VERUS® Wireless EEMS325

BID SPECIFICATION

- Includes functional tests, bidirectional controls and reset/readonlys
- Save screen captures and scanner movies
- Optional European vehicle software with enhanced coverage for Alfa Romeo, Audi, BMW, FIAT, Jaguar, Land Rover, MINI, Mercedes, Porsche, SMART, Volvo and VW

GLOBAL OBD-II VEHICLE COMMUNICATION SOFTWARE
- Communicates with 1995 and newer OBD-II compatible vehicles
- Automatically establishes communication with the appropriate vehicle protocol
- Displays active communication protocol information
- Tests system readiness status

10 Modes of OBD-II
- Mode 1: graphs or displays current data
- Mode 2: retrieves freeze frame data
- Mode 3: monitors diagnostic trouble codes
- Mode 4: clears emissions related data
- Mode 5: oxygen sensor monitoring
- Mode 6: non-continuously monitored systems
- Mode 7: diagnostic trouble codes detected during last drive
- Mode 8: bi-directional controls (where available)
- Mode 9: displays important vehicle information
- Mode 10: permanent codes

GM VEHICLE COMMUNICATION SOFTWARE 1980 – 2015
- Enhanced OBD-I, OBD-II & Generic OBD-II modes
- Front View Camera
- Radio/HVAC
- Headlamp Modules
- Auxiliary Body Controls
- Air Suspension
- Active Grille Air Shutter Module
- Object Detection
- Telematics
- Seat Modules
- Rollover Sensor for Safety Systems
- 6.6L Crankshaft Position (CKP) Sensor Test
- Passenger Presence
- Diesel Power Balance Test
- Vehicle Theft Deterrent Codes, Data & Indicator Status
- Radio Systems Codes, Data & Test Including VIN Write
- HVAC Actuator & Recallibration
- 6.6L Turbo Tests
- Theft Deterrent, Keyless Entry and Remote Function Actuation
- ABS & Air Bag GM symptom codes
- Brake Pedal Pressure (BPP) Relearn
- Engine Bi-Directional Testing, incl. EVAP Monitor Test and EVAP System Testing, Output Controls, Injector Balance, ICB, IAC, EGR, Crank Pos Relearn
**VERUS® Wireless EEMS325**
- **BID SPECIFICATION** -

**FORD VEHICLE COMMUNICATION SOFTWARE 1981 – 2015**
- Enhanced OBD-I, OBD-II & Generic OBD-II modes
- Injector Balance and Relative Compression Engine Tests
- Injector Quantity Adjustment and Injector Buzz Diesel Engine Test
- Clutch Tests and Relearn for Auto Shifting Manual Transmissions
- Airbag Sub-Codes
- PATS Key Programming (CAN Vehicles)
- Battery Monitor
- Crankshaft Position (CKP) Relearn
- Engine Functional Tests
- EVAP
- Code Scan and Clear All Codes
- CAN UDS Auto-ID
- Door and Window Modules
- 6.4L Tests and Turbo PIDs
- 6.7L Diesel Particulate Filter (DPF) Tests
- 6.7L Functional Tests
- 6.4L DPF Manual Regeneration
- Ford/Lincoln Air Suspension Re-calibration
- OEM Sub codes
- Engine Bi-Directional Testing, incl. EEC V engine controls, EVAP System Testing, Cold Soak Test, 7.3 Powerstroke Cylinder Contribution
- EGR functional test & Injector power balance 6.0 diesel engines
- Vane Turbo Functional Test 6.0 diesel
- Cylinder Contribution test - includes non-CAN, CAN and UDS Vehicles, where applicable
- Transmission Bi-Directional Testing, incl. Transmission Bench and Drive Tests, Gear Command, Adaptive Learning, Trans Table Resets
- ABS Diagnostics, Brake Bleeding and Pump Motor Test, incl. Bosch, Teves, and Kelsey-Hayes
- Air suspension codes, data, functional test

**CHRYSLER VEHICLE COMM SOFTWARE 1983 – 2015**
- Enhanced OBD-I, OBD-II & Generic OBD-II modes
- Engine, Transmission, ABS, Airbag, Body, Occupant Classification Module, Central Gateway, Instrument Panel, Transfer Case Diagnostics, HVAC, Steering angle sensor, ESP, Door Modules, Park Assist, Central Gateway, Instrument Panel, Transfer Case Diagnostics, Code Scan
- Active Dampening
- Blind Spot Module
- Adaptive Cruise Control
- Particulate Filter Replacement & Fuel Filter Life Reset Function - Diesel engines where applicable
- Transmission Bi-Directional Testing, incl. Solenoid Tests, Trans Shifting and Adaptive Resets
- ABS Diagnostics and Brake Bleeding
- Dash and Rear Integration Modules
- 2004 and newer Key Fob Programming

**ASIAN VEHICLE COMM SOFTWARE 1983 – 2015**
- Enhanced OBD-I, OBD-II & Generic OBD-II modes
- In-depth Engine (including Hybrid), Transmission, Airbag & ABS, (HVAC, Instrument panel, TPMS, Cruise Control, certain OEMs), Code Scan Clear All Codes, Power Steering coverage for the most popular Asian Import vehicle makes:
  - Acura, Daihatsu, Honda, Hyundai, Infiniti, Isuzu, Kia, Lexus, Mazda, Mitsubishi, Nissan, Scion, Subaru, Suzuki, Toyota
- Honda Engine Control Module (ECM) Replacement Function
- Honda Transmission Control Module (TCM) Replacement Function
- Hyundai Body Control Module (BCM)
- Hyundai/Kia/Mazda Occupant Classification Module (OCM)
- Mazda Engine and ABS Functional Tests
- Mitsubishi Vehicle Coding
- Nissan/Infiniti Intelligent Key System
- Hyundai / Kia Advanced Safety Systems (Smart Cruise Control, Lane Departure Warning, Blind Spot Detection Systems)
- Mitsubishi Timing Chain Maintenance Functions
- Toyota / Lexus Park Assist System
- Toyota Multiple Freeze Frame
- Mazda Sub Codes
- Suzuki Code Scan
- Nissan Electronic Power Steering (EPS)
- Honda Adaptive Cruise, Collision and Lane Module, Blind Spot Info
- Hyundai/Kia Electronic Park Brake
- Toyota Push Start Button
- Toyota Electronic Activated Control (EAC) Mounts
- Toyota/Mazda Auto-ID
- Suzuki 4WD and Power Steering
Fast-Track Troubleshooter

- Solutions for ABS-related codes through 2015 models
- Symptom-based tips for 2015 models and earlier
- 24 vehicle makes supported
- Additional reference material and service bulletins
- Electronic Steering & Alignment functions

Fast-Track Troubleshooter Reference Database
- Reference information for 24 vehicle makes accessed on-screen directly via hotlinks from the scan tool
- OEM-sourced information, including diagnostic reference information from TSBs, service manuals, test procedures, vehicle specifications, schematics, wiring diagrams and more
- Coverage for drivability, transmissions and brake systems

Domestic/Asian Import Driveability

- Toyota/Lexus/Scion Transmission, Park Brake and Main Body
- Honda Vin Programming
- Honda/Acura Adaptive Cruise Control
- Hyundai/Kia Cylinder Power Balance
- Subaru TPMS
- Nissan/Infiniti HVAC Codes, Data & Test
- Suzuki HVAC Codes, Data & Test
- Mazda EVAP Test
- Hyundai & Kia Power Intelligent Control System
- Honda Civic and Acura Hybrid Brake
- Suzuki TPMS Systems
- Toyota Air Injection Test
- Mazda ABS Function Tests
- Lexus Air Suspension
- Toyota VIN Writing, Immobilizer System, Engine Memory Reset and Door/Mirror Modules
- Honda & Acura Occupant Detection
- Nissan Intelligent Cruise Control
- Hyundai, Kia and Mitsubishi PCM VIN Write

Domestic/Asian Import Transmission

- Domestic 1981 through 2015 model year
- Asian import 1981 - 2015
- Electronic Controlled Transmission/transaxle coverage
- Service bulletin coverage
- Additional Fast-Track data scan tips
- Transmission functional test insight
- Hundreds of transmission wiring diagrams

Digital & Graphing Multi Meter Specifications

- Auto scaling, high-impedance multimeter measurement system
- 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

- Line power: 110/17V adapter/charger included
- Battery: Lithium-ion battery pack included
- Weight: 7.7 lbs – VERUS platform with battery
- Dimensions: 14.4"W x 9.2"H x 3.4"D

Optional Accessories - Scan Tool

- Domestic/Asian OBD-1 Adapter Kit 2 – EAK0288B04B
- European Vehicle Software Activation – EEESP323E
VERUS® Wireless EEMS325
- BID SPECIFICATION -

• 2000 – 2009 Volvo Vehicle Communication Software
• European Vehicle Adapter Kit – EAK0301B07B
• Adapter for Kia ABS & Airbag – EAA0355L92A

OPTIONAL ACCESSORIES – IGNITION ADAPTERS
• EETA309A15 – Multiple Ignition Lead Module
• EETM306A03 COP-1 Ford
• EETM306A04 COP-2 Chrysler
• EETM306A05 CI-C2 Honda, Toyota
• EETM306A06 CI-C1 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 – VERUS PLATFORM
• External Battery Pack Charger – EAE0059L07A
• Charging/Docking Station w/USB Hub – EAK0294B02A
• Maintenance Kit – EAK0294B08A
• Silicone Protective Skin – Black – EAC0101L70A1
• Silicone Protective Skin – Blue – EAC0101L70A2
• Silicone Protective Skin – Red – EAC0101L70A3
• Portable 5-Gas Analyzer – EEEA305APC

OPTIONAL ACCESSORIES – LAB SCOPE/METER
• Precision Low Amp Current Probe – EETA308D
• Ignition Scope Lead Set – EAK0294B09A
• 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
• Waveform Emulation Demo Board – EESX306A

NOTE: Scan tool coverage varies by model. Information current as of 2/16/2016. Subject to change without notice.
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></td>
<td>1.5 MSPS</td>
<td>Continuous per channel</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></td>
<td></td>
</tr>
<tr>
<td>Peak to Peak Voltage</td>
<td>50 V maximum</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>Auto Threshold Setting</td>
</tr>
<tr>
<td>Input Impedance</td>
<td>10 Megohm</td>
<td>Auto Threshold Setting</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>Auto Threshold Setting</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 EETA308A</td>
</tr>
<tr>
<td>Low Amps (40)</td>
<td>10 - 20 - 40A</td>
<td>With EETA308A</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>
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* See Safety Warnings
**LAB SCOPE**

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| Vdc (Full Scale) and            | 400 Volts              |                        |
| Vac (Full Scale)                | 200 Volts              |                        |
| Peak to Peak Voltage            | 100 Volts              |                        |
|                                 | 50 Volts               |                        |
|                                 | 20 Volts               |                        |

| RPM Measurement                 | 1 – 10000 RPM          | Channels 1 and 2       |

<table>
<thead>
<tr>
<th>LAB SCOPE SPECIFICATIONS BY SWEEP RATE</th>
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<tbody>
<tr>
<td><strong>Sweep</strong></td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>50 µs</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>100 µs</td>
</tr>
<tr>
<td>200 µs</td>
</tr>
<tr>
<td>500 µs</td>
</tr>
<tr>
<td>1 ms</td>
</tr>
<tr>
<td>2 ms</td>
</tr>
<tr>
<td>5 ms</td>
</tr>
<tr>
<td>10 ms</td>
</tr>
<tr>
<td>20 ms</td>
</tr>
<tr>
<td>50 ms</td>
</tr>
<tr>
<td>100 ms</td>
</tr>
<tr>
<td>200 ms</td>
</tr>
<tr>
<td>500 ms</td>
</tr>
<tr>
<td>1 s</td>
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<tr>
<td>2 s</td>
</tr>
<tr>
<td>5 s</td>
</tr>
<tr>
<td>10 s</td>
</tr>
<tr>
<td>20 s</td>
</tr>
</tbody>
</table>

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

3 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.

4 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.