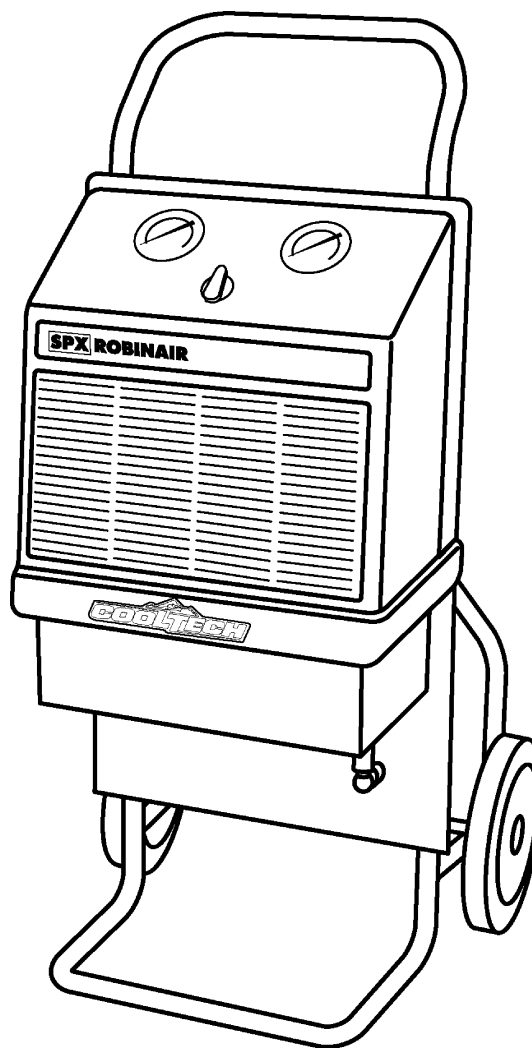


SPX **ROBINAIR**

Operating Manual



Model 176802K
Refrigerant Recovery Station

SPX ROBINAIR

**Refrigerant Recovery
Station**

Model: 176802K

Refrigerant: Mixed

Serial No.:

Date Code:



WARNING



TO PREVENT PERSONAL INJURY AND/OR EQUIPMENT DAMAGE :

BEFORE OPERATING THE REFRIGERANT RECOVERY STATION, READ AND FOLLOW THE OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS IN THIS MANUAL. This station should only be operated by qualified personnel. The operator must be familiar with A/C-R systems, refrigerants, and the dangers of pressurized components.



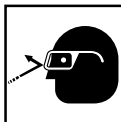
If the operator cannot read these instructions, safety precautions and instructions must be read and discussed in the operator's native language.

– Si el operador no puede leer inglés, las instrucciones de operación y las precauciones de seguridad deberán leerse y comentarse en el idioma nativo del operador.

– Si l'utilisateur ne peut lire l'anglais, les instructions et les consignes de sécurité doivent lui être expliquées dans sa langue maternelle.



THE PRESSURIZED TANK CONTAINS LIQUID REFRIGERANT. OVERFILLING THE TANK MAY CAUSE VIOLENT EXPLOSION AND POSSIBLE INJURY OR DEATH. Safety devices require the use of only the following Robinair refrigerant tank: 17686 (50-lb. tank). Do not recover refrigerants into a nonrefillable storage container! Federal regulations require refrigerant to be transported only in containers meeting DOT spec. 4BW or DOT spec. 4BA.



ALL HOSES MAY CONTAIN LIQUID REFRIGERANT UNDER PRESSURE. Contact with refrigerant may cause injury. Wear protective equipment, including safety goggles. Disconnect hoses using extreme caution.



VERIFY ALL SAFETY DEVICES ARE FUNCTIONING CORRECTLY BEFORE OPERATING THE STATION.

THIS UNIT CONTAINS MIXED REFRIGERANT WHICH CANNOT BE USED IN ANY A/C SYSTEM. This tank may contain hydrocarbons. Do not use around open flame or spark-generating equipment.

ATTENTION!

Ce réservoir sous pression contient du frigorigène liquides. S'il est surchargé, ce réservoir peut exploser et causer des blessures ou la mort.

ATTENTION. Débrancher avant la maintenance.

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GLOSSARY OF TERMS

A/C Air conditioning

A/C System .. The air conditioning system being serviced

Station The 176802K Scavenger™ Refrigerant Recovery Station

Tank The refrigerant tank

INTRODUCTION

The Scavenger™ Refrigerant Recovery Station removes contaminated or unknown refrigerant from automotive A/C systems to prevent the cross-contamination of a service station's R-12 and R-134a supply.

It is designed specifically for use with a refrigerant identifier capable of determining if the refrigerant is R-12, R-134A, or some other (unknown) refrigerant. In the case of an unknown refrigerant, the service technician can use this station to recover the refrigerant into a special 50-pound tank for transport to a disposal facility.

Setup Instructions

To initially set up the station for operation:

1. Unpack all components and verify you have the following:

- (1) 50-pound refrigerant tank
- (1) 96" Blue Enviro-Guard® Hose for R-12
- (1) 96" Blue Enviro-Guard® Hose for R-134a (with adapter)

Please read this operating manual, and fill out and return the warranty registration card.

2. Connect the two 96" blue hoses to their respective $\frac{1}{4}$ " flare and $\frac{1}{2}$ " Acme inlet ports (7) on the back of the station. (Connect the hose ends without the valves to the station.)

The inlet ports on the back of the station are capped for shipment. Both hoses must be connected to the station during recovery, or the unused port must be capped. When not in use, the hoses can be wrapped around the station's handle.

3. The station is equipped with its own regulator (6) that has an inlet with $\frac{1}{4}$ " female pipe thread. A male air line connector (not included) that matches your air system must be connected to the regulator.
4. The station is equipped with its own air line lubricator (4) to lubricate the air motor that runs the compressor inside the unit. This lubricator must be filled with $\frac{3}{4}$ oz. (22 ml) of pneumatic air line oil or detergent SAE #10 motor oil.

Unscrew the plastic bowl on the lubricator and fill with oil to approximately $\frac{1}{2}$ " below the top of the bowl. (Do not lose the o-ring on the top of the bowl.) Replace the bowl on the lubricator. Snug down, but do not overtighten.

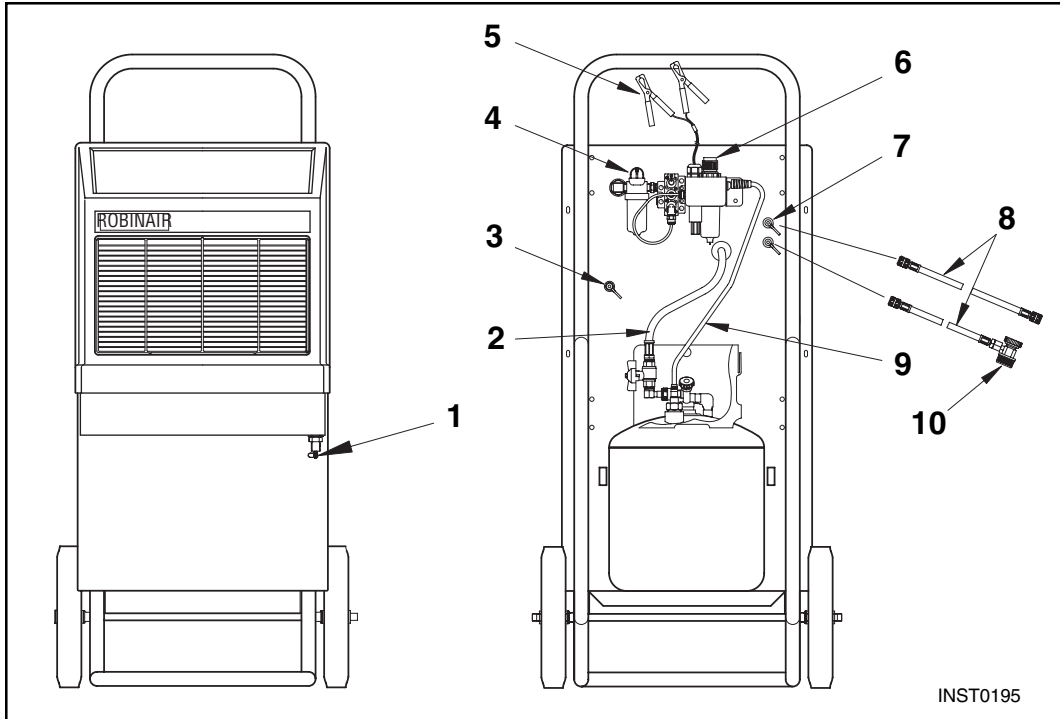
IMPORTANT: The bowls for both the lubricator and regulator are made from polycarbonate. Oils used in the lubricator bowl must be compatible with polycarbonate. Some "fire resistant" oil additives are not compatible; do not expose bowls to acetone, trichloroethane, gasoline, alcohols, ketones, esters, chlorinated hydrocarbons, or toluene. Wash the bowls only with warm water or kerosene.

5. The tank supplied with the Scavenger™ is filled with 10 to 15 psi of dry nitrogen which must be removed before it can be used. Open the tank valve to release the nitrogen. Use a separate vacuum pump to pull a five-minute vacuum on the tank.
6. The tank is now ready to be connected to the recovery station. Place the tank on the platform just over the axle on the rear of the station. Tighten the black strap securely around the tank. Connect the black $\frac{3}{8}$ " hose (2) coming from the back of the station to the $\frac{3}{8}$ " flare fitting on the tank's blue (LIQUID) valve.
7. Connect the yellow float switch cable to the tank.

NOTE:

The numbers in parentheses correspond to the callouts shown in the diagrams on page 5.

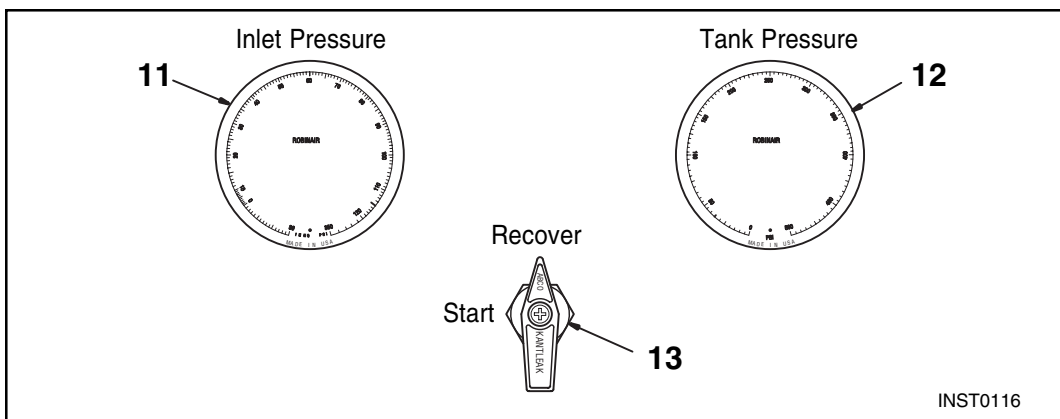
Set Up Instructions



INST0195

Diagram of Station's Components

- | | |
|---|----------------------------|
| 1. Drain for Drip Pan | 8. Blue Recovery Hoses |
| 2. Black $\frac{3}{8}$ " Discharge Hose | 9. Float Cable |
| 3. Accumulator Oil Drain | 10. R-134a Service Coupler |
| 4. Lubricator | 11. Inlet Pressure Gauge |
| 5. Battery Clips | 12. Tank Pressure Gauge |
| 6. Regulator | 13. Control Panel Valve |
| 7. Inlet Ports | |



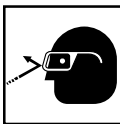
INST0116

Diagram of Control Panel

Operating Instructions



WARNING



Wear safety goggles when working with refrigerants. Read and follow all warnings at the beginning of this manual before operating this machine.



Connecting hoses to the wrong ports may cause personal injury and/or damage to the equipment. Check your vehicle's A/C system operating manual for the correct hookup.



Handle battery connection cables with extreme caution — batteries generate explosive gases during normal battery operation. Working in the vicinity of a lead-acid or other automotive battery is dangerous. Wear complete eye protection. **NEVER** smoke or allow a spark or flame in the vicinity of a battery.



NOTE:

Numbers in parentheses correspond to callouts shown in the diagrams on page 5.

1. Run the vehicle's A/C system for a few minutes before starting the recovery process. Tests show more refrigerant is recovered if this action is taken. **Turn the system off before proceeding.**
2. Connect one of the station's blue recovery hoses (8) to the low-side service port on the vehicle's air conditioning system. The other blue recovery hose should not be connected to the vehicle's system, but should remain connected to the back of the recovery station.
3. Open the tank valve with the $\frac{3}{8}$ " hose connected to it. Open the $\frac{3}{8}$ " hose valve.
4. Turn the control panel valve (13) to **START**. This equalizes the pressure on both sides of the compressor, allowing easier starts.
5. Connect a compressed air line (120 psi minimum; 200 psi maximum) to the air inlet on the regulator (6) on the back of the station.
6. Connect the red power lead to the "+" (positive) post of the vehicle's battery, or to another 12-volt power source. Then connect the black power lead to an engine ground, **not** the battery "-" (negative) terminal. The compressor should start idling; if not, the tank may be full.
7. Turn the control panel valve (13) to **RECOVER**. There should be a change in the sound of the compressor. The inlet pressure gauge (11) should show a drop in pressure, and the tank pressure gauge (12) should rise.
8. When the inlet pressure reaches a vacuum, disconnect the air line. Wait five (5) minutes. If the inlet pressure rises above 0 (zero) psi, repeat Steps 4 through 8.

Sometimes refrigerant will pool inside the system. When the compressor is turned off, ambient heat will vaporize this pooled refrigerant, causing system pressure to rise again. The recovery process should be repeated until the system remains at a vacuum for at least two (2) minutes.

9. When the recovery process is complete, close the tank's valve, close the hose valve, and disconnect the recovery hose from the vehicle.
10. Disconnect the compressed air line from the back of the station.
11. Disconnect the black power lead; disconnect the red power lead from the vehicle's battery or the 12-volt power source.
12. After each recovery, **carefully** open the accumulator oil drain (3) and drain any collected compressor oil into an appropriate container.

Small amounts of refrigerant can remain in the accumulator and build up a slight pressure — it is best to drain the accumulator when the inlet pressure is in a vacuum. There may not always be any oil to drain; it will vary from system to system. Dispose of the old compressor oil in an appropriate manner.

13. The tank's float switch will automatically shut off the station when the tank is full.

To change a full tank in the middle of a recovery job,

- A. Turn off the tank valve, close the ball valve in the $\frac{3}{8}$ " tank hose, and unscrew and remove the float cable from the tank.
- B. Disconnect the hose from the tank valve, and remove the tank from the station. Replace it with a new tank. (Prepare new tanks by releasing the dry nitrogen charge and pulling a five-minute vacuum).
- C. Reconnect the tank hose, open the tank valve with the $\frac{3}{8}$ " hose connected to it, open the $\frac{3}{8}$ " hose valve, and reconnect the float cable. Recovery will proceed as soon as both valves are open.

IMPORTANT! To prevent equipment damage, do not use recovered refrigerant in any A/C system. Send the full tank to a disposal facility capable of handling mixed refrigerants.

Maintenance Instructions

NOTE:

Numbers in parentheses correspond to callouts shown in the diagrams on page 5.

This station is designed to operate with a minimal amount of maintenance.

1. For correct lubrication of the air motor, the oil level in the air line lubricator (4) on the back of the station must be maintained above the bottom of the dip tube inside the lubricator's bowl. Fill with $\frac{3}{4}$ oz. (22 ml) of pneumatic air line oil or detergent SAE #10 motor oil.

To add oil, unscrew the plastic bowl on the lubricator and fill to approximately $\frac{1}{2}$ " below the top of the bowl. (Do not lose the o-ring on the top of the bowl.) Replace the bowl on the lubricator. Snug down, but do not overtighten.

IMPORTANT: The bowls for both the lubricator and regulator are made from polycarbonate. Oils used in the lubricator bowl must be compatible with polycarbonate. Some "fire resistant" oil additives are not compatible; do not expose bowls to acetone, trichloroethane, gasoline, alcohols, ketones, esters, chlorinated hydrocarbons, or toluene. Wash the bowls only with warm water or kerosene.

2. The drive air containing the lubrication oil is exhausted through a filter/ muffler inside the station. The oil condenses and collects in a drip pan at the bottom of the station. The drain (1) for the drip pan is located at the lower right front corner of the station. After refilling the lubricator, drain the used air line oil into an appropriate container. Dispose of the used oil according to local, state, and federal regulations.

REPLACEMENT PARTS LIST

Part Number	Description
17686	50-pound Refrigerant Tank
68296A	96" Recovery Hose (1/4" Flare)
62121	96" Recovery Hose (1/2" Acme)
18190A	R-134a Service Coupler (Low Side)

**TOLL-FREE
TECHNICAL SUPPORT LINE
1-800-822-5561
(United States and Canada)**

Unit runs for short time before building up high tank pressure, or compressor stalls.

Problem: Tank valve closed.

Solution: Open the tank valve with $\frac{3}{8}$ " adapter, and open the $\frac{3}{8}$ " hose valve.

Compressor stalls during recovery.

Problem: Insufficient supply of air pressure.

Solution: Supply air pressure should be a minimum of 120 psi and a maximum of 200 psi.

Problem: Insufficient supply of air volume.

Solution: Minimum volume of supply air should be 10 CFM at 120 psi.

Problem: High tank pressure or full tank.

Solution: Replace the tank with a new Scavenger™ tank.

Problem: Mechanical failure.

Solution: Call the service center.

Compressor will not start.

Problem: Pressure is not equalized inside the compressor.

Solution: Turn control panel valve to **START**.

Problem: Insufficient supply of air pressure.

Solution: Supply air pressure should be a minimum of 120 psi and a maximum of 200 psi.

Problem: Insufficient supply of air volume.

Solution: Minimum volume of supply air should be 10 CFM at 120 psi.

Problem: High tank pressure or full tank.

Solution: Replace the tank with a new Scavenger™ tank.

Problem: Mechanical failure.

Solution: Call the service center.

Problem: There is no power to the recovery station.

Solution: Connect the red power lead to the "+" (positive) post of the vehicle's battery, or to another 12-volt power source. Connect the black power lead to an engine ground, **not** the battery "-" (negative) terminal.

Robinair Limited Warranty Statement

Rev. November 1, 2005

This product is warranted to be free from defects in workmanship, materials, and components for a period of one year from date of purchase. All parts and labor required to repair defective products covered under the warranty will be at no charge. The following restrictions apply:

1. The limited warranty applies to the original purchaser only.
2. The warranty applies to the product in normal usage situations only, as described in the Operating Manual. The product must be serviced and maintained as specified.
3. If the product fails, it will be repaired or replaced at the option of the manufacturer.
4. Transportation charges for warranty service will be reimbursed by the factory upon verification of the warranty claim and submission of a freight bill for normal ground service. Approval from the manufacturer must be obtained prior to shipping to an authorized service center.
5. Warranty service claims are subject to authorized inspection for product defect(s).
6. The manufacturer shall not be responsible for any additional costs associated with a product failure including, but not limited to, loss of work time, loss of refrigerant, cross-contamination of refrigerant, and unauthorized shipping and/or labor charges.
7. All warranty service claims must be made within the specified warranty period. Proof-of-purchase date must be supplied to the manufacturer.
8. Use of recovery/recycling equipment with unauthorized refrigerants or sealants will void warranty.
 - Authorized refrigerants are listed on the equipment or are available through the Technical Service Department.
 - The manufacturer prohibits the use of the recovery/recycling equipment on air conditioning (A/C) systems containing leak sealants, either of a seal-swelling or aerobic nature.

This Limited Warranty does NOT apply if:

- The product, or product part, is broken by accident.
- The product is misused, tampered with, or modified.



For assistance in servicing or using the Scavenger™ Refrigerant Recovery Station, call the toll-free **Technical Support Line**, 800-822-5561, in the U.S. and Canada, or visit our web site at **www.robinair.com**. In all other locations, contact your local distributor. To help us serve you better, be prepared to provide the model number, serial number, and date of purchase.

To validate your warranty, complete the warranty card attached to your unit and return it within ten days from date of purchase. In addition, returning the warranty card automatically registers you for **Service•Link**, our three-phase support program:

- **Toll-Free Service Line** — By calling our toll-free Service Line, you can talk directly to service technicians who can walk you through setup and operating procedures, as well as repair procedures should something go wrong.
- **Nationwide Network of Authorized Service Centers** — If you need assistance or service, call our toll-free Service Line for the location of the Service Center nearest you.
- **Info Source** — We'll help you keep up to date with information on CFC/HCFC issues as they evolve.



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