

# Section 2

## Air Conditioning & Cooling System Service Equipment

- A/C Refrigerant Recovery/Recycle/Recharging Units
- A/C Refrigerant Charging Scales
- A/C Vacuum Gauge
- A/C Vacuum Pumps
- A/C Refrigerant Leak Detectors
- A/C Refrigerant Identifiers
- A/C Sealant Detector
- A/C Sealant Separator & Accessories
- Coolant Exchanger
- Cooling System Leak Tester
- Refractometer
- Thermometers



APPROVED D E A L E R  
EQUIPMENT

### Section 2:

*This section features a selection of Air Conditioning and Cooling System Service Equipment available through the Lexus Approved Dealer Equipment program. All product has been reviewed and approved by Toyota Motor Sales, USA.*

### Suppliers:

- Advanced Test Product (TIF) / A Division of SPX
- Airsept Inc.
- Inficon, Inc
- Neutronics
- Ritchie Engineering / Corrosion Consultants
- Robinair / A Division of SPX
- RTI Technologies, Inc.
- Snap-on Tools

*For additional product information or to contact a program representative*

**CALL: 1-800-368-6787**



## A/C Refrigerant Recovery/Recycle/Recharging Units:

This is an introduction to A/C Refrigerant Recovery/Recycle/Recharging Units. Within this section you will find the latest units for recovering, recycling, evacuating and recharging R134a. Some things to consider when shopping for A/C Refrigerant Recovery/Recycle/Recharging units and/or related accessories, would be:

- Fully automatic R134a refrigerant recovery units are becoming more common. Hook it up, set it, and walk away. Add a refrigerant identifier to be sure the refrigerant your techs are recovering does not contaminate your existing tank.
- R134a units produced after January 2008 recover 20% or more refrigerant than older units. Go green, recover more, and waste less with a new unit.

*When considering a purchase of any capitol equipment, please contact your regional manager at 1-800-368-6787 for assistance in configuring the proper set-up for your environment.*

### A/C REFRIGERANT RECOVERY/RECYCLE/RECHARGING

SUPPLIED BY: RITCHE ENGINEERING/CORROSION CONSULTANTS

#### R134a Refrigerant Management System - 37880 Series

With the press of one button, you get full cycle recover/recycle/evacuate/recharge to bring the vehicle back to factory specifications. The other buttons give you the flexibility and efficiency for specific A/C services. 2-stage 3 c.f.m vacuum pump, automatic air purge, 10 ft. hoses, 1/2 hp hermetic compressor.

##### Features

- Fully automatic recover/recycle/evacuate/recharge.
- Auto oil and air purge.
- Optional integrated refrigerant identifier and printer.
- Improved vacuum/charge program for faster vacuum.
- Maintenance reminders.
- Large 3.5" easy-to-read color gauges.
- High-side or low-side charging.
- 50 lb. cylinder.
- Meets SAE J2788 standard.

##### Models

- CCI37880 - R134a refrigerant management system with built-in oil injection.
- CCI37881 - R134a refrigerant management system deluxe with built-in oil injection, printer and identifier.
- CCI37887\* - R134a refrigerant management system with oil flushing system. For use with high voltage compressor A/C systems. (Hybrid compatible model.)
- CCI37888\* - R134a refrigerant management system deluxe with oil flushing system, printer and identifier. For use with high voltage compressor A/C systems. (Hybrid compatible model.)

*\*Note: CCI37887 and CCI37888 do not include built-in oil injection. Consider using the manual oil injection pump, model CCI77950.*



CCI37880



#### CCI77950 - Recharge Oil Pump

Oil recharge pump for replacing oil in auto A/C systems or into compressors after oil removal. Easily works on all system pressures to 300 psi, 1.5 oz. per stroke. Includes bottle with calibrations, hose and low side R-134a coupler. May be used on R-12 and R-134a systems.



**A/C REFRIGERANT RECOVERY/RECYCLE/RECHARGING**

SUPPLIED BY: ROBINAIR / A DIVISION OF SPX

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**ROB34788 - R134A A/C Recycle, Recovery, and Recharging Machine**

The Cool-Tech 34788 combines simple operation with superior accuracy. It recovers, recycles, evacuates, leak tests, and recharges R-134a quickly and accurately. Fully automatic function lets you recover, vacuum, leak test, charge, and then walk away. Operating temperature range: 50° - 120°F, Electrical: 115V - 60Hz, Shipping weight: 235 lbs., on-board 30 lb. refrigerant container. Meets SAE J2788 standard.



**ROB176802K - Universal Recovery Station**

A recovery-only unit designed for quickly capturing contaminated or unknown refrigerants, mixtures, and blends, including sealants. It protects your recovery/recycling equipment and your shop's refrigerant supply. Includes, air regulator for compressor air supply, air line lubricator which prolongs motor life by supplying continuous lubrication, and tank pressure gauge. Recovers into a 50 lb. tank for collection and disposal.



**ROB13136 - R-134a Manifold Kit**

R-134a manifold kit. Deluxe combination side can tap features: - 1/4" MFI and 1/2" ACME ports - hinged inserts for cans of R-12, R-134a and their respective oils - hinged insert does not get lost. 72" hoses for R-134a with automatic couplers, aluminum manifold, 1" dial thermometer, temperature/pressure chart.



**ROB40134A - Side Wheel Manifold with Hoses**

R-134a manifold gauge set with three 72" color-coded hoses and automotive field service couplers.



## A/C REFRIGERANT RECOVERY/RECYCLE/RECHARGING

SUPPLIED BY: ROBINAIR / A DIVISION OF SPX

### ROB41600 - Side Wheel Manifold/Protective Holster

Use for almost every job, instead of carrying several manifolds with 1/4" fittings. Gauges show R-22 and R-134a temperature scales. Flexible Holster — Provides protection against the bumps and knocks of everyday use. Pressure Temperature Chart — Stores in a slot on the back, giving multiple refrigerant capability. Face Seal Valves — Provide a tight seal, less wear, and improved flow. Comes with manifold bar, protective holster, 2-1/2" gauges, color-coded hand wheels, and hanging hook. No hoses.



### ROB34065 - Oil Injector

It takes just seconds to transfer an oil charge while the system is in a vacuum. The injectors are great add-ons to recovery/recycling and charging. Installs in-line on the low side of the manifold.



### ROB10994 - Heater Blanket

Robinair's heater blanket speeds charging by maintaining a constant temperature, thus creating a positive pressure between the refrigerant tank and the A/C system. Fits 30 and 50 lb. refrigerant tanks. Electrical: 300 watts, 2.6 amps, 110 V AC.



## A/C REFRIGERANT RECOVERY/RECYCLE/RECHARGING

SUPPLIED BY: RTI TECHNOLOGIES, INC.

### RTIRHS780R12 - Digital A/C Refrigerant Handling System

For R-12 systems. Looking for the most productive and reliable automatic A/C service unit—then look no further! Heavy duty compressor with true single pass technology system for maximum throughput. Advanced microprocessor allows you to program vacuum time, leak test, charge amount, etc. Digital readout is easy to understand. Plain language information and technician prompts. Electrical: 120 V AC - 60Hz - 12 amps, Operating temperature range: 32° - 122°F.



## A/C REFRIGERANT CHARGING SCALES

SUPPLIED BY: ADVANCED TEST PRODUCT (TIF) / A DIVISION OF SPX

### Refrigerant Scales

Reads amount of refrigerant transferred from tanks during charging or recovery operations.

#### Features

- High accuracy and resolution.
- Three display modes.
- Completely portable.
- Charging and recovery capabilities.

#### Models

- TIF9010A - Digital Electronic Refrigerant Scale. 110 lb. capacity.
- TIF9030 - Compact Refrigerant Scale. 220 lb. capacity.



TIF9010A

**A/C REFRIGERANT CHARGING SCALES**

SUPPLIED BY: ADVANCED TEST PRODUCT (TIF) / A DIVISION OF SPX

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**Charging/Recovery Scales**

Allows you to quickly, efficiently and automatically charge refrigerants/non-compatible refrigerants from air conditioning systems.

**Features**

- Programmable, allows user to pre-set amount for automatic charge.
- Electronic keyboard controls.
- 150 lb. maximum weight capacity.
- Hold function, stores value in memory to change cylinders or pause operation.
- Large, easy-to-read digital display.
- Pound/kilograms selection capacity.
- 1/2 ounce resolution/accuracy.
- Large 9" square platform.
- Accessory outlet.
- Built in rugged carrying case.

**Models**

- TIF9050A - Charging/Recovery Scale R134A Applications.
- TIF9075 - Charging/Recovery Scale.



**TIF9075**

**A/C REFRIGERANT CHARGING SCALES**

SUPPLIED BY: ROBINAIR / A DIVISION OF SPX

**ROB34990 - Automatic Charging Scale**

Programmable Charging Scale and Recovery Meter. Simply program the amount of refrigerant to be charged, and the unit automatically shuts off when charging is complete, for a "hands-off" operation; Dual fittings for versatility – includes both 1/4" MFL and 1/2" ACME fittings, mounted inside the carrying case for protection during transit and use; Compatible with all refrigerants; Corner Balancing – weight measurement is accurate even if the tank is placed off-center on the platform, etc.



**A/C VACUUM GAUGE**

SUPPLIED BY: RITCHIE ENGINEERING/CORROSION CONSULTANTS

**CCI69086 - Digital Vacuum Gauge**

A simple push of a button changes the display readout between 7 units of vacuum. Each displays down to the equivalent of 10 microns of vacuum to let you know that your vacuum pump is clean and performing properly. If the sensor gets dirty, simply pull a new sensor out of your tool kit, plug it into the gauge, run through a quick calibration process, and be back on the job within minutes. Displays 7 different units of vacuum (microns, milliTorr, Torr, millimeters of mercury, millibar, kiloPascal and Pascal). Operating temperature range: 32° - 122°F (0° - 50°C), calibration standards traceable to (NIST), automatic shut-off after 20 minutes, approximately 25 hours continuous use.



**A/C VACUUM PUMP**

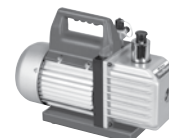
SUPPLIED BY: ROBINAIR / A DIVISION OF SPX

**ROB15434 - R-12/R-134a Vacuum Pump**

Removes troublesome moisture by lowering the pressure within the system and vaporizing the moisture, then exhausting it along with air. Operates at 4 c.f.m. for fast evacuation. Factory micron rating: 20, Power: 1/3 hp, Electrical: 115 Volts, 60 Hz.

**ROB15500 - R-12/R-134a Vacuum Pump**

Removes troublesome moisture by lowering the pressure within the system and vaporizing the moisture, then exhausting it along with air. Operates at 5 c.f.m. Factory micron rating: 40, Power: 1/3 hp, Electrical: 115 Volts, 60 Hz.

**ROB15600 - R-12/R-134a Vacuum Pump**

Removes troublesome moisture by lowering the pressure within the system and vaporizing the moisture, then exhausting it along with air. Operates at 6 c.f.m. Factory micron rating: 20, Power: 1/2 hp, Electrical: 115 Volts, 60 Hz.

**A/C REFRIGERANT LEAK DETECTORS**

SUPPLIED BY: ADVANCED TEST PRODUCT (TIF) / A DIVISION OF SPX

**Refrigerant Leak Detectors**

Using an electronic leak detector is generally the fastest way to find an unknown leak. They can be used to quickly find a leak, or to find the area in which the leak exists, in a sealed system when you don't even know where to start. An electronic leak detector gets you real close to the leak.

**Features**

- Detects all halogenated refrigerants.
- Tri-color visual leak size indication on all models except TIFXL1A and TIF5750A.

**Models**

- TIF5750A - Super Scanner Refrigerant leak detector. Two sensitivity positions, including unique ScanMode and LED leak size indicators.
- TIFRX1A - Refrigerant leak detector. High and low sensitivity levels.
- TIFXL1A - Refrigerant leak detector. Single switch control.
- TIFXP1A - Refrigerant leak detector. Seven levels of sensitivity.
- TIFZX1 - Refrigerant leak detector. Patent pending heated pentode™ sensor technology. Detects all halogenated refrigerants at levels below 0.1 oz/year. 25 year warranty.

**TIFZX1****A/C REFRIGERANT LEAK DETECTORS**

SUPPLIED BY: INFICON, INC

**LEY712202G1 - Leak Detector**

Infrared leak detector that is extremely sensitive to all refrigerants, and only refrigerants. The unit will remain accurate and reliable over time, with a sensor that is rated for approximately 800 hours of usage. Sensitivity down to .10 oz/ per year. Infrared cell cannot be overloaded by refrigerant, as the sampling pump quickly clears out the sensor.



**A/C REFRIGERANT LEAK DETECTORS**

SUPPLIED BY: RITCHIE ENGINEERING/CORROSION CONSULTANTS

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**CCI69365 - Yellow Jacket® AccuProbe™ Heated Sensor Leak Detector**

Quickly and easily zero-in on all refrigerant leaks. The frequency of flashing tip and audible alert increase as you get closer to a leak. The number displayed tells the size of the leak in ounces/year. Sensitivity: 0.06 oz. per year, Power supply: 4 "AA" alkaline batteries.



**A/C REFRIGERANT LEAK DETECTORS**

SUPPLIED BY: ROBINAIR / A DIVISION OF SPX

**ROB16600 - Electronic Leak Detector**

Detects refrigerant leaks in air conditioning and refrigeration systems. Audible and visual leak indicators, a volume control, a threshold balancing control and a 16" gooseneck probe, which holds its position for one-handed operations. Sensitivity: less than 0.05 oz. per year, Power supply: 4 "AA" alkaline batteries.



**A/C REFRIGERANT IDENTIFIERS**

SUPPLIED BY: NEUTRONICS INC.

**RI-2004DX Series Refrigerant Identifier**

The Neutronics RI-2004DX Series Refrigerant Identifier tests the refrigerant in vehicles to ensure it is pure prior to recovery. The instrument utilizes non-dispersive infrared (NDIR) technology to determine the weight concentrations of refrigerant types R12, R134a, R22, hydrocarbons and air. In addition, the RI-2004DX series features "Blend-ID" to indicate the presence of EPA's SNAP (Significant New Alternatives Policy) approved blend refrigerants. The unit is powered by 12V DC from the vehicle battery.



**NEURI2004DXP**

**Features**

- Ergonomic design.
- Large graphic display.
- 98% pass/fail indication.
- Displays refrigerant percentages.
- 60 second test time.
- Instant warm up.

**Models**

- NEURI2004DXP - Refrigerant identifier with printer.
- NEURI2004DX - Refrigerant identifier without printer.



**A/C REFRIGERANT IDENTIFIERS**

SUPPLIED BY: RITCHIE ENGINEERING/CORROSION CONSULTANTS

**CCI68947 - Refrigerant Identifier**

Dispersive infrared (NDIR) technology quickly determines the weight concentrations of R-12, R-134a, R-22, hydrocarbons and air. Analytical software identifies all EPA's SNAP (Significant New Alternatives Policy) approved blends, as well as illegal replacements and blends including propane and butane, quickly and automatically determines purity of R-12 and R-134a to help eliminate potential of human error. Unit comes in a rugged portable case with R-12 and R-134a sample hoses. Built-in printer runs an instant receipt for convenient and accurate customer billing. Rechargeable battery lasts all day. Power requirements: 12V DC, via battery clips, Operating temperature range: 40° - 130°F, Operating humidity: 0-95% RH non-condensing.



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**A/C REFRIGERANT IDENTIFIERS**

SUPPLIED BY: ROBINAIR / A DIVISION OF SPX

**ROB16900 - Refrigerant Identifier**

Provides a fast, easy, and accurate means to determine refrigerant type and purity in refrigeration systems and refrigerant storage cylinders. Utilizes a combination of infrared and chemical fuel cell technologies to determine purity and contamination levels of refrigerant R-12 and R-134a, as well as air concentrations in both refrigerant types. Powered by vehicle battery through clip-on adapter harness (10-14V DC), or powered by line power through plug-in wall adapter harness (120V AC, 60 Hz). Detected compounds: R-12, R-134a, air, and unknown compounds, Operating temperature range: 39° - 122°F, Sample parameters: Vapor only, oil and liquid free, 300 p.s.i.g. maximum.

**ROB16910 - Refrigerant Identifier Plus**

Provides a fast, easy, and accurate means to determine refrigerant purity in refrigerant storage cylinders or directly in vehicle air conditioning systems. It also determines the need and controls the purging of ambient air-based NCG from refrigerant storage vessels or vehicle air conditioning systems. Uses non-dispersive infrared (NDIR) technology to determine the weight concentrations of refrigerant types R-12, R-134a, R-22, hydrocarbons, and air. Displays the actual percent of R-12, R-134a, R-22 and air in the system or tank. Visual and audible hydrocarbon alarm. On board printer port. Electrical: Universal 110/220V AC, 50/60 Hz, 0.2 amps max., Operating temperature range: 39° - 122°F, Sample parameters: Vapor only, oil-free, 300 p.s.i.g.

**A/C SEALANT DETECTOR**

SUPPLIED BY: NEUTRONICS INC.

**NEUACSD - QuickDetect™ A/C Sealant System**

A Neutronics QuickDetect™ A/C Sealant Detection Kit quickly lets you know if there is harmful sealant in the vehicle's A/C system, helping you prevent damage to your refrigerant recovery equipment. To protect your equipment, check every system for sealant before attempting recovery or repair.



**A/C SEALANT SEPARATOR & ACCESSORIES**

SUPPLIED BY: AIRSEPT INC.

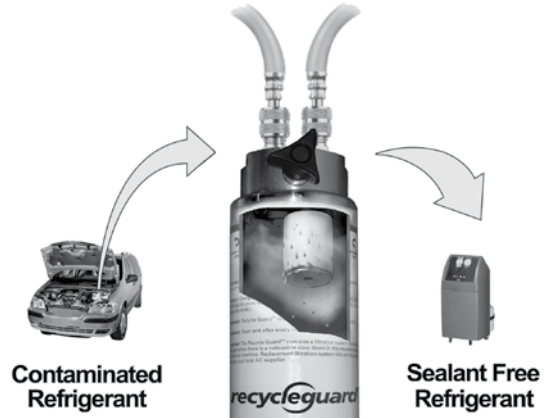
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**Recycle Guard™ Sealant, Dye and Lubricant Separator**

Recycle Guard is a sealant, debris, dye and lubricant separator which protects A/C recovery equipment. It filters out these contaminants before they reach your expensive A/C recovery equipment which can clog the internal components causing the service unit to become unusable and need costly, time consuming repair. It separates the contaminants by using a patented dual filtration system.

**Models**

- AIR72100 - Recycle Guard™.
- AIR72101 - Recycle Guard™ with service hose.



**AIR72100**

**AIR72110 - Replacement Filter Pack**

Replacement filter pack. Includes (2) filter elements, (3) O-rings and (1) support screen.



**AIR72136 - Recycle Guard Hose**

The Recycle Guard hose is the service hose needed to operate Recycle Guard.



**COOLANT EXCHANGER**

SUPPLIED BY: ROBINAIR / A DIVISION OF SPX

**ROB75700 - Coolant Exchanger**

10 minute exchange process means no more waiting for the engine to warm up! Vacuum mode creates a “push/pull” exchange process allowing the technician to safely remove high pressure in a hot system. Leak check feature allows the technician to test for leaks prior to refilling. Two clearly marked valves and an easy-to-read gauge make this machine very easy to use. No electricity required. 90 psi shop air drives the exchange process, as well as the 2 gpm pump on the waste tank. Two external new coolant supply tanks allow on-board storage of two different coolant types.



**COOLING SYSTEM LEAK TESTER**

SUPPLIED BY: SNAP-ON TOOLS

**SVTS262C - Cooling System Pressure Tester Kit**

Test pressure caps and cooling systems for leaks on a wide variety of domestic and import vehicles. Cap has rotating lever for fine pressure adjustment. Set features hand pump and tester head with 12" hose that reads in both PSI and kPa. Improved material in pump head is corrosion resistant.



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**REFRACTOMETER**

SUPPLIED BY: SNAP-ON TOOLS

**EETA305B - Refractometer**

Quickly and accurately determines the freezing point of propylene and ethylene glycol-based antifreeze solution. Also gives indication of the charge level in battery acid. Features a focusing eyepiece that provides a sharp, easy-to-read scale. Ambient room lighting provides adequate illumination—no special direction or angle required to view reading. Includes steel and glass constructed head and prism, rubber finger grip, and focusing eyepiece with eyecup. Range: -50° - 32°F propylene glycol, with 10° divisions; -60° - 32°F ethylene glycol, with 10° divisions.

**THERMOMETERS**

SUPPLIED BY: RITCHE ENGINEERING/CORROSION CONSULTANTS

**CCI69228 - Yellow Jacket® Pistol-Grip Infrared Thermometer**

The most compact infrared thermometer available, it quickly measures -7° - 230°F with distance to spot ratio of 1.3:1. Emissivity fixed at 0.95. Fast response time of 0.5 second. 0.1°F resolution of -40° - 212°F.

**THERMOMETERS**

SUPPLIED BY: SNAP-ON TOOLS

**TEMP2A - Digital Thermometer**

Take accurate temperature readings on A/C systems, cooling systems and other applications. Reads temperature of liquids, solids and gases. Smooth membrane surface seals out moisture, dirt, oil and grease. Easily wipes clean. Easy to read display in F° and C°. Magnet on thermometer cover holds unit in place in tool storage unit. Tip cover protects pocket and protects probe during storage. Temperature Range: -58° to 300°F (-50 to 150°C).

