TRSA21 Scavenger Refrigerant Recovery Unit

FOR USE ON CONTAMINATED R-134a AND R-1234yf MOBILE AIR CONDITIONING SYSTEMS.

CERTIFIED BY INTERTEK (ITS) TO MEET SAE J2851 & UL1963

OPERATION MANUAL

GENERAL INFORMATION

Table of Contents

Introduction

Congratulations on your purchase of the all new TRSA21 Scavenger Refrigerant Recovery unit. The TRSA21 is especially designed to recover contaminated R-134a or R-1234yf for Mobile A/C systems. The TRSA21 utilizes CPS's patent pending 2 cylinder oil-less compressor. The unit is equipped with a suction side oil seperator to collect oil removed from the mobile A/C system.

Features:

- Dual scavenger manifold with service hoses and couplers for R-134a and R-1234yf system hook-up
- CPS's exclusive 2/3 HP 2-cylinder Oil-less compressor
- Small High Side volume eliminates pump down system
- Ignition proof design for use with Class A2L refrigerants
- All components mounted on a heavy duty roll cage
- Easy to carry handle integrated into the roll cage
- Integrated tank overfill sensor cord to connect to float built into the CRX430TS recovery tank.
- High Pressure cutout switch
- Inlet Oil Seperator
- Inlet Filter Drier

This manual contains important information on the proper procedures for operating this equipment. Please pay close attention to the: Safety Information, Warnings, and Cautions provided throughout this manual.

ALWAYS REMEMBER "SAFETY FIRST"

General Safety Instructions

ONLY QUALIFIED SERVICE PERSONNEL SHOULD OPERATE THIS UNIT. SOME COUNTRIES MAY REQUIRE THE USER TO BE LICENSED. PLEASE CHECK WITH YOUR LOCAL GOVERNMENT AGENCY.

DANGER - The recovery tank used with this unit contains liquid refrigerant. Overfilling of the recovery tank may cause a violent explosion resulting in severe injury or even death. **As a minimum, 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 flamable refrigerants.

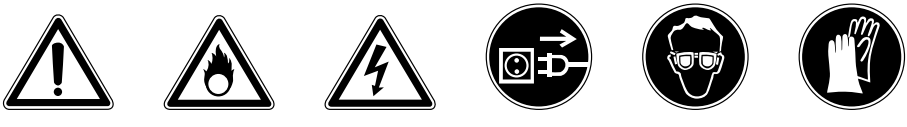
CAUTION - All hoses may contain liquid refrigerant under pressure. Contact with refrigerant may cause frostbite or other related injuries. Wear proper personal protective equipment such as safety goggles and gloves. When disconnecting any hose, please use extreme caution.

CAUTION- handle with care when moving and using this refrigerant recovery equipment to avoid damaging the refrigerant tubing and components ,or increasing the risk of a leak.

CAUTION - To reduce the risk of fire, avoid the use of extension cords thinner than NO. 14 awg. (2,5mm^2) 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 property before operating the equipment.

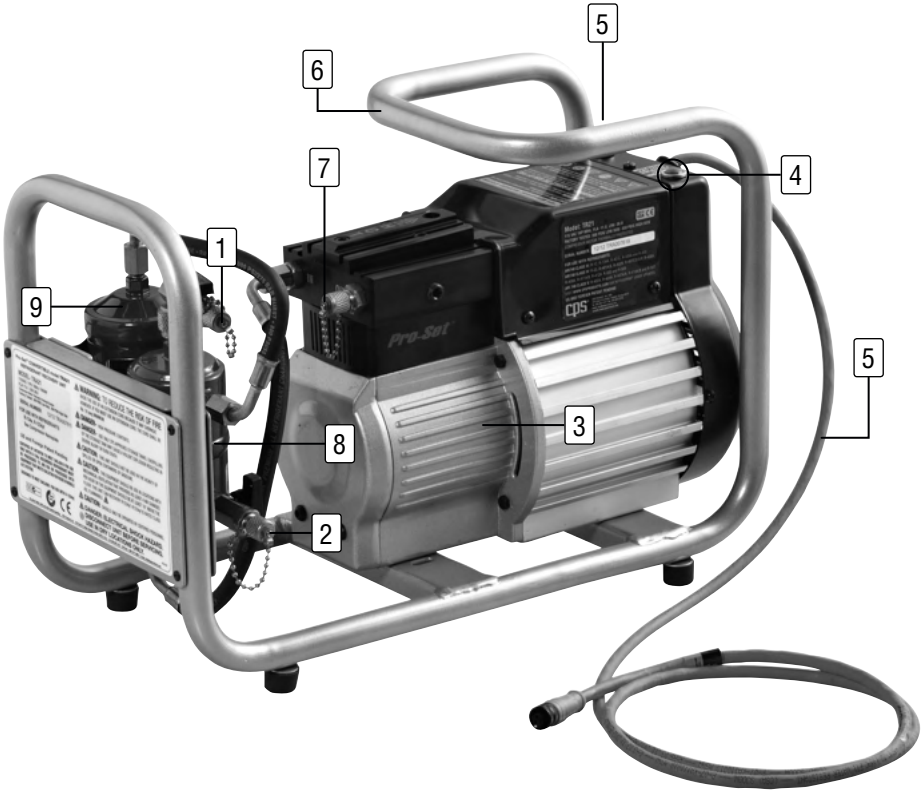
CAUTION: R-1234yf is a Class A2 flammable refrigerant. Do not recover other flammable besides R-1234yf. Minimize leakage when recovering these refrigerants. USE IN A WELL VENTILATED AREA.



This equipment has been certified by Intertek to meet SAE 2851 and UL 1963

Model Number	TRSA21
Refrigerants	**Automotive:** R-134a, R-1234yf **Commercial:** ARI740 Groups III, IV and V
Temperature Operating Range	32 ˚F - 120 ˚F (0 ˚C - 49 ˚C)
Power Source	115VAC 60Hz 1Ph
Maximum Power Consumption	1000 W
Inlet Filter Drier with Moisture Indicator	16 Cubic Inch Drier
Motor Protection	Thermal Overload
High Pressure Shut-Off (PSI)	550 Auto Reset
Exterior Protection	Painted Roll Cage Frame.
Dimensions	17.5" (444mm) Long x 11.25" (285mm) High x 7.75" (196mm) Wide
Weight	32.2 lb/14.6 kg
Contents include	
30lb DOT Recovery Tank with Overfill Sensor	
R134a and R1234yf Low and High Service Couplers	
Discharge Hose	
Manifold/Gauge/Hose Set	

Unit Layout



1 - Inlet port
2 - Oil drain valve and port
3 - Base unit
4 - High pressure indicator light
5 - Overfill sensor cord and indicator light
6 - Roll cage handle
7 - Discharge (Outlet) port
8 - Oil seperator
9 - Drier with moisture indicator
10- Integrated 1 O' Power Cord with Nern a 5-15P for 115V power source (not shown in the picture)

OPERATION

REFRIGERANT RECOVERY

IMPORTANT: Before starting the recover of the refrigerant, a refrigerant identifier should be used to determine the type and purity of the refrigerant. Failure to properly identify the refrigerant could potentially expose the user to danger from flammable refrigerants and health hazards from toxic refrigerants. Cross contamination of refrigerants can also occur and would require special handling of the refrigerant.

1. Connect the TRSA21 ‘s discharge (Outlet) port to the vapor port of the 30# DOT recover using the provided refrigerant hose.

2. Connect the TRSA21 to the mobile A/C system using the provided manifold & hose set. Connect the yellow manifold hose to the Inlet port located on the oil seperator. Connect either the R-134a Couplers or R-1234yf Couplers to the end of the manifold hoses.

3. Connect the Yellow Overfill Sensor Cord to the float built into the 30# DOT recovery tank. Plug the unit’s power cord into a suitable 115V power source.
   All connections shoudl be done as shown in Diagram-1.

4. Open the vapor valve on the recovery tank.

5. Start unit by pushing main power switch to the “ON” position.

6. Open the HI and LO side manifold valves to start the refrigerant flow. Also make sure the manual couplers are open.

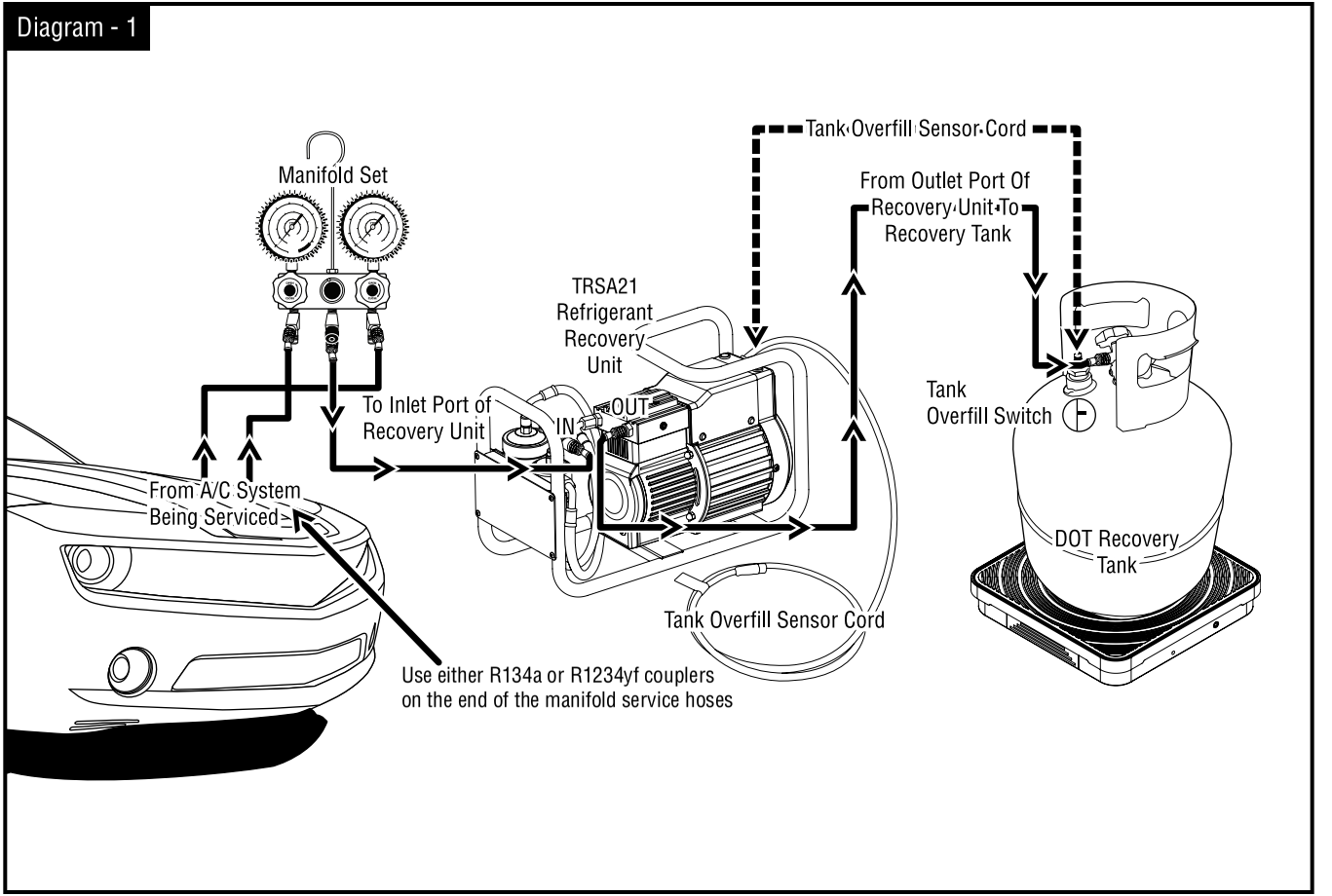
7. Monitor the LO side manifold gauge. Once the gauge reaches 20” HG vacuum, turn the unit off.

8. Close the vapor valve on the recovery tank.

9. Disconnect the discharge hose from the TRSA21 discharge power. A small amount of pressurized refrigerant will be released.

10. Drain and measure oil from the oil separator. Only new lubricant, as identified by the system manufacturer, should be replaced in the mobile A/C system. Removed lubricant from the system and/or the equipment shall be disposed of in accordance with the applicable federal, state and local procedures and regulations.

Diagram - 1


Tank Overfill Sensor Cord
From Outlet Port Of Recovery Unit To Recovery Tank
Manifold Set
TRSA21 Refrigerant Recovery Unit
To Inlet Port of Recovery Unit
OUT
IN
Tank Overfill Switch
From A/C System Being Serviced
DOT Recovery Tank
Tank Overfill Sensor Cord
Use either R134a or R1234yf couplers on the end of the manifold service hoses

OPERATION

Routine Filter Maintenance

Interconnecting Hoses, Service Hoses, Manifold and Service Coupler Maintenance: The TRSA21 uses brass to brass seal type fittings on the ends of the interconnection hose assemblies. No hose gasket maintenance is required on the brass to brass type connections. Periodically inspect the refrigerant hose assemblies, service hoses, manifold and service coupler inner o-rings for excessive wear. Replace the compenent(s) if required. Periodically leak check all hose connection points, hose ball valves, manifolds and service couplers. Since this unit does pull a vacuum in the recovery process, excessive Non-Condensable Gases (NCG's) could be sucked into the system and placed in the storage tank.

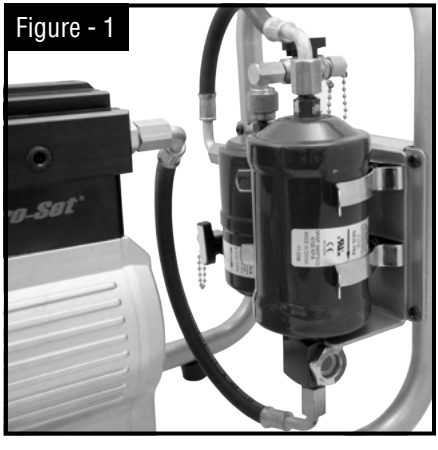
Liquid filter drier manitenance: The TRSA21 is equipped with a 16 cubic inch filter drier with an integrated moisture indicator. This filter should be checked and replaced periodically. This filter drier removes any moisture that may be contained in the recovered refrigerant.

Replace the filter drier as follows:

Caution: Always assume the presence of high refrigerant when removing the filter drier. Before servicing the filter drier, run the unit until the manifold gauges pull into a vacuum. This will prevent the venting of residual refrigerant.

1. Remove filter drier by loosening the brass flare nuts on each of the fliter drier. Pull filter drier out of the spring clip holders.
2. Install new filter drier (ARXF2). Make sure arrow points to the right as in Figure - 1.
3. Tighten brass flare nut into each end of the new filter drier.
4. Check for leaks.

Figure - 1



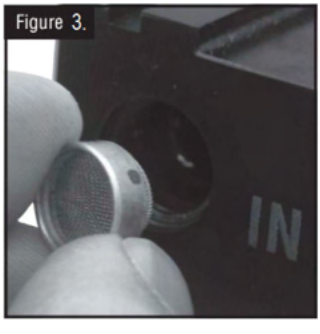
FILTER DRIER REPLACEMENT IS NOW COMPLETE

Particle Filter Maintenace on compressor IN port

Filter Maintenance: The· unit 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 a 5/8" socket or boxed end wrench to remove IN port as shown in Figure 2.
2. Remove suction port-filter cartridge as shown in Figure 3.
3. Clean cartridge or replace with new cartridge. (CPS #CRXF3)
4. Inspect O-ring. Re-lubricate with compressor oil or equivalent.
5. Place filter cartridge back into suction port fitting.
6. Hand tighten this assembly back onto compressor IN port
7. Use 5/8" socket or boxed end wrench to tighten 1/8 of a turn. Do not over tighten; O-ring damage may occur.
8. Check connection for leaks.

FILTER DRIER REPLACEMENT IS NOW COMPLETE



Service Parts and Repairs Cautionary Statement

This unit uses ignition proof components thus all service parts for this unit must be CPS certified and the repair work be done by CPS factory authorized service centers and personnel. This is to minimize the risk of ignition due to incorrect parts or improper service.

WARRANTY

Trouble Shooting Chart

Problem:	**The unit will only pull down to 0 pressure or a slight vacuum.**
Solution:	Check all LO side connections for possible leaks. If problem persists, check vacuum level directly on the compressor inlet port.
Solution:	Check pressure differential at 400 PSIG discharge pressure. At 400 PSIG, the unit should pull a minimum of a 5" hg. vacuum. If compressor looses its capability of meeting this differential, the compressor seals may need to be replaced.
Problem:	**HP Red LED lights up, unit starts for a few minutes then shuts off.**
Solution:	The high pressure switch has activated. Make sure the discharge valve and recovery tank valve(s) are open. Check for any other restrictions on the discharge port of the unit. Correct restriction. Restart the unit.
Problem:	**TOS Red LED lights up and the unit shuts off or will not start.**
Solution:	1. Check to make sure TOS cord is properly plugged into the recovery tank float. 2. Check tank weight to verify that the tank is full. Empty or replaced tank.
Problem:	**The unit recovers at a very slow pace.**
Solution:	Check for restrictions on the suction side connections. Make sure manifold valves are open. Overtighted hose connections can collapse the rubber gaskets causing a restriction.

NOTES

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.

CPS Products, Inc.

CPS Products, Inc. North America
1010 East 31st Street, Hialeah, Florida 33013, USA
Tel: 305-687-4121, 1-800-277-3808, Fax: 305-687-3743
E-mail: info@cpsproducts.com
Website: www.cpsproducts.com

CPS Canada
1324 Blundell Road, Mississauga, Ontario L4Y 1M5
Tel: 905-615-8620, Fax: 905-615-9745
E-mail: info@cpsproducts.com

CPS Products N.V
Krijgsbaan 241, 2070 Zwijndrecht, Belgium
Tel: (323) 281 30 40, Fax: (323) 281 65 83
E-mail: info@cpsproducts.be

CPS Australia PTY. LTD.
109 Welland Avenue, Welland, South Australia 5007
Tel: +61 8 8340 7055, Fax: +61 8 8340 7033
E-mail: sales@cpsaustralia.com.au

cps®

www.cpsproducts.com

#73-255