

ZEUS™ EEMS342

BID SPECIFICATION



Snap-on® ZEUS
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

- Compact scan module with built in flashlight
- 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
- Touchscreen stylus

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
- 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

ZEUS covers over 100 systems:

Collision Prevention Assist, Roll Bar System, Global OBD-II Engine, Junction Box, Gear Selector, Transmission, Headlamp, Central Gateway, Regenerative Brake, ABS Brakes, Electric Power Steering, Throttle, Lane Departure Warning, Hybrid, Column Lock, Instrument Cluster, Heated Steering Wheel, Steering Column, Navigation, Driver Info, Body, Airbag, Sunroof, Stereo Amplifier, Telematics, Radio Receiver, Roof, Accessory Power, Chassis, Occupant Classification, TPMS, CAN Gateway, Doors, Heater Booster, Auto Sway Bar, Wireless, Catalytic Reduction, Servo, Transfer Box, Hydraulic Booster, Wheel Alignment, Running Board, Back Up Camera, System Selection, Digital Signaling Processing, Parking Brake, Cornering Light, Turn Signal, Power Trunk, Remote Function Actuator (RFA), Driver Controlled Center Differential, Anti-Collision, Headlamp Leveling, Active Engine Mounts, Electric Motor, Fuel Injection, 4WD, Vacuum Pump, Info Center, Glow Plug, Park Assist, Start, DC-DC Converter, Belt Tensioner, Footwell, Steering Sensor, Wiper, Rain Sensor, Head Up Display, Power Mirror, HVAC, Comfort Systems, Lighting, Lane Camera, Cruise Control, Center Console, Power Source, Satellite Radio, Image Processing, Hands-free, Suspension, Keyless Entry, Convertible Top, Power Management, Side Obstacle Detection, Restraints, Secondary OBD A&C, Stability,

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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
- Autofind: 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 Detect: User selectable for capturing hi-speed signals

DIGITAL & GRAPHING MULTIMETER 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 Organizers for Snap-on 3-series Roll Carts - VERUSEFOAM3
- Custom-fit Foam Drawer Organizers for Snap-on 4-series Roll Carts - VERUSFOAM4
- ShopKey Pro Repair Information System

OPTIONAL ACCESSORIES – SCAN TOOL

- Domestic/Asian OBD-I Adapter Kit – EAK0301B10A
- European Vehicle Software Activation - EESP330E
- 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

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SCOPE/METER SYSTEM SPECIFICATIONS

MULTIMETER

Function	Range	Comments
Channels	1 – 2	Common Ground
Sample Rate	6.0 MSPS	Simultaneous
	1.5 MSPS	Continuous per channel
Bandwidth	DC – 3 MHz	3 db point @ 3 MHz
Input Impedance	10 MΩ @ DC	All channels
	5.8 kΩ @ 3MHz	
V dc (Full Scale)	75 V maximum	
V ac (Full Scale)	50 V maximum	
Peak to Peak Voltage		

DIGITAL METER OHMS AND DIODE CONTINUITY TESTS

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

GRAPHING MULTIMETER

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

* See Safety Warnings in ZEUS user manual

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LAB SCOPE

Function	Range	Comments
Channels	1 – 4	Common Ground
Bandwidth	DC - 3 MHz	3 db point @ 3 MHz
Input Impedance	10 MΩ @ DC 4 kΩ @ 3MHz	All channels
Vdc (full scale)	400 Volts	
Do not test greater than 75Vdc	200 Volts	
	100 Volts	
	50 Volts	
	20 Volts	
	10 Volts	
Vac (full scale)	5 Volt	
Peak to Peak Voltage	2 Volt	
Do not test greater than 50Vdc (rms)	1 Volt	
	500 millivolt	
	200 millivolt	
	100 millivolt	
Secondary Ignition	1 – 50 KV	Channels 1 and 2

LAB SCOPE SPECIFICATIONS BY SWEEP RATE

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

* See Safety Warnings in ZEUS 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.