



## **A/C Evaporator, Condenser, Compressor**

### **Service Manual**

## Replacement Parts List

### 66 000 354 Evaporator Unit

Part Number	Description
01 000 494	Evaporator Harness
03 000 194	Evaporator Coil
08 000 143	Filter
11 000 128	Louver
11 000 195	Blower Motor Assembly
60 001 472	#6 Male Quick Connect Fitting
60 001 474	#8 Male Quick Connect Fitting
62 000 860	#6 A/C Hose Assembly with Quick Connect
62 000 861	#8 A/C Hose Assembly with Quick Connect
68 000 044	Expansion Valve Kit

### 31 000 082 Condenser, Compressor Unit

Part Number	Description
01 000 480	Compressor Harness
01 000 504	Pressure Switch
01 000 674	Capacitor
03 000 098	Condenser Coil
05 000 776	Drier
11 000 235	Fan
15 000 096	Compressor
15 000 053	Accumulator
15 000 095	Hard Start Relay
60 001 436	#6 Female Quick Connect Fitting with Hose Fitting
60 001 437	#8 Female Quick Connect Fitting with Hose Fitting
60 001 471	#6 Female Quick Connect Fitting
60 001 473	#8 Female Quick Connect Fitting
62 000 655	#6 A/C Hose, Drier to Quick Connect
62 000 670	#6 A/C Hose, Compressor to Condenser
62 000 680	#6 A/C Hose, Condenser to Accumulator
62 000 681	#6 A/C Hose, Accumulator to Drier
62 000 682	#8 A/C Hose, Accumulator to Compressor
62 000 683	#8 A/C Hose, Accumulator to Quick Connect

## Quick Connect Fittings

The RFL Series Couplings are designed for use in air conditioning and refrigeration systems to allow the connection of pre-charged systems or the disconnection of the system for maintenance or other purposes. The RFL uses the latest in low spillage and low effusion technology. The coupling flush style valves virtually eliminate refrigerant spillage upon disconnection and air inclusion during connection and disconnection. The thread together design provides for connection and disconnection against system pressure. The valve design is sized to provide for refrigerant flow that is equivalent to the basic tube size of the coupling, with a minimum amount of pressure drop.

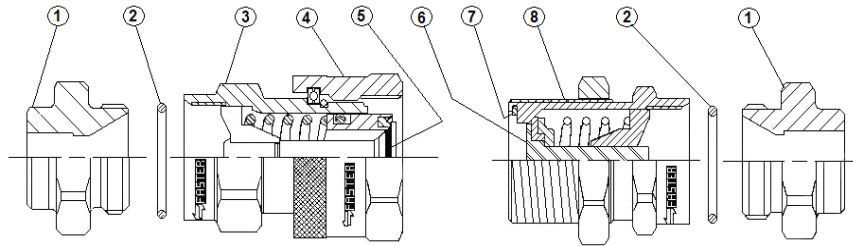


Illustration 1

### Assembly Instructions:

1. If you are bulkhead mounting the male half, drill a hole in the bulkhead to accommodate the RF-male half. Mount the male half using jam nut and lock washer. See Table 1 for proper bulkhead drill hole sizes
2. Lubricate the face of poppet #6, and rubber gasket #7, and the male body thread with system fluid or compatible refrigeration oil.
3. Thread the union nut #4 to the male body #8 and torque to values shown in column B of Table 1. Prevent the female body from rotating, while torqueing the female half union nut to the male half.

Table 1 – RFL Series Torque Specifications					
Coupling Size	Hose Size	Column B Connecting Coupling Halves Torque	Bulkhead Drill Hole Size	Maximum thickness of bulkhead	
				With lock washer-inch	Without lock washer
Inch		Ft-LBS	Inch		
3/8"	#6	16	.820 / .800	0.12	0.18
1/2"	#8	16	1.040 / 1.020	0.2	0.28

## Kazoo Valve Installation

1. Place 02 000 021 hose clamp over the drain hose.



2. Slide kazoo valve 1 ¼" onto the drain hose.

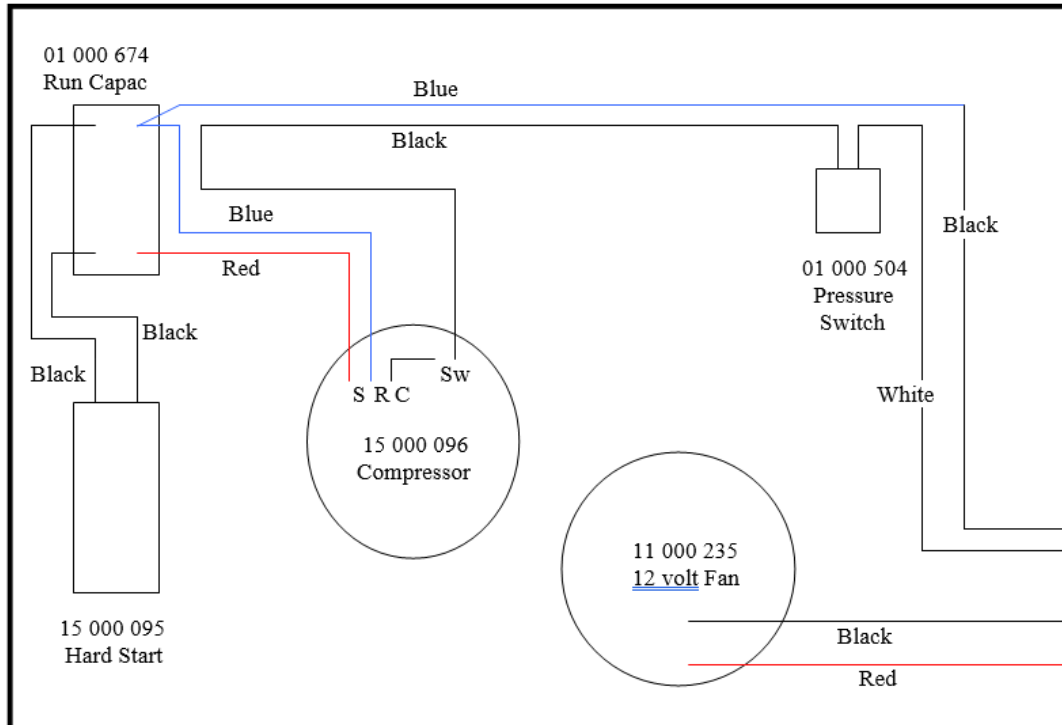


3. Slide hose clamp over the kazoo valve and drain the hose. Tighten. Do not overtighten the clamp; this will collapse the drain hose.

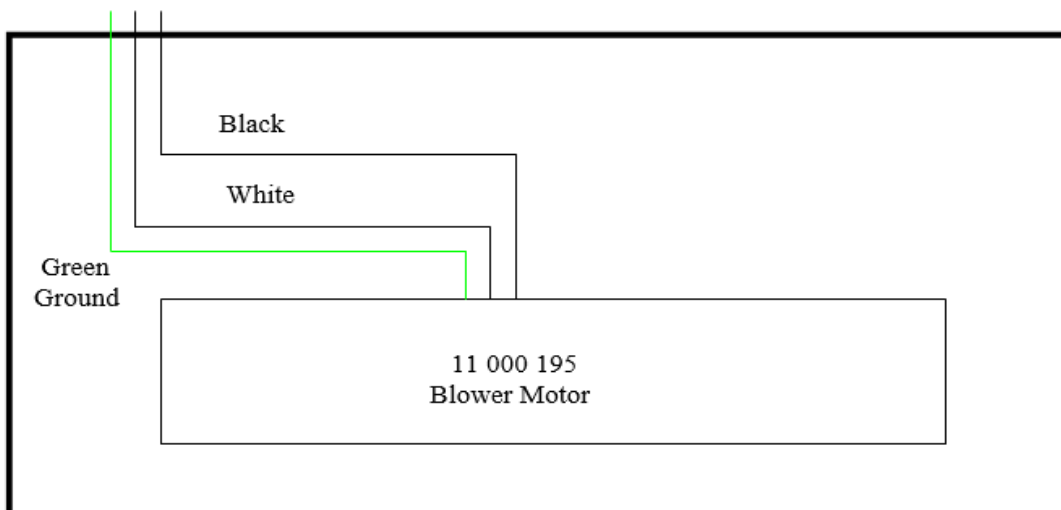


Part Number	Description	Quantity
60 001 523	Valve, Kazoo	1
02 000 021	Clamp, Dr Hose 7/8	1

**Caution: System runs on 110 volts. Electric shock hazard.**



**31 000 082 Condenser, Compressor**



**66 000 254 Evaporator**

## Air Conditioner Is Not Cooling

1. Turn Thermostat to cool.
2. Set temperature below current bunk temperature.
3. Remove compressor/condenser box cover.
4. Verify that compressor is running (*skip step 5 if compressor is running*).
5. Check wiring connections and voltage (*110 volts*) at pressure switch (*located on drier*), capacitors and compressor. **Caution should be taken, system runs on 110 volts, electrical shock hazard.**
6. Check **condenser fan** for proper operation. The fan runs on 12 volts and should spin freely. Make sure the **condenser coil** is clean and airflow is not restricted.
7. If compressor is running (*and cold air is not coming out of the evaporator*) turn off air conditioner at thermostat.
8. Attach A/C gauges to refrigerant service ports, refrigerant service ports are located at the quick connect fittings in the A/C hose assemblies behind the compressor/condenser in or near the truck's frame rail. Pressure readings will vary depending on outside temperature. If the unit has not been running for a period of time the low and high readings should read the same pressure, close to the outside temperature. If the compressor is running, the pressures should read 10 to 40 on the low side and 110 to 140 on the high side.
9. If pressure readings are not correct, recover refrigerant, vacuum for at least fifteen minutes, recharge with 2.00 lbs of 134a refrigerant and check system for leaks.
10. Check **A/C hoses** for visible kinks or pinched areas.
11. Check **quick connect fittings** for proper connection and torque.
12. Check **expansion valve**, gauge readings and temperature difference of hoses attached to expansion valve are a way to determine if it is working. Low side gauge showing vacuum is a sign of expansion valve stuck shut, and a high low side pressure with a low high side pressure is a sign of an expansion valve stuck open, (*60 psi low side and 80 psi high side*).

13. **Compressor not working properly**, gauge readings are a way to determine if it is working. A high low side pressure with a low high side pressure is a sign of a weak compressor, (*60 psi low side and 80 psi high side*). Gauge readings are the same as a bad expansion valve, change expansion valve before changing compressor.
  
14. **Blockage in system**, use gauges to determine if a blockage is present. Low side gauge will show a vacuum if system has blockage. Gauge readings are the same as a bad expansion valve, change expansion valve before changing other components.

### Warranty for Evaporator & Compressor, Condenser Assembly



Warranty registration for new product is available on our website or by telephone.

**Web address:** [www.proairllc.com](http://www.proairllc.com)

Click on owner registration icon.

**Phone:** 1-574-264-5494 and ask for Customer Service