



AUTOMOTIVE A/C TOOLS

EDITION 61 CATALOG



RITCHIE ENGINEERING

Whether you know it or not, Ritchie Engineering has over 20 years experience in providing top quality A/C service tools to shops just like yours. Leveraging the same technology, experience and reputation we've gained in our 60+ years of serving the HVAC/R industry, Ritchie Engineering is building a legacy for quality and reliability in Automotive. Bottom line is this – if the label on your A/C tools reads YELLOW JACKET,[®] you can count on years of trustworthy performance.

Ritchie Engineering is a U.S. company located in Bloomington, Minnesota.



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REFRIGERANT MANAGEMENT SYSTEM 37880 SERIES

The YELLOW JACKET® Refrigerant Management System (RMS) is the simplest, easiest-to-use A/C service center helping technicians meet today's tough service standards.

The 37880 series provides full cycle recovery/recycle/evacuate/recharge to bring the vehicle back to factory specifications with the press of one button. Plus, it's fully compliant with SAE J2788H and J2788 ETL requirements.

RMS 37880 SERIES CAPABILITIES:

- Built-in oil injection (excluding 37887 and 37888)
- High-side or low-side charging
- Fully automatic air purging to constantly monitor and purge non-condensables
- Fast tank refills with no hose changes
- Refrigerant management system keeps track of information on A/C service work
- Built-in self-diagnostics
- Maintenance reminders for oil and filter changes
- Automatic scale calibration to +/- 1/4 oz. exceeds industry specifications and results in accurate charging every time
- Automatic shut-off for full tank and high pressure
- Heavy-duty shock-resistant scale for accurate charging
- Two-stage, 3 or 5 CFM vacuum pump for fast, high-efficiency evacuation

RMS 37880 SERIES FEATURES:

- Twin 1/2 hp compressors for speed and reliability
- 10' premium YELLOW JACKET PLUS II™ hoses for easy connection to even hard-to-reach fittings. Approved SAE J2196
- 3.5" color-coded gauges with follower needles, easy-to-read even inside the vehicle
- High-impact plastic cabinet with rounded corners and edges helps prevent damage to vehicles
- Large pneumatic tires for easy mobility
- Built-in accessory tray
- Full factory tested after a 34-point quality check
- Free training, setup and lifetime technical support
- One-year parts and labor warranty
- SAE J2197, SAE J2788H and J2788 ETL approved
- Made in the USA

HYBRID

ADDITIONAL HYBRID FEATURES (37887 AND 37888):

- OEM approved for use on high-voltage A/C systems
 - Quick clearing of service hoses minimizes PAG oil contamination
 - Reduces oil contamination well below allowable amount
 - Eliminates cross-contamination of oil
 - 50-pound storage tank – 20 pounds greater than most competitive units



UPC No.	For passenger vehicles (cars, trucks, SUVs)
37880	RMS with 10' hoses and 3 CFM vacuum pump
37881	RMS with printer/identifier, 10' hoses and 3 CFM vacuum pump
37889	RMS with micron gauge, 10' hoses and 3 CFM vacuum pump



UPC No.	For vans, buses, heavy equipment and aircraft
37882	Heavy-duty RMS with 15' hoses and 5 CFM vacuum pump
37885	RMS with 10' hoses and 3 CFM vacuum pump - 230V
37886	Heavy-duty RMS with 15' hoses and 5 CFM vacuum pump (230V)

HYBRID


UPC No.	For hybrid and standard passenger vehicles*
37887	RMS with system flush, 10' hoses and 3 CFM vacuum pump
37888	RMS with system flush, printer/identifier, 10' hoses and 3 CFM vacuum pump

*We recommend using one oil injector (95770) for hybrid vehicles and a separate injector for standard vehicles.

THE TRAP™ SEALANT FILTER SYSTEM



This rugged filter cartridge connects in-line between a vehicle and any A/C service equipment to protect refrigerant supply, recovery system and oil separators. Hi-tech design captures large volumes of sealant oil sludge and other contaminants while still filtering effectively without plugging. Maintenance is fast and simple with a clean-out drain, and when necessary, easy filter replacement. 

UPC No.	Description:
38080	The TRAP™ sealant filter system, 1/2" ACME fittings
38081	The TRAP™ replacement filter kit
38087	The TRAP™ sealant filter system, 1/4" flare fittings
38139	The TRAP™ dual (2) sealant filter system, 1/2" ACME fittings
01152	30" R-134a blue hose, 1/2" ACME x 1/2" ACME 45° ball valve end
01153	30" R-134a red hose, 1/2" ACME x 1/2" ACME 45° ball valve end

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, .35 oz. per stroke. Includes bottle with calibrations, hose and low-side R-134a coupler. May be used on R-12 and R-134a systems.

UPC No.	Description:
77950	Oil recharge pump, bottle, hose and service couplers

CALIBRATED A/C SCREW INJECTION



This 2 oz. injector is easy to refill and easy to operate. Calibrations are clearly marked on the injector. Connect to A/C low-side and rotate handle. AC/R and auto models. Maximum port pressure of 250 psi.



UPC No.	Description:
69729	Universal screw injector
69730	R-12 Calibrated A/C screw injector
69731	Auto R-134a calibrated A/C screw injector with service coupler
69732	Auto R-134a calibrated A/C screw injector without service coupler

RECOVERX REFRIGERANT RECOVERY MACHINES



Lightweight, low cost, easy-to-use and maintain. 

- CPR valve regulates refrigerant to the compressor, eliminating the need for the technician to throttle the suction valve
- Whisper-quiet 1/6 hp oil-filled reciprocating hermetic compressor
- Oil drain port for easy compressor maintenance
- Oil separator drain
- Automatic safety overfill shut-off sensor cord shuts unit down after tank reaches 80 percent capacity
- 30-pound tank with liquid level sensor on some models
- High and low pressure switch with automatic reset
- Status LEDs
 - High Pressure
 - Tank Full
 - System On/Vacuum Complete

Specifications:	39784 and 39785
Applications	Small shops, off-road and agricultural equipment and refrigeration units
Recovery capabilities	Vapor and push/pull
Compressor	1/6 hp oil filled hermetic
Weight	29 lbs.
Dimensions	12.4"W x 19.3"L x 12.5"H



UPC No.	Description:
39784	RecoverX MR134a recovery unit with 30 lb. cylinder and hose
39785	RecoverX MR134a basic recovery unit for R-134a

For salvage yard applications, refer to the RecoverXLT 95760 at www.yellowjacket.com

COOLANT SYSTEM SERIES

Service more cars in the same amount of time with YELLOW JACKET® Coolant Systems. The high capacity offered in the three-tank, 24-gallon (37500) and the four-tank, 40-gallon (37505 shown below) means less time for refilling of new coolant and disposal of used coolant. And fewer tank refills means more time for profitable service.



37500*/37505 CAPABILITIES:

- Vacuum drain*
- Vacuum test*
- Vacuum fill*
- Use with hot or cold vehicles
- Relieve pressure
- Drain reservoir
- Top off coolant
- Pressure test
- Coolant exchange
- Forward and reverse flush

COOLANT SYSTEM SERIES FEATURES:

- “New coolant” tanks hold the same or different coolants to service different vehicles from one source
- A “used coolant” tank means fewer disposals
- Built-in pump eliminates pressurizing the tanks and the resulting stress on fittings and connections that cause leaks
- Onboard pump quickly empties used coolant tank and siphons coolant from bulk drums saving time and work of pumping or filling by hand
- Compact 45" height for storage under a shelf
- Clear 10' hoses for easy reach and monitoring of coolant movement; quick disconnect dry break valve for safe, positive shut-off
- Easy-to-follow graphic instructions for function control
- Large easy-to-read color-coded gauges
- Tank coolant level markers
- Control handles set below side walls for protection
- Oversized pneumatic rear wheels and front locking casters for easy mobility; caster brakes for job site stability
- Rounded polypropylene exterior to resist impact and safeguard vehicles
- Accessories tray
- Tubular steel frame for solid durability
- Made in the USA 

Specifications:	37500	37505
Dimensions	19.5"W x 29"D x 45"H	
Weight	116 lbs. empty	118 lbs. empty
New coolant capacity	2 – 8-gallon tanks	3 – 8-gallon tanks
Used coolant capacity	8-gallon tank	16-gallon tank
Power	12V DC	Shop air
Pump	Rotary DC	Dual diaphragm
Max pump pressure	N/A	100 psi max (adjustable)
Max fluid flow	4 GPM	5 GPM
Vacuum	25" Hg	
Average vacuum/fill time	5 minutes	
Removable hoses	10' clear with reinforcement	
Vacuum/fill/flush temp.	Hot vehicle (no flush)	Hot or cold vehicle
Flush	N/A	Continuous
Coolant types	All	
Accessories	Cross flow adapter, radiator cone, two sizes of drain probes, radiator cap adapters	

UPC No.	Description:
37500	Coolant Vacuum/Fill System
37505	Coolant Flush/Exchange System

BULLET™ 7 CFM VACUUM PUMP



Wide mouth oil reservoir port for easier, cleaner filling. The YELLOW JACKET® BULLET™ vacuum pump is a two-stage rotary vane oil-sealed 7 CFM pump that pulls down to 25 microns or better.

- Wide mouth oil reservoir port for easier, cleaner filling. Doubles as pump exhaust; threaded to attach garden hose for exhausting to remote location
- Large oil sight glass for easy monitoring of oil level
- Large brass oil drain for easy access to fast oil changes
- Internal intake check valve prevents oil backup into the system during a power failure
- Intake filter screen keeps damaging particles from entering the pump
- Heavy-duty rotors and bearings
- Heavy-duty steel handle for well-balanced carrying
- Tethered port caps stay with the pump
- Stable base; wide-stance metal with rubber overlay
- 24-month limited over-the-counter warranty
- Made in the USA 🇺🇸

Specifications:	
Free air displacement	7 CFM
Number of stages	Two-stage rotary vane
Field test	25 microns
Intake	1/4" x 3/8" x 3/8"
Motor	1/2 hp – 1725 rpm
Internal capacitor thermal overload	Temperature rise 40° C
Voltage (single phase)	115V/60 Hz
Power cord	6' – motor mounted switch
Oil capacity	28 oz.
Dimensions	16.25" L x 6" W x 11.5" H
Net weight	30.8 lbs. (14.0 kg)

UPC No.	Description:
93600	7 CFM 115V/60 Hz single phase

SUPEREVAC™ PUMPS



The SUPEREVAC™ vacuum pump is a highly efficient, two-stage rotary vane oil-sealed pump field-rated at 15 microns or better. The lower the micron rating, the better the pump performance.

- Isolation valve for oil changes without losing vacuum in the system
- Built-in vacuum indicator gauge
- Wide-mouth oil reservoir port for easier, cleaner filling
- Doubles as pump exhaust—threaded to attach garden hose for exhausting to remote location
- Large oil sight glass for easy monitoring of oil level
- Large brass oil drain for easy access to fast oil changes
- Gas ballast valve keeps oil cleaner, longer during evacuation of wet systems
- Internal intake check valve prevents oil backup into the system during a power failure
- Intake filter screen keeps damaging particles from entering the pump
- Heavy-duty rotors and bearings
- Heavy-duty steel handle with lift hook for well-balanced carrying
- Metal with rubber overlay base for stability
- Made in the USA 🇺🇸

Specifications:	Model 93514	Model 93515
CFM	4	6
Field test	15 microns	15 microns
Intake	1/4" and 1/2" ACME	1/4" and 1/2" ACME
Motor	1/2 hp - 1725 rpm	1/2 hp - 1725 rpm
Internal capacitor thermal overload	Temp. rise 40°C	Temp. rise 40°C
Voltage (single phase)	115 Volt - 60 cycle	115 Volt - 60 cycle
Oil capacity	36 oz.	34 oz.
Dimensions (LxWxH)	15.25" x 6.75" x 12"	16.25" x 6.75" x 12"
Net weight (without oil)	28.3 lbs. (12.8 kg)	29.0 lbs. (13.1 kg)

VACUUM PUMP OIL



YELLOW JACKET vacuum pump oil is specially refined and formulated for extremely low vapor pressure and high pump efficiency at all temperature conditions. This means that with proper maintenance you can get a continued return on your pump investment.

We recommend using the current mineral-based pump oil when working with both R-12 and R-134a A/C systems. 🇺🇸

UPC No.	Description:
93091	Pint of vacuum oil - 24/case
93092	Quart of vacuum oil - 12/case
93096	Gallon of vacuum oil - 6/case



SUPEREVAC™ LCD VACUUM GAUGE



SUPEREVAC™ LCD vacuum gauge combines thermocouple sensor technology with advanced electronics for precise readings and repeatability not found with thermistor sensors or analog meters. The result – accurate readings from atmosphere to 1 micron without recalibration on job after job.

THERMOCOUPLE SENSOR FEATURES:

- No adjustments or warm-up. Stays calibrated after on/off switching and long evacuations
- Automatic ambient temperature compensation
- Automatic battery compensation
- Replacement sensor requires no calibration

LCD VACUUM GAUGE FEATURES:

- Normal handling and jarring will not affect the LCD reading
- Case protects electronic circuitry and sensor
- Calibration standards traceable to NIST
- Precision circuitry controls sensor and translates sensor input into micron readings
- Made in the USA 🇺🇸

UPC No.	Description:
69075	SUPEREVAC™ LCD full range vacuum gauge complete in case
69067	Optional ball valve to add to sensor 1/8" FPT x 1/4" female flare
69073	Replacement sensor for 69075
69071	Female x female coupler
19110	Optional coupler to add to sensor 1/8" FPT x 1/4" female flare

DIGITAL VACUUM GAUGE

SEVEN UNITS OF VACUUM FOR CONFIDENCE



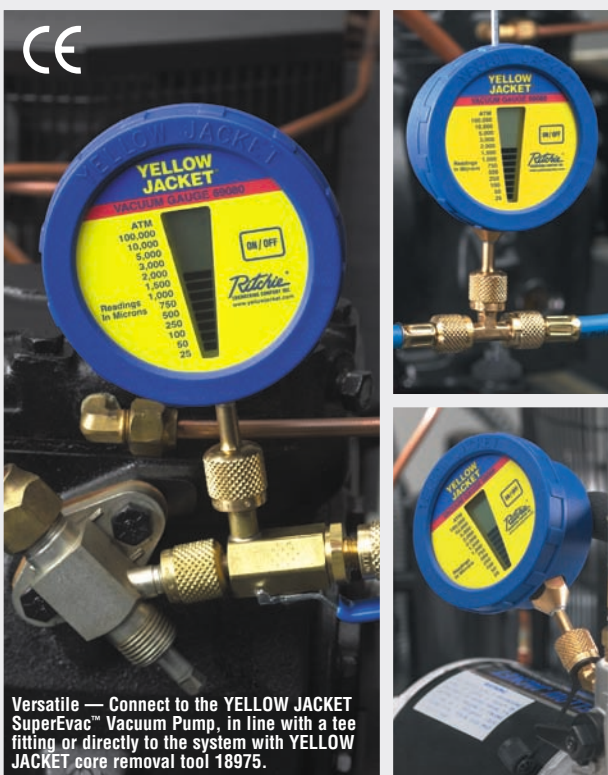
This easy-to-use gauge shows that air and moisture have been removed from the system. A simple push of a button changes the display readout between 7 units of vacuum. **Each displays down to the equivalent of 10 microns of vacuum to let you know that your vacuum pump is clean and performing properly.** If the sensor gets dirty, simply plug a new sensor into the gauge, run through a quick calibration process and be back on the job within minutes.

DIGITAL VACUUM GAUGE FEATURES:

- Unique patented thermal conductivity sensor automatically compensates for temperature
- Replaceable, cleanable, plug-in sensor (Part #69087) handles 450 psi positive pressure
- Displays seven different units of vacuum (microns, milliTor, Torr, millimeters of mercury, millibar, kiloPascal and Pascal)
- 12" coiled sensor cord stretches to 24" for easy reach, connectivity and readability of display
- Low battery indicator
- Automatic shut-off after 20 minutes
- Calibration standards traceable to NIST
- 32° to 122°F (0° to 50°C) operating temperature range
- 12 oz. (340 g) with battery
- Approximately 25 hours continuous battery life
- Made in the USA

UPC No.	Description:
69086	Hand-held vacuum gauge with fabric carry pouch
69087	Replacement sensor for 69086
69091	Replacement fabric pouch for 69086

DIGITAL LCD ECONOMY VACUUM GAUGE



Versatile — Connect to the YELLOW JACKET SuperVac™ Vacuum Pump, in line with a tee fitting or directly to the system with YELLOW JACKET core removal tool 18975.

The digital LCD economy vacuum gauge indicates air and moisture have been removed from the system. Track down 14 increments from atmosphere to 25 microns to know that the system is clean and the vacuum pump is performing properly. Packaged complete with 9V alkaline battery and hanging hook.

- Unique thermal conductivity sensor automatically compensates for temperature with no calibration
- Simple On/Off controls
- Easy-to-clean sensor handles 450 psi positive pressure
- Rugged contractor-grade construction with tough ABS housing and solid state circuitry for accuracy
- Automatic battery saver shuts gauge off after 20 minutes with no reading changes
- Low battery indicator
- Calibration standards traceable to NIST
- Patented technology
- Made in the USA

To keep the 69080 vacuum gauge accurate, it is best to avoid oil contamination. Keep the sensor vertical whenever possible and connect the gauge directly to the system, away from the pump.

UPC No.	Description:
69080	Digital LCD vacuum gauge with battery, hook and pouch

AccuPROBE™ UV AND AccuPROBE™ II LEAK DETECTORS



Use the electrolyte sensor or UV technology (or both at the same time) to detect HFC, HCFC and CFC refrigerants, including SNAP approved hydrocarbon blends.

The Smart Alarm LED shows how big or small a leak is on a scale of one to nine.

With the electrolyte sensor, UV lights and Smart Alarm™ indicator, this is the only tool you need for fast, easy and certain leak detection.

The ultra-sensitive sensor of the YELLOW JACKET AccuProbe UV Handheld Leak Detector allows it to detect even the most difficult to detect R-1234yf, R-134a, R-404A, R-407C and R-410A refrigerants. Our exclusive solid electrolyte sensor technology reduces heat and gives the sensor longer life than traditional heated anode or heated diode detectors.

The AccuProbe UV features low, normal and high sensitivity levels with visual and audible signals, and a 3 LED UV light system that works with 395-415nm wavelength leak tracing dyes. The audible alert, which can also be muted, and the flashing visual alarm indicator at the probe end increase in frequency and duration as concentration increases.

The AccuProbe UV is equipped with the advanced digital SmartAlarm LED display. This feature takes the guesswork out of whether or not to repair a small leak. Unlike the more traditional LED bar graphs that copy or mimic the audio alarm signal, the SmartAlarm digital leak size indicator measures, registers and displays the leak size independently from both the audio alarm and sensitivity level on a scale of one to nine:

1 to 3 – less than 0.1 oz./yr.

4 to 6 – 0.1 to 0.5 oz./yr.

7 to 9 – more than 0.5 oz./yr.



The AccuProbe II comes with all of the features of AccuProbe without the Smart Alarm indicator, flashing tip, UV lights and mute.

FEATURES:

- Improved, robust, ergonomic design is easy to use in close areas and extendable into hard-to-reach areas
- Long life, stable sensor
- Instantaneous response time
- Clears quickly from large amounts of refrigerant
- Automatic calibration and reset to environment
- Low battery indicator
- Microcontroller technology
- CE Marked
- 18-month limited warranty
- SAE J2791 certified
- Made in the USA

Specifications:

Max sensitivity	0.06 oz. (1.7 g)/yr. HFC's R-134a
Max sensitivity	0.03 oz. (0.9 g)/yr. HCFC's R-22
Maintenance required	No
Affected by humidity	No
Body length	10 inches (250 mm)
Battery type, continuous life	4 AA alkaline, 8 hours
Operating temperature range	24° to 110°F

UPC No.	Description:
69336	AccuProbe™ UV leak detector (with case)
69354	AccuProbe™ II leak detector (with pouch)

HEATED SENSOR VS. NEGATIVE CORONA:

Proprietary HET (heated electrochemical technology) detects all refrigerants with excellent sensitivity to R-22, R-134a, R-410A, R-404A, and R-407C. For the same refrigerants, negative corona (NC) sensitivity is fair for R-134a, and even less for the others listed.

HET also eliminates the false alarms of NC detectors and provides longer sensor life (more than 300 hours).

MICRO LED UV LEAK DETECTION KITS AND LAMPS

FOR ALL A/C SYSTEMS AND LAMPS



For all A/C systems and lamps. Individual reflectors surround each of five LEDs recessed for protection in the stainless steel head.

- 69782 features five UV bulbs for 395-415nm wavelength
- Lifetime LEDs
- Constant ON/OFF
- Waterproof
- AA Alkaline battery included

UPC No.	Description:
69788*	UV LED flashlight and dye kit for auto
69789*	UV LED flashlight and dye kit for AC/R
69782	395-415nm wavelength UV LED flashlight
69793	Replacement pouch for LED (for older style light with black casing)
69794	Lithium battery - 2 pak (for older style light with black casing)

*Not for direct injection into R-410A systems

UNIVERSAL A/C DYE INJECTORS AND HOSE



Universal A/C dye injectors work in AC/R and auto A/C systems. Four 1/4 oz. applications of dye in each disposable tube make it economical, fast and clean. Hose features back flow check valve. US Patent 6,164,348 

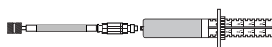
UPC No.	Description:
69702*	Hose plus 2 injectors for R-12
69703*	Auto R-134a hose, coupling and injectors
69705	Injector hose with SealRight™ for R-12
69706	Auto R-134a injector hose and service coupler

*Not for direct injection into R-410A systems.

UNIVERSAL A/C DISPOSABLE INJECTORS



Universal disposable 1 oz. applicator for fast, economical dispensing. Universal dye for all common refrigerants and oils, minimizing inventory. Four 1/4 oz. applications for auto A/C. Less costly and faster than many other methods. Not for direct injection into R-410A systems. 



Easy to use: connect to system, push in plunger, and then disconnect.

UPC No.	Description:	Quantity:
69700	1 oz. (30 ml) injector (24 automotive A/C applications/cs.)	6/case
69721	1 oz. (30 ml) injector (8 automotive A/C applications/pkg.)	2 pkg.
69727	1 oz. (30 ml) injector (4 automotive A/C applications/pkg.)	single

UNIVERSAL A/C DYE SOLUTIONS



Universal dye for A/C systems with PAG, mineral, alkyl benzene or polyol ester lubricants.

- Field proven and sold worldwide
- Passed thermal stability tests
- One dye for A/C systems

- Raw material QC ensures dye uniformity
- Made in the USA 

UPC No.	Description:	Quantity:
69711	1/4 oz. (7.5 ml) Universal A/C	(24 pak)
69708	1/2 oz. (15 ml) Universal A/C	(12 pak)
69709	1 oz. (30 ml) Universal A/C	(6 pak)
69710	2 oz. (60 ml) Universal A/C	(6 pak)
69712	8 oz. (240 ml) Universal A/C	
69713	8 oz. (240 ml) Universal A/C	(6 pak)
69803	1 gal. (3.78 L) Universal A/C	
69805	5 gal. (18.92 L) Universal A/C	
69806	55 gal. (208.19 L) Universal A/C	



FLUORESCENT SOLUTIONS FOR NON-REFRIGERANT APPLICATIONS



The oil and fluid dye solution is for finding leaks in oil-based applications. **Use 1 oz. per 2 gallons of oil.**

- Pin point leaks in milling machines and hydraulic systems such as cherry pickers
- Find seal and gasket leaks in engines, compressors and transmissions
- Locate leaks in gasoline or diesel fuel equipment, offset printing presses, injection-molding machines, locomotive engine oil coolers and oil-cooled chillers
- Detect leaks in storage tanks and other high volume containers, as well as associated piping, valves, condensers, sprinkler systems, pumps, etc.
- Detect water leakage in any enclosed circulatory system or static system that can be pressurized or agitated
- Made in the USA 



Coolant dye glows blue to pinpoint leak sources in antifreeze-based automotive water systems. Use 1 oz. per gallon of coolant.

UPC No.	Description:	Quantity:
69584	16 oz. Fluorescent H ₂ O solution	—
69733	1 oz. (30 ml) oil and fluid dye	6/case
69734	1 oz. (30 ml) oil and fluid dye	24/case
69735	8 oz. (240 ml) oil and fluid dye	1/case
69737	1 oz. (30 ml) coolant dye	6/case
69738	1 oz. (30 ml) coolant dye	24/case
69739	8 oz. (240 ml) coolant dye	1/case

YELLOW JACKET solutions meet or exceed applicable ASHRAE and ANSI tests and SAE standard J2297 for R-134a UV leak detection.

DIGITAL ELECTRONIC CHARGING SCALE

COMPACT, TIME-SAVING ALTERNATIVE TO CYLINDERS



Digital electronic charging scales show the progress of the charge as it's happening, indicating when to close the valves and stop the charge. Works with any refrigerant in any system.

- Calibration standards traceable to NIST
- Removable control module on retractable 5' coiled cord
- Mechanical overload protection and "OL" alert on LCD
- Industrial grade circuitry for long life performance
- Minus (-) reading shows weight removed from the platform

Programmable electronic charging scales have added capabilities for automated, faster and more economical charging. Simply program the charging weight and the valve will close automatically when the charge is complete.

- Mesh filter in charging module protects solenoid valve from debris
- Low flow triggers automatic hold to extend solenoid life
- Schrader valve prevents backflow through solenoid
- Charging accuracy is equal to scale accuracy +/- 1/4 oz.
- Solenoid valve with 400 psi maximum operating pressure differential (MOPD) allows metering broad range of refrigerants
- Made in the USA 

Specifications:

Resolution	0.1 oz./0.01 lb./0.01 kg
Display	Sealed LCD with high resolution 0.5" characters
Keypad	Moisture resistant membrane keypad with tactile metal domes
Operating temperature range	32° to 122°F (0° to 50°C)
Storage temperature range	-4° to 158°F (-20° to 70°C)
Power	9V battery, battery life approximately 25 hours

Specifications: 110 lbs. (50 kg) scale

Platform size	9" x 9" (228 mm x 228 mm)
Case size	15.5" x 12.25" x 3.25" (394 mm x 311 mm x 83 mm)
Accuracy	± 0.5 oz./ ± 0.03 lb./ ± 0.015 kg or 0.1% of reading, whichever is greater
Total unit weight	9 lbs. (4.1 kg)

UPC No.	Description:
68802	Electronic charging scale 110 lbs. (50 kg)
68803	Programmable charging scale 110 lbs. (50 kg)



BRUTE II™ 4-VALVE TEST & CHARGING MANIFOLD °F



The *BRUTE II™* 4-Valve Test and Charging Manifold provides the flow that's proven faster than any conventional manifold. The aluminum alloy body is forged for strength and reliability with 3/8" bores through the body to speed the job.

- Fourth hose enables connection to high-/low-sides, refrigerant tank and recovery unit or vacuum pump for diagnostics, evacuation and charging without switching hoses
- Front access for easy field recalibration
- Double "O" ring piston for reliability and long service life
- Exclusive 100-mesh filter in-line on all flare fittings helps keep out particulate material and extend the life of the seat
- Contoured easy-grip handles for positive control; color-coded for ready identification
- Sight glass to easily view refrigerant movement and condition during charging and recovery
- Heavy-duty hook won't pull out
- Made in the USA 

UPC No.	Hose:	Couplers:	Fittings:
R-12/22/134a with 3-1/8" red/blue gauge			
46100	Manifold only	None	1/2" ACME
46101	72" RYB PLUS II™ ACME	Premium	1/2" ACME

Other models available - visit www.yellowjacket.com



TITAN™ 2-VALVE MANIFOLD



Forged aluminum alloy body makes this unit lightweight for handling ease with the durability and reliability required for repeated use.

- Front access for easy field recalibration
- Double “O” ring piston for reliability and long service life
- Exclusive 100 mesh filter in-line on all flare fittings helps keep out particulate material and extend the life of the seats
- Contoured easy-grip handles for positive control; color-coded for ready identification
- Sight glass to easily view refrigerant movement and condition during charging and recovery
- Optional protective gauge boots available
- Heavy-duty hook won’t pull out
- Made in the USA

UPC No.	Hose:	Manifold Ports:	Couplers:
R-12/22/134a combination			
49840*	No hose	1/4" flare	None
49841	72" <i>PLUS II</i> ™ SealRight™ – RYB	1/4" flare	Premium
49842	120" <i>PLUS II</i> ™ SealRight™ – RYB	1/4" flare	Premium
R-134a (R-12/22/134a gauges)			
49846	No hose	1/2" ACME	None
49847	72" <i>PLUS II</i> ™ 1/2" ACME x 14mm and 1/2" ACME SealRight™	1/2" ACME	Premium
49848	120" <i>PLUS II</i> ™ 1/2" ACME x 14mm and 1/2" ACME SealRight™	1/2" ACME	Premium
R-12 (R-12/22/134a gauges)			
49843	No hose	1/4" flare	None
49844	72" <i>PLUS II</i> ™ SealRight™ – RYB	1/4" flare	None
49845	120" <i>PLUS II</i> ™ SealRight™ – RYB	1/4" flare	None

*Manifold includes high- and low-side anchors

SERIES 41 2-VALVE MANIFOLD WITH 1/4" PORTS



Forged body is solid brass for durability. Full porting maximizes capacity. Metal valve handles are full size for easy operation. Hose anchors are forged into back of body at 45°. Flutterless™ technology helps minimize needle pulsation for easier, more accurate readings. Double “O” ring piston for reliability and long service life.

UPC No.	Gauge:	Hose:
R-134a/R-12 combination manifolds		
41339	2-1/2" red/blue	72" R,B Str. x Str. quick coupler and Y Str. x 1/2" ACME 45° SealRight™ and premium couplers

Other models available - visit www.yellowjacket.com



REFRIGERATION SYSTEM ANALYZER



- LCD display with adjustable brightness and contrast, protected by an anti-glare, scratch resistant lens
- Close to 100 NIST refrigerant profiles, including R-1234yf (upgradeable via USB for new refrigerants)
- Built-in pressure/temperature chart reference screen for all refrigerants
- Built-in full scale vacuum sensor reads deep vacuum down to 10 microns
- Dual "K-Type" temperature-compensated sensor ports allow for simultaneous suction and liquid readings
- High accuracy and resolution pressure transducers for fast and sensitive leak detection
- Provides real-time pressure data in selectable time increments: 0.1, 0.2, 0.5, 1 and 2 seconds
- Displays and records max/min pressures
- Data logging for onscreen review or USB export to PC to generate performance/Excel™ work reports
- Tracks and exports date and time, useful for data logging
- Elevation may be entered manually for accurate, automatic pressure compensation
- Selectable "auto power off" and "power saving mode"
- Low battery indicator
- 360° swivel hook stows away when not in use
- Highly weather resistant, glass fiber reinforced, engineering grade thermoplastic housing—fully gasketed for water and dust resistance
- Two-year warranty
- Made in the USA 🇺🇸

The display reads in analog, digital or a combination of both, and monitors two pressures, two live temperatures, subcooling and superheat, and saturation temperatures (liquid and vapor) for close to 100 refrigerants.

The refrigeration system analyzer comes standard with the TITAN™ 4-valve manifold, an external, replaceable vacuum sensor; battery holder; and a boot, bumper, plug and sensor/probe boots, all in a blow-molded instrument case.

No other refrigeration system analyzer on the market today offers all of these features in one unit.

Specifications:	
Pressure sensing resolution (low and high sides)	0.1 psi, 0.01 bar, 1 kPa, 0.1 MPA, 0.01 kg/cm²
Pressure sensing accuracy	0.5% of full scale at 25°C 1% of full scale at 55 to 130°F 2% of full scale -40 to 120°C
Working pressure (max. measurable pressure) Low side/High side	350 psi/700 psi
Proof pressure (low and high sides)	1000 psi
Burst pressure (low and high sides)	1500 psi
Temperature sensor range:	-100 to 600°F (-73 to 315°C)
Temperature display resolution	0.1°F or C
Temperature accuracy	±1.8°F (±1°C)
Vacuum display resolution	Shows two most significant digits in microns (25xxx-10xxx, 99xx-10xx, 99x-10x, 99-10) Other units are direct conversions from the micron value
Vacuum accuracy	20% of reading
Operational temperature	-4 to 122°F (-20 to 50°C)
Storage temperature	-20 to 170°F (-29 to 77°C)
Dimensions	8.3" W x 6.7" H x 3.6" D (21 cm x 17 cm x 9 cm) excluding manifold
Weight	3.2 lb (1.45 kg) excluding manifold
Power	AA batteries (8); alkaline, NiCd, NiMH, A-A Lithium, Li Ion, Li Pol (approximately 14 hours of continuous operation with industrial alkaline batteries)

UPC No.	Description:
40812	Refrigeration system analyzer with TITAN™ 4-valve manifold
40813	Refrigeration system analyzer with TITAN™ 4-valve manifold and 60" PLUS II™ 1/4" RYB charging hose with compact ball valve end and 60" yellow 3/8" Str. x 3/8" 45°
40815	Refrigeration system analyzer with TITAN™ 4-valve manifold and 60" PLUS II™ charging hoses (RYB)

REPLACEMENT GAUGES

2-1/2" (68 mm) GAUGES



High-visibility dials with colored scales for easy reading. Flutterless™ technology minimizes needle pulsation for 3-2-3 percent accuracy. Steel cases.

3-1/8" (80 mm) RED AND BLUE DRY MANIFOLD GAUGES °F – 1% ACCURACY



For reliable performance and durability, these 3-1/8" gauges are housed in a red or blue steel case with front recalibrator screw and brass gauge movement. Colored temperature scales are easy to read through the full view polycarbonate crystal. Flutterless™ technology with brass surge protector minimizes needle pulsation.

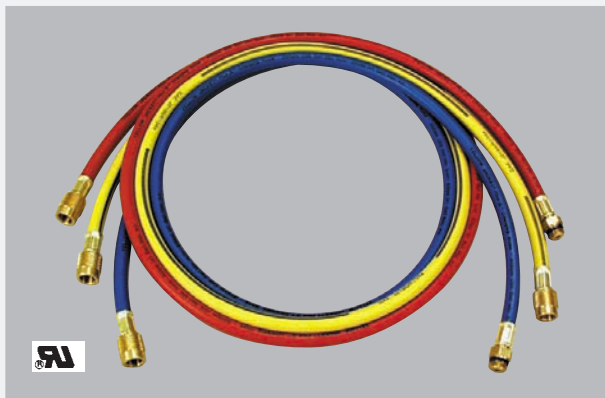
LIQUID-FILLED 3-1/2" (90 mm) GAUGES



Liquid-filled gauges dampen pulsation. Larger diameter with color-coded refrigerants for easy reading with 3-2-3 percent accuracy.

UPC No.	Description:
	R-12, R-22, R-134a
49013	2-1/2" red pressure °F gauge
49014	2-1/2" blue compound °F gauge
49103	3-1/8" red pressure °F gauge
49104	3-1/8" blue compound °F gauge
	R-12, R-134a, R-413A
49165	3-1/8" red pressure °C gauge
49166	3-1/8" blue compound °C gauge

AUTOMOTIVE MANIFOLD HOSES FOR R-134a SYSTEMS



These 1/4" hoses combine *PLUS II*™ hose with 1/2" Acme fittings to meet SAE requirements. You get *PLUS II*™ double barrier protection in a hose manufactured specifically for automotive applications. Fitting threads are 1/2" Acme Female and 14 mm Acme fittings.

Color:	Yellow	Red	Blue	3 Pak
Length:	SealRight Straight x 45° ACME	1/2" fe. Acme x 14 mm Male	1/2" fe. Acme x 14 mm Male	
60"	27460	27660	27260	27102
72"	27472	27672	27272	27101
96"	27496	27696	27296	27104
120"	27510	27710	27310	27103

Longer lengths available. Please specify.

*These hoses meet SAE requirements J2196 and are UL 1963 recognized components for R-12 and R-134a.

YELLOW JACKET® *PLUS II*™ HOSES WITH COMPACT BALL VALVE END



UL recognized assemblies (File SA 9737).

- Full-flow valve for faster recovery
- Hose and ball valve rated for 4000 psi burst and 800 psi working pressure
- UL 1963 recognized component for R-12 and R-134a
- Made in the USA

PLUS II™ Hoses – standard 1/4" flare fittings

Length	Color and UPC No.			
	Yellow	Blue	Red	3 Pak
72"	29072	29272	29672	29986
96"	29096	29296	29696	29988



YELLOW JACKET® PLUS II™ 1/4" HOSE WITH FLEXFLOW™ VALVE

- Valve handle position shows when valve is opened or closed
- Improved smaller ergonomic valve with zero restriction for maximum flow and tighter application
- 4000 psi burst and 800 psi working pressure
- Made in the USA

PLUS II™ Hoses – standard 1/4" flare fittings

Length	Color and UPC No.			
	Yellow	Blue	Red	3 Pak
72"	25072	25272	25672	25986
96"	25096	25296	25696	25988

YELLOW JACKET® PLUS II™ 1/4" HOSE WITH SEALRIGHT™ LOW LOSS ANTI-BLOW BACK FITTING



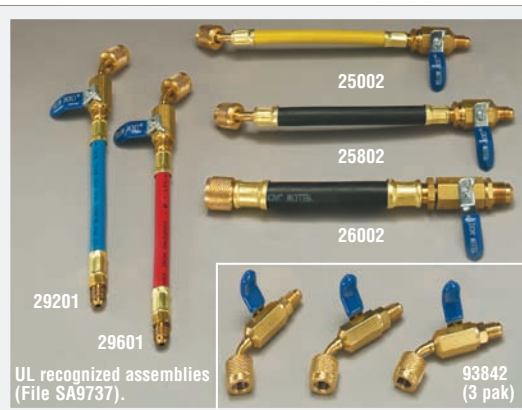
PLUS II™ hoses have proven performance benefits of the original hose, plus double barrier protection for R-12 and R-134a.

- **Nylon permeation barrier** meets UL requirements
- **Moisture barrier** provides improved resistance to moisture migration which contaminates expensive refrigerant
- 4000 psi burst and 800 psi working pressure
- UL 1963 recognized component for R-12 and R-134a
- Immediately traps refrigerant in the hose when disconnected, helping meet non-venting regulations and prevent finger burns
- 45° end for easy installation
- Gaskets resist deterioration from R-12 and R-134a refrigerants and oils
- Made in the USA

PLUS II™ Hoses – 45° SealRight fitting one end

Length	Color and UPC No.			
	Yellow	Blue	Red	3 Pak
72"	22072	22272	22672	22986
96"	22096	22296	22696	22988

9" FlexFlow™ AND LOW LOSS ADAPTER HOSES



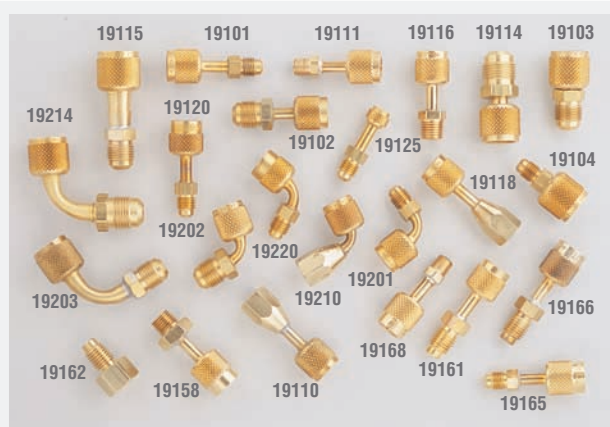
- Easy retrofit of existing PLUS II™ hoses with ball valve capabilities
- Flexible hose between valve and fitting for handling in tight areas
- Operating temperature -20° to 180°F (-28.8° to 82.2°C)
- Made in the USA

UPC No.	Description:
R-12	FlexFlow™ assemblies
25002	1/4" yellow FlexFlow™ adapter
25202	1/4" blue FlexFlow™ adapter
25602	1/4" red FlexFlow™ adapter
25980	3 pak: 25002, 25202, 25602
26202	3/8" yellow FlexFlow™ adapter
R-134a	FlexFlow™ assemblies
27002	1/2" Acme yellow FlexFlow™ adapter

UPC No.	Description:
	Replacement parts
19011	3/8" Replacement gasket (10 pak)
19020	1/4" Replacement gasket (10 pak)
19302	"Adjust-a-Valve" opener (10 pak)

Underwriters Laboratories Inc. Registered Component Mark – applies to all 1/4" Plus II™ and FlexFlow™ hoses.

AUTO A/C FITTINGS AND COUPLERS



All couplers in our expanded line are manufactured full size with deep knurling for easy handling.

- Patented CH14 Adjust-a-Valve opener in all 1/4" female ends
- Acme conversion couplers are available to aid in recovery where recovery tank has incompatible threads
- Also used to convert R-134a refrigerant cylinder threads as necessary
- Made in the USA

UPC No.	Description:
R-12	Couplers/Adapters
19171	1/4" fe QC x 1/4" male fl. with Schrader
19191	1/4" fe QC x 90° 1/4" male fl. with Schrader
19125	1/8" fe QC x 1/4" male fl. (Ford)
19120	3/16" fe QC x 1/4" male fl. (GM)
19101	1/4" fe QC x 1/4" male fl.
19220	3/16" fe QC 90° x 1/4" male fl.
19201	1/4" fe QC 90° x 1/4" male fl.
19109	1/4" SealRight™ x 1/4" male fl.
19208	1/4" SealRight™ 45° x 1/4" male fl.
19209	1/4" SealRight™ 90° x 1/4" male fl.
R-134a	Couplers/Adapters
19161	1/4" fe QC x 1/2" male Acme
19102	1/4" fe QC x 3/8" male fl.
19166	1/2" Acme x 1/2" Acme male fl.
19165	1/2" Acme fe x 1/4" male fl.
19158	1/2" Acme fe x 14 mm male fl.
19169	1/2" Acme SealRight™ x 1/2" Acme male fl.
19163	1/2" Acme SealRight™ x 1/4" male fl.
19157	14 mm male x 1/4" male fl.
19162	1/2" Acme male x 1/4" female fl. hex
19168	1/2" Acme fe x 1/8" male pipe
40265	1/2" Acme male 1/8" NPT half union
19142	1/2" Acme union

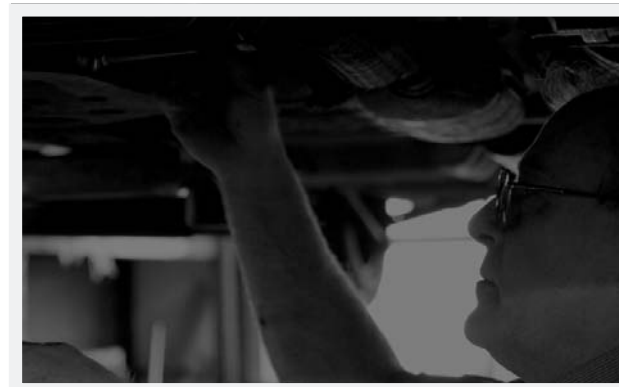
AUTOMOTIVE R-134a A/C COUPLERS PREMIUM WITH CONTROL VALVE



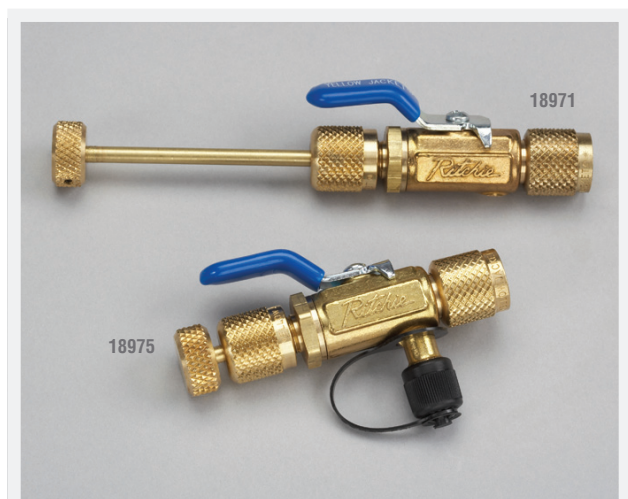
Couplers interface with R-134a service ports. 14 mm female thread or 1/4" male flare available.

- Quick, easy connect/disconnect
- Control valve for access to systems even at working pressures
- Integral safety sleeve holds coupler securely to service port
- Highest flow characteristics
- Low profile for tight applications
- Made in the USA

UPC No.	Description:
41301	Chrome high-side x 14mm R-134a coupler
41302	Chrome low-side x 14mm R-134a coupler
41327	High-side x 3/8" m.fl., R-134a coupler
41328	Low-side x 3/8" m.fl., R-134a coupler
41337	High-side x 1/4" m.fl., R-134a coupler
41338	Low-side x 1/4" m.fl., R-134a coupler
41300	Replacement "O" rings (2 pak)



1/4" 4-IN-1 BALL VALVE TOOL FOR VACUUM, CHARGE, CORES AND RECOVERY



Remove and replace Schrader cores without losing charge.

- Extra 1/4" side port on 18975 to attach electronic micron vacuum gauge right at system for greater accuracy or to add refrigerant
- Evacuate and charge through an unrestricted line for increased speed and higher vacuum
- Core removal allows recovery unit to work at maximum efficiency, speeding the recovery process
- Made in the USA 

UPC No.	Description:
18975	Vacuum/charge ball valve with side port
18971	Vacuum/charge ball valve without side port
18980	Accessory set - 2 piece
18978	Schrader rethreading accessory
18979	Broken Schrader remover accessory
18997	Grappler rod/nut assembly
18973	Gasket for 18975 (5 pak)
18974	Seal Kit includes core, cap, 4 "O" rings, gasket

AUTOMOTIVE R-134a 3-IN-1 VACUUM/ CHARGE RECOVER CORE TOOL



- **Core removal for vacuum and charges** lets you evacuate and charge through an unrestricted line for increased speed and higher vacuum
- **Core replacement**
- **Recovery valve** with core removal allows recovery unit to work at maximum efficiency, speeding the recovery process

UPC No.	Description:
18962	Low-side R-134a auto valve core tool
18961	High-side R-134a auto valve core tool
41300	"O" ring kit for above

LARGE CORE 3-IN-1 AUTOMOTIVE VACUUM/CHARGE RECOVER TOOL

Similar in design to above valves but in a larger model. Includes longer bore and designed for the heavy-duty Eaton brand valves.

UPC No.	Description:
18964	Low-side R-134a auto valve core tool
18963	High-side R-134a auto valve core tool

R-12 AND R-134a ADAPTERS



Conversion adapters from 1/4" and 3/16" threads to 1/2" Acme. Also adapter to convert R-134a refrigerant tank fitting for low-side quick coupler to remove gas.

UPC No.	Description:
19161	1/4" fe. QC x 1/2" male Acme
19162	1/4" fe. hex x 1/2" male Acme
19165	1/2" fe. Acme QC x 1/4" m. flare
19153	1/2" fe. Acme hex x 13 mm R-134a low-side male



IMPORTANT NOTICE TO PURCHASER:

The products in this catalog are for use by trained service professionals only.

Many factors beyond the control of Ritchie Engineering Company, Inc. can affect the use and performance of the products in this catalog. It is essential that the user evaluate any product in this catalog to determine the suitability of that product for a specific application. Using any product in a way that is not accepted as common practice can result in injury. All products are for use as described only.

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