Pro-Set® TR500 SERIES
Oilless Refrigerant Recovery System

OWNER'S MANUAL (English)

Français, Español, Deutsch and latest updates: www.cpsproducts.com

Series: TR500, TR500E, TR500J, TR500S

TO BE OPERATED BY QUALIFIED PERSONNEL ONLY

UL VERIFIED

Evaluated for performance in accordance with Sec. 608 of the Clean Air Act (Feb 29, 1996) using AHRI-740-98 test methods.

CE N11445

TÜV NORD Type Tested

THIS EQUIPMENT HAS BEEN VERIFIED BY UNDERWRITERS LABORATORIES INC. TO MEET EPA'S MINIMUM REQUIREMENTS FOR RECOVERY EQUIPMENT INTENDED FOR USE WITH ALL SYSTEMS CONTAINING REFRIGERANTS FROM ARI740-98 CATEGORIES III, IV, AND V. UL CONTROL NUMBER 2HA5.

CONTENTS

KEY 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 800 psig / 55 bar discharge gauge to handle R-410A
- Lightweight and compact
- Integrated easy to use carrying handle
- High pressure switch button set at 550 psig / 38 bar
- Easy and secure filter access, no dangling filters to be damaged
- Replaceable or cleanable filter cartridge
- Heavy-duty powder coated aluminum chassis surrounded by a tough high-density polyethylene case
- Maintenance-free oilless compressor

GENERAL SAFETY INSTRUCTIONS

Please read, follow and understand the contents of this entire manual, with special attention given to Danger, Warning and Caution statements.

FOR USE BY PROFESSIONALLY TRAINED AND CERTIFIED OPERATORS ONLY. MOST STATES, COUNTRIES, ETC., MAY REQUIRE USER TO BE LICENSED. PLEASE CHECK WITH YOUR LOCAL GOVERNMENT AGENCY.

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

DANGER: **EXPLOSION RISK!** This unit is not certified as 'explosion proof' for explosive rated environments. It is only to be used in normal environments.

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

WARNING: Do not use equipment in the vicinity of spilled or open containers of gasoline or other flammable substances.

WARNING: 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.

WARNING: TO REDUCE RISK OF FIRE: Avoid use of an extension cord because extension cord may overheat. If you must use an extension cord, use 10 awg minimum.

WARNING: Avoid breathing refrigerant vapors and lubricant vapor or mist. Breathing high concentration levels may cause heart arrhythmia, loss of consciousness, or even cause suffocation. Exposure may irritate eyes, nose, throat and skin. Please read manufacturer's Material Safety Data Sheet for further safety information on refrigerants and lubricants.

WARNING: Make certain all safety devices are functioning properly before operating equipment.

CAUTION: To avoid cross contamination of refrigerant and potential leakage to the atmosphere, proper hoses and fittings should be used and checked for damage.

CAUTION: To avoid overfilling refrigerant tank, read and follow manufacturer's recommended filling instructions for refrigerant being recovered.

CAUTION: This equipment is intended for use of one refrigerant at a time. 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.

SPECIFICATIONS

Model #		TR500	TR500S	TR500E	TR500J
Voltage (Hz)		115V 60Hz 1Ph	220-240V 50Hz 1Ph		100 V 50/60 Hz 1Ph
Motor Size		1/2 HP			
Motor Thermally Protected		✓			
Compressor Type		Oilless Reciprocating Compressor			
Overload Protection		12A	6A	6A	12A
Power Consumption		500 W			
High Pressure Cutout		Auto reset 550 psig	Auto reset 550 psig	Manual reset 525 psig	Auto reset 550 psig (3.8 MPa)
Suction Pressure Gauge		-30"hg to 500 psig	-30"hg to 500 psig	-1 to 35 bar	-0.1 to 3.5MPa
Discharge Pressure Gauge		0 to 800 psig	0 to 800 psig	0 to 55 bar	0 to 5.5MPa
Refrigerants	ARI740 Class III	R-12, R-134a, R-401C, R-406A, R-500		R-12, R-134a, R-22, R-401A, R-401B, R-401C, R-402A, R-402B, R-404A, R-406A, R-407A, R-407B, R-407C, R-407D, R-407E, R-407F, R408A, R-409A, R-410A R-411A, R-411B, R-412A, R-500, R-502, R-507A, R-509A	R-12, R-134a, R-401C, R-406A, R-500
	ARI740 Class IV	R-22, R-401A/B, R-402B, R-407C/D/E/F, R408A, R-409A, R-411A/B, R-412A, R-502, R-509A			R-22, R-401A/B, R-402B, R-407C/D/E/F, R408A, R-409A, R-411A/B, R-412A, R-502, R-509A
	ARI740 Class V	R-402A, R-404A, R-407A/B, R-410A/B, R-507A, R-32			R-402A, R-404A, R-407A/B, R-410A/B, R-507A, R-32
Operating Temperature Range		32°F to 120° (0°C to 49° C)			
Power Cord Length, Type		6' (1.82 m) Detachable			
Dimensions (W x L x H)		Inch: 8" x 14.5" x 12 (Cm: 20cm x 37cm x 30.5cm)			
Weight		25 lbs (11.3 kg)			
Approvals		UL, CE, TUV			
Warranty (Years)		1			

***Verified UL Flow Rate @ 60Hz** (Reduce 15% for all 50Hz models)

Refrigerant	Direct Vapor (kg/min)	Direct Liquid (kg/min)	Push - Pull Liquid (kg/min)	High Temp Vapor Rate (kg/min)
R410a	0.12	3.79	11.00	n/a
R22	0.14	3.16	11.00	0.13
R134a	0.13	1.95	9.37	n/a
R407c	0.15	3.01	10.71	n/a

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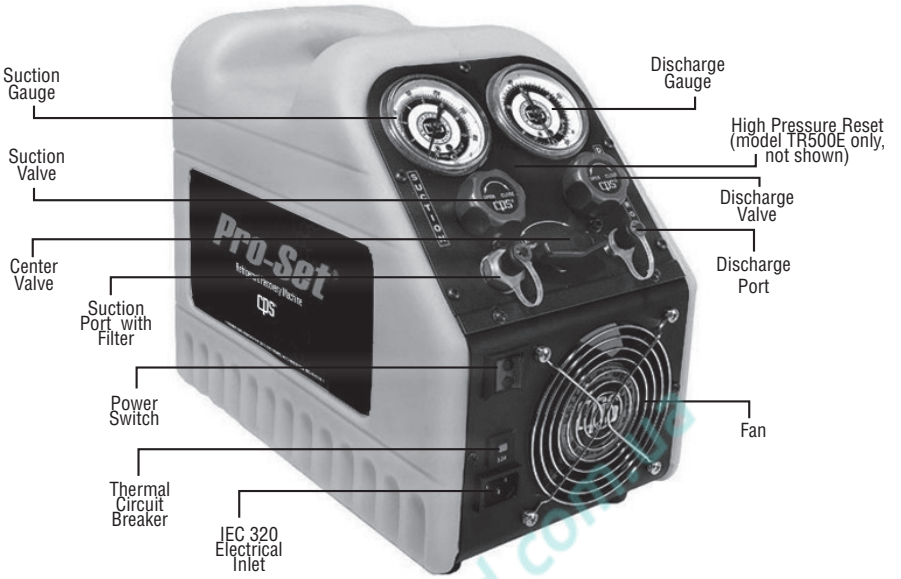
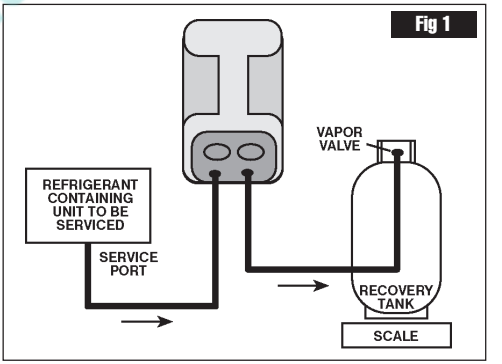
TR500 SERIES UNIT LAYOUT



DIRECT VAPOR OR LIQUID RECOVERY

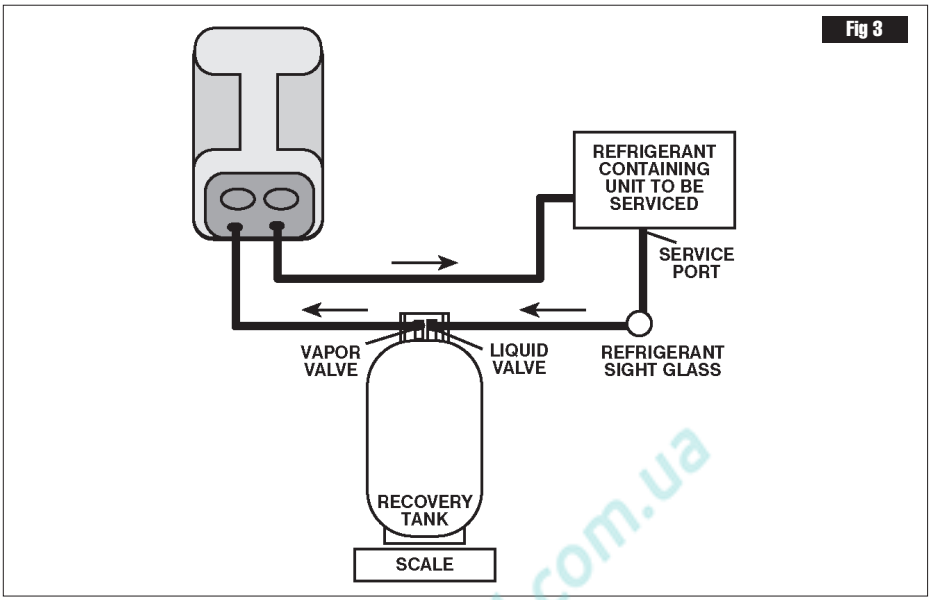
1. Clean INLET FILTER regularly.
2. Connect RECOVERY MACHINE per diagram.
3. Open VAPOR VALVE on RECOVERY TANK.
4. Open DISCHARGE VALVE on RECOVERY MACHINE.
5. Turn CENTER VALVE to RECOVER position.
6. Press POWER SWITCH to ON position.
7. When RECOVERY MACHINE STARTS, open SUCTION VALVE on RECOVERY MACHINE to start refrigerant flow.

Note: If liquid refrigerant is present, compressor will emit a hammering sound. Use SUCTION VALVE to regulate incoming refrigerant until hammering stops. SUCTION GAUGE will read regulated pressure to compressor.



8. Monitor SUCTION GAUGE until it falls below required vacuum level. Then, close SUCTION VALVE.
9. Rotate CENTER VALVE to SELF-CLEARING position. Monitor SUCTION gauge. When SUCTION GAUGE reads a vacuum, turn RECOVERY MACHINE OFF.
10. RECOVERY and SELF-CLEARING are complete.

PUSH-PULL LIQUID RECOVERY



1. Connect the unit as shown in Figure 3. ***Note: The recovery tank must be rated for 38 bar.***
2. Open both valves on Recovery Tank.
3. Open **DISCHARGE** valve.
4. Rotate the center valve to the **SELF-CLEARING** position.
5. Push the Main Power Switch "ON".

> *Note: If the unit fails to start, open the suction valve and rotate the center valve to the **SELF-CLEARING** position for 5-10 seconds. Then rotate back to the **RECOVERY** position. Reset circuit breaker. Push the START switch.*

6. Once unit has started, open the **SUCTION** valve to start refrigerant flow.
7. Monitor the optional inline sight glass for liquid refrigerant movement.
8. Once liquid refrigerant is no longer present, close **SUCTION** valve. When the suction gauge falls into vacuum, proceed to Direct Vapor Recovery Operation.

ROUTINE MAINTENANCE

Filter Maintenance: The TR500 Series is equipped with a 100-mesh screen filter. This filter should be checked periodically. A partially clogged filter will slow recovery rate.

Check filter cartridge as follows:

1. Use 7/8" socket or boxed end wrench to loosen suction port as shown in Figure 4.
2. Once loose, remove the suction port- filter cartridge assembly shown in Figure 5.
3. Either clean the current cartridge or replace with new cartridge.(Item NO. CRXF2)
4. Inspect o-ring. Re-lubricate with compressor oil or equivalent.
5. Place filter back into suction port fitting.
6. Hand tighten assembly back onto unit.
7. Use a 7/8" socket or boxed end wrench to tighten 1/8 of a turn. Do not over tighten, damage to O-ring may occur.
8. Check connection for leaks.

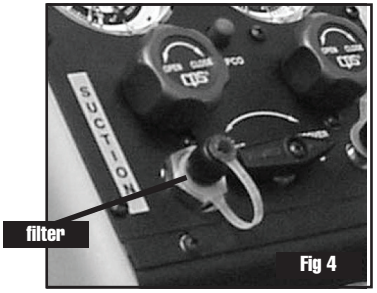


Fig 4

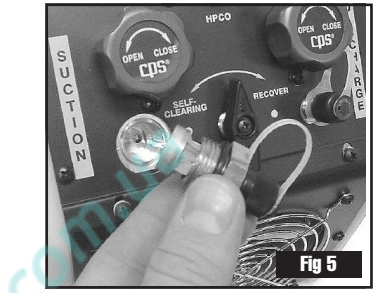


Fig 5

WARRANTY

CPS Products, Inc. guarantees that all products are free of manufacturing and material defects to the original owner for one year from the date of purchase. If the equipment should fail during the guarantee period it will be repaired or replaced (at our option) at no charge. This guarantee does not apply to equipment that has been altered, misused or solely in need of field service maintenance. All repaired equipment will carry an independent 90 day warranty. This repair policy does not include equipment that is determined to be beyond economical repair. **WARRANTY DISCLAIMER**: Use this device to recover only HVAC/R refrigerants from sealed HVAC/R systems. **WARRANTY VOIDED IF USED FOR ANY OTHER PURPOSE.**

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