

## CHARGING SYSTEMS & DIAGNOSTIC TOOLS







## YJACK™ SERIES

YJACK™ Series sensors work together to provide a total HVAC/R diagnostics solution with wireless convenience. Coupled with the P51 TITAN® Digital Manifold, the user has all the necessary information for complete system diagnostics.



# YELLOW JACKET®

## P51 TITAN® DIGITAL MANIFOLDS



***Accurate measurements, analysis and reporting in your hands, and Bluetooth® capability to put them at your fingertips.***

The YELLOW JACKET® P51 TITAN® Digital Manifold Series provides ultimate system measurements with ease. This 4-valve manifold provides fast and accurate measurements for refrigeration and a/c systems. Measurements are displayed on a backlit digital display and can be transmitted via Bluetooth® to a Smartphone for even further analysis. Local display of system pressures and temperatures, superheat and subcool provide instant analysis. When connected to your Smartphone, target superheat and subcool are easily attained, along with all other capabilities of the YJACK VIEW™ or the ManTooth® app.


The flagship YELLOW JACKET® P51-870 TITAN® features a 4.3" full color touchscreen graphic display with digital and graphical representation of pressure and temperature measurements. It also features on-board data logging and standard vacuum sensor and measurements (vacuum sensor included). A 4-pack of hoses is included as well as two temperature clamps and a backpack carrying case for safe storage.

### P51-870 TITAN® ADDITIONAL FEATURES AND BENEFITS

- 4.3" full color touch screen display
- Digital and graphical representation of pressure and temperature measurements
- Vacuum sensor included
- Set of four manifold hoses included: (3) 1/4" RYB and (1) 3/8" yellow vacuum hose
- (2) temperature clamps included
- Backpack carrying case included
- Wirelessly measure and display relative humidity, dry bulb, wet bulb and dew point temperature alongside system pressure and temperature measurements (requires separate purchase of YJACK DEW™ PN 67063)



### P51 TITAN® SERIES FEATURES & BENEFITS

- Measures high and low side pressures and temperatures
- Displays vapor and liquid saturation temperatures
- System superheat and subcooling calculations
- On board data logging; export to your computer via USB
- YJACK VIEW™ app used with 40870, 40875 and 40877; ManTooth® app used with 40860
- Bluetooth® capability
- Pressure hold mode displays rate of change for both vacuum and positive pressure measurements
- 4-way TITAN® valve block
- 126 refrigerant profiles stored in the instrument including new blends not currently in the REFPROP database
- Backlit display with auto-dimming
- Auto shut-off
- Includes two temperature clamps
- Optional vacuum sensor available (included with P51-870)
  - Vacuum measurements, targets and leak testing
  - High and low alarm
- Re-chargeable battery with battery life indicator
  - Continuous use no backlight: 80 hours
  - Continuous use full backlight: 5 hours (40860) 4 hours (40870)
- US and International units (bar, psia, psig, kPa, MPa, kg/cm²)
- Maximum working pressure 700 psia (48.3 bar)
- USB charging port
- IP52 certified
- Robust housing
- Two-year warranty
- Made in the USA 





40870

**40870 INCLUDES:**

- Vacuum sensor (P/N 67044)
- Set of four manifold hoses: (3) 60", 1/4" RYB (P/N 21985) and (1) 60", 3/8" yellow vacuum hose 3/8" straight x 3/8" 45° (P/N 18160)
- (2) temperature clamps (P/N 67010)
- USB charging cable
- Backpack carrying case (P/N 10146)



40875

**40875 INCLUDES:**

- Vacuum sensor (P/N 67044)
- Set of (6) 60" manifold hoses: (3) RYB compact ball valves (P/N 29985); (1) Y 3/8" str x 3/8" 45° (P/N 18160); (2) compact ball valve 1/4" x 5/16" (P/N 29425 and 29465)
- (2) temperature clamps (P/N 67010)
- USB charging cable
- Backpack carrying case (P/N 10146)



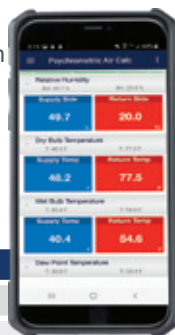
40877

**40877 INCLUDES:**

- Vacuum sensor (P/N 67044)
- Set of (6) 60" manifold hoses: (3) RYB compact ball valves (P/N 29985); (1) Y 3/8" str x 3/8" 45° (P/N 18160); (2) compact ball valve 1/4" x 5/16" (P/N 29425 and 29465)
- (2) YJACK™ temperature clamps (67061)
- USB charging cable
- Backpack carrying case (P/N 10146)

**YJACK VIEW™ APP FEATURES**

- All the great features of the ManTooth® app
- Measure HVAC/R system pressure, temperature, saturation temperature, superheat and subcooling
- Monitor system evacuation status
- Check indoor air comfort and system efficiency with psychrometric air calculations: Percent relative humidity, dry bulb, wet bulb and dew point temperature measurements
- Monitor status of all nearby YJACK™ and P51-870 TITAN® devices
- Customize data view for each measurement
- Freely switch between multiple simultaneous sessions without loss of data
- Create highly customized datalogs which can be saved or emailed from your smart device
- Choose from 126 refrigerant profiles found in the REFPROP database
- Available on iOS (version 10 or later) and Android (version 8 or later) smart devices



UPC #	Description
40860	P51-860 TITAN® Digital Manifold
40870	P51-870 TITAN® Digital Manifold
40875	P51-870 TITAN® Digital Manifold with ball valve, 5/16" hoses
40877	P51-870 TITAN® Digital Manifold with (2) YJACK™ wireless temperature clamps, ball valve and 5/16" hoses
UPC #	Optional/Replacement Parts
67030	Vacuum Sensor
10146	Backpack
67010	Temperature Probe Clamp
67061	YJACK™ Temperature Clamp (wireless)
21990	(3) 60" RYB (Standard Fittings); (1) 60" Y (3/8" str x 3/8" 45° Quick Coupler)
18160	60" Yellow, 3/8" straight x 3/8" 45°, PLUS II™ "B"
21985	60" 3 pak, standard fitting, PLUS II™ 1/4" hose
29985	60" 3 pak, compact ball valve, PLUS II™ 1/4" hose
29425	60" Blue, compact ball valve (1/4" x 5/16")
29465	60" Red, compact ball valve (1/4" x 5/16")
40844	P51 TITAN® Replacement Micro-USB Board

**ManTooth® APP FEATURES**

- Check target superheat and subcool by setting dewpoint and bubble point
- Additional monitoring, data logging and report generation
- Generates datalog file
- 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)

**APPLICATIONS**

- AC&R System Evaluation
- Evacuation
- Charging/Recovery
- Leak Testing



Vacuum Screen

P/T Screen



40860

# YJACK™ WIRELESS PROBES FOR A MORE CONNECTED TECH



The YJACK™ Series is a network of devices that form a new platform offering a total HVAC/R diagnostics solution. Multiple devices can measure system and environmental parameters, providing a complete picture of a system's condition.

Each device utilizes Low Energy Bluetooth® (BLE) technology to interconnect with each other and any smart device, Android™ or iOS. Many of the YJACK™ Series devices can also communicate directly with the P51-870 TITAN® Digital Manifold simultaneously.



## Enhanced YJACK VIEW® App

- Customized PDF service reports
- Supply and return air enthalpy
- System heating/cooling efficiency
- System Energy Efficiency Ratio (EER)

The YJACK VIEW® App provides ease of access to all information measured by the YJACK® Series of devices and P51-870 TITAN®.



**MADE IN THE USA**



# Network of Wireless Devices for a Total HVAC/R Diagnostic Solution.

## YJACK® SERIES OVERALL FEATURES:

- Compatible with YJACK VIEW® App and P51-870 TITAN® devices (firmware version v4.0 or later) [YJACK MANO™ not compatible with P51-TITAN® Digital Manifold]
- Bluetooth® 4.2 compliant low energy radio
- 400 ft. line-of-sight signal range
- Rapid response time
- Rotating mounting magnet for optimal Bluetooth® transmitter placement (not applicable on YJACK PRESS™ and YJACK VAC™)
- IP52 rated
- Two-year warranty



## YJACK DEW® Psychrometer 67063

- Measures percent relative humidity, dry bulb temperature, wet bulb temperature and dew point temperature
- Features 8" flexible steel wand
- Optimized sensor housing for increased air exchange and better response time



## YJACK PATH® Range Extender 67060

- Connects and rebroadcasts up to (6) YJACK® probes and (2) P51-870 TITAN® Digital Manifolds
- Adds up to additional 400 ft. line-of-sight signal range per device
- Amplifies signal strength through difficult to penetrate barriers



## YJACK® Temperature Clamp 67061

- Measures surface temperature of pipes up to 1.25" diameter
- Temperature clamp provides strong, secure connection to system
- Flexible cable connection for easy access



## YJACK® Temperature Strap 67062

- Measurements for surface temperature of pipes up to 6" diameter
- Quick release latch
- Elastic strap for secure connection



## YJACK MANO™ Dual Port Manometer 67068

NEW

- Static pressure measurements up to +/- 80 inches of water column
- Pressure probe tips and adapters included for accurate duct and gas pressure measurements
- Accurately measure pressure drop with included static pressure tips
- Display readings on the local display or remotely with the YJACK VIEW® App (v4.0+)
- Soft case for convenient storage



## YJACK PRESS™ Pressure Gauge 67065

- System pressure measurement up to 725 psig (50 bar)
- Integrated charging port to easily adjust refrigerant charge
- Working Pressure: -14.7 to 725 psig (-1.01 to 50 bar gauge)



## YJACK VAC™ Vacuum Gauge 67066

- System vacuum measurement from atmospheric pressure to 1 micron
- Robust sensor resists pressure shock and oil contamination
- Electronic display for clear visibility – even in direct sunlight



## YJACK AMP™ Current Probe 67067

- Current measurement up to 50 Amps AC
- Current Sensor Accuracy: +/-1% of reading or +/- 0.15 amps
- Measures inrush current to analyze hard starts and to troubleshoot blown fuses



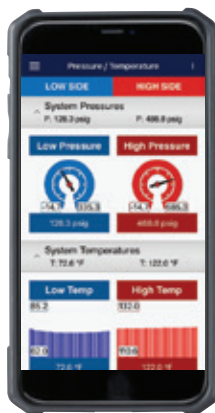
## YJACK VIEW® HIGHLIGHTS:

- Compatible with all YJACK® and P51-870 TITAN® devices (firmware version v4.0 or later)
- Freely navigate between available session types and multiple sessions at one time
- Psychrometric System Efficiency and Leak Test sessions and communication capabilities with YJACK PRESS™, YJACK VAC™ and YJACK AMP™ in v3.0+; YJACK MANO™ update to v4.0+
- Easily place and monitor status of all YJACK® and P51-870 TITAN® devices from one screen
- Adjustable datalog formatting, multiple sampling intervals
- Generate customized and detailed service reports capturing system readings and equipment information



**YJACK VIEW® SMART APPLICATION:**

- Measure HVAC/R system pressure, temperature, saturation temperature, superheat and subcooling
- Monitor system evacuation status
- Check indoor air comfort and system efficiency with psychrometric air calculations: percent relative humidity, dry bulb, wet bulb and dew point temperature measurements
- Perform system leak tests and track pressure change over time
- Measure system charge with scale weight readings during charging and recovery operations
- Take electrical current measurements and analyze critical system power information
- Identify duct pressure changes and measure regulator gas pressures
- Generate highly customized and detailed service reports capturing system readings and equipment information
- Monitors the status of all nearby YJACK® and P51-870 TITAN® devices
- Freely switch between multiple simultaneous sessions without loss of data
- Customize data view for each measurement
- Create data logs to be saved or emailed from your smart device
- Choose from 126 refrigerant profiles found in the REFPROP database
- Available on iOS (version 10 or later) and Android™ (version 8 or later) smart devices

**CREATE SERVICE REPORTS NEW**

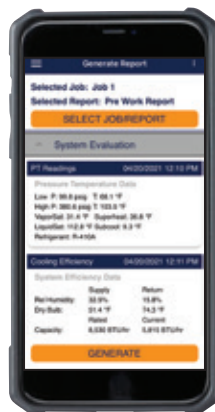
Service report feature creates highly customizable PDF reports of system measurements and service information while storing previous jobs and reports.

**ENHANCED DATA LOGGING**

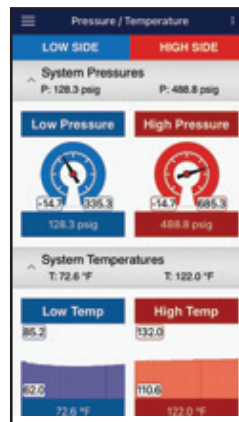
Record data from one or all current session types. Choose from a variety of sampling rates depending on user need. Live updates to selected devices, units, elevation and refrigerant selection appended to existing data logs. Start and stop data logging at will – save for later or share via email for remote analysis.

**STATIC PRESSURE SESSION NEW**

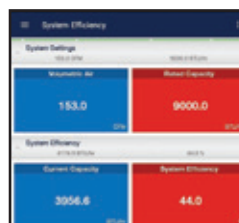
Displays pressure readings from YJACK MANO™ for measurement of duct pressure changes and regulator gas pressure.

**PRESSURE / TEMPERATURE NEW**

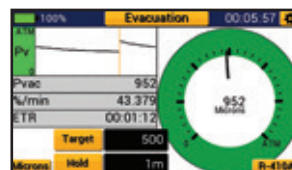
View system pressure and temperature data as reported by any combination of YJACK PRESS™ devices, temperature devices or P51-870 TITAN® units. Easily select and favorite commonly-used refrigerants for calculating system properties including saturation temperatures and calculated system superheat/subcooling. Effortlessly manipulate data view types, including traditional large numeric format, analog gauge (pressure only) or graphically.

**PSYCHROMETRIC SYSTEM EFFICIENCY NEW**

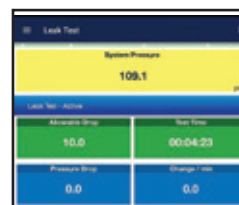
Analyze psychrometric data reported by (2) YJACK DEW® devices. Ensure maximum comfort through wireless supply and return relative humidity, dry bulb, wet bulb, dew point temperatures and enthalpy calculations. Compare system-rated capacity to actual output for overall system efficiency. View available data as traditional large numeric format or graphically.

**EVACUATION NEW**

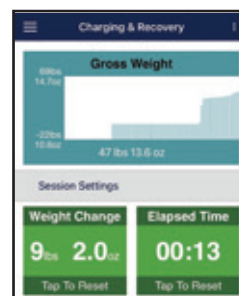
Monitor system vacuum as reported by a P51-870 TITAN® external wired vacuum sensor or the YJACK VAC™ Wireless Vacuum Gauge. Data can be displayed as traditional large numeric format, analog gauge or graphically. Adjustable vacuum pressure target and hold timer ensures all non-condensable gases are removed from the system during evacuation.

**LEAK TEST NEW**

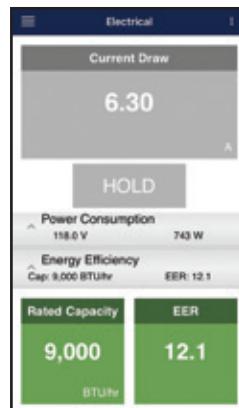
Monitor pressure changes during nitrogen leak testing to verify that system is tight. View system pressure trends as traditional large numeric format or graphically.

**CHARGING & RECOVERY**

Display scale readings from the Wireless Charging Scale (P/N 68864) to accurately charge systems or to determine system charge amount through recovery.

**ELECTRICAL NEW**

Electrical session displays readings from YJACK AMP™ Wireless Current Probe while calculating power draw and system Energy Efficiency Ratio (EER).





## YJACK™ KITS



**67070**  
**YJACK® Temperature**  
**Clamp Kit**

**67071**  
**YJACK® Temperature/**  
**Humidity Kit**



**67072**  
**YJACK® Charging**  
**Kit *NEW***

**67073**  
**YJACK® Charging**  
**& Air Kit *NEW***



**67074**  
**YJACK® Charging &**  
**Evacuation Kit *NEW***



### YJACK VIEW® APP SUPPORTED YELLOW JACKET® DEVICES:

- P51-870 TITAN® Digital Manifold
- YJACK PATH® Range Extender
- YJACK PRESS™ Pressure Gauge
- YJACK VAC™ Vacuum Gauge
- YJACK AMP™ Current Probe
- YJACK® Temperature Clamp
- YJACK® Temperature Strap
- YJACK DEW® Psychrometer
- YJACK MANO™ Manometer
- Wireless Refrigerant Scale (P/N 68864)

YJACK VIEW® App  
Apple/App Store



iPhone iPad

YJACK VIEW® App  
Android™/Google Play



Firmware Updates



Bluetooth®

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## P51-870 TITAN® DIGITAL MANIFOLD KIT WITH YJACK® TEMPERATURE CLAMPS

### 40877 KIT INCLUDES:

- Vacuum sensor (P/N 67030)
- Set of (6) 60" manifold hoses:
  - (3) RYB compact ball valves (P/N 29985)
  - (1) Y 3/8" str x 3/8" 45° (P/N 18160)
  - (2) Compact ball valve 1/4" x 5/16" (P/N 29425/29465)
- (2) YJACK® Temperature Clamps (P/N 67061)
- USB charging cable
- Backpack carrying case (P/N 10146)



MADE IN  
THE USA

UPC #	Description
67060	YJACK PATH® Range Extender
67061	YJACK® Temperature Clamp
67062	YJACK® Temperature Strap
67063	YJACK DEW® Psychrometer
67065	YJACK PRESS™ Pressure Gauge <i>NEW</i>
67066	YJACK VAC™ Vacuum Gauge <i>NEW</i>
67067	YJACK AMP™ Current Probe <i>NEW</i>
67068	YJACK MANO™ Dual Port Manometer <i>NEW</i>
67070	YJACK® Temperature Clamp Kit: (2) YJACK® Temperature Clamps, (1) YJACK PATH®
67071	YJACK® Temperature/Humidity Kit: (2) YJACK® Temperature Clamps, (2) YJACK DEW® Psychrometers, (1) YJACK PATH®
67072	YJACK® Charging Kit: (2) YJACK PRESS™ Pressure Gauges, (2) YJACK® Temperature Clamps <i>NEW</i>
67073	YJACK® Charging & Air Kit: (2) YJACK PRESS™ Pressure Gauges, (2) YJACK® Temperature Clamps, (2) YJACK DEW® Psychrometers <i>NEW</i>
67074	YJACK® Charging & Evacuation Kit: (2) YJACK PRESS™ Pressure Gauges, (2) YJACK® Temperature Clamps, (1) YJACK VAC™ Vacuum Gauge <i>NEW</i>
40877	P51-870 TITAN® Digital Manifold with (2) YJACK® Temperature Clamps, Ball Valve and 5/16" Hoses



# 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
69030	Vacuum Sensor Cleaning Kit
UPC#	Replacement Parts
67030	Vacuum sensor
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 <sup>2</sup>
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	126 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



69030

# 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 <sup>2</sup>
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	Class 1 Bluetooth 2.1 Radio
Size	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
System Attachment	67002 – two
Pressure Zeroing	Very small internal volume minimizes refrigerant loss during system analysis.
Elevation Compensation	Simple single button zeroing at the start of each session
Battery	Enter at start of session for effortless psia compensation Rechargeable LiPo battery



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## HYDROCARBON CHARGING KIT



The **YELLOW JACKET® Hydrocarbon Charging Kit** provides all the necessary tools to charge R-290 (propane) and R-600a (isobutane) hydrocarbon systems safely and effectively. The single valve manifold and small ID hoses allow for effective system pressure measurement while minimizing the impact on the system charge. The bottle valve and adapters offer compatibility with a variety of R-290 and R-600a refrigerant bottles.

### Features:

- Compact charging scale provides 0.05 g (0.01 oz) resolution for accurate charging
- Bottle stand offers stability for liquid charging with inverted refrigerant bottles
- Single valve manifold with 0.08" (2mm) ID x 24" REFFLEX® hoses
- Bottle valve for 7/16" threaded bottles
- Bottle adapter for 1" threaded bottles
- 90° quick-coupler fitting for compatibility with piercing and other right-angle bottle valves
- Line tap valve for system connection to 1/4", 5/16" or 3/8" process lines
- Vice grip pinch-off tool for crimping process tube after service is completed
- Safety placard provides visual warning of flammability risk during service
- Rugged case to protect the equipment when not in use
- One-year warranty



UPC #	Description
61001	Hydrocarbon Charging Kit
UPC #	Replacement Parts
19201	90° Quick Coupler (for right-angle bottle valves)
40349	Low-Side Manifold R-600a/290
49188	3-1/8", Blue Compound, bar/psi, R-600a/290 Gauge (°F/°C)
60661	Vice Grip Pinch-Off Tool
61002	HC Kit Bottle Stand
61003	HC Kit Scale
61004	HC Kit Manifold Assembly (manifold, hoses and connectors)
61005	HC Kit Hose (single 0.08"/2 mm x 24" yellow hose)
61008	HC Kit Bottle Valve (for 7/16" threaded bottle connections)
61009	HC Kit Bottle Adapter (for 1" threaded bottle connections)
61010	Line Tap Valve
61013	Propane Safety Placard

### Specifications:

#### Overall Kit

Compatible Refrigerants:	R-290 and R-600a
System Connections:	1/4", 5/16", 3/8" OD Tubing
Operating Temperature:	0° to 130°F (-18° to 55°C)
Operating Pressure:	-14.7 to 101 psi (-1 to 7 bar)

Bottle Compatibility:	Valve and adapter work with most 7/16" and 1" threaded bottle connections. The 19201 90° Quick Coupler allows for connection of piercing-type and other right-angle bottle valves.
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#### Charging Scale

Capacity:	13.22 lb (6 kg)
Accuracy:	0.1%
Units of Measure:	Grams (g), Pounds (lb), Pounds & Ounces (lb/oz), Ounces (oz), Milliliters (ml)
Resolution:	0.01 oz (0.05 g)
Overload Protection:	Yes
Power:	(3) AAA Batteries (included)
Battery Life:	50+ hours
Auto-Off Timer:	2 minutes after last reading change

#### Hydrocarbon Single Valve Manifold

Pressure Range:	-14.7 to 101 psi (-1 to 7 bar)
Refrigerants:	R-290 and R-600a (saturation temperatures in °F and °C)
Hose Length:	24" (610 mm)

## Series 41 Hydrocarbon 2-Valve Manifold

Pressure Units:	bar/psi
Refrigerants:	R-290 and R-600a (saturation temperatures in °F and °C)
Hose Length:	24" (610 mm)
Hose Fitting:	Quick Coupler



UPC #	Description
41868	Series 41 Hydrocarbon 2-Valve Manifold with 24" (610 mm) RYB REFFLEX® Hoses
41867	Series 41 Hydrocarbon 2-Valve Manifold
61015	Hydrocarbon Hoses 24" (610 mm) RYB REFFLEX® 3 pak

## ManCover™ Manifold Cover

- Large size fits most manifolds
- Rubber material for bounce protection while enroute to service calls
- Allows hoses to remain connected while protecting the gauge face from damage

**NEW**




UPC #	Description
49095	ManCover Manifold Cover

# 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 following pages.

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	Manifold with 60" PLUS II™ RYB and 3/8" x 45°	Liquid	bar/psi	
49960	Manifold with 60" PLUS II™ compact ball valve RYB and 3/8" x 45° <b>A2L</b>	Red/Blue	bar/psi	R-32/410A
49962	Manifold only <b>A2L</b>	Red/Blue	bar/psi	
49964	Manifold only with 5/16-3/8-5/16-5/16" fittings <b>A2L</b>	Red/Blue	bar/psi	
49965	Manifold with 60" PLUS II™ RYB and 3/8" x 45° <b>A2L</b>	Red/Blue	bar/psi	
49966	Manifold only with 1/4" fittings <b>A2L</b>	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	
45925	Manifold with (3) black CO2 hoses and (1) yellow 72" PLUS II 3/8" x 45° hose	Liquid	bar/psi	R-744
UPC#	Description - °F	Gauges	Scale	Refrigerant
49973	Manifold only	Liquid	psi	R-22/410A
49977	Manifold with 60" PLUS II™ RYB and 3/8" x 45°	Liquid	psi	
49963	Manifold only	Red/Blue	psi	R-22/404A/410A
49967	Manifold with 60" PLUS II™ RYB and 3/8" x 45°	Red/Blue	psi	
49968	Manifold 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	Manifold with 60" PLUS II™ RYB and 3/8" x 45°	Red/Blue	psi	
49993	Manifold only	Liquid	psi	
49997	Manifold with 60" PLUS II™ RYB and 3/8" x 45°	Liquid	psi	
49932	Manifold only	Red/Blue	psi	R-134a/404A/407C
49935	Manifold with 60" PLUS II™ RYB and 3/8" x 45°	Red/Blue	psi	
49952	Manifold only	Liquid	psi	
49955	Manifold with 60" PLUS II™ RYB and 3/8" x 45°	Liquid	psi	
49900	Manifold with 72" PLUS II™ RYB and 3/8" x 45°	Red/Blue	psi	R-417A/422A/422D
49907	Manifold only	Red/Blue	bar/psi	R-448A/449A/452D
UPC#	Description - °C	Gauges	Scale	Refrigerant
49916	Manifold only	Red/Blue	bar/psi	R-12/22/502
49933	Manifold only	Red/Blue	bar/psi	
49912	Manifold only	Red/Blue	kPa/psi	
49911	49912 manifold with 60" PLUS II™ RYB and 3/8" x 45°	Red/Blue	kPa/psi	
49931	Manifold only	Red/Blue	bar/psi	R-134a/404A/407F
49934	Manifold only; no sight glass	Red/Blue	bar/psi	
49936	Manifold only	Red/Blue	bar/MPa	R-134a/404A/407C
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 Gauges section.

For replacement parts, refer to the manual (also available at [yellowjacket.com](http://yellowjacket.com))




# CO<sub>2</sub> TEST AND CHARGING MANIFOLDS

Manifold and hoses designed specifically for transcritical CO<sub>2</sub> (R-744) applications.



The YELLOW JACKET® TITAN® Test and Charging Manifold for transcritical CO<sub>2</sub> systems is constructed with a forged aluminum alloy body making it lightweight for handling ease and durability. No sightglass means added safety. It features true 45° SAE flare hoses 78" in length.

- Large, easy-to-read 3-1/8" (80 mm) liquid-filled red and blue, 1% accuracy (Class 1) gauges; psi/bar
- Proven, 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 extends the life of the seats.
- Fourth hose to enable connection to hi/lo sides, refrigerant tank, and 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 on unit are 1/4").
- Dedicated transcritical CO<sub>2</sub> hose 78" (200 cm) in length
- Designed and assembled in the USA 



## Specifications

Scales:	LP 30 in. Hg/1500 psi (-1/+105 bar) -60° to 85°F (-52° to 30°C) HP 0/3000 psi (0/210 bar)
4-valve forged aluminum body	
Precision stainless steel valve feed screws	
No sight glass for added safety	
Class 1, 3-1/8" (80 mm), oil-filled, pulse-free	
Fittings:	(3) 1/4"; (1) 3/8" (vacuum application only)
Hoses:	Three (3) black, 78" (200 cm), 1/4" SAE fittings (45°) • Operating pressure 1740 psi (120 bar) • High pressure copper gaskets One (1) yellow, 78" (200 cm), 3/8" SAE fittings • Operating pressure 594 psi (41 bar) • Neoprene built-in gaskets

UPC#	Description
45925	TITAN® CO <sub>2</sub> Manifold with hoses (3) black and (1) yellow
45930	CO <sub>2</sub> Transcritical Test and Charging Manifold with Quick Couplers
45922	CO <sub>2</sub> 78" (200 cm) black replacement hose (single)
45923	Nylon CO <sub>2</sub> Manifold bag with handle and straps (optional)
45924	CO <sub>2</sub> Manifold Briefcase
14579	3/8" 78" (200 cm) yellow replacement hose (single)
49193	High pressure replacement gauge
49194	Low pressure replacement gauge

For replacement parts, refer to the manual (also available at [yellowjacket.com](http://yellowjacket.com))

## 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 following page.

UPC#	Description - °F/°C	Gauges	Scale	Refrigerant
49814	Manifold only with 5/16" fittings <b>A2L</b>	Red/Blue	kPa/psi	R-32/410A
49813	With 60" PLUS II™ 5/16x5/16" RYB <b>A2L</b>	Red/Blue	kPa/psi	
49815	Manifold only with 5/16"-1/4"-5/16" <b>A2L</b> anchor fittings and 1/4" service fittings	Red/Blue	kPa/psi	
49862	Manifold only with 1/4" fittings <b>A2L</b>	Red/Blue	bar/psi	
49860	With 60" PLUS II™ compact ball valve RYB <b>A2L</b>	Red/Blue	bar/psi	
49864	Manifold only with 5/16" fittings <b>A2L</b>	Red/Blue	bar/psi	
49865	Manifold with 60" PLUS II™ RYB <b>A2L</b>	Red/Blue	bar/psi	R-1234yf
49866	Manifold only with 5/16"-1/4"-5/16" <b>A2L</b> 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	Manifold with 60" PLUS II™ RYB	Red/Blue	psi	
49889	Manifold with 60" PLUS II™ SealRight RYB	Red/Blue	psi	
49801	Manifold with 60" PLUS II™ SealRight RYB	Red/Blue	psi	R-22/404A/410A
49863	Manifold only	Red/Blue	psi	
49281*	Manifold only	Red/Blue	psi	
49867	Manifold with 60" PLUS II™ RYB	Red/Blue	psi	
49868	With 60" PLUS II™ compact ball valve RYB	Red/Blue	psi	R-134a/404A/407C
49832	Manifold only	Red/Blue	psi	
49835	Manifold with 60" PLUS II™ RYB	Red/Blue	psi	
49831	Manifold 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	
40922	Manifold only with 5/16" fittings <b>A2L</b>	Red/Blue	MPa	R-32/410A



\* Manifold comes standard with certified gauges.


For replacement parts, refer to the manual (also available at [yellowjacket.com](http://yellowjacket.com))

## PROTECTIVE GAUGE BOOTS

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



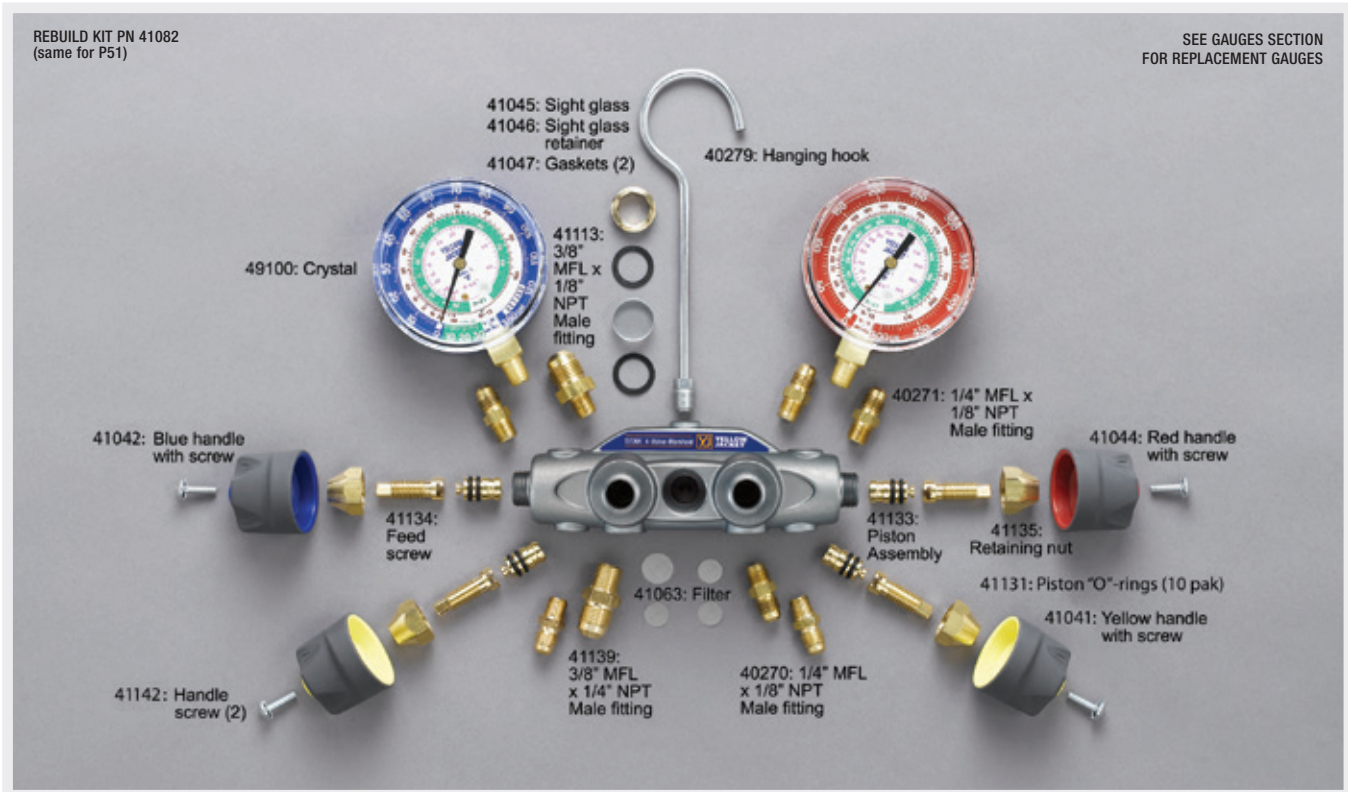
Rubber boots slip easily around gauges to cushion and protect them from impact.

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

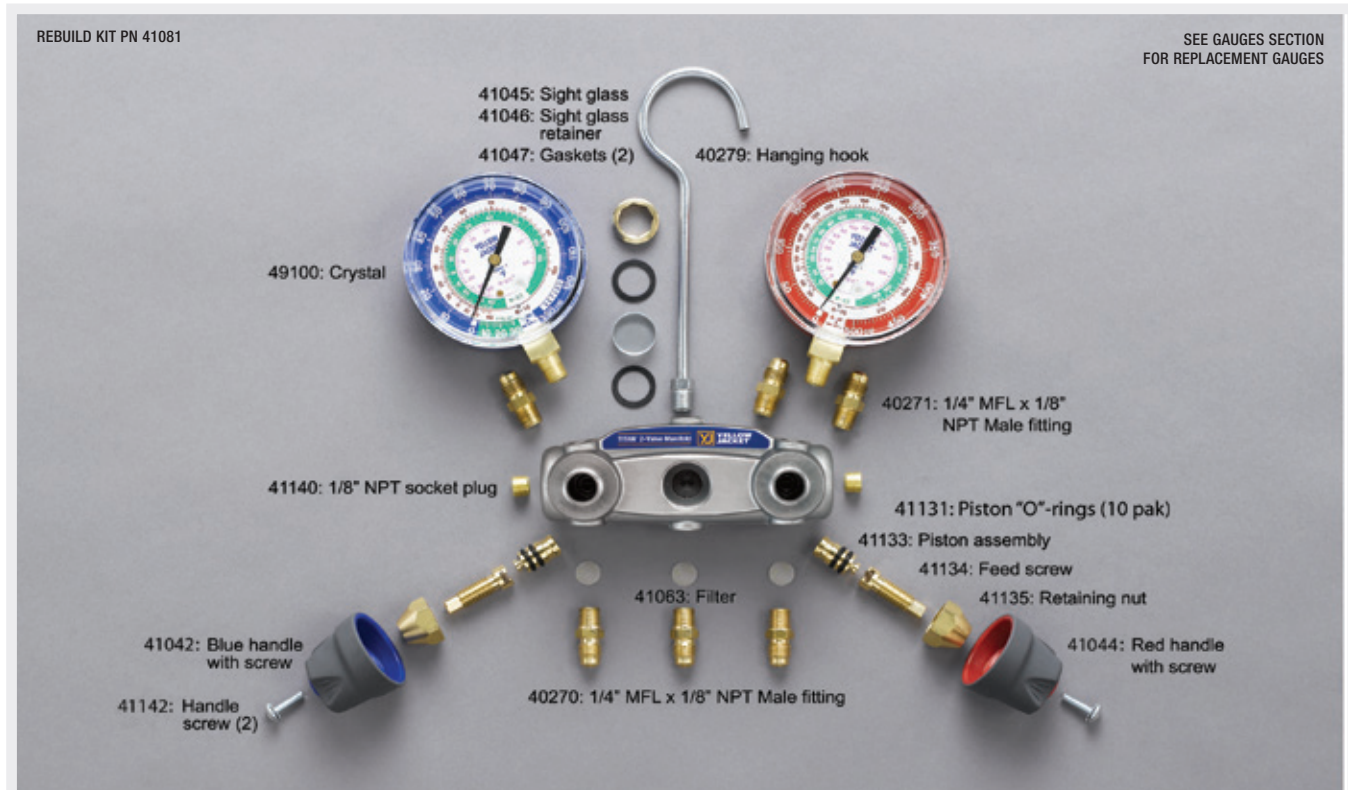
UPC#	Description
49010	2-1/2" Polycarbonate Lens
49090	2-1/2" Set of gauge boots
49091	2-1/2" Red protective gauge boot
49092	2-1/2" Blue protective gauge boot
49100	3-1/8" Replacement crystal
49190	3-1/8" Set of gauge boots
49191	3-1/8" Red protective gauge boot
49192	3-1/8" Blue protective gauge boot



## TITAN® 4-VALVE MANIFOLD REPLACEMENT PARTS



## TITAN® 2-VALVE MANIFOLD REPLACEMENT PARTS

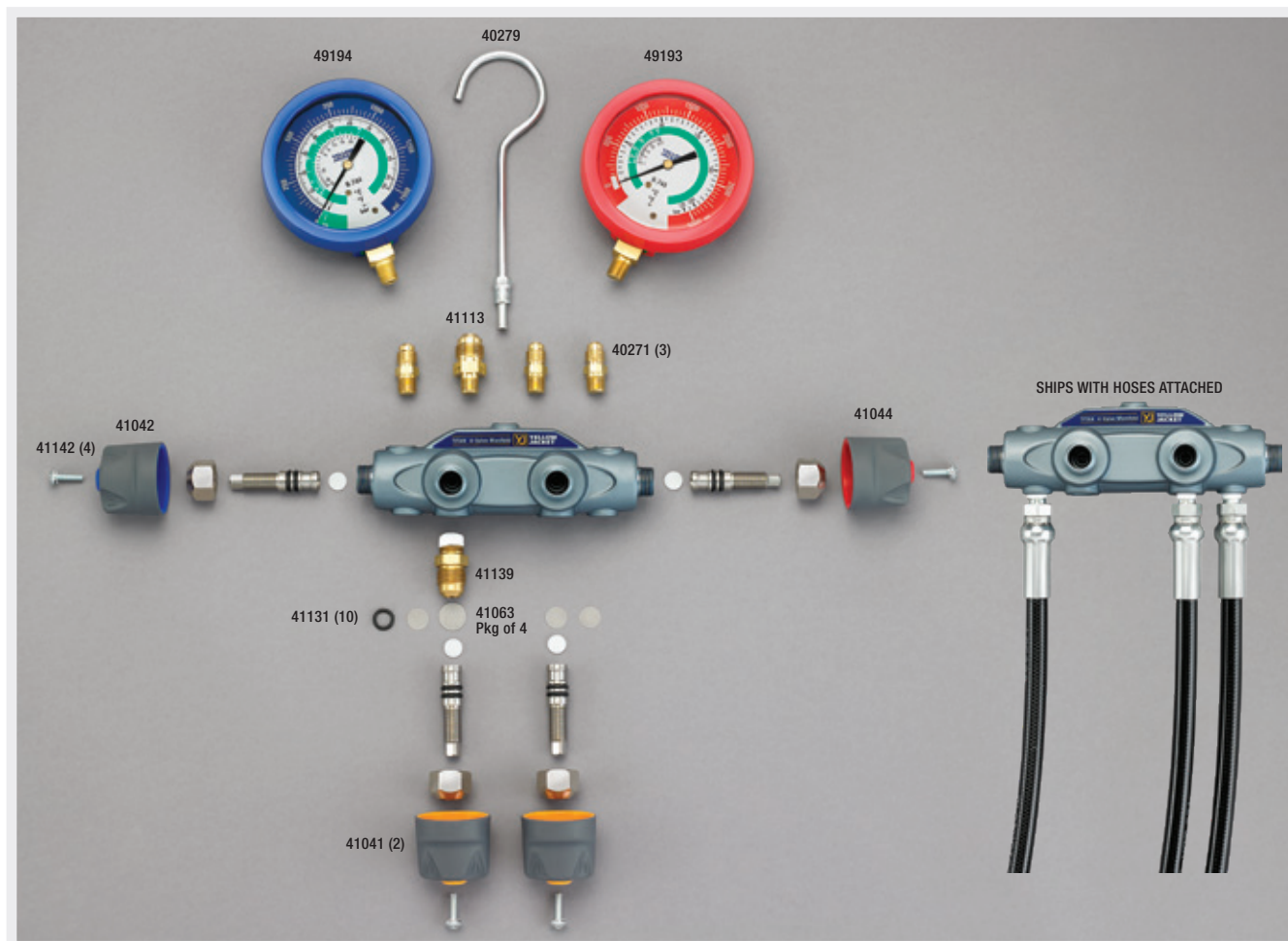


2. GAUGES

3. RECOVERY  
MACHINES4. VACUUM PUMP  
SYSTEMS5. VACUUM AND  
CHARGING HOSES6. HOSE ADAPTERS,  
VALVES & PARTS7. WIRELESS AND  
ELECTRONIC  
INSTRUMENTS8. LEAK  
DETECTORS AND  
MONITORS9. HEATING  
INSTRUMENTS

10. SYSTEM TOOLS

## CO<sub>2</sub> TEST AND CHARGING MANIFOLD REPLACEMENT PARTS





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




Replacement parts available.

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 

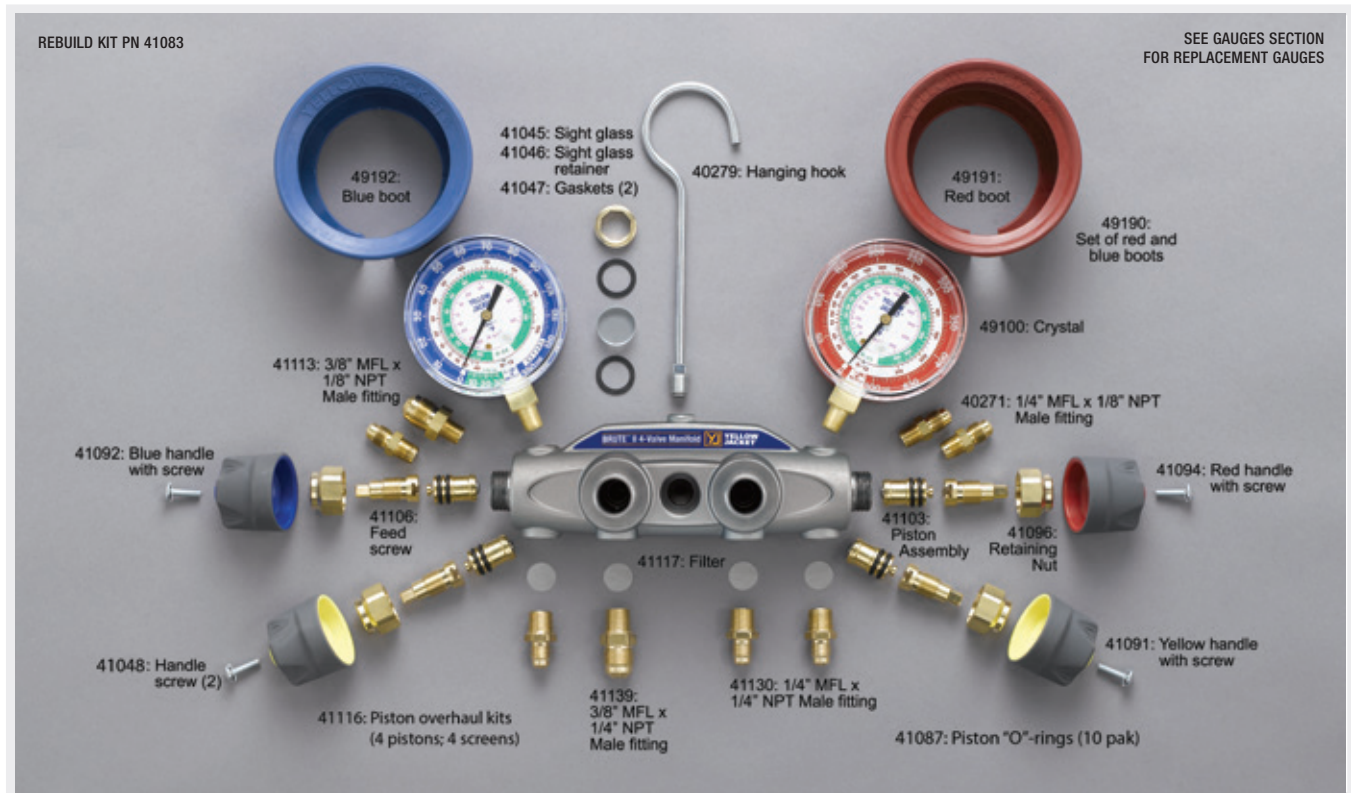
BRUTE II® 4-Valve						
UPC#	Description - °F/°C	Vacuum port	Hi/Lo charge	Gauges	Scale	Refrigerant
46001	Manifold only	3/8"	1/4"	Liquid	bar/psi	R-410A
46021	Manifold only	3/8"	1/4"	Liquid	bar/psi	R-22
46026	Manifold with 72" PLUS II™ RYB and 3/8" x 45°	3/8"	1/4"	Liquid	bar/psi	R-22
46000	Manifold only <b>A2L</b>	3/8"	1/4"	Red/Blue	bar/psi	R-32/410A
46003	With 60" PLUS II™ compact ball valve RYB and 3/8" x 45° <b>A2L</b>	3/8"	1/4"	Red/Blue	bar/psi	
46160	Manifold only 5/16"-3/8"-1/4"-5/16" anchor and 1/4" service fittings <b>A2L</b>	–	–	Red/Blue	bar/psi	
46170	Manifold only 5/16"-3/8"-5/16"-5/16" anchor and service fittings <b>A2L</b>	–	–	Red/Blue	bar/psi	
46174	Manifold only 5/16"-3/8"-1/4"-5/16" anchor and 1/4" service fittings <b>A2L</b>	–	–	Red/Blue	kPa/psi	
46176	Manifold only 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	Manifold with 60" PLUS II™ 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	Manifold with 60" PLUS II™ 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	Manifold with 60" PLUS II™ RYB and 3/8" x 45°	3/8"	1/4"	Red/Blue	psi	
46038	Manifold with 72" PLUS II™ RYB and 3/8" x 45°	3/8"	1/4"	Liquid	psi	R-22/134a/404A
46040	Manifold only	3/8"	1/4"	Red/Blue	psi	
46041	Manifold only	3/8"	1/4"	Liquid	psi	
46042	Manifold with 60" PLUS II™ RYB and 3/8" x 45°	3/8"	1/4"	Red/Blue	psi	
46043	Manifold with 60" PLUS II™ compact ball valve RYB and 3/8" x 45°	3/8"	1/4"	Red/Blue	psi	
46048	Manifold with 72" PLUS II™ 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	R-22/134a/404A
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	Manifold 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	Manifold with 4 at 3/8" x 60" heavy duty - Straight x 45°	3/8"	3/8"	Red/Blue	psi	
46094	Manifold 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	



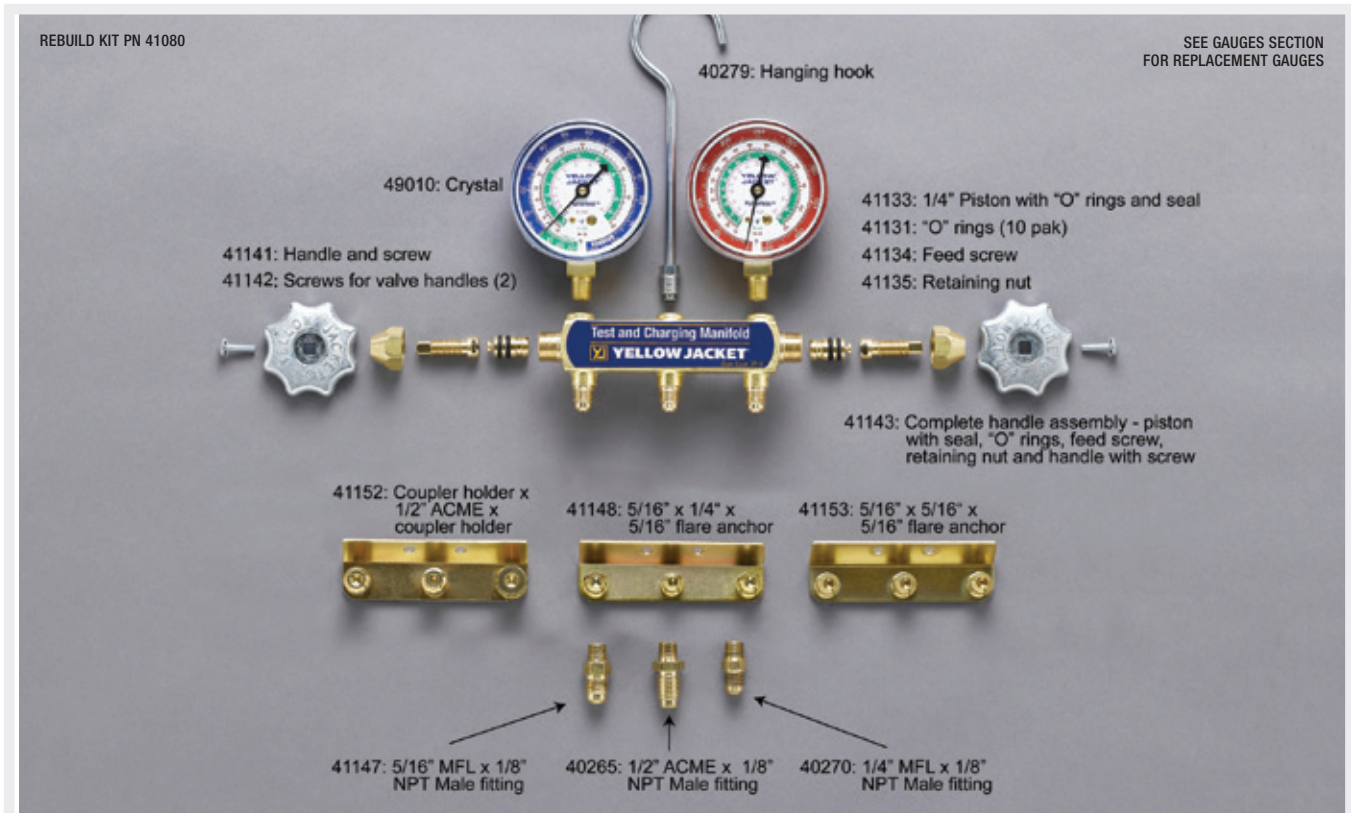
\* Manifold comes standard with certified gauges. For more information on the certification of 3-1/8" gauges, see Gauges section.

For replacement parts, refer to the manual (also available at [yellowjacket.com](http://yellowjacket.com))

## BRUTE II® MANIFOLD REPLACEMENT PARTS



## SERIES 41 MANIFOLD REPLACEMENT PARTS






# 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/cm²/psi	R-410A
41703	With 60" PLUS II™ FLEXFLOW™ hoses	kg/cm²/psi	
41709	With 60" PLUS II™ standard fittings	kg/cm²/psi	
41715*	With 60" PLUS II™ standard fittings	kg/cm²/psi	
41710	With 60" PLUS II™ heavy duty black standard fittings	kg/cm²/psi	
41702	With 60" PLUS II™ heavy duty black compact ball valve fittings	kg/cm²/psi	
42715	With 60" PLUS II™ compact ball valve fittings	kg/cm²/psi	R-32/410A
41711*	With 60" PLUS II™ compact ball valve fittings	kg/cm²/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#	Description - °C - Red/Blue	Scale	Refrigerant
41292	Manifold only	kg/cm²/psi	R-12/22/502
41293	With 36" PLUS II™ standard fittings	kg/cm²/psi	
41295	With 60" PLUS II™ standard fittings	kg/cm²/psi	
41299	With 72" PLUS II™ standard fittings	kg/cm²/psi	
41382	Manifold only	bar/psi	R-134a/404A/507
41353	Manifold with 36" PLUS II™ standard fittings	bar/psi	
41355	Manifold with 60" PLUS II™ standard fittings	bar/psi	
43355	Manifold with 60" PLUS II™ standard fittings	bar/psi	
41392	Manifold only	kg/cm²/psi	
41363	Manifold with 36" PLUS II™ standard fittings	kg/cm²/psi	
41365	Manifold with 60" PLUS II™ standard fittings	kg/cm²/psi	
43365	Manifold with 60" PLUS II™ standard fittings	kg/cm²/psi	R-134a/404A/407C
41332	Manifold only	bar/psi	
40944	Manifold only with 1/4" ports and 5/16" hose fittings	bar/MPa	
41781	Manifold only with 5/16" fittings	bar/MPa	
41780	Manifold only with 1/4" fittings	bar/MPa	R-410A

\*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.


For replacement parts, refer to the manual (also available at [yellowjacket.com](http://yellowjacket.com))

## 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 

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	Manifold with 60" PLUS II™ standard fittings	bar/psi	
41862	–	Manifold only with 5/16" anchor and service fittings	kPa/psi	R-12/22/134a
–	41865	41862 with 60" PLUS II™ 5/16" fittings	kPa/psi	
UPC#	UPC#	Description - °F - Red/Blue	Scale	Refrigerant
–	41842	Manifold only	psi	R-12/22/134a
–	42007	Manifold with 60" PLUS II™ standard fittings	psi	
–	41846	Manifold with 72" PLUS II™ with couplers	psi	
–	42001	Manifold only	psi	R-22/404A/410A
–	49271*	Certified 42001 manifold	psi	
–	42004	Manifold with 60" PLUS II™ standard fittings	psi	
–	42201	With 60" PLUS II™ compact ball valve fittings	psi	R-22/134a/404A
–	42005	Manifold only	psi	
–	49272*	Certified 42005 manifold	psi	
–	42006	Manifold with 60" PLUS II™ standard fittings	psi	
–	42205	With 60" PLUS II™ compact ball valve fittings	psi	
–	41209	With 36" PLUS II™ standard fittings	psi	R-12/134a/413A
UPC#	UPC#	Description - °C - Red/Blue	Scale	Refrigerant
–	41622	Manifold only	bar/psi	R-22/134a/404A
–	41852	Manifold only	kPa/psi	
–	41855	Manifold with 60" PLUS II™ standard fittings	kPa/psi	
–	41632	Manifold only	bar/psi	R-22/404A/410A
–	42031	Manifold only	psi	
–	42034	With 60" PLUS II™ hose, standard fittings	psi	
–	41866	Manifold only	bar/psi	R600A/600/290
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 Gauges section.

## NH<sub>3</sub> AMMONIA MANIFOLD

UPC #	Description
40190	Manifold body with valves
40192	Manifold and gauges
40193	Manifold and gauges with three NHA 48" hoses
40194	3/8" Ammonia manifold
40195	3/8" Ammonia manifold with NBC-48" hoses
40196	3/8" Ammonia manifold with NBC-72" 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 NH<sub>3</sub> rated hoses
- 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 

UPC#	Description	Scale	Refrigerant
44235	With 60" PLUS II™ SealRight fittings	psi	R-12/22/502
42332	Manifold only	psi	R-22/134a/404A
42333	With 36" PLUS II™ compact ball valve fittings	psi	
42436	With 60" PLUS II™ compact ball valve fittings	psi	
42435	With 60" PLUS II™ standard fittings	psi	R-134a/404A 407C
45221	Retro manifold °C	psi	
45222	Retro manifold °F	psi	





## SERIES 41 DIGITAL MANIFOLDS

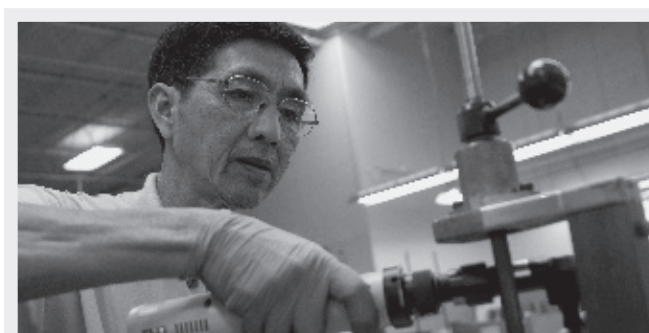
°F and °C with 3 1/8" backlit LCD gauges



### When clear, swift and accurate readings meet quality and precision measurements.

The YELLOW JACKET® Series 41 Digital Manifold combines the advantages of digital technology with the proven Series 41 2-valve brass manifold. The 3-1/8" backlit LCD gauges provide easy-to-read accurate measurements for system pressures. Each interchangeable gauge is capable of handling maximum pressures of 800 psi, so there are no worries about over-pressurizing. Pre-programmed with 21 most common refrigerants, the Series 41 Digital Manifold will provide clear, swift and accurate pressure measurements for all your system applications.

The forged body of the manifold is constructed of solid brass for durability. Full porting maximizes capacity, and the metal valve handles are full size for easy operation. For added security, the hose anchors are forged into the back of body at 45°.



### Gauge Specifications:

- Pressure Range: -14.7 ~ 800 psi (-1 ~ 54.4 bar)
- Unit (Pressure): psi / bar / MPa / kg/cm2 / kPa
- Working Temperature: 14°F ~ 140°F (-10°F ~ 60°F)
- Pressure Accuracy: ±0.5% F.S @71.6~82.4°F (@22~28°F)
- Unit (Temperature): °F/°C
- Working Humidity: 35~85%
- Sampling Rate = 1.2 sec max.
- Auto-off: 10 minutes
- Zero pressure function
- Power Supply: Battery CR123A (3.0V, 1400mAh)
- Battery Life: 2 years for continuous operation without backlight
- Warranty: One year

### Refrigerants:

R-22, R-23, R-32, R-124, R-134A, R-290, R-404A, R-407C, R-407F, R-408A, R-410A, R-417A, R-427A, R-444B, R-448A, R-449A, R-452A, R-507, R-600, R-1234YF, R1270

### Manifold Specifications:


- Forged brass body for durability
- Sliding double "O" ring pistons reduce wear
- Long life nylon seats
- Full porting maximizes capacity and flow
- Hose assemblies UL recognized for 4000 psi (275 bar) burst and 800 psi (55 bar) working pressure. File# SA9737
- Assembled in the USA

UPC#	Description
46060	Series 41 Digital Manifold <b>A2L</b>
46062	Series 41 Digital Manifold with 3-pack PLUS II™ hoses with compact ball valves <b>A2L</b>
UPC#	Replacement Parts
49017	Replacement gauge

HEAT PUMP MANIFOLDS



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"	R-22/ R-407C/ R-410A
42044	Heat pump manifold	(3) 60" black PLUS II™ 1/4" hoses	1/4-1/4-1/4"	
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"	R-410A
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"	
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	–	





## MANIFOLD BACKPACK KITS **NEW!**

The **YELLOW JACKET® Manifold Backpack Kits** pair popular TITAN® and Series 41 Manifolds with PLUS II™ Charging Hoses in a rugged backpack for hands-free, grab-and-go convenience.

There is plenty of room to add additional tools needed for all your A/C installation and tune up needs. Select the Manifold Kits specific to the refrigerants you are working with.

### DOMESTIC MANIFOLD BACKPACK KITS



#### 4V TITAN® R-32/410A Manifold Kit (P/N 49944)

- TITAN® 4-Valve Manifold, 3-1/8" Gauges, bar/psi, °F °C
- PLUS II™ 1/4" Hose 60" 3-Pak RYB Compact Ball Valve
- PLUS II™ 3/8" Yellow Large Volume 72" Charging Hose



#### 4V TITAN® R-448A/449A/452A Manifold Kit (P/N 49945)

- TITAN® 4-Valve Manifold, 3-1/8" Gauges, bar/psi, °F
- PLUS II™ 1/4" Hose 60" 3-Pak RYB, Compact Ball Valve
- PLUS II™ 3/8" Yellow Large Volume 72" Charging Hose



#### 4V TITAN® R-22/404A/410A Manifold Kit (P/N 49984)

- TITAN® 4-Valve Manifold, 3-1/8" Gauges, psi, °F
- PLUS II™ 1/4" Hose 60" 3-Pak RYB, Compact Ball Valve
- PLUS II™ 3/8" Yellow Large Volume 72" Charging Hose



#### Series 41 R-22/404A/410A Manifold Kit (P/N 42017)

- Series 41 Manifold, 3-1/8" Gauges, psi, °F
- PLUS II™ 1/4" Hose 72" 3-Pak RYB
- PLUS II™ 3/8" Yellow Large Volume 72" Charging Hose



#### Series 41 R-134A/404A/407C Manifold Kit (P/N 41316)

- Series 41 Manifold, 2-1/2" Gauges, psi, °F
- PLUS II™ 1/4" Hose 72" 3-Pak RYB
- PLUS II™ 3/8" Yellow Large Volume 72" Charging Hose



 **MADE IN THE USA** (BACKPACK MADE IN CHINA)

# INTERNATIONAL MANIFOLD BACKPACK KITS



## 4V TITAN® R-32/410A Manifold Kit NOR EU (P/N 49940)

- TITAN® 4-Valve Manifold, 80mm Gauges, bar/psi, °F °C
- PLUS II™ 1/4" Hoses 60" RB 1/4" x 5/16", Y 1/4" Compact Ball Valve
- Yellow B-72 Charging / Evacuation Hose 3/8" x 3/8"



## 4V TITAN® R-134A/404A/407C Manifold Kit (P/N 49941)

- TITAN® 4-Valve Manifold, 80mm Gauges, bar/psi, °C
- PLUS II™ 1/4" Charging Hose 72" 3-Pak RYB, Standard 1/4" Fittings
- Yellow B-72 Charging / Evacuation Hose 3/8" x 3/8"



## 4V TITAN® R-448A/449A/452A Manifold Kit (P/N 49942)

- TITAN® 4-Valve Manifold, 80mm Gauges, bar/psi, °C
- PLUS II™ 1/4" Charging Hose 72" 3-Pak RYB, Standard 1/4" Fittings
- Yellow B-72 Charging / Evacuation Hose 3/8" x 3/8"



## 4V TITAN® Pressure Test Manifold Kit (P/N 49943)

- TITAN® 4-Valve Pressure Test Manifold, 80mm Gauges, bar/psi
- PLUS II™ 1/4" Charging Hose 72" 3-Pak RYB, Standard 1/4" Fittings
- Yellow B-72 Charging / Evacuation Hose 3/8" x 3/8"



## Series 41 Heat Pump R-32/410A Manifold Kit (P/N 42056)

- Series 41 2-Valve Heat Pump Manifold, 80mm Gauges, EU, °F °C
- PLUS II™ 1/4" Hoses 60" RB 1/4" x 5/16", Y 1/4" Compact Ball Valve



## Series 41 R-32/410A Manifold Kit (P/N 41653)

- Series 41 2-Valve Manifold, 80mm Gauges, EU, °F °C
- PLUS II™ 1/4" Hoses 60" RB 1/4" x 5/16", Y 1/4" Compact Ball Valve



**MADE IN THE USA** (BACKPACK  
MADE IN CHINA)



## 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

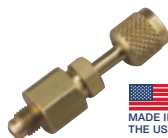


Heavy duty blue blow- molded cases are available in four different manifold/hose configurations. Includes handle and a long life top hinge.



UPC#	Description
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

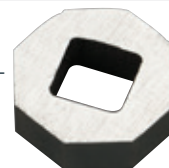


As manifold usage changes with more recovery change outs, more particulate matter is drawn through manifolds. Trap the particles with these fittings before they damage valve seats or pass into your recovery equipment. Replaceable, cleanable screens.

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 sight-glass 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
40338	Lo-side manifold R-600A
40339	Hi-side manifold R-600A/600/290
40340	Lo-side manifold R-600A/600/290
40349	Low-side manifold R-600a/290



## 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
40334	Red pressure °F; 0 - 800 psi; R-22/404A/410A
40335	Blue compound °F; 0 - 800 psi; R-22/404A/410A
40344	Red pressure °F; 0 - 800 psi; R-22/404A/410A; with quick coupler and hose
40345	Blue compound °F; 0 - 800 psi; R-22/404A/410A; with quick coupler and hose