The VCMM® is HERE!!!

The Vehicle Communication & Measurement Module (VCMM®) combines all of the functionality of the VMM, VCM II, and MTS 4000/4100 vibration analyzer in an industry leading one-box solution. The combining of this functionality will provide dealers with industry leading diagnostic capability at a significantly lower cost of ownership.

KEY FEATURES

- Vehicle Communication (VCM II capability)
- Customer Flight Recorder capable
- 4-channel oscilloscope
- · 4-Channel digital multi-meter
- · Vibration analysis
- Driveline balance
- Signal generator
- · More functionality to come ...





VCMM Exclusive Features Makes Using The Scope Easier!!



4-Channel Oscilloscope with Direct 5th Channel DLC Access

- Four independent (differential) input channels
- A fifth high-speed channel that can directly monitor CAN signals at the DLC connector without the need of flex probes. DLC connector pin/s for measurement are selectable

- Storge ON three channel X ON2 X

 | Regine Speed: 0 RPM | Channel | Channel
- Improved scope user interface
- Channel signals can be repositioned via menu selection or by drag and drop
- Capture/record capability to assist in capturing intermittent issues
- Advanced triggering capability
- New "Time/Angle" time based settings (CKP/CMP timing diagnostics)
- Preconfigured setup configurations for common signals

Easier -To-Use Oscilloscope Interface

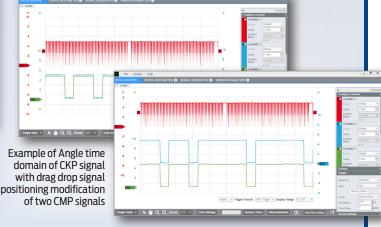
Signal Trigger Options

- Multiple signal triggering options provides the technician the ability to trigger/target on specific areas of measured signals
- Extra pulse/missing pulse allows the technician to target signals with repetitive signals where signal amplitudes are the same. Example: Hall Effect crankshaft/camshaft position signals
- Time/angle domain allows the user to see a full 360 or 720 degrees of crankshaft rotation for complex camshaft to crankshaft alignment tests. (Variable cam timing systems)



Drag and Drop Signal Positioning

 Allows the user the ability to shift the signal vertical offset/position on the screen by simply dragging the screen channel ID with a mouse, touchpad or touchscreen!



| The color | The

Oscilloscope Data Recordings

- Allows the user to review intermittent signals without the need to setup complex triggers
- Recordings are displayed in frames to allow the user to take a quick glimpse of data before attempting to manipulate the images
- Areas of recorded signals in question can be zoomed
- Recordings can be saved and forwarded to engineering for analysis assistance

4-Channel Digital Multi-Meter



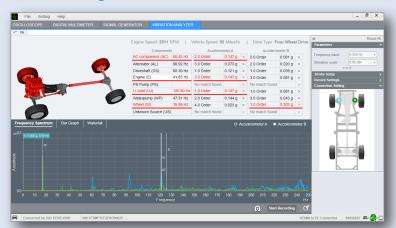
Two Channel Graphing Digital Multimeter

- Monitor up to four independent readings at the same time.
 Measurements can be a combination of any of the following:
- DC or AC voltage
- Resistance
- Continuity
- Pulse width
- Frequency
- Period

- DC current
- AC current
- Pressure
- Temperature
- Graphing DVOM for up to two channels simultaneously
- Capture/record history. Long duration recording capability for overnight or multi-day data logging

Integrated Vibration Analysis Software!!

- Similar functionality to the MTS 4000/4100 (Principle component display, system bar graph and waterfall display)
- Improved user interface
- Vibration data recording capability
- "NVH Timing Light Inductive Loop" for improved component identification
- Optional second vibration transducer/sensor*
- Optional dual plane driveline balance*
- *Requires Advanced Kit



Signal Generator



- User configurable settings for signal waveform type, voltage level and frequency. Waveform types include:
 - Sine wave*
 - Square wave*
 - Triangle wave*
 - Pulse generator*
- DC voltage*
- Arbitrary* (future functionality)
- Greater signal adjustability and flexibility when compared to VMM hardware
- Verify the integrity of a vehicle system's input wiring and module's internal measurement capability
- Signal generator displays desired signal as well as actual signal output

*Allows the user to see if signal output is being overloaded or is overlapping another vehicle signal.

VCMM® Provides Better Organization!!!

Find What You Need, When You Need It!

Carrying Case

 Twelve hook and loop lead partitions for organizing and



- · Four zippered compartments for storage of wiring probe ends
- Vented/protected fuel adaptor storage compartments
- Shoulder carry strap for easier transport
- Detachable compartments for taking certain components in protected casings without the need to take the entire kit

Measurement Lead Probes

- Probes are stored in three re-sealable plastic containers for easy access
- Pencil leads for conventional DVOM testing
- Two sizes of alligator clips
- Assortment of terminal flex probes
- Four flexible universal probes



ITEM	BASE KIT	ADVANCED KIT	WITH PANASONIC CF-54
VCMM Unit	Х	X	X
Wireless Communications with Host (2 ea. WiFi Adapters)	Х	X	X
DLC Cable	Χ	X	X
USB Cable	Χ	X	X
Storage Case	Χ	X	X
External Power Cable (Battery)	Χ	X	X
USB Drive with Quick Start Guide	Χ	X	X
Test Lead: Red	Χ	X	X
Test Lead: Blue	Х	Х	X
Test Lead: Yellow	Χ	X	X
Test Lead: Green	Χ	Χ	X
Kit of All Probe Tips and Alligator Clips Probe Tips: Red, Blue, Yellow, Green, Black Alligator Clips: Small Red, Small Blue, Small Yellow Small Green, Small Black (4), Large Black (2)	, X	х	x
Universal Probe Tip Adapter (Set of 4)	Х	Х	X
Low Current Probe	Χ	X	X
High Current Probe	Χ	X	X
Pressure Vacuum Transducer (PVT)	Χ	X	X
Fuel Hose Assembly	Χ	X	X
Transmission Extension Hose	Χ	X	X
Red Probe with Tick	Χ	X	X
Probe Tip Adapters (Set of 19)	Х	Х	X
Temperature Probe	Χ	X	X

VCMM® KIT ITEMS LIST AND PRICING

Base Kit Item #164-R9822 **Advanced Kit** Item #164-R9823

Advanced Kit With Panasonic CF-54

Item #164-R9824

Vibration Analyzer Accelerometer "A" **NVH Timing Light Inductive Loop**

Secondary Ignition Transducer Cables (Set of 4)

Coil-On Plug Ignition Transducer Clips (Set of 4)

Secondary Ignition Transducer Probes (Set of 4)

Vibration Analyzer Accelerometer "B"

AC/DC Power Supply

Driveline Balance Kit

Panasonic CF-54



Χ

Χ

X

Χ

X

X

X

X

X

X

X

X

X