VERUS® Edge EEMS330

BID SPECIFICATION

Snap-on® VERUS Edge
Diagnostic & Information System

PRODUCT FEATURES
- Upgradeable ShopStream® integrated diagnostic software suite, comprising: scanner, scope, component test, data manager, TSBs, SureTrack® information, vehicle history and optional repair information system
- 4-channel lab/ignition scope
- Graphing scan tool with wireless scan module
- Web access to SureTrack expert information system
- Web access to Technical Service Bulletin database
- Web access to Oil Specs and Resets
- Oil Specs and Reset data
- Domestic and Asian Fast-Track® Troubleshooter
- Fast-track Reference Database
- Digital Graphing Multimeter
- Customer/Vehicle information database application
- Data manager application
- Wi-Fi capable and open Internet browser
- Factory-installed Antivirus Security Essentials

DISPLAY TABLET
- 10.1” Color LCD, 1280x800 capacitive touchscreen
- 1.8 GHz, 32 bit, Quad-Core Intel® Celeron processor
- 64 GB internal Solid-State Drive
- Internal battery with approx. 5 hour run time
- Power-saving Ready Mode with 5 second startup
- Internal audio microphone and speaker
- Audio output port, auxiliary port
- Docking connector for video output and charging
- Two USB ports for peripheral device connection
- 802.11b/g/n wireless and Bluetooth® 2.1 communication

SYSTEM & USER INTERFACE
- Windows®-Embedded Standard 7 operating system
- Open system allows user-installed software
- Application multitasking capability
- User-specified display options
- Touchscreen navigation
- On-screen virtual keyboard

STANDARD ACCESSORIES
- Scan module with wireless interface to display tablet
- Scope module with USB interface to display tablet
- Vehicle communication interface cable and OBD-II adapter
- Four shielded, color-coded scope leads
- 110VAC adapter/charger
- Removable 11.1V Lithium-ion battery pack
- Custom-fit storage case

SCAN TOOL SOFTWARE SPECIFICATIONS
- Instant ID (Auto ID using Mode 9 VIN)
- Oil Specs and Reset data
- One-Touch full-vehicle code scan & clear for covered makes and systems
- Snap-on vehicle communication and Fast-Track Troubleshooter software included
- SureTrack includes Real Fixes and verified parts replacement records harvested from millions of actual completed repair orders. Expert information that can help anyone, regardless of experience level and is included every time you upgrade to the current version of software.
- Reads & clears OBD-II and OEM-specific trouble codes
- Displays complete trouble code descriptions
- Displays from one to sixteen live data parameters (PIDs) simultaneously in graphing mode
- Adjustable sweep; Min/Max capture in graphing mode
- Includes functional tests, bi-directional controls and reset/relearns
- Save codes, data movies and screen images

VEHICLE COVERAGE
- Enhanced coverage for US domestic vehicles, including: Buick®, Cadillac®, Chevrolet®, Chrysler®, Dodge®, Eagle®, Ford®, Geo®, GMC®, Harley-Davidson®, Hummer®, Jeep®, Lincoln®, Mercury®, Oldsmobile®, Plymouth®, Pontiac®, Ram®, Saturn®, Spartan®, Sprinter®, Workhorse®
- Enhanced coverage for Asian vehicles, including: Acura®, Honda®, Hyundai®, Infiniti®, Isuzu®, Kia®, Lexus®, Mazda®, Mitsubishi®, Nissan®, Scion®, Subaru®, Suzuki®, Toyota®
- Optional European vehicle software with enhanced coverage for Alfa Romeo®, Audi®, BMW®, FIAT®, Jaguar®, Land Rover®, MINI®, Mercedes-Benz®, Porsche®, SMART®, Volvo® and Volkswagen®

SYSTEM COVERAGE
VERUS Edge covers over 100 systems:
VERUS® Edge EEMS330
BID SPECIFICATION

Battery Management, Seat, Trailer Brake, Transfer Case, Telephone, Final Drive, Fuel Pump, Security, Service Interval, Rear Gate/Trunk, Pneumatic System Equipment

LAB SCOPE SPECIFICATIONS
Captures and displays live signals up to four waveforms on screen in real time

- 4 Channels
- 6 MSPS Sample Rate
- 3 MHS Bandwidth

Note: Also, see SCOPE/METER SYSTEM SPECIFICATIONS at end of this document.

- Displays digital readout along with each waveform to determine voltage at the selected point on the waveform
- Color-coded waveform for each channel
- Manual & automatic display configuration for each channel
- Snapshot: Capture data over time saved into a buffer
- Easy Scroll: Streamlines selection of menu and toolbar
- AC Coupling: Provides the ability to enlarge the alternating current (AC) component of a signal for closer examination
- Invert: Flip waveform to adjust for flexible hookups and easier viewing
- Auto Config: Automatically pre-configure the vertical scale
- Load Configuration: Select factory preset screens or define a custom setup and retrieve them as needed – diagnostic tasks most frequently performed on specific components can be selected to view the performance of sensors, actuators and circuits on a vehicle
- Peak Det: User selectable for capturing hi-speed signals

DIGITAL & GRAPHING MULTI METER

SPECIFICATIONS

- Auto scaling, high-impedance multimeter
- Digital and graphing display of results
- Pinpoint measurement of:
  - DC volts, AC Volts RMS, Ohms, Frequency, Pulse-width, Injection pulse-width, Duty cycle
  - Interface for optional amp probe and pressure/vacuum transducers
  - Continuity tester with audible beep

POWER/WEIGHT/DIMENSIONS

Display Tablet

- Power: 11.1V Lithium-ion battery pack
- Dimensions: 12.4"W x 8.2"H x 2.0"D
- Weight: 4.4 lbs – with battery and scope module

Scope Module

- Power: 5VDC supplied through Display Tablet connection
- Dimensions: 6.3"W x 4.6"H x 1.1"D
- Weight: .6 lbs

Scan Module

- Power: 12-24VDC supplied through vehicle data link connector
- Dimensions: 8.0"L x 1.7"H x 3.8"W
- Weight: .9 lbs

OPTIONAL ACCESSORIES

- Screen Protector - EAC0107L19A1
- Charging/Docking Station w/USB Hub - EAA0418L04A
- Portable 5-Gas Analyzer - EEEA305APC
- Extended Warranty
- Custom-fit Foam Drawer Organizer for Snap-on 3-series Roll Carts - VERUSEFOAM3
- Custom-fit Foam Drawer Organizer for Snap-on 4-series Roll Carts - VERUSEFOAM4
- ShopKey Pro Repair Information System

OPTIONAL ACCESSORIES - SCAN TOOL

- Domestic/Asian OBD-I Adapter Kit – EAK0301B10A
- European Vehicle Software Activation - EESPN300E
- European Vehicle Adapter Kit – EAK0301B07C
- Adapter for Kia ABS & Airbag – EAA0355L92A
- Scanner Simulation/Demo Prop - EESX306SC

OPTIONAL ACCESSORIES - IGNITION ADAPTERS

- Ignition Scope Lead Set - EAK0294B09A
- EETA309A15 - Multiple Ignition Lead Module
- Ignition adapters
- EETM306A03 COP-1 Ford
- EETM306A04 COP-2 Chrysler
- EETM306A05 CIC-2 Honda, Toyota
- EETM306A06 CIC-1 GM
- EETM306A07 COP-3 Audi, VW
- EETM306A08 COP-4 Acura/Honda, Isuzu
- EETM306A09 COP-5 Volvo/BMW
- EETM306A10 COP-6 Mercedes
- EETM306A11 COP-7 Mercedes Dual
- EETM306A12 COP-8 BMW
- EETM306A13 COP-9 Lexus
- EETM306A14 COP-11 Audi, BMW, Chrysler, Jeep, Lexus, Mercedes, Saab, Toyota, Volvo, VW

OPTIONAL ACCESSORIES - LAB SCOPE/METER

- Precision Low Amp Current Probe - EETA308D
- Pressure Transducer "Y" Adapter Cable – EAX24B40A
- Split Lead Adapter - EEMS301A05
- 100 PSI Pressure/Vacuum Transducer w/cable - EEPV302AL
- 500 PSI Pressure/Transducer w/cable - EEPV302AT
- 5000 PSI Pressure/Transducer w/cable - EEPV302AH
- Transducer Extension Cable - EAX0024B30A
- Scope Simulation/Demo Prop - EESX306SP

diagnostics.snapon.com/VERUSEdge
**SCOPE/ METER SYSTEM SPECIFICATIONS**

### MULTI METER

<table>
<thead>
<tr>
<th>Function</th>
<th>Range</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channels</td>
<td>1 – 2</td>
<td>Common Ground</td>
</tr>
<tr>
<td>Sample Rate</td>
<td>6.0 MSPS</td>
<td>Simultaneous</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>DC – 3 MHz</td>
<td>3 db point @ 3 MHz</td>
</tr>
<tr>
<td>Input Impedance</td>
<td>10 MΩ @ DC</td>
<td>All channels</td>
</tr>
<tr>
<td></td>
<td>5.8 kΩ @ 3MHz</td>
<td></td>
</tr>
<tr>
<td>V dc (Full Scale)</td>
<td>75 V maximum</td>
<td></td>
</tr>
<tr>
<td>V ac (Full Scale)</td>
<td>50 V maximum</td>
<td></td>
</tr>
<tr>
<td>Peak to Peak Voltage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DIGITAL METER OHMS AND DIODE CONTINUITY TESTS

<table>
<thead>
<tr>
<th>Function</th>
<th>Range</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channels</td>
<td>3 – 4</td>
<td>Inputs between channels 3 (-) and 4 (+)</td>
</tr>
<tr>
<td>Input Impedance</td>
<td>10 MΩ</td>
<td></td>
</tr>
<tr>
<td>Glitch capture</td>
<td>Approximately 50 mS</td>
<td></td>
</tr>
<tr>
<td>Ohms</td>
<td>400 Ω – 40 MΩ</td>
<td>Fixed scales or Auto Ranging</td>
</tr>
<tr>
<td>Diode Test</td>
<td>2 V Scale</td>
<td></td>
</tr>
</tbody>
</table>

### GRAPHING MULTI METER

<table>
<thead>
<tr>
<th>Function</th>
<th>Range</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Channels</td>
<td>1 – 2</td>
<td></td>
</tr>
<tr>
<td>Input Impedance</td>
<td>10 Megohm</td>
<td></td>
</tr>
<tr>
<td>Volts (DC)</td>
<td>400 mV thru 400V*</td>
<td>Auto Ranging</td>
</tr>
<tr>
<td>Frequency</td>
<td>5 Hz thru 50 KHz</td>
<td>Auto Threshold Setting</td>
</tr>
<tr>
<td>Pulse Width</td>
<td>5 ms thru 2 s</td>
<td>Auto Threshold Setting</td>
</tr>
<tr>
<td>Inj Pulse Width</td>
<td>5 ms thru 2 s</td>
<td></td>
</tr>
<tr>
<td>MC Dwell (60)</td>
<td>20 - 40 - 60 degrees</td>
<td>Auto Threshold Setting</td>
</tr>
<tr>
<td>MC Dwell (90)</td>
<td>30 - 60 - 90 degrees</td>
<td>Auto Threshold Setting</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>20 - 40 - 60 - 80 - 100%</td>
<td>Auto Threshold Setting</td>
</tr>
<tr>
<td>Low Amps (20)</td>
<td>1 - 2 - 5 - 10 - 20A</td>
<td>With EETA308D</td>
</tr>
<tr>
<td>Low Amps (40)</td>
<td>10 – 20 - 40A</td>
<td>With EETA308D</td>
</tr>
<tr>
<td>Low Amps (60)</td>
<td>10 – 20 – 40 – 60A</td>
<td>With EETA308D</td>
</tr>
<tr>
<td>Vacuum</td>
<td>5 - 10 - 20 in Hg</td>
<td>Sensor specific</td>
</tr>
<tr>
<td>100 psi Pressure</td>
<td>10 - 25 - 50 - 100 PSI</td>
<td>Sensor specific</td>
</tr>
<tr>
<td>500 psi Pressure</td>
<td>50 - 100 - 250 - 500 PSI</td>
<td>Sensor specific</td>
</tr>
<tr>
<td>5000 psi Pressure</td>
<td>500 - 1000 - 2500 - 5000 PSI</td>
<td>Sensor specific</td>
</tr>
</tbody>
</table>

* See Safety Warnings in VERUS Edge user manual
LAB SCOPE

<table>
<thead>
<tr>
<th>Function</th>
<th>Range</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channels</td>
<td>1 – 4</td>
<td>Common Ground</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>DC - 3 MHz</td>
<td>3 db point @ 3 MHz</td>
</tr>
<tr>
<td>Input Impedance</td>
<td>10 MΩ @ DC, 4 kΩ @ 3 MHz</td>
<td>All channels</td>
</tr>
</tbody>
</table>

Vdc (full scale)  
Do not test greater than 75Vdc

Vac (full scale)  
Do not test greater than 50Vdc (rms)

Peak to Peak Voltage  
Do not test greater than 50Vdc (rms)

LAB SCOPE SPECIFICATIONS BY SWEEP RATE

<table>
<thead>
<tr>
<th>Sweep</th>
<th>Channels</th>
<th>Data points per screen</th>
<th>Buffer storage/Ch</th>
<th>Max # Screens</th>
<th>Total time 1</th>
<th>Sample rate 2</th>
<th>Peak Detect 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 µs</td>
<td>Ch 1 only</td>
<td>300</td>
<td>524,288</td>
<td>1747</td>
<td>87.3 ms</td>
<td>6.0 MHz</td>
<td>N</td>
</tr>
<tr>
<td>100 µs</td>
<td>Ch 1,2 only</td>
<td>300</td>
<td>261,120</td>
<td>870</td>
<td>87.0 ms</td>
<td>3.0 MHz</td>
<td>N</td>
</tr>
<tr>
<td>200 µs</td>
<td>Ch 1,2,3,4</td>
<td>300</td>
<td>131,040</td>
<td>436</td>
<td>87.2 ms</td>
<td>1.5 MHz</td>
<td>N</td>
</tr>
<tr>
<td>500 µs</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>131 ms</td>
<td>1.0 MHz</td>
<td>N</td>
</tr>
<tr>
<td>1 ms</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,040</td>
<td>262</td>
<td>262 ms</td>
<td>500 KHz</td>
<td>Y</td>
</tr>
<tr>
<td>2 ms</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,040</td>
<td>262</td>
<td>524 ms</td>
<td>250 KHz</td>
<td>Y</td>
</tr>
<tr>
<td>5 ms</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,040</td>
<td>262</td>
<td>1.3 S</td>
<td>100 KHz</td>
<td>Y</td>
</tr>
<tr>
<td>10 ms</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,040</td>
<td>262</td>
<td>2.6 S</td>
<td>50 KHz</td>
<td>Y</td>
</tr>
<tr>
<td>20 ms</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>5.2 S</td>
<td>25 KHz</td>
<td>Y</td>
</tr>
<tr>
<td>50 ms</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>13.1 S</td>
<td>10 KHz</td>
<td>Y</td>
</tr>
<tr>
<td>100 ms</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>26.2 S</td>
<td>5 KHz</td>
<td>Y</td>
</tr>
<tr>
<td>200 ms</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>52.4 S</td>
<td>2.5 KHz</td>
<td>Y</td>
</tr>
<tr>
<td>500 ms</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>2.2 M</td>
<td>1.0 KHz</td>
<td>Y</td>
</tr>
<tr>
<td>1 s</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>4.3 M</td>
<td>500 Hz</td>
<td>Y</td>
</tr>
<tr>
<td>2 s</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>8.7 M</td>
<td>250 Hz</td>
<td>Y</td>
</tr>
<tr>
<td>5 s</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>21.8 M</td>
<td>100 Hz</td>
<td>Y</td>
</tr>
<tr>
<td>10 s</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>43.7 M</td>
<td>50 Hz</td>
<td>Y</td>
</tr>
<tr>
<td>20 s</td>
<td>Ch 1,2,3,4</td>
<td>500</td>
<td>131,070</td>
<td>262</td>
<td>87.3 M</td>
<td>25 Hz</td>
<td>Y</td>
</tr>
</tbody>
</table>

* See Safety Warnings in VERUS Edge user manual

1 - Total time is equal to the sweep times the number of frames.

2 - Actual sample rate for sweeps 50-200 µs. Effective sample rate for sweeps 500 µs and longer. The effective sample rate is based on the number of sample points stored to the data buffer memory over the selected time sweep. On all sweeps 500 µs and longer, the ADC samples at 1.5 MHz per channel regardless of sweep. The number of sample points is greater than the number of points needed to complete a screen. Only enough points to complete a screen are selected to be stored to the data buffer. This results in the effective sample rate being lower than the actual sample rate of 1.5MHz.

3 - When Peak Detect is on, all samples are evaluated. The points stored to the buffer are intelligently selected to capture fast events that might be missed at slower effective sample rates. Peak Detect will capture fast changes at an effective sample rate of 1.5MHz.