

CHARGING SYSTEMS



SAMSUNG

R-410A

LOW PRESSURE 143.4 psig	HIGH PRESSURE 423.8 psig
128.7 Min 139.8 Avg 164.4 Max	408.8 Min 410.4 Avg 423.8 Max
SATURATION TEMP 50.1 °F	SATURATION TEMP 120.7 °F
LOW TEMP 53.2 °F	HIGH TEMP 110.3 °F
SUPERHEAT	SUBCOOLING
CALC 3.1 TARGET 5.0	CALC 10.4 TARGET 6.0
LOG: 0:01:38	DISCARD SAVE

CAUTION
High Pressure R-410A Refrigerant
Operating pressures may exceed
limits of R-22 service equipment.
Handle properly. Refrigerant R-410A
Pressions de fonctionnement peuvent
excéder les limites des équipements
de service de R-22.

BEFORE RECHARGING
USE ONLY R-410A REFRIGERANT AND
R-410A COMPRESSOR OIL.
Refer to product literature before
installing or servicing this unit.
UTILISER SEULEMENT LE REFRIGÉRANT R-410A
ET L'HUILE POUR R-410A ESTER POUR
COMPRIMER.

Model: ZP31K5E-TF5-130
Serial: 14B4C107M
R-410A USE ONLY

AVVERTENZA
Alte pressioni di esercizio
Il refrigerante R-410A può operare a pressioni superiori a quelle consentite per gli apparecchi di servizio R-22.
Utilizzare solo refrigerante R-410A e olio compressore R-410A.
Consultare la letteratura tecnica prima di installare o riparare l'unità.
UTILIZZARE SOLO IL REFRIGERANTE R-410A E L'OLIO PER R-410A ESTER PER COMPRESORI.



YELLOW JACKET®

ManTooth® Wireless Digital P/T/V Gauge

Simplify and automate measurements, save time, share data and reduce costs.
 Provides wireless connection to your smart device so you can test the system
 without losing refrigerant. Measure vacuum only or pressure, temperature and vacuum.



MANTOOTH WIRELESS VACUUM GAUGE AND P/T GAUGE COMBINATION



The YELLOW JACKET ManTooth-PTV (67023) shown above provides vacuum and high- and low-side P/T readings. This full set includes dual non-tethered pressure/temperature gauges, two wired temperature clamps, and one interchangeable vacuum gauge. The single ManTooth-PTV (67021) can be combined with an existing ManTooth P/T device (67001) 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!

To enable mounting on 5/16" systems, add coupler 19221 (90°) or 19121 (straight).

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

UPC#	Description
67020	ManTooth™-V (Vacuum only) with side grip
67021	ManTooth™-PTV Single with side grip
67023	ManTooth™-PTV Dual with side grip
UPC#	Replacement Parts
67030	Vacuum gauge
67012	USB Cord
67014	Carrying case
93394	Tether cap
19020	Hose gaskets (10 pak)
19121	Straight 5/16" Flare quick connect x 1/4" Male coupler
19221	90° 5/16" Flare quick connect x 1/4" Male coupler
19302	Valve depressor (10 pak)
19305	Schrader valve (10 pak)

Pressure/Temperature Specifications

Pressure Sensing Resolution	0.1 psi, 0.1 bar, 1 kPa, 0.001 MPa, 0.01 kg/cm ²
Pressure Sensing Accuracy	0.5% of full scale at 25°C; 1% of full scale 55°F to 130°F; 2% of full scale -40°F to 248°F
Working Pressure	0 – 700 psia (48.3 bar)
Proof Pressure	Tolerable pressure without internal damage 1000 psia
Burst Pressure	Tolerable pressure without loss of seal 1500 psia
Temperature Sensor Range (Instrument)	Sensing element: -40°F to 266°F (-40°C to 130°C); Max Cord temp: 176°F (80°C); Max Clamp Temp: 203°F (95°C)
Temperature Display Resolution	0.1°F or °C
Temperature Accuracy (Instrument)	±0.2°C (±0.36°F)
Working Temperature	-4°F to 160°F (-20°C to 71°C) Limited by battery
Storage Temperature	-4°F to 160°F (-20°C to 71°C) - for best battery performance do not store at over 100°F (38°C)
Working Humidity	0-95% RH (non-condensing)
IP Class	IP 50
Bluetooth Range	70-90 ft. (Class 1) or 30-40 ft. (Class 2) in most cases (varies depending on the Bluetooth capability of smart device used). Under perfect conditions (clear line of sight and low interference) communications can extend up to 300 feet.
Bluetooth Radio	Class 1 Bluetooth 2.1 Radio
Size and weight	6" long x 1.6" wide x 2.3" thick (15.3 x 4 x 5.8 cm); 0.5 lbs (225 grams)
Superheat and Subcool	Automatically calculated by the ManTooth App
Max. and Min. Pressures	Displays and records the maximum and minimum pressures
Refrigerant Database	98 NIST refrigerant profiles included; upgradeable
Screenshot Feature	Save pressure and temperature readings from your sessions; automatically organize
Temperature Sensors	Capable of measuring 2 temperatures using high accuracy NTC thermistors
Pressure Transducers	67001/67003 – one pressure transducer; 67002 – two pressure transducers
System Attachment	Very small internal volume minimizes refrigerant loss during system analysis.
Pressure Zeroing	Simple single button zeroing at the start of each session
Elevation Compensation	Enter elevation at the start of the session for effortless psia compensation
Battery	Rechargeable LiPo battery for 10+ hours continuous life

Vacuum Specifications

Cord Length	Approximately 33"
Magnet Strength	8 lbs. holding force
Operational Temperature Range	10 – 122F 12 – 50C
Calibration	Calibration standards traceable to NIST
Resolution	.1 micron
Warm-Up Time and Response Time	Instant

MANTOOTH WIRELESS DIGITAL PRESSURE/TEMPERATURE GAUGE



The YELLOW JACKET® ManTooth™ Wireless Digital Pressure/Temperature Gauge provides wireless connection to your smart device so you can test the system without losing refrigerant (no hoses or manifolds necessary)!

The free downloadable ManTooth RSA app wirelessly calculates and displays the system's actual pressures, temperatures, superheat and subcooling in an easy-to-read color format on your iPhone®, iPad® or Android™ device.

Additional Features:

- Built-in Schrader ports to easily adjust refrigerant charge
- Range up to 400' (unobstructed)
- YELLOW JACKET ManTooth RSA app (free download)
- Two-year warranty
- Screenshot feature allows you to save pressure and temperature readings from your sessions which can be automatically organized by location and unit being serviced
- Share screenshots via e-mail right from your phone
- Easily track and store service history
- Rechargeable lithium polymer battery with 10 hours battery life

The ManTooth Single Pressure Wireless Digital P/T Gauge includes a single hardware device and clamp. Two single units can be purchased in a case by ordering Part #67003.

For dual pressure readings, use two of the 67001 ManTooth single pressure gauges or the 67002 ManTooth Dual Pressure Unit which comes with a P/T module, tether unit and two temperature probe clamps. This unit also includes a convenient carrying case which can be purchased separately for the single pressure unit.

UPC#	Description
67001	ManTooth™ Single Pressure Gauge (includes P/T Module with boot, temperature probe clamp, and USB cable)
67002	ManTooth™ Dual Pressure Gauge Set (includes P/T Module and tether unit with boots, two temperature probe clamps, and USB cable in case)
67003	Two (2) ManTooth™ Single Pressure Gauges (includes two P/T Modules with boots, two temperature probe clamps, and two USB cables in case)
UPC#	Replacement Parts
67010	Clamp
67012	USB Cord
67013	Blue boot
67014	Carrying case
93394	Tether cap
19020	Hose gaskets (10 pak)
19302	Valve depressor (10 pak)
19305	Schrader valve (10 pak)

Specifications:

Pressure Sensing Resolution	0.1 psi, 0.1 bar, 1 kPa, 0.001 MPa, 0.01 kg/cm ²
Pressure Sensing Accuracy	0.5% of full scale at 25°C; 1% of full scale 55°F to 130°F; 2% of full scale -40°F to 248°F
Working Pressure	0 – 700 psia (48.3 bar)
Proof Pressure	Tolerable pressure without internal damage 1000 psia
Burst Pressure	Tolerable pressure without loss of seal 1500 psia
Temperature Sensor Range (Instrument)	Sensing element: -40°F to 266°F (-40°C to 130°C) Max Cord temp: 176°F (80°C); Max Clamp Temp: 203°F (95°C)
Temperature Display Resolution	0.1°F or °C
Temperature Accuracy (Instrument)	±0.2°C (±0.36°F)
Working Temperature	-4°F to 160°F (-20°C to 71°C)
Storage Temperature	-4°F to 160°F (-20°C to 71°C)
Working Humidity	0-95% RH (non-condensing)
IP Class	IP 50
Battery Life	10+ hours continuous
Range	70-90 ft. (Class 1) or 30-40 ft. (Class 2) in most cases (varies depending on the Bluetooth capability of smart device used). Under perfect conditions (clear line of sight and low interference) communications can extend up to 300 feet.
Bluetooth Radio Size	Class 1 Bluetooth 2.1 Radio 6" long x 1.6" wide x 2.3" thick (15.3 x 4 x 5.8 cm)
Weight	0.5 lbs (225 grams)
Superheat and Subcool	Automatically calculated by the ManTooth App
Max. and Min. Pressures	Displays and records the max and min pressures
Refrigerant Database	98 NIST refrigerant profiles included; upgradeable
Screenshot Feature	Save pressure and temperature readings from your sessions which can be automatically organized by location and serviced unit
Temperature Sensors	Capable of measuring 2 temperatures using high accuracy NTC thermistors
Pressure Transducers	67001/67003 – one 67002 – two
System Attachment	Very small internal volume minimizes refrigerant loss during system analysis.
Pressure Zeroing	Simple single button zeroing at the start of each session
Elevation Compensation	Enter at start of session for effortless psia compensation
Battery	Rechargeable LiPo battery



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The YELLOW JACKET® refrigeration system analyzer features a full color graphics display for intuitive, easy reading. 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 nearly 100 refrigerants.



- Nearly 100 NIST refrigerant profiles included (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

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°F to 130°F
 2% of full scale -40°C to 120°C

Working pressure (maximum measurable pressure):
 Low side: 0 - 350 psia High side: 0 - 700 psia

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


Operating temperature: -4 to 122°F (-20 to 50°C)

Storage temperature: -20 to 170°F (-29 to 77°C)

Dimensions: 8.3" wide x 6.7" tall x 3.6" deep (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 use with industrial alkaline batteries)

- Automatic superheat and subcooling calculations
- Corresponding bubble point and dew points for current high side and low side pressures, respectively
- Displays and records max/min pressures
- Holds current reading/scrolls back to past readings
- 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
- Zero pressure by pressing a key in the set-up menu
- Selectable "auto power off" and "power saving mode"
- Low battery indicator
- 360° swivel hook stows 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 YELLOW JACKET® refrigeration system analyzer comes in a blow-molded carrying case complete with a TITAN™ 4-valve test and charging manifold, vacuum sensor cordset, battery holder ('AA' size, 2X4), instrument boot, bumper, plug, sensor boots, USB cable, vacuum sensor and two general purpose "K-Type" probes.

UPC#	Description
40812	Refrigeration system analyzer with TITAN™ 4-valve manifold
40813	Refrigeration system analyzer with TITAN™ 4-valve manifold, 60" PLUS II™ charging hoses (RYB) with compact ball valve end, and 3/8" Str. fl. x 3/8" 45° (Y)
40815	Refrigeration system analyzer with TITAN™ 4-valve manifold and 60" PLUS II™ charging hoses (RYB)

Replacement parts	
40819	Vacuum sensor cordset
40820	Battery holder, 'AA' size, 2X4
40821	Refrigeration system analyzer boot
40823	Refrigeration system analyzer battery door
40824	Refrigeration system analyzer bumper, plug & sensor boots
40827	USB cable
40828	General purpose "K-Type" probe (4 meter)
40832	AA Batteries (package of 8)
40833	Replacement case handle
69081	Replacement accessory pouch
69087	Vacuum sensor


Accessories	
69214	General purpose "K-Type" probe (3 Feet) 1-3/8" Clamp
69217	General purpose "K-Type" probe (10 Feet) 1-3/8" Clamp
69218	General purpose "K-Type" probe (1 meter)

TITAN™ 4-VALVE TEST & CHARGING MANIFOLD °F and °C



Forged aluminum 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
 - Manifold and hose holder fittings 1/4"-3/8"-1/4"-1/4" unless otherwise identified
 - Made in the USA 
- Replacement parts on page 44.

TITAN™ 4-Valve

UPC#	Description - °F/°C	Gauges	Scale	Refrigerant
49914	Manifold only with 5/16"-3/8"-5/16"-5/16" anchor and service fittings	Red/Blue	kPa/psi	R-32/410A
49913	49914 with 60" PLUS II™ RYB and 3/8" x 45°	Red/Blue	kPa/psi	
49915	Manifold only with 5/16"-3/8"-1/4"-5/16" anchor fittings and 1/4"-3/8"-1/4"-1/4" service fittings	Red/Blue	kPa/psi	
49922	Manifold only	Liquid	bar/psi	R-22
49925	With 60" PLUS II™ RYB and 3/8" x 45°	Liquid	bar/psi	
49960	With 60" PLUS II™ compact ball valve RYB and 3/8" x 45°	Red/Blue	bar/psi	R-32/410A
49962	Manifold only	Red/Blue	bar/psi	
49964	Manifold only with 5/16-3/8-5/16-5/16" fittings	Red/Blue	bar/psi	
49965	With 60" PLUS II™ RYB and 3/8" x 45°	Red/Blue	bar/psi	
49966	Manifold only with 1/4" fittings	Red/Blue	bar/psi	
49971	Heat pump manifold only, 1/4x5/16x1/4 hose holder fittings	Black/Black	bar/psi	R-410A
49982	Manifold only	Liquid	bar/psi	
UPC#	Description - °F	Gauges	Scale	Refrigerant
49973	Manifold only	Liquid	psi	R-22/410A
49977	With 60" PLUS II™ RYB and 3/8" x 45°	Liquid	psi	
49963	Manifold only	Red/Blue	psi	R-22/404A/410A
49967	With 60" PLUS II™ RYB and 3/8" x 45°	Red/Blue	psi	
49968	With 60" PLUS II™ compact ball valve RYB and 3/8" x 45°	Red/Blue	psi	
49283*	Manifold only	Red/Blue	psi	
49983	Manifold only	Red/Blue	psi	R-22/134a/404A
49987	With 60" PLUS II™ RYB and 3/8" x 45°	Red/Blue	psi	
49993	Manifold only	Liquid	psi	
49997	With 60" PLUS II™ RYB and 3/8" x 45°	Liquid	psi	R-134a/404A/407C
49932	Manifold only	Red/Blue	psi	
49935	With 60" PLUS II™ RYB and 3/8" x 45°	Red/Blue	psi	
49952	Manifold only	Liquid	psi	
49955	With 60" PLUS II™ RYB and 3/8" x 45°	Liquid	psi	R-417A/422A/422D
49900	With 72" PLUS II™ RYB and 3/8" x 45°	Red/Blue	psi	
UPC#	Description - °C	Gauges	Scale	Refrigerant
49916	Manifold only	Red/Blue	bar/psi	R-12/22/502
49933	Manifold only	Red/Blue	bar/psi	R-22/134a/404A
49912	Manifold only	Red/Blue	kPa/psi	
49911	49912 with 60" PLUS II™ RYB and 3/8" x 45°	Red/Blue	kPa/psi	R-134a/404A/407F
49931	Manifold only	Red/Blue	bar/psi	
49934	Manifold only; no sight glass	Red/Blue	bar/psi	R-134a/404A/407C
49936	Manifold only	Red/Blue	bar/MPa	
49956	Manifold only	Red/Blue	bar/psi	
49972	Heat pump manifold; no sight glass; 800 psi both gauges	Black/Black	bar/psi	

*  Manifold comes standard with certified gauges. For more information on the certification of 3-1/8" gauges, see page 51.

TITAN™ 2-VALVE TEST & CHARGING MANIFOLD °F and °C



Comes with the same features and benefits as the TITAN™ 4-valve unit but without the fourth hose. All fittings 1/4" unless otherwise noted.



Replacement parts on page 44.

UPC#	Description - °F/°C	Gauges	Scale	Refrigerant
49814	Manifold only with 5/16" fittings	Red/Blue	kPa/psi	R-32/410A
49813	With 60" PLUS II™ 5/16x5/16" RYB	Red/Blue	kPa/psi	
49815	Manifold only with 5/16"-1/4"-5/16" anchor fittings and 1/4" service fittings	Red/Blue	kPa/psi	
49862	Manifold only with 1/4" fittings	Red/Blue	bar/psi	
49860	With 60" PLUS II™ compact ball valve RYB	Red/Blue	bar/psi	
49864	Manifold only with 5/16" fittings	Red/Blue	bar/psi	
49865	With 60" PLUS II™ RYB	Red/Blue	bar/psi	R-1234yf
49866	Manifold only with 5/16"-1/4"-5/16" anchor fittings and 1/4" service fittings	Red/Blue	bar/psi	
49849	With 72" PLUS II™ Acme fittings RYB	Red/Blue	psi	
UPC#	Description - °F	Gauges	Scale	Refrigerant
49883	Manifold only	Red/Blue	psi	R-22/134a/404A
49887	With 60" PLUS II™ RYB	Red/Blue	psi	
49889	With 60" PLUS II™ SealRight RYB	Red/Blue	psi	R-22/404A/410A
49801	With 60" PLUS II™ SealRight RYB	Red/Blue	psi	
49863	Manifold only	Red/Blue	psi	
49281*	Manifold only	Red/Blue	psi	
49867	With 60" PLUS II™ RYB	Red/Blue	psi	R-134a/404A/407C
49868	With 60" PLUS II™ compact ball valve RYB	Red/Blue	psi	
49832	Manifold only	Red/Blue	psi	R-12/22/134a
49835	With 60" PLUS II™ RYB	Red/Blue	psi	
49831	With 60" PLUS II™ SealRight RYB	Red/Blue	psi	R-12/22/134a
49847	With 72" PLUS II™ Acme fittings RYB	Red/Blue	psi	
UPC#	Description - °C	Gauges	Scale	Refrigerant
49816	Manifold only	Red/Blue	bar/psi	R-12/22/502
49833	Manifold only	Red/Blue	bar/psi	R-22/134a/404A
49812	Manifold only	Red/Blue	kPa/psi	
49811	49812 with 60" PLUS II™ RYB	Red/Blue	kPa/psi	R-134a/404A/407C
49836	Manifold only	Red/Blue	bar/MPa	
49856	Manifold only	Red/Blue	bar/psi	R-32/410A
40922	Manifold only with 5/16" fittings	Red/Blue	MPa	

*  Manifold comes standard with certified gauges.

PROTECTIVE GAUGE BOOTS

For 2-1/2" (63.5 mm), 3-1/8" (80 mm), and solar gauges

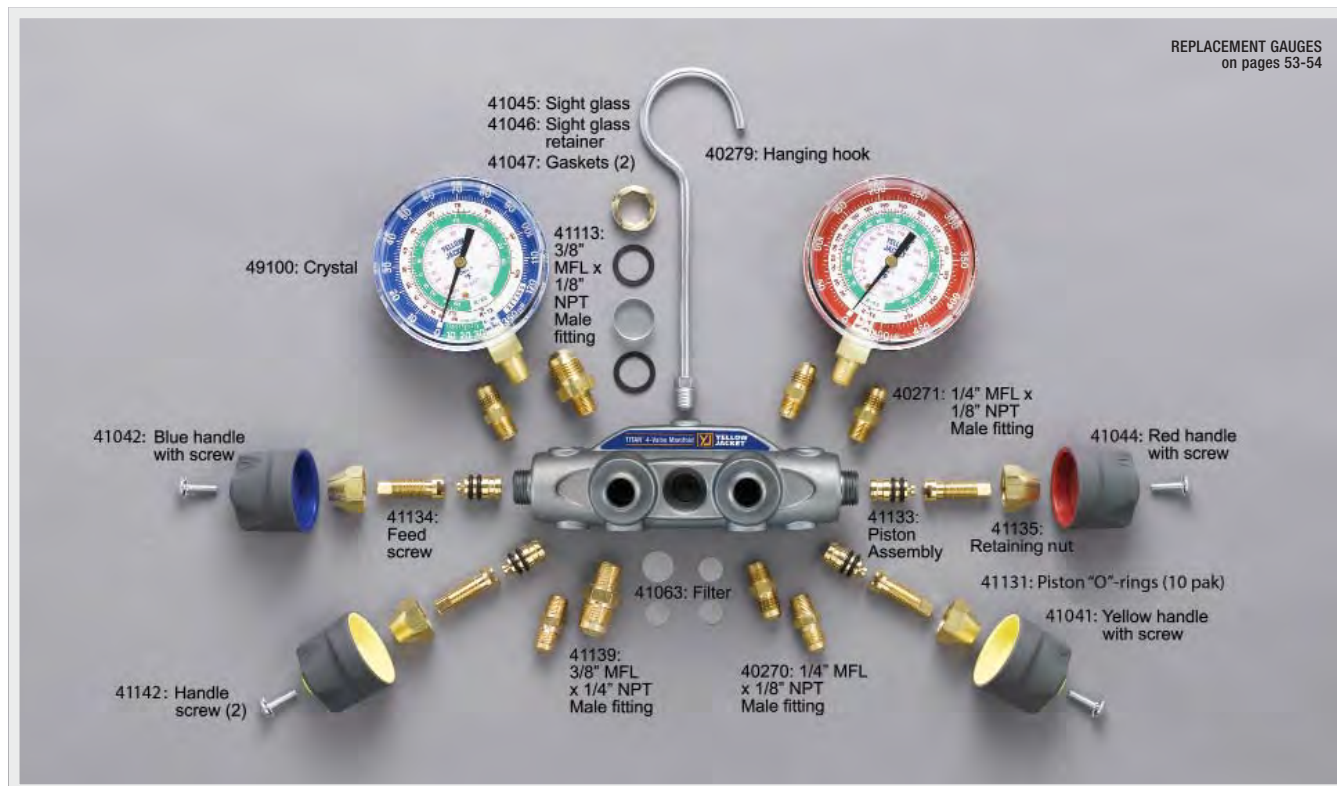


Rubber boots slip easily around gauges to cushion and protect them from impact.

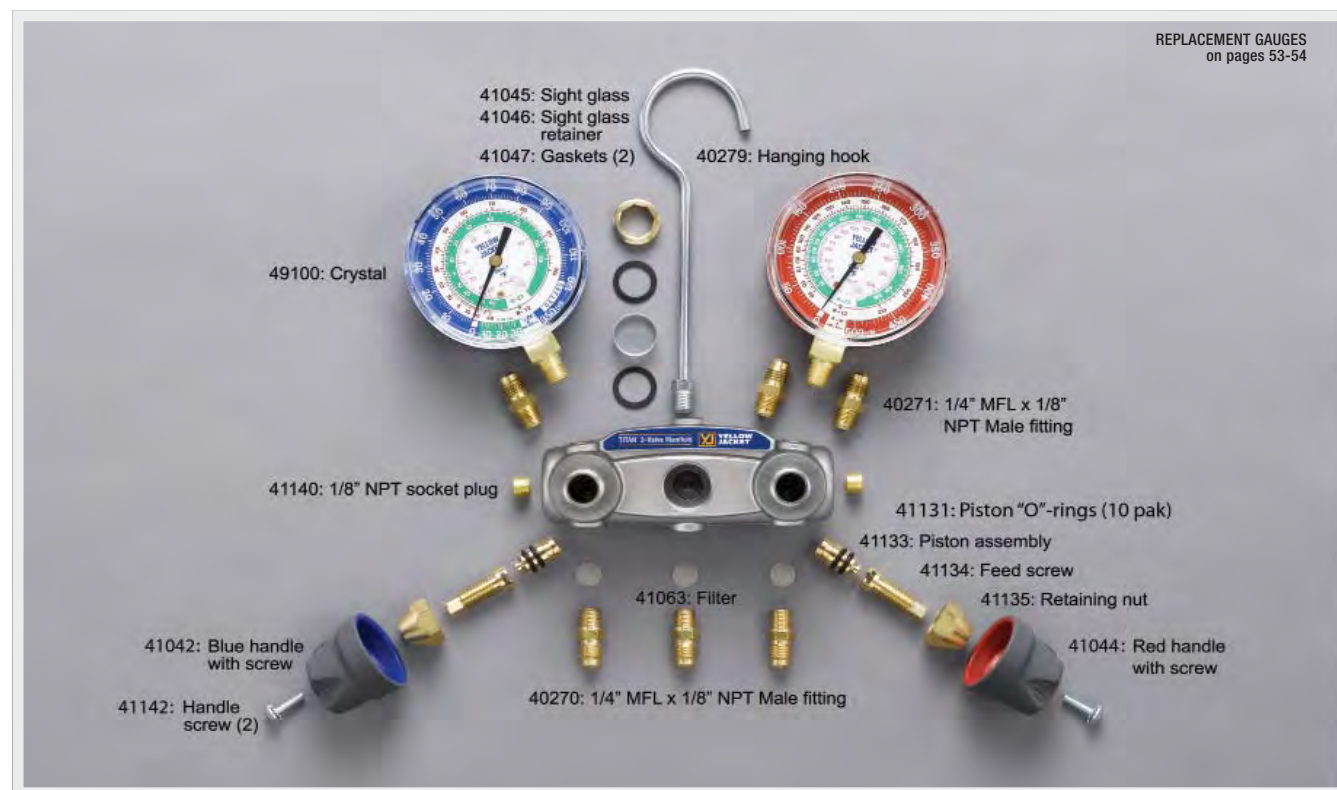
- Fit 2-1/2" and 3-1/8" gauges without covering easy access recalibration screw
- Color-coded red or blue to match gauge

UPC#	Description
49090	2-1/2" Set of gauge boots
49091	2-1/2" Red protective gauge boot
49092	2-1/2" Blue protective gauge boot
49190	3-1/8" Set of gauge boots
49191	3-1/8" Red protective gauge boot
49192	3-1/8" Blue protective gauge boot
49087	Red solar gauge boot
49088	Blue solar gauge boot
49089	Solar gauge boot set

TITAN™ 4-VALVE MANIFOLD REPLACEMENT PARTS



TITAN™ 2-VALVE MANIFOLD REPLACEMENT PARTS



RECOVERY MACHINES
 VACUUM PUMP SYSTEMS
 VACUUM AND CHARGING HOSES
 HOSE ADAPTERS, VALVES AND PARTS
 CHARGING SYSTEMS
 GAUGES
 WIRELESS AND ELECTRONIC INSTRUMENTS
 HEATING INSTRUMENTS
 LEAK MONITORS AND DETECTORS
 SYSTEM TOOLS

BRUTE II® 4-VALVE TEST & CHARGING MANIFOLD °F and °C



Replacement parts on page 46.

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 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



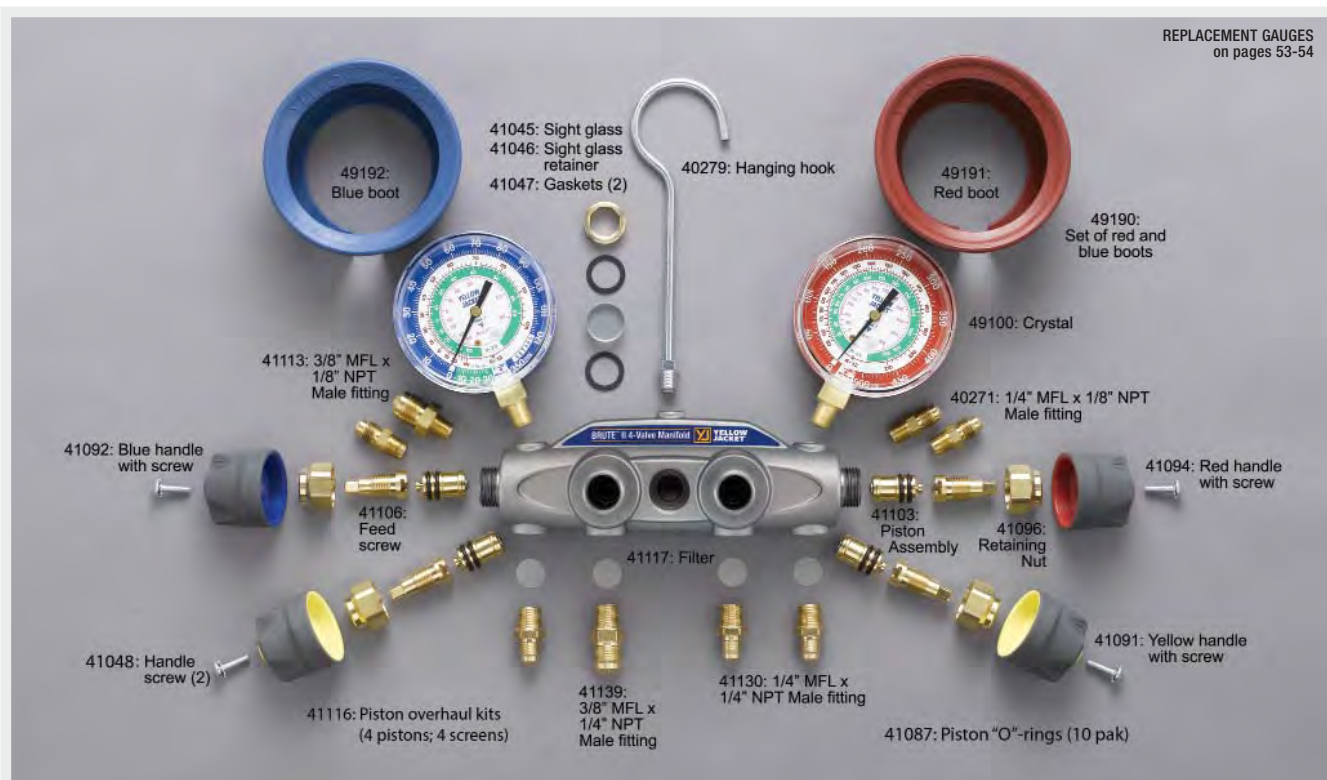
- Double "O" ring piston for reliability and long service life
- Exclusive 100-mesh filter in-line on all flare fittings helps keep out particulate material and extend the life of the seat
- Contoured easy-grip handles for positive control; color-coded for ready identification
- Sight glass to easily 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

BRUTE II™ 4-Valve						
UPC#	Description - °F/°C	Vacuum port	Hi/Lo charge	Gauges	Scale	Refrigerant
46001	Manifold only	3/8"	1/4"	Liquid	bar/psi	R-410A
46021	Manifold only	3/8"	1/4"	Liquid	bar/psi	R-22
46026	With 72" <i>PLUS II</i> ™ RYB and 3/8" x 45°	3/8"	1/4"	Liquid	bar/psi	R-22
46000	Manifold only	3/8"	1/4"	Red/Blue	bar/psi	R-32/410A
46003	With 60" <i>PLUS II</i> ™ compact ball valve RYB and 3/8" x 45°	3/8"	1/4"	Red/Blue	bar/psi	
46160	Manifold only with 5/16"-3/8"-1/4"-5/16" anchor and 1/4" service fittings	-	-	Red/Blue	bar/psi	
46170	Manifold only with 5/16"-3/8"-5/16"-5/16" anchor and service fittings	-	-	Red/Blue	bar/psi	
46174	Manifold only with 5/16"-3/8"-1/4"-5/16" anchor and 1/4" service fittings	-	-	Red/Blue	kPa/psi	
46176	Manifold only with 5/16"-3/8"-5/16"-5/16" anchor and service fittings	-	-	Red/Blue	kPa/psi	
UPC#	Description - °F	Vacuum port	Hi/Lo charge	Gauges	Scale	Refrigerant
46011	Manifold only	3/8"	1/4"	Liquid	psi	R-22/410A
46010	Manifold only	3/8"	1/4"	Red/Blue	psi	R-22/404A/410A
46013	With 60" <i>PLUS II</i> ™ compact ball valve RYB and 3/8" x 45°	3/8"	1/4"	Red/Blue	psi	
49291*	Manifold only	3/8"	1/4"	Red/Blue	psi	
46022	With 60" <i>PLUS II</i> ™ RYB and 3/8" x 45°	3/8"	1/4"	Red/Blue	psi	R-134a/404A/407C
46030	Manifold only	3/8"	1/4"	Red/Blue	psi	
46031	Manifold only	3/8"	1/4"	Liquid	psi	
46032	With 60" <i>PLUS II</i> ™ RYB and 3/8" x 45°	3/8"	1/4"	Red/Blue	psi	
46038	With 72" <i>PLUS II</i> ™ RYB and 3/8" x 45°	3/8"	1/4"	Liquid	psi	
46040	Manifold only	3/8"	1/4"	Red/Blue	psi	R-22/134a/404A
46041	Manifold only	3/8"	1/4"	Liquid	psi	
46042	With 60" <i>PLUS II</i> ™ RYB and 3/8" x 45°	3/8"	1/4"	Red/Blue	psi	
46043	With 60" <i>PLUS II</i> ™ compact ball valve RYB and 3/8" x 45°	3/8"	1/4"	Red/Blue	psi	
46048	With 72" <i>PLUS II</i> ™ RYB and 3/8" x 45°	3/8"	1/4"	Liquid	psi	
UPC#	Description - °C	Vacuum port	Hi/Lo charge	Gauges	Scale	Refrigerant
46180	Manifold only	3/8"	1/4"	Red/Blue	bar/psi	R-12/22/502
46130	Manifold only	3/8"	1/4"	Red/Blue	bar/MPa	R-134a/404A/407C
46190	Manifold only	3/8"	1/4"	Red/Blue	bar/psi	
46140	Manifold only	3/8"	1/4"	Red/Blue	bar/psi	
BRUTE II™ 4-Valve commercial						
UPC#	Description - °F/°C	Vacuum port	Hi/Lo charge	Gauges	Scale	Refrigerant
46081	Manifold only	1/2"	3/8"	Liquid	bar/psi	R-22
46084	With 3 at 3/8" x 60" heavy duty - Straight x 45° and 1 at 1/2" x 60" heavy duty - Straight x Straight	1/2"	3/8"	Liquid	bar/psi	
UPC#	Description - °F	Vacuum port	Hi/Lo charge	Gauges	Scale	Refrigerant
46090	Manifold only	3/8"	3/8"	Red/Blue	psi	R-22/134a/404A
46091	Manifold only	1/2"	3/8"	Liquid	psi	
46092	With 4 at 3/8" x 60" heavy duty - Straight x 45°	3/8"	3/8"	Red/Blue	psi	
46094	With 3 at 3/8" x 60" heavy duty - Straight x 45° and 1 at 1/2" x 60" heavy duty - Straight x Straight	1/2"	3/8"	Liquid	psi	

Manifold comes standard with certified gauges. For more information on the certification of 3-1/8" gauges, see page 51.

RECOVERY MACHINES
 VACUUM PUMP SYSTEMS
 VACUUM AND CHARGING HOSES
 HOSE ADAPTERS, VALVES AND PARTS
 CHARGING SYSTEMS
 GAUGES
 WIRELESS AND ELECTRONIC INSTRUMENTS
 HEATING INSTRUMENTS
 LEAK MONITORS AND DETECTORS
 SYSTEM TOOLS

BRUTE II™ MANIFOLD REPLACEMENT PARTS



SERIES 41 MANIFOLD REPLACEMENT PARTS




RECOVERY MACHINES
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VACUUM AND CHARGING HOSES
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GAUGES
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HEATING INSTRUMENTS
LEAK MONITORS AND DETECTORS
SYSTEM TOOLS

SERIES 41 MANIFOLDS

°F and °C with 2-1/2" (63.5 mm) gauges



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 means surge protector and silicone dampened movement helps minimize needle pulsation for easier, more accurate readings
- Sliding double “O” ring pistons reduces wear
- Most manifolds include color-coded YELLOW JACKET charging hoses
- Easy-to-read 2-1/2" (63.5 mm) steel case gauges with 3-2-3% accuracy (Class B)
- Limited lifetime warranty on manifold bar and valves – not gauges. See warranty information for details
- Made in the USA 



Series 41 Manifolds				
UPC#	Description - °F and °C - Red/Blue	Scale	Refrigerant	
42051	Heat pump manifold only, 1/4-5/16-1/4"	bar/psi	R-410A	
42054	With 60" black PLUS II hoses (two 1/4x5/16" ball valve and one 1/4x1/4" ball valve)	bar/psi		
41712	Manifold only	kg/cm ² /psi	R-410A	
41703	With 60" PLUS II™ compact ball valve fittings	kg/cm ² /psi		
41709	With 60" PLUS II™ standard fittings	kg/cm ² /psi		
41715*	With 60" PLUS II™ standard fittings	kg/cm ² /psi		
41710	With 60" PLUS II™ heavy duty black standard fittings	kg/cm ² /psi		
41702	With 60" PLUS II™ heavy duty black compact ball valve fittings	kg/cm ² /psi		
42715	With 60" PLUS II™ compact ball valve fittings	kg/cm ² /psi		
41711*	With 60" PLUS II™ compact ball valve fittings	kg/cm ² /psi		
41652	Manifold only with 5/16, 1/4", 5/16" hose fittings	bar/psi	R-32/410A	
UPC#	Description - °F - Red/Blue	Scale	Refrigerant	
41212	Manifold only	psi	R-12/22/502	
41213	With 36" PLUS II™ standard fittings	psi		
41220	With 48" PLUS II™ standard fittings	psi		
41215	With 60" PLUS II™ standard fittings	psi		
41219	With 72" PLUS II™ standard fittings	psi		
44213	With 36" PLUS II™ SealRight fittings	psi		
44220	With 48" PLUS II™ SealRight fittings	psi		
44215	With 60" PLUS II™ SealRight fittings	psi		
44219	With 72" PLUS II™ SealRight fittings	psi		
42215	With 60" PLUS II™ compact ball valve fittings	psi		
42219	With 72" PLUS II™ compact ball valve fittings	psi		
41312	Manifold only	psi	R-134a/404A/507	
41313	With 36" PLUS II™ standard fittings	psi		
41311	With 48" PLUS II™ standard fittings	psi		
41315	With 60" PLUS II™ standard fittings	psi		
41319	With 72" PLUS II™ standard fittings	psi		
43313	With 36" PLUS II™ standard fittings	psi		
44313	With 36" PLUS II™ SealRight fittings	psi		
44315	With 60" PLUS II™ SealRight fittings	psi		
44319	With 72" PLUS II™ SealRight fittings	psi		
42315	With 60" PLUS II™ compact ball valve fittings	psi		
41202	Manifold only	psi	R-22/134a/404A	
41209	With 36" PLUS II™ standard fittings	psi		
41211	With 60" PLUS II™ standard fittings	psi		
UPC#	UPC#	Description - °C - Red/Blue	Scale	Refrigerant
42008		Manifold only	bar/psi	R-12/22/502
41283		With 36" PLUS II™ standard fittings	bar/psi	
41285		With 60" PLUS II™ standard fittings	bar/psi	
42002		Manifold only	kPa/psi	
41223		With 36" PLUS II™ standard fittings	kPa/psi	
41225		With 60" PLUS II™ standard fittings	kPa/psi	
41292		Manifold only	kg/cm ² /psi	
41293		With 36" PLUS II™ standard fittings	kg/cm ² /psi	
41295		With 60" PLUS II™ standard fittings	kg/cm ² /psi	
41299		With 72" PLUS II™ standard fittings	kg/cm ² /psi	
41382		Manifold only	bar/psi	R-134a/404A/507
41353		With 36" PLUS II™ standard fittings	bar/psi	
41355		With 60" PLUS II™ standard fittings	bar/psi	
43355		With 60" PLUS II™ standard fittings	bar/psi	
41392		Manifold only	kg/cm ² /psi	
41363		With 36" PLUS II™ standard fittings	kg/cm ² /psi	
41365		With 60" PLUS II™ standard fittings	kg/cm ² /psi	
43365		With 60" PLUS II™ standard fittings	kg/cm ² /psi	
41332		Manifold only	bar/psi	R-134a/404A/407C
40944		Manifold only with 1/4" ports and 5/16" hose fittings	bar/MPa	R-410A
41781		Manifold only with 5/16" fittings	bar/MPa	
41780		Manifold only with 1/4" fittings	bar/MPa	

*Special R-410A hose - R/B hoses are 1/4" x 45° 5/16" end; Y hose is 1/4" x 45° 1/4" end.

SERIES 41 MANIFOLDS

°F and °C with 3-1/8" (80 mm) gauges



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

SERIES 41 DELUXE MANIFOLDS

°F Class 1 (1% accuracy) brass gauges



All the same features as the regular "Series 41" with 1% accuracy (Class 1) brass gauges.

- Upgraded movement with phosphor bronze plates, brass gears and pinions. Dissimilar parts create less friction and last longer. FlutterLess™ technology included
- Polished solid brass case with glass crystals
- Made in the USA

Box	Clamshell			
UPC#	UPC#	Description - °F/°C	Scale	Refrigerant
41863	-	Manifold only with 5/16"-1/4"-5/16" anchor fittings and 1/4" service fittings - red/blue gauge	kPa/psi	R-32/410A
41652	-	Manifold only with 5/16", 1/4", 5/16" anchor and 1/4" service fittings	bar/psi	
41659	-	Manifold only with 5/16" anchor fittings	bar/psi	
-	42021	Manifold only	bar/psi	
-	42024	With 60" PLUS II™ standard fittings	bar/psi	
41862	-	Manifold only with 5/16" anchor and service fittings	kPa/psi	
-	41865	41862 with 60" PLUS II™ 5/16" fittings	kPa/psi	R-600
-	41866	Manifold only	bar/kPa/psi	
UPC#	UPC#	Description - °F - Red/Blue	Scale	
-	41842	Manifold only	psi	R-12/22/134a
-	42007	With 60" PLUS II™ standard fittings	psi	
-	41846	With 72" PLUS II™ with couplers	psi	
-	42001	Manifold only	psi	R-22/404A/410A
-	49271*	Certified 42001 manifold	psi	
-	42004	With 60" PLUS II™ standard fittings	psi	
-	42201	With 60" PLUS II™ compact ball valve fittings	psi	
-	42005	Manifold only	psi	R-22/134a/404A
-	49272*	Certified 42005 manifold	psi	
-	42006	With 60" PLUS II™ standard fittings	psi	
-	42205	With 60" PLUS II™ compact ball valve fittings	psi	
UPC#	UPC#	Description - °C - Red/Blue	Scale	Refrigerant
-	41622	Manifold only	bar/psi	R-22/134a/404A
-	41852	Manifold only	kPa/psi	
-	41855	With 60" PLUS II™ standard fittings	kPa/psi	
-	41632	Manifold only	bar/psi	R-12/134a/413A
-	42031	Manifold only	psi	R-22/404A/410A
-	42034	With 60" PLUS II™ hose, standard fittings	psi	R-22/404A/410A
41784		Manifold only with 5/16" fittings	MPa	R-32/410A

* Manifold comes standard with certified gauges. For more information on the certification of 3-1/8" gauges, see page 51.

NH₃ AMMONIA MANIFOLD

UPC#	Description
40190	Manifold body with valves
40192	Manifold and gauges
40193	Manifold and gauges with three NHA 48" hoses
40199	Replacement valve assembly
41131	"O"-rings (10 pak)
41142	Replacement screw
41151	Hose anchor

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



HEAT PUMP MANIFOLD



The YELLOW JACKET® Heat Pump Manifold features two 800 psi gauges to read all heat pump pressure conditions. Traditional lo-side manifold gauges can be susceptible to damage when heat pumps go into heating mode. Because the lo-side gauge of the YELLOW JACKET Heat Pump Manifold is also designed for pressures up to 800 psi, it can read the pressure whether the pump is in heating mode, cooling mode or transition.

- Large 3-1/8" gauges feature black steel cases with polycarbonate crystal
- Hi- and lo-side gauges read up to 800 psi
- Larger dials are bold and easy to read
- Dials with 1% accuracy (Class 1) full scale movement provide the level of accuracy necessary for critical charge systems
- Proven sliding double "O" ring pistons reduce wear
- Long life nylon seats
- Forged brass body for durability
- Full porting maximizes capacity and flow
- Full-size metal valve handles for easy operation
- Hose assemblies UL recognized for 4000 psi (275 bar) burst and 800 psi (55 bar) working pressure (File # SA9737)
- Made in the USA

UPC#	Description	Hoses	Hose holder fittings	Refrigerants
42041	Heat pump manifold	None	1/4-1/4-1/4"	
42044	Heat pump manifold	(3) 60" black PLUS II™ 1/4" hoses	1/4-1/4-1/4"	R-22/ R-407C/ R-410A
49133	High side replacement gauge	800 psi, °F	-	
49134	Low side replacement gauge	800 psi, °F	-	
42052	Heat pump manifold	None	1/4-1/4-1/4"	
42055	Heat pump manifold	(3) 60" black PLUS II™ 1/4" ball valve hoses	1/4-1/4-1/4"	
42051	Heat pump manifold	None	5/16-1/4-5/16"	
42054	Heat pump manifold	60" black PLUS II™ 1/4" ball valve hoses; (2) 5/16" on service end (1) 1/4" on service end	5/16-1/4-5/16"	R-410A
49971	Heat Pump Manifold	Manifold only	5/16-3/8-1/4-5/16"	
49141	High side replacement gauge	800 psi (55 bar), °C and °F	-	
49142	Low side replacement gauge	800 psi (55 bar), °C and °F	-	



RECOVERY MACHINES
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CHARGING SYSTEMS

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HEATING INSTRUMENTS
LEAK MONITORS AND DETECTORS
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LIQUID CHARGER



Liquid charging is recommended when charging blends into refrigeration and air conditioning systems, and a liquid charger adapter is necessary for safe and fast liquid charging through the low pressure side of a system.

- The adapter connects to the cylinder valve or refrigerant can
- To protect the compressor, adapter orifice reduces liquid flow to a level below compressor capacity
- Eliminates the time and work of heating cylinders

UPC#	Description
41123	1/4" Liquid charging adapter
41124	5/16" Liquid charging adapter
41132	1/4" "O" ring and orifice
41138	5/16" "O" ring and orifice

"O" RING LUBRICANT

To lubricate "O" rings in manifolds when pistons or "O" rings are being replaced. Use sparingly.

UPC#	Description
41118	"O" ring lubricant (0.75 oz.)

MANIFOLD PARTS KIT For Series 41, TITAN™, and BRUTE II™ Manifolds



UPC#	Description
41099	Complete kit
41105	Box only with label
Kit contents/quantity	
41041	Yellow handle with screw - TITAN (4)
41042	Blue handle with screw - TITAN (3)
41044	Red handle with screw - TITAN (3)
41048	Handle screws (2) - Series 41/TITAN/BRUTE II (6 sets)
41061	Sight glass (1), retainer (1), gaskets (2) - BRUTE II/TITAN (4 sets)
41090	Handle screws (2) - Older style BRUTE (6 sets)
41091	Yellow handle with screw - BRUTE II (4)
41092	Blue handle with screw - BRUTE II (3)
41094	Red handle with screw - BRUTE II (3)
41096	Valve retaining nut - BRUTE II (4)
41103	3/8" Piston - BRUTE II (8)
41106	Feed screw - BRUTE II (4)
41134	Feed screw - Series 41/TITAN (6)
41135	Valve retaining nut - Series 41/TITAN (6)
41141	Metal handle with screw - Series 41 (4)
41142	Handle screws (2) - Series 41/TITAN/BRUTE II (6 sets)
41133	1/4" Piston - Series 41/TITAN (6)

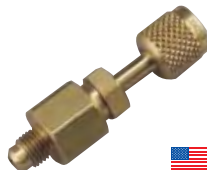
MANIFOLD CARRYING CASES



Heavy duty blue blow- molded cases are available in four different manifold/hose configurations. Includes handle and a long life top hinge.

UPC#	Description
40261	Series 41 case - 13-1/2" x 10" x 3-1/2"
40263	Series 41 case - 12-1/4" x 8" x 4-1/4"
40822	Case for BRUTE™ II and Refrigeration System Analyzer (40815) - 6-1/2" x 17" x 14"

MANIFOLD PARTICULATE FILTER



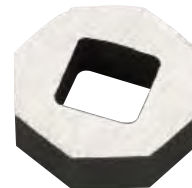
As manifold usage changes with more recovery change outs, more particulate matter is drawn through manifolds. Trap the particles with these fittings before they damage valve seats or pass into your recovery equipment. Replaceable, cleanable screens.

UPC#	Description
41119	1/4" Manifold particulate filter
41120	3/8" Manifold particulate filter
41121	1/2" Manifold particulate filter
41122	Replacement filter screen (5 pak)

SIGHT GLASS TOOL

Designed to fit into the TITAN and BRUTE II sightglass retainers, metal insert allows you to remove or tighten the retainer using a 1/4" drive wrench.

UPC#	Description
41095	Sight glass tool for TITAN/BRUTE



SINGLE GAUGE MANIFOLD

- Check pressure on lo-side of system
- Nylon seals and double "O" ring pistons

UPC#	Description
40318	Lo-side manifold R-12/22/502
40319	Lo-side manifold R-134a/404A/407C
40320	Lo-side manifold R-410A
40326	Lo-side 1/4" valve R-32/410A



SINGLE TEST GAUGES

Quick pressure checks - use lo- or hi-side gauge with quick coupler to attach directly to system or tanks.

UPC#	Description
Gauge with quick coupler and 12" hose - angle coupling	
14811	12" Red hose 1/4" Male flare x 45° quick coupler
14821	12" Blue hose 1/4" Male flare x 45° quick coupler
19110	Quick coupler only
Gauge with 19110 quick coupler for recovery tank pressure checks	
40331	Red pressure °F
40332	Blue compound °F
40341	Red pressure w/quick coupler & hose
40342	Blue compound w/quick coupler & hose
19110	Quick coupler only



40331



40332