



Snap-on[™] MODIS[™] Standard

PRODUCT FEATURES

- 4-channel lab/ignition scope
- Color graphing scan tool
- Domestic and Asian Fast-Track[®] Troubleshooter
- Powerful Digital Graphing Multimeter
- Expandable diagnostic platform with 7" color LCD display
- Heavy-duty carrying case

DISPLAY DEVICE

- Color, LCD, 640x480 full VGA backlit display
- Mouse style, multidirectional thumb pad navigation
- VGA output for remote display or projection interface
- USB and serial ports for printer, keyboard, gas analyzer, jump drive or PC interface
- Infrared output for compatible wireless printers
- 2 CompactFlash[®] Ports

SCAN TOOL PLUG-IN FUNCTIONS

The legendary Snap-on Scanner[™] vehicle communication and Fast-Track Troubleshooter software are included. No other scan tool even comes close to putting this much diagnostic power in the palm of your hand. The MODIS Scan Tool graphs live data and displays complete trouble code descriptions for GM, Ford, Chrysler, Jeep and Asian imports. Optional European software provides live data, functional tests and complete trouble code descriptions for BMW, MINI, Mercedes-Benz and Volkswagen/Audi and more. The MODIS system will interface with '80 and newer Domestic, Asian Import and European OBD-I and OBD-II compliant vehicles.

MODIS[™] EEMS300STD BID SPECIFICATION

GLOBAL OBD VEHICLE COMM SOFTWARE

- Communicates with All '96 and newer OBD compatible vehicles
- Establishes communication with the appropriate vehicle protocol automatically
- Displays active communication protocol information
- Tests system readiness status

10 Modes of OBDII

- 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 COMM SOFTWARE '80 – '2010

- Enhanced OBD-I, OBD-II & Global OBD-II modes
- Engine/Powertrain, Transmission, ABS, Airbag, Body, Instrument Panel, Vehicle Theft Deterrent, Tire Pressure Monitor, Transfer Case, Trailer Break Control Diagnostics
- ABS & Air Bag GM symptom codes
- Engine Bi-Directional Testing, incl. EVAP Monitor Test and EVAP System Testing, Output Controls, Injector Balance, ICB, IAC, EGR, Crank Pos Relearn
- 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, incl. Bosch, Delco-Moraine, Teves
- BCM Bi-Directional Testing, incl. Door Locks, Lights, Chimes, Horn, Wipers
- HVAC codes, data, functional test
- Air suspension codes, data, functional test
- TPMS functional test / learn mode
- Steering position sensor calibration (some models)

FORD VEHICLE COMM SOFTWARE '81 – '09

- Enhanced OBD-I, OBD-II & Generic OBD-II modes
- Engine, Transmission, ABS, Airbag, Occupant Classification, Body/GEM, Instrument Panel, Anti-Theft, Transfer Case, GEM, 4x4 Module, Tire Pressure Monitor, Driver's Door, Driver's Seat, Sliding Door, Liftgate Trunk, Power Running Boards, Lighting Control, Auto Temp Control/HVAC, Navigation, Parking Aid, Electric Power Steering, Battery Control Diagnostics

MODIS™ EEMS300STD

BID SPECIFICATION

- Engine Bi-Directional Testing, inc. EEC V engine controls, EVAP System Testing, Cold Soak Test, 7.3 Powerstroke Cylinder Contribution,
- Injector power balance & EGR functional test 6.0 diesel engines
- Vane Turbo Functional Test 6.0 diesel
- Cylinder Contribution test – non-can, 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
- GEMS (body) functional test

CHRYSLER VEHICLE COMM SOFTWARE '83 – '09

- 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
- Engine Bi-Directional Testing, incl. Actuator Tests, Forced EVAP Monitor Test, Set RPM/IAC Test, Purge Vapors Test, EGR System Test, ETC Throttle Follower Test, Misfire Counters, Generator Field, PCM VIN Programming
- Particulate Filter Replacement & Fuel Filter Life Reset Function
- Transmission Bi-Directional Testing, incl. EMCC Reset, Quick Learn, Quick learn CAN, Battery Disconnect
- ABS brake bleed coverage, incl. Kelsey-Hayes, Teves, Bendix
- Body ATM Tests, incl. Door Locks, Lights, Chimes, Horn, Wipers
- HVAC, codes, data, functional test
- TPMS including sensor ID function

ASIAN VEHICLE COMM SOFTWARE '83 – '09

(2010 coverage for Nissan, Toyota, Subaru)

- Enhanced OBD-I, OBD-II & Generic OBD-II modes
- In-depth Engine, Transmission, Airbag & ABS, (HVAC, Instrument panel, TPMS certain OEMs) coverage for the most popular Asian Import vehicle makes:
 - Acura, Daihatsu, Honda, Hyundai, Infiniti, Isuzu, Kia, Lexus, Mazda, Mitsubishi, Nissan, Scion, Subaru, Toyota

DOMESTIC / ASIAN IMPORT DRIVEABILITY FAST-TRACK® TROUBLESHOOTER

General Motors, Ford, Chrysler/Jeep, Acura, Daihatsu, Honda, Hyundai, Infiniti, Isuzu, Kia, Lexus, Mazda, Mitsubishi, Nissan, Subaru, Toyota

- Domestic '80 – '09
- Asian Imports '83 – '09
- Exclusive information with instrumentation developed by technicians for technicians
- Over 2 Million VIN-specific Troubleshooter Tips
- Exclusive VIN-Specific troubleshooting and systems repair information covering code specific, no code, no-start, driveability symptoms and frequent component failures
- Enhanced OBD-II Fast-Track data scan tips reflect manufacturer-specific enhanced DataStream capabilities
- Component locators
- Service procedures and specifications
- Code set specifications
- Fast-Track wiring diagrams, VIN-specific service bulletins and procedures on-line at Ask-a-Tech
- Enhanced diesel symptom tips
- Electronic Steering & Alignment functions
- Enhanced functional test descriptions for all vehicles

DOMESTIC / ASIAN IMPORT TRANSMISSION FAST-TRACK® TROUBLESHOOTER

- Domestic '81 through '09 model year
- Asian import '83 – '09
- Electronic Controlled Transmission/transaxle coverage
- Technical service bulletins
- Enhanced Fast-Track data scan tips
- Transmission functional test insight
- Hundreds of transmission wiring diagrams on-line at Ask-a-Tech
- Firing orders and cylinder locations

DOMESTIC / ASIAN IMPORT ABS, BODY, AIRBAG FAST-TRACK® TROUBLESHOOTER

- Solutions for all ABS-related codes through '09 models
- Symptom-based tips for '09 models and earlier
- 24 vehicle makes supported
- Additional reference manual and service bulletins on-line At Ask-aTech

LAB SCOPE PLUG-IN FEATURES

Four-Trace Scope: Captures and displays "live" signals up to four waveforms on screen in real time

- Displays digital readout along with each waveform to determine voltage at the selected point on the waveform
- Snapshot: Capture data over time saved into a buffer
- Easy Scroll: Streamlines selection of menu and toolbar

MODIS™ EEMS300STD

BID SPECIFICATION

- 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 MULTIMETER FEATURES

- Auto scaling, high-impedance digital graphing multimeter measurement system
- Pinpoint measurement of:
 - DC volts, AC Volts RMS, Ohms, Continuity with audible beep

SCAN TOOL PLUG-IN STANDARD ACCESSORIES

- Includes 16 pin OBDII adapter (1996 and newer) and cable
- Asian Import, GM, Ford, Chrysler and Jeep

OPTIONAL ELITE KIT INCLUDES

Pre-OBD II (1995 and older) Domestic & Asian Scan Adapters, RPM Pickup, Secondary Ignition scope adapters

LAB SCOPE/DIGITAL MULTIMETER STANDARD ACCESSORIES

- Includes: 4-lead set, channels one and two are shielded – secondary probe – RPM probe

CAPABILITIES WITH OPTIONAL PROBES

- DC current amps – Pressure – Vacuum – Secondary ignition Probe for Coil-on-Plug, Coil-in-Coil, Distributorless Ignition

POWER/WEIGHT/DIMENSIONS

- Line power: 110/12V adapter/battery charger included
- Batteries: NiMH battery pack included
- Fuse: 5A (Buss ATC, Littlefuse ATO or equivalent)
- Weight: 5lbs. 14oz. with plug-in modules and battery
- Dimensions (ruggedized case): 7-3/4"H x 14"W x 3-3/8"D

MODIS SYSTEM OPTIONAL ACCESSORIES

- Portable 5-Gas Analyzer - EEEA305A
- Heavy Duty Vehicle Com. Kit - EEMS301A04
- Euro Activation Kit with Adapters - EEMS320C05
- Auxiliary Battery Pack - EEMS301A01
- Auxiliary Battery Pack Charger - EEMS301A02
- Screen Protectors (5 pack) - EAK0253B20A
- Fan Filters (5 pack) - EAK0253B02A
- Wireless PC Interface Card - EAK0253B70A
- Waveform Emulation Demo Board – EESX306A

LAB SCOPE/DIGITAL GRAPHING MULTIMETER MODULE OPTIONAL ACCESSORIES

- Low Amp Current Probe - EETA308D
- Transducer "Y" Adapter Cable – EAX24B40A
- 6' Transducer Extension Cable – EAX0024B30A
- Split Lead Adapter - EEMS301A05
- 100 PSI Pressure / Vacuum Transducer w/cable - EEPV302AL
- 500 PSI Press Trans w/cable - EEPV302AT
- 5000 PSI Press Trans w/cable - EEPV302AH
- Transducer Extension Cable - EAX0024B30A

OPTIONAL SPECIALTY IGNITION ADAPTERS

- EETA309A15 - Multiple Ignition Lead Module
- 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

SCAN TOOL MODULE

OPTIONAL ACCESSORIES AND SOFTWARE

- Euro Activation Kit with Adapters - EEMS320C04
 - '86-'08 BMW Vehicle Communication Software
 - '91-'09 VW/Audi Vehicle Communication Software
 - '92-'09 Mercedes-Benz Vehicle Communication Software
 - '2000 -09 Land Rover Vehicle Communication Software
- Flat Extension Data Cable – MT2500302
- OBD-II Extension Cable – MT2500301

MODIS™ EEMS300STD BID SPECIFICATION

MODIS™ SYSTEM SPECIFICATIONS

MODIS™ 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		

MODIS™ 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	

MODIS™ 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)	' - 40 - 60 degrees	Auto Threshold Setting
MC Dwell (90)	30 - 60 - 90 degrees	Auto Threshold Setting
Duty Cycle	' - 40 - 60 - 80 - 100%	Auto Threshold Setting
Low Amps (')	1 - 2 - 5 - 10 - 'A	With EETA308A
Low Amps (40)	10 - ' - 40A	With EETA308A
Vacuum	5 - 10 - ' 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

MODIS™ EEMS300STD BID SPECIFICATION

MODIS™ LAB SCOPE

Function	Range	Comments	
Channels	1 – 4	Common Ground	
Bandwidth	DC - 3 MHz	3 db point @ 3 MHz	
Input Impedance	10 MΩ @ DC	All channels	
	5.8 kΩ @ 3MHz		
	400 Volts		
	'0 Volts		
	100 Volts		
	50 Volts		
	' Volts		
	Vdc (Full Scale) and Vac (Full Scale)		10 Volts
	Peak to Peak Voltage		5 Volt
			2 Volt
1 Volt			
500 millivolt			
	'0 millivolt		
	100 millivolt		
RPM Measurement	0 – 10000 RPM		
Secondary Ignition	1 – 50 KV	Channels 1 and 2	

MODIS™ LAB SCOPE SPECIFICATIONS BY SWEEP RATE

Sweep ¹	Channels	Data points per screen	Buffer storage/Ch	Max # Screens	Total time ²	Sample rate ³	Peak Detect ⁴
50 μs	Ch 1 only	300	524,288	1747	87.3 ms	6.0 MHz	N
100 μs	Ch 1,2 only	300	261,1'	870	87.0 ms	3.0 MHz	N
'0 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
' 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
'0 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
' s	Ch 1,2,3,4	500	131,070	262	87.3 M	25 Hz	Y

¹ 50 and 100 μs sweeps are only available in Bundle 5.4 and later software.

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

³ Actual sample rate for sweeps 50-'0 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.