronic Thermostat	-11

Electrical Information

Amperage Information	-13
Wiring Color Code	-13
Timers	-13
Ballast Information	-14

Maintenance Information

Cleaning	-15
Light Bulb Replacement	-15
Load Limits	-15

Service

Evaporator Coil Layout	-16
Compressor Layout Service Cases	-16
Preventative Maintenance	-17
Trouble Shooting Guide	-17
Service Department	-18
Parts	-18

Warranty -19

IMPORTANT!!
KEEP FOR FUTURE REFERENCE

General Information

This booklet contains information on:

BLF SERVICE SERIES

BLF-D	Non-Refrigerated, 49" Service Bakery Case with Front Lifting Glass
BLF-SC	Self-Contained, 49" Service Bakery Case with Front Lifting Glass
BLF-R	Remote, 49" Service Bakery Case with Front Lifting Glass

BLF SELF SERVICE SERIES

BLF-SD	Non-Refrigerated, 49" Self-Service Bakery Case
BLF-SS	Self-Contained, 49" Self-Service Bakery Case
BLF-SR	Remote, 49" Self-Service Bakery Case
BLF-BB	Non-Refrigerated, 49" Self-Service Bakery Case
BLF-RB	Non-Refrigerated, 49" Self-Service Bakery Case
BLF-CD	Non-Refrigerated, 49" Self-Service Bakery Case
BLF-CS	Self-Contained, 49" Self-Service Bakery Case
BLF-CR	Remote, 49" Self-Service Bakery Case

KBC SERVICE SERIES

KBC-D	Non-Refrigerated, 54 ¾" Service Bakery Case
KBC-S	Self-Contained, Refrigerated 54 ¾" Service Bakery Case
KBC-R	Remote, Refrigerated 54 ¾" Service Bakery Case

KBC SELF-SERVICE SERIES

KBC-SD	Non-Refrigerated, 54 ¾" Self-Service Bakery Case
KBC-SS	Self-Contained, Refrigerated 54 ¾" Self-Service Bakery Case
KBC-SR	Remote, Refrigerated 54 ¾" Self-Service Bakery Case

The BLF & KBC Series has been approved for the following standards:



Shipping Information

IMPORTANT!

FOR YOUR PROTECTION PLEASE READ AND OBSERVE THE FOLLOWING INSTRUCTIONS:

Transportation companies assume all liability from the time a shipment is received by them until the time it is delivered to the consumer. Our liability ceases at the time of shipment.

All shipments leaving our plant have been carefully inspected. If a shipment arrives with the crating or packaging damaged, have the carrier note the condition on the receipt. Check as soon as possible for concealed damage.

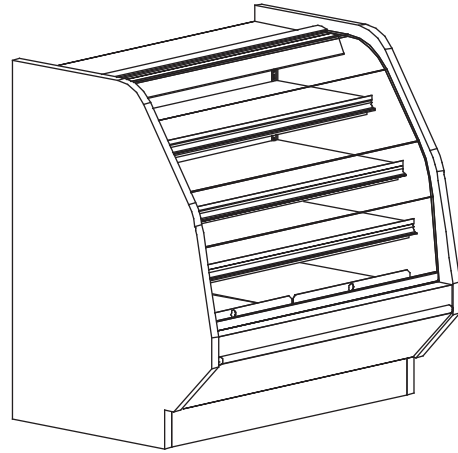
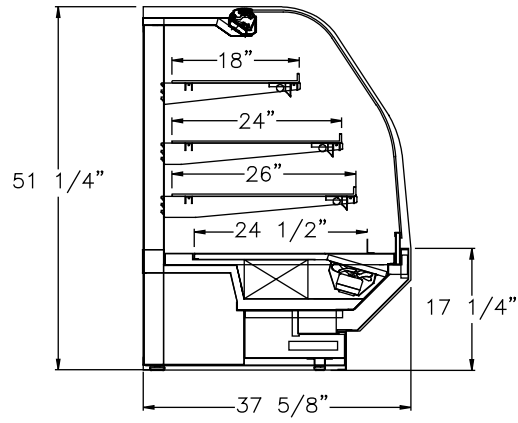
If it is found that the shipment has been damaged in transit, please **DO NOT** return it to us, but notify and file a claim with the carrier at once. **FAILURE TO FOLLOW THIS PROCEDURE WILL RESULT IN REFUSAL BY THE CARRIER TO HONOR ANY CLAIMS WITH A CONSEQUENT LOSS TO THE CONSUMER.**

If a UPS shipment has been damaged, retain the damaged material and the carton and notify us at once. WE will file a claim.

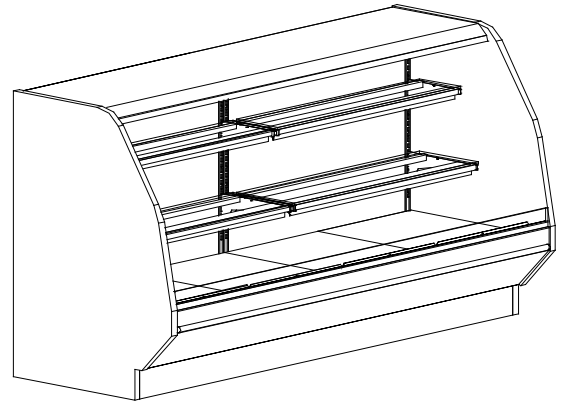
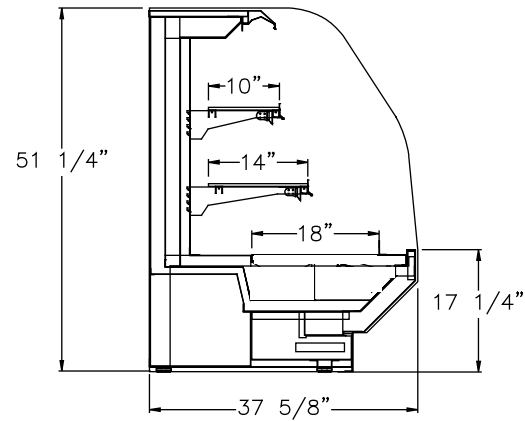
GOODS SHOULD NOT BE RETURNED FOR CREDIT UNLESS AUTHORIZED BY OUR SALES DEPARTMENT.

Case Drawings

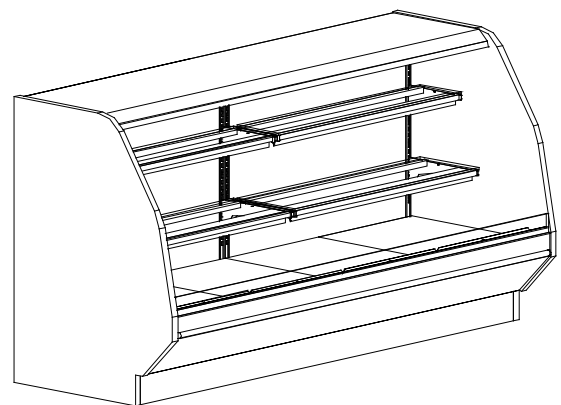
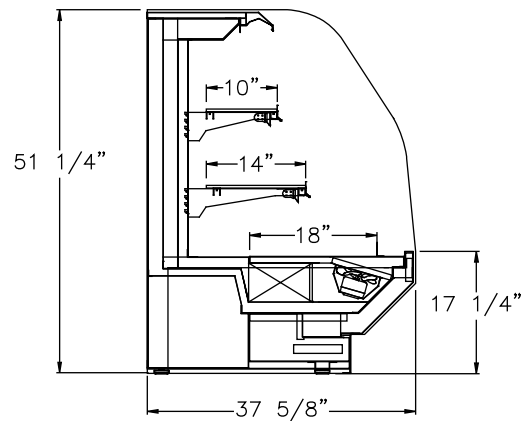
BLF Series



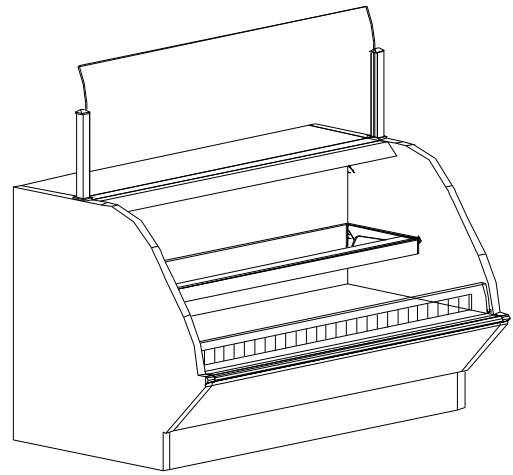
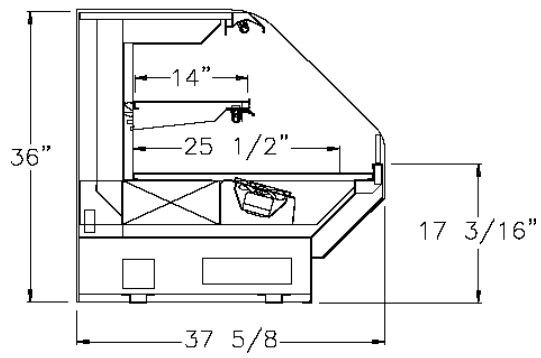
BLF-SD Series



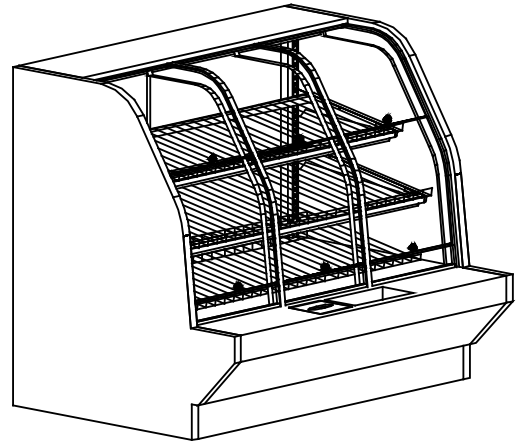
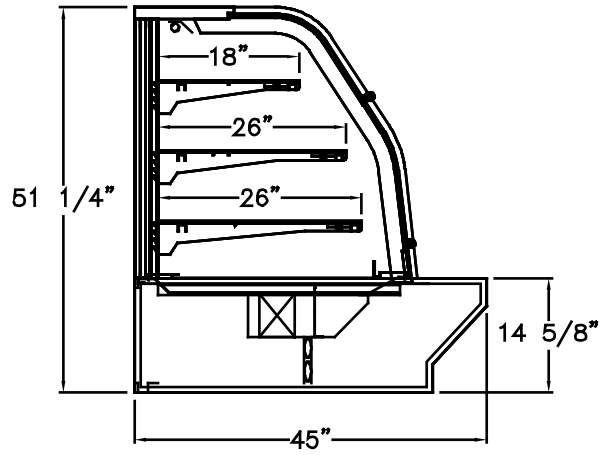
BLF-SS Mechanical



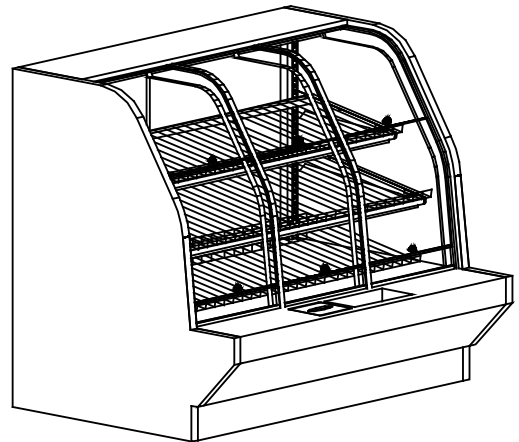
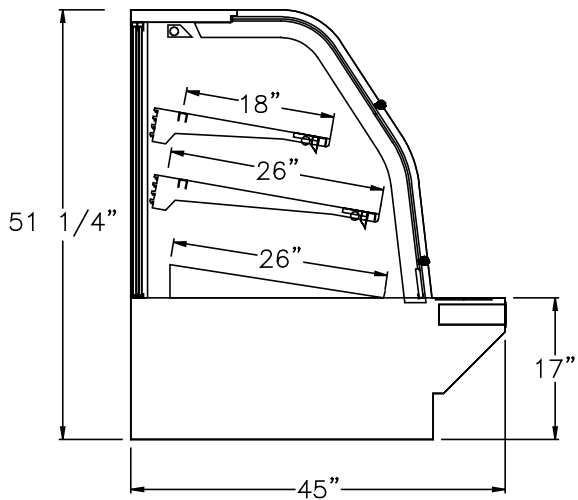
BLF-CR Series



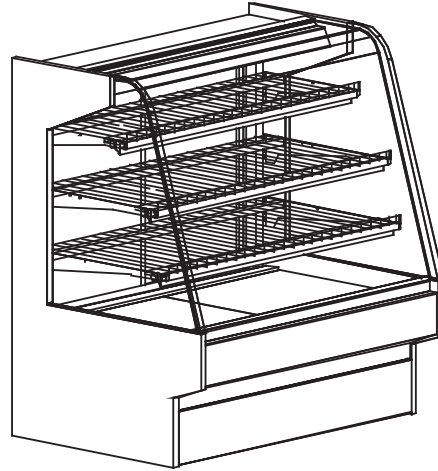
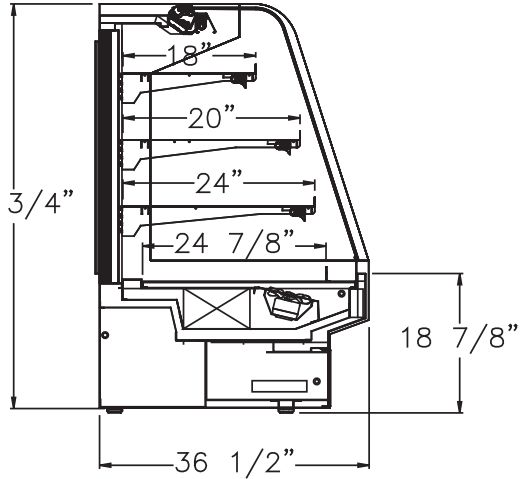
BLF-RB Series



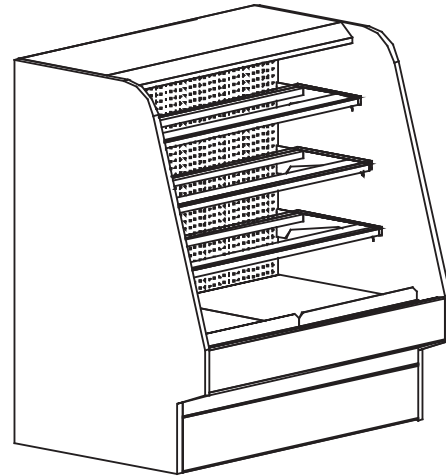
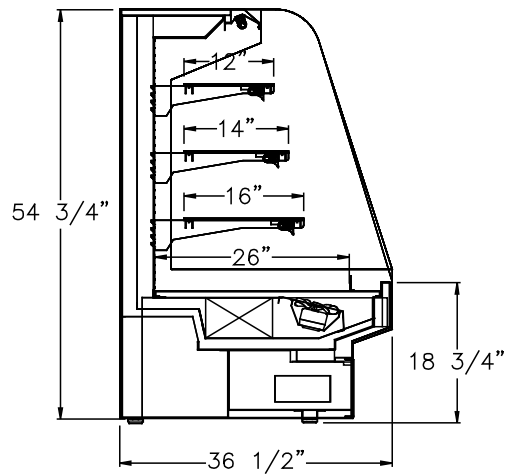
BLF-RB Dry Series



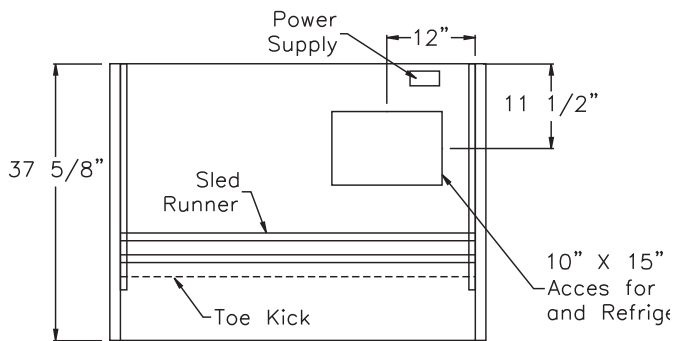
KBC Series



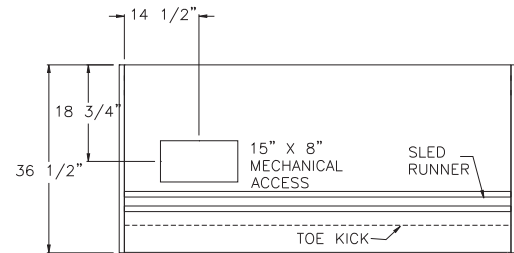
KBC-SS Series



BLF Mechanical



KBC Mechanical



Installation Instructions

Location

This refrigerated display case has been designed for displaying and the storage of perishable food product. It is engineered for air-conditioned stores with a maximum ambient of 75° F and 50% relative humidity.

When selecting the location for placement of this case, avoid the following conditions:

Excessive air movement

- Doors
- Air-conditioned vents
- Other air sources

Excessive heat

- Windows
- Sun
- Flood lamps 8 feet or less from the product
- Other heat sources

NOTE: A 12" clearance is necessary for condenser coil to run correctly. Do not block.

Crate Removal

Move case as close as possible to its location. Loosen the plastic dust cover from the pallet, but leave cover over the case to protect it while removing the case from the pallet. Carefully lift case up and off pallet being careful that leveling pads clear the pallet. Slide pallet from under case. Shipping blocks are attached to pallet and do not need to be removed. Note: Locate the horizontal supports underneath of unit before removing from pallet, damage to the finished metal will occur if correct lift points are not identified prior to removal.



Compressor

All Self-Contained cases are equipped with a shipping block under the compressor. This block must be removed upon installation. Failure to remove the block will result in excessive noise, refrigeration leaks and will void warranty protection. Loosen all four nuts on the compressor hold down screws. Lift or pry the compressor up and remove the shipping block. Do not retighten screws, as the compressor should be left free to float on the spring mounts.

Drain, Electrical and Refrigeration Connections on Remote Cases

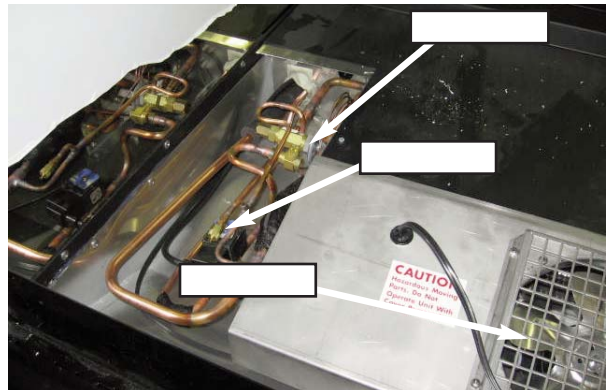
NOTE: Barker remote units are shipped with a dry nitrogen charge of approximately 10 lbs. pressure in the evaporator coil. During installation if nitrogen charge is not present, leak check accordingly

1. See the mechanical views on Page 5 for drain access locations. Connect the PVC drains (or the copper drains) to existing floor drains. Traps are shipped at the factory within the case. **ALL DRAINS MUST BE TRAPPED.** Provide as much downhill slope as possible and avoid long runs of drain lines. Do not install condensate drains in contact with non-insulated suction lines in order to prevent condensate from freezing.

2. Electrical connections are made through the power supply box of each case, which can be accessed by removing the back panel. Voltage requirements and component amperage can be found in the electrical section of this manual, but always check the data tag located on the exterior of the case. **CASE MUST BE GROUNDED.**

3. Refrigeration connections are made through the refrigeration access cut out (*see mechanical views*). See refrigeration information section of this manual for caseloads and recommended settings. Refrigeration lines may be headed together for all cases in a lineup, if desired, by lines through the access area under the case. Refrigeration lines need to be connected in the lower refrigeration compartment or through the toe kick area. Do not run lines through the evaporator coil area shown to the right. **ALL LINES MUST BE CORRECTLY SIZED.**

For proper refrigeration performance, **PRODUCT MUST NOT BE PLACED IN A POSITION WHERE IT MAY AFFECT THE AIR CURTAIN.** Air discharge and return air vents must remain unobstructed.



Case Exterior Loading

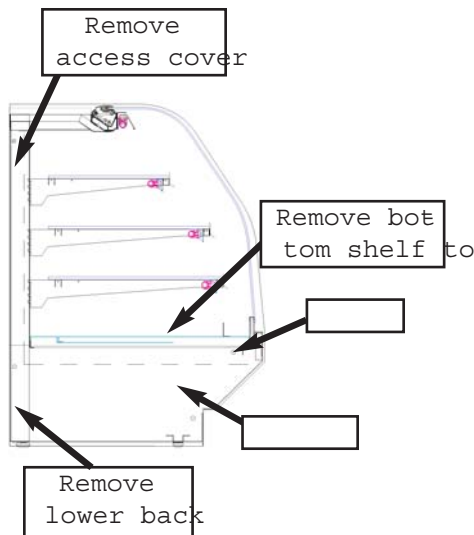
These cases are not designed for excessive external weight. **DO NOT WALK ON TOP OF THE CASE.** Walking on top of cases could cause personal injury and damage to the case.

Leveling

To ensure proper operation of the refrigeration system and drainage of the condensate, **THE CASE MUST BE LEVEL.** Use a carpenter level-to-level front to back and side to side. Use the adjustable leveling legs to level case.

Joining Lineups

1. Begin all lineups leveling from the highest point of the store floor.
2. To access bolt-holes, remove outside back lower panel, bottom deck, and top bolt cover located in the canopy of the case.
3. Apply foam tape to facing ends of lineup. Level second case to first case and seal with a good grade silicone on all edges of each case.
4. Line up bottom bolt holes in lower front and back of case (bolts are shipped in the case). Slide cases together. Insert lower bolts and place nuts on bolts. Tighten.
THE FRONT OF THE CASES MUST BE FLUSH!
5. Remove the top bolt cover, located in the canopy of the case. Ensure that case is properly leveled so that the bolt holes align over the bolt holes in the adjoining case. Shim as necessary.
6. Tighten bolt in case top and replace bolt cover. Ensure all bolts are fastened tightly.



Doors

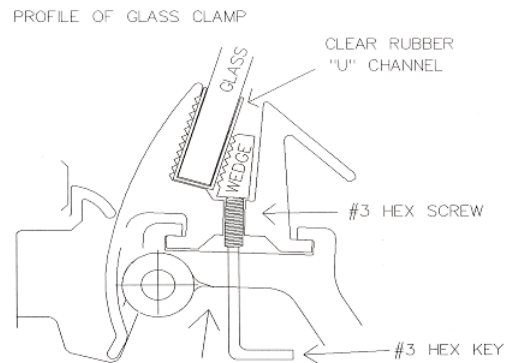
Rear doors are shipped inside the case. Push the top of the doors all the way into top door tracks. Push bottom of door over bottom door tracks and lower over tracks. Doors are labeled inside and outside for easy installation.

Glass Adjustment

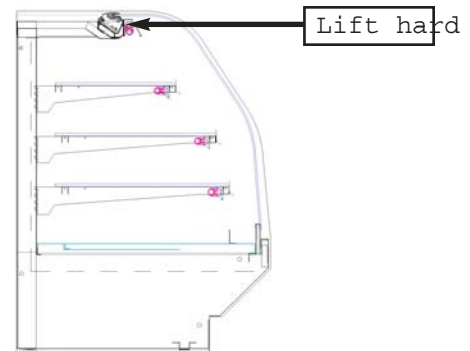
The front lift glass on this case is installed at the factory with the case perfectly level. If adjustments need to be made to align the glass first check to insure the case was properly leveled during installation.

NOTE: THIS IS A 2-PERSON OPERATION. ONE PERSON MUST HOLD THE GLASS AT ALL TIMES.

1. Lift the glass to its highest position as shown in drawing to the right.
2. Loosen allen screws. See profile left.
3. Slide glass right or left until the glass is even and is recessed into the aluminum extrusion.
4. Tighten the right allen screw while holding the left side of the glass firmly. Be careful to keep the glass level.
5. Tighten the remaining allen screws.
6. Lower glass into position. Repeat as necessary until glass is completely level.



AS THE HEX SCREW IS TURNED, IT FORCES THE SOLID ALUMINUM WEDGE PIECE UP AGAINST THE CLEAR RUBBER "U" CHANNEL AND HOLDS THE GLASS FIRMLY IN PLACE.



Shelving

Shelving is shipped separately.

1. Remove brackets, bars, lights, and/or tag molding from packaging.
2. Insert brackets into Lozier channel at desired height (*Photo 1*). Insert by angling up and then down. Begin with bottom shelf brackets. Insert middle and then top brackets.
3. Place support bars over screws. (*Photo 2*) There may be 1 to 3 bars per shelf depending on the width of the shelf. Fit from back of shelf to front. Note: If fitting for wire shelves, some bars will have clips on the center of the bar to hold the wire shelves in place. For shelves less than 18" wide, the clip should be placed in the back position. For shelving more than 18" wide, the clip should be positioned in the middle. All clips should face the back of the case.
4. Place tag molding on the front of the brackets in the same manner as the bars.
5. Under-shelf lights are not interchangeable. Determine bottom, middle and top light by lining up lights by cord length. Place longest cord length on bottom shelf, middle length on middle shelf and shortest cord on top shelf. Place light over brackets and behind the tag molding as shown (*Photo 3*).
6. Plug in lights. (*Photo 4*) Plug must be fully seated for lights to work. If one plug is loose, all lights will fail. Place cord in clip on bracket.
7. Place glass shelving on shelf brackets and bars. If wire shelves are used, place shelf over clip to hold in place.

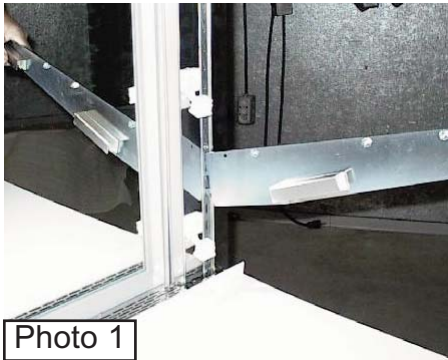


Photo 1



Photo 2

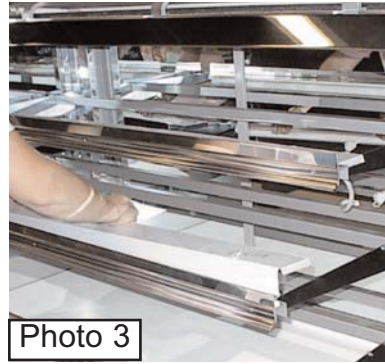


Photo 3

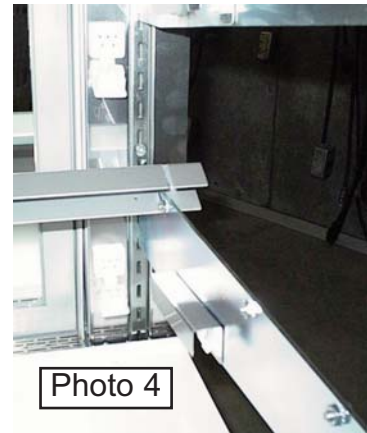


Photo 4

Installation Checklist

Before supplying electrical power and starting case check the following:

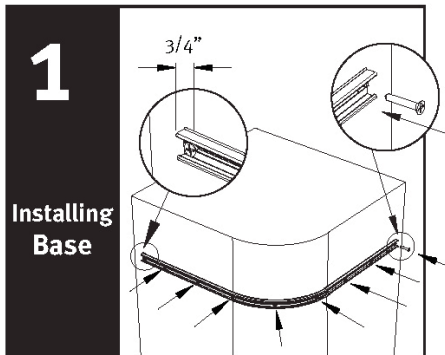
1. Compressor Area (For Self-contained cases).
Remove shipping block on units with semi-hermetic compressors.
Check location of controls.
2. Evaporator Area.
Check to ensure evaporator fan pressure plates are secure and in proper position
NOTE: Hinged portion of pressure plates are secured for shipping with mounting screws. Screws do not have to be removed for case operation but must be removed to use hinge.
3. Lighting System
Check to ensure male plugs are completely inserted in female sockets and that all lamps are securely seated in light fixture.
4. Case Leveling
Visually check case. If lift glass is out of adjustment or case looks out of square, use a carpenter's level and shim as needed.

After supplying power to the case and starting unit:

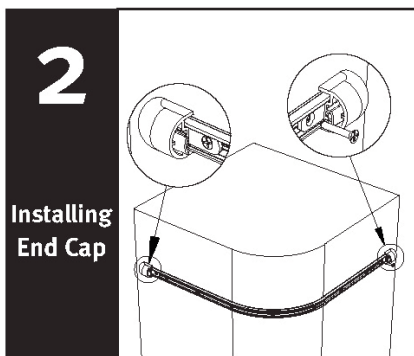
1. Check to ensure all fans are operational.
2. Check all lights.
3. Check case temperature and adjust thermostat as needed. See refrigeration section of this manual for case settings.

Cart Bumper Installation

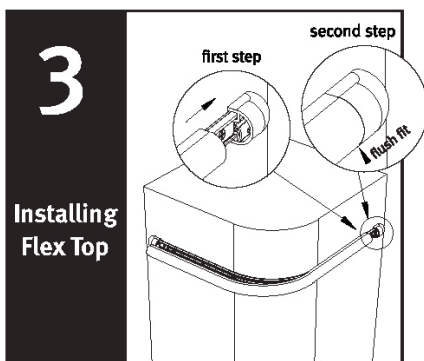
Note: If merchandiser is ordered with cart bumper, step 1 & 2 are completed at the factory.



Cut plastic base to desired length of fixture. When using end caps be sure to cut base $3/4$ " short of fixture edge. When using corners, be sure to cut base so that it is flush with fixture edge. secure base to fixture with screws every 4" on center. Make sure to put a screw $3/8$ " away from the cut end of base.

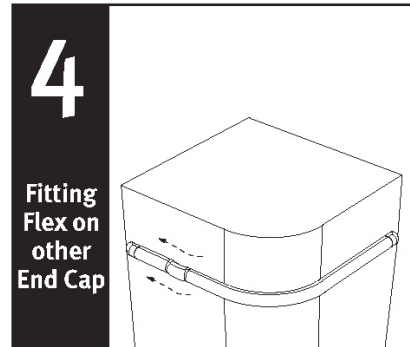


SNAP end caps or corners onto the base extrusion. Secure with #8 flat head phillips screws.

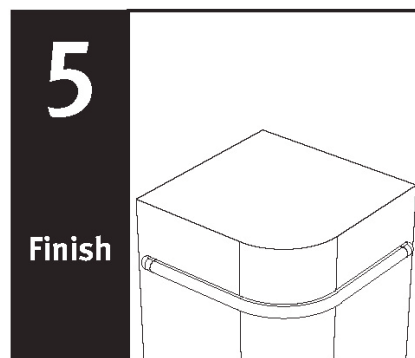


When installing flexible bumper top, the cut ends need to be as straight as possible. To mount on a curved or flat surface, start at one end and attach bumper to base by hooking bumper top onto track,

then snap bottom portion into place and slide bumper against the end cap for a flush fit. Continue to hook bumper onto base track with your hand or using a rubber mallet until you reach other end cap. NOTE: Cover mallet with a cloth to prevent marring the bumper finish.



Mark and cut tail end of flexible bumper at least $1/8$ " longer then beyond the end cap position. NOTE: Make sure the end cut is straight and square for proper fit. Slightly retract the bumper in order to feed cut end into the end cap as you finish hooking the top and bottom edges of the bumper onto the base track. You should feel and hear the bumper snap into place for a snug fit.



Finally, check for proper fit and attachment along the entire length of bumper which is either on the wall or a fixture. Make sure you have a smooth and flush fit against the end caps. NOTE: Clean any dust or debris with a cloth and non abrasive cleaner.

Helpful Hints:

- Set the uncoiled flexible vinyl at room temperature 24 hours prior to installation.
- Over cut the flexible vinyl and compression fit. Adding the additional material will compensate for stretching which occurs during installation.
- Use a clean, dry cloth and any mild household cleaner or soap solution; spray and wipe clean

Refrigeration Information

Case Operation

Refrigeration

The refrigeration in this case is thermostatically controlled. The case refrigerates until the cut out point on the thermostat is reached. The thermostat opens, cutting power to the liquid line solenoid.

The compressor continues to run, the system pumps down causing the pressure switch to open, cutting power to the compressor.

NOTE: Some cases may be ordered with EPR valves to control case temperature.

Defrost

These cases have two different types of defrost; hot gas and off cycle.

The hot gas defrost system is time initiated; temperature and time terminated. The defrost timer energizes the defrost solenoid and de-energizes the liquid line solenoid. When the temperature in the case reaches 40°, the defrost terminator thermostat de-energizes the hot gas solenoid. The system pumps down and the pressure switch cuts power to the compressor. The unit stays in off cycle defrost until the defrost timer re-energizes the liquid solenoid. NOTE: The evaporator fan runs continuously. With the off cycle defrost system, the timer cuts the power to the liquid solenoid causing the compressor to pump down to the cut out point on the pressure switch. The unit stays in off cycle defrost until the defrost timer re-energizes the liquid solenoid.

NOTE: The evaporator fan runs continuously.

Typical Component Settings

1. Thermostat cut out: 26°-28°, 2° differential
2. Defrost Termination Thermostat:

Bakery	40°
Produce	32°-33°
3. Evap Temperature: 18°
4. CRO valve:

404A	75°
134A	N/A
5. TXV: 8-10° Superheat
6. Pressure switch:

404A	Low - 20 lb/ 55 lb	High - 350 lb
134A	Low - 7 lb/ 25 lb	High - 225 lb

NOTE: The above settings are approximate and will vary slightly with product load, lighting, store ambient conditions, etc. Evaporator fans run constantly.

Refrigeration Loads

BLF-S and KBC-S Service Series

BTU: 650 per linear foot
Evap. Temperature: +20°
Off Cycle Defrost 20"/4 hours

BLF-SS and KBC-SS Self-Service Series

BTU: 1150 per linear foot
Evap. Temperature: +20°
Off Cycle Defrost: 20"/4 hours

BLF-CS

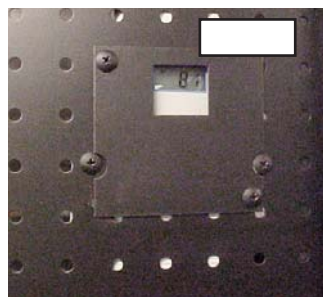
BTU: 800 per linear foot (Wedge 3200)
Evap. Temperature: +20°
Off Cycle Defrost: 20"/4 hours

NOTE: Remote Cases Defrost Cycle - 20"/ 4 HR

Electronic Thermostat

The electronic thermostat is located in the inside back of a self-service case (*see photo 1*) and in the rear lower refrigeration area in a service case (*see photo 2*). The thermostat is equipped with a liquid crystal display providing a constant readout of the sensed temperature.

NOTE: The LCD display will be blank during defrost. A touch keypad that allows the users to select the set point temperature, differential and the heating/cooling modes.



Programming Steps for the ETC, Electronic Temperature Control

All thermostats are pre-set and cycle checked at the factory.

- STEP 1: Press the set key once to access the Fahrenheit/Celsius mode. The display will display either **F** degrees Fahrenheit or **C** for degrees Celsius. Press the **up** arrow or the **down** arrow so the display indicates **F**.
- STEP 2: Press the set key again to gain access to the set-point. The LCD will display the current Set-point and the **S1** will be blinking. Press the **up** arrow to increase or the **down** arrow to decrease the temperature setting.
- STEP 3: Press the set key again to gain access to the differential. The LCD will display the current differential and the **DIF 1** will be blinking. This should be set at 2°F.
- STEP 4: Press the set key again to gain access to the cooling or heating mode. The LCD will display the current mode. Press either the **up** arrow or the **down** arrow to set the display in the **C1**, cooling mode.
- STEP 5: Press the set key once more and the programming is complete. Set the lock to keep the set point.

STEP	DISPLAY INDICATION	DESCRIPTION
1.	F or C	Fahrenheit or Celsius Scale
2.	S1 (blinking)	Set-point Temperature
3.	DIF (blinking)	Differential Temperature
4.	C1/H1	Cooling or Heating Mode

Electrical Information

Remote Case Data - Electrical 120 Volt				
Model	Evap Fans	Cornice Lts	Shelf Lts	Anti-Sweat Heater

SERVICE BLF SERIES				
BLF-48	0.86	NA	0.92	NA
BLF-59	0.86	NA	0.92	NA
BLF-77	0.86	NA	1.52	NA
BLF-96	1.29	NA	1.84	NA
BLF-113	1.72	NA	1.84	NA
BLF-120	1.72	NA	2.76	NA
BLF-144	1.72	NA	2.76	NA

SELF-SERVICE BLF SERIES - FULL HEIGHT AND COUNTER HEIGHT

BLF-48 SS	0.86	0.49	0.49	NA
BLF-59 SS	0.86	0.49	0.49	NA
BLF-77 SS	0.86	0.49	0.76	NA
BLF-96 SS	1.29	0.49	0.92	NA
BLF-120 SS	1.29	0.76	1.52	NA
BLF-144 SS	1.72	0.76	1.52	NA
BLF-EW SS	0.43	NA	0.49	NA
BLF-IW SS	0.43	NA	0.49	NA

BLF CAKE DECO SERIES

BLF-48 CR	0.43	NA	0.49	0.17
BLF-59 CR	0.43	NA	0.49	0.31
BLF-77 CR	0.86	NA	0.75	0.31
BLF-96 CR	0.86	NA	0.95	0.42
BLF-120 CR	1.72	NA	1.5	0.52
BLF-144 CR	1.72	NA	1.5	0.63
BLF-CR EW	1.72	NA	0.49	0.17

SERVICE KBC SERIES

KBC-48	0.86	NA	0.92	NA
KBC-59	0.86	NA	0.92	NA
KBC-77	0.86	NA	1.52	NA
KBC-96	1.29	NA	1.84	NA
KBC-113	1.72	NA	1.84	NA

SELF-SERVICE KBC SERIES

KBC-48 SS	0.86	0.49	0.76	NA
KBC-59 SS	0.86	0.49	0.49	NA
KBC-77 SS	0.86	0.49	0.49	NA
KBC-96 SS	1.29	0.49	0.92	NA
KBC-113 SS	1.29	0.76	0.98	NA

Additional Loads for Self-Contained Units						
HP	Voltage	404A RLA/LRA	134A RLA/LRA	Cond Fan	Pan Heater	Aux Glass Fans

1/2	120-1-60	9/51	9.1/51	1.4	6.6	0.52
1/2	120-1-60	9/51	9.1/51	1.4	6.6	0.52
1/2	120-1-60	9/51	9.1/51	1.4	6.6	0.78
3/4	120-1-60	10.3/60	13/66	1.7	8.3	1.04
3/4	120-208-1-60	NA	5.3/40	0.85	4.8	1.04
1	120-208-1-60	6.2/40	NA	0.85	4.8	1.04
1	120-208-1-60	6.2/40	NA	0.85	7.2	1.26

1/2	120-1-60	9/51	NA	1.4	6.6	NA
3/4	120-1-60	10.3/60	13/66	1.7	8.3	NA
1	120-208-1-60	6.2/40	NA	0.85	4.8	NA
1 1/2	120-208-1-60	6.2/40	NA	0.85	4.8	NA
2	120-208-1-60	9.6/55	NA	1.7	4.8	NA
2	120-208-1-60	9.6/55	NA	1.7	7.2	NA
NA	120-1-60	NA	NA	NA	NA	NA
NA	120-1-60	NA	NA	NA	NA	NA

1/2	120-1-60	9/51	9.1/51	1.3	6.6	NA
1/2	120-1-60	9/51	9.1/51	1.3	6.6	NA
3/4	120-1-60	10.3/60	13/66	1.7	8.3	NA
1	120-208-1-60	6.2/40	NA	0.85	4.8	NA
1 1/2	120-208-1-60	6.2/40	NA	0.85	4.8	NA
1 1/2	120-208-1-60	6.2/40	NA	0.85	4.8	NA
NA	120-1-60	NA	NA	NA	NA	NA

Aux. Glass Fans

1/2	120-1-60	9/51	9.1/51	1.4	6.6	0.52
1/2	120-1-60	9/51	9.1/51	1.4	6.6	0.52
1/2	120-1-60	9/51	9.1/51	1.4	6.6	0.78
3/4	120-1-60	10.3/60	13/66	1.7	8.2	1.04
3/4	120-208-1-60	NA	5.3/40	0.85	4.8	1.04

1/2	120-1-60	9/51	NA	1.4	6.6	NA
3/4	120-1-60	10.3/60	13/66	1.7	8.3	NA
1	120-208-1-60	6.2/40	NA	0.85	4.8	NA
1 1/2	120-208-1-60	6.2/40	NA	0.85	4.8	NA
2	120-208-1-60	9.6/55	NA	1.7	4.8	NA

DRY CASES - USE LIGHTING SPECIFICATIONS FROM REMOTE CASE DATA

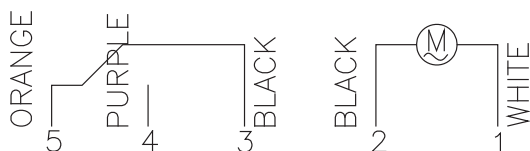
Wiring Color Code

Green	Ground
Black	Hot
White	Neutral
Red	208/220 Only
Brown	Interlock System
Orange	Thermostat
Orange	Liquid Solenoid
Purple	Hot Gas Defrost
Purple	Defrost Terminator
Gray	Light Switch
Black/White	Pressure Switch

Off Cycle Timer

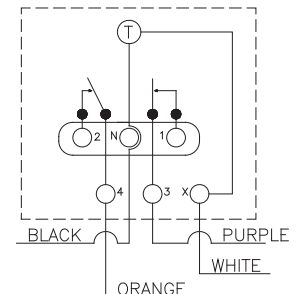
Grasslin

1. White - Neutral
2. Black - Hot
3. Black -
4. Orange - Liquid Solenoid



Parragon

1. White - Neutral
2. Black - Hot
3. Black -
4. Orange - Liquid Solenoid

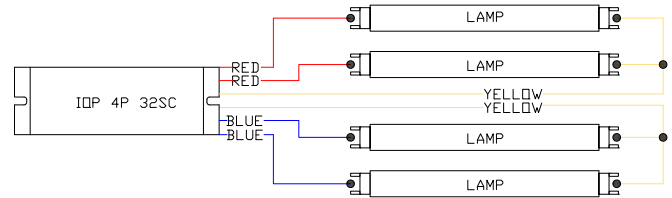
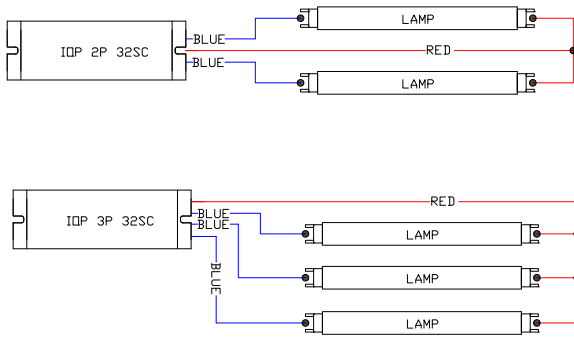


Ballast Wiring

Red -----Lights
 Yellow -----Lights
 Blue-----Lights

SEE BALLAST DIAGRAM FOR EACH CASE

NOTE: Case must be grounded



Ballast Information

Model	Ballast Type	Model	Ballast Type
BLF-48D	(1) IOP-4P32SC 35TM	BLF-48RB	(1) IOP-4P32SC 35TM
BLF-59D	(1) IOP-4P32SC 35TM	BLF-59RB	(1) IOP-3P32SC 35TM
BLF-77D	(2) IOP-3P32SC 35TM	BLF-77RB	(2) IOP-3P32SC 35TM
BLF-96D	(2) IOP-4P32SC 35TM	BLF-96RB	(2) IOP-3P32SC 35TM
BLF-113D	(2) IOP-4P32SC 35TM	BLF-118RB	(2) IOP-3P32SC 35TM
BLF-48CS	(1) IOP-3P32SC 35TM	BLF-48CR	(1) IOP-3P32SC 35TM
BLF-59CS	(1) IOP-3P32SC 35TM	BLF-59CR	(1) IOP-3P32SC 35TM
BLF-77CS	(1) IOP-3P32SC 35TM	BLF-77CR	(1) IOP-3P32SC 35TM
BLF-96CS	(1) IOP-4P32SC 35TM	BLF-96CR	(1) IOP-4P32SC 35TM
BLF-120CS	(1) IOP-4P32SC 35TM	BLF-120CR	(1) IOP-4P32SC 35TM
BLF-144CS	(3) IOP-3P32SC 35TM	BLF-144CR	(2) IOP-3P32SC 35TM
BLF-48SD	(1) IOP-4P32SC 35TM	BLF-48SS	(1) IOP-3P32SC 35TM
BLF-59SD	(1) IOP-4P32SC 35TM	BLF-59SS	(1) IOP-3P32SC 35TM
BLF-77SD	(2) IOP-3P32SC 35TM	BLF-77SS	(2) IOP-3P32SC 35TM
BLF-96SD	(2) IOP-4P32SC 35TM	BLF-96SS	(2) IOP-3P32SC 35TM
BLF-120SD	(2) IOP-4P32SC 35TM	BLF-120SS	(2) IOP-3P32SC 35TM
BLF-132SD	(2) IOP-4P32SC 35TM	BLF-132SS	(2) IOP-3P32SC 35TM
BLF144SD	(3) IOP-4P32SC 35TM	BLF144SS	(3) IOP-3P32SC 35TM
KBC-48D	(1) IOP-4P32SC 35TM	KBC-48R	(1) IOP-4P32SC 35TM
KBC-59D	(1) IOP-4P32SC 35TM	KBC-59R	(1) IOP-4P32SC 35TM
KBC-77D	(2) IOP-3P32SC 35TM	KBC-77R	(2) IOP-3P32SC 35TM
KBC-96D	(2) IOP-4P32SC 35TM	KBC-96R	(2) IOP-4P32SC 35TM
KBC-48S	(1) IOP-4P32SC 35TM		
KBC-59S	(1) IOP-4P32SC 35TM		
KBC-77S	(2) IOP-3P32SC 35TM		
KBC-96S	(2) IOP-3P32SC 35TM		

Maintenance Information

Cleaning

Case Exterior

Clean surfaces frequently with warm water and mild detergent. Do not use strong alkali solutions, steel wool, or abrasive cleanser.

Non-Glare Glass

Non-glare glass surfaces are coated to reduce the glare from lighting. Care must be taken not to scratch the coating. Use the following products only.

Cleaning Cloths

Scotch-Brite® High Performance Cloth -

manufactured by 3M® and available in most grocery stores under the name Scotch-Brite® Microfiber Cleaning Cloth in a 12" x14" size. This cloth is washable and may be reused as long as it remains clean.

Spontex® Microfibre Cleaning Cloth - distributed by Spontex® and available in most grocery stores under the same name in a 15.75" x 12" size. This cloth is washable and may be reused as long as it remains clean.

The cleaning cloths named above will normally remove dust, grease, oil and fingerprints without the need for cleaning fluids. A light spray of the cleaning fluids listed below will reduce the time required for cleaning.

Cleaning Fluid - for more difficult cleaning jobs, these products are recommended:

Windex® - standard product only (extra-strength or specialty products may not be suitable)

Glass-Plus® - standard product only (extra-strength or specialty products may not be suitable)

Warm Water

DO NOT USE the following types of materials for cleaning glass with anti-reflective coatings.

Coarse Paper Towels

Scouring Pads or Powders

Steel wool or Steel Fiber Materials

Blades

Acidic or highly Alkaline detergents

Fluorine based detergents

Plexiglas

Use Novus® 1 and Novus® 2 to clean. Use Brilliance® to polish. Contact factory to order. DO NOT use strong alkali solutions, steel wool, or abrasive cleanser.

Evaporator Coil

Clean as needed.

Condenser Coil

Clean condenser coil every three months or as needed with a whisk broom or vacuum. DISCONNECT POWER WHEN SERVICING. FINS ON CONDENSER COIL ARE SHARP!

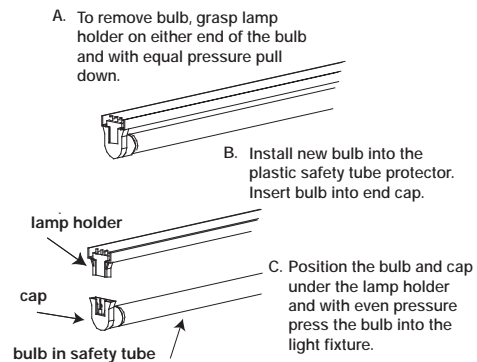
Condensate Heater

Add scale remover to condensate heater pan once every three months or as needed. Heater is designed for 75° and 50% relative humidity. The condensate pan may overflow if design limits are exceeded.

Light Replacement

The fluorescent lights in this case are furnished with plastic safety shields and end caps. When replacing fluorescent lamps, be certain to reinstall safety shield and caps. (See illustration). If the bulb is not fully seated the lights will not operate. **BE SURE BULBS ARE FULLY SEATED.**

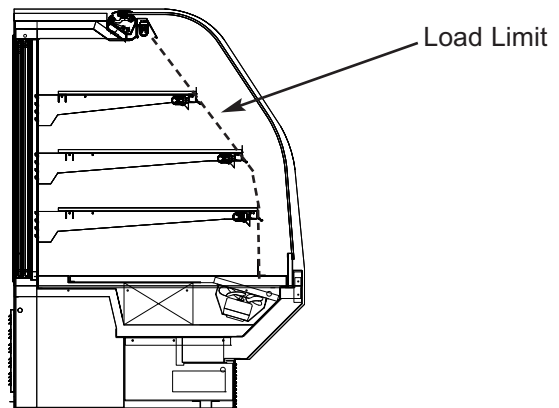
The light switch is mounted to the right side of the ceiling. See mechanical drawing for ballast box location.



Caution: Failure to install bulb fully into light socket will cause premature bulb life and may cause damage to light fixture

Load Limits

DO NOT place product in the merchandiser until all refrigeration controls have been adjusted and are at the proper operating temperature. DO NOT place product above load limits or in such a way that the discharge or return air grill are blocked. This will effect the performance of the case and effect the defrost system. ----- Indicates load limit.



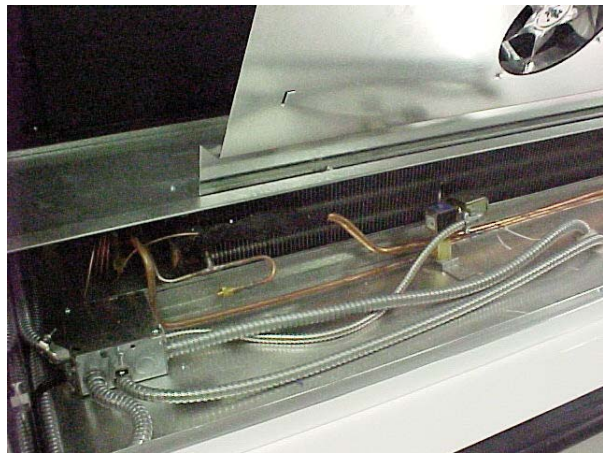
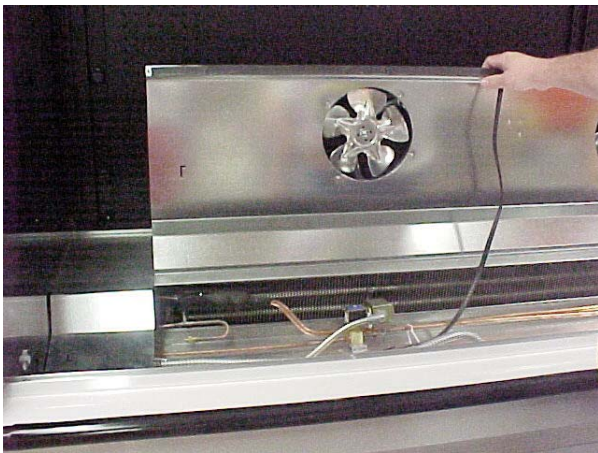
Service

WARNING!

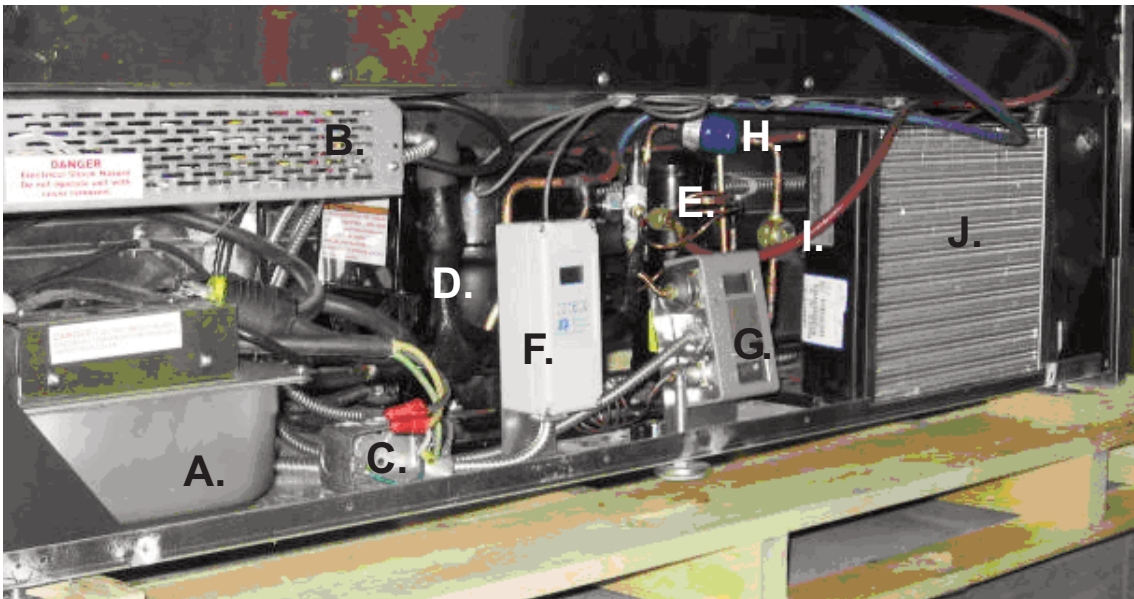
DISCONNECT THE ELECTRICAL POWER WHEN SERVICING OR REPLACING ANY ELECTRICAL COMPONENT .

Evaporator Coil Area

1. To gain access to evaporator area, remove bottom deck by lifting up and out to expose pressure plate cover and evaporator fans.
2. Remove screws as shown and lift pressure plate cover up as shown below.
3. Remove TXV cover to expose TXV.



Typical BLF/KBC Self-Service Series Compressor Area



- | | | |
|-------------------|---------------|--------------------|
| A. Dissipater Pan | D. Compressor | G. Pressure Switch |
| B. Ballast Box | E. Receiver | H. Filter Drier |
| C. Junction Box | F. Thermostat | I. Site Glass |
| | | J. Coil |

Preventative Maintenance

1. Read the installation and Service manual.
2. See the trouble-shooting guide in the event of problems.
3. Contact Barker Company for an authorized service person in your area.
Service Department - (319) 293-3777

Trouble Shooting Guide

Problem:	Action
Case temperature is too warm.	Case is in defrost. Review T-State Settings Product load may be over its limits Check case position in store. Ambient conditions may be affecting the case operation.
Case temperature is too cold.	The T-Stat Temp is set too low. Check case position in the store. Ambient conditions may be affecting the case operation.
Case has condensation on glass.	Check grill on die board for adequate airflow over the glass. Product load may be over its limits Check case position in the store. Ambient conditions may be affecting the case operation.
Water has pooled under the case.	Check the floor drain for clogs. check PVC drains under case for leaks. check condensate pan for malfunctioning parts. Check float, element, and switch.
Airflow is limited.	Product load may be restricting air flow. Check evaporator fans. Iced evaporator may impede airflow. Proximity to air ducts, opening window and doors may cause airflow to be disrupted.
Self-Contained case makes excessive noise.	Check to make sure that the shipping block under the compressor has been removed. Check that compressor mounting screws are not tight.
Refrigerant leak	Check to make sure that the shipping block under the compressor has been removed. Check that compressor mounting screws are not tight.

Hillphoenix Barker Specialty Products Service Department

IMPORTANT INFORMATION!

FOR PROMPT SERVICE WHEN CONTACTING THE FACTORY FOR SUPPORT, BE SURE TO HAVE CASE MODEL AND SERIAL NUMBER HANDY.

(THIS INFORMATION IS LOCATED ON THE DATA TAG ATTACHED TO THE CASE. SEE BELOW FOR DATA TAG LOCATIONS)

For any warranty or service issues not covered by this manual, for tech support, or for warranty service calls, please contact the Barker Specialty Products Service Department at:

(319) 293-3777

Parts

Ordering Procedure

1. Contact the Service Parts Department
Melissa Marshall
703 Franklin Street
PO Box 478
Keosauqua, IA 52565
Tel: 319-293-8323
Fax: 319-293-8377
melissa.marshall@hillphoenix.com
2. Provide the serial number of the case containing the part.
To locate the serial number look on the data tag located on the customer left, outside back of the case, the customer left, inside top of the case, or contact the factory for location.
3. If parts are to be returned for credit, contact the Parts Department. Do not send parts without authorization.



BEFORE SERVICING

ALWAYS DISCONNECT ELECTRICAL
POWER AT THE MAIN DISCONNECT
WHEN SERVICING OR REPLACING
ANY ELECTRICAL COMPONENT.

Hillphoenix®

A **DOVER**™ COMPANY

WARRANTY

HEREINAFTER REFERRED TO AS MANUFACTURER

FOURTEEN MONTH WARRANTY. MANUFACTURER'S PRODUCT IS WARRANTED TO FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USE AND MAINTENANCE FOR A PERIOD OF FOURTEEN MONTHS FROM THE DATE OF ORIGINAL SHIPMENT. A NEW OR REBUILT PART TO REPLACE ANY DEFECTIVE PART WILL BE PROVIDED WITHOUT CHARGE. PROVIDED THE DEFECTIVE PART IS RETURNED TO MANUFACTURER. THE REPLACEMENT PART ASSUMES THE UNUSED PORTION OF THE WARRANTY.

WARRANTY CLAIMS: All claims should include: the serial number of the cabinet, proof of purchase, date of installation, and all pertinent information supporting the existence of the alleged defect. Any action for breach of these warranty provisions must be commenced within one (1) year after that cause of action has accrued.

All warranty service work must be pre-authorized by Barker Specialty Products (800-814-0446). Barker Specialty Products reserves the rights to designate the service provider, time in which labor is to be performed and specify amount of time per warranty problem.

This warranty does not include labor or other costs incurred for repairing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts.

The fourteen month warranty shall not apply:

1. To any unit or any part thereof which has been subject to accident, alteration, negligence, misuse or abuse, operation on improper voltage, or which has not been operated in accordance with the manufacturer's recommendation, or if the serial number of the unit has been altered, defaced, or removed.
2. When the unit, or any part thereof, is damaged by fire, flood, or other act of God.
3. Outside the continental United States.
4. To labor cost for replacement parts, or for freight, shipping expenses, sales tax or upgrading.
5. When the operation is impaired due to improper installation
6. When installation and startup forms are not properly complete or returned within two weeks after startup.

THIS PLAN DOES NOT COVER CONSEQUENTIAL DAMAGES. Manufacturer shall not be liable under any circumstances for any consequential damages, including loss of profit, additional labor cost, loss of any delay in its performance hereunder due to causes beyond its control. The foregoing shall constitute the sole and exclusive remedy of any purchases and the sole and exclusive liability of Manufacturer in connection with this product.

The Warranties are Expressly in Lieu of All Other Warranties, Express of Implied and All Other Obligations or Liabilities on Our Part. The Obligation to Repair or Replace Parts or Components Judged to be Defective in Material or Workmanship States Our Entire Liability Whether Based on Tort, Contract or Warranty. We Neither Assume Nor Authorize any Other Person to Assume for Us Any Other Liability in connection with Our Product.

Mail approved warranty claims to the address listed below:

Hillphoenix Barker Specialty Products
703 Franklin Street, PO Box 478
Keosauqua, IA 52565
Tel: 319-293-3777/Fax: 319-293-3776