

## BVA Hand Refractrometer

The BVA Ester Tester is a simple and safe way to determine the percentage of mineral oils remaining in a compressor when changing over to a Polyol ester oil as part of a retrofit from R12, R22, R500 to the newer refrigerants.

The Ester Tester is accurate to within 1%. Unlike chemical test kits that don't work on all esters, the Ester Tester will work on all types of oils with a refractive index range of 1.355 to 1.520.

The only thing necessary to operate the Ester Tester is a good source of light and graph paper.



SKY Part No.	Item Description
BVA-ET	Ester Tester / Refractrometer
BVA-ETGP	Ester Tester Graph Paper
BVA-GT	Glycol Tester / Refractrometer



## MAX-FLOW™ Deluxe Oil Pump

The Max-Flow deluxe oil pump is a high capacity unit for quick charging.

- Remove oil for recovery and conversion
- Add oil to existing systems
- Pumps 3.8 oz. (112.38 ml) per stroke
- Fits all size oil containers
- Foot stand base provides support and leverage while pumping against the high pressures of a running compressor
- Operating unit in reverse with adapter hose accessory removes oil from equipment quickly and efficiently
- Use with alkyl-benzene, ester-based, polyol ester, mineral and synthetic oils
- Will pump against 250 psi pressure
- Made in the USA



## MAX-FLOW™ Combination Oil Pump

Pump oil into the compressor on the down stroke while the system is under pressure, making pumping easier with a positive stroke.

- Remove oil for recovery and conversion
- Add oil to existing systems
- Pumps 2.6 oz. or 78 ml per stroke
- Pumps against 200 psi pressure
- Universal stopper automatically adjusts to all standard openings in 1, 2-1/2 and 5 gallon oil containers
- Comfort-grip rubber handle
- Suction transfer hose and fittings included. Connects to bottom of unit to pump oil from equipment quickly and efficiently
- Use with alkyl-benzene, ester-based, polyol ester, mineral and synthetic oils
- Made in the USA

YJ ItemNo	Item Description
77940	Maxflow combination oil pump
77930	Max-Flow deluxe oil pump



## Refillable Oil Injector

Add liquid to systems and sample refrigerant quickly and easily.

- Body and cap are rugged aluminium with "O" ring seal
- Male fitting at one end with Schrader. A ball valve for control on other end with a short length of hose
- Valve depressor in Female end
- 600 psi maximum working pressure
- Made in the USA

YJ ItemNo	Item Description
69562	120mm oil injection tool

## YJ-LTE™

**The smallest, lightest, most powerful unit in its class.**

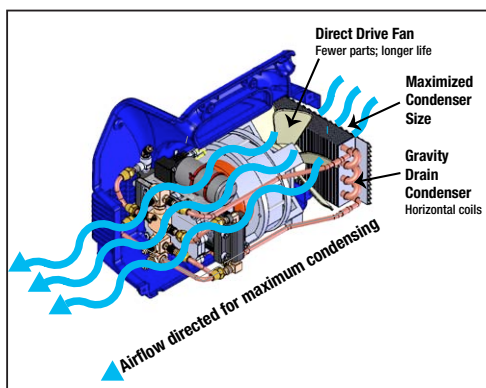
Don't let the small size fool you. The new YJ-LTE™ Refrigerant Recovery System is packed with the features you need at a price your budget can handle. Like a built in purge circuit which eliminates the need for external equipment and makes for easy clearing at the end of the job. And superior condenser performance which means the recovery tank stays cooler for a longer period of time, allowing you to recover more refrigerant without high-pressure cut-out. And it's simple to operate, too, with a single valve, single gauge control panel.

### Additional Features:

- 1/2 hp, twin cylinder, oil-less compressor for fast recovery of Class III, IV and V refrigerants including R-410A
- Superior condenser design and performance:
  - System designed for high load conditions
  - Keeps tank up to 10° cooler
  - Allows gravity flow of recovered liquid to recovery tank
- Quiet running compressor performance
- Easy-to-read and extremely durable 2-1/2" liquid-filled condenser pressure gauge
  - Virtually no flutter under any condition
  - Protects against damage from pressure pulses
- Single valve control panel
  - Simple operation
  - Position for either recovery or purge
- Single gauge shows tank pressure during recovery and recovery unit internal pressure during purge
- Sealed compressor crankcase to minimize refrigerant loss over the life of the compressor
- Built-in purge circuit for easy clearing at the end of each job; no extra tanks or vacuum pumps required
- Cup-style piston seals for better performance under high pressure differentials
- One-year warranty

### Direct Drive Fan

- No gears, fewer parts, more reliable air flow
- No overheating and melting parts
- Cools the condenser first to help keep the recovery tank pressure lower



YJ ItemNo	Item Description
95738	YJ-LTE 240V/50 Hz Refrigerant Recovery

### Specifications:

Capabilities:	Vapor, liquid, push/pull
Refrigerants:	12, 22, 134a, 407C, 410A, 500, 502, and other Class III, IV and V refrigerants
Compressor:	½ hp, twin cylinder, reciprocating, oil-less
Power Source:	95732 - 115V/60 Hz 95733 - 230V/50 Hz 95738 - 230V/50 Hz
Amps:	95732 - 8.0 amps 95733 - 4.0 amps 95738 - 4.0 amps
High Pressure Shut-Off:	517 psi – auto reset
Operating Temperature:	40° to 122° F (4° to 50° C)
Approvals:	Performance tested by UL to ARI 740-98 (95732 - CSA C22.2 No. 120)
Weight:	24Lbs/10.9kg
Dimensions:	22.86 (w) x 29.21 (h) x 34.29 (d) cm 9.0 (w) x 11.5 (h) x 13.5 (d) in.

### Recovery Ratings per UL\* ARI - 740-98 Vacuum Level: 15 inHg

	Lbs./min.				Kg./min.			
	Vapor	Push/ Pull	Liquid	High Temp Vapor	Vapor	Push/ Pull	Liquid	High Temp Vapor
R-22	0.37	9.17	6.83	0.28	0.17	4.16	3.10	0.13
R-407C	0.30	10.05	7.53	N/	0.14	4.56	3.42	N/A
R-410A	0.35	10.91	9.27	N/A	0.16	4.95	4.20	N/A

\* UL and ARI tests are only one way to evaluate recovery speed, and rates are a "level field" comparison method. In other testing conditions, units can exhibit much higher rates.



## Recover XLT2-AP™

### Designed to Meet Safety Requirements for R-32, R-1234yf and R-1234ze

The drive to lower global warming potential refrigerants with increased flammability has necessitated the evolution of the market leading YELLOW JACKET® RecoverXLT™ recovery machine: The new RecoverXLT2-AP™ Refrigerant Recovery Machine with twin cylinder 1/2 hp oil less compressor and gravity drain condenser. The unique “ambient pressure switch” and three meter power cord comply with the current safety requirements. The RecoverXLT2-AP is specifically designed for the new lower GWP refrigerants including R-32, R-1234yf and R-1234ze as well as the most common CFC, HFC and HFO refrigerants, including R-22, R-404A, R-407, R-410A, R-448A and R-449A.

Set yourself up to work smart. Surround yourself with the hardest working, highest performing tools available. The YELLOW JACKET RecoverXLT2-AP and other YELLOW JACKET service tools for the HVAC/R service professional.

#### Features:

- 1/2 hp, twin cylinder, oil-less compressor for fast recovery of Class III, IV and V refrigerants including R-32, R-1234yf and R-1234ze.
- Safe venting of case interior prior to start up.
- Low pressure switch stops recovery above ambient pressure for leaking systems to prevent pulling air into recovery cylinders.
- Low pressure bypass for recovery of leak-free systems. Patented single valve control for easy changeover from liquid to vapor to purge.
- Auto purge clears residual refrigerant for quick change from one refrigerant to another.
- Condenser with gravity drain keeps recovery tank up to 10° cooler for reliable operation in high ambient conditions.
- Lightweight case designed for easy carrying.
- One year warranty.
- Designed and manufactured in the U.S.A.



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YJ ItemNo	Item Description
95764	XLT2-AP 240V/50 Hz Refrigerant Recovery

#### Specifications:

Capabilities:	Vapor, liquid, push/pull
Refrigerants:	R-32, R-1234yf, R-1234ze as well as the most common CFC, HFC and HFO refrigerants, including R-22, R-404A, R-407, R-410A, R-448A and R-449A
Compressor:	1/2 hp, twin cylinder, reciprocating, oil-less
Power Source:	230V - 50/60 Hz
Amps:	4.0
High Pressure Shut-Off:	517 psi/35 bar – auto reset
Operating Temperature:	40° to 122° F (4° to 50° C)
Weight:	14.5 kg/32 lbs.
Dimensions:	19.3(w) x 12.4 (h) x 12.5 (d) in. 490 (w) x 315 (h) x 317 (d) mm

#### Calculated Recovery Ratings

	Kg./min			Kg./hour		
	Vapor	Push/Pull	Liquid	Vapor	Push/Pull	Liquid
R-22	0.17	4.16	3.10	10	250	186
R-32	0.11	3.41	2.53	7	205	152
R-134a	0.20	4.20	3.14	12	252	188
R-404A	0.30	3.66	2.73	18	220	164
R-410A	0.18	3.7	2.77	11	222	166
R-1234yf	0.17	3.83	2.86	10	230	171
R-407C	0.18	3.99	2.98	11	240	179

## Bullet™ Vacuum Pump

The BULLET™ pulls down to 25 microns or better, protecting from contaminants and non-condensable gasses in the HVAC system, which can damage components, reduce efficiency and cause system failure.

- 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 to help prevent 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
- Made in the USA



AU/NZ 93623	AU/NZ 93625	AU/NZ 93620
5/70 L/M	142/120 L/M	200/165 L/M
1/2 hp - 1725 rpm/1425 rpm	1/2 hp - 1725/1425 rpm	1/2 hp - 1725/1425 rpm
115/230V / 50-60 Hz	115/230V / 50-60 Hz	115/230V / 50-60 Hz
L x 6.25" W x 8.25" H (43.2 cm x 15.9 cm x 21 cm)	17" L x 6.25" W x 8.25" H (43.2 cm x 15.9 cm x 21 cm)	17" L x 6.25" W x 8.25" H (43.2 cm x 15.9 cm x 21 cm)
32.1 lbs (14.6 kg)	33 lbs (15 kg)	34.5 lbs (15.7 kg)

## Super Evac™ Vacuum Pump

The SuperEvac™ vacuum pump is a highly efficient, two-stage rotary vane oil-sealed pump field-rated at 15 microns or better.

- 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 to help prevent 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 wellbalanced carrying
- Tethered port caps stay with the pump
- Metal with rubber overlay base for stability
- Made in the USA



Domestic	Model 93544	Model 93564	Model 93584	Model 93598
Free air displacement	4.0 cfm	6.0 cfm	8.0 cfm	11.0 cfm
Number of stages	2-stage rotary vane	2-stage rotary vane	2-stage rotary vane	2-stage rotary vane
Field blankoff	15 microns	15 microns	15 microns	15 microns
Intake	1/4" and 3/8" Male flare	1/4" and 3/8" Male flare	1/4" and 1/2" Male flare	1/4" and 1/2" Male flare
Motor	1/2 hp - 1725 rpm	1/2 hp - 1725 rpm	1/2 hp - 1725 rpm	1/2 hp - 1725 rpm
Thermal overload protection	Yes	Yes	Yes	Yes
Power cord	6' - motor mounted switch	6' - motor mounted switch	6' - motor mounted switch	6' - motor mounted switch
Oil capacity	36 oz.	34 oz.	47 oz.	44 oz.
Dimensions	16" L x 6" W x 11.5" H (40.6 cm X 15.2 cm X 29.2 cm)	16" L x 6" W x 11.5" H (40.6 cm X 15.2 cm X 29.2 cm)	17.5" L x 6" W x 11.5" H (44.5 cm X 15.2 cm X 29.2 cm)	17.5" L x 6" W x 11.5" H (44.5 cm X 15.2 cm X 29.2 cm)
Net weight	30.3 lbs. (13.7 kg)	31.2 lbs. (14.2 kg)	32.5 lbs. (14.8 kg)	34.1 lbs. (15.4 kg)
AU/NZ plug	(113 L/M at 60 Hz)	(170 L/M at 60 Hz)	(225 L/M at 60 Hz)	(310 L/M at 60 Hz)
Factory voltage setting	230V	230V	230V	230V



## Digital LCD Vacuum Gauge

The digital LCD economy vacuum gauge indicates air and moisture have been removed from the system. Track down the 14 level bargraph 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

This product is protected by one or more of U.S. Patent Number: 6,779,350; 6,832,491; 7,073,346; 7,310,965; and 7,428,822



UPC#	Item Description
69080	Digital LCD vacuum gauge with battery, hook and pouch

## 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. Simple push of a button changes the display readout between 7 units of measurement. Each displays from atmosphere to 10 microns (bargraph indication above 25000 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.

- 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
- 14 oz. (392 g) with battery
- Approximately 25 hours continuous battery life
- Accuracy  $\pm 20\%$  of reading
- Made in the USA

UPC#	Item Description
69086	Hand-held vacuum gauge with fabric carry pouch



## SuperEvac™ Evac Manifolds



SuperEvac™ manifolds are engineered as system components for the SuperEvac pumps to help decrease vacuum time by up to 50 percent.

UPC#	Item Description
93851	Single valve with 1/4 Sch and 3/8 MSAE
93853	Two valves, Two 3/8, One 1/4 MSAE

## 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 to help keep your pump running for years.

UPC#	Item Description
93091	Pint of vacuum oil - 24 per case
93092	Quart of vacuum oil - 12 per case

## SuperEvac™ LCD Vacuum Gauge

The SuperEvac™ LCD vacuum gauge combines thermocouple sensor technology with advanced electronics for precise readings and repeatability not found with thermistor sensors or analog meters.

Thermocouple technology has long been proven in laboratory and precision industrial instrumentation for sensing the deep vacuum range. Thermocouple sensors are factory calibrated and exhibit few of the electronic variances of thermistor sensors found in many other electronic gauges. Durable molded case with storage for sensor, cable and brass connector.



### Specifications

- Response time: 3 seconds
- Calibration: Automatic
- Warm up: 3 seconds
- Sensor cable: 5.5' (167 cm) coiled
- Sensor connection: 1/4" Male flare
- Maximum pressure: To avoid sensor damage, do not exceed 5 psig
- Operating temperature range: 32° to 120°F (0° to 49°C)
- Display: 0.5" LCD with battery check
- Automatic shut-off: Yes
- Power: D cell battery, 70 hours continuous battery life
- Dimensions: 9" x 12.25" x 2.37" (230 mm x 310 mm x 60 mm)
- Accuracy: ± 20% of reading



## PLUS II™ Charging/ Vacuum Hose

Heavy duty construction with PLUS II™ barrier technology reduces permeation and vacuum loss. Large I.D. reduces vacuum time substantially over standard 1/4" or 3/8" hose.

- Pull a more complete vacuum
- Faster refrigerant transfer
- Faster charging on large systems
- 3000 psi (207 bar) minimum burst, 600 psi (41 bar) maximum working pressure
- Operating temperature -22° to 176°F (-30° to 80°C)
- Other fittings available on request
- Minimum bend radius: 10" (254 mm)
- Made in the USA

YJ ItemNo	Item Description
16260	1.5meter 3/8 SAE x 1/4 SAE 45 degree
15660	1.5meter 3/8 SAE x 3/8 SAE 45 degree

### Thermocouple sensor features:

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

### LCD gauge features:

- Automatic off 20 minutes after power up and no change
- 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

YJ ItemNo	Item Description
69075	SuperEvac LCD vacuum gauge full range in case

## SuperEvac™ Vacuum/Recovery Core Removal Tools with Access



### 1/4" And 5/16" ball valve 4-in-1 Vacuum/charge valve & core tool

This versatile tool for the lo- or hi-side of a system does four jobs:

1. Vacuum valve. Extra 1/4" side port on 18975 to attach electronic micron vacuum gauge right at system for greater accuracy. Working pressure of 800 psi.
2. Core removal access. Lets you evacuate and charge through an unrestricted line for increased speed and higher vacuum.
3. Core replacement.
4. Recovery valve. Core removal speeds recovery process.

Made in the USA

YJ ItemNo	Item Description
18975	1/4 Vacuum /Charge valve with side port
18985	5/16 Vacuum /Charge valve with side port



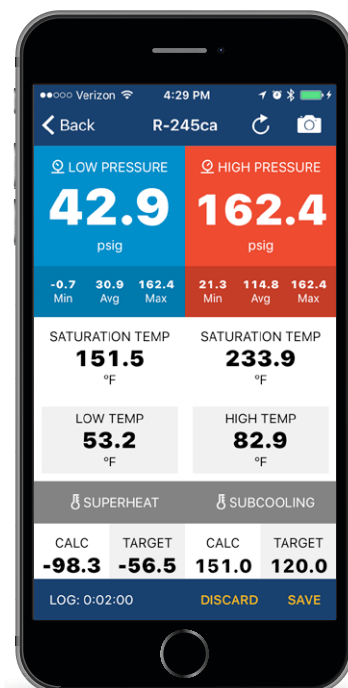
The YELLOW JACKET® ManTooth™ line provides technicians with a full line of wireless, smart-phone controlled product options when servicing cooling and refrigeration systems. The Bluetooth® based ManTooth family includes a vacuum-only gauge, a pressure/temperature only gauge, and a combination pressure/temperature/vacuum gauge, all available in single and dual units depending upon the needs of the service tech. Each device utilizes a free downloadable ManTooth RSA app that calculates and displays the systems actual readings in an easy-to-read format on your iPhone, iPad, or Android device.

## Product Features:

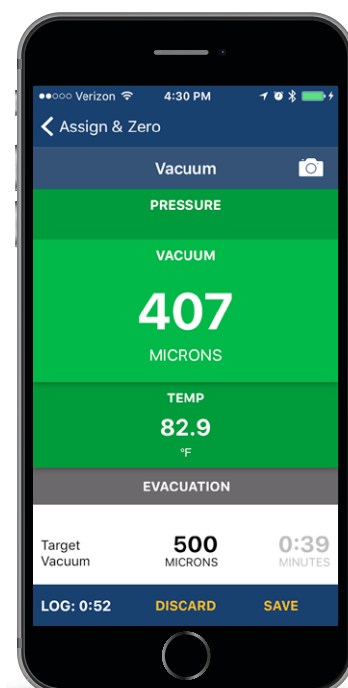
- Interchangeable/removable vacuum gauge
- Easy-to-clean vacuum sensor
- Built-in Schrader cores for easy refrigerant charging
- Operates with and without hoses attached
- Two year warranty
- High impact glass reinforced housing
- Rechargeable LiPo battery for long battery life
- Robust/rugged vacuum sensor
- Integral magnet for mounting on framework
- Integrated rubber side grip for easy handling

## App Features:

- Available in English, French, Spanish, Dutch, and German.
- Improved connectivity and reconnect process if signal is lost
- For iOS and Android devices
- Data logging to record and document values during servicing
- Ability to download logged data for graphing in Excel
- Backwards compatible with existing ManTooth Devices (excluding vacuum gauge)



P/T Screen



Vacuum Screen

## Wireless Pressure/Temperature Gauges

67001 ManTooth Single Pressure Gauge



- One P/T Module with boot
- Temperature probe clamp
- USB cable

## Wireless Pressure/Temperature and Vacuum Gauges

67021 Single ManTooth-PTV



- One pressure/temperature gauge
- One wired temperature clamp
- One removeable vacuum sensor
- Carrying case

## Wireless Vacuum Gauges

67020 Single ManTooth-V

Can be combined with an existing ManTooth P/T device (left column) for adding wireless vacuum capability and/or expanding it to a full system analysis tool. Simply update your ManTooth P/T app to version 2.0, connect to the 67020 hardware, and you're ready to go! Optional 5/16" Flare quick connect available.



- One removeable vacuum sensor

67023 Dual ManTooth-PTV



- Two non-tethered pressure/temperature gauges
- Two wired temperature clamps
- One removeable vacuum sensor
- Carrying case

YJ ItemNo	Item Description
67001	Mantooth single Pressure / Temp
67021	Mantooth single Pressure / Temp/ Vac
67020	Mantooth single Pressure / Temp
67023	Mantooth double Pressure / Temp + Vac

## Series 41 Manifolds



Series 41 manifolds are also available with larger, easier to read 3-1/8" color-coded gauges in rugged steel cases with polycarbonate crystals.

These gauges feature 1% accuracy (Class 1) for an exact reading in critical charge systems.

- Color-coded scales
- Sliding double "O" ring pistons reduce wear
- Long life nylon seats
- Forged brass body for durability
- Full porting maximizes capacity and flow
- Some models include color-coded, 60" PLUS II™ hoses with standard 1/4" flare fittings
- Hose assemblies UL recognized for 4000 psi (275 bar) burst and 800 psi (55 bar) working pressure. File# SA9737
- Made in the USA

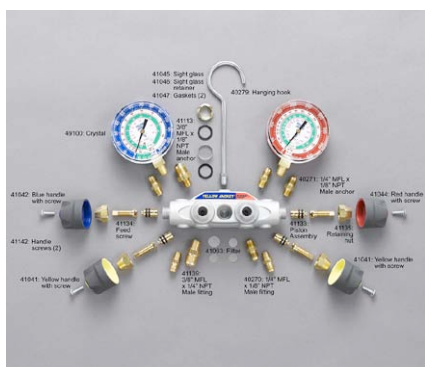
YJ ItemNo	Item Description
41852	S41 manifold+gauges PSI/Kpa R22/134a/404a 1/4
41855	41852 + 1.5m RYB PLUS II Hoses 1/4
41862	S41 manifold+gauges PSI/Kpa R32/410a 5/16
41865	41862 + 1.5m RYB PLUS II Hoses 5/16

## Titan™ 4-Valve Service Manifold



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

- Fourth hose to enable connection to hi-/lo-sides, refrigerant tank and recovery unit or vacuum pump for diagnostics, evacuation and charging without switching hoses
- 3/8" Vacuum port for use with larger hose to cut evacuation time by up to 33% (all other fittings are 1/4")
- Large, easy-to-read 3-1/8" (80 mm) steel case red and blue, 1% accuracy (Class 1) gauges
- 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
- Also available with 3-1/2" (90 mm) red and blue liquid-filled gauges
- Manifold and hose holder fittings 1/4"-3/8"-1/4"-1/4" unless otherwise identified
- Made in the USA



YJ ItemNo	Item Description
49812	Titan manifold+gauges PSI/Kpa R22/134a/404a 1/4
49811	49812 Titan + 1.5m RYB PLUS II Hoses 1/4
49864	Titan manifold+gauges PSI/Kpa R32/410a 5/16
4986*	49814 Titan + 1.5m RYB PLUS II Hoses 5/16
49912	Titan 4V manifold+gauges PSI/Kpa R22/134a/404a 1/4-3/8
49964	Titan 4V manifold+gauges PSI/Bar R32/410a 5/16-3/8
499**	49912 Titan 4V + 1.5m RYB PLUS II Hoses 1/4-3/8
499**	49964 Titan 4V+ 1.5m RYB PLUS II Hoses 5/16-3/8



## Brute II™ Large Bore Manifold



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

- Fourth hose enables connection to hi-/lo-sides, refrigerant tank and recovery unit or vacuum pump for diagnostics, evacuation and charging without switching hoses
- Available in 1/4" hi-/lo-sides with 3/8" vacuum port for regular jobs, or 3/8" hi-/lo-sides with 1/2" vacuum port for larger systems
- 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
- Also available with 3-1/2" (90 mm) red and blue liquid-filled gauges
- Manifold and hose holder fittings 1/4"-3/8"-1/4"-1/4" unless otherwise identified
- Made in the USA



YJ ItemNo	Item Description
46145	Brute 4V manifold+gauges PSI/Kpa R22/134a/404a 1/4-3/8
46176	Brute 4V manifold+gauges PSI/Bar R32/410a 5/16 -3/8
461**	46145 Brute 4V + 1.5m RYB PLUS II Hoses 1/4-3/8
461**	4617* Brute 4V+ 1.5m RYB PLUS II Hoses 5/16-3/8

## NH3 - Ammonia (R717) R717 Manifold with Gauges



This heavy duty manifold features cast iron body and full size metal handles. Dual temperature/pressure R717 gauge has bar with °C and psi with °F ammonia scales.

- Finger-tight one-piece valve stem for positive seal on nylon seat
- Easy, accurate valve adjustment
- Use only with NH3 rated hoses
- Made in the USA

YJ ItemNo	Item Description
40193	Manifold and gauges with three NHA 48" hoses

## R744 Manifold and Gauges Titan™ 4-Valve Test & Charging Manifold



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

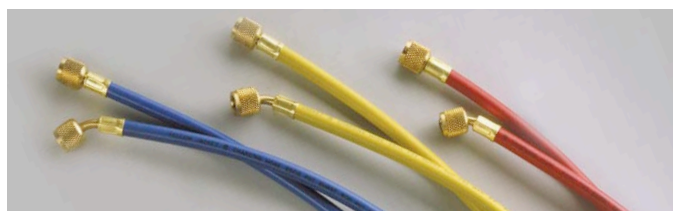
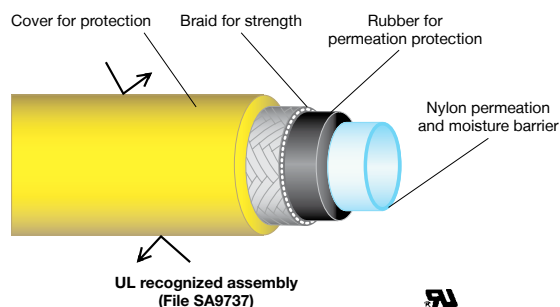
YELLOW JACKET® TITAN 49972 was designed for high pressure with 800 psi on both high and low sides.

No sight glass for added safety.

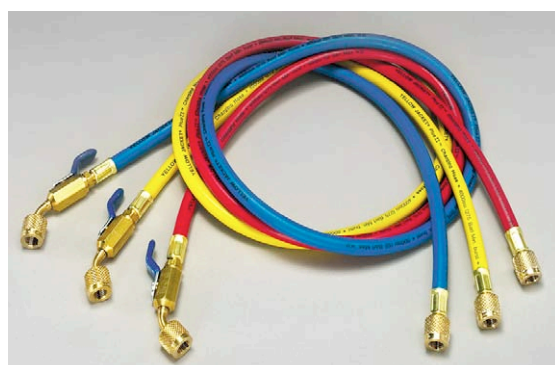
## PLUS II™ Charging Hoses

Double barrier protection for CFC, HCFC and HFC refrigerants

- 1/4" PLUS II™ hoses are UL recognized assemblies (File SA9737)
- The nylon permeation barrier meets SAE requirements J2196 for CFC, HCFC and HFC refrigerants
- The moisture barrier provides improved resistance to moisture migration which contaminates expensive refrigerant
- 1/4" RYB PLUS II™ hoses are rated for 4000 psi (276 bar) minimum burst and 800 psi (55 bar) maximum working pressure and an operating temperature of -20° to 180°F (-28.8° to 82.2°C)
- Minimum bend radius: 6" (152 mm)
- Made in the USA



YJ ItemNo	Item Description
21072	PLUS II Yellow 1.8 meter 1/4 SAE
21983	PLUS II 3-PAK 1 meter -RYB- 1/4SAE
21985	PLUS II 3-PAK 1.5 meter -RYB- 1/4SAE
21986	PLUS II 3-PAK 1.8 meter -RYB- 1/4SAE
21583	PLUS II 3-PAK 1 meter -RYB- 5/16 SAE
21585	PLUS II 3-PAK 1.5 meter -RYB- 5/16 SAE
21586	PLUS II 3-PAK 1.8 meter -RYB- 5/16 SAE
18160	PLUS II 3/8 -1.5 meter Yellow Charging Hose
18172	PLUS II 3/8 -1.8 meter Yellow Charging Hose
16260	3/8 x 1/4 1.5 meter HI VACUUM Black Hose
<b>Spare's</b>	
19020	Pak Gaskets 1/4 + 5/16 ( 10 pak)
19011	Pak Gaskets 3/8 ( 10 pak)



## PLUS II™ Compact Ball Valve

- Metal handle at end of hose fits tight areas and traps all the gas
- Full flow valve
- Recommended for R-410A
- Uses standard gasket and valve opener
- Made in the USA

YJ ItemNo	Item Description
29985	PLUS II 3-PAK 1.5 meter -RYB- 1/4SAE + Ball valves
29995	PLUS II 3-PAK 1.5 meter -RYB- 5/16 SAE + Ball valves
93827	5/16" SAE Compact Ball Valve
93843	1/4" SAE Compact Ball Valve



## SealRight™ Quick Coupler

SealRight fittings automatically and immediately trap refrigerant in the hose when disconnected, helping meet nonventing regulations and preventing finger burns. One-piece attaches quickly, saving up to 50 percent in time compared to 2-piece quick couplers.

- Works with or without Schrader core
- Gaskets resist deterioration from SealRight repair assembly components
- Made in the USA

YJ ItemNo	Item Description
19208	1/4 SealRight 45 x 1/4 male SAE
19209	1/4 SealRight 90 x 1/4 male SAE

## Manifold Guages 80mm



YJ ItemNo	Item Description
49107	80MM RED KPA 22/134a/404A
49108	80MM BLUE KPA 22/134a/404A
49109	80MM RED KPA R32/410A Pressure
49110	80MM BLUE KPA R32/410A Compound



## Premium Tube Cutters



Enclosed precision feed mechanism for easy, smooth cutting.

- Wide rollers with flare cut-off groove for convenience. Ground surface for easy rolling
- Alloy steel wheels have a sharper cutting wheel edge for less burr on copper, aluminium and mild steel tubing
- Fold away steel reamer with turned cutting edge for deburring
- Assembled in the USA

YJ ItemNo	Item Description
60101	Premium cutter 1/8 to 1-1/8 tube
60102	Large premium cutter 1/4 to 1 5/8 tube
60139	Large tube cutter 3/8 to 2 5/8 tube
60100	Spare blade



YJ ItemNo	Item Description
60160	Small mini for 1/8 to 5/8
60121	Mini-cutter for 1/4 to 7/8
60142	Big mini for 1/4 to 1-1/8
60120	Spare blade



## Reamer/Deburrer

Steel blades remove inner and outer burrs.

YJ ItemNo	Item Description
60161	Tube reamer 1 /16 to 1-3/8

## Valve Core Tool

Self contained tool for quickly removing and replacing cores. Handle contains six cores.



YJ ItemNo	Item Description
19306	Valve core tool

## Tube Deburring Tools



YJ ItemNo	Item Description
60163	Deburring tool with spare blades
60164	Replacement blade for 60163
60166	Basic deburring tool

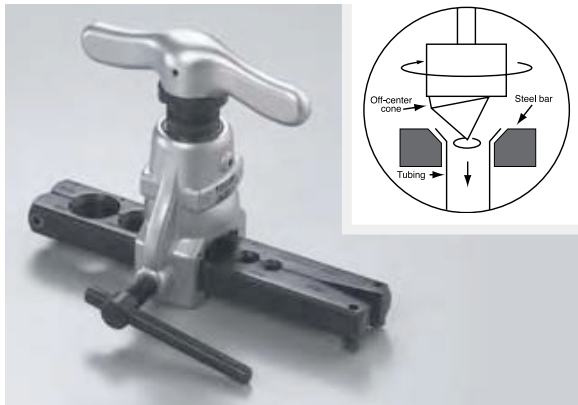


## Rotary Die Flaring Tool

- Designed with the new R-410A system requirements in mind
- Self-centering yoke grips without marring or constricting tube
- Automatic tube height gauge for correct tubing height
- Multi-faceted burnishing cone produces a burnished flare seat for a positive seal
- Easy-to-use with four basic steps
- Made in the USA

YJ ItemNo	Item Description
60278	Deluxe flaring tool for 1/8 to 3/4

## Eccentric Cone Flaring Tool



Off-center hardened steel cone with 45° flare produces a rolling action for uniform flare walls without galling in 3/16" to 3/4" O.D. tubing.

- Large feed screw handle for smooth turning with little effort
- Black oxide-finished steel flaring bars are heat-treated for durability and secure grip on tubing
- Recommended for soft materials such as copper and aluminium
- Built-in clutch release to prevent over-torquing

YJ ItemNo	Item Description
60295	Eccentric cone flaring tool 3/16 to 3/4
60241	Eccentric drill / hand operation

## Tubing Expander / Swager



With long handles for comfortable leverage, easily expand 5/16" to 1-5/8" O.D. soft copper and aluminium tubing in seconds. Select from nine expander heads to attach to the front of the handles.

- Precise swaging on the job
- Re-round deformed tubes and fittings
- Salvage shorts and scrap to make couplings
- Handles, tapered expanding pin, and other moving surfaces heat treated for durability
- Use on 0.063" wall soft copper and aluminium to 1-5/8" O.D. (anneal hard copper prior to use)
- Use on 0.047" wall soft steel to 7/8" O.D.
- Kit includes six expander heads; three optional sizes sold separately

YJ ItemNo	Item Description
60407	6 steps 1/4, 5/16, 3/8, 1/2, 5/8 and 3/4

## Lightweight Swage / Flare Kit



- Lightweight, compact and portable
  - Quick-connect feature on yoke
  - Built-in slide gauge stops tubing at the proper flare height
- The aluminium body and bar of the YELLOW JACKET Lightweight Swaging and Flaring Tool makes it half the weight of traditional steel designs.

- Six quick-change positions for flaring soft copper and aluminium tube
- The chrome finish of the swaging pins allows for an easy swaging operation

YJ ItemNo	Kit Swaging/Flaring Sizes
60430	Imperial: 6 positions for 1/4, 5/16, 3/8, 1/2, 5/8 and 3/4" O.D. tube



## Hydraulic Tube Expander Kit

- Saves time and money
- Eliminates fittings
- Easy one-hand operation
- Hydraulic power
- Lightweight and portable



YJ ItemNo	Item Description
60493	Expander kit including deburring tool



## Premium Tube Cutters



Easy one hand bending of 1/4" to 7/8" soft copper and soft aluminium. Hard copper must be annealed before bending.

- Quick change bending mandrels and shoes
- Trouble free ratchet mechanism
- Index marks to locate bends
- Complete tube bender kit includes all items required to bend 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" and 7/8" tubing
- Reverse bending mandrel 60342 sold separately

YJ ItemNo	Item Description
60331	Complete kit with reamer and tube cutter

## Heavy Duty Tube Benders

Make fast bends on almost every size of soft copper , brass, aluminium, steel and soft stainless steel tubing to 180°.

60390 is a compact three-in-one bender for 1/4," 5/16" and 3/8" O.D. tubing. Calibrated markings for bends up to 180° help you duplicate angles.

Conforms to Fed. Spec. GGG-B-191-a Type III, Class 2.



YJ ItemNo	Item Description
60390	1/4 - 5/16 - 3/8 3 in1 tube bender
60373	1/4 Tube bender
60374	5/16 Tube bender
60375	3/8 Tube bender
60377	1/2 Tube bender
60378	5/8 Tube bender
60379	3/4 Tube bender
60380	7/8 Tube bender

## Spring Tube Benders



Spring benders slip over soft copper and aluminium tubing during bending to help prevent tube collapse.

- Silver-plated finish
- Conforms to Fed. Spec. GGG-B-191-a Type IV

YJ ItemNo	Item Description
60356	3/8 Bending spring
60358	1/2 Bending spring
60359	5/8 Bending spring
60360	3/4 Bending spring
60361	7/8 Bending spring
60351	Set of 6 1/4, 5/16, 3/8, 7/16, 1/2 and 5/8
60353	Set or 4 1/2, 5/8, 3/4 and 7/8

## Service Wrenches



60613

Standard reversible ratchet wrench with square openings: 1/4" and 3/16" at one end; 3/8" and 5/16" at other end.



60618

Heavy-duty features a heavier handle and larger gear. Stronger gear teeth are combined with strong reversing mechanism for long service life. Square opening 3/16" and 1/4" at one end; 3/8" and 5/16" at other end.



60616

Knuckle saver design for convenience in tight areas. Square opening 1/4" and 3/16" one end; 3/8" and 5/16" at other.



60615

Reversible wrench for larger service valves. 3/8" square one end; 1/2" square at other.

60612

7" HD Wrench 1/2, 9/16, 3/16, 1/4

## Fan Blade Puller Kit



All steel design includes a 15/16" hex head and 5/8" shaft milled back 1-1/2" and undersized for 1/2" shaft opening. A self centering alignment tool is included.

YJ ItemNo	Item Description
60590	Fan blade puller complete kit

## Ergonomic FINFIX™ Combs

Color-coded nylon fin combs are designed to easily straighten and clean fins on standard and high efficiency condensers and evaporators. Shape conforms to the hand and thumb for a more comfortable grip.

Available individually bagged or as a set of six assorted. One set of six covers 12 different fin sizes. 61157 is for high efficiency units.



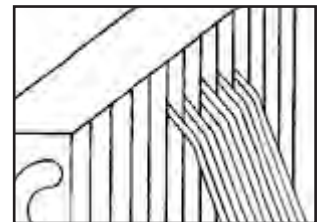
YJ ItemNo	Item Description
61158	Fin comb 6pc set

## Fin Straighteners

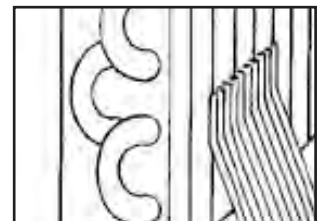
Fin straighteners straighten even severely damaged condenser and evaporator fins quickly and easily. Also clean away lint, rust, dirt and other debris.



CLEAN



STRAIGHTEN



Straightening wire tension is adjustable to accommodate various fin types. Wires are held by a sturdy metal body.

61170 includes a long comfort-grip handle, making straightener easier to use. Head is 20 percent wider than the 61150 to straighten more fins in one pass.

YJ ItemNo	Item Description
61150	Fin straightener
61170	Fin straightener with large handle

## Recovery and Pinch-Off Pliers

- One adjustable tool fits all sizes from 3/16" to 7/8" O. D. hard tubing

YJ ItemNo	Item Description
60667	Refrigerant recovery pliers
60666	Pinch-off and re-round tool



## Telescoping Glass Mirrors



YJ ItemNo	Item Description
78098	1-1/4" Round extension mirror



## Electronic Charging Scales



- 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
- Single point load cell strain gauge for long-term stability and accuracy



Full bridge configuration with four strain gauges for accuracy.

YJ ItemNo	Item Description
68800	Metric electronic charging scale 50kg
68810	Metric electronic charging scale 100kg
68860	Compact scale

## AccuProbe™ UV Leak Detector



Our solid electrolyte sensor technology reduces heat and gives the sensor longer life than traditional heated anode or heated diode detectors.

3 UV lights fluoresce between 395 and 415 nanometers.

The Smart Alarm™ LED shows how big or small a leak is 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.

In addition to the Smart Alarm indicator, the AccuProbe UV features low, normal and high sensitivity levels with visual and audible signals.

- If there is no response from the flashing tip or beeping signal at the preset normal sensitivity in the general area of a suspected leak, select high sensitivity
- High sensitivity will detect even low levels that could be missed with other detection systems
- Use low sensitivity as you move the tip over more defined areas of a system
- Clears in 12 seconds or less after exposure to a 1.75 oz (50g)/yr. leak
- Automatic calibration and reset to ambient

YJ ItemNo	Item Description
69339	AccuProbe UV Leak detector AU/NZ
69383	Kit- sensor, filters ,bottle
69884	Replacement sensor and filter
69396	AccuProbe Co2 leak detector

## Tachometer Accurate measurement of VSD fans

Easy-to-read and use unit measures 10 to 99,999 rpm on compressors, fans, motors, gears, pulleys and more.

Non-contact reading maintains torque and precise measurement.

- Auto range function
- Units in rpm
- Hold function to freeze rotating speed



### Specifications

Time base:	4.0 MHz quartz crystal
Power:	9V battery (included)
Resolution:	0.001 rpm
Sampling time:	1 second (>60 rpm, 10 to 60 rpm)
Dimension:	4.8" x 1.9" x 1.3" (124 mm x 50 mm x 33 mm)

YJ ItemNo	Item Description
69348	Non-contact Tachometer



## Pocket Thermometers

1" and 1-3/8" dial thermometers are adjustable with a 5" stainless steel stem. Colored sheath with pocket clip.

- Individually calibrated
- Shock resistant

12 units with display packaging.

YJ ItemNo	Item Description
69265	Dial thermometer 0° to 70°C (12pak)

## Precision Torque Wrench



Designed to accommodate the full range of ductless mini-split fl are nut sizes and torque requirements.

Easier-to-use and more adjustable than other fl are nut torque wrenches on the market.

Precision torque wrench for exact tightening to 10-80 N-M or 7.4- 59 ft. lb.

- Adjustable in Newton-meters and foot-pound.
- Six interchangeable open end adapters.
  - 60650 (6 Heads): Sizes: 17, 22, 24, 26, 27 & 29 mm
  - 60652 (8 Heads): Sizes: 16, 17, 21, 22, 24, 26, 27 & 29 mm
- The N-M and foot-pound (FT-LB) scales are marked on the barrel of the wrench for easy and permanent reference.
- The micrometer-type sleeve is easy to read and allows accurate pre-set torque values to be set. When the set torque is reached, the wrench produces an audible click and a slight, safe release of tension to prevent over tightening.
- This product has been designed to be tough, durable and easy to use. It comes supplied in a blow-molded storage and carry case.
- Accurate within 4% when measured per BSEN 26789 & ISO 6789 & ASME BI07.14M & DIN3122 regardless of the open end adapter head used.

YJ ItemNo	Item Description
60652	8 heads to suit Sky forged flare nuts

## Digi-Alarm Thermometer

This compact unit measures from -58° to 392°F (-50° to 200°C) and triggers an alarm at the high and low programmed temperatures.

- No calibration
- °F/°C switchable
- Data hold function
- Key tone for operation confirmation
- Maximum/minimum temperature memory
- Foldaway stand
- Automatic self test after battery installation

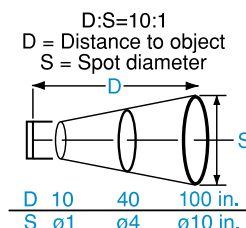


YJ ItemNo	Item Description
69239	Digi-Alarm Thermometer

## Infrared Thermometer

With wide measurement of -40° to 932°F, this easy-to-use tool is the effective choice for high or low temperature and refrigeration applications. For accuracy and resolution, the focal point is a tight 10:1 ratio with laser sighting.

- Selectable 3-point emissivity for simple set-up
- Backlight for dark area use
- °F/°C switchable
- ± 2% or 2°C accuracy
- 0.1°F resolution at -40° to 212°F (-40° to 100°C)
- Fast response time of 500 msec



YJ ItemNo	Item Description
69228	Pistol-grip infrared thermometer



## NH3 - Ammonia (R717) R717 Manifold with Gauges



This heavy duty manifold features cast iron body and full size metal handles. Dual temperature/pressure R717 gauge has bar with °C and psi with °F ammonia scales.

- Finger-tight one-piece valve stem for positive seal on nylon seat
- Easy, accurate valve adjustment
- Use only with NH3 rated hoses
- Made in the USA

YJ ItemNo	Item Description
40193	Manifold and gauges with three NHA 48" hoses

## Ammonia Charging Hose

Designed with steel quick couplers at both ends.

Features include:

- Regular CH20 gaskets for 1/4" hoses (19010, 19020). CH11 gaskets for 3/8" hoses (19011)
- 1/4" and 3/8" – 2500 psi (172 bar) minimum burst, 500 psi (34 bar) maximum working pressure
- 1/4" operating temperature -20° to 176°F (-28.8° to 80°C) and minimum bend radius: 6" (152 mm)



1/4" Str. fl. x 1/4" 45°			3/8" Str. fl. both ends	
UPC#	Part#	Length	UPC#	Part#
16848	NHA-48"	48"	19448	NBC-48"
16872	NHA-72"	72"	19472	NBC-72"
16896	NHA-96"	96"	19496	NBC-96"
16910	NHA-120"	10'	19510	NBC-120"
16912	NHA-144"	12'	19512	NBC-144"
Steel half union ammonia fittings				
UPC#	Description			
16801	1/4" Male fl. x 1/4" NPT Male Str.			
16802	1/4" Male fl. x 1/4" NPT Male 90°			
16803	3/8" Male fl. x 1/4" NPT Male			

## SuperEvac™ PUMP For Ammonia Systems

Designed and built to the same quality specifications as other SuperEvac™ pumps.

Features a pump exhaust that doubles as an oil fill port.



	Model 93533
Free air displacement	190 L/M (50 Hz)
Number of stages	2-stage rotary vane
Field blankoff	15 microns
Intake	1/2" Male pipe
Motor	1/2 hp – 1425 rpm (50 Hz)
Thermal overload	Yes
Voltage	115/230V 50 Hz*
Power cord	6' – rocker style switch
Oil capacity	47 oz.
Dimensions	18.25" L x 6.0" W x 11.5" H
Net weight	38.8 lbs. (17.6 kg)



## R744 Manifold and Gauges Titan™ 4-Valve Test & Charging Manifold

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

YELLOW JACKET® TITAN 49972 was designed for high pressure with 800 psi on both high and low sides.

No sight glass for added safety.