

MODIS Edge™ EEMS341

BID SPECIFICATION



Snap-on® MODIS Edge™
Integrated Diagnostic System

PRODUCT FEATURES

- Integrated multifunction diagnostic & information system
- Upgradeable software
- 2-channel lab scope with Guided Component Tests
- Digital & graphing multimeter
- Color graphing scan tool
- Domestic and Asian Fast-Track® Troubleshooter
- Data manager function
- Keyless scan adapter for OBD-II compliant vehicles
- Steady-charge battery technology charges directly from vehicle via data cable

DISPLAY TABLET

- 8" Color, 800 x 480 resolution, resistive touch panel, backlit LCD
- Internal battery can recharge through vehicle data cable

SYSTEM & USER INTERFACE

- SMX embedded dedicated operating system
- Boots in 5 Seconds
- Touchscreen navigation
- Operates through 4-way keypad or touchscreen
- User-programmable 'S' button navigation hotkey
- Automatic power-on feature when connected to vehicle
- Upgradeable software on Micro SD card

SCAN TOOL SOFTWARE SPECIFICATIONS

- Instant ID (Auto ID using Mode 9 VIN)
- Oil Specs and Reset data
- 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.
- One-Touch full-vehicle code scan & clear for covered makes and systems
- Snap-on vehicle communication and Fast-Track Troubleshooter software included
- Reads & clears OBD-II and OEM-specific trouble codes
- Displays complete trouble code descriptions
- Displays from one to four 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

- Displays eight live data parameters (PIDs) simultaneously in text mode
- Save screen captures and scanner movies
- Saves and stores previous vehicle identification
- Software coverage for 1980-newer US Domestic, 1983-newer Asian Import and optional coverage for 1992-newer European vehicles

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

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

POWER/WEIGHT/DIMENSIONS

- Battery: Lithium-ion battery pack included
- 3 Hour run time (50% Brightness)
- Dimensions: 11.0"W x 6.3"H x 1.6"D
- Weight: 2.65 lbs

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LAB SCOPE SPECIFICATIONS

Two-Trace Scope: Captures and displays up to two waveforms.

Sample rate of 6 million samples per second on one channel (at 50 us sweep).

Sample rate of 3 million samples per second on two channels (at 100 us sweep).

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

- Displays digital readout along with each waveform
- Color-coded waveform for each channel
- Manual & automatic (GCT) configuration
- AC Coupling
- Invert
- Peak Detect

DIGITAL & GRAPHING MULTIMETER SPECIFICATIONS

- Auto scaling, high-impedance multimeter measurement system
- Digital and graphing display of results
- Pinpoint measurement of:
 - Volts DC, Volts DC Average, Volts AC RMS, Diode/Continuity, Ohms, Frequency, Pulse-width, Injector pulse width, Duty cycle, Low Amps, MC Dwell, Vacuum, Pressure, Temperature, Ohms
 - Interface for optional pressure/vacuum transducers
 - Continuity tester with audible beep

FAST-TRACK GUIDED COMPONENT TESTS

- Built-in Guided Component Test software
 - Coverage for over 40 domestic, Asian and European makes; 1979-newer
 - Guided test procedures for over one million components
 - Test coverage for sensors, solenoids, injectors, charging/starting systems, ignition, motors, pumps, ABS and more
 - Automatic meter setup
 - Component description and operation
 - Connector diagrams and connection tips
 - Known good test values
 - Reference Waveforms
- Onboard training and product information

STANDARD ACCESSORIES

- Keyless OBD-II vehicle communication interface cable with flashlight feature for 1996-newer vehicles
- Two shielded, color-coded scope leads
- Two insulated test probes
- Three insulated test clips
- 110VAC power adapter
- Removable Lithium-ion battery pack
- USB cable
- Quick-start guide and info pack
- ShopStream connect PC interface software (Download)

OPTIONAL ACCESSORIES – SCAN TOOL

- OBD-I Adapter Master Kit EAK0301B10A

- European Vehicle Keys and Adapters Kit – EAK0301B07C (1992 – newer BMW, 1992 – newer VW/Audi, 1992 – newer Mercedes-Benz, 2000 – newer Jaguar, 2000 – newer Land Rover, 1996 – newer MINI, 2000 – newer Volvo, 2005 – newer SMART)
- Adapter for Kia ABS & Airbag – EAA0355L92A
- Scanner demo board - EESX306ASC

OPTIONAL ACCESSORIES – IGNITION ADAPTERS

- Secondary Coil Adapter Lead – EETA309A05A
- EETM306A02 – Secondary Ignition clip-on Wire Adapter
- 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
- 100 PSI Pressure/Vacuum transducer w/cable - EEPV302AL
- 500 PSI Pressure transducer w/cable - EEPV302AT
- 5000 PSI Pressure transducer w/cable - EEPV302AH
- Note: Pressure transducers require optional pressure transducer adapter – EEMS324PSA
- Pressure transducer extension cable - EAX0024B30A
- Scope demo board - EESX306ASP

OPTIONAL ACCESSORIES – PROTECTION AND ORGANIZATION

- Foam drawer organizers for 3-series carts – MODISEFOAM3
- Foam drawer organizers for 4-series carts – MODISEFOAM4
- Screen protector 3-pack - EAC0111L76A3

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SCOPE/METER SYSTEM SPECIFICATIONS

MULTIMETER

Function	Range	Comments
Channels	1 – 2	Common Ground
Sample Rate	6.0 MSPS @ 50us sweep	Simultaneous
	3.0 MSPS @ 100us sweep	Continuous per channel
Bandwidth	DC – 3 MHz	3 db point @ 3 MHz
Input Impedance	10 MΩ @ DC	All channels
	4 kΩ @ 3MHz	
V dc (Full Scale)	75 V maximum	
V ac (Full Scale) Peak to Peak Voltage	50 V maximum	

DIGITAL METER OHMS AND DIODE CONTINUITY TESTS

Function	Range	Comments
Channels	1-2	Inputs between channels 1 (-) and 2 (+)
Input Impedance	10 MΩ	
Glitch capture	Approximately 50 mS	
Ohms	400 Ω – 4 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 MODIS Edge user manual

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LAB SCOPE

Function	Range	Comments
Channels	1 – 2	Common Ground
Bandwidth	DC - 3 MHz	3 db point @ 3 MHz
Input Impedance	10 MΩ @ DC	All channels
	4 kΩ @ 3MHz	
VDC (full scale) Do not test greater than 75Vdc	400 Volts	
	200 Volts	
	100 Volts	
	50 Volts	
	20 Volts	
	10 Volts	
VAC (full scale) Peak to Peak Voltage Do not test greater than 50Vac (rms)	5 Volt	
	2 Volt	
	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	300	524,288	1747	87.8 ms	6.0 MHz	N
100 μs	Ch 1,2	300	261,120	870	87.0 ms	3.0 MHz	N
200 μs	Ch 1,2	300	262,080	873	174.6 ms	1.5 MHz	N
500 μs	Ch 1,2	500	262,140	524	262 ms	1.0 MHz	N
1 ms	Ch 1,2	500	262,080	524	524 ms	500 KHz	Y
2 ms	Ch 1,2	500	262,080	524	1.0 S	250 KHz	Y
5 ms	Ch 1,2	500	262,080	524	2.6 S	100 KHz	Y
10 ms	Ch 1,2	500	262,080	524	5.2 S	50 KHz	Y
20 ms	Ch 1,2	500	262,140	524	10.4 S	25 KHz	Y
50 ms	Ch 1,2	500	262,140	524	26.2 S	10 KHz	Y
100 ms	Ch 1,2	500	262,140	524	52.4 S	5 KHz	Y
200 ms	Ch 1,2	500	262,140	524	1.7 M	2.5 KHz	Y
500 ms	Ch 1,2	500	262,140	524	4.4 M	1.0 KHz	Y
1 s	Ch 1,2	500	262,140	524	8.7 M	500 Hz	Y
2 s	Ch 1,2	500	262,140	524	17.5 M	250 Hz	Y
5 s	Ch 1,2	500	262,140	524	43.6 M	100 Hz	Y
10 s	Ch 1,2	500	262,140	524	87.3 M	50 Hz	Y
20 s	Ch 1,2	500	262,140	524	174.6 M	25 Hz	Y

* See Safety Warnings in MODIS Edge user manual

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

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.