

KROWNE®

Refrigeration

Installation & Operating Manual



Intertek

For Commercial Use Only. Not Residential.

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Due to our commitment to continued product improvement, specifications are subject to change without notice.

No. REF MANUAL

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Natural Refrigerant

Hydrocarbon refrigerants are natural, nontoxic refrigerants that are one of the most climate-friendly and cost-efficient refrigerants with no ozone depleting properties.

Need replacement parts?

partsbykrowne.com

Refrigeration replacement parts available for all units.



Installation

At **Krowne Metal Corporation** we are dedicated to customer satisfaction. This installation guide is provided to clarify and answer any questions you may have regarding our line of Commercial Refrigerators. Please read this guide before attempting installation or operation. Thank you for choosing Krowne as your refrigeration provider.

Inspection Upon Receipt

Remove all shipping material from unit before operation. Please inspect the unit for any hidden freight damage and report any damage immediately to Krowne Metal Corp. If included, install optional casters or legs to bottom of unit. Please avoid turning unit on its side or rear to install accessories. If this cannot be avoided, unit must be left in the upright position for 24 hours before operating. All units come equipped with predetermined mounting holes and self starting bolts for easy install (bolts are provided only when casters or legs are ordered from factory). It is important to check that casters or legs are securely attached with appropriate mounting hardware.

Electrical Requirements

115 Volt AC, 1 Phase, 60Hz. We recommend using a dedicated 15 amp circuit minimum. 8'-0" grounded cord standard on Self Contained Back Bar Coolers, Bottle Coolers and Mug Frosters. Remote units come with a terminal block inside the box for a hard wire connection (supplied by the end user).

Plumbing

Self-Contained Back Bar Coolers have an evaporating pan and do not require any plumbing hook-up. Remote units require a drain hook-up. We recommend using 1/2" tubing and running it through the same knockout used for the refrigeration hook-up.

Installing of Shelves (Back Bar Coolers)

Shelves and installation clips are shipped within the cooler. Shelves can be installed based on owner's preference.

Location

Place unit in desired location and level. It is important for the unit to be level, or it will not drain properly, and the doors will not close properly, which in turn will affect the function of the cooler and void any factory warranty. Allow 2" clearance for Back Bar Coolers in the back. If required, unit can be sealed to floor using an NSF approved clear silicone. Excess sealant should be wiped clean. **DO NOT BLOCK OR OBSTRUCT FRONT GRILL. THIS EQUIPMENT IS INTENDED FOR USE IN AN AREA WHERE THE AMBIENT TEMPERATURE TYPICALLY DOES NOT EXCEED 75°F (24°C).**

Operating Temperature & Defrosting

- The operating temperature for the Self-Contained Back Bar Cooler is preset at the factory for an average of 35°F.
- Average operating range is from 29°F to 38°F.
- Remote units need to be set by a certified refrigeration technician.

CAUTION:

This temperature is only a set point. If set to 32°F, product will not be 32°F and air temperature inside unit will not be 32°F. Operating temperature/average temperature is usually 4°F to 5°F above set temperature.

SELF-CONTAINED UNITS:

Digital thermostat can be found on the front condensing unit cover. To set to desired temperature, follow the steps below.

1. Press SET for 1 second. The set value will start flashing after a few moments
2. Increase or decrease the value using UP or DOWN
3. Press SET to confirm new value

Manual defrost cycle: Press **DOWN** for more than 3 seconds

Thermostat

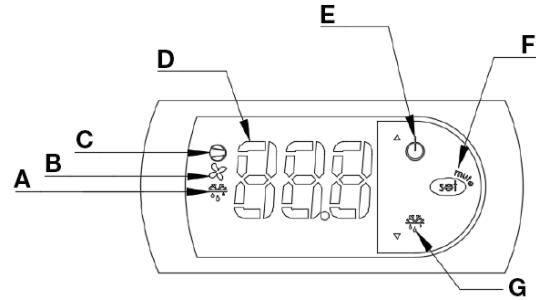
Thermostat Key

Label	Alarm
A	Defrost ON/OFF LED
B*	Fan ON/OFF LED
C	Compressor ON/OFF LED
D	Temperature Display (Avg. Inside Air Temp.)
E	UP Button or HOLD for ON/OFF Compressor Power
F	SET/MUTE Button
G	DOWN Button or HOLD for Defrost Override

*B is only available on Mug Froster Configurations

Note:

All Mug Frosters have an evaporator coil defrost every 4 hours and a full box defrost between 5 AM - 9 AM daily. Time is preset at factory.



Alarm Key

Code	Alarm
E0	Box temperature probe error
E1	Evaporator defrost probe
DF	Unit is running in defrost

Warning:

If the thermostat is flashing the word “OFF” and the temperature, this means your compressor turned off. To resolve, hold the power button for 3 seconds and the compressor will turn on.

Cleaning Instructions

DO NOT CLEAN WITH ANY BLEACH PRODUCTS

Make sure to avoid all products which may corrode the stainless steel such as steel wool and chlorine based bleaches. The cooler should be cleaned with a mild detergent, warm water and a soft cloth. All cleaning materials should be washed away and the cooler completely dried.

Condenser must be cleaned every 60 days or may void warranty. Prior to removing front panel on Back Bar Coolers, you must shut off the unit (shut off switch is located next to digital thermostat). Remove front grill for access to condenser. If the condenser is not regularly cleaned, loss of efficiency and ultimately condenser failure may occur.

Doors as well as the interior of the cooler should be cleaned occasionally to prevent buildup of liquids and other matter that may interfere with operation. To clean these surfaces use a mild detergent, warm water and a soft cloth. Dry completely!

Safety Notices

Below Notices apply to Hydrocarbon Refrigeration only (R290)

DANGER: Risk of fire or explosion. Flammable refrigerant used. To be repaired only by trained service personnel. Consult repair manual/owner’s guide before attempting to service this product. Dispose of properly in accordance with federal or local regulations. All safety precautions must be followed. Do not puncture refrigerant tubing.

IMPORTANT: Component parts shall be replaced with like components. Servicing shall be done by factory authorized service personnel, as to minimize the risk of possible ignition due to incorrect parts or improper service.

IMPORTANT: Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.

IMPORTANT: All service should be performed by a certified refrigeration technician.

Specifications

Self-Contained Back Bar Coolers

All units are 115V, 1 Phase, 60 Hz



Model No.	BS36	BS60	BS84	BS108	NS52	NS72
Number of Doors	1	2	3	4	2	3
Length	36"L	60"L	84"L	108"L	52"L	72"L
Depth	All models are 24"D. 25"D with optional 1" stainless steel top					
Height	All models are 35"H. 36"H with optional 1" stainless steel top					
Refrigerant Type	R290	R290	R290	R290	R290	R290
Charge	2.75 oz.	2.6 oz.	3.1 oz.	3.85 oz.	2.6 oz.	2.6 oz.
Design Pressure H/L	450/130	450/130	450/130	450/130	450/130	450/130
H.P.	1/5	1/4	1/3	1/3	1/4	1/4
Full Load Amps	1.7	2.2	2.7	2.8	2.2	2.2
Case Capacity	7.0	15.7	24.5	30.0	12.0	19.0
Weight (lbs.)	285	360	480	525	300	420

Pass Thru Back Bar Coolers

All units are 115V, 1 Phase, 60 Hz



Model No.	KPT36L	KPT52L	KPT60L	KPT72L	KPT84L
Number of Doors	2	4	4	6	6
Length	36"L	52"L	60"L	72"L	84"L
Depth	All models are 26"D. 27-1/4"D with optional 1" stainless steel top				
Height	All models are 35"H. 36"H with optional 1" stainless steel top				
Refrigerant Type	R290	R290	R290	R290	R290
Charge	2.75 oz.	2.6 oz.	2.6 oz.	2.6 oz.	3.1 oz.
Design Pressure H/L	450/130	450/130	450/130	450/130	450/130
H.P.	1/5	1/4	1/4	1/4	1/3
Full Load Amps	1.7	2.2	2.2	2.2	2.7
Case Capacity (12 oz. Bottles)	7.0	12.0	15.7	19.0	24.5
Weight (lbs.)	290	320	360	460	520

Sliding Door Back Bar Coolers

All units are 115V, 1 Phase, 60 Hz



Model No.	SD60	SD108	PTSD60L
Number of Doors	2	4	4
Length	60"L	108"L	60"L
Depth	25"D	25"D	26"D *
Height	36"H	36"H	35"H *
Refrigerant Type	R290	R290	R290
Charge	2.6 oz.	3.85 oz.	2.6 oz.
Design Pressure H/L	450/130	450/130	450/130
H.P.	1/4	1/3	1/4
Full Load Amps	2.2	2.8	2.2
Case Capacity (12 oz. Bottles)	15.7	31	15.7
Weight (lbs.)	360	720	380

* With optional 1" stainless steel top, PTSD60L is 27-1/4"D and 36"H

Direct Draw Coolers

All units are 115V, 1 Phase, 60 Hz



Model No.	DB36	DB52	DB60	DB72	DB84	DB108
Number of Doors	1	2	2	2	3	4
Length	36"L	52"L	60"L	72"L	84"L	108"L
Depth	25"D	25"D	25"D	25"D	25"D	25"D
Height	36"H	36"H	36"H	36"H	36"H	36"H
Refrigerant Type	R290	R290	R290	R290	R290	R290
Refrigerant Ounces	2.75	2.6	2.6	2.6	3.1	3.85
Design Pressure H/L	450/130	450/130	450/130	450/130	450/130	450/130
H.P.	1/5	1/4	1/4	1/4	1/3	1/3
Full Load Amps	1.7	2.2	2.2	2.2	2.7	2.8
Weight (lbs.)	285	300	360	420	480	525

Remote Back Bar Coolers

All units are 115V, 1 Phase, 60 Hz



Model No.	BR48	BR72	BR96
Number of Doors	2	3	4
Length	48"L	72" L	96"L
Depth	24"D	24"D	24"D
Height	All models are 35"H. 36"H with optional 1" stainless steel top		
Amps	1.0 (Lights and Fans)	1.5 (Lights and Fans)	2.0 (Lights and Fans)
Weight (lbs.)	280	395	510
Case Capacity	12	20	30

Slide Top Mug Frosters

All units are 115V, 1 Phase, 60 Hz



Model No.	MC24	MC36	MC48
Number of Doors	1	1	2
Length	24"L	36"L	48"L
Depth	24"D	24"D	24"D
Height	34"H	34"H	34"H
Refrigerant Type	R290	R290	R290
Layers of Shelving	2	2	2
Charge	3 oz.	3 oz.	3 oz.
Design Pressure H/L	450/130	450/130	450/130
H.P.	1/3	1/3	1/3
Full Load Amps	2.5	2.6	2.7
Mug Capacity 10. oz	95	165	240
Weight (lbs.)	185	240	295

Front Door Mug Frosters

All units are 115V, 1 Phase, 60 Hz



Model No.	FMC24
Number of Doors	1
Length	24"L
Depth	24"D
Height	35"H. 36"H with optional 1" stainless steel top
Refrigerant Type	R290
Layers of Shelving	2
Charge	3 oz.
Design Pressure H/L	450/130
H.P.	1/3
Full Load Amps	2.5
Mug Capacity 10. oz	90
Weight (lbs.)	220

Bottle Coolers

All units are 115V, 1 Phase, 60 Hz



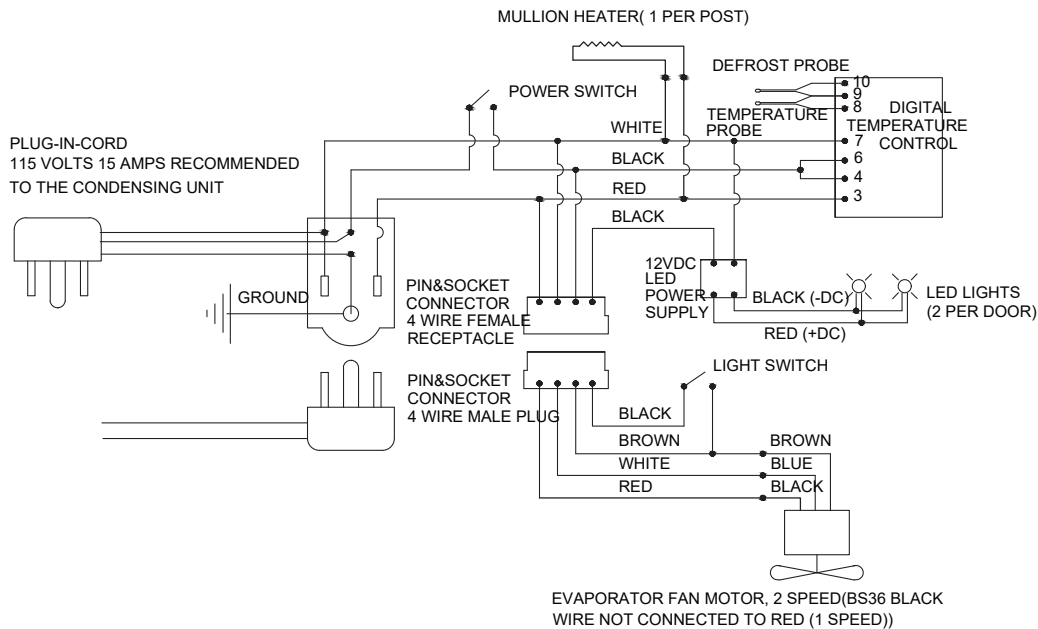
Model No.	BC24	BC36	BC48	BC72	BC96
Number of Doors	1	1	2	2	3
Length	24"L	36"L	48"L	72"L	96"L
Depth	24"D	24"D	24"D	24"D	24"D
Height	34"H	34"H	34"H	34"H	34"H
Refrigerant Type	R290	R290	R290	R290	R290
Divider Racks	1	1	2	2	3
Charge	2.5 oz.	2.6 oz.	3 oz.	3 oz.	3.5 oz.
Design Pressure H/L	450/130	450/130	450/130	450/130	450/130
H.P.	1/5	1/5	1/4	1/4	1/3
Full Load Amps	1.53	1.53	2.18	2.53	2.71
Case Capacity (12 oz. Bottles)	6	9.5	15.5	25.5	37
Weight (lbs.)	185	240	295	410	455

Wire Diagrams

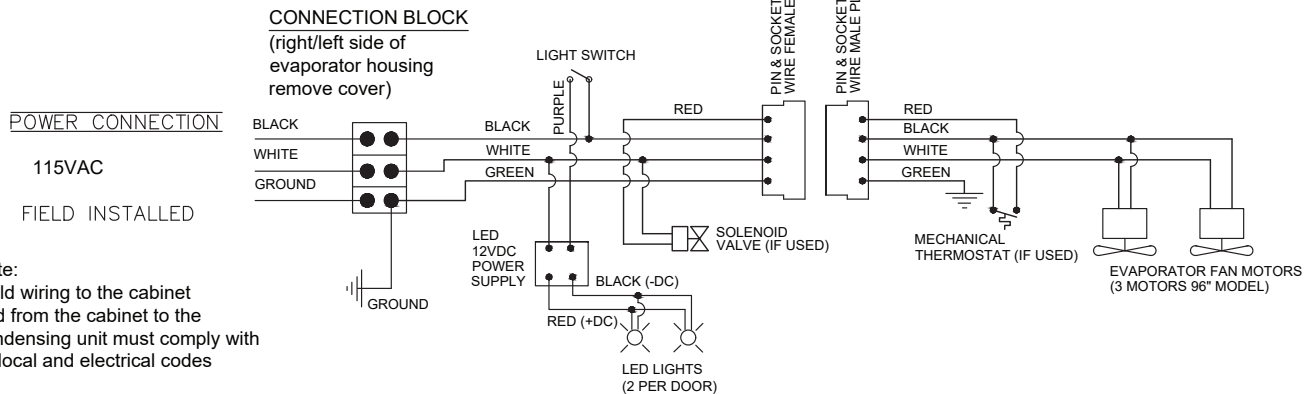
Model	Description
BS36	36" Back Bar Cooler
BS60	60" Back Bar Cooler
BS84	84" Back Bar Cooler
BS108	108" Back Bar Cooler
DB36	36" Direct Draw Cooler
DB52	52" Direct Draw Cooler
DB60	60" Direct Draw Cooler

Model	Description
DB72	72" Direct Draw Cooler
DB84	84" Direct Draw Cooler
DB108	108" Direct Draw Cooler
KPT36	36" Pass Thru Cooler
KPT52	52" Pass Thru Cooler
KPT60	60" Pass Thru Cooler
KPT72	72" Pass Thru Cooler

Model	Description
KPT84	84" Pass Thru Cooler
NS52	52" Narrow Door Back Bar Cooler
NS72	72" Narrow Door Back Bar Cooler
PTSD60	60" Sliding Door Pass Thru Cooler
SD60	60" Sliding Door Back Bar Cooler
SD108	108" Sliding Door Back Bar Cooler



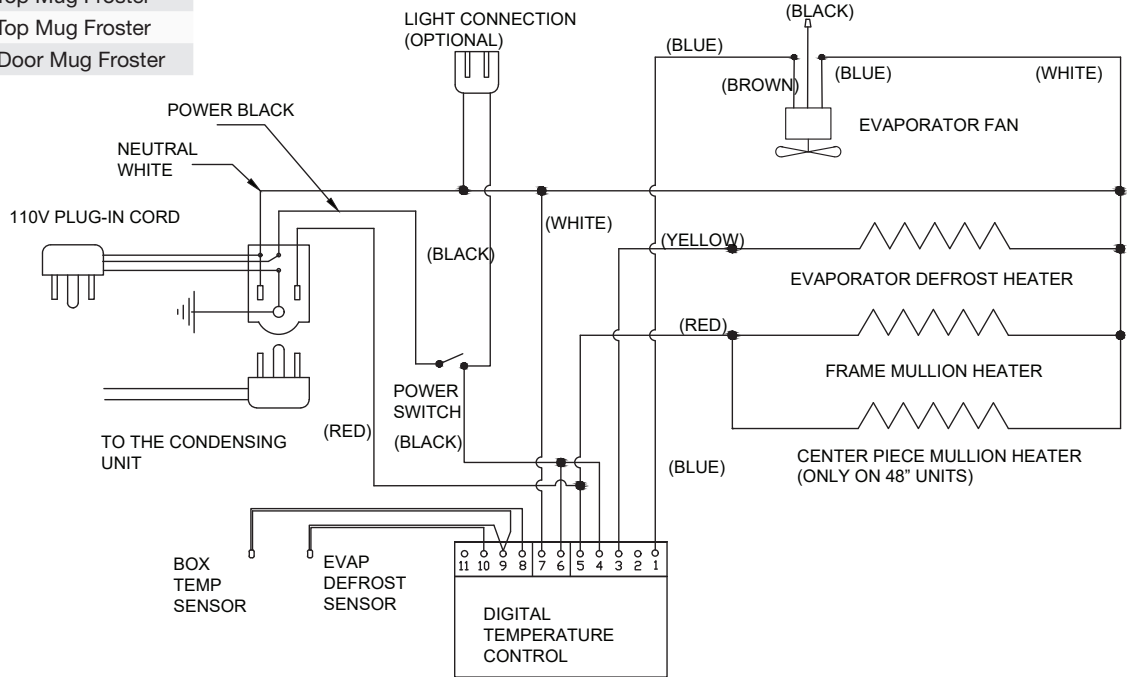
Model	Description
BR48	48" Remote Back Bar Cooler
BR72	72" Remote Back Bar Cooler
BR96	96" Remote Back Bar Cooler



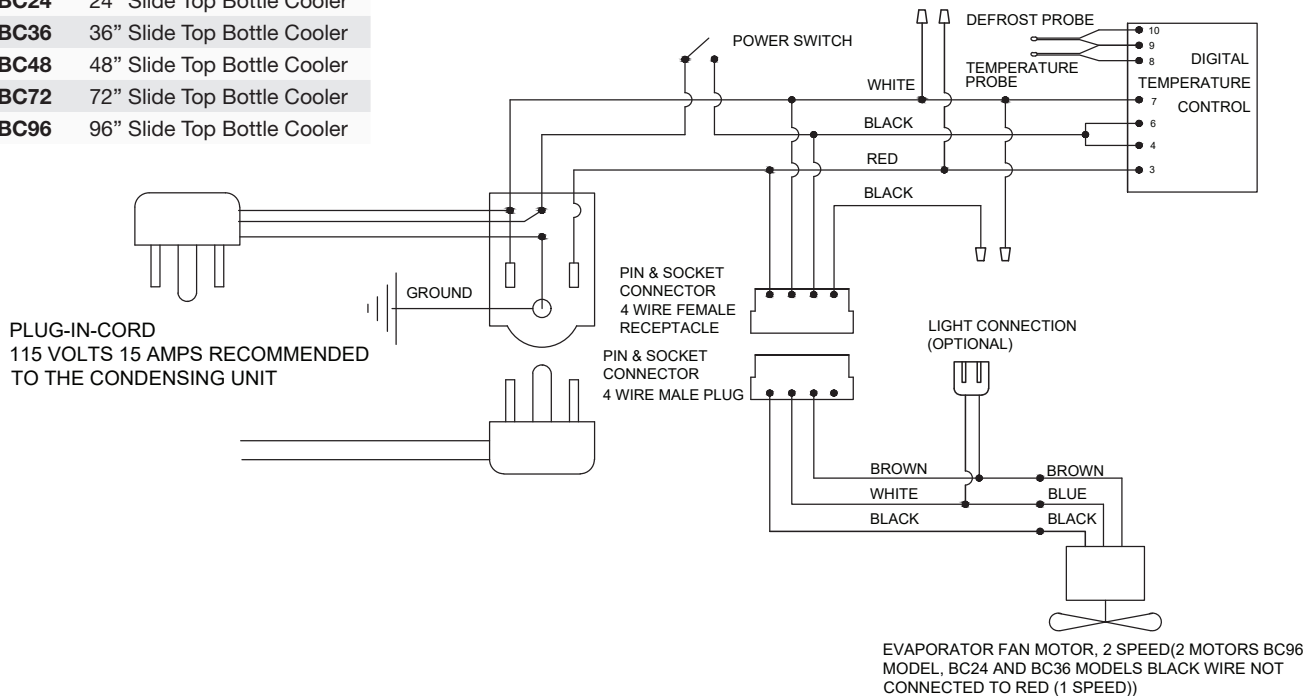
Note:
Field wiring to the cabinet and from the cabinet to the condensing unit must comply with all local and electrical codes

Wire Diagrams

Model	Description
MC24	24" Slide Top Mug Froster
MC36	36" Slide Top Mug Froster
MC48	48" Slide Top Mug Froster
FMC24	24" Front Door Mug Froster



Model	Description
BC24	24" Slide Top Bottle Cooler
BC36	36" Slide Top Bottle Cooler
BC48	48" Slide Top Bottle Cooler
BC72	72" Slide Top Bottle Cooler
BC96	96" Slide Top Bottle Cooler



Replacement Parts - Compressor Housing



No.	Model	Desc.	BC24	BC36	BC48	BC72	BC96	BS36	BS60	BS84	BS108	DB36	DB52	DB60	DB72	DB84	DB108	FMC24	KPT36L	KPT52L	KPT60L	KPT72L	KPT84L	MC24	MC36	MC48	NS52	NS72	PTSD60	SD60	SD108
1A	BC-755	Compressor Head, R290 (Propane) 1/6 HP	✓	✓			✓				✓							✓													
1B	BC-756	Compressor Head, R290 (Propane) 1/3 HP				✓		✓	✓						✓	✓						✓									✓
1C	BC-757	Compressor Head, R290 (Propane) 1/4 HP		✓	✓		✓					✓	✓	✓				✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
2	BC-668	Mug Froster Accumulator Assembly																✓						✓	✓	✓					
3	BC-669	Bottle Cooler Accumulator Assembly	✓	✓	✓	✓	✓																								
4A	BC-766	Back Bar Accumulator Assembly for Left Side Compressors					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓										✓	✓	✓	✓	✓	✓
4B	BC-767	Back Bar Accumulator Assembly for Right Side Compressors					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
5	BC-772	Wire Harness Power Supply					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓
6A	BC-670*	Suction Line & Cap Tube Assembly			✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓				✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
6B	BC-671*	Suction Line & Cap Tube Assembly	✓	✓			✓				✓							✓													
6C	BC-683	Suction Line & Cap Tube Assembly																✓					✓	✓	✓						

*Note: When ordering BC-670 and BC-671, please specify the compressor side of your unit so correct part is shipped.

Replacement Parts - Locks, Handles & Doors



No.	Model	Desc.	BC24	BC36	BC48	BC72	BC96	BR48	BR72	BR96	BS36	BS60	BS84	BS108	DB36	DB52	DB60	DB72	DB84	DB108	FMC24	KPT36L	KPT52L	KPT60L	KPT72L	KPT84L	MC24	MC36	MC48	NS52	NS72	
1A	BC-700	Black Vinyl Door					✓	✓	✓	✓	✓	✓	✓	✓							✓		✓									
1B	BC-694	Black Vinyl Door (Narrow)													✓								✓		✓						✓	✓
2A	BC-701	Stainless Steel Door					✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓		✓							
2B	BC-697	Stainless Steel Door (Narrow)													✓								✓		✓						✓	✓
3A	BC-705	Glass Door with Black Vinyl					✓	✓	✓	✓	✓	✓	✓									✓		✓		✓						
3B	BC-695	Glass Door with Black Vinyl (Narrow)																						✓		✓					✓	✓
4A	BC-706	Glass Door with Stainless Steel					✓	✓	✓	✓	✓	✓	✓									✓		✓		✓						
4B	BC-698	Glass Door with Stainless Steel (Narrow)																						✓		✓					✓	✓
5	BC-715	Stainless Steel Door for Mug Frosters																				✓										
6	BC-716	Black Vinyl Door for Mug Frosters																				✓										
7A	BC-552	Door Gasket for Regular Doors					✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓		✓							
7B	BC-553	Door Gasket for Narrow Doors													✓									✓		✓					✓	✓
7C	BC-657	Door Gasket for FMC																				✓										
8A	BC-710	21" Sliding Door with Lock	✓		✓	✓																					✓		✓			
8B	BC-712	33" Sliding Door with Lock		✓		✓	✓																					✓				
9A	BC-711	21" Sliding Door (no lock)	✓		✓	✓																					✓		✓			
9B	BC-713	33" Sliding Door (no lock)		✓		✓	✓																					✓				

Note: BC96 uses (2) 33" Sliding Doors (BC-712 or BC-713) and (1) 21" Sliding Door (BC-710 or BC-711)

Replacement Parts - Locks, Handles & Doors



No.	Model	Desc.	BC24	BC36	BC48	BC72	BC96	BR48	BR72	BR96	BS36	BS60	BS84	BS108	DB36	DB52	DB60	DB72	DB84	DB108	FMC24	KPT36L	KPT52L	KPT60L	KPT72L	KPT84L	MC24	MC36	MC48	NS52	NS72
10	BC-619	Door Lock Assembly for Bottle Coolers & Mug Frosters	✓	✓	✓	✓	✓																				✓	✓	✓		
11	BC-828	Back Bar Door Handle Full Assembly						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
12	BC-789	Back Bar Door Handle Lock						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
13	BC-816	Back Bar Door Handle Top						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
14	BC-817	Back Bar Door Handle Bottom						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
15	BC-830	Back Bar Door Handle Tube						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
16A	1575	Top Door Support Bracket						✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓						
16B	1576	Top Door Support Bracket (Narrow)													✓							✓							✓	✓	
17A	BC-608	24" Gasket for Bottle Coolers & Mug Frosters	✓																							✓					
17B	BC-609	36" Gasket for Bottle Coolers & Mug Frosters		✓																							✓				
17C	BC-610	48" Gasket for Bottle Coolers & Mug Frosters			✓																							✓			
17D	BC-611	72" Gasket for Bottle Coolers & Mug Frosters				✓																									
17E	BC-612	96" Gasket for Bottle Coolers & Mug Frosters					✓																								
18	BC-590	Bottom Door Hinge						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
19	BC-591	Top Door Hinge (Spring Loaded)						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
20	BC-592	Zinc Plated L-Bracket						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓

Note: BC-590 - Bottom Door Hinge and BC-591 - Top Door Hinge (Spring Loaded) are included with doors.

Replacement Parts - Mechanical & Lighting

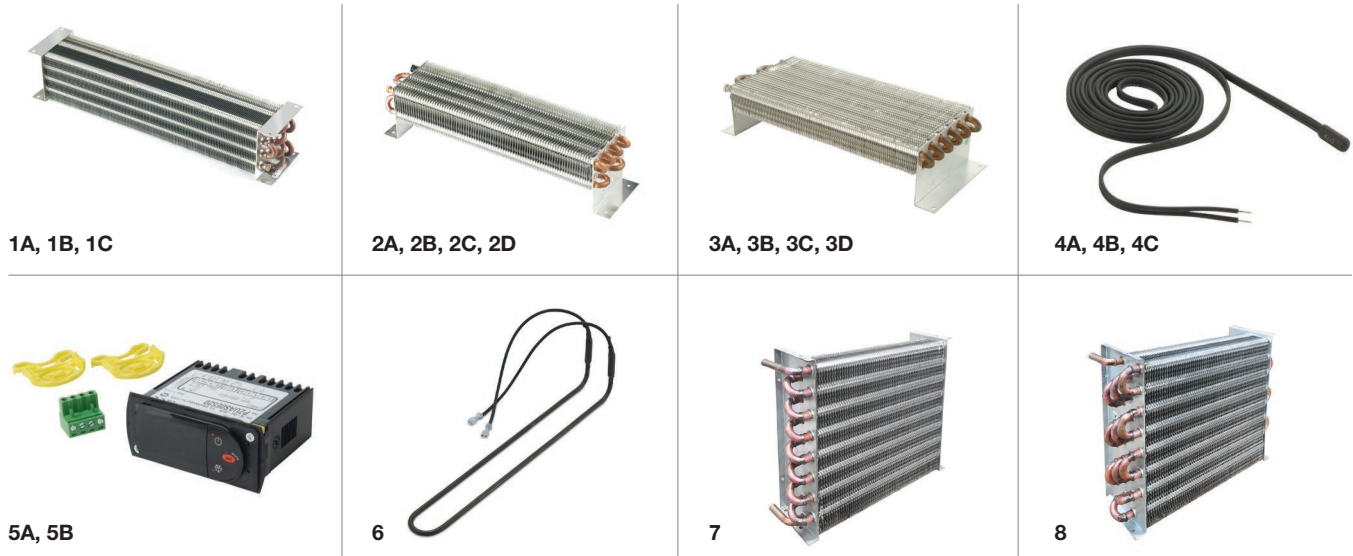


No.	Model	Desc.	BC24	BC36	BC48	BC72	BC96	BR48	BR72	BR96	BS36	BS60	BS84	BS108	DB36	DB52	DB60	DB72	DB84	DB108	FMC24	KPT36L	KPT52L	KPT60L	KPT72L	KPT84L	MC24	MC36	MC48	NS52	NS72	PTSD60	SD60	SD108	
1	BC-760	Fan Blade	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2	BC-761*	Fan Motor	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3	BC-776	Fan Guard	✓	✓	✓	✓	✓														✓					✓	✓								
4	BC-788	Evaporator Fan Assembly									✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	
5	BC-774	LED Power Supply					✓	✓	✓	✓	✓	✓	✓									✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	
6	BC-598	LED Converter	✓	✓	✓	✓	✓																												
7A	BC-814	Power Switch	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
7B	BC-814	Light Switch									✓	✓	✓	✓								✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	
8	BC-100	Bottle Cooler LED Interior Light Kit	✓	✓	✓	✓	✓																												
9A	2164**	White LED Light Assembly for Standard Doors						✓	✓	✓	✓	✓	✓	✓								✓		✓	✓	✓					✓	✓	✓	✓	✓
9B	2165**	White LED Light Assembly for Narrow Doors																					✓					✓	✓						
10	BC-823**	Warm White LED Light Assembly (3500K)									✓	✓	✓	✓								✓	✓	✓	✓	✓						✓	✓	✓	✓
11	BS-500**	Blue LED Light Assembly									✓	✓	✓	✓								✓	✓	✓	✓	✓						✓	✓	✓	✓

*Note: BC-761 is also used as an Evaporator motor for BC, FMC, and MC units.

**Note: Light Assemblies are designed on a per door basis. For example, a 2-Door unit requires (2) Light Assemblies.

Replacement Parts - Temperature Control



No.	Model	Desc.	BC24	BC36	BC48	BC72	BC96	BR48	BR72	BR96	BS36	BS60	BS84	BS108	DB36	DB52	DB60	DB72	DB84	DB108	FMC24	KPT36L	KPT52L	KPT60L	KPT72L	KPT84L	MC24	MC36	MC48	NS52	NS72	PTSD60	SD60	SD108	
1A	BC-557	Evaporator Coil					✓																												
1B	BC-558	Evaporator Coil						✓																											
1C	BC-519	Evaporator Coil							✓																										
2A	BC-630	Evaporator Coil	✓	✓																	✓				✓	✓	✓								
2B	BC-502	Evaporator Coil			✓																														
2C	BC-503	Evaporator Coil				✓																													
2D	BC-504	Evaporator Coil					✓																												
3A	BC-505	Evaporator Coil								✓				✓							✓														
3B	BC-506	Evaporator Coil									✓				✓	✓	✓					✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	
3C	BC-507	Evaporator Coil										✓							✓						✓										
3D	BC-822	Evaporator Coil											✓							✓													✓		
4A	BC-513	Thermostat Sensor for Mug Frosters																			✓					✓	✓	✓							
4B	BC-537	Thermostat Sensor for Back Bar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4C	BC-517	Thermostat Sensor (Long)				✓	✓																												
5A	BC-509	Digital Thermostat for Mug Frosters																			✓					✓	✓	✓							
5B	BC-535	Digital Thermostat	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	
6	BC-655	Evaporator Defrost Heater (Mug Frosters)																			✓					✓	✓	✓							
7	BC-627	Condenser Coil	✓	✓						✓				✓							✓														
8	BC-642	Condenser Coil			✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Replacement Parts - Shelving



No.	Model	Desc.	BC24	BC36	BC48	BC72	BC96	BR48	BR72	BR96	BS36	BS60	BS84	BS108	DB36	DB52	DB60	DB72	DB84	DB108	FMC24	KPT36L	KPT32L	KPT60L	KPT72L	KPT84L	MC24	MC36	MC48	NS52	NS72	PTSD60	SD60	SD108		
1A	BC-538	21-5/8" x 18" Shelf					✓	✓	✓		✓	✓											✓	✓								✓	✓	✓		
1B	BC-539	23-5/8" x 18" Shelf						✓	✓			✓	✓												✓									✓		
1C	BC-647	7" x 19-3/4" Shelf																								✓	✓	✓								
1D	BC-648	19-1/4" x 19-3/4" Shelf								✓												✓					✓	✓								
1E	BC-649	12" x 19-3/4" Shelf																									✓									
1F	BC-650	15" x 19-3/4" Shelf																			✓					✓										
1G	BC-747	17-5/8" x 18" Shelf																				✓	✓						✓	✓						
1H	BC-748	19-5/8" x 18" Shelf																					✓							✓						
2	T22-0018	Pilaster (18")						✓	✓	✓	✓	✓	✓									✓	✓	✓	✓							✓	✓	✓	✓	
3	30-317	Pilaster Clip						✓	✓	✓	✓	✓	✓									✓	✓	✓	✓							✓	✓	✓	✓	
4	BC-811	Side Guard Rail						✓	✓	✓		✓	✓									✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	
5A	BC-496	Shelf w/ Bottle Dividers (L or R Door)						✓	✓	✓		✓	✓										✓	✓								✓	✓	✓		
5B	BC-497	Shelf w/ Bottle Dividers (Center Door)							✓	✓			✓												✓										✓	
5C	BC-485	Shelf w/ Bottle Dividers (L or R Narrow Door)																					✓	✓				✓	✓							
5D	BC-499	Shelf w/ Bottle Dividers (Center Narrow Door)																						✓						✓						
6A	BC-536	Wire Partition		✓	✓	✓																														
6B	BC-540	Wire Partition	✓																																	
6C	BC-541	Wire Partition		✓																																
7	BC-498*	Back Bar Shelving Kit												✓	✓	✓	✓	✓	✓																	

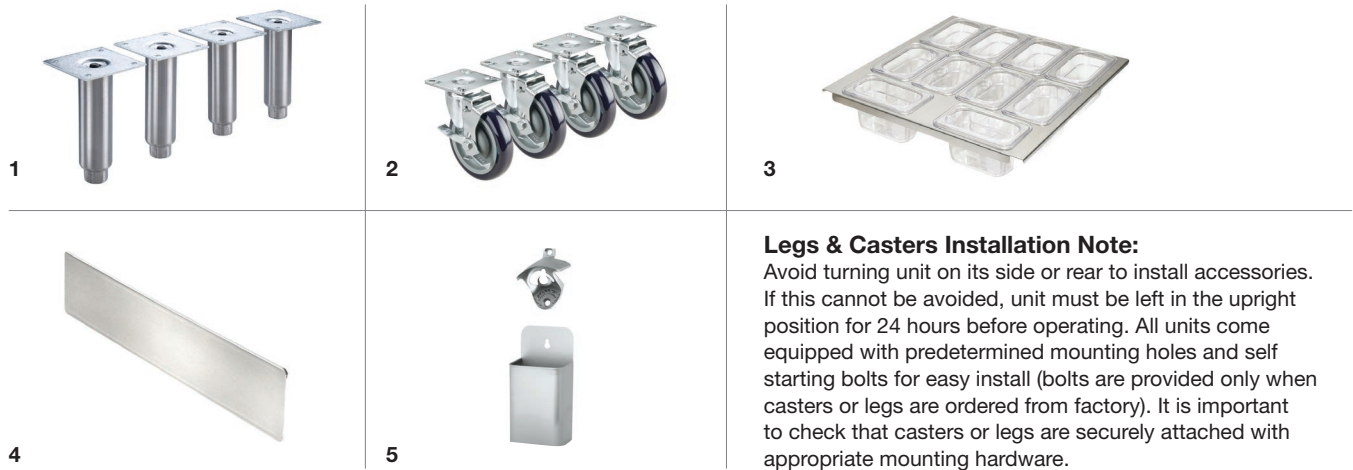
*Note: BC-498 is a Back Bar Shelving Kit designed for Direct Draw Coolers in which one door section requires shelving. The Kit contains 30-317 - Pilaster Clip (qty. 12), T22-0018 - Pilaster (18") (qty. 4), BC-811 - Side Guard Rail (qty. 3), and shelves for the specified unit (qty. 3).

Direct Draw Coolers Parts & Accessories



No.	Model	Desc.	DB36	DB52	DB60	DB72	DB84	DB108
1	BC-792	CO2 Tank Mount Primary Regulator	✓	✓	✓	✓	✓	✓
2	BC-793	CO2 Tank Mount Primary Bulk Regulator	✓	✓	✓	✓	✓	✓
3	BC-794	CO2 Tank Mount Primary Nitrogen Regulator	✓	✓	✓	✓	✓	✓
4	BC-843	CO2 Tank Mount Secondary Regulator	✓	✓	✓	✓	✓	✓
5A	BC-795	2-Way Manifold	✓	✓	✓	✓	✓	✓
5B	BC-796	3-Way Manifold	✓	✓	✓	✓	✓	✓
5C	BC-797	4-Way Manifold	✓	✓	✓	✓	✓	✓
5D	BC-798	5-Way Manifold	✓	✓	✓	✓	✓	✓
5E	BC-799	6-Way Manifold	✓	✓	✓	✓	✓	✓
6A	BC-932	Sankey Keg Tap, Stainless Steel Probe for Domestic Kegs (D System)	✓	✓	✓	✓	✓	✓
6A	BC-933	Sankey Keg Tap, Stainless Steel Probe for Import Kegs (S System)	✓	✓	✓	✓	✓	✓
6B	BC-936	Low Profile Sankey Keg Tap, Stainless Steel Probe for Domestic Kegs (D System)	✓	✓	✓	✓	✓	✓
6B	BC-937	Low Profile Sankey Keg Tap, Stainless Steel Probe for Import Kegs (S System)	✓	✓	✓	✓	✓	✓
7	BC-801	Beer Faucet Lock	✓	✓	✓	✓	✓	✓
8	BC-802	1/2" ID Clear Vinyl Drain Line (For Drip Pan Drain)	✓	✓	✓	✓	✓	✓
9	BC-803	5/16" ID Nylon Braided Air Line (Regulator to Manifold)	✓	✓	✓	✓	✓	✓
10	BC-804	5/16" ID Nylon Braided Air Line (Manifold to Keg Tap)	✓	✓	✓	✓	✓	✓
11	BC-805	Line Cleaning Kit	✓	✓	✓	✓	✓	✓
12A	BC-300	Royal Series Standard Beer Faucet (Satin Finish)	✓	✓	✓	✓	✓	✓
12B	BC-900	Royal Series Standard Beer Faucet (Stainless Finish)	✓	✓	✓	✓	✓	✓
13A	BC-325	Royal Series Flow Control Beer Faucet (Satin Finish)	✓	✓	✓	✓	✓	✓
13B	BC-925	Royal Series Flow Control Beer Faucet (Stainless Finish)	✓	✓	✓	✓	✓	✓
14	BC-806	Nitro Faucet, for Stouts and Coffee	✓	✓	✓	✓	✓	✓
15	BC-808	Wine Faucet with Long Spout	✓	✓	✓	✓	✓	✓
16	BC-812	Intertap Forward Sealing High-Performance Faucet	✓	✓	✓	✓	✓	✓
17	BC-824	Drain Container - 4 gallon capacity	✓	✓	✓	✓	✓	✓
18	BC-807	Standard Black Tap Handle	✓	✓	✓	✓	✓	✓

Legs, Casters, and Accessories



Legs & Casters Installation Note:

Avoid turning unit on its side or rear to install accessories. If this cannot be avoided, unit must be left in the upright position for 24 hours before operating. All units come equipped with predetermined mounting holes and self starting bolts for easy install (bolts are provided only when casters or legs are ordered from factory). It is important to check that casters or legs are securely attached with appropriate mounting hardware.

No.	Model	Desc.	BC24	BC36	BC48	BC72	BC96	BR48	BR72	BR96	BS36	BS60	BS84	BS108	DB36	DB52	DB60	DB72	DB84	DB108	FMC24	KPT36L	KPT32L	KPT60L	KPT72L	KPT84L	MC24	MC36	MC48	NS52	NS72	PTSD60	SD60	SD108	
1A	BS-100	6" Stainless Steel Legs (Set of 4)	✓	✓	✓		✓			✓	✓			✓	✓	✓				✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
1B	BS-101	6" Stainless Steel Legs (Set of 6)				✓	✓	✓	✓			✓	✓					✓	✓				✓	✓						✓			✓		
1C	BS-102	4" Stainless Steel Legs (Set of 4)	✓	✓	✓		✓			✓	✓			✓	✓	✓				✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
1D	BS-103	4" Stainless Steel Legs (Set of 6)				✓	✓	✓	✓			✓	✓					✓	✓				✓	✓						✓			✓		
2A	BC-130	2" Overall Casters (1" Wheels, Set of 4)	✓	✓	✓		✓			✓	✓			✓	✓	✓				✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2B	BC-131	2" Overall Casters (1" Wheels, Set of 6)				✓	✓	✓	✓			✓	✓					✓	✓				✓	✓						✓			✓		
2C	BC-132	3" Overall Casters (2" Wheels, Set of 4)	✓	✓	✓		✓			✓	✓			✓	✓	✓				✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2D	BC-133	3" Overall Casters (2" Wheels, Set of 6)				✓	✓	✓	✓			✓	✓					✓	✓				✓	✓						✓			✓		
2E	BC-134	4" Overall Casters (3" Wheels, Set of 4)	✓	✓	✓		✓			✓	✓			✓	✓	✓				✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2F	BC-135	4" Overall Casters (3" Wheels, Set of 6)				✓	✓	✓	✓			✓	✓					✓	✓				✓	✓						✓			✓		
2G	BC-136	5" Overall Casters (4" Wheels, Set of 4)	✓	✓	✓		✓			✓	✓			✓	✓	✓				✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2H	BC-137	5" Overall Casters (4" Wheels, Set of 6)				✓	✓	✓	✓			✓	✓					✓	✓				✓	✓						✓			✓		
2I	BC-138	6" Overall Casters (5" Wheels, Set of 4)	✓	✓	✓		✓			✓	✓			✓	✓	✓				✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2J	BC-139	6" Overall Casters (5" Wheels, Set of 6)				✓	✓	✓	✓			✓	✓					✓	✓				✓	✓						✓			✓		
3	BD-101	Garnish Insert for Drawers								✓	✓	✓	✓																						
4	BD-102	(3) Adjustable Wine Dividers for Drawers								✓	✓	✓	✓																						
5	BC-111	Bottle Opener and Cap Catcher	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Troubleshooting

Before calling for service, please use this table to troubleshoot your issue.

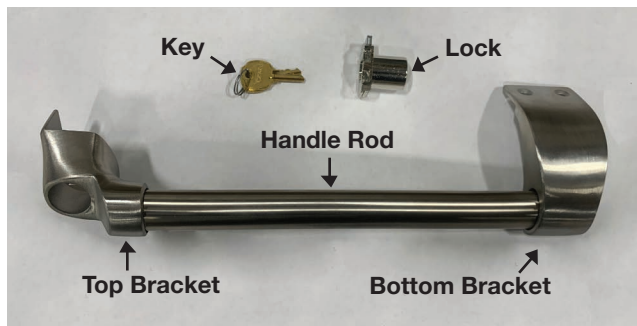
Problem	Cause	Solution
There is no interior light on in the refrigeration unit.	Light switch is in OFF position.	Flip switch to ON.
	LED board is inoperable.	Contact your dealer.
Refrigeration unit is running noisy.	Soft sounds from compressor, fan motor & valves.	Normal operation.
Refrigeration unit is not running correctly.	No power is getting to the unit.	GFI is tripped or the circuit breaker is tripped. Reset the circuit breaker.
The compartments are warmer than usual in the refrigeration unit.	Control preset is not set properly.	Reset preset temperature if necessary
	Condenser is dirty or obstructed.	Clean condenser and clear obstruction.
	Door has been left open for an extended period of time.	Wait 24 hours and recheck temperature.
	Internal louvers and/or fan guard obstructed.	Ensure louvers and/or fan is not obstructed.
	Warm product was placed in the unit.	Remove warm product and wait 24 hours.
Refrigeration system runs for long period of time.	Condenser is dirty or obstructed.	Clean condenser and clear obstruction.
	Door has been left open for an extended period of time.	Wait 24 hours and recheck temperature.
	Warm product was placed in the unit.	Remove warm product and wait 24 hours.
	Hot day and/or warm room temperature.	Normal for system to run more frequently.
Condensation forms on the inside of the compartments.	High humidity and/or frequent door opening.	Normal operation.
	Door not closing and sealing properly.	Ensure door is closing properly. Check door seals and replace if necessary. If condensation persists, contact your dealer.
Condensation forms on the outside of the compartments.	High humidity and/or frequent door opening.	Normal operation.
	Door not closing and sealing properly.	Make sure door is closing properly. Check door seals and replace if necessary. If condensation persists, contact your dealer.
Thermostat flashing the word "OFF" and the temperature.	The compressor was turned off.	Hold the power button for 3 seconds and the compressor will turn back on.

Changing a Door Handle

Tools Required: Phillips Head Screwdriver



1. Remove the eight 32 x 1/2" Phillips head screws located on the top and bottom bracket of your existing door handle. Remove the handle and set the screws aside. These screws will be used on the new handle.



2. Assemble your new handle by sliding the handle rod into the bottom bracket and top bracket.



3. Insert the lock at an angle into the slot on the backside of the top bracket. Turn the lock counter clockwise until it falls into place. Make sure the lock is positioned facing down as pictured.



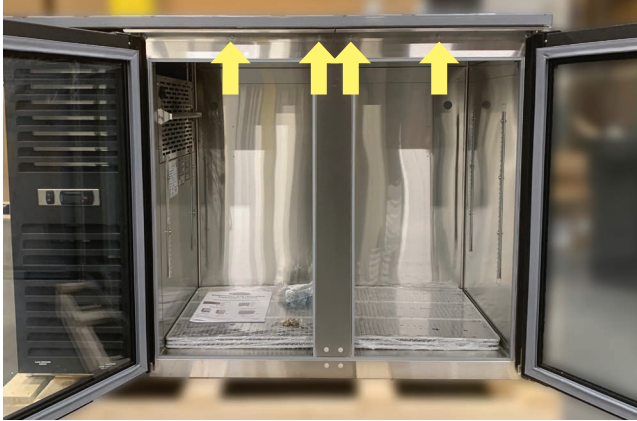
4. Position the new handle by aligning the top bracket with the holes on the top of the door. Secure with existing screws.



5. Align the bottom bracket with the holes on the side of the door. Secure with existing screws. Repeat steps for additional handles.

Changing a Stainless Steel Top

Tools Required: 1/4" Hex Screwdriver



1. Locate the 1/4" hex screws on the front of the unit.



2. Remove the 1/4" hex screws on the front of the unit above the doors. Set the screws aside. These will be used on the new refrigeration top.



3. Locate the 1/4" hex screws on the back of the unit.



4. Remove the 1/4" hex screws on the back of the unit. Set the screws aside. These will be used on the new refrigeration top.



5. With 2 or more people, lift the existing stainless steel top off and set aside. Next, place the new stainless steel top on your unit.



6. Secure the new top by screwing in the hex screws on the back and front of the unit.

Installing a New Stainless Steel Top

Tools Required: 1/4" Hex Screwdriver



1. With two or more people, open the crate and carefully remove the stainless steel top. Do not discard the 1" foam insert. The 1" foam insert will be placed inside the stainless steel top. With two or more people, lift the stainless steel top and place on top of the unit.



2. On the front of the unit, open the doors. Use the supplied 1/4" hex screws to secure the front of the stainless steel top to the door hinge.



3. On the back of the unit, screw the supplied 1/4" hex screws into the pre-existing holes to fully secure the stainless steel top.

Changing a Swing Door

Tools Required: 1/4" Hex Screwdriver & 3/8" Hex Screwdriver



1. Locate hex screws on the underside of the stainless steel top and unscrew with a 1/4" hex screwdriver. (Skip steps 1-3 if your unit has an unfinished top)



2. Unscrew the (3) 3/8" hex screws that are located on the top frame of each door using a 3/8" hex screwdriver.



3. Once all hex screws are removed, lift stainless steel top up to remove. **CAUTION:** When the top is removed, the door(s) should pull away and drop rapidly. We recommend having 2 or more people assist with this step.



4. For unfinished top units: Align new door with the bottom hinge and re-screw the top (3) 3/8" hex bolts to secure the door.

For stainless steel top units: Align new door with the bottom hinge and re-screw the top (3) 3/8" hex bolts to secure the door. Place the stainless steel top back onto the unit and secure with the 1/4" hex bolts.

Changing a Sliding Door

Tools Required: None



1. Locate the spring on the top frame of your refrigeration unit.



2. Insert the top half into the frame. Make sure the spring is pulled back with the door.



3. Apply pressure and push the bottom half in until you hear it snap into place.

Changing LED Lights

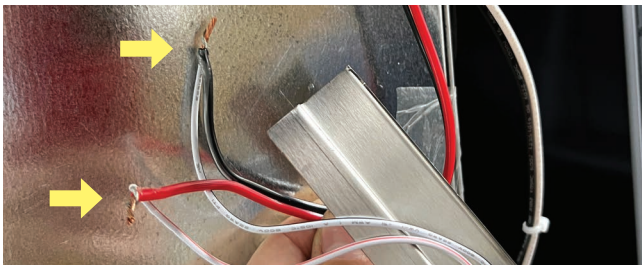
Tools Required: 1/4" Hex Screwdriver



1. Power down the unit. After the unit is off, remove the (4) 1/4" hex screws to remove the existing light.



2. Remove light and cut off both wire caps



3. Reconnect wires with wires from the new light. Red to red, black to black. Reattach the electrical connector to the new wires.



4. Put all the screws back. Ensure wires are not pinched under new brackets.

Adjusting Shelving

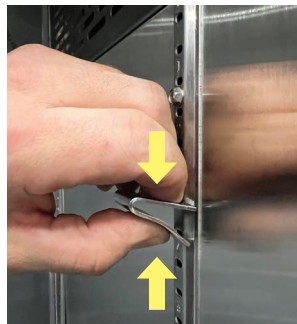
Tools Required: None



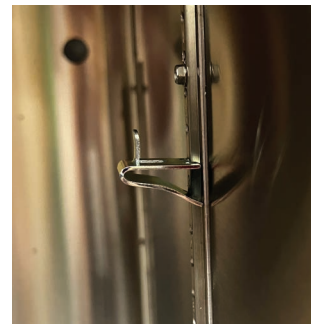
1. Remove shelving. Locate the pilaster clip and apply pressure to the bottom of the clip and slide out to remove.



2. Align clips to desired height by using the numbered slots on the pilaster strips. Adjust all clips to the same number on the pilaster strips.



3. Insert the top part of the clip into the slot and apply pressure to the bottom half of the clip until the clip snaps into place.



4. Repeat until all other clips are secured in their slots. Place your shelves onto clips.

Installing Dispensing Faucets



1. Remove 1-1/8" nut from shank. Insert the shank into the corresponding hole on the tower.
2. Install the nut onto the shank inside the tower. Install the faucet onto the shank and tighten the nut inside the tower. While doing this, make sure the faucets are straight or aligned with each other.



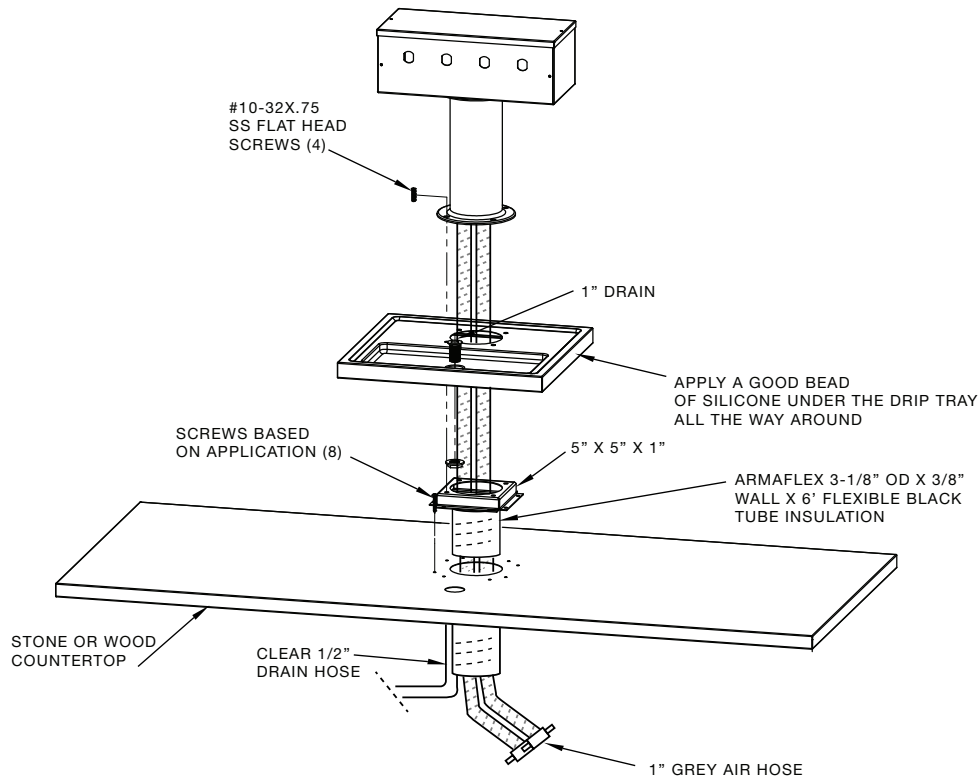
3. After all shanks are installed, used a spanner wrench (Krowne model BC-902) to tighten the faucet onto the shank itself.
4. Install a black insulation foam sheet into tower. Make sure to insulate around the shank and the sides. Make sure to pull the black round foam insulation up into the tower to prevent air leaks.



5. Install beer lines and silicone washers (shank, washer, tailpipe, beer line) onto shanks and tighten until snug. Route the lines down into the column.

Installing Dispensing Towers

Tools Required: Phillips Head Screwdriver, Silicone, & Mounting Hardware according to Countertop



1. Cut out 3-3/4" holes in the counter top for the beer lines and 1-1/2" holes for the drip pan drain. Use the supplied drain pan as a guide for hole locations.
2. Attach 1" tall square bracket to the countertop based on your application.
3. Cut black 4" round foam tube to length to insulate the area between the unit and the mounting bracket (through countertop).
4. Attach gray hose to white 1" barb that is mounted inside the unit and up out of the countertop. Cut gray air hose to required length – For 1 to 3 taps, the hose should be about 75% up into the tower. For 4 to 8 taps, the hose should be just inside the "box" of taps.
5. Apply a small amount of silicone to flat mating surface on the underside of pan to ensure no liquid gets between drain pan and stainless top. This also results in better insulation. Set drain pan over the square bracket and align the four holes as best as possible.
6. Feed the beer lines from the tower to the larger hole around the gray air hose.
7. Thread the attached straight 1/2" barb onto the drain that may still need to be mounted to the drain pan with silicone. Tighten the supplied nut on the under side of the pan.
8. Cut the supplied clear drain hose to length to get it as close as possible to the top of the body to eliminate liquid traps in the drain line.
9. Inside the unit, attach the 90° white 1/2" elbow to the drain line that is already installed in the unit.
10. Place the tower over the pan and apply the rubber gasket and (4) 10-32 counter sunk screws (screws are supplied).

Certifications



Warranty

All Krowne Metal Corporation refrigeration products are warranted to be free of defects in material and workmanship within (2) two years of factory ship date. Visit krowne.com/warranty and register your product online. Registration must be complete within (2) two weeks of install. Failure to do so may void labor warranty.

(2) Two Year Parts & Labor Warranty

Parts Warranty

Any part found defective under normal use within two years of ship date will be replaced by Krowne. Warranty is void in the absence of proper maintenance, operation and authorized service. Warranty is also void on units that have been damaged in freight, field altered, lack of proper electrical requirements, fire, flood or natural disaster.

Defective Parts and Replacements

Must be returned to Krowne prepaid. Credit will be issued upon return and inspection of defective part.

Labor Warranty

Labor service MUST be approved by Krowne before work is done. If authorization is not obtained, warranty is void. Krowne is not responsible for any loss of product or sales during that time. Any additional costs due to after hour services or excessive travel time (more than an hour) will be incurred by end user. Labor warranty covers all 50 states.

Note: Parts, labor and compressor warranty applies to all commercial applications installed by a licensed installer. For residential applications, we provide a two year parts warranty and five year compressor warranty, however labor is not covered in residential applications.

(5) Five Year Compressor Warranty

Compressor is covered by a 5 year replacement warranty and a 1 year labor warranty from the original factory ship date. Condenser must be cleaned every 60 days or may void warranty. Warranty work must be authorized by factory prior to service being done. Labor is not covered on the compressor replacement.

Remote Backbar Units

2 years parts, 1 year compressor (no labor).

Terms

This Standard Warranty and Limitation of Liability (the "Warranty") sets forth the warranty provided by Krowne Metal Corporation (hereinafter "Krowne") with respect to the product purchased by Purchaser (the "Equipment"). By accepting delivery of the Equipment, Purchaser agrees to be bound by and accept these terms and conditions. All defined terms within the Warranty shall have the same meaning and definition as provided elsewhere in the Warranty. Equipment covered by the Warranty shall only be warranted in connection with its original installation only. KROWNE WILL ONLY BE OBLIGATED TO HONOR THE WARRANTY SET FORTH IN THESE TERMS AND CONDITIONS UPON RECEIPT OF FULL PAYMENT FOR THE EQUIPMENT.

1. WARRANTY COVERAGE

- A.** Subject to the conditions and exclusions set forth below, including, with respect to Diamond Series Plumbing, Purchaser's completion and delivery to Krowne of a warranty registration card or online Warranty registration, Krowne warrants to Purchaser that (i) Krowne holds and will pass marketable title to the goods sold hereunder, and (ii) the goods sold hereunder will be free from defects in materials and workmanship (subject to tolerances and variances permitted by the trade hereunder) for the applicable Warranty Period, as listed above (the "Warranty Period").
- B.** Krowne's obligation under this Warranty is limited to, at Krowne's option, replacing or repairing, any Equipment or part thereof that is found by Krowne not to conform to the Equipment's specifications. Krowne shall have a reasonable period of time to make such replacements or repairs and all labor associated therewith shall be performed during Krowne's regular working hours.
- C.** Krowne shall pay transportation charges for the return of any defective portion of the Equipment. If returned Equipment is repaired or replaced under the terms of this Warranty, Krowne will prepay transportation charges back to Purchaser; otherwise, Purchaser shall pay transportation charges to return the Equipment back to the Purchaser. All returns must be pre-approved by Krowne before shipment. Krowne shall not be obligated to pay freight for any unapproved return.
- D.** Any replacement parts or Equipment will be new, comparable in function and performance to the original part of Equipment, and warranted for the remainder of the Warranty Period. Purchasing additional parts or Equipment from Krowne does not extend this Warranty Period.
- E.** With regard to the Equipment, a defect shall refer to a variance from the design specifications that prohibit the Equipment from operating for its intended use. The Warranty provided by Krowne does not impose any duty or liability upon Krowne for degradation that occurs in the normal course over time, or due to improper installation of the Equipment by Purchaser or their representative.

THIS LIMITED WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THE EQUIPMENT AND REPLACES ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SPECIFICALLY, EXCEPT AS PROVIDED HEREIN, KROWNE UNDERTAKES NO RESPONSIBILITY FOR THE QUALITY OF THE EQUIPMENT OR THAT THE EQUIPMENT WILL BE FIT FOR ANY PARTICULAR PURPOSE FOR WHICH PURCHASER MAY BE BUYING THE EQUIPMENT. ANY IMPLIED WARRANTY IS LIMITED IN DURATION TO THE WARRANTY PERIOD. NO ORAL OR WRITTEN INFORMATION, OR ADVICE GIVEN BY THE COMPANY, ITS AGENTS OR EMPLOYEES, SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS LIMITED WARRANTY.

2. EXCLUSION FROM WARRANTY COVERAGE

The Warranty provided by Krowne does not impose any duty or liability upon Krowne for:

- A.** Any damage occurring, at any time, during shipping of Equipment unless otherwise provided for in the Agreement. When returning Equipment to Krowne for repair or replacement, Purchaser assumes all risk of loss or damage, and agrees to use any shipping containers that might be provided by Krowne and to ship the Equipment in the manner prescribed by Krowne;
- B.** Damage caused by the failure to provide a continuously suitable environment, but not limited to: (i) neglect or misuse, (ii) a failure or sudden surge of electrical power, (iii) improper air conditioning or humidity control, or (iv) any other cause other than ordinary use;
- C.** Damage caused by the unauthorized installation, adjustment, repair or service of the Equipment by anyone other than Krowne or Krowne's expressly authorized designee;
- D.** Damage caused by fire, flood, earthquake, water, severe wind, lightning or other natural disaster, strike, inability to obtain materials or utilities, war, terrorism, civil disturbance or any other cause beyond Krowne's reasonable control;
- E.** Failure to adjust, repair or replace any item of Equipment if it would be impractical for Krowne personnel to do so because of connection of the Equipment by mechanical or electrical means to another device not supplied by Krowne, or the existence of general environmental conditions at the site that pose a danger to Krowne personnel;
- F.** Any statements made about the product by salesmen, dealers, distributors or agents, unless such statements are in a written document signed by an officer of Krowne. Such statements as are not included in a signed writing do not constitute warranties, shall not be relied upon by Purchaser and are not part of the contract of sale;
- G.** Any damage arising from the use of Krowne products in any application other than the commercial and industrial applications for which they are intended, unless, upon request, such use is specifically approved in writing by Krowne; or
- H.** Any performance of preventive maintenance

3. PURCHASER'S INSPECTION UPON RECEIPT OF EQUIPMENT

All Equipment shall be carefully inspected by Purchaser upon receipt, be installed by persons who are trained and certified professionals with respect to such installations, and be installed, used, repaired and maintained by Purchaser in accordance with all applicable local laws, codes and regulations.

4. LIMITATION OF LIABILITY

In no event shall Krowne (including its subsidiaries, affiliates, officers, directors, employees, or agents) be liable for any special, consequential, incidental or exemplary damages arising out of or in any way connected with the Equipment or otherwise, including, without limitation, to damages for lost profits, cost of substitute or replacement Equipment, down time, lost data, injury to property or any damages or sums paid by Purchaser to third parties, even if Krowne has been advised of the possibility of such damages. The foregoing limitation of liability shall apply whether any claim is based upon principles of contract, tort or statutory duty, principles of indemnity or contribution, or otherwise.

In no event shall Krowne be liable to Purchaser or any other party for loss, damage, or injury of any kind or nature arising out of or in connection with this Warranty in excess of the purchase price of the Equipment actually delivered to and paid for by the Purchaser. The Purchaser's remedy in any dispute under this Warranty shall be ultimately limited to the Purchase Price of the Equipment to the extent the Purchase Price has been paid.

5. ASSIGNMENT OF RIGHTS

The Warranty contained herein extends only to the original Purchaser of the Equipment and no attempt to extend the Warranty to any subsequent user or transferee of the Equipment shall be valid or enforceable without the express written consent of Krowne. Any attempt by Purchaser to assign this Warranty shall render the Warranty, but not any disclaimers or limitations, void, and the goods shall be sold AS IS.

6. COMPONENT PASS THROUGH WARRANTY

Except as provided herein, although Krowne does not warrant components, it will pass through any warranties received by third-party component suppliers, to the extent permitted by the terms and conditions of such warranties.

7. NOTICE AND TIME OF CLAIMS

Purchaser shall make any claim for loss or damage to Equipment sustained during shipment within five (5) days of receipt of such Equipment.

8. DISPUTE RESOLUTION

Any dispute between the parties will be resolved exclusively and finally by arbitration and conducted under the assigned arbitrator rules, except as otherwise provided below. The arbitration will be conducted before a single arbitrator. The arbitration shall be held in Essex County, New Jersey. Any decision rendered in such arbitration proceedings will be final and binding on each of the parties, and judgment may be entered thereon in any court of competent jurisdiction. This arbitration agreement is made pursuant to a transaction involving interstate commerce, and shall be governed by the Federal Arbitration Act.

9. GOVERNING LAW

Both parties consent to the application of the laws of the State of New Jersey to govern, interpret, and enforce all of Purchaser and Krowne's rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Warranty, without regard to conflict of law principles. In no event shall the rights and obligations of the parties under this warranty shall not be governed by the provisions of the United Nations Convention on Contracts for the International Sales of Goods of 1980.



Krowne

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