

# ManTooth™ Wireless Products Vacuum Gauge and Vacuum, Pressure/Temperature Gauge Combination



# YELLOW JACKET®

67020 ManTooth  
Vacuum Gauge only



***Eliminate tools, save time,  
and monitor vacuum  
process wirelessly.***

The Yellow Jacket ManTooth line provides technicians with a full line of wireless, smart-phone controlled product options when servicing cooling and refrigeration systems. The Bluetooth based ManTooth family includes a vacuum-only gauge, a pressure/temperature only gauge, and a combination pressure/temperature/vacuum gauge, all available in single and dual units depending upon the needs of the service tech.

Each device utilizes a free downloadable ManTooth RSA app that calculates and displays the systems actual readings in an easy-to-read format on your iPhone, iPad, or Android device.

### Product Features:

- Interchangeable/removable vacuum gauge
- Easy-to-clean vacuum sensor
- Built-in Schrader ports for easy refrigerant charging
- Operates with and without hoses attached
- Two year warranty
- High impact glass reinforced housing
- Built-in rubber side grips
- 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 Italian.
- 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)

The YELLOW JACKET ManTooth PTV (67023) shown below provides the full set for high and low side readings which includes dual non-tethered pressure/temperature gauges, two wired temperature clamps, and one interchangeable vacuum gauge. The single ManTooth PTV (67021) can



67023 - ManTooth PTV with side grip

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.

The ManTooth Vacuum gauge only (67020) is delivered in clamshell packaging while the ManTooth PTV units are supplied in a carrying case. Cases can also be purchased separately.



Made for iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, iPhone 4s, iPhone 4, iPad Air 2, iPad Air, iPad mini 3, iPad with Retina display, iPad (4th generation), iPad (3rd generation), iPad 2

- iPhone and iPad are registered trademarks of Apple Inc., registered in the U.S. and other countries.

- Android is a trademark of Google Inc.

- The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Ritchie Engineering is under license. Other trademarks and trade names are those of their respective owners.



Designed and assembled in the U.S.A.

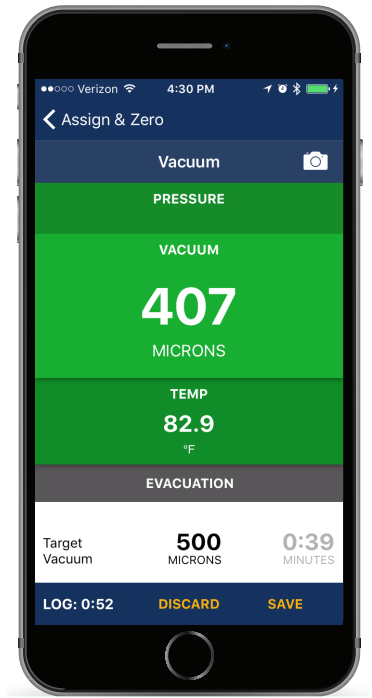
## Pressure/Temperature Specifications:

<b>Pressure Sensing Resolution</b>	0.1 psi, 0.1 bar, 1 kPa, 0.001 MPa, 0.01 kg/cm <sup>2</sup>
<b>Pressure Sensing Accuracy</b>	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
<b>Working Pressure</b>	0 – 700 psia (48.3 bar)
<b>Proof Pressure</b>	Tolerable pressure without internal damage 1000 psia
<b>Burst Pressure</b>	Tolerable pressure without loss of seal 1500 psia
<b>Temperature Sensor Range (Instrument)</b>	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)
<b>Temperature Display Resolution</b>	0.1°F or °C
<b>Temperature Accuracy (Instrument)</b>	±0.2°C (±0.36°F)
<b>Working Temperature</b>	-4°F to 160°F (-20°C to 71°C) Limited by battery
<b>Storage Temperature</b>	-4°F to 160°F (-20°C to 71°C) For best battery performance do not store at over 100°F (38°C)
<b>Working Humidity</b>	0-95% RH (non-condensing)
<b>IP Class</b>	IP 50
<b>Battery Life</b>	10+ hours continuous
<b>Range</b>	Up to 400 Feet (limited by phone or tablet Bluetooth radio strength)
<b>Bluetooth Radio</b>	Class 1 Bluetooth 2.1 Radio
<b>Size</b>	6" long x 1.6" wide x 2.3" thick (15.3 x 4 x 5.8 cm)
<b>Weight</b>	0.5 lbs (225 grams)
<b>Superheat and Subcool</b>	Automatically calculated by the ManTooth App
<b>Max. and Min. Pressures</b>	Displays and records the maximum and minimum pressures
<b>Refrigerant Database</b>	98 NIST refrigerant profiles included; upgradeable
<b>Screenshot Feature</b>	Save pressure and temperature readings from your sessions which can be automatically organized by location and unit being serviced
<b>Temperature Sensors</b>	Capable of measuring 2 temperatures using high accuracy NTC thermistors
<b>Pressure Transducers</b>	67001/67003 – one pressure transducer; 67002 – two pressure transducers
<b>System Attachment</b>	Very small internal volume minimizes refrigerant loss during system analysis Standard manifolds and hoses can lose over 50 times more refrigerant with each connection
<b>Pressure Zeroing</b>	Simple single button zeroing at the start of each session
<b>Elevation Compensation</b>	Enter elevation at the start of the session for effortless psia compensation
<b>Battery</b>	Rechargeable LiPo battery for long battery life and excellent recharging capability for the life of your ManTooth
<b>Size</b>	6.45L x 1.8W x 2.1 H including fitting (16.3 x 4.6 x 3.0 cm)
<b>Pressure Zeroing</b>	Simple single button zeroing at the start of each session (must be open to atmosphere)
<b>Battery Charging Method</b>	Cable included. Utilizes the customer's existing smart device charger)

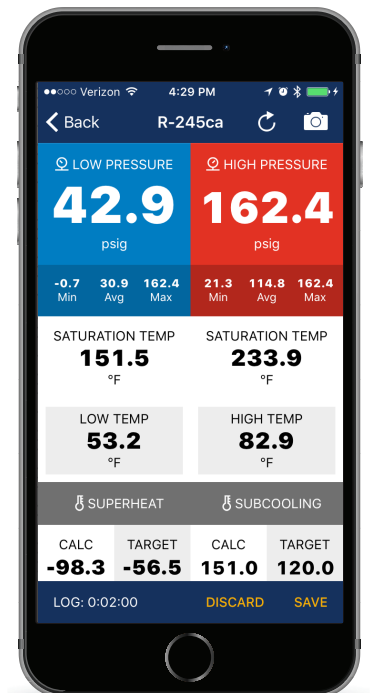
## Vacuum Specifications:

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

UPC #	Description
67001	ManTooth™ PT Single with Rubber Boot
67002	ManTooth™ PT Dual with Rubber Boot (tethered)
67003	ManTooth™ PT Dual with Rubber Booth (non-tethered)
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
67013	Boot (for 67001 and 67002)
67014	Carrying Case for 67001, 67002
67031	Carrying Case for 67020, 67021, 67023
93394	Tether cap for 67001, 67002
67032	Tether cap for 67020, 67021, 67023
19020	Hose gaskets (10 pak)
19302	Valve Depressor (10 pak)
19305	Schrader valve (10 pak)
67033	Vacuum Sensor Cleaning Kit



Vacuum Screen



P/T Screen

Ritchie Engineering Co., Inc.  
 YELLOW JACKET Products Division  
 10950 Hampshire Avenue South  
 Bloomington, MN 55438-2623 USA  
 Phone: (800)769-8370 or (952)943-1333  
 e-mail: [custserv@yellowjacket.com](mailto:custserv@yellowjacket.com)  
[www.yellowjacket.com](http://www.yellowjacket.com)

