





Sensible Solutions For Refrigerant Recovery

# Model 3700 Instruction 790110

**Operation & Maintenance** 

Rev. E - August 2001



**WARNING:** Inhalation of high concentrations of refrigerant vapors is harmful and may cause heart irregularities, unconsciousness, or death. Deliberate inhalation of refrigerants is extremely dangerous and death can occur without warning. Vapors reduce oxygen available for breathing and are heavier than air. Decomposition products are hazardous. Liquid contact may cause frostbite. All refrigerant containers, equipment, and hoses are under pressure.

**CAUTION:** Before operating this unit, please read this manual in its entirety. It is important that you have a thorough understanding of the procedures outlined in this manual. Failure to follow these procedures could void all manufacturer warranties.

### FLUOROMIZER SPECIFICATIONS

Model 3700	Portable Commercial Oill	ess Recovery System		
Refrigerants	R12, R-22, R-134a, R-500, R-502, HP/MP Blends			
Power Source	115V AC 50/60 Hz			
Amperes	RLA 10.2A LRA 65 A			
Compressor	1 HP High Performance Oilles	SS		
Dimensions	Height 12.0"			
	Width 14.0"			
	Depth 8.5"			
	Weight 42 Lbs.			
ARI 740 Certified				
Vapor Rates Vacuum Rating				
R-12 .60 Lbs/Min 13 Inch Hg.				
R-22 .60 Lbs/Min 13 Inch Hg.				
R-134a .60 Lbs/Min 13 Inch Hg.		13 Inch Hg.		
R-500	.60 Lbs/Min 13 Inch Hg.			
R-502	.60 Lbs/Min			

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Congratulations on your purchase of the Fluoromizer Model 3700 high performance oilless recovery system. Bacharach Test Systems has endeavored to make the Model 3700 the highest performing, most portable and easiest to use recovery system on the market. We are committed to your complete satisfaction!

Please note that Bacharach Test Systems requires that a filter be used on the inlet hose coming from the system being serviced in order to protect the compressor from particulate. A standard filter or filter dryer is suggested. The compressor warranty will be voided if it is determined that a filter was not used during the operation of this equipment.

CAUTION: These instructions are for personnel trained and experienced in the handling of refrigerants. Unqualified individuals should not attempt to operate this equipment. Failure to follow proper operating procedures may cause personal injury.

#### **FEATURES**

- A high performance dual headed oilless recovery system.
- New oilless compressor technology that is QUIETER, FASTER, AND LIGHTER than current products on the market.
- Tolerates liquid during vapor recovery operations with no compressor damage.
- Very easy to operate.
- Extra large condensing ensures high recovery rates even on the hottest days.
- Self-purging valve completely purges the condenser and tubing, eliminating cross contamination when switching between refrigerants.
- Solid state LED status display keeps the operator informed of the operational status of the Fluoromizer. The following situations are monitored: High Pressure Shutoff, Recovery Cylinder Full Shutoff (if option is installed), Automatic Vacuum Shutoff, and System Operating.
- Suction and discharge gauges eliminate the need for a manifold gauge set.
- Inlet and outlet ball valves provide full refrigerant flow and positive shutoff.
- Automatic vacuum shutoff at 13" HG vacuum.
- Automatic high-pressure shutoff at 550 psi.
- Rugged heavy-duty steel construction with epoxy powder coating finish.
- Options include:

Deluxe Carrying Case Part # 070030 Automatic 80% Tank Full Shutoff Option Part # 020081

Specifications are subject to change without notice.

# GENERAL SAFETY INSTRUCTIONS

#### 1. KNOW YOUR EQUIPMENT

Read and understand the instruction manual and labels affixed to the unit. Learn its application and limitations as well as the specific potential hazards of your equipment.

#### 2. GROUND ALL EQUIPMENT

This unit is equipped with an approved three pronged grounded power cord and plug. The green wire is the ground wire and should never be connected to a live terminal.

#### 3. Use the Proper Extension Cord

Use the following guide for choosing the proper extension cord:

18 gauge cord - maximum length 10 feet

16 gauge cord - maximum length 25 feet

14 gauge cord - maximum length 50 feet

12 gauge cord - maximum length 100 feet

#### 4. AVOID DANGEROUS ENVIRONMENTS

Do not use this unit in damp or wet locations or expose it to rain. Secure unit when working above floor level. This equipment should be used in a location with mechanical ventilation that provides at least four air changes per hour or the equipment should be located at least 18 inches above the floor. This equipment should not be used in the vicinity of spilled or open containers of flammable materials.

#### 5. DISCONNECT UNIT BEFORE SERVICING

Electrical shock hazard may be present when the unit is disassembled.

#### 6. AVOID ACCIDENTAL STARTING

Make sure the system switch is in the OFF position before connecting electrical devices.

#### 7. REPAIR DAMAGED PARTS

Do not operate the unit with a defective part. Repair unit to proper operating conditions.

#### 8. USE RECOMMENDED ACCESSORIES

Follow the instructions that accompany all accessories. Improper use of accessories may damage the equipment or create a hazard.

#### 9. USE CAUTION WHEN CONNECTING OR DISCONNECTING HOSES

Improper usage may result in refrigerant burns (frostbite). If a significant refrigerant leak occurs, proceed immediately to a well ventilated area.

## OPERATIONAL SAFETY

WARNING: Inhalation of high concentrations of refrigerant vapors is harmful and may cause heart irregularities, unconsciousness, or death. Deliberate inhalation of refrigerants is extremely dangerous and death may occur without warning. Vapor reduces oxygen available for breathing and is heavier than air. Decomposition products are hazardous. Liquid contact can cause frostbite. All refrigerant containers, equipment and hoses are under high pressure.

- Avoid breathing high concentrations of vapors.
- Use with sufficient ventilation to keep operator exposure below recommended limits, especially in enclosed and low lying areas.
- Avoid contact of liquid with eyes and prolonged skin exposure.
- Wear safety goggles and protective gloves.
- Do not apply open flame or heat unit above 125°F.
- Do not allow refrigerants to contact open flame. Decomposition will occur.

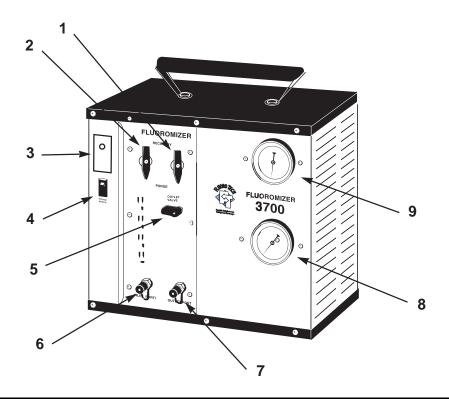
**FIRST AID**: If high concentrations of refrigerant vapors are inhaled, immediately remove person(s) to fresh air. Keep calm. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a doctor. Do not give epinephrine or similar drugs.

EYE: In case of liquid contact, immediately flush eye with water. Seek medical attention.

SKIN: Flush with water. Treat for frostbite by gently warming the affected area.

**CAUTION**: All refrigerant hoses, recovery cylinders, refrigerant lines, the Fluoromizer unit, and other vessels containing refrigerants should be handled at all times as if under high pressure.

# LOCATION AND DESCRIPTION OF UNIT FEATURES



Purge Ball Valve	This valve determines what function the Model 3700 performs. This valve points UP during recovery operations and DOWN for purging and liquid pushpull operations.
2. Inlet Port Ball Valve	Opens or closes the inlet port. It is pointing UP (open) for all recovery operations and points DOWN for purging operations.
3 LED Status Display	Displays the status of the machine.
4 System Switch	When in the ON position, this switch starts the recovery operation by turning the compressor on.
5. Outlet Port Ball Valve	Opens or closes the outlet port. It points DOWN when it is open and to the LEFT when closed.
6 Inlet Port	Refrigerant hose connection for incoming refrigerant vapors.
7 Outlet Port	Refrigerant hose connection for outgoing refrigerant.
8. Outlet Pressure Gauge	Displays the outlet/discharge pressure.
9. Inlet Pressure Gauge	Displays the inlet/suction pressure of the system being evacuated.
Automatic 80% Tank Full Shutoff Cord - Optional Accessory (Not shown)	This optional accessory connects to the recovery cylinder overfill sensor and automatically shuts the Fluoromizer unit off when the recovery cylinder reaches the 80% liquid fill limit. <b>NOTE</b> : If the Model 3700 is equipped with the Automatic 80% Tank Shutoff Option, it will not work unless connected to a DOT recovery cylinder with a compatible level float switch. If the recovery cylinder does not have a float switch, a shorting cap must be installed in order to operate the system.
Compressor Circuit Breaker (not shown)	Protects against high amperage. Located on the left side of the machine.

### **LED DISPLAY**

	LED STATUS	EXPLANATION
Normal Operation	GREEN LED	Indicates that the power switch is ON and the compressor is running.
High Pressure Condition	RED LED	Indicates that there is a high pressure condition that must be corrected. The internal high pressure switch activates at 550 psi.
Tank Full	RED LED	Indicates that the recovery cylinder is full (if the Automatic 80% Tank Full Shutoff Option is installed).

**NOTE:** If the Model 3700 is equipped with the Automatic 80% Tank Full Shutoff Option, it will not work if it is not connected to a DOT recovery cylinder with a compatible level float switch. If the recovery cylinder does not have a float switch, a shorting cap must be installed on the end of the 80% shutoff cord in order to operate the system.

### Vapor Recovery Procedures

#### STEPS:

- Turn off all electrical or mechanical power to the refrigerant device to be evacuated.
- 2. Make proper hose connections: Connect refrigerant hoses to recovery cylinder, Fluoromizer, and the refrigerant system as shown in Figure 1. NOTE: You must use an external filter drier in the suction line in order to meet the conditions of the unit warranty. Caution: If the 80% shutoff option is not used, a scale must be used to monitor the refrigerant level in the recovery cylinder.

**NOTE:** Although the Model 3700 was designed to handle liquid slugging, pumping large amounts of liquid over extended periods of time will reduce the life of the compressor. If large amounts of liquid are present, it is recommended that you use the liquid push-pull method of recovery prior to vapor recovery operations. (See Figures 3 & 4).

- 3. Place the inlet and purge ball valves in the RECOVERY position and the outlet valve is in the OPEN position. Open the DOT recovery cylinder liquid valve. (See Figure 2).
- 4. Turn the system switch to the ON position. The LED status display will indicate "SYSTEM ON". Note: The system fan is on whenever the system switch is in the ON position.
- 5. Regulate the inlet port ball valve when liquid refrigerant is present.

**WARNING**: A "knocking" sound coming from the compressor indicates too much liquid is entering the compressor. The inlet ball valve must be regulated as shown in the shaded region until this knocking sound stops, otherwise compressor damage could occur. Pumping liquid when the compressor is knocking will damage the compressor and will reduce the compressor life and will **void the compressor warranty**.

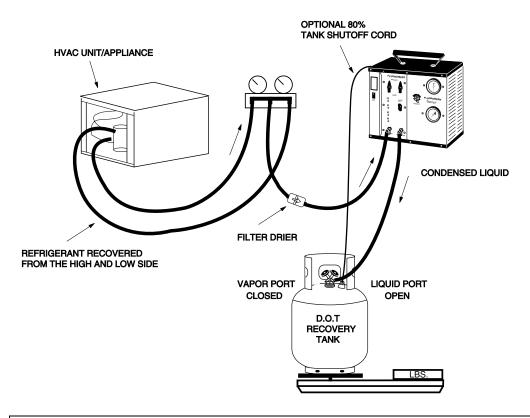
6. **Monitor the LED status display**. The unit will shut off automatically when the proper vacuum level is achieved and the status display will flash "EVACUATION COMPLETE"

GREED LED SYSTEM ON	The "SYSTEM ON" indicator should be ON during normal operations.
NO LED EVACUATION COMPLETE	Indicates that the unit has shut down because the system being evacuated has reached 13" HG. (the evacuation is complete). During liquid push-pull operations the system will not be pulled into a vacuum. <b>NOTE:</b> A small amount of inlet pressure might be needed to reset the vacuum switch, this is normal.
RED LED HIGH PRESSURE	Indicates that there is a high pressure condition that must be corrected. Check for restrictions or a full recovery cylinder. Correct problem and turn system switch to the OFF position. Repeat steps 3-6.
RED LED TANK FULL	Indicates that the recovery cylinder is full (if the 80% Automatic Tank Full Shutoff Option is installed). Change the recovery cylinder and repeat steps 3-6.

7. Purge the system by positioning the inlet and purge ball valves to the PURGE position (both pointing DOWN). CAUTION: Never turn the purge valve while the compressor is running or severe compressor damage could occur. Ensure the power switch is in the off position before turning the purge valve. If the Fluoromizer is manually or automatically turned off before the evacuation is complete, repeat steps 3-7. Note: If the circuit breaker trips, wait 10 seconds, reset circuit breaker and go to step 3. If the

compressor thermal overload trips, wait 16 to 30 minutes before restarting.

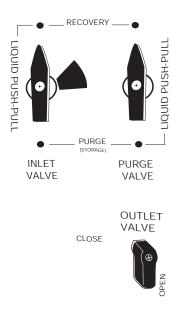
### FIGURE 1



Use only approved DOT recovery cylinders. Follow precautions and warnings listed on the cylinder.

If servicing a system with a compressor burn-out, use a high acid type filter drier and do not reuse.

### FIGURE 2





LIQUID PUSH-PULL

**RECOVERY MODE** 

**STORAGE** 

RECOVERY \_

**PURGE** 

LIQUID PUSH-PULL

INLET

VALVE

### LIQUID PUSH-PULL RECOVERY GENERAL INFORMATION.

### Attention: Before attempting the following liquid push-pull recovery operations, please review this page.

It may not be possible to recover liquid refrigerant from some types of refrigeration equipment.

A scale or liquid sight glass can be used to determine when all the liquid is recovered. The Fluoromizer will not pull a vacuum using the push-pull liquid recovery operation. To finish the recovery operation, you must proceed to vapor recovery operations.

#### **Guidelines**

If any of these conditions are present in the system being evacuated, liquid push pull operations may not be practical and vapor recovery operations should be performed.

- The equipment contains less than 15 lbs. of refrigerant.
- The equipment is a heat pump or other system with refrigerant flow that would prevent you from isolating the liquid.
- Equipment has an accumulator between the service ports used in the liquid recovery process.
- Liquid refrigerant migration has occurred and the location of the liquid is unknown.
- The refrigerant tubing design on the equipment does not allow for a solid column of liquid refrigerant to be formed.

#### **Direct Liquid Recovery Operations**

All compressors are designed to compress gases. Normally compressors are not capable of pumping non-compressible fluids such as liquid refrigerant, however, the Model 3700's compressor head and valves have been specially engineered to enable it to handle liquid directly. This feature makes the 3700 easier to use by minimizing the need to monitor incoming refrigerant vapors and reduces compressor failures due to liquid slugging.

It is important to remember that the 3700 is a compressor and not a liquid pump. When large amounts of liquid are present, the liquid push-pull method of recovery should be used. Using the 3700 to pump large amounts of liquid refrigerant over a long period of time will reduce the compressor life.

**WARNING**: A "knocking" sound coming from the compressor indicates too much liquid is entering the compressor. The inlet ball valve must be regulated as shown in the shaded region until the knocking sound stops, otherwise compressor damage could occur. Pumping liquid when the compressor is knocking will damage the compressor and will reduce the compressor life. **This will void the compressor warranty**.

A sudden slug of liquid into the compressor may cause a sudden spike in pressure and cause the high pressure safety shutoff switch to shut the compressor off. If this happens, you must clear the liquid from the compressor before you can restart the compressor. To prevent this from happening, always open the inlet valve slowly when starting a recovery job. Opening the inlet valve quickly could allow a slug of liquid to enter the cylinder and cause the high pressure switch to shut the system down.

# LIQUID RECOVERY PROCEDURES

#### STEPS:

Liquid push-pull operations are performed by using hot compressor gas to push liquid refrigerant out of a system. The purge valve accomplishes this by re-directing the hot compressor gas around the condenser. See the diagram on top of the unit for hose connections.

- Turn off all electrical or mechanical power to the refrigerant system to be evacuated.
- 2. Make proper hose connections. Connect the discharge hose from the outlet port to the low pressure side of the system you are servicing. Connect a hose between the liquid port (receiver or condenser) on the system being serviced and the liquid valve on the DOT recovery cylinder. Connect the inlet hose from the DOT recovery cylinder vapor valve to the Fluoromizer's inlet port. See Figure 3 for hose connection diagram.

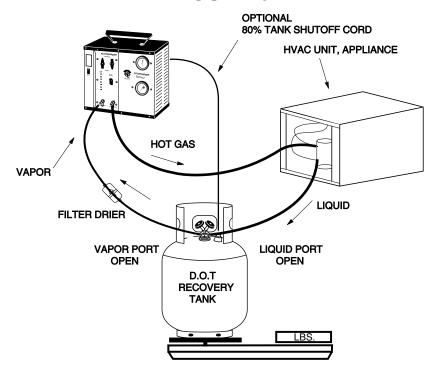
**NOTE:** You must use an external filter drier in the suction line in order to meet the conditions of the unit warranty. **Caution:** If the 80% shutoff option is not used, a scale must be used to monitor the refrigerant level in the recovery cylinder.

- 3. Place the inlet and purge valves in the LIQUID PUSH-PULL position. This will allow hot compressor gas to bypass the condenser. OPEN the liquid and vapor valves on the cylinder (see Figure 4).
- 4. Open the outlet ball valve and the vapor and liquid valves on the DOT recovery cylinder.
- 5. **Turn the system switch to the ON position**. When all liquid refrigerant is recovered, turn the system switch to the OFF position. NOTE: Liquid push-pull operations do not pull a vacuum on a system. You must perform a vapor recovery operation in order to pull the system down to the required vacuum level.
- 6. Monitor the LED status display.

GREED LED SYSTEM ON	The "SYSTEM ON" indicator should be ON during normal operations.
NO LED EVACUATION COMPLETE	Indicates that the unit has shut down because the system being evacuated has reached 13" HG. (the evacuation is complete). During liquid push-pull operations the system will not be pulled into a vacuum.  NOTE: A small amount of inlet pressure might be needed to reset the vacuum switch, this is normal.
RED LED HIGH PRESSURE	Indicates that there is a high pressure condition that must be corrected. Check for restrictions or a full recovery cylinder. Correct problem and turn system switch to the OFF position. Repeat steps 3-6.
RED LED TANK FULL (If equipped)	Indicates that the recovery cylinder is full (if the 80% Automatic Tank Full Shutoff Option is installed). Change the recovery cylinder and repeat steps 3-6.

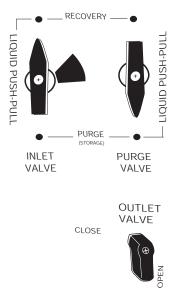
- 7. Turn the system switch to the OFF position when all liquid is recovered. The liquid recovery operation is complete when there is no more liquid present in the system. This can be verified by using an in-line sight glass to monitor the refrigerant flow in the line. NOTE: The Fluoromizer must be manually shut off during all liquid recovery operations.
- 8. Proceed to vapor recovery operations to complete the recovery procedure. If the Fluoromizer is manually or automatically turned off before liquid recovery is complete, repeat steps 3-8. Note: If the circuit breaker trips, wait 10 seconds, reset circuit breaker and go to step 3. If the compressor thermal overload trips, wait 16 to 30 minutes before restarting.

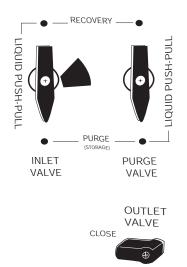
### FIGURE 3



Use only approved DOT recovery tank. Follow precautions and warnings listed on the cylinder. If servicing a system with a compressor burn-out, use a high acid type filter drier and do not reuse.

### FIGURE 4





STORAGE

LIQUID PUSH-PULL MODE

## PUMP DOWN OPERATIONS

The Model 3700 is equipped with a pump-down purge valve that allows the technician to pump down or evacuate the 3700 before proceeding to the next recovery operation. This procedure not only eliminates cross contamination, but also conserves refrigerant. Follow the steps below to ensure your pump down operation is performed correctly.

#### STEPS:

1. After recovery operations are complete and the system switch is in the OFF position:

FIRST - Place the inlet valve in the PURGE position

SECOND - Place the purge valve in the PURGE position

THIRD - Place the outlet valve in the OPEN position as illustrated below.

It is important to turn the valves in this order to ensure the compressor properly equalizes.

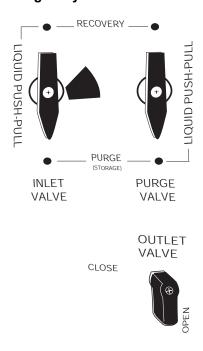
2. Turn the system switch to the "ON" position. The LED status display will indicate "SYSTEM ON".

**NOTE:** If the compressor fails to start, cycle the <u>purge valve</u> from the RECOVERY to PURGE position to reduce the pressure difference shown on the system's gauges.

- 3. Allow the unit to run until it shuts off automatically. The LED status display will turn off indicating that the purge operation is complete.
- 4. Turn the system switch to the OFF position and turn the outlet valve to the "CLOSE" position. Close the inlet and outlet valves on the DOT recovery tank.

During the pump down operation, the 3700's compressor pulls the entire system and discharge hose into a vacuum and discharges the gas directly out of the discharge port leaving no more than 1/4 ounce of refrigerant left the system.

NOTE: CAUTION: Never turn the purge valve while the compressor is running - severe compressor damage may occur.



# DOT RECOVERY CYLINDER SAFETY

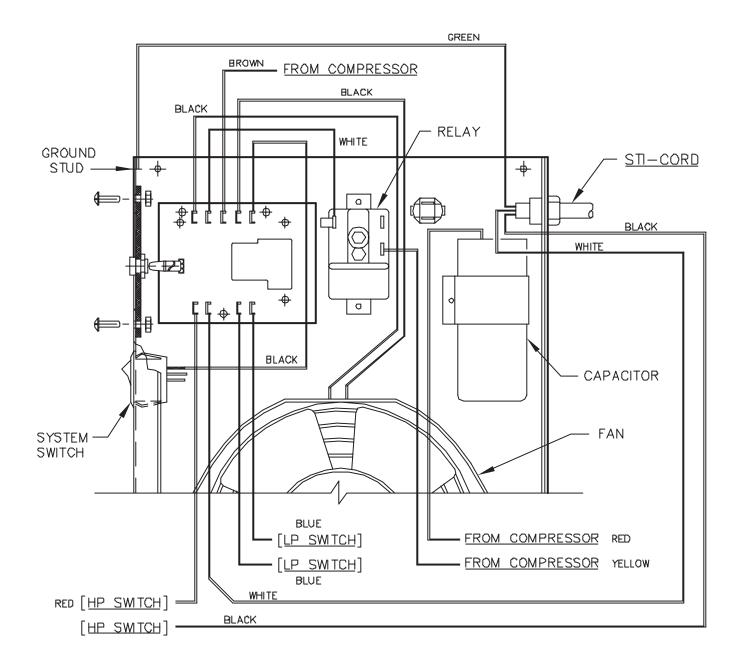
An optional Automatic 80% Tank Full Shutoff Option is available with the Model 3700. If equipped, this option connects to the recovery cylinder float switch and will automatically shut the Model 3700 off when the recovery cylinder becomes 80% full.

When the Model 3700 is equipped with this option, Bacharach Test Systems recommends that you use this cord for added safety. If the Model 3700 is not equipped with this option, or, if you are using a recovery cylinder that does not have a float switch, then you must use a scale and the guidelines below to prevent overfilling of the cylinder. Note: The Shorting Cap supplied with this option must be used in order to operate the Model 3700 without a recovery cylinder equipped with a Float switch.

CYLINDER SIZE (water capacity)	NET REFRIGERANT WEIGHT	GROSS CONTAINER WEIGHT (APPROX.)
30 lbs	24 lbs	44 lbs
50 lbs	40 lbs	70 lbs
100 lbs	80 lbs	130 lbs
125 lbs	100 lbs	150 lbs
250 lbs	200 lbs	280 lbs

Note: Weights of tanks vary by manufacturer. Check each tank for it's tare weight.

PROBLEM	LED STATUS	Possible Cause	Solution
FLUOROMIZER COMPRESSOR WILL NOT START		VACUUM PRESSURE SWITCH HAS BEEN ACTIVATED	TURN FLUOROMIZER OFF. APPLY 1-2 PSIG PRESSURE TO INLET PORT TO RESET VACUUM SWITCH
	● RED LED – HIGH PRESSURE	CHECK FOR RESTRICTIONS IN THE DISCHARGE LINE. ENSURE THAT THE CYLINDER VALVES AND DISCHARGE VALVES ARE OPEN	REMOVE RESTRICTIONS IN THE HIGH SIDE
		RECOVERY CYLINDER HAS REACHED 550 PSI HIGH PRESSURE LIMIT	REPLACE WITH EMPTY CYLINDER OR COOL CYLINDER WITH WATER/ICE
	● GREEN LED SYSTEM ON	BAD THERMAL OVERLOAD	CALL BACHARACH TEST SYSTEMS FOR SERVICE
	● NONE	CIRCUIT BREAKER IS TRIPPED	RESET CIRCUIT BREAKER
		NO POWER TO THE FLUOROMIZER	PLUG THE FLUOROMIZER INTO A 110-120 VOLT POWER
FLUOROMIZER FAN WILL NOT START	● GREEN LED SYSTEM ON	DEFECTIVE FAN	REPLACE FAN
		OBSTRUCTION IN FAN BLADES	REMOVE OBSTRUCTION
● NONE		SYSTEM SWITCH IS OFF	TURN SYSTEM AND FAN SWITCH TO ON POSITION
FLUOROMIZER STARTS BUT STOPS AFTER A FEW MINUTES OF OPERATION		EVACUATION IS COMPLETE	CHECK INLET PRESSURE, VERIFY VACUUM LEVEL IS AT LEAST 10"HG
	·	IF REFRIGERANT REMAINS IN THE SYSTEM, CHECK FOR RESTRICTIONS IN THE SUCTION LINE	ENSURE ALL VALVES ARE OPEN
	• RED LED HIGH PRESSURE OF TANK FULL	LIQUID VALVE ON DOT CYLINDER CLOSED OR OUTLET BALL VALVE IS NOT OPEN	OPEN THE CYLINDER VALVES
		OTHER RESTRICTION(S) IN DISCHARGE HOSE	TURN UNIT OFF. REMOVE RESTRICTION
	● GREEN LED SYSTEM ON	THE UNIT IS TOO HOT. THERMAL OVERLOAD TRIPPED	LET THE UNIT COOL DOWN FOR 15 MINUTES
	• NONE	CIRCUIT BREAKER TRIPPED DUE TO COMPRESSOR STALL	REDUCE THE INLET AND/OR OUTLET PRESSURE
		CIRCUIT BREAKER TRIPPED DUE TO TOO MUCH PRESSURE OR LIQUID IN THE SYSTEM	PURGE THE SYSTEM AND CONTINUE



Part	Component Description	QTY	Part	Component Description	QTY
020011	COMPRESSOR RE-BUIILD KIT, INCLUDES: SUCTION & DISCHARGE VALVES, SPRINGS, ONE VALVE PLATE, & O-RINGS	Kit	020061	KIT, HARDWARE REPLACEMENT: INCLUDES: 5 SHEET METAL SCREWS, 4 RUBBER FEET, 1 FOAM HANDLE	Kit
120080	GUARD, FAN 5.9"	1.00	240270	VALVE, 3-WAY, BALL , 1/8" FEM. NPTF DROP	1.00
130010	FAN MOTOR , 6" 115VAC,120V	1.00	240280	VALVE, 3 WAY, BALL, 1/4" FEM. NPTF DROP	1.00
140020	SWITCH, PRESSURE, 550 psig	1.00	412050	HANDLE, 2 PART, COMMERCIAL	1.00
140050	CIRCUIT BREAKER, 15 AMP	1.00	450024	COMPRESSOR ASS'Y OILLESS DUAL, 115 VAC, 60HZ	1.00
140060	SWITCH, ROCKER	1.00	510680	CAP, PLASTIC W/RETAINER, 3/8" SAE	2.00
140090	SWITCH, VACUUM , 13" HG	1.00	540120	RUBBER FOOT, 5/8 OD X 9/16 H	4.00
140110	CAPACITOR 233-280 MFD 110VAC	1.00	550050	HANDLE, FOAM, BLK, 10"	1.00
140740	RELAY, START, 120V/60HZ, 1 HP,	1.00	630010	GAUGE, HI PRESSURE , 2.5	1.00
150181	BOARD, LED CIRCUIT, 3/4 x 3 1/4	1.00	630020	GAUGE, LOW PRESSURE, 2.5	1.00
240030	VALVE, BALL , 1/8x1/8 FEM, NPT	1.00	790110	MANUAL: 3700	1.00
240050	VALVE, CHECK, 1/4" MFL TO 1/8" MNPT W/NEOPRENE SEAL	1.00			

	ACCESSORIES
020081	AUTOMATIC 80% TANK FULL SHUTOFF KIT
070030	DELUXE CARRYING CASE
010011	QUICK PIERCING TOOL (PATENTED)
051400	RECOVERY SCALE, 400 LB
051100	RECOVERY SCALE, 100 LB

### FOR INFORMATION ON ORDERING PARTS CALL:

1-888-298-4444