SHALLOW BACK BAR REFRIGERATION
Installation, Operation and Maintenance Instructions

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.

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

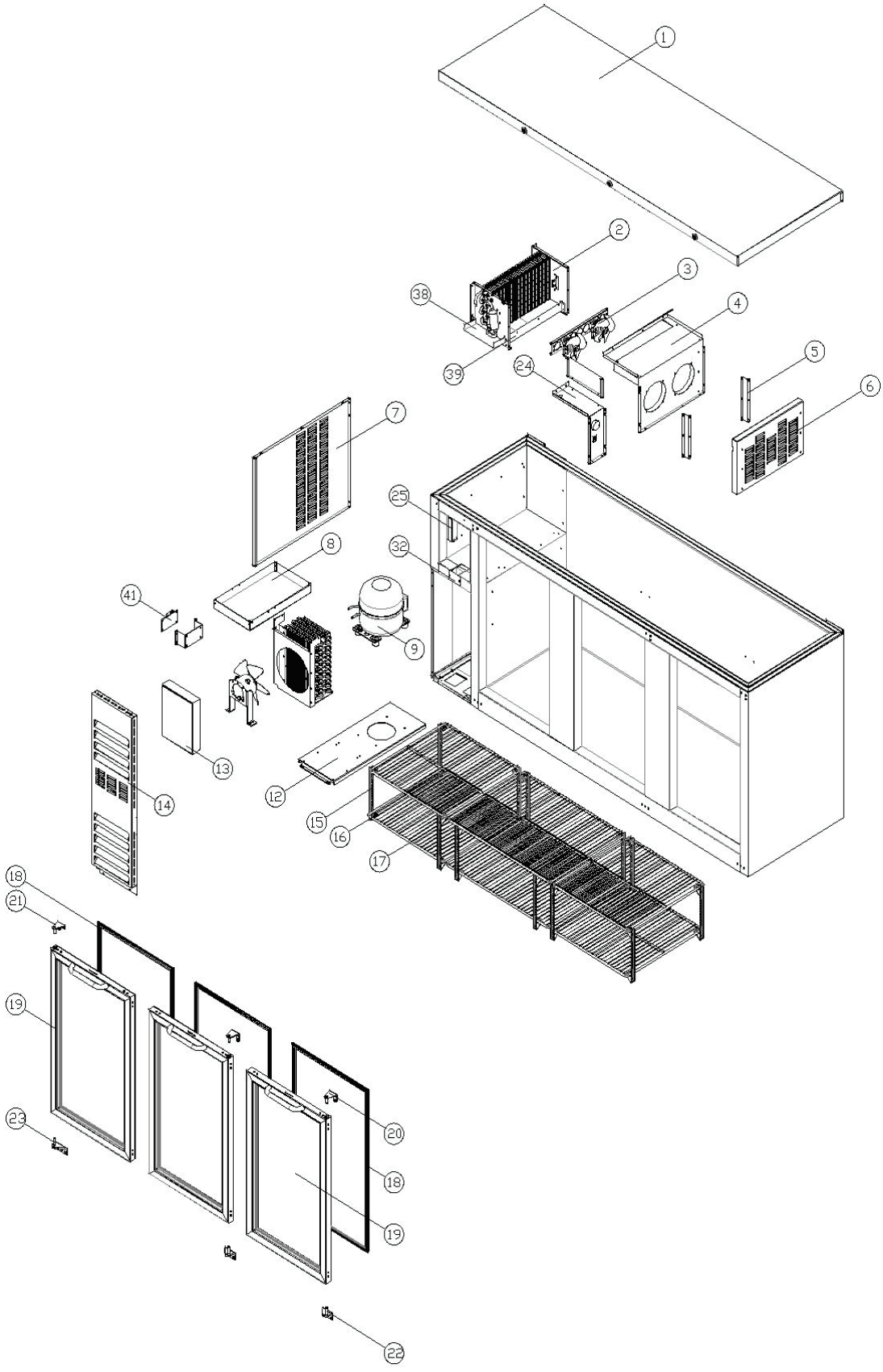
Problem	Remedy
Compressor will not start	· Check the power cord and make sure it is plugged in and has power. · Check the temperature controller. If it is in the “OFF” position, turn it clockwise to set a desired temperature.
Poor performance	· Move the unit from direct sunlight. · Move the unit away from heating devices. · Install the unit in a well ventilated place, with at least 2” of clearance on all sides. · Clean the condenser if heavy dust is collected. · Clear contents from blocking the inside air duct. · Check the temperature controller for correct setting. · Check the doors and be sure they are completely closed.
Unit noisy	· Install the unit on a level solid surface. · Maintain 2 inches of clearance from the wall. · Check for loose parts or mounting. · Keep the tubing free from any contact to avoid rattle.
Condensation on cabinet exterior and/or floor	· Reduce humidity where the unit is installed. · 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.

SPECIFICATIONS*

Model	# of Doors	# of Shelves	Electrical	Amps	NEMA Plug	HP	Refrigerant	Capacity 12oz. cans
BB48N	2	4	115/60/1	3.5	5-15P	3/8	R290	714
BB48NG	2	4	115/60/1	3.5	5-15P	3/8	R290	714
BB60N	2	4	115/60/1	3.5	5-15P	3/8	R290	966
BB60NG	2	4	115/60/1	3.5	5-15P	3/8	R290	966
BB72N	3	6	115/60/1	3.5	5-15P	3/8	R290	1218
BB72NG	3	6	115/60/1	3.5	5-15P	3/8	R290	1218

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

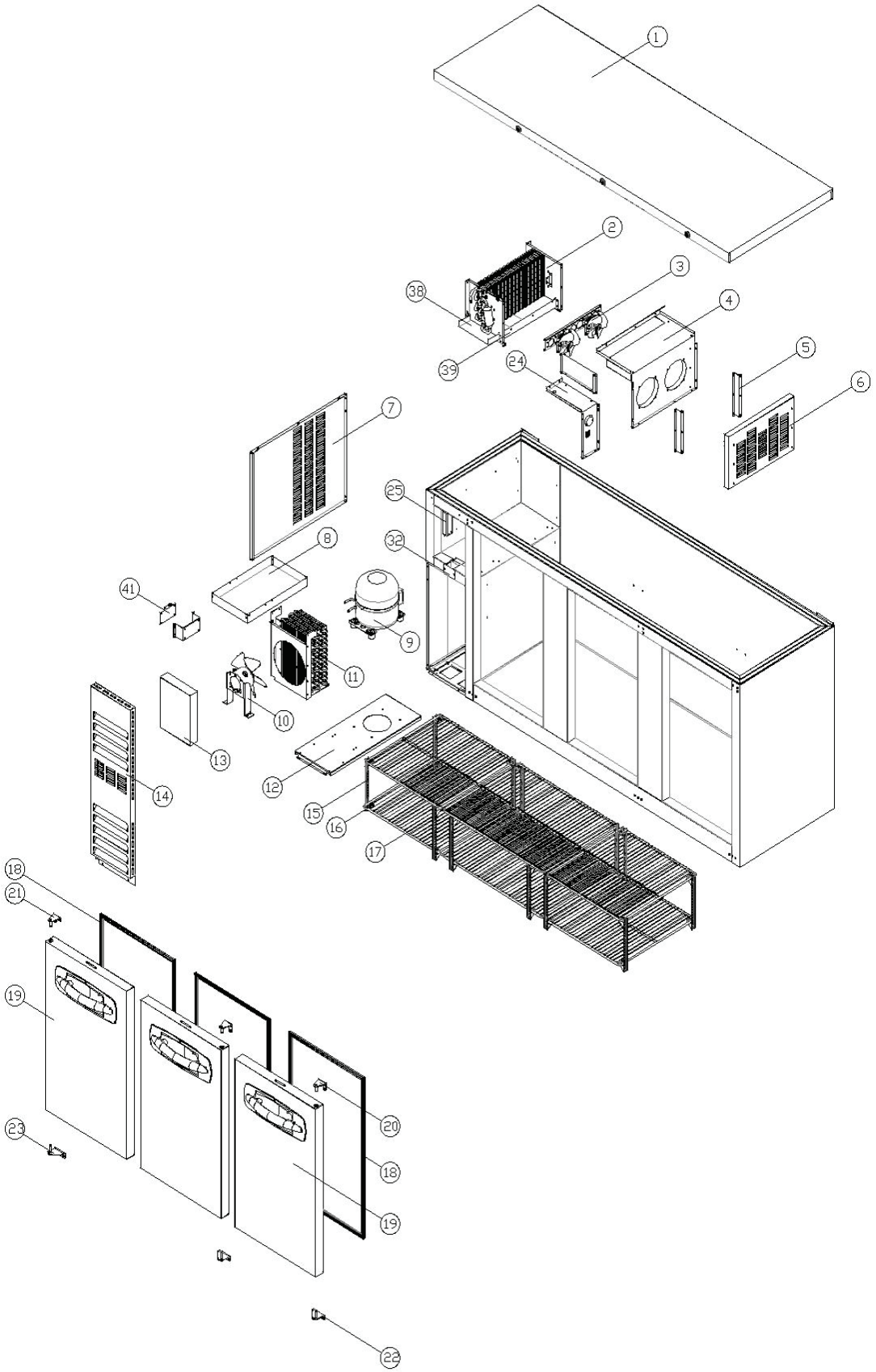
GLASS DOOR BB-NG SERIES PARTS DIAGRAM



GLASS DOOR BB-NG SERIES PARTS LIST

ITEM NO.	PART NAME and DESCRIPTION	BB48NG	BB60NG	BB72NG	PART NO.
2	EVAPORATOR (R134a UNITS)	X	X	X	159306
	EVAPORATOR (R290 UNITS)	X	X	X	161776
3	EVAPORATOR FAN MOTOR KIT (BLADE & MOTOR)	2	2	2	159307
	EVAPORATOR FAN MOTOR	2	2	2	145709
	EVAPORATOR FAN MOTOR BLADE	2	2	2	145710
4	EVAP DUCT	X	X	X	159310
5	LOUVER BRACKET	2	2	2	159311
6	LOUVER	X	X	X	159312
7	SIDE COVER	X	X	X	159313
8	DRAIN TRAY BOX	X	X	X	159314
9	COMPRESSOR (R134a UNITS) SK1A1C-L2W	X	X	X	150311
	COMPRESSOR (R290 UNITS)	X	X	X	161767
	COMPRESSOR ELECTRONIC KIT (R134a UNITS)	X	X	X	150312
	COMPRESSOR ELECTRONIC KIT (R290 UNITS)	X	X	X	161768
10	CONDENSER FAN MOTOR	X	X	X	145748
	CONDENSER FAN	X	X	X	145749
11	CONDENSER	X	X	X	159315
12	COMPRESSOR BASE	X	X	X	159316
13	EVAPORATOR COVER ASSY	X	X	X	159317
14	FRONT PANEL	X	X	X	159318
15	SHELF PILASTER	8	8	12	145755
16	SHELF CLIP	16	16	24	145756
17	SHELF 48 & 72	4		4	159319
	SHELF 60 & 72		4	2	159320
18	GASKET 48 & 72	2		3	159321
	GASKET 60		2		159322
19	DOOR ASSY LEFT 48 & 72	1		1	159341
	DOOR ASSY RIGHT 48 & 72	1		2	159342
	DOOR ASSY LEFT 60		1		159343
	DOOR ASSY RIGHT 60		1		159344
20	TOP HINGE ASSY RIGHT	1	1	2	160641
21	TOP HINGE ASSY LEFT	1	1	1	159345
22	BOTTOM HINGE ASSY RIGHT	1	1	2	160642
23	BOTTOM HINGE ASSY LEFT	1	1	1	159346
24	THERMOSTAT CONTROL NGA-240L-7 (R134a UNITS)	X	X	X	160640
	THERMOSTAT CONTROL (R290 UNITS)	X	X	X	161770
	THERMOSTAT PLATE	X	X	X	145822
	THERMOSTAT KNOB	X	X	X	145730
	LAMP SWITCH (R134a UNITS)	X	X	X	145729
	LAMP SWITCH (R290 UNITS)	X	X	X	161771
25	LED SMPS	X	X	X	157576
26	LED LAMP (462mm)	X	X		159348
	LED LAMP (1002mm)			X	159223
27	SUCTION PIPE ASSY (R134a UNITS) (HEAT EXCHANGER)	X	X	X	159334
	SUCTION PIPE ASSY (R290 UNITS) (HEAT EXCHANGER)	X	X	X	161772
28	CAPILLARY TUBE (R134a UNITS)	X	X	X	145725
	CAPILLARY TUBE (R290 UNITS)	X	X	X	SEE 161772
29	DISCHARGE LINE (R134a UNITS)	X	X	X	159336
	DISCHARGE LINE (R290 UNITS)	X	X	X	161773
30	SUCTION PIPE (R134a UNITS)	X	X	X	159337
	SUCTION PIPE (R290 UNITS)	X	X	X	161774
31	DRYER (R134a UNITS)	X	X	X	145714
32	PIPE COVER	X	X	X	159338
33	MAIN HARNESS	X	X	X	159339
34	COMPRESSOR HARNESS (R134a UNITS)	X	X	X	159340
	COMPRESSOR HARNESS (R290 UNITS)	X	X	X	161775
35	POWER CORD	X	X	X	145733
36	DOOR LOCK KEY	2	2	3	160743
41	FAN CONTROL PCB KIT	X	X	X	161579
	CASTERS (4) 2 LOCKING & 2 NON-LOCKING PLATE TYPE	X	X		160620
	CASTERS (6) 3 LOCKING & 3 NON-LOCKING PLATE TYPE			X	160621

SOLID DOOR BB-N SERIES PARTS DIAGRAM



SOLID DOOR BB-N SERIES PARTS LIST

ITEM NO.	PART NAME and DESCRIPTION	BB48N	BB60N	BB72N	PART NO.
2	EVAPORATOR (R134a UNITS)	X	X	X	159306
	EVAPORATOR (R290 UNITS)	X	X	X	161766
3	EVAPORATOR FAN MOTOR KIT (BLADE & MOTOR)	2	2	2	159307
	EVAPORATOR FAN MOTOR	2	2	2	145709
	EVAPORATOR FAN MOTOR BLADE	2	2	2	145710
4	EVAP DUCT	X	X	X	159310
5	LOUVER BRACKET	2	2	2	159311
6	LOUVER	X	X	X	159312
7	SIDE COVER	X	X	X	159313
8	DRAIN TRAY BOX	X	X	X	159314
9	COMPRESSOR (R134a UNITS) SK1A1C-L2W	X	X	X	150311
	COMPRESSOR (R290 UNITS)	X	X	X	161767
	COMPRESSOR ELECTRONIC KIT (R134a UNITS)	X	X	X	150312
	COMPRESSOR ELECTRONIC KIT (R290 UNITS)	X	X	X	161768
10	CONDENSER FAN MOTOR	X	X	X	145748
	CONDENSER FAN	X	X	X	145749
11	CONDENSER	X	X	X	159315
12	COMPRESSOR BASE	X	X	X	159316
13	EVAPORATOR COVER ASSY	X	X	X	159317
14	FRONT PANEL	X	X	X	159318
15	SHELF PILASTER	8	8	12	145755
16	SHELF CLIP	16	16	24	145756
17	SHELF 48 & 72	4		4	159319
	SHELF 60 & 72		4	2	159320
18	GASKET 48 & 72	2		3	159321
	GASKET 60		2		159322
19	DOOR ASSY LEFT 48 & 72	1		1	159323
	DOOR ASSY RIGHT 48 & 72	1		2	159324
	DOOR ASSY LEFT 60		1		159325
	DOOR ASSY RIGHT 60		1		159326
20	TOP HINGE ASSY RIGHT	1	1	2	159327
21	TOP HINGE ASSY LEFT	1	1	1	159328
22	BOTTOM HINGE ASSY RIGHT	1	1	2	159329
23	BOTTOM HINGE ASSY LEFT	1	1	1	159330
24	THERMOSTAT CONTROL NGA-240L-7 (R134a UNITS)	X	X	X	160640
	THERMOSTAT CONTROL (R290 UNITS)	X	X	X	161770
	THERMOSTAT PLATE	X	X	X	145822
	THERMOSTAT KNOB	X	X	X	145730
	LAMP SWITCH (R134a UNITS)	X	X	X	145729
	LAMP SWITCH (R290 UNITS)	X	X	X	161771
25	LED SMPS	X	X	X	157576
26	LED LAMP (155mm HARNESS: 500mm)	X			159332
	LED LAMP (155mm HARNESS: 900mm)		X	X	159333
27	SUCTION PIPE ASSY (R134a UNITS) (Heat Exchanger)	X	X	X	159334
	SUCTION PIPE ASSY (R290 UNITS) (Heat Exchanger)	X	X	X	161772
28	CAPILLARY TUBE (R134a UNITS)	X	X	X	145725
	CAPILLARY TUBE (R290 UNITS)	X	X	X	See 161772
29	DISCHARGE LINE (R134a UNITS)	X	X	X	159336
	DISCHARGE LINE (R290 UNITS)	X	X	X	161773
30	SUCTION PIPE (R134a UNITS)	X	X	X	159337
	SUCTION PIPE (R290 UNITS)	X	X	X	161774
31	DRYER	X	X	X	145714
32	PIPE COVER	X	X	X	159338
33	MAIN HARNESS	X	X	X	159339
34	COMPRESSOR HARNESS (R134a UNITS)	X	X	X	159340
	COMPRESSOR HARNESS (R290 UNITS)	X	X	X	161775
35	POWER CORD	X	X	X	145733
36	DOOR LOCK KEY	2	2	3	160743
41	FAN CONTEOL PCB KIT	X	X	X	161579
	CASTERS (4) 2 LOCKING & 2 NON-LOCKING PLATE TYPE	X	X		160620
	CASTERS (6) 3 LOCKING & 3 NON-LOCKING PLATE TYPE			X	160621

BB SERIES WIRING DIAGRAM