

VERDICT™ EEMS324K12IN

BID SPECIFICATION



Snap-on® VERDICT™ Diagnostic & Information System

PRODUCT FEATURES

- Modular diagnostic & information system
- Expandable platform with upgradeable software
- 2-channel lab scope
- Color graphing scan tool
- Domestic and Asian Fast-Track® Troubleshooter
- Fast-track® Reference database
- Digital Graphing Multimeter
- Customer/Vehicle information database function
- Data manager function
- Open Internet browser

D7 Display Device

- Microsoft Windows embedded operating system
- Windows application multitasking
- 7" Color, 1024x600 resolution backlit display
- Touchscreen navigation and onscreen virtual keyboard
- 1 GB RAM; 1.6 GHz Processor
- 60 GB internal HDD
- Internal digital camera, audio microphone and speaker
- USB, Serial, Audio, Auxillary ports
- Ethernet port, and 802.11b/g wireless Ethernet
- Class I Bluetooth 2.0
- Removable Lithium-ion battery pack
- Height: 6.8 inches (173 mm)
- Width: 9.9 inches (252 mm)
- Depth: 1.8 inches (46 mm)
- Weight: 2.9 lbs (1.3 kg)

S3 Scan Module

- Class I Bluetooth 2.0 connection to D7 display device
- Height: 8.0 inches (204 mm)
- Width: 3.8 inches (97 mm)
- Depth: 1.7 inches (42 mm)
- Weight 0.9 lbs (0.4 kg)

M2 Meter

- Standalone operation or Class I Bluetooth 2.0 connection to D7 Display Device
- Color graphing display
- 2-channel lab scope and digital/graphing meter
- Sample rate 20 megasamples/second
- Scale range: 0-100mV to 0-1000VDC
- Sweep rate: 50 microseconds to 20 seconds (60 min in GMM mode)
- VDC, VAC, ohms, capacitance, frequency, duty cycle, pulse width

- CATIII and CATIV certified
- Rechargeable NiMH battery pack
- Height: 9.1 inches (232 mm)
- Width: 4.3 inches (108 mm)
- Depth: 2.0 inches (51 mm)
- Weight 1.9 lbs (0.9 kg)

STANDARD ACCESSORIES

- Vehicle cable/adaptor for 1996-newer vehicles
- 2 shielded scope leads and alligator clips
- 110VAC adapter/charger for D7 Display Device
- 110VAC adapter/charger for M2 Meter
- Touchscreen stylus
- USB cable
- Carrying case

SCAN TOOL SPECIFICATIONS

- Snap-on vehicle communication and Fast-Track Troubleshooter software included.
- Reads & clears OBDII and OEM-specific trouble codes
- Displays complete trouble code descriptions
- Displays from one to six live data parameters (PIDs) simultaneously in graphing mode;
- Adjustable sweep; Min/Max capture in graphing mode
- Includes functional tests and bidirectional controls
- Save screen captures and scanner movies
- Software with enhanced coverage for 1980-newer US Domestic and Asian Import vehicles
- Optional European vehicle software with enhanced coverage for BMW, MINI, Mercedes-Benz, Volkswagen, Audi, Volvo, & Land Rover

GLOBAL OBD-II VEHICLE COMMUNICATION SOFTWARE

- Covers 1996-newer 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 – 2010

- Enhanced OBD-I, OBD-II & Generic OBD-II modes
- Engine/Powertrain, Transmission, ABS, Airbag, Body, Instrument Panel, Vehicle Theft Deterrent, Tire Pressure Monitor, Transfer Case, Trailer Brake Control Diagnostics
- 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
- Particulate Filter Replacement & Fuel Filter Life Reset Function – Diesel engines where applicable

VERDICT™ EEMS324K12IN

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- 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
- 2004 and newer key FOB programming
- HVAC codes, data, functional test
- Air suspension system codes, data, functional test
- TPMS functional test / learn mode
- Steering position sensor calibration (some models)

FORD VEHICLE COMMUNICATION SOFTWARE

1981 – 2010

- 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
- 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 – non-CAN, and 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

CHRYSLER VEHICLE COMMUNICATION SOFTWARE

1983 – 2010

- 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 – Diesel engines where applicable
- 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 COMMUNICATION SOFTWARE 1983 – 2010

- Enhanced OBD-I, OBD-II & Generic OBD-II modes

- In-depth Engine, Transmission, Airbag & ABS, (HVAC, Instrument panel, TPMS, certain OEM's) coverage for the most popular Asian Import vehicle makes:
- Acura, Daihatsu, Honda, Hyundai, Infiniti, Isuzu, Kia, Lexus, Mazda, Mitsubishi, Nissan, Scion, Subaru, Toyota
- Hyundai, Kia and Mitsubishi PCM VIN Write
- Honda/Acura TPMS coverage including tire registration

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 1980 – 2009
- Asian Imports 1983 – 2009
- 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
- Enhanced diesel symptom tips
- Enhanced functional test descriptions
- Firing orders and cylinder locations

DOMESTIC / ASIAN IMPORT TRANSMISSION FAST-TRACK® TROUBLESHOOTER

- Domestic 1981 through 2009 model year
- Asian import 1983 – 2009
- Electronic Controlled Transmission/transaxle coverage
- Technical service bulletins
- Enhanced Fast-Track data scan tips
- Transmission functional test insight
- Transmission wiring diagrams

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

- Symptom-based tips for 2009 models and earlier
- 24 vehicle makes supported
- Additional reference material and service bulletins
- Electronic Steering & Alignment functions

FAST-TRACK® 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

LAB SCOPE SPECIFICATIONS

- NOTE: Also see SYSTEM SPECIFICATIONS at end of this document
- Lab Scope displays two color-coded waveforms on screen in real time, with digital voltage readout
- Manual and automatic configuration for each channel
- Snapshot function: Capture data saved into buffer
- Easy Scroll: Streamlines selection of menu and toolbar

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- AC Coupling: Provides the ability to enlarge the alternating current (AC) component of a signal for closer examination
- Invert waveform to for easier viewing
- Automatically pre-configures the vertical scale
- Select factory preset screens or define and save custom setups for frequently used tasks
- User selectable peak detect captures high-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

OPTIONAL ACCESSORIES – SCAN TOOL

- Domestic/Asian OBDI Adapter Kit 1 - EAK0301B08A
- Domestic/Asian OBDI Adapter Kit 2 - EAK0288B04B
- European Vehicle Software Activation - EESP323E
1986–later BMW, 1991–later VW/Audi, 1992–later Mercedes-Benz, & 1996 -09 Land Rover, 2000–09 Volvo
- European Vehicle Adapter Kit – EAK0301B07B
- KIA Adapter for ABS & Airbag – P/N EAA0355L92A

OPTIONAL ACCESSORIES – VERUS PLATFORM

- Extended Life Battery Pack - EAA0365L06A
- Docking Station w/video & USB connectors - EAA0365L01A
- Screen Protectors (3 pack) - EAC0107L03A5

OPTIONAL ACCESSORIES - LAB SCOPE/METER

- Low Amp Current Probe - EETA308D
- Waveform Emulation Demo Board - EESX306A

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VERDICT™ SYSTEM SPECIFICATIONS

VERDICT M2 MULTIMETER		
Function	Range	Comments
Channels	2	Common Ground
Input Impedance	10 MΩ @ DC	
VDC (Full Scale)	1000 V maximum	
VAC (Full Scale)	600 Vrms	
VERDICT M2 DIGITAL METER OHMS AND DIODE CONTINUITY TESTS		
Function	Range	Comments
Ohms	40 Ω – 40 MΩ	Fixed scale or Auto range
Diode Test	2.5 V Scale	Test voltage is 3.0 VDC
Capacitance Test	40nf – 400uf	Fixed scale or Auto range
VERDICT M2 GRAPHING MULTIMETER		
Function	Range	Comments
Input Channels	1	
Input Impedance	10 Megohm	
Volts (DC)	0-100 mV to 0-1000V	Fixed scales
Frequency	5 Hz thru 50 KHz	Fixed scales
Pulse Width	5 ms thru 2 S	Fixed scales
Duty Cycle	Up to 100%	Auto Threshold Setting/Adjustable
Low Amps	1 - 2 - 5 - 10 – 20 - 40A	With optional EETA308D

See Safety Warnings in User Manual

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VERDICT M2 LAB SCOPE

Function	Range	Comments
Channels	1 – 2	Common Ground
Bandwidth	DC - 3 MHz	3 db point @ 3 MHz
Input Impedance	10 MΩ	All channels
VDC (Full Scale) and VAC (Full Scale) Peak to Peak Voltage	1000 Volts	
	500 Volts	
	200 Volts	
	100 Volts	
	50 Volts	
	20 Volts	
	10 Volts	
	5 Volt	
	2 Volt	
	1 Volt	
	500 millivolt	
	200 millivolt	
	100 millivolt	

VERDICT M2 LAB SCOPE SPECIFICATIONS BY SWEEP RATE

Sweep	Channels	Data points per screen Standalone/Integrated Operation	Sample rate	Peak Detect
*25 us	Ch1, 2	*290	20Ms/S	**Y
50 μs	Ch1, 2	290 / 580	20Ms/S	**Y
100 μs	Ch1, 2	290 / 580	20Ms/S	Y
250 μs	Ch1, 2	290 / 580	20Ms/S	Y
500 μs	Ch1, 2	290 / 580	20Ms/S	Y
1 ms	Ch1, 2	290 / 580	20Ms/S	Y
2.5 ms	Ch1, 2	290 / 580	20Ms/S	Y
5 ms	Ch1, 2	290 / 580	20Ms/S	Y
10 ms	Ch1, 2	290 / 580	20Ms/S	Y
25 ms	Ch1, 2	290 / 580	20Ms/S	Y
50 ms	Ch1, 2	290 / 580	20Ms/S	Y
100 ms	Ch1, 2	290 / 580	20Ms/S	Y
250 ms	Ch1, 2	290 / 580	20Ms/S	Y
500 ms	Ch1, 2	290 / 580	20Ms/S	Y
1 s	Ch1, 2	290 / 580	20Ms/S	Y
2.5 s	Ch1, 2	290 / 580	20Ms/S	Y
5 s	Ch1, 2	290 / 580	20Ms/S	Y
10 s	Ch1, 2	290 / 580	20Ms/S	Y
**20 S	Ch1, 2	**580	20Ms/S	Y

* - Standalone operation only

** - Integrated operation with D7 Display Device only