



# YELLOW JACKET®

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

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 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)

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 be combined with an



67023 - ManTooth PTV with side grip

existing ManTooth P/T device (67001) for adding wireless vacuum capability and/or expanding it to a full system analysis tool.

The ManTooth-V 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.

Add coupler 19221 (90°) or 19121 (straight) to enable mounting on 5/16" systems.



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

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Designed and assembled in the U.S.A

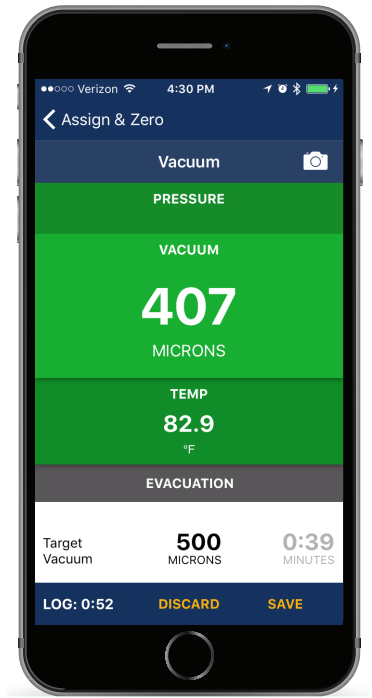
## Pressure/Temperature Specifications:

<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)

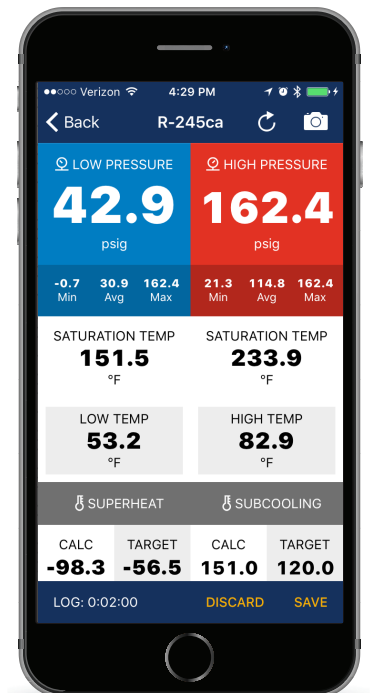
## Vacuum Specifications:

<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 Boot (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 (67001, 67002, 67020, 67021, 67023)
93394	Tether Cap for (67001, 67002, 67021, 67023)
19020	Hose Gaskets (10 pak)
19121	Straight 5/16" Flare Quick Connect x 1/4" Male Flare Coupler
19221	90° 5/16" Flare Quick Connect x 1/4" Male Flare Coupler
19302	Valve Depressor (10 pak)
19305	Schrader Valve (10 pak)



Vacuum Screen



P/T Screen

P/N 10139

