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# BACK BAR REFRIGERATION

## Installation, Operation and Maintenance Instructions

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### INSPECTION

When the equipment is received, all items should be carefully checked against the Bill of Lading to ensure all crates and cartons have been received. Do not sign the freight bill clear until the freight has been properly inspected for damage. All units should be inspected for damage including concealed damage by uncrating immediately. If any damage is found, it should be reported to the carrier at once, noted on the Bill of Lading and a claim should be filed with the carrier. This equipment has been inspected and tested in the manufacturing facility and has been crated in accordance with transportation rules and guidelines. The manufacturer is not responsible for freight loss or damages.

### INSTALLATION

**CAUTION: This unit uses a flammable refrigerant. Use care when handling and operating to avoid damaging the refrigerant tubing or increasing the risk of a leak.**

After removing the unit from the packaging, clean the interior and exterior surfaces of the unit with soap and water and a rinse with clean water. Do not use chlorinated cleaners on the surfaces as they can cause corrosion.

This unit is designed for indoor use only. Be sure to locate the unit where the floor can support the weight of the unit and product installed inside of it. The refrigeration system located at the bottom left of the unit requires free air access for proper operation. Allow a minimum of seven (7) inches between the back of the cabinet and the wall. Do not locate the unit next to heat generating equipment or in direct sunlight.

Confirm that the proposed electrical outlet has the correct voltage, frequency and current carrying capacity for the requirements of the unit. This information is noted on the data plate on the inside left wall of the unit. The unit should be isolated on a circuit. Do not use an extension cord to get power to the unit. Improper electrical installations will void the compressor warranty. To prevent shock and fire, be sure the unit is properly grounded.

Local health codes may require that the unit be sealed to the floor with an NSF approved silicone sealant if it is not on legs or casters. After the unit is set in its desired location, simply apply a bead of sealant around the base of the unit and smooth it out.

The shelves and shelf support clips are shipped inside the cabinet. Install the shelf support clips on the pilasters mounted on the inside walls of the cabinet and set the shelves on the supports. The shelves are adjustable in ½" increments to suit your needs.

If the doors have come out of alignment during shipping, they will need to be adjusted. This can be accomplished by opening the door(s) and loosening the screws that hold both the top and bottom hinges to the cabinet. After adjusting the door so it is aligned correctly, tighten the screws to securely hold the hinges and door(s) in place.

## **OPERATION AND MAINTENANCE**

**All service should be performed by factory authorized personnel. All component parts will be replaced with like components to minimize the risk of possible ignition due to incorrect parts or improper service.**

This cooler is designed to maintain your product temperature within the most desirable range of +34°F to +38°F. You can expect this temperature with the proper temperature control setting and in a normal environment. It is important to remember that when the product is delivered, it must be placed inside the cooler as soon as possible to avoid excessive warm up. If this happens, it may take many hours for the temperature to be reduced to the desirable range.

The temperature controller is located on the left end of the unit cooler. Turn the control clockwise for cooler temperatures and counterclockwise for warmer temperatures. Allow the unit several hours to respond to temperature control adjustments.

There are interior lights located above the door. The light has an on/off switch on the unit cooler.

When loading the cabinet with product, do not block the air flow path. Blocking the air flow may decrease performance. Maintain clearance between the contents and air duct for best performance.

This equipment is intended for the storage and display of pre-packaged food product only.

### **Cleaning**

Beginning with the initial installation, the interior surfaces of the cabinet should be periodically cleaned with a solution of warm water and baking soda. This solution will remove any odors from spillage that has occurred. The exterior of the cabinet should also be cleaned frequently with a commercial stainless steel cleaner, glass cleaner or mild soap solution. Do not use chlorinated cleaners on any surfaces.

Note: do not use stainless steel cleaners or other solvent-based chemicals on the plastic parts (door handle or trim strips) as they can cause failure. Use mild soap and warm water on plastic parts.

The shelving can be cleaned in a sink with a mild soap solution and a soft bristled brush.

### **Condenser Coil**

Prior to cleaning the condenser coil disconnect the unit from power. Periodic cleaning of the condenser coil will aid the heat transfer of the refrigeration system and increase its efficiency. To accomplish this, remove the lower front grill from the cabinet. The condenser coil is located behind the grill. Use a soft bristled brush to remove any dirt particles that are on the fins of the condenser coil. Use a vacuum cleaner or compressed air to remove the loosened particles. Replace the front grill and reconnect the unit to power. Failure to clean the condenser coil can lead to performance loss and compressor failure.

# TROUBLESHOOTING

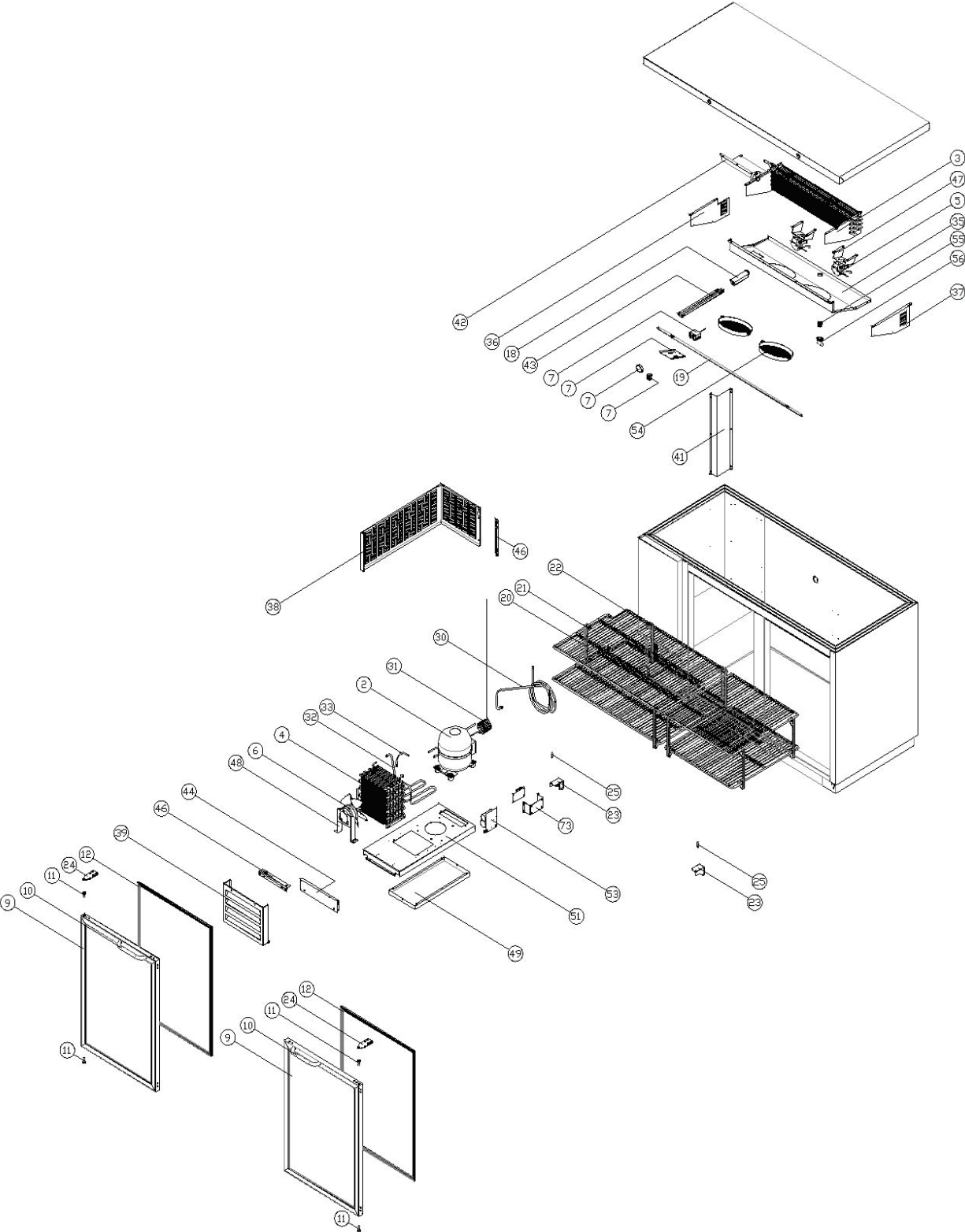
Problem	Remedy
Compressor will not start	<ul style="list-style-type: none"> <li>• Check the power cord and make sure it is plugged in and has power.</li> <li>• Check the temperature controller. If it is in the “OFF” position, turn it clockwise to set a desired temperature.</li> </ul>
Poor performance	<ul style="list-style-type: none"> <li>• Move the unit from direct sunlight.</li> <li>• Move the unit away from heating devices.</li> <li>• Install the unit in a well-ventilated place, with at least 2 inches of clearance on all sides.</li> <li>• Clean the condenser if heavy dust is collected.</li> <li>• Clear contents from blocking the inside air duct.</li> <li>• Check the temperature controller for correct setting.</li> <li>• Check the doors and be sure they are completely closed.</li> </ul>
Unit noisy	<ul style="list-style-type: none"> <li>• Install the unit on a level solid surface.</li> <li>• Maintain 2 inches of clearance from the wall.</li> <li>• Check for loose parts or mounting.</li> <li>• Keep the tubing free from any contact to avoid rattle.</li> </ul>
Condensation on cabinet exterior and/or floor	<ul style="list-style-type: none"> <li>• Reduce humidity where the unit is installed.</li> <li>• Check the drain line to make sure it is not disconnected inside the cabinet and it drains into the drain pan in the compressor area.</li> </ul>

## SPECIFICATIONS\*

Model	# of Doors	# of Shelves	Electrical	Amps	NEMA Plug	HP	Refrigerant	Capacity 12oz. cans
BB59	2	4	115/60/1	3.5	5-15P	3/8	R290	1084
BB59G	2	4	115/60/1	3.5	5-15P	3/8	R290	1084
BB69	2	4	115/60/1	3.5	5-15P	3/8	R290	1299
BB69G	2	4	115/60/1	3.5	5-15P	3/8	R290	1299
BB79	3	6	115/60/1	3.5	5-15P	3/8	R290	1566
BB79G	3	6	115/60/1	3.5	5-15P	3/8	R290	1566
BB95	3	6	115/60/1	3.5	5-15P	3/8	R290	1875
BB95G	3	6	115/60/1	3.5	5-15P	3/8	R290	1875

\* Above specifications are subjected to change without prior notice for quality improvement.

# GLASS DOOR BB SERIES PARTS DIAGRAM

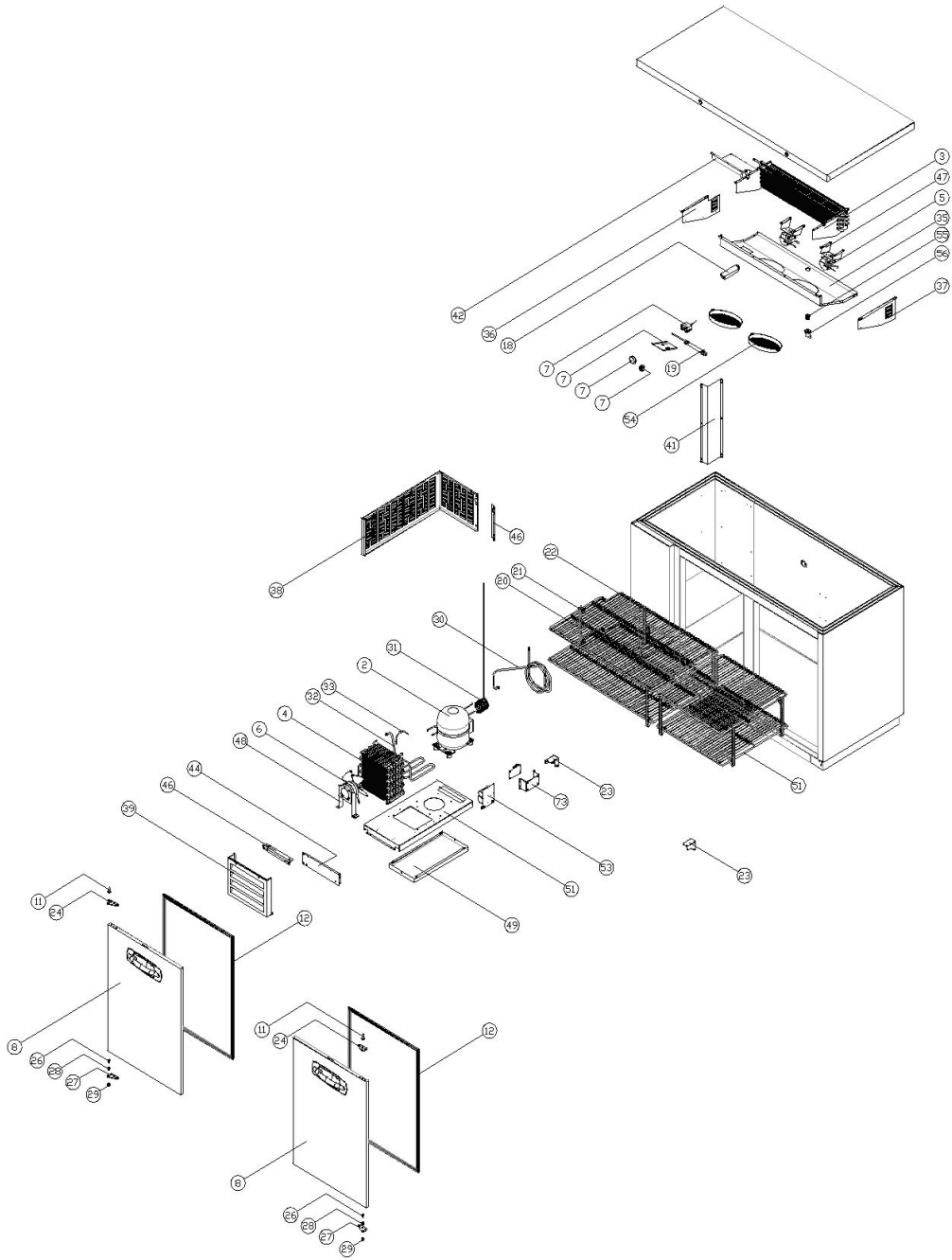


# GLASS DOOR BB SERIES PARTS LIST

ITEM NO.	PART NAME and DESCRIPTION	BB59	BB69	BB79	BB95	PART NO.
2	COMPRESSOR SD162C-L1U (R134a UNITS)	X				145735
	COMP ELECTRONIC KIT (R134a UNITS)	X				150445
	COMPRESSOR SK182C-L2U (R134a UNITS)		X			160624
	COMP ELECTRONIC KIT (R134a UNITS)		X			160625
	COMPRESSOR SK1A1C-L2W (R134a UNITS)			X	X	150311
	COMP ELECTRONIC KIT (R134a UNITS)			X	X	150312
	COMPRESSOR (R290 UNITS)	X	X	X	X	161767
	COMP ELECTRONIC KIT (R290 UNITS)	X	X	X	X	161768
3	Evaporator (R134a UNITS)	X				157129
	Evaporator (R290 UNITS)	X				161855
	Evaporator (R134a UNITS)		X	X	X	157130
	Evaporator (R290 UNITS)		X	X	X	161856
4	Condenser	X	X	X	X	157131
5	EVAPORATOR FAN MOTOR	2				145709
	EVAPORATOR FAN BLADE	2				160627
	EVAPORATOR FAN MOTOR		X	X	X	157132
	EVAPORATOR FAN BLADE		X	X	X	145750
6	CONDENSER FAN MOTOR	X	X	X	X	145748
	CONDENSER FAN BLADE	X	X	X	X	145749
7	THERMOSTAT CONTROL (R134a UNITS)	X	X	X	X	160640
	THERMOSTAT CONTROL (R290 UNITS)	X	X	X	X	161859
	THERMOSTAT PLATE	X	X	X	X	145822
	THERMOSTAT KNOB	X	X	X	X	145730
	LAMP SWITCH (R134a UNITS)	X	X	X	X	145729
	LAMP SWITCH (R290 UNITS)	X	X	X	X	161771
9	DOOR ASSY LEFT	X	X	X	X	157616
	DOOR ASSY RIGHT	X	X	X	2	157617
	DOOR ASSY RIGHT (CENTER DOOR ON BB79)			X		157618
10	DOOR HANDLE	2	2	3	3	159219
11	DOOR BUSHING	2	2	3	3	159220
12	DOOR GASKET	2	2	2	3	159221
	DOOR GASKET (CENTER DOOR ON BB79)			X		159222
18	LED DRIVER	X	X	X	X	157576
19	LED LAMP (1002mm)	X	X	X	X	159223
20	SHELF PILASTER	9	9	13	13	145755
21	SHELF CLIP	18	18	26	26	145756
22	SHELF LEFT	2	2	2	2	157578
	SHELF CENTER		2		2	157579
	SHELF CENTER	2		4		157580
	SHELF RIGHT				2	157582
23	HINGE BOTTOM LEFT	X	X	X	X	162398
	HINGE BOTTOM RIGHT	X	X	2	2	162399
24	HINGE TOP ASSY	2	2	3	3	159226
30	SUCTION PIPE ASSY (R134A UNITS)	X	X	X	X	157590
	SUCTION PIPE ASSY (R290 UNITS)	X	X	X	X	161866
31	CAPILLARY TUBE (R134a UNITS)	X	X	X	X	157591
	CAPILLARY TUBE (R290 UNITS)	X	X	X	X	
32	HOT PIPE (R134a UNITS)	X	X	X	X	157592
33	SUCTION JOIN PIPE (R134a UNIT)	X	X	X	X	157593
	SUCTION JOIN PIPE (R290 UNIT)	X	X	X	X	

34	DRYER (R134a UNITS)			X	X	X	X	145714
	DRYER (R290 UNITS)			X	X	X	X	161786
35	DUCT 59G			X				160632
	DUCT 69G,79G,95G				X	X	X	157596
36	DUCT LEFT COVER			X	X	X	X	157597
37	DUCT RIGHT COVER			X	X	X	X	157598
38	SIDE PANEL			X	X	X	X	157599
39	FRONT PANEL			X	X	X	X	157600
41	PIPE COVER			X	X	X	X	157601
42	HARNESS & PIPE COVER			X				157602
	HARNESS & PIPE COVER				X			157603
	HARNESS & PIPE COVER					X		157604
	HARNESS & PIPE COVER						X	157605
43	LED HARNESS COVER			X	X	X	X	157606
44	CABINET BASE			X	X	X	X	157607
51	COMPRESSOR BASE			X	X	X	X	157608
54	EVAP FAN COVER			2	X	X	X	157609
55	EVAP DRAIN ELBOW A			X	X	X	X	157684
56	EVAP DRAIN ELBOW B			X	X	X	X	157685
58	MAIN HARNESS		NOT SHOWN	X				157612
	MAIN HARNESS		NOT SHOWN		X			160628
	MAIN HARNESS		NOT SHOWN			X	X	157613
59	COMPRESSOR HARNESS (R134a UNITS)		NOT SHOWN	X	X	X	X	157614
	COMPRESSOR HARNESS (R290 UNITS)		NOT SHOWN	X	X	X	X	161865
60	POWER CORD		NOT SHOWN	X	X	X	X	145733
67	CASTERS (4) 2 LOCKING & 2 NON-LOCKING PLATE TYPE			X				160620
	CASTERS (6) 3 LOCKING & 3 NON-LOCKING PLATE TYPE				X	X	X	160621
70	DOOR LOCK KEY			2	2	3	3	160743
73	FAN CONTROL PCB KIT			X	X	X	X	161579

# SOLID DOOR BB SERIES PARTS DIAGRAM



# SOLID DOOR BB SERIES PARTS LIST

ITEM NO.	PART NAME and DESCRIPTION	BB59	BB69	BB79	BB95	PART NO.
2	COMPRESSOR (R134a UNITS) SD162C-L1U	X				145735
	COMP ELECTRONIC KIT (R134a UNITS)	X				150445
	COMPRESSOR (R134a UNITS) SK182C-L2U		X	X		160624
	COMP ELECTRONIC KIT (R134a UNITS)		X	X		160625
	COMPRESSOR (R134a UNITS) SK1A1C-L2W				X	150311
	COMP ELECTRONIC KIT (R134a UNITS)				X	150312
	COMPRESSOR (R290 UNITS)	X	X	X	X	161767
	COMP ELECTRONIC KIT (R290 UNITS)	X	X	X	X	161768
3	Evaporator (R134a UNITS)	X				157129
	Evaporator (R290 UNITS)	X				161855
	Evaporator (R134a UNITS)		X	X	X	157130
	Evaporator (R290 UNITS)		X	X	X	161856
4	Condenser	X	X	X	X	157131
5	EVAPORATOR FAN MOTOR	2				145709
	EVAPORATOR FAN BLADE	2				160627
	EVAPORATOR FAN MOTOR		X	X	X	157132
	EVAPORATOR FAN BLADE		X	X	X	145750
6	CONDENSER FAN MOTOR	X	X	X	X	145748
	CONDENSER FAN BLADE	X	X	X	X	145749
7	THERMOSTAT CONTROL (R134a UNITS)	X	X	X	X	160640
	THERMOSTAT CONTROL (R290 UNITS)	X	X	X	X	161859
	THERMOSTAT PLATE	X	X	X	X	145822
	THERMOSTAT KNOB	X	X	X	X	145730
	LAMP SWITCH (R134a UNITS)	X	X	X	X	145729
	LAMP SWITCH (R290 UNITS)	X	X	X	X	161771
8	DOOR ASSY LEFT	X	X	X	X	157571
	DOOR ASSY RIGHT	X	X	X	2	157572
	DOOR ASSY RIGHT (CENTER DOOR ON BB79)			X		157573
11	DOOR BUSHING	2	2	3	3	159220
12	DOOR GASKET	2	2	3	3	157574
	DOOR GASKET (CENTER DOOR ON BB79)			X		157575
18	LED DRIVER	X	X	X	X	157576
19	LED LAMP (462mm)	X	X	X	X	157577
20	SHELF PILASTER	9	9	13	13	145755
21	SHELF CLIP	18	18	26	26	145756
22	SHELF LEFT	2	2	2	2	157578
	SHELF CENTER		2		2	157579
	SHELF CENTER	2		4		157580
	SHELF RIGHT				2	157582
23	HINGE BOTTOM LEFT	X	X	X	X	157583
	HINGE BOTTOM RIGHT	X	X	2	2	157584
24	HINGE TOP ASSY LEFT	X	X	X	X	157585
	HINGE TOP ASSY RIGHT	X	X	2	2	157586
26	HINGE BOLT	2	2	3	3	157588
27	HINGE CONNECTOR	2	2	3	3	157589
28	BOTTOM HINGE SHAFT	2	2	3	3	159227
29	HINGE BUSHING	2	2	3	3	159228
30	SUCTION PIPE ASSY (R134a UNITS)	X	X	X	X	157590
	SUCTION PIPE ASSY (R290 UNITS)	X	X	X	X	161866
31	CAPILLARY TUBE (R134a UNITS)	X	X	X	X	157591



	CAPILLARY TUBE (R290 UNITS)	X	X	X	X	
32	HOT PIPE (R134a UNITS)	X	X	X	X	157592
33	SUCTION JOIN PIPE (R134a UNITS)	X	X	X	X	157593
	SUCTION JOIN PIPE (R290 UNITS)	X	X	X	X	
34	DRYER (R134a UNITS)	X	X	X	X	145714
	DRYER (R290 UNITS)	X	X	X	X	161786
35	DUCT 59G	X				160629
	DUCT 69G,79G,95G		X	X	X	160630
36	DUCT LEFT COVER	X	X	X	X	157597
37	DUCT RIGHT COVER	X	X	X	X	157598
38	SIDE PANEL	X	X	X	X	157599
39	FRONT PANEL	X	X	X	X	157600
41	PIPE COVER	X	X	X	X	157601
42	HARNESS & PIPE COVER	X				157602
	HARNESS & PIPE COVER		X			157603
	HARNESS & PIPE COVER			X		157604
	HARNESS & PIPE COVER				X	157605
43	LED HARNESS COVER	X	X	X	X	157606
44	CABINET BASE	X	X	X	X	157607
51	COMPRESSOR BASE	X	X	X	X	157608
54	EVAP FAN COVER	2	X	X	X	157609
55	EVAP DRAIN ELBOW A	X	X	X	X	157684
56	EVAP DRAIN ELBOW B	X	X	X	X	157685
58	MAIN HARNESS NOT SHOWN	X				157612
	MAIN HARNESS NOT SHOWN		X			160628
	MAIN HARNESS NOT SHOWN			X	X	157613
59	COMPRESSOR HARNESS (R134a UNITS) NOT SHOWN	X	X	X	X	157614
	COMPRESSOR HARNESS (R290 UNITS) NOT SHOWN	X	X	X	X	161865
60	Power Cord	X	X	X	X	145733
67	CASTERS (4) 2 LOCKING & 2 NON-LOCKING PLATE TYPE	X				160620
	CASTERS (6) 3 LOCKING & 3 NON-LOCKING PLATE TYPE		X	X	X	160621
70	DOOR LOCK KEY	2	2	3	3	160743
73	FAN CONTROL PCB KIT	X	X	X	X	161579

# BB SERIES WIRING DIAGRAM

