

GLOBESAVER™

GS3700

1 HP Commercial Refrigerant Recovery System



**TO BE OPERATED
BY QUALIFIED
PERSONNEL ONLY!**

OPERATION MANUAL

ENGLISH 1 - 5

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SPECIFICATIONS

Model	GS3700	
Compressor Type	1 HP Oil-less Reciprocating Compressor	
Dimensions	20cm (8") wide x 37cm (14.5") long x 30.5cm (12") high	
Weight	15.3 kg (34 lbs.)	
Operating Temperature Range	0°C (32°F) to 49°C (120°)	
Power Source	115 V 50/60Hz 1 Ph	
Power Consumption	850 W	
Suction Pressure Gauge	-30" hg to 350 psig -76 cm hg to 35 kg/cm	
Discharge Pressure Gauge	0 to 800 psig 0 to 55 kg/cm	
Filtration	Cleanable 100-mesh screen integrated into Suction Port	
Shut-Off Valves	Both Suction and Discharge piston manifold valves	
Construction	Heavy gauge aluminum chassis with High Density Polyethylene Case	
Overload Protection	15 amp	
High Pressure Shut-Off	38 bar (550 psig)	
Refrigerants	R-12, R-134a, R-401C, R-406A, R-500, R-401A R-409A, R-401B, R-412A, R-411A, R-407D, R-22 R-411B, R-502, R-407C, R-402B, R408A, R-509 R-407A, R-404A, R-402A, R-507, R-407B, R-410A	
Flow Rate		
Direct Vapor		
Direct Liquid	Up to 43 kg/hr	Up to 1.6 lb/min
Push-Pull Liquid	Up to 271 kg/hr	Up to 10 lb/min
	Up to 542 kg/hr	Up to 20 lb/min

INTRODUCTION

Thank you for purchasing the GLOBESAVER™ model GS3700. NRP is dedicated to give you the fastest and most reliable equipment to meet all your commercial refrigerant recovery requirements. In doing this NRP has integrated its latest technology and incorporated state of the art features while improving reliability and speed. The GS3700 incorporates an exclusively designed, patent pending compressor that maximizes speed in both direct liquid and direct vapor recovery. The unit is equipped with a high airflow and high efficiency condensing system to maximize vapor recovery speed. The GS3700 also incorporates an automatic Low Pressure shut off switch.

The GS3700 is designed for servicing commercial and residential refrigeration systems. Simply follow the quick start guide and turn it on. Once the recovery is complete, simply turn the center valve to the SELF-CLEARING position. Now the unit is ready for the next type of refrigerant.

The GLOBESAVER™ GS3700 series utilizes a 1 hp (0.85kW) patent pending oil-less compressor, non-restrictive piston manifold valves, and high capacity condensing system.

The following are additional features:

- "On the Run" SELF-CLEARING valve. No need to turn off the unit when switching from recovery to self-clearing.
- On board SUCTION and DISCHARGE gauges.
- 0 to 55 bar (800-psig) discharge gauge to handle R-410A.
- Small physical size.
- Automatic Low Pressure cutout switch.
- Integrated easy to use carrying handle and Safety bar.
- 550 psig High Pressure cutout switch
- Easy and secure filter accesses. No dangling filters to be damaged.

- Replaceable or cleanable filter cartridge.
- The Suction and Discharge shut-off valves. Easy to service if replacement required.
- Heavy-duty powder coated aluminum chassis surrounded by a tough High-Density Polyethylene case.
- Maintenance free Oil-less compressor
- Optional tank overfill sensor cord kit.
- patent pending

Low Pressure override switch to allow for continuous operation. To help you get a good start, please continue to carefully read the balance of this manual. This manual contains important information on the proper procedures for operating this equipment. Please pay close attention to the safety information, WARNING and CAUTIONS provided throughout this manual. Always remember "SAFETY FIRST".

GENERAL SAFETY INSTRUCTIONS

Only qualified service personnel should operate this unit. Most states, countries, etc... may require the user to be licensed. Please check with your local government agency.

DANGER- the recovery tank used with this contains liquid refrigerant. Overfilling of the recovery tank may cause a violent explosion resulting in severe injury or even death. As a minimum, please use a scale to continuously monitor the recovery tank weight.

DANGER- Avoid breathing refrigerant vapors and lubricant vapor or mist. Breathing high concentration levels may cause heart arrhythmia, loss of consciousness, or even cause suffocation.

DANGER- ELECTRICAL SHOCK HAZARD-Always disconnect power source when servicing this equipment.

DANGER- EXPLOSION RISK. Do not recover flammable refrigerants

CAUTION- all hoses may contain liquid refrigerant under pressure. Contact with refrigerant may cause frostbite or other related injuries. Wear proper personal protective equipment such as safety goggles and gloves. When disconnecting any hose, please use extreme caution.

CAUTION- avoid breathing refrigerant vapors and/or lubricant mist. Exposure may irritate eyes, nose, throat, and skin. Please read the manufacturer's Material Safety Data Sheet for further safety information on refrigerants and lubricants.

CAUTION- to reduce the risk of fire, avoid the use of extension cords thinner than NO. 14 awg. (1,5mm) to prevent the overheating of this cord please keep length to a minimum.

CAUTION- do not use this equipment in the vicinity of spilled or open containers of gasoline or other flammable substances. Make certain that all safety devices are functioning properly before operating the equipment.

This equipment is intended for use of one refrigerant at a time until the Self-Clearing feature is used. Mixing of different refrigerants will cause your recovered supply of refrigerant to become contaminated.

Note: It is very expensive to destroy mixed or damaged refrigerants.



DIRECT LIQUID OR VAPOR OPERATION

1. Connect the unit as shown in Diagram 1.

Note: The recovery tank must be rated for 38 bar.

2. Open the vapor valve on the Recovery Tank.

3. Open DISCHARGE valve on GS3700.

Note: The Suction valve should be closed at this time.

4. Rotate the center valve to the "RECOVERY" position.

5. Push the Main Power Switch "ON".

Note: If the unit fails to start, make sure there is no suction pressure on the suction side of the unit. The compressor is designed to start against high differential pressures. Pressure on the suction side will reduce this differential. Reset Circuit Breaker if tripped. Push the LP Override Switch to the "ON" position.

6. Once unit has started, open the SUCTION valve on the GS3700 to start the refrigerant flow.

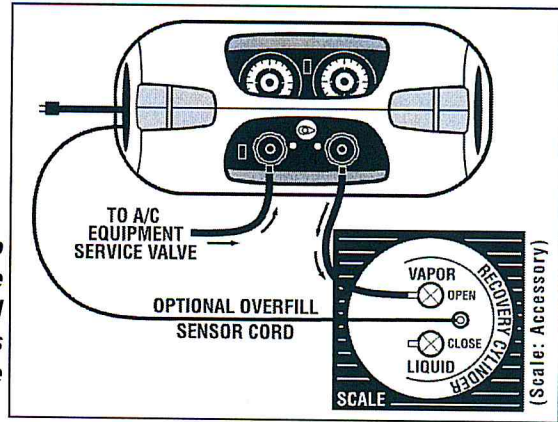
7. The GS3700 is designed to directly recover large amounts of liquid refrigerant. If during liquid recovery the compressor begins to make a slugging or hammering noise, meter the incoming liquid by closing the suction valve until the noise subsides.

8. The GS3700 will automatically shut off* when a 10"hg vacuum is achieved. If the pressure rises (due to boiling liquid refrigerant) the GS3700 will resume operation.

9. After the GS3700 has shut off, rotate the center valve to the SELF-CLEARING position. The GS3700 will resume operation automatically. The GS3700 is now clearing out the condensor. The GS3700 will automatically shut off* when a 10"hg vacuum is achieved.

Note: If the LP override switch is set to "ON" position the unit will run continuously.

RECOVERY AND SELF-CLEARING ARE COMPLETE



LIQUID PUSH-PULL OPERATION

1. Connect the unit as shown in Diagram 2.

Note: The recovery tank must be rated for 38 bar.

2. Open the liquid and vapor valve on the Recovery Tank.

Note: The Suction valve should be closed at this time.

3. Open the DISCHARGE valve on GS3700.

4. Rotate the center valve to the "SELF-CLEARING" position.

5. Push the Main Power Switch "ON"

Note: If the unit fails to start, make sure there is no suction pressure on the suction side of the unit. The compressor is designed to start against high differential pressures. Pressure on the suction side will reduce this differential. Reset Circuit Breaker if tripped. Push the LP Override Switch to the "ON" position.

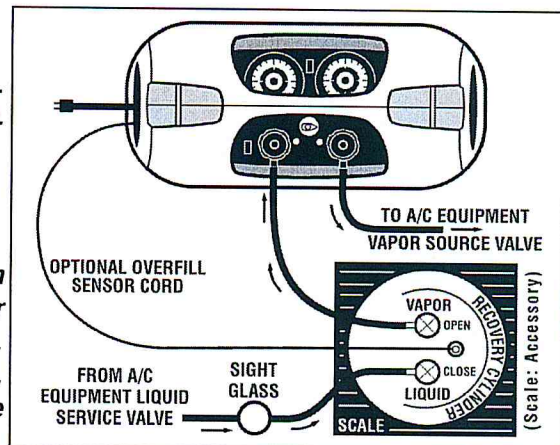
6. Once unit has started, open the SUCTION valve on the GS3700 to start the vapor refrigerant flow.

7. Monitor the optional inline sight glass for liquid refrigerant movement.

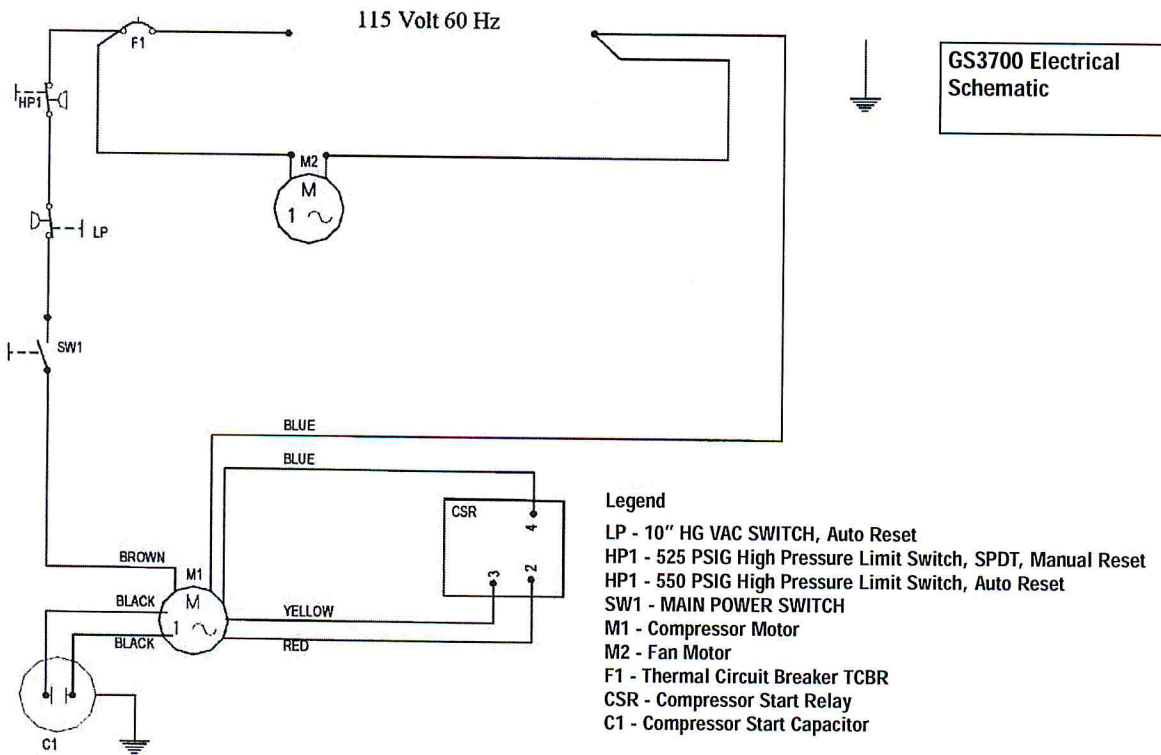
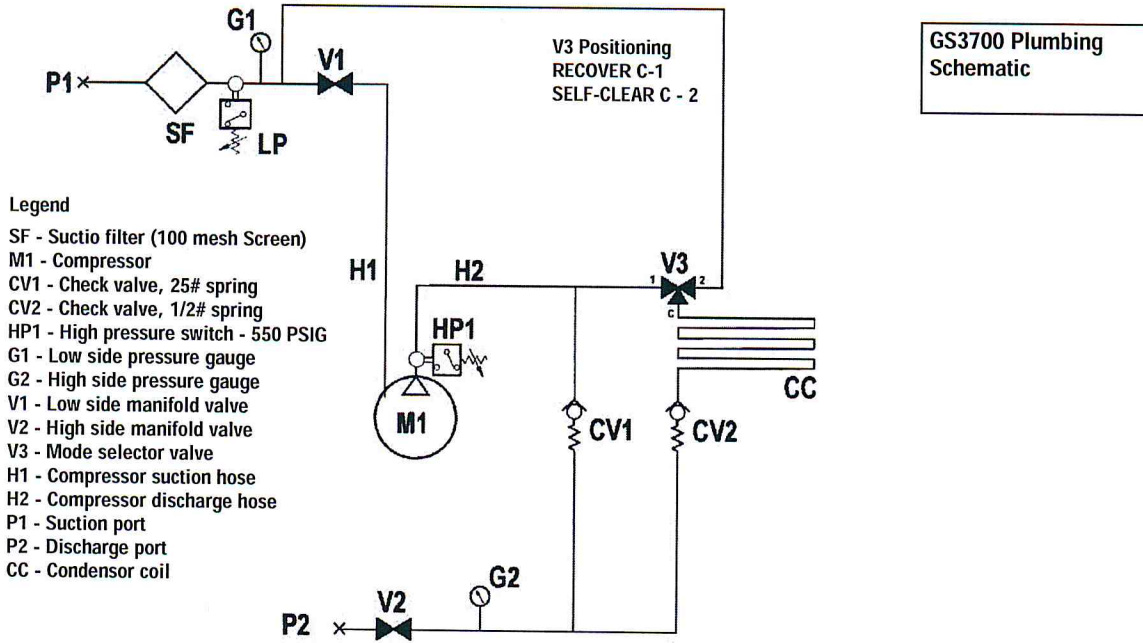
8. Once the liquid refrigerant is no longer present, close SUCTION valve. The GS3700 will automatically shut off* when a 10"hg vacuum is achieved.

9. Proceed to Direct Vapor Recovery Operation. (prior page)

Note: If the LP override switch is set to "ON" position the unit will run continuously.



DIAGRAM



NRP PART NUMBERS

	NRP p/n	DESCRIPTION
1	GS3MANUAL	MANUAL GS3700 REV C
2	GS35CVS	.5 PSIG CHECK VALVE SPRING
3	GS315CVS	15 PSIG CHECK VALVE SPRING
4	GSCVB	Check Valve Ball
5	GS3IOF	Check Valve Fitting/Inlet, Outlet Fitting
6	GS3CDH	Compressor Discharge Hose
7	GS3CSLA	Compressor Suction Line Assembly
8	GS3CA	GS3700 condenser assembly
9	GS3SC	Start Capacitor 378-455 ufd, 125V
10	GS3LSG	GS3700 Low Side Gauge
11	GS3HSG	GS3700 High Side Gauge
12	GS3PC	1/4 SAE Plastic Cap w/Leadre
13	GS3HPS	550 PSIG High Pressure Switch
14	GS3S	On-Off Switch
15	GS3SR	Start Relay
16	GS3CB	Circuit Breaker 15amp
17	GS3F	6" Axial Fan 115 volt
18	GS3IFC	Inlet Filter Cup
19	GS3SH	Should Harness
20	GS3FG	Fan Grill
21	GS3OG	Outlet Grill
22	GS3CP	Control Panel
23	GS3SDK	Suction/Discharge Knob
24	GS3PC	115 VOLT power cord set
25	GS3BOX	NRP Carton
26	GS3L	GS3700 INLET KNOB LABEL REV A
27	GS3EI	Electrical Inlet
28	GS3BC	GS3700 Back Plastic Case-Blue
29	GS3FC	GS3700 Front Plastic Case-Blue
30	GS3CL	NRP Case Logo
31	GS3RF	Rubber Feet
32	GS3UCB	Upper Case Bolts-GS3700
33	GS3LCB	Lower Case Bolts-GS3700
34	GS3CLN	Case Lock Nuts-GS3700
35	GS3W	5/16 SAE Washer
36	GS3CRK	Compressor Rebuild Kit
37	GS3CCRK	Complete 115Volt Compressor Replacement
38	GS3MA	GS3700 MANIFOLD ASSEMBLY
39	GS3PVRK	Piston Valve Rebuild Kit
40	GS3VPS	Vacuum Pressure Switch
41	GS3PDH	Pump Down Handle-GS3700
42	GS3PDHS	Pump Down Handle Screw-GS3700

Note: Please provide the model number and serial number when ordering spare parts.

ROUTINE MAINTENANCE

Filter Maintenance- the GS3700 is equipped with a 100-mesh screen filter. This filter should be checked periodically. A partially clogged filter will slow down the recovery rate of this unit.

Check the filter cartridge as follows:

- Use a 5/8" socket or boxed end wrench to loosen the suction port as shown in Figure 1.
 - Once loose, remove the suction port- filter cartridge as shown in Figure 2.
 - Either clean the current cartridge or replace with new cartridge.
 - Inspect O-ring. Re-lubricate with compressor oil or equivalent.
 - Place filter cartridge back into suction port fitting.
 - Hand tighten this assembly back onto the GS3700.
 - Use a 5/8" socket or boxed end wrench to tighten 1/8 of a turn.
- Do not over tighten, damage to the O-ring may occur.
- Check the connection for leaks.

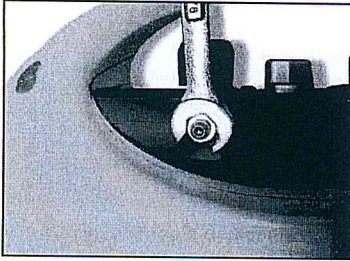


Figure 1

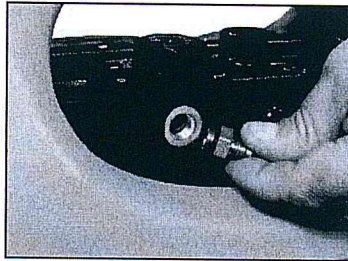


Figure 2

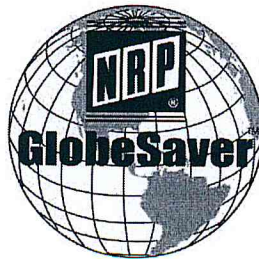
WARRANTY AND CONTACT INFORMATION

THE FOLLOWING DAMAGE TO THE GS2000 IS NOT COVERED BY THE WARRANTY:

Damage to the compressor or recovery/pump-out valve due to particulate entrained in contaminated refrigerant as a result of removing the inlet port filter screen.

WARRANTY

NRP Recovery Equipment is warranted to be free of manufacturing defect. NRP will repair or give credit for repair at NRP's choice if any NRP Recovery Units or accessories have manufacturing defects. Any warranty claim must be submitted in writing within one year of purchase with copy of invoice. In no event shall NRP be liable for the cost of labor charges, lost profits, injury to good will or any other special consequential damages for defective goods, late delivery or non-delivery. There are no warranties which extend beyond the description of the face hereof, and NRP makes no warranty of merchant ability or fitness for specific purpose. Warranty does not cover damage by improper operation or abuse.



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