

# Diagnostic Products

## 2009-2010 Catalog



**BOSCH**

Invented for life



# Bosch Wheel Service Equipment

In addition to our state-of-the-art diagnostic and test equipment, Bosch also offers a complete line of high quality wheel service equipment. These professional and precise products are designed to help keep your repair shop operating at peak efficiency. Our wheel service and diagnostic equipment, combined with our trusted automotive aftermarket parts, make Bosch your single source helping you to maximize your profitability!



## New from Bosch



### FWA 4630 EZ3D Wheel Alignment System

With the new FWA 4630 EZ3D wheel alignment system from Bosch, precise wheel alignment of passenger cars takes only around seven minutes! The complete alignment procedure, including runout compensation, can be performed by just one employee, swiftly and accurately.

- ▶ Simple setup of measurement boards and sensor heads
- ▶ Fast, rolling runout compensation on all four wheels simultaneously without having to lift the vehicle
- ▶ Unique 3D measuring technology of the FWA 4630: Two CCD cameras per wheel measure automatically and precisely
- ▶ Perfectly suited to the workshop, ergonomic, bump and shockproof, space-saving



## Table of Contents

### Comprehensive Diagnostic Product Line

Diagnostic Tools and Wheel Service Equipment . . . . . 1-2

### Scan Tools

KTS 670 . . . . . 3-4  
 KTS 570 . . . . . 5-6  
 KTS 200 . . . . . 7-8  
 Mastertech M-VCI . . . . . 9-10  
 MTS 3100 Mastertech . . . . . 11-12  
 Tech 2 . . . . . 13-14

### Shop Foreman Pro

Shop Foreman Pro . . . . . 15-16

### Diagnostics Software

KTS Scan Tool Software . . . . . 17  
 Mastertech Scan Tool Software . . . . . 18

### J2534 Reprogrammers

Flasher Pro . . . . . 19  
 Flasher LT . . . . . 20

### General Motors MDI

General Motors MDI . . . . . 21

### Digital Multimeter

MMD 540H Hybrid Multimeter . . . . . 22

### Hand-Held Engine Analyzers

MTS 5200 Engine Analyzer . . . . . 23-24

### Vehicle System Analyzer

FSA 740/720 . . . . . 25-26

### Electrical System Diagnostic Analyzers

BAT 151 . . . . . 27-28  
 BAT 110 . . . . . 29-30

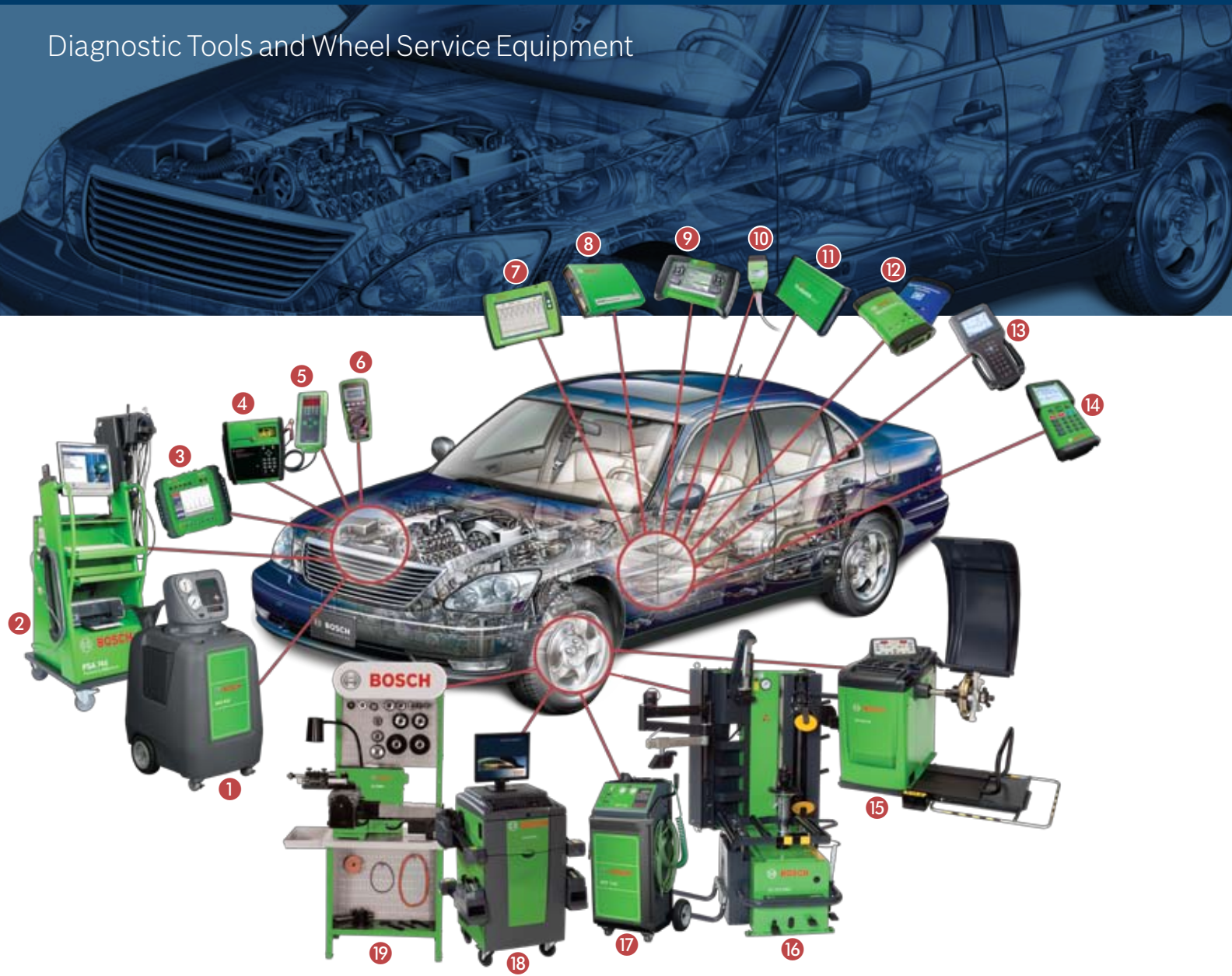
### Digital Air Conditioning Refrigerant Handling System

ACS 615 . . . . . 31-32



# Comprehensive Diagnostic Product Line

Diagnostic Tools and Wheel Service Equipment



# Comprehensive Diagnostic Product Line

**Bosch offers an array of underhood and undercar diagnostic tools and wheel service equipment. These professional tools support your automotive service needs with the reliability and accuracy that Bosch is known for.**

## Your Advantages

- ▶ Fast and accurate
- ▶ Dealer-level capability
- ▶ Award-winning software
- ▶ World-class design
- ▶ Powerful and reliable

## Tool Application Usage Guide

	General			Toyota	Nissan	Honda	Hyundai	Kia	Mercedes			
	Ford	Motors	Chrysler						Benz	Volkswagen	Volvo	
Flasher Pro	x	x	x	x	x	x	x	x	x	x	x	x
Flasher LT	x	x	x	x	x	x	x	x	x	x	x	x
MDI		x										
M-VCI	x	x	x	x	x	x	Available in 2010		Available in 2010			
MTS 3100	x	x	x	x	x	x						
Tech 2		x										
KTS 200	Available in 2010			x	x	x	x	x	x	x	x	x
KTS 570	Available in 2010			x	x	x	x	x	x	x	x	x
KTS 670	Available in 2010			x	x	x	x	x	x	x	x	x
FSA 740/720	Available in 2010			x	x	x	x	x	x	x	x	x
MTS 5200	x	x	x	x	x	x	x	x	x	x	x	x
MMD 540H	x	x	x	x	x	x	x	x	x	x	x	x
BAT 110	x	x	x	x	x	x	x	x	x	x	x	x
BAT 151	x	x	x	x	x	x	x	x	x	x	x	x
ACS 615	x	x	x	x	x	x	x	x	x	x	x	x

## Everything You Need

### Diagnostic Tools

- |  |  |  |   |  |
|--|--|--|---|--|
| <p><b>1</b><br/><b>ACS 615</b><br/>Digital Air Conditioning Refrigerant Handling System</p> <p><b>2</b><br/><b>FSA 740/720</b><br/>Engine Analyzer</p> <p><b>3</b><br/><b>MTS 5200</b><br/>Engine Analyzer</p> | <p><b>4</b><br/><b>BAT 151</b><br/>Electrical System Diagnostic Analyzer</p> <p><b>5</b><br/><b>BAT 110</b><br/>Battery Tester</p> <p><b>6</b><br/><b>MMD 540H</b><br/>Digital Hybrid Multimeter</p> | <p><b>7</b><br/><b>KTS 670</b><br/>Scan Tool</p> <p><b>8</b><br/><b>KTS 570</b><br/>Scan Tool</p> <p><b>9</b><br/><b>KTS 200</b><br/>Scan Tool</p> | <p><b>10</b><br/><b>Flasher LT</b><br/>J2534 Reprogrammer</p> <p><b>11</b><br/><b>Flasher Pro</b><br/>J2534 Reprogrammer</p> <p><b>12</b><br/><b>Mastertech M-VCI/General Motors MDI</b><br/>Scan Diagnostics</p> | <p><b>13</b><br/><b>Tech 2</b><br/>Scan Diagnostics</p> <p><b>14</b><br/><b>MTS 3100 Mastertech</b><br/>Scan Diagnostics</p> |
|--|--|--|---|--|

### Wheel Service Equipment

- |  |  |  |   |
|--|--|--|---|
| <p><b>15</b><br/><b>Wheel Balancing Equipment</b></p> <ul style="list-style-type: none"> <li>▶ WB720</li> <li>▶ WB520</li> <li>▶ WB410</li> <li>▶ WB310</li> </ul> | <p><b>16</b><br/><b>Tire Changing Equipment</b></p> <ul style="list-style-type: none"> <li>▶ TC752PRO</li> <li>▶ TC732PRO</li> <li>▶ TC626THP</li> <li>▶ TC526THP</li> <li>▶ TC326SFA</li> <li>▶ TC320S</li> </ul> | <p><b>17</b><br/><b>NTF 715</b><br/>Nitrogen Tire Filling Unit</p> <p><b>18</b><br/><b>Wheel Alignment Equipment</b></p> <ul style="list-style-type: none"> <li>▶ FWA 4630 EZ3D (Coming soon!)</li> <li>▶ WA5200-8HDR</li> <li>▶ WA2600-6C</li> <li>▶ WA2600-8R</li> </ul> | <p><b>19</b><br/><b>Brake Lathe Equipment</b></p> <ul style="list-style-type: none"> <li>▶ BL8944L</li> <li>▶ BL8922L</li> <li>▶ BL8920L</li> <li>▶ BL8989</li> </ul> |
|--|--|--|---|





**The KTS 670 is the most advanced diagnostics scan tool from Bosch.**

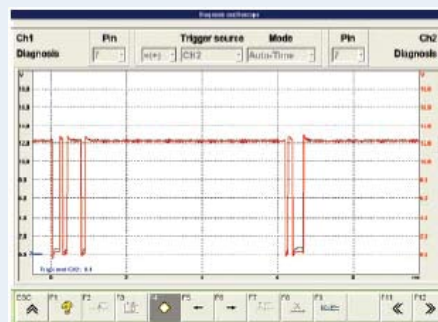
A PC-based, comprehensive device for the future of your workshop!

The KTS 670 is powered by the ESI[tronic] software and comes with an enhanced, high quality 2-channel oscilloscope and a high quality 2-channel multimeter.

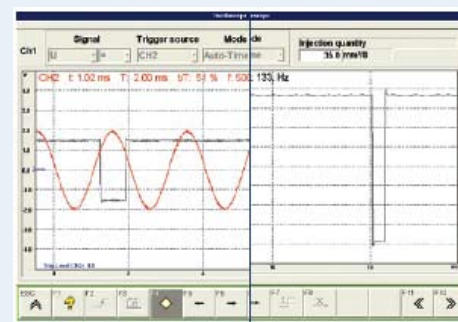
The KTS 670 features scan information for European, Asian and Domestic vehicles.

**Improved 2-channel Measuring Oscilloscope**

Improved error analysis with the diagnosis oscilloscope



2-channel oscilloscope shows component signal and actual value for perfect troubleshooting



**KTS 670**

- ▶ Mobile test system provides complete diagnostics for in-shop and test drive applications
- ▶ Exquisite components = long term availability
- ▶ Hardware and software perfectly harmonized for short access times and fast diagnostics
- ▶ User-friendly, bright display with large reading angle
- ▶ Integrated measuring techniques optimize measuring technology for complex trouble-shooting



**Available in Summer 2009!**

F00E900314 KTS 670 Base Kit

**High-performance test equipment and optimally tailored workshop software for reliable service quality**

The only way for workshops to offer all services for innovative vehicles is through professional diagnostics and information systems. In order to accomplish this, the KTS 670 is powered by ESI[tronic] software, which provides the workshop with comprehensive information for finding and eliminating defects.

ESI[tronic] is perfectly synchronized with the KTS Series. With ESI[tronic], you have the comprehensive technical information which you require in your workshop at your disposal. Four updates a year make sure that the KTS is always up-to-date.



**Essential Features**

- ▶ 2 Channel Oscilloscope
- ▶ 2 Channel Multimeter
- ▶ 16-pin DLC
- ▶ Universal cable
- ▶ Future J2534 capability
- ▶ Comprehensive market coverage for:
  - Audi
  - BMW
  - Mini
  - Mercedes-Benz
  - VW
  - Volvo
  - Honda (Acura)
  - Toyota (Lexus, Scion)
  - Nissan (Infiniti)
  - Hyundai
  - Kia
  - Ford
  - Chrysler
  - General Motors (in 2010)

**Your advantages**

- ▶ Windows XP Platform
- ▶ 12.1" TFT Display
- ▶ Touchscreen
- ▶ PC Card Slot for WLAN
- ▶ Ready for the future with integrated change adapters
- ▶ Extended measuring technology for comprehensive troubleshooting in vehicles





Domestic coverage coming soon!

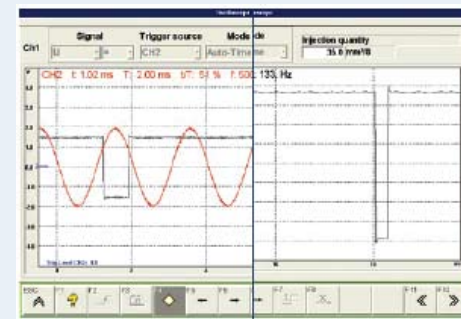
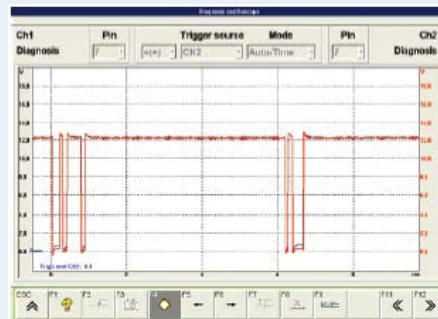
**“Plug-and-play” efficiency with Bluetooth® and USB convenience for European and Asian vehicles.**

An interfaced module that wirelessly connects your shop PC or laptop to a vehicle. The KTS 570 is powered by the ESI[tronic] software and comes with a 2-channel multimeter and 2-channel oscilloscope.

**Improved 2-channel Measuring Oscilloscope**

Improved error analysis with the diagnosis oscilloscope

2-channel oscilloscope shows component signal and actual value for perfect troubleshooting



**Convenient**

- ▶ The Bosch-specific Bluetooth® USB connection

**Fast**

- ▶ Easy connection of measuring technology for troubleshooting

**Safe**

- ▶ Software controlled change adapter with cable adapter recognition

F00K104992	KTS 570 Base Kit
F00E900093	KTS 570 ESI[tronic] European Software – 1 Year Subscription
F00E900094	KTS 570 ESI[tronic] European Software – 3 Year Subscription
F00E900095	KTS 570 ESI[tronic] Asian Software – 1 Year Subscription
F00E900096	KTS 570 ESI[tronic] Asian Software – 3 Year Subscription

**Essential Features**

- ▶ Bluetooth® wireless and USB connectivity
- ▶ 2-channel oscilloscope
- ▶ 2-channel multimeter
- ▶ 16-pin DLC
- ▶ Universal cable
- ▶ Comprehensive European/Asian market coverage for:
  - Audi
  - BMW
  - VW
  - Mercedes-Benz
  - Volvo
  - Honda (Acura)
  - Hyundai
  - Kia
  - Nissan (Infiniti)
  - Toyota (Lexus, Scion)

**Your Advantages**

- ▶ Ready for the future with integrated change adapters
- ▶ Radio technology for more mobility in workshops
- ▶ Extended measuring technology for comprehensive troubleshooting in vehicles

**Control unit diagnosis: the basis for a successful service business**

The increasing amount of electronics in the motor vehicle means that simple maintenance work will soon no longer be able to be carried out without control unit diagnosis. ESI[tronic] provides a comprehensive coverage of the market in the daily workshop business. The data is regularly updated, so that you can also service new vehicles without any problems.

Brake control systems such as ABS, TCS and ESP require activation of the solenoid valves in various high-pressure pumps when bleeding the brake hydraulic system, or changing the brake fluid. With the KTS testers and ESI[tronic], Bosch provides the optimum basis for service quality and profitability.







**Domestic coverage coming soon!**

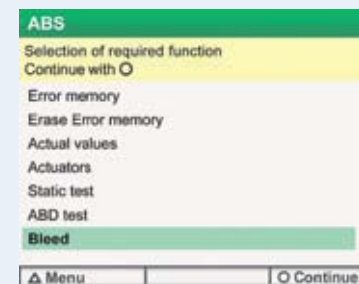
**An inexpensive and easy-to-use scan tool for European and Asian ECU diagnostics. Expandable technology for future market coverage.**

Diagnosing a wide range of European and Asian vehicles is faster and easier than ever with the new KTS 200. Its compact size, comprehensive software, and fast, intuitive navigation make it an ideal primary or secondary scan tool for all shops. Whether you are currently a European or Asian specialty shop, or are planning to enter the European or Asian repair market, the KTS 200 is the versatile and powerful tool choice that will not break the budget.

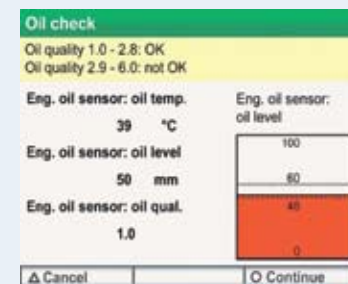
With in-depth ECU diagnostic capability, the KTS 200 is the perfect choice for all your scanning needs. Perform basic scanning functions such as reading and clearing DTCs to advanced bi-directional function tests.

### Scan Test Solutions

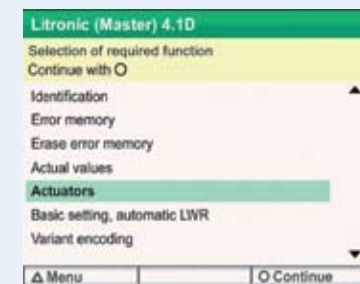
#### Automatic Brake Bleeding at the Push of a Button



#### Scan Tool Support for Oil Check Functionality



#### Precise Adjustment of the Automatic Headlight Leveling Control



**1 Complete ECU scan diagnostics**

**2 Menu Navigation**  
New, simple menu navigation.

**3 New Service Opportunities**  
Inexpensive entry to modern diagnostic capabilities for European vehicles.

**4 User-Defined Controls**

Unit for both left and right handed users.

**5 ESI[tronic] Software**

Powered by ESI[tronic] software in 23 languages.

Integrated, software-controlled 16-pin multiplexer connector for fast and easy vehicle communications. OBD II and CAN supported (high speed, medium speed, low speed and single wire).

### Essential Features

- ▶ Fast, simple, and reliable vehicle identification
- ▶ Comprehensive European/Asian market coverage for:
  - Audi
  - BMW
  - VW
  - Mercedes-Benz
  - Volvo
  - Honda (Acura)
  - Hyundai
  - Kia
  - Nissan (Infiniti)
  - Toyota (Lexus, Scion)

### The KTS 200 is the ideal choice for:

- ▶ Airbag diagnostics
- ▶ Reading and clearing DTCs
- ▶ Accessing live data/actual values
- ▶ Advanced functional tests
- ▶ Resetting service intervals
- ▶ Oil change
- ▶ Tire pressure monitor
- ▶ Headlight service
- ▶ Air conditioning service
- ▶ Brake service
- ▶ Initializing sensors after chassis examination
- ▶ Installation of accessories (radio, navigation systems, luggage racks, etc.)

F00E900091	KTS 200 Base Kit
1987P12201	KTS 200 ESI[tronic] 1 Year Subscription European
1987P12211	KTS 200 ESI[tronic] European Single Update (No Subscription)
1987P12207	KTS 200 ESI[tronic] 1 Year Subscription Asian
1987P12212	KTS 200 ESI[tronic] Asian Single Update (No Subscription)

### Mobile Control Unit Diagnostics powered by ESI[tronic]

The car is increasingly becoming a “computer on wheels”. Only professional diagnostic systems present the workshop with new opportunities in service. In this respect, time-saving software with troubleshooting instructions suitable for practical application is just as important as high-performance test equipment.

ESI[tronic], which has stood the test in the workshop many times over, was newly developed for the KTS 200 in order to give the technician a quick and easy operation. Important functions are displayed on the screen with the key assignment.







### “Plug-and-play” OE-level Mastertech diagnostics for the PC, and wireless scan tool connectivity.

The Mastertech M-VCI combines the award-winning scan test software with an innovative, wireless PC-to-vehicle connection. Giving you instant access to OEM-specific information systems, as well as most major shop management systems.

## Essential Features

- ▶ Award-winning scan test software covering model years 1996 to current
- ▶ Fully OBD II compliant, including Controller Area Network (CAN) protocols
- ▶ Support for powertrain, chassis and body systems
- ▶ Industry-standard wireless hardware
- ▶ J-2534 compliant for OE ECU reprogramming\*
- ▶ Designed for new M-VCI vehicle software designs utilizing D-PDU API

\*General Motors, Ford, Toyota (now), other OEM makes in 2009

- OEM Technology**  
Leading edge platform for future vehicle communication designs.
- Simple Vehicle Interface**  
Utilizes industry-standard SAE J-1962 16-pin connector with no special “keys” or adapters required for OBD II vehicles.
- PC Connectivity**  
Operates with a Windows PC through either wireless, Ethernet or USB connection.
- Graphical User Interface**  
Award-winning Shop Foreman Pro user interface is accessible via a desktop, laptop or tablet PC.
- User-Defined Controls**  
Custom keypad controls to optimize tablet, laptop or keyboard operation.
- Flash Memory Updates**  
Internet-based vehicle software applications and tester firmware.



- F00E900266 Mastertech M-VCI OBD II with Router Kit
- F00E900062 Domestic Region Software
- F00E900063 Asian Region Software
- F00E900064 Domestic/Asian Region Software
- F00E900057 Panasonic Tablet PC with DVD
- F00E900313 Optional NETGEAR® Router



Optional NETGEAR® Router



Optional Shop-Rugged Tablet PC

## Scan Test Solutions

### OE-level Scan Test



### Graphical Display

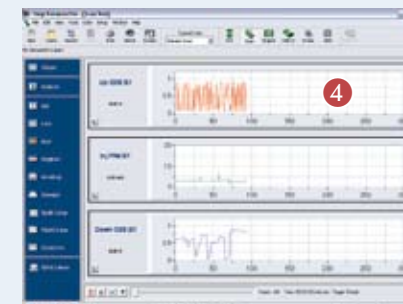


### J2534 ECU Reprogramming

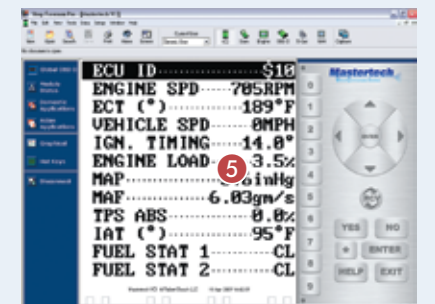


## What Makes the Mastertech VCI Different?

- ▶ PC architecture
- ▶ High performance processor
- ▶ D-PDU and J2534 compliant
- ▶ Data logging
- ▶ Allows for multiple communication links



- ▶ Secure access to vehicle networks
- ▶ Industry standard wireless communication
- ▶ Introduced in OEM dealerships







### OE-level scan tool diagnostics in the palm of your hand.

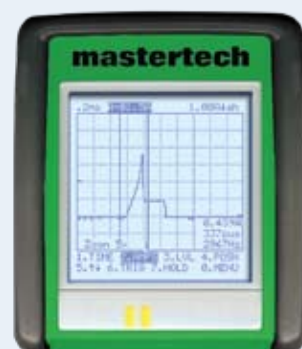
The MTS 3100 is the tool that revolutionized the repair industry, combining comprehensive OE-level scan diagnostics, automotive scope and meter functions in one hand-held package. When your business depends on maximum productivity, don't settle for anything less.

## 3 Tools in 1

OE-level Scan Test



Digital Storage Oscilloscope



Automotive Multimeter



**1 High Capacity Mass Storage Cartridge**  
Reprogrammable application cartridge contains application software updated through a PC.

**2 Custom Graphics Display**  
High visibility backlit LCD screen displays up to 16 PIDs, including custom list, LED, bar graph and line graph modes.

**3 Logical Keypad**  
23-key hydrocarbon-resistant membrane keypad for easy, logical tester navigation.

**4 Program Card**  
Reprogrammable PCMCIA card contains application software updated through a PC.

**5 RS232 Serial Port**  
Connects to a PC enabling Shop Foreman Pro, SPS and application software downloads.

**6 Vehicle Serial Data Link**  
Connects to vehicle DLC, and supports OBDI, OBDII and CAN protocols.

**7 Instrumentation Port**  
Connects additional instrumentation such as meter, scope, and battery tester.



### Essential Features:

- ▶ Comprehensive vehicle software coverage from model year 1981 to current
- ▶ Covers powertrain, chassis and body systems
- ▶ Dealer-level coverage including General Motors, Toyota/Lexus and Honda/Acura
- ▶ Patented bi-directional control testing
- ▶ Fully OBDII compliant including Controller Area Network (CAN) protocols



01001410	MTS 3100 Mastertech OBDII Kit
01002624	MTS 3100 Mastertech Complete Domestic Kit
01002876	MTS 3100 Mastertech Toyota/Honda/Nissan Asian Kit
01002060	MTS 3100 Mastertech Complete Domestic and Asian Kit
01002874	MTS 3100 Mastertech Instrumentation Kit

## What Makes the MTS 3100 Mastertech Different?

Fully OBDII/CAN Compliant



Multiplex Network Module Status



Comprehensive OEM-validated Bi-directional Control Testing







**Ideal for vehicle diagnostics.**

The Tech 2 has been an essential tool in dealerships worldwide since 1997. Now you can put the same dealer software in your shop. When your business depends on maximum productivity, don't settle for anything less.

With additional OEM purchased software, the Tech 2 can be used to diagnose Izuzu, Saab, and Suzuki vehicles. Contact the OEM dealer for software purchase details.

**1 PCMCIA Slots**  
Reprogrammable PCMCIA card contains diagnostic application software, updated through a PC.

**2 RS232 Serial Port**  
Connects to a PC, enabling all ACDelco TIS 2 Web applications.

**3 Custom Graphics Display**  
High visibility backlit LCD screen displays up to 9 PIDs, including custom lists, line graph mode, and hot key access.

**4 Technician-Friendly Design**  
Adjustable hand straps facilitate one-handed operation.

**5 Logical Keypad**  
29-key hydrocarbon-resistant membrane keypad for easy, logical tester navigation.

**6 Vehicle Serial Data Link**  
Connects to vehicle DLC and supports General Motors OBDI, OBDII and GMLAN protocols. Does not support global architecture protocol.

01002668 Tech 2 Starter Kit\*  
01002398 Tech 2 "Pro" Kit\*

\*Both kits come with pre-loaded General Motors scantest software. Additional TIS 2 Web software must be purchased separately via the ACDelco Tech Connect website.



**Essential Features**

- ▶ Authentic General Motors software coverage from model year 1992 to current
- ▶ Covers all powertrain, chassis, and body systems
- ▶ Enhanced diagnostics on GMLAN (CAN) vehicles with optional CANdi module
- ▶ Patented bi-directional control testing



Additional 32MB card available 02002994-001Card PCMCIA 32Mb VTX



01002844 General Motors CANdi module kit (Included in 01002398 kit)

**Complete Solution Components**

Tech 2 Scan Tool



Technical Information System (TIS 2 Web)



Electronic Service Information (ESI)



**What Makes the Tech 2 Different?**



Access to all on-board systems



Multiplex network module status



Enhanced GMLAN



Comprehensive OEM-validated bi-directional control testing



Bosch diagnostic tools and Shop Foreman Pro equals increased shop efficiency



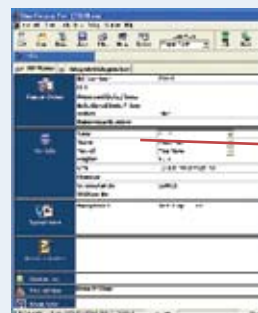
**Shop Foreman Pro is an information portal designed to streamline diagnostics, web based information, J2534 programming and diagnostic record management in the service bay.**

Shop Foreman Pro is a PC application containing a fully integrated interface that allows you to view and analyze data from one or more diagnostic testers in a variety of highly useful formats not available on the testers themselves. Data can be captured, annotated, and saved to provide clear, graphical representations of problems and their solutions. Shop Foreman Pro's built-in web browser allows the simultaneous viewing of web based service information with diagnostic data.

Shop Foreman Pro contains a Global OBD II function which interfaces with other J2534-compliant devices to display ECU data on a PC monitor, and is compatible with:

- ▶ Mastertech M-VCI
- ▶ MTS 3100 Mastertech
- ▶ MTS 5200 Engine Analyzer
- ▶ Flasher Pro
- ▶ MTS 1100 Gas Analyzer
- ▶ MTS4100 NVH

## Integrate with Shop Management System



Web Browser



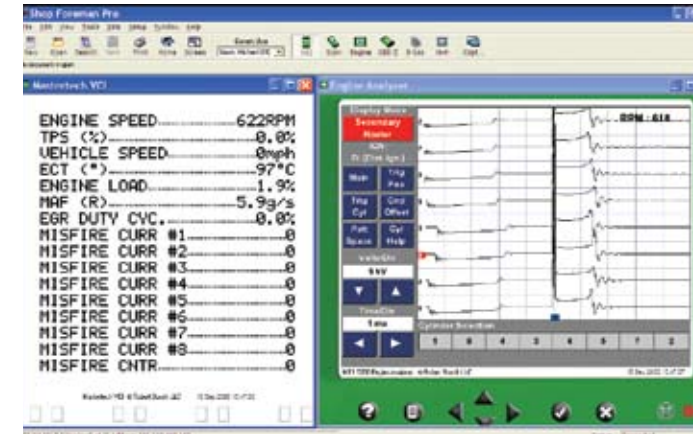
Repair Order

Shop Foreman creates a repair order for the technician to record information relevant to the customer, vehicle, diagnosis and repair.

Create a searchable database to recall solutions to specific symptoms, improving efficiency of future repairs.

## Perform Scan Diagnostics, Oscilloscope Testing and More

The Technician may toggle between the connected Diagnostic Tools, Web Based Service Info, the SFP Repair Order and any saved diagnostic records.



**Record up to 80 minutes of data to your hard drive. Display the data in 9 different formats .**



## Vehicle Health Check

The Vehicle Health view is a static display of the emissions monitors on the vehicle. The data is collected from the vehicle and displayed in a useful format for viewing and printing.

- ▶ DTCs
- ▶ Freeze Frame(s)
- ▶ OBD II Monitors
- ▶ I/M Readiness Test
- ▶ Drive Info
- ▶ Current Data
- ▶ O2 Sensors
- ▶ In-Use Performance Tracking

F00E900036 Shop Foreman Pro

## Report Printout and E-mail Support



### Report Printout

Quickly generate a diagnostic report printout for your customers as part of a courtesy check or to share diagnostic test results.



### E-mail Support for Diagnostic Records

E-mail copies of records in the Integrated Diagnostics tab within a Shop Foreman Pro document.



# Diagnostics Software

## KTS Scan Tool Software



### Deep diagnostic coverage is available for:

- ▶ Audi
- ▶ BMW
- ▶ Mini
- ▶ Mercedes-Benz
- ▶ VW
- ▶ Volvo
- ▶ Honda/Acura
- ▶ Toyota/Lexus/Scion
- ▶ Nissan/Infiniti
- ▶ Hyundai
- ▶ Kia
- ▶ Ford
- ▶ Chrysler
- ▶ General Motors (in 2010)

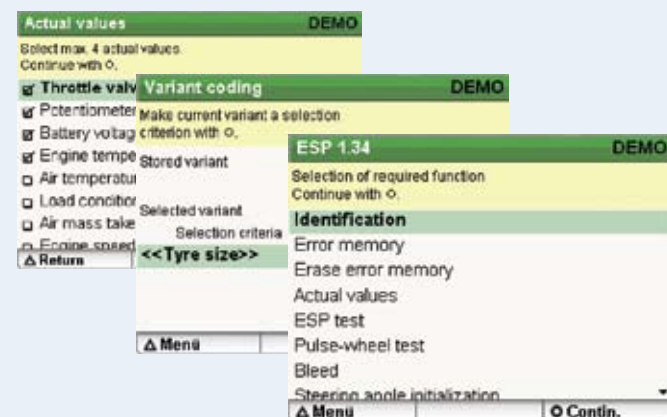
**Four updates per year ensure data accuracy feature enhancements.**

### ECU diagnosis is the foundation for a successful service business.

With the ever increasing amount of electronics in motor vehicles, simple maintenance work will soon require ECU diagnosis.

- ▶ Automobile manufacturers recommend to read all trouble codes in their maintenance schedules.
- ▶ A scan tool is required for programming the service interval display, even for work which was once purely mechanical.
- ▶ Brake control systems such as ABS, TCS and ESP require activation of the solenoid valves in various high-pressure pumps when bleeding the brake hydraulic system, or changing the brake fluid.

## Your Advantages



### Software Capabilities:

- ▶ Read/Erse Codes
- ▶ Data (Actual Values)
- ▶ Actuator tests
- ▶ Special functions (Brake Bleed Test, TPMS...)
- ▶ Future J2534 capability (for KTS 670/570)

# Diagnostics Software

## Mastertech Scan Tool Software



### Deep diagnostic coverage is available for:

- ▶ General Motors/Saturn
- ▶ Ford/Lincoln/Mercury
- ▶ Chrysler/Jeep
- ▶ Toyota/Lexus/Scion
- ▶ Honda/Acura
- ▶ Nissan/Infiniti

### Make sure that your Mastertech scan tool has the most updated software.

Bosch provides software for both the Mastertech MTS3100 and the Mastertech M-VCI, allowing you to have the most up-to-date information available.

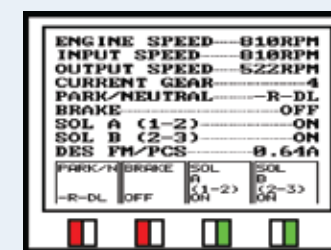
Software offerings for the Mastertech MTS 3100 is available for vehicle model years 1981 through 2008. Some coverage may vary. Software is tool-based, available from a cartridge.

Software offerings for the Mastertech M-VCI is available for vehicle model years 1996 through 2008. Some coverage may vary. Software is web-based, available for download from [www.boschdiagnostics.com](http://www.boschdiagnostics.com)

### Vehicle Systems coverage includes:

- ▶ Powertrain Systems (engine and transmission)
- ▶ Chassis Systems (ABS, traction control, steering)
- ▶ Body Systems (SRS, HVAC, BCM, IPC, anti-theft)

## Your Advantages



MTS 3100 Screen View



M-VCI PC Explorer View

### Software Capabilities:

- ▶ Read/Erse Codes
- ▶ Data (actual values)
- ▶ Actuator tests
- ▶ Special function testing (brake bleed test, TPMS, etc)
- ▶ J2534 capability (for M-VCI)



# Flasher Pro (J2534 Reprogrammer)

Vehicle Interface Module (all vehicle makes capable)



F00E900161 Flasher Pro

### Easy reprogramming with confidence for all vehicle makes and models.

It is estimated that 60% of vehicles (1996 to present) have OEM ECU calibration updates available, presenting the opportunity for a quick return on investment (ROI).

The Flasher Pro Vehicle Interface Module (VIM), along with OEM programming application software, provides dealer-level programming capabilities for all makes, all models at a fraction of the cost of a proprietary OEM dealer diagnostic tool, and unlimited expansion technology for your future. Free upgrades to firmware available via the diagnostic website: [www.boschdiagnostics.com](http://www.boschdiagnostics.com)

Note: Requires the use of OEM software purchased from the OEM website.

## Flasher Pro



**1 PC/Host Interface:** RS232 or USB connection to a PC for vehicle programming and firmware updates.

**Vehicle Interface (all makes, all models)**  
Connects to vehicle OBDII J1962 DLC via a cable and supports the following protocols.

- ▶ CAN/ISO 15765/GMLAN
- ▶ CAN (Dual or Single Wire)
- ▶ Ford SCP (J1850PWM)
- ▶ General Motors Class 2 (J1850VPW)
- ▶ KWP2000 (ISO9141/14230)
- ▶ Chrysler SCI (J2610)

Pre-2004 vehicles (1996–2003) may use an OEM proprietary connector requiring a special cable adapter.

# Flasher LT (J2534 Reprogrammer)

Vehicle Interface Module (vehicle make specific)



### Easy, faster reprogramming with confidence at a lower cost for specific vehicle makes.

The Flasher LT offers users a J2534 compliant device at a low cost. The device features a direct connection to a laptop or desktop PC via a USB 2.0 full speed connection. All of the electronics are contained in the OBD-II connector shell, making for a compact and rugged vehicle communications solution.

The Flasher LT is powered by the USB interface, so there's no reinitialization necessary if the device is unplugged from the vehicle interface. Free upgrades to firmware available via the diagnostic website: [www.boschdiagnostics.com](http://www.boschdiagnostics.com)

Note: Requires the use of OEM software purchased from the OEM website.

## Flasher LT Part Numbers

Description and Part No.	Re-programming supported*	Vehicles supported
<b>Flasher LT-General Motors</b> F00E900075	ECU and security key relearn using General Motors TIS, TIS2000 and TIS2WEB service	All General Motors J1850PWM and CAN-equipped vehicles
<b>Flasher LT-Ford</b> F00E900076	ECU and PATS key programming using <a href="http://motorcraftservice.com">motorcraftservice.com</a>	All Ford J1850PWM and CAN-equipped vehicles
<b>Flasher LT-Chrysler</b> F00E900077	ECU programming using <a href="http://techauthority.com">techauthority.com</a>	All Chrysler J1850PWM and CAN-equipped vehicles
<b>Flasher LT-Import</b> F00E900078	ECU using Toyota TIS and EBAAH for VW and Audi-equipped vehicles	All ISO9141, KWP2000 and CAN-equipped vehicles from Toyota, VW and Audi



## General Motors MDI (J2534 Reprogrammer)

Scan Tool



### Authentic General Motors MDI vehicle communication interface for wireless diagnostics and J2534 reprogramming.

The General Motors MDI is a PC based vehicle diagnostic tool. Using General Motors sourced software, this device offers full diagnostic capability for all General Motors vehicles.

The General Motors MDI also allows for ECU reprogramming of all General Motors manufactured vehicles. Dealer level capability at an affordable price. Handles all current General Motors J2534 reflashing protocols. Hardware kit only.

Note: Requires software subscription to General Motors SPS (Service Programming System), which must be purchased separately via the ACDelco Tech Connect website. Also requires the use of OEM software purchased from the OEM website.

F00K108322 General Motors MDI OEM Tester

### Kit Contents



#### The Bosch MDI kit includes:

- ▶ MDI interface assembly
- ▶ DLC J1962 cable
- ▶ Cat5e patch cable (14 ft.)
- ▶ USB cable
- ▶ International power supply with 4 inserts
- ▶ MDI software CD/Guide

## MMD 540H Hybrid Multimeter

Digital Multimeter



The Bosch MMD 540H Hybrid Multimeter is a CAT safety rated, auto ranging digital multimeter designed for use in diagnostics of electronic circuits. Whatever your shop services: automotive, fleet, motorcycle, marine or small engine, the MMD 540H has the capability to keep up with your business.

#### The MMD 540H offers:

- ▶ CAT III (1000v) safety rating for hybrid vehicle circuits
- ▶ Peak, Min/Max readings as fast as 1 millisecond
- ▶ Higher amperage test ranges, up to 20 Amps
- ▶ Inductive RPM clamp for conventional and DIS ignition systems
- ▶ Fused diagnostic test leads for safe trouble shooting (up to 20 amps) at the circuit fuse location
- ▶ K-Type thermocouple for quick temperature measurement
- ▶ Large LCD display with bright backlighting and auto shutdown
- ▶ Tri-lingual users manual on CD (English, Spanish, French)
- ▶ Rugged nylon case with handle for efficient storage

### The Bosch MMD 540H Hybrid Multimeter kit

#### Kit includes:

- ▶ Nylon storage case with handle
- ▶ Extra long test leads
- ▶ Inductive RPM clamp
- ▶ Additional fused diagnostic test leads for ATC and Mini fuse types
- ▶ K-type thermocouple
- ▶ 9 volt battery
- ▶ CD based, tri-lingual users guide



F00E900101 MMD 540H Hybrid Multimeter Kit



# MTS 5200 Engine Analyzer

Scope/Engine Diagnostics



## One hand-held solution for complete engine analysis.

The MTS 5200 is the single solution for all your engine analysis needs. Now you can have the power of the “big box” analyzers in one portable hand-held tool.

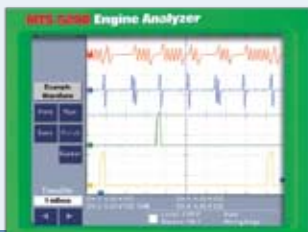
## 4 Tools in 1

Graphing Multimeter/DVOM

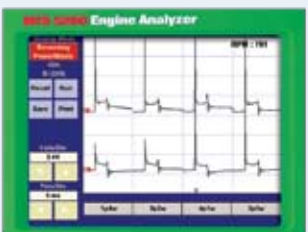


Base Kit

4-channel Oscilloscope



Ignition Analyzer



Ignition Package

Engine Analyzer



Mechanical Test Package

Start with the basic kit and build the MTS 5200 to fit your diagnostic needs.

# MTS 5200 Engine Analyzer

## Modular Design

Build the functions as they are needed to make a fully functioning engine analyzer.

**Start** with a 4-channel oscilloscope and a graphing multimeter.

**Next**, add the ignition upgrade package and get primary and secondary ignition support.

**Then**, add the vacuum, pressure and failed cylinder test package and get a full complement of mechanical tests.



1

**Auxiliary Connection**  
Expansion port provides connection for additional instrumentation such as vacuum and pressure probes.

2

**Primary Ignition**  
Primary ignition is 600V compatible with all primary ignition signals.

3

**Ignition Sync**  
BNC input connection for ignition trigger service for the #1 cylinder identification.

4

**Secondary Ignition**  
Large screw-on secondary connector ensures a solid electrical connection.

5

**Power Connection**  
12V power connection with AC/DC adapter or the internal battery pack (NiMH).

6

**DVOM**  
DVOM connections allow easy lead attachment with standard leads.

7

**Color Display with Touchscreen**  
Large, 8" high resolution color display with built-in touchscreen technology and brightness adjustment.

8

**Communication Ports**  
Connects the MTS 5200 to other peripheral devices, includes LAN port for Ethernet connection.

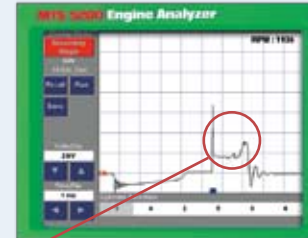
9

**Rubber Cushion Protection**  
Durable side cushions protect the MTS 5200 from accidents.

- F00K108032 DSO and DVOM Engine Analyzer Kit
- 01002884 Engine Analyzer Ignition Upgrade Kit
- 01002883 Vacuum/Pressure/FCI Upgrade Kit
- 01002882 Current Probe Kit (includes high and low current clamps)
- F00K104944 Coil on Plug (COP) Flex Wand
- F00K104954 Coil on Plug (COP) Loop Probe Kit

## Complex Problems... Simple Solutions

Coil On Plug



Good burn time

**Painless COP diagnosis** displays a waveform in three easy steps

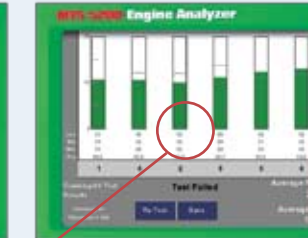
Multichannel Pinpoint Test



Faulty crankshaft position sensor

**Simplified intermittent diagnosis** using the multichannel sensor display

Cranking kV



Weak coil output

**Efficient ignition analysis** in less than 60 seconds

Vacuum Per Cylinder



Low vacuum on cylinder #2

**Comprehensive mechanical testing** includes vacuum, pressure and ignition kV





### FSA 740 Vehicle System Analyzer is a complete solution for today's complicated vehicles.

The FSA 740 offers professional automotive service centers a complete diagnostic system, that combines the FSA 720 with a convenient cart allowing mobility and space for expandable accessories.

- ▶ Oscilloscope with 50Ms/s and 1Ms record buffer
- ▶ Automatic test procedures and component tests
- ▶ Signal generator for on-car sensor test
- ▶ Ignition analyzer focused on modern systems

Use the FSA 720 as a stand-alone diagnostic device, providing the same functionality, but is used with existing shop equipment.

### FSA 740 Essential Features

- ▶ FSA 720 measurement module with convenient sensor and cable storage
- ▶ PC
- ▶ Printer
- ▶ Easy-to-read flat panel display
- ▶ Durable roll-around cart perfectly suited for the shop environment

### FSA Essential Functions

- ▶ Signal generator for simulation of sensor signals
- ▶ Measurement module handles the classical engine test to maximize test data and reduce set-up time
- ▶ Component test category with 47 presets for testing individual sensors and actuators
- ▶ Universal oscilloscope provides signal activity, detailed zoom and playback function
- ▶ Ten sensor slots allow effective work without continuous sensor changing



KTS 570 for scan diagnostics can be integrated for even greater functionality

F00E900056	FSA 740 Complete Engine Diagnostic System
F00E900055	FSA 720 Diagnostic Measurement Module*
1687224973	Universal Coil on Plug Wand
1687224969	30A Probe FSA
1684462374	Primary Uni 8 Lead
1687224837	Add-on kV+
1687224834	Add-on kV-
F00E900057	Panasonic Tablet PC with DVD

\*A PC or laptop is required to operate the FSA 720



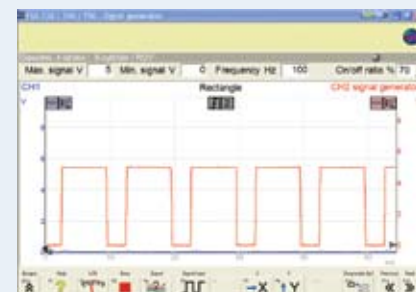
Optional Shop-Rugged Tablet PC

## Innovative Application

Performance test of vehicle communication network



Signal generator for simulating sensor signals



Test procedures for Battery, Starter and Compression

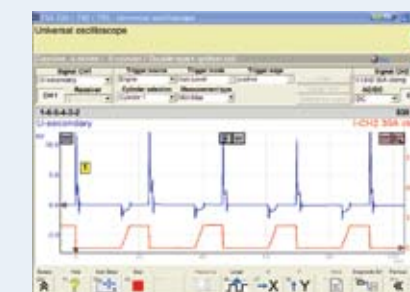


## Affordable functionality

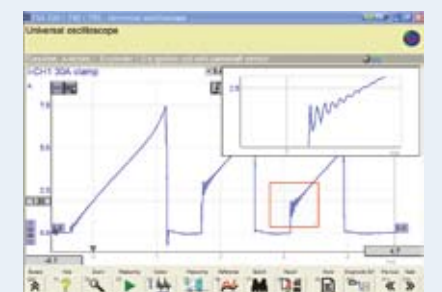
Oxygen Sensor Test measures low voltage signal



Universal Oscilloscope lets you build the display you need



Universal Oscilloscope's zoom function allows for detailed analysis







### Electrical system diagnostic analyzer with advanced battery and starter system testing.

The BAT 151 is a versatile, reliable and easy-to-use electrical diagnostic tool for today's modern automotive service center.

### Essential Features

- ▶ Enhanced starter system testing
- ▶ Improved alternator diagnostics
- ▶ Advanced battery testing
- ▶ Cable drop verification testing
- ▶ Expandable platform eliminates costly tool obsolescence



- 1 Data Transmitter**  
Sends the test results to an optional IR printer.
- 2 6-Pin Connector**  
Connection for the battery test cable.
- 3 Accessories Port**  
An RJ45 connector with a release lever for accessory test cables.
- 4 Thermal Printer**  
An optional integrated thermal printer.
- 5 Backlit Display**  
128 X 64 pixel graphic backlit display.
- 6 LED**  
Lights in conjunction with beeping alarm to indicate transitions and warnings.
- 7 Control Panel**  
Keypad and power button.
- 8 USB Connector**  
This mini USB allows for future accessories.
- 9 DB-9 Port**  
This port allows for future accessories.
- 10 Spring-loaded SD Card Slot**  
Allows for test data storage and software upgrades.

- F00E900066 BAT 151 (Base unit) Electrical System Diagnostic Analyzer and Battery Tester
- F00E900067 Optional Integrated Printer
- F00E900068 Optional Amp Clamp
- F00E900069 Cable Drop Cable Set
- F00E900070 DMM Junction Box and Probe Set
- F00E900235 BAT 151 Complete Package (all above part numbers)

## Expandable Electrical Diagnostic Platform

### Advanced Electrical System Diagnostics Featuring Digital Signal Processing

- ▶ Digital Signal Processing (DSP) provides the capability to digitize the measured alternator output voltage and evaluate the spectral content of the signal to provide a detailed and accurate analysis.
- ▶ Provides the ability to analyze the amplitude level and frequency of the diode ripple pattern for improved accuracy and identification of open or shorted diodes and open phase conditions.

### Enhanced Starter Diagnostics Including Optional Amp Clamp

- ▶ Combines voltage drop with amps measurements to fully diagnose all parts of the starting system.
- ▶ Output includes current draw graph and voltage drop graph when using optional amp clamp.

### Conductance Cable Verification Test

- ▶ Uses conductance technology to calculate the voltage drop across the positive (+) and negative (-) sides of any circuit and total circuit drop without running the engine.
- ▶ Pre-set tests for battery ground, starter and alternator circuits, and user-defined test are available.

### Dynamic Conductance Battery Testing Technology

- ▶ Combines direct temperature measurement with deep scan technology to improve accuracy and decisiveness.
- ▶ Advanced preventative maintenance algorithms for identifying batteries as they approach end-of-life.

## Expandable Electrical Diagnostic Platform

### Complete Multimeter with Scope Mode

- ▶ AC/DC volts
- ▶ Temperature
- ▶ Ohm meter
- ▶ Scope
- ▶ Diode test
- ▶ AC/DC amps
- ▶ Volts/Amps mode

### Enhanced Communication Capabilities

- ▶ USB port for expansion/communication options.
- ▶ SD card read/write allows for record keeping, data transfer and upgrades.

### Program Management Tools

- ▶ Password protected administrative mode.
- ▶ User ID system to help drive and manage product use.
- ▶ Enhanced counters report testing data, including lifetime use, results dispersion, battery tests vs. full system tests, and tests per user.

### Improved User Interface

- ▶ Large graphical screen, hot keys, and full alpha-numerical keypad.
- ▶ Flexible design for mounting to a counter or cart.





The BAT 110 is a rugged workshop battery tester that uses conductance technology to provide quick and accurate testing of batteries, charging systems and starter systems.



- 1 LED Display**  
Bright, large, easy to read display.
- 2 LED Communication**  
Battery condition is indicated by illuminated LEDs.
- 3 Testing Capability**  
Capable of testing AGM and standard flooded batteries.
- 4 Temperature Conditions**  
Temperature compensation for accurate test results.
- 5 Quick Navigation**  
Large, easy-to-use navigation buttons.

### Essential Features

- ▶ 12V load-free battery tester
- ▶ Suitable for testing lead-acid batteries: standard, maintenance-free, plus AGM batteries
- ▶ Capable of diagnosing 12V starter and charging systems
- ▶ Lowest voltage storage function when testing starter systems
- ▶ Highest and lowest voltage storage function when testing charging systems
- ▶ Tests CCA norms\*, as well as IEC, DIN, SAE, and EN
- ▶ Accurate test results under all temperature conditions
- ▶ Indicator for defective battery
- ▶ Solid and rugged housing stands up to daily shop use
- ▶ The four digit LED voltage screen, three LED indicators and the arrow keys enable easy and intuitive handling of the device

\*A JIS Conversion table is located on the back of the device.

F00E900258 BAT 110

## Efficient and Affordable

A quick reference guide is located on the back of the unit for starting and charging system tests, as well as a JIS conversion chart.



The BAT 110 is designed for a variety of uses in the workshop. Perform numerous, reliable tests efficiently with the clear, easy-to-use navigation buttons.

### Specifications

Test Method	Conductance, non-loading	Display	4-digit LED numeric display, 3 LED indicators
Battery Test	12V starter batteries (standard, maintenance-free, and AGM)	User Interface	Push-button operation
Power Supply	From test battery with voltages from 5.5V	Operating Instructions	14 languages
Voltmeter	5.5 – 19.99V DC	Cable	1.3 ft
Operating Range, Amps	200 to 850 CCA, 200 to 900 SAE/EN, 120 to 550 DIN/IEC	Weight	10.4 oz
Test State/Diagnostic Capability	Battery life, voltmeter, starter system, charging system	Dimensions (WxHxD)	7.75" x 3.85" x 1.57"
		Warranty	1 year





**The latest technology for air conditioning service is fully automated, accurate and easy to use for maximum shop efficiency and productivity.**

Bosch ACS 615 offers the quality, performance and convenience features that today's shops demand. Fully automated operation, unparalleled accuracy, easy maintenance and Bosch reliability offer the total package for busy technicians who need to get the job done right the first time.



- 1 Control panel turret rotates 90° in either direction for unrestricted visibility.
- 2 Ergonomic handle/cord storage adds convenience.
- 3 Externally mounted oil recovery and oil charge bottles for easy access.
- 4 Durable, aircraft-quality wiring harness.
- 5 Powerful 6 CFM vacuum pump.
- 6 On-board 30-lb charging cylinder.
- 7 Large, pressure-protected compressor with oil return.
- 8 Rigid steel base provides robust component mounting platform.
- 9 Fully-locking, debris-free, non-stick casters for easy movement.
- 10 Maintenance-free, ultra-low rolling resistance, foam-filled rear wheel assemblies resist flat-spots.

- F00E900178 ACS 615 Digital Air Conditioning Refrigerant Handling System
- F00E900181 ACS 615 Vehicle Refrigerant Database
- F00E900182 Replacement Filter Kit

**Essential Features**

- ▶ Fully compliant with the new SAE J2788 standard
- ▶ Innovative 180° swivel control turret houses easy-to-read 4" gauges, large 4 x 20 character LCD display and intuitive keypad
- ▶ Fully-automatic programming for increased shop efficiency
- ▶ Easy-access filter for reduced maintenance time
- ▶ Ergonomic whale-tail handle also easily stores hose
- ▶ Easy rolling foam-filled rear wheels won't go flat
- ▶ Externally-mounted oil bottles for easy access
- ▶ Wireless remote technician notification system option increases technician efficiency
- ▶ Optional vehicle refrigerant/oil capacity database helps reduce comebacks

**Quality Built Throughout**



Two convenient USB ports accommodate both the optional database and PC connection.



Pre-assembled, 100% pre-tested manifold assembly delivers reliability and ease of maintenance.



Unique swivel control turret maximizes visibility without having to reposition the unit.

**Specifications**

Electrical	120VAC - 60HZ - 12 AMP 230VAC - 50HZ - 6 AMP (optional)	Compressor	3/8HP - 0.8kW, pressure protected, balanced start-up, oiled, hermetically sealed
Shipping Dimensions	50"H x 22"W x 35"D (127cm x 56cm x 89cm)	Condenser Fan	Industrial duty
Weight	Approximately 255 lbs (116 kg)	Vacuum Pump	6 CFM, dual stage, 29.9 InHg
Operating Ranges	32° - 120°F (0° - 49°C)	On-board Charging Cylinder	30 lbs (13.6 kg) DOT
Scale Accuracy	J2788 compliant	Recycling Filter-Drier	Spin-on type
Recovery Accuracy	J2788 compliant	Warranty	2 years
Hoses	9 ft (2.74 m)		



## Make Bosch Your Single Source

Bosch offers a complete line of both high quality wheel service equipment, and state-of-the-art diagnostic and test equipment, as well as all the necessary software. These professional and precise undercar and underhood products are designed to help keep your repair shop operating at peak efficiency, and maximize your profitability. To learn more about our products, visit [www.boschdiagnostics.com](http://www.boschdiagnostics.com). To locate your nearest representative, please visit [www.boschdiagnostics.com/Support/SalesRep/Pages/SearchSalesRep.aspx?reptype=Diagnostics](http://www.boschdiagnostics.com/Support/SalesRep/Pages/SearchSalesRep.aspx?reptype=Diagnostics). To place an order, contact customer service at **1-800-321-4889**, ext. 4, opt. 4.

### Wheel Service Equipment

- ▶ Brake Lathes
- ▶ Tire Changers
- ▶ Wheel Aligners
- ▶ Wheel Balancers
- ▶ Nitrogen Tire Filling System

### Diagnostic Test Equipment

- ▶ Scan Tools
- ▶ J2534 Reprogrammers
- ▶ Battery Test Modules
- ▶ Engine Analyzers/Scopes/Meters
- ▶ A/C Refrigerant Handling System



**BOSCH**  
Invented for life

Robert Bosch LLC  
2800 South 25th Avenue  
Broadview, IL 60155  
Phone: 847-865-5200  
[www.boschdiagnostics.com](http://www.boschdiagnostics.com)