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OTC 1



### OTC's Family of Scan Tools

# Genisys



OTC Scan Tools are best in class... best in diagnostic power... best user features... best vehicle coverage... best investment value!

OTC Scan Tools are the choice of professional technicians who want to work faster, smarter and improve their shop's bottom line. For more than 80 years, OTC has been the One Tool Company professional technicians trust to meet their needs for specialty tools and diagnostic equipment.

# Nemisys





## ScanPro

Call 1-800-533-6127 www.otctools.com

## Code Scanner



2 **OTC** 

### OTC's Genisys

#### Productivity IS...

Coverage (Best in Class)

#### **BEST IN CLASS**

Genisys is simply the best and fastest automotive aftermarket hand-held scan tool you can own. Why? In less time than it takes other scan tools to even boot up, Genisys can provide a comprehensive diagnostic evaluation—all at the push of a single button. That means you fix vehicles faster with fewer comebacks. That's productivity. And feature for feature, Genisys can't be beat on price either. That's value. That's the bottom line.

#### **Productivity Begins with Coverage**

As an aftermarket repair shop, you need to service the wide variety of vehicles that enter your service bays everyday. These vehicles can be USA domestic, Asian or European. They can even be your fleet customers' tow truck, delivery van, or construction vehicle that require heavy-duty software to diagnose. It is a big challenge for any repair shop.

There are choices. One choice is to spend \$100,000 or more buying all the OEM tools you would need and thousands more each year to update them. Then the challenge is to make a profit and stay in business. Another choice is to buy a competitively priced aftermarket tool—such as Genisys—to cover all your needs.

#### **OEM Data Licenses**

OTC scan diagnostics is built on OEM vehicle data. Our valued OEM partners include GM, Ford, Chrysler, Toyota, Honda, BMW, Volkswagen and many more. Using vehicle data direct from an OEM under license provides a larger amount of data at a higher quality. The information is not reverse engineered, a costly method usually passed on to the end user in higher tool and update pricing.

#### **Coverage Additions to Older Vehicles**

Probably the biggest misconception is that a Genisys model year update only includes new vehicle year coverage, like 2006. That can't be further from the truth. It is not unusual for sub-system information, from our OEM partners, to arrive two or more years after vehicle release. At OTC we place this new information into the tool. This year is no exception. More information was received for this year's domestic, Asian, and European updates than any year in OTC's history. For a preview, go to www.genisysotc.com/literature.php and view the application coverage manuals.

#### Free Product Improvement Updates

Periodically, free software updates are released. These updates—delivered via the Internet using free Windows software provided in each kit—can be for any of the Genisys vehicle applications or system improvements. This concept is not available from most competitors.

#### Experience, Service and Leadership

Scan diagnostics is not new to OTC. It began in 1984 with the first Chrysler OEM scan tool. Today the Chrysler StarScan is still produced in the same factory as Genisys. With new scan manufacturers springing up domestically and off shore, who can you trust? You can count on OTC—with over 80 years in the automotive industry—to support you now and in the future. Genisys is backed by a global sales and service infrastructure. When spending your hard-earned money, go with the One Tool Company technicians trust—OTC.

#### Productivity IS... Speed (System 2.0)

### **Genisys System 2.0**

System 2.0 is a new software application and a high-speed compact flash card containing Power Features that will improve the performance of all Genisys scan tools.

#### POWER FEATURES:

#### Fast Boot

- Approximately 10 seconds for the new Genisys
- Approximately 15 seconds for the Genisys Classic (3454 and earlier)

**New User Interface** – Provides Genisys with a new improved icon-based user interface. (Think MS DOS to Windows XP.)

**Code Reader Mode** – Allows user to read or clear codes fast. Now Genisys can boot into a code reader mode FAST— approximately 5 seconds!

Personalization – A custom setup mode for user preferences.

- User configurable Function Keys user selected applications at one button
- Interface Selection New System 2.0 (icon based) or Genisys Classic



### OBD II Smart Cable<sup>™</sup> and Automated System Test<sup>™</sup>



### Productivity S... OBD II Smart Cable™

### OBD II Smart Cable™

- · Has the combined power of more than 50 System Smart Inserts.
- Eliminates the need for many current and future System Smart Inserts.
- · Provides improved test capability and accuracy.

#### **Bottom Line Benefits**

- · Improved technician satisfaction
- Faster diagnosis
- More convenient
- · Higher technician productivity

**IMPORTANT:** OBD II Smart Cable is designed to work with any of the following applications: USA 2006 Domestic, USA 2006 Asian, USA 2005 European, 2004 ABS/Air Bag and Heavy-Duty Standard.

Patent Pending

#### Select:

Automated System Test
Diagnostic Trouble Codes
Datastream
Custom Datastream
Integrated Diagnostic – Scan/Gas
Special Tests
Playback Recorded files

System Analysis Test Repo The following information was found during the system test: 3FNET16P336170832 1234567890123456 <+> Primary System ENGINE/PCM

#### Trouble Codes: 12 found Freeze Frame Data: 105 items Component Tests: 181 failed tests

Readiness Monitors: 2 incomplete



010

### Productivity IS... Automated System Test™

### Automated System Test™

#### Now Available with USA 2006 Domestic, USA 2006 Asian, USA 2005 European and USA 2004 ABS/Air Bag Software Applications

- With one button press, Automated System Test performs a system "health check" of all available vehicle controllers.
- Any trouble codes found are reported along with other vital scan data.
- Repair-Trac<sup>™</sup> pattern failures and available repair information are linked to trouble codes of the top known component failures.

Automated System Test<sup>™</sup> is the default selection in Diagnostic Menu. One button press and it will perform the test and report the data in a fraction of the time it used to take using manual, step-by-step procedures.

A System Analysis Test Report summarizes the findings. The primary controller is that selected by the technician. The secondary controllers are any others found with a report on their DTC status.

Selecting the Detail Screen provides specifics on the primary and secondary controllers. Pressing Enter on any DTC provides the technician with any available code information for that specific vehicle.

#### See a sample of Test Vehicle on page 8

2001 Chevrolet Silverado 5.3L 4X4 (9 Systems available) (2 codes engine system, 2 codes sub-system)

### ELECTRONIC DIAGNOSTICS USA 2006 Domestic Software

### Productivity IS... Packaged for You

# USA 2006 Domestic Software with Pathfinder

#### New Expanded Systems Coverage and Special Tests

- · Ford bi-directional special tests.
- New vehicles, systems and approximately 200 NEW special tests are added for earlier year vehicles as well as 2006 models.
- Domestic 2006 provides coverage back to 1980 with focus on vehicles technicians see in their shops everyday.
- NEW Mode 6 Summary Screen sorts all failed Mode 6 tests to the top for easy identification.

#### New Code Library

- Fast access to OBD II Generic and OEM Enhanced DTC's from the Repair Information Menu.
- Pathfinder Troubleshooting Code Information available from Code Library.

#### New USB Drive Expanded Recording

- · Read the extended recordings on Genisys or the PC.
- · Data recordings without a USB drive are extended to 1000 frames!

# USA 2006 Domestic Software includes three powerful repair information databases!

#### Pathfinder Troubleshooting Information

Pathfinder troubleshooting information from 1992 to 2005 provides critical information at the technician's fingertips. In addition to the Repair-Trac<sup>™</sup> and Fast Fixes<sup>™</sup> databases, repair information includes:

Symptoms

- Code information
  - formation
- Specifications
- Data/sensor information
   TSB references
- PCM connector information 
   Component location

#### Repair-Trac<sup>™</sup> Tech Tips

As the vehicle fleet ages more pattern-failure tech tips are available. Many Domestic, Asian, and European older vehicle tips added. Repair-Trac is the largest database of known vehicle-specific fixes available to the automotive aftermarket. Only the NGIS scan tool has the diagnostic power and the largest repair database to help you work smarter. Check it out:

- Coverage from 1969 through 2005 for USA domestic, USA Asian, and USA European vehicles.
- Aftermarket TSB's based on information from over 2 million tech service calls.
- Access Repair-Trac from the Main Menu, Data Stream, or Trouble Code menus.

#### Fast Fixes<sup>™</sup> Repair Information Database

Fast Fixes is a "sister" information database to Repair-Trac. No pattern failure listed for the vehicle's symptom? No problem. Fast Fixes data provides a vehicle-specific checklist of the most likely and most overlooked causes.

#### Systems covered:

- Engine performance · Brakes · Starting
- Steering 
   Charging 
   Suspension 
   HVAC



The english of the second seco

The engine missires intermittently or all the time

No start after PCM/VCM (Powertrain Control Module/Vehicle

Control Moudule) replacement.

Diagnostic Trouble code B1001 is set after replacement of the Powertrain Control Module (PCM) or Body Control Module (BCM) with a u Repair Trac Problems and Fixed

#### PROBLEM:

The ignition coil housing crossfires within the coil housing causing a miss in cylinders 1 and 3.

#### TEST & FIX:

To prove that the coil housing is causing the misfire: Turn the ignition coil assembly upside down, connect the four plug wires to each coil cover housing terminal. Connect

🖉 Print

### USA 2006 Asian and USA 2005 European Software



Productivity IS., Packaged for You

### USA 2006 Asian Software with Pathfinder

#### Now with Honda OEM coverage and expanded bi-directional test!

Powerful Asian 2006 diagnostics includes more new system and bi-directional coverage than can be listed. The 2006 release now integrates Repair-Trac<sup>™</sup> tech tips and Fast Fixes<sup>™</sup> into Asian software.

New key features include:

**Functionality includes:** 

Data Stream

· Diagnostic Trouble Codes

Actuator Tests (bi-directional tests)

- NEW-over 500 bi-directional special tests added to Asian 2006 software.
- NEW Honda licensed OEM data coverage includes engine, transmission, ABS, air bag, tire pressure monitor, and more body and chassis systems.
- NEW Hyundai and Kia enhanced engine coverage.
- · Enhanced engine and transmission data stream and read codes for Nissan (1990-2006 DDL1 & DDL2 protocols), Mitsubishi and Mazda (1996–2006), and Toyota (through 2006).

USA 2005 European Software with Pathfinder

Genisys European 2005 software package. More OEM coverage, more

system coverage and more value than any other aftermarket scan tool!

A dedicated European scan tool is no longer required with the new

- · ABS and air bag support for Nissan, Mitsubishi (1996-2006), and Toyota (includes keyword protocols for 1998–2006).
- Expanded Toyota OBD I, 1995 and older coverage.

### Fast Fix 2002, BMW X5, 3.0L ct Symptom False ABS Activation (most likely causes) False ABS Activation (most overlooked causes)

(most likely causes)

Pulls in one direction when applying the brakes (most overlooked causes)

### **BMW** Coverage

Genisvs now includes licensed BMW OEM data. You would have to buy the BMW OEM tool to get more coverage!

#### **BMW** coverage includes:

1987 – 2005 Model Years

### VW/Audi Coverage

Genisys now has best in class coverage for VW/Audi, comparable or exceeding any other aftermarket diagnostic tool. Functions include controller coding, throttle body alignment, oil light reset, and the ability to change convenience settings.

#### VW coverage includes:

1987 – 2005 Model Years

Audi coverage includes:

1986 – 2005 Model Years



Engine

Air Bag

#### System coverage includes: Transmission

- ABS
- Most Body System Most Chassis Systems

### Volvo Coverage

Volvo coverage started with the ABS VOLVO and Air Bag coverage in our current ABS/Air Bag 2004 software and now has expanded to include most controllers.

#### Volvo coverage includes:

1993 – 2005 Model Years

### Mercedes Coverage

Mercedes coverage has been expanded. You will find more system coverage than ever. Like the other OEM's considerable functionality added to earlier model vears.

#### Mercedes coverage includes:

1986 - 2005 Model Years





Note: Requires System 2.0. Smart cable 3421-88 may be required for BMW application coverage.

Pulls in one direction when applying the brakes

# **ELECTRONIC DIAGNOSTICS** Heavy-Duty Standard and InfoTech 2006 Software

<ul> <li>Heavy-Duty Standard</li> <li>Eeturing: <ul> <li>Class 4 – Class 8 truck coverage.</li> </ul> </li> <li>HD J1587 / J1708 and J1939 CAN, Engine, Transmission/ABS coverage and more!</li> <li>tive vehicle data such as: <ul> <li>Engine speed</li> <li>Engine ECU temperature</li> <li>Percent acceleration pedal position</li> <li>Engine intercooler temperature</li> <li>Battery volts</li> <li>Alternator volts</li> <li>Ambient air temperature</li> <li>Air inlet temperature</li> </ul> </li> </ul>	Application Manager       1) Select the calconnector icon matches what is the truck.         Image: Imag	that is on
View and clear diagnostic trouble codes.     Windows PC software.	Required Cables:	
Applications: Tow trucks, recreational vehicles, cement trucks, dump trucks, garbage trucks, buses, step vans, municipal vehicles, refrigerated trucks, and conventional trucks.	3) Connect the appropriate cable to Genisys and the truck.	
Supported Manufacturers Include: Mac Trucks, GM, GMC, Freightliner, Ford, Kenworth, Peterbilt, International, Volvo and more medium and heavy-duty vehicles. Transmission and ABS Systems Include: Bendix, Detroit, Eaton, Meritor WABCO,	4) Press Enter to continue and Genisys automatically searches the system and displays all available controllers.	Sen E JISSDICAN
Caterpillar, Cummins, Allison, etc.	New Rouse C De	emo

### InfoTech 2006 Software

- · Domestic, Asian, and European vehicle coverage for vehicles on the road today.
- · Engine, transmission, and ABS systems covered.
- Asian and European coverage added for component wiring, circuit descriptions, component and control module locations.
- · Vehicle System Test (multiple charging, fuel, and ignition tests)
- Engine Specifications
- Functional Tests
- Circuit Description
- · Component Locations
- Wiring Diagrams
- Connector Information
- Component Specifications
- Reference Waveforms
- Oil Light Reset Procedures
- · Current Ramping Tests
- Transducer Tests



into rech venicle Coverage					
Feature	Domestic	Asian	European		
Component Functional Tests – includes reference waveforms					
and display presets	1985– <mark>2006</mark>	1985– <mark>2006</mark>	1985– <mark>2006</mark>		
Component Specifications	1984– <mark>2006</mark>	1984– <mark>2006</mark>	1984– <mark>2006</mark>		
Component Wiring Diagrams	1993– <mark>2006</mark>	1993– <mark>2006</mark>	1993– <mark>2006</mark>		
Circuit Description	1993– <mark>2006</mark>	1993– <mark>2006</mark>	1993– <mark>2006</mark>		
Component Locations	1993– <mark>2006</mark>	1993– <mark>2006</mark>	1993– <mark>2006</mark>		
Control Module Locations	1993– <mark>2006</mark>	1993– <mark>2006</mark>	1993– <mark>2006</mark>		
Vehicle System Tests	All	All	All		
Torque Specifications	1984–2004	1984–2004	_		
Oil Light Reset	1984– <mark>2005</mark>	1984– <mark>2005</mark>	1985– <mark>2005</mark>		
Transmission Pan ID Charts	1984–2004	-	_		
Indexed Information	All	All	All		

All

NOTE: Red text indicates updates from InfoTech 2005.

**Repair-Trac Quick Fixes** 

Pin 1 : BAT (+

Pin 2 : SIGNAL Wire Color = L Pin 3 : GND



All

All

### Genisys Scope with InfoTech 2006 Software

### Genisys Scope with InfoTech 2006 Software (Note: Requires System 2.0.)

Genisys is a powerful 4-channel scope with the functionality required to analyze the most sophisticated vehicles. InfoTech software provides the key information to transform a driveability or component fault into a fast and accurate repair.

Copy files to and from USB.

4 MHz sample rate on all channels.
Update via Compact Flash or PC.

· Print via standard desktop color printer.

#### Genisys Scope Features and Benefits

- 4-channel full-function scope.
- Adjustable glitch capture.
- Smart Card security.
- Auto ranging function data.
- Custom enclosure—horizontally oriented and ergonomic.
- User selectable background color.
- Sunlight readable display.
- Modular design allows for future expansion capabilities.

#### Ignition Scope Capabilities:

- Primary/secondary Distributorless ignition Coil-on-plug
- Raster Parade

– RPM

- Single cylinder - Record

#### 4-Channel High-Speed Lab Scope Graphing and Digital Multimeter:

- Frequency - Duty cycle



Manual selection

for tests



#### Productivity IS...

– Ohms

#### Diagnostic time savings for you!

- Superimposed

Productivity means having the information to fix the car right the first time and fast. The comparison below illustrates this dramatically. In a little over 1-1/2 minutes, Automated System Test scanned the available systems on a 2001 Chevy Silverado and provided an information detailed report. During that 1-1/2 minutes the technician

didn't even have to participate—its all automatic. That test time can be used performing a visual inspection under the hood or any other required task. And don't underestimate the button pushes. Only 10 were required using Automated System Test compared to 191 manually! Let Genisys do the work.

Automated

System Tests

#### Test Vehicle

Volts

#### 2001 Chevrolet Silverado 5.3L 4X4 (9 Systems available) (2 codes engine system, 2 codes sub-systems)

#### Engine System

- 1. Automated System test
- 2. Read trouble codes (engine system) Current/History/Pending codes
- 3. Review freeze frame data (Mode 2)
- 4. See component tests that failed (Mode 6)
- 5. Review Oxygen Sensor Test (Mode 5)
- 6. Review Readiness monitors
- 7. Look at DataStream and review related data items.
- 8. Run tests review repair data menu for DTC (start count with DTC highlighted)
  - a. Circuit Description b. Possible Causes
  - c. Code Setting
- d. Data Stream Items
- Sub-Systems
- 9. Read trouble codes (Global OBD II system) Current/History/Pending codes
- 10. Read trouble codes (ABS system) Current/History/Pending codes
- 11. Read trouble codes (Air bag system) Current/History/Pending codes
- 12. Read trouble codes (Body Controls system) Current/History/Pending codes
- 13. Read trouble codes (Instrument panel cluster system) Current/History Pending codes
- 14. Read trouble codes (Elect. Vari. Orifice system) Current/History/Pending codes
- 15. Read trouble codes (RTD/EVO system) Current/History/Pending codes
- 16. Read trouble codes (Transfer Case system) Current/History/Pending codes

#### Total key presses and time to review information

All key presses referenced from the diagnostic function menu.



http://genisysotc.com/astdemo/

e. Repair Trac

#### Key presses Key presses 1 1 2 1 5 3 N/A N/A 4 0 12 5 0 16 6 0 9 7 2 2 8 1 63 а 1 1 b 1 1 2 2 с d 1 1 е 1 1 7 9 0 10 0 12 0 11 11 12 0 11 13 0 13 12 14 0 0 15 12 16 N/A N/A 10 Total 191 Total

### **GM SPS Reprogramming and Genisys Training**

X OTC

### **USA GM SPS Reprogramming**

OTC is proud to present the All Modules Reprogramming Kit to allow your customers to reprogram and recalibrate all reprogrammable control modules in their 1993-2007 model year General Motors vehicles.

This software subscription includes 12 months of updates on CD for registered owners.

In addition OTC is offering renewal kits for both the engine and all module USA GM SPS Reprogramming kits. These renewal kits will continue your SPS subscription and delivery of update DVDs.

Genisys Requirements: USA 2006 Domestic software.

Note: GM will be moving to a new Web based Software Delivery Process in the near future. This will replace DVD's.

Your shop computer must fulfill these minimum PC requirements for the GM SPS program:				
CPU	Minimum PC Spec.	Recommended PC Spec.		
	Intel Pentium IV 1.3 GHz	Intel Pentium 4 3.0 GHz, 865G chip set. 800 MHz or greater front side bus, 1024 KB L2 cache		
Hard Drive	20 GB ATA	40 GB Smart III Ultra ATA/100		
RAM	256 MB SDRAM	512 MB RAM or greater		
Video RAM	16 MB DRAM	Integrated AGP w/64 MB or greater		
Optical Drive	40X/16X CD/DVD combo drive	40X/16X CD/DVD combo drive		
Operating System	Microsoft Windows 2000 Pro (SP4 or XP Professional (SP2	Microsoft Windows XP Professional SP2 with Internet Explorer 6.0		
Anti-Virus Protection	Current version of commercially available virus protection	Current version of commercially available virus protection		
Comm. Ports	1 Parallel, 1 Serial, 1 USB	1 Parallel, 1 Serial, 1 or more USB		
Important: For the latest GM minimu	m PC specifications visit http://www.gmd	e.net/standards.cfm		

### **Genisys Training**

#### Use the Genisys itself, DVD, or our trainers.

Protect your investment by getting the most out of your scan tool. Genisys has a number of built-in training and demo features, and OTC provides additional training on an DVD, and through personal trainers.

The more you learn about the capabilities of Genisys, the better you will become at servicing your customers' vehicles, and that's good for the bottom line.

- Quick-Start Tutorial—Built into the Genisys, to get a new user working within minutes of turning on the scan tool, is a slide show that runs automatically, or you can control it similar to operating a VCR.
- **Demonstration Mode**—Exclusive to Genisys, the Demo Mode allows you to select ANY vehicle contained in the embedded software and review specific test functions. Great for practice while reviewing the manual or training DVD. Good for previewing specific diagnostic tests before a customer's vehicle arrives at your shop.
- **On-site Personal Training**—For a nominal charge, OTC offers personal instruction at your shop by a qualified Genisys trainer. (Get up to four hours of personal training FREE with purchase of Genisys Master Kit No. 3681, or 3421-28 training purchase, U.S. only.)



### **Genisys Software Kits**

#### Genisys Super Bundle Productivity Kit

This powerful kit maximizes technician productivity with the three most popular Genisys options - OBD II Smart Cable, USA 2006 Domestic software, and USA 2006 Asian software. Each software application includes the new Automated System Test feature.



"Requires

No. 3421-90 - Genisys super bundle productivity kit.

**IMPORTANT NOTE:** System 2.0 required to install; see No. 3421-84.

No. 3421-88 - The new OBD II Smart Cable is essentially "plug and play."

# 2006 Software"

#### System 2.0 Starter Kit

Kit includes the System 2.0 software, a high-speed compact flash "super card", NGIS CD, card reader, and compact flash cover for your scan tool.

No. 3421-84 – System 2.0 starter kit.

**IMPORTANT NOTE:** This kit is required to install applications for Domestic '06, Asian '06, European '05, HD Standard, and InfoTech 2006.

### USA 2006 Domestic Software Update Kit

This OBD II Smart Cable compatible update kit includes expanded vehicle coverage, Pathfinder troubleshooting

with Repair-Trac, Fast Fixes, Automated System Test, Smart Card, manual, ConnecTech Reader, and the NGIS Windows-based program



CD for downloading software updates.

No. 3421-82 – USA 2006 Domestic software update kit.

IMPORTANT NOTE: System 2.0 required to install; see No. 3421-84.

#### InfoTech 2006 Driveability and Component Test Diagnostic Software

InfoTech 2006 software is available for all Genisys scan tools! No Genisys Scope is required.

Genisys without Scope -InfoTech 2006 is available from the Repair Information menu and operates as a



stand-alone electronic database. InfoTech data is also integrated into the new Automated System Test analysis.

Have a scope already? No problem, now add repair info!

Genisys with Scope - InfoTech 2006 not only provides the powerful repair information, but also sets up the Genisys scope for you!

The kit includes InfoTech 2006 Smart Card, manual, and the NGIS Windows-based program CD for downloading software updates.

No. 3421-83 – InfoTech 2006 software update kit. IMPORTANT NOTE: System 2.0 required to install; see No. 3421-84.

#### USA 2006 Asian Software Update Kit

This OBD II Smart Cable compatible update kit is for Genisys owners who already have the Asian Import 2000 or 2003 starter kits and want to update software coverage to 2006. Asian 2006 includes the



new Automated System Test feature. Kit includes the NGIS software CD, manual, and Smart Card.

No. 3421-85 - USA 2006 Asian software update kit.

IMPORTANT NOTE: System 2.0 required to install; see No. 3421-84.

#### USA 2006 Asian Software Starter Kit

This OBD II Smart Cable compatible starter kit is for Genisys owners who want to add coverage for Asian OBD I and OBD II

software and cables through 2006. Asian 2006 includes the new Automated System Test feature. Kit includes the NGIS software CD. Asian 2006 Smart Card. Asian specific OBD I

vehicle cables, and manual. What you need to start servicing Asian vehicles.

No. 3421-86 - USA 2006 Asian software starter kit.



This cable kit is for Genisvs owners who have the USA 2006 Asian software. but need the Asian-specific OBD I vehicle cables.

No. 3421-87 - USA Asian cable kit (cables only).

#### **Genisys Heavy-Duty Starter Kit**

Genisys Heavy-Duty Standard software includes J1587/1708 and J1939 CAN communications.

Kit includes 9-pin Deutsch cable. 6-pin Deutsch cable, heavy-duty System Smart Insert, Smart Card, and PC software CD.

No. 3421-79 - Genisys heavy-duty starter kit. **IMPORTANT NOTE:** System 2.0 required to install; see No. 3421-84.





## <u>ELECTRONIC DIAGNOSTICS</u>

### **Genisys Software Kits**

#### USA 2005 European Software Update Kit

This kit is for Genisys owners who already have European 2003 and want to update coverage to 2005. Kit includes European Smart Card, manual, and CD. (The new BMW cable and Mercedes 38-pin SSI



must be purchased separately, see kit No. 3421-77.)

No. 3421-73 - USA 2003 European software update kit. Note: Requires System 2.0. Smart Cable 3421-88 is required for BMW application coverage.

#### USA 2005 European Starter Kit

Get European coverage in a single kit! This starter kit allows you to service select European manufacturers: Audi, BMW, Mercedes-Benz, Volvo, Volkswagen, and more. Kit includes software CD. Smart Card, Mercedes 38-pin cable, Mercedes 1-pin cable, Mercedes



38-pin SSI, BMW cable, and Volkswagen/Audi cable.

No. 3421-74 - USA 2005 European starter kit with cables. Note: Requires System 2.0. Smart Cable 3421-88 is required

for BMW application coverage.

#### USA European Cable Kit

"For users that have European 2005 software and no European OBD I cables." Kit includes Mercedes 38-pin cable, Mercedes 1-pin cable, Mercedes 38-pin SSI, BMW cable, and Volkswagen/Audi cable.

No. 3421-75 - USA European cable kit. Note: Smart Cable 3421-88 is required for application coverage.

#### USA European Cable Update Kit

These cables are for Genisys owners who already have European 2003 cables and want to update cables to 2005. Kit includes Mercedes 38-pin SSI and BMW cable.

No. 3421-77 - USA European

cable update kit.



Note: Smart Cable 3421-88 is required for application coverage.

#### Genisys DVD Training

Customized training - This full length video program is based solely on the Genisys.

Enhanced training - Takes you beyond the basics of the Genisys.

Train at your own pace - The TEAM AVI training format using chaptered DVDs allows you to start and stop.

Step-by-step instructions - On using the most powerful diagnostic functions.

How to use - Graphing, recording, and record playback for those "intermittent" problems.

#### USA 2004 ABS/Air Bag Software Starter Kit



3421-54

#### ConnecTech<sup>™</sup> PC Software Kit

Use your PC for more diagnostic functionality! No. 3421-36 – Genisvs ConnecTech PC software kit. Includes ConnecTech software CD, Smart Card, and 20' cable to PC.

#### Forget the Cables... Go Wireless with Genisys PC Wireless Kit!

Coverage range up to 1,750 ft./533 m, depending upon multiple variables.

No. 3421-37 - Genisys ConnecTech PC wireless kit. Includes ConnecTech software CD, Smart Card, wireless LAN PC card, and USB wireless access point.

No. 3421-38 - Genisys to PC wireless kit. Includes wireless LAN PC card and USB wireless access point.

**IMPORTANT NOTE:** System 2.0 required to install; see No. 3421-84.

3421-37

3421-36

3421-38

In-depth training – Goes beyond button pushing to showcase such important features as Pathfinder troubleshooting, graphing, and more.

Ease of use - Questions on the Genisys are covered in the training and can be reviewed quickly, even in the shop.

No. 3615 - Genisys DVD Training. Contains two full-length DVDs and an illustrated manual for shop use. Training is based on System 2.0 and 2005 software.

3615



### **Genisys Tester Kits**



3780

#### **Genisys GM All Modules** Reprogramming Starter Kit

This kit provides the ability to reprogram all reprogrammable modules on 1993 to 2005 General Motors vehicles. Includes the authentic GM application and data DVD's (for Windows), PC hardware security lock, Smart Card, System Smart Insert, manuals, and a 12-month subscription to updates of GM AC Delco application and data DVD's.

No. 3421-46 – Genisys GM all modules reprogramming starter kit. IMPORTANT NOTE: USA 2006 Domestic required; see No. 3421-82.

#### Genisys Scope Module with InfoTech 2006 **Driveability Software Kit**

Includes the Genisys 4-channel lab scope module with four DMM leads, ground lead, kV conventional ignition lead, GM HEI ignition adapter, ignition sync lead, manual, InfoTech 2006 repair information software Smart Card, and carrying case.

No. 3688 - Genisys scope with InfoTech 2006 software kit. IMPORTANT NOTE: Must be used with System 2.0: see No. 3421-84.

#### **Genisys Performance 5-Gas Module**

The Genisys emissions repair solution. Kit includes the plug-in Performance 5-Gas Analyzer Module, hose, probe, Gas M-P software, regulator, filters, manual, and carrying case.

No. 3780 - Genisys Performance 5-gas Module.

IMPORTANT NOTE: System 2.0 required to install; see No. 3421-84.



#### Genisys Exchange Kit with System 2.0

Trade in your old Genisys for one with all the newest features and a 3-Year Warranty. This exchange kit includes a BRAND NEW Genisys scan tool, OBD II Smart Cable, carrying case, CD, manual, and return mailer. System 2.0, USA 2006 Domestic with Pathfinder, USA 2006 Asian with Pathfinder and USA 2004 ABS/Air Bag are pre-loaded. For those who already own a Gas Module and GM Reprogramming, Smart Cards are included.

No. 3687 - Genisys exchange kit with System 2.0.

NOTE: When you return your used Genisys tool to the factory, FREE InfoTech 2006 and ConnecTech PC software kits with Smart Cards will be shipped to you. (Allow 6 to 8 weeks for delivery.)



#### **Genisys Heavy-Duty Standard Deluxe Kit**

Includes Genisys scan tool, OBD II Smart Cable, Automated System Test, Heavy-Duty Standard software, USA 2006 Domestic with Pathfinder, Repair-Trac, Fast Fixes, USA 2006 Asian, InfoTech 2006, USA 2004 ABS/Air Bag software, manuals, adapters, and domestic OBD I vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), and carrying case.

No. 3669HD - Genisys Heavy-Duty Standard deluxe kit. (USA Asian OBD I cables not included; see Kit No. 3421-87.) (USA ABS/Air Bag cables not included; see Kit No. 3421-54.)

3669HD

### ELECTRONIC DIAGNOSTICS Genisys Tester Kits

#### Genisys USA 2006 Deluxe Kit

Includes Genisys scan tool, OBD II Smart Cable, Automated System Test, USA 2006 Domestic software with Pathfinder, Repair-Trac, Fast Fixes, USA 2006 Asian, USA 2004 ABS/Air Bag software, InfoTech 2006 software, manuals, adapters, domestic OBD I vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), Smart Cards, and carrying case.

No. 3669 – Genisys USA 2006 deluxe kit. (USA Asian OBD I cables not included; see Kit No. 3421-87.) (USA ABS/Air Bag cables not included; see Kit No. 3421-54.)

### Genisys USA 2006 Deluxe Kit with ABS/Air Bag-Specific Cables

Includes Genisys scan tool, OBD II Smart Cable, Automated System Test, USA 2006 Domestic software with Pathfinder, Repair-Trac, Fast Fixes, USA 2004 ABS/Air Bag software and vehicle-specific cables, USA 2006 Asian software, InfoTech 2006 software, manuals, adapters, domestic OBD I vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), Smart Cards, and carrying case.

**No. 3670** – Genisys USA 2006 deluxe kit with ABS/air bag-specific cables.

(USA Asian OBD I cables not included; see Kit No. 3421-87.)

### Genisys USA 2006 Domestic Scan and Scope with InfoTech 2006 Software Kit

Includes Genisys scan tool, OBD II Smart Cable, Automated System Test, USA 2006 Domestic software with Pathfinder, Repair-Trac, Fast Fixes, USA 2006 Asian software, InfoTech 2006 software, USA 2004 ABS/Air Bag software, manuals, adapters, domestic OBD I vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), 4-channel lab scope module with 4 DMM leads, ground lead, kV conventional ignition lead, GM HEI ignition adapter, ignition sync lead, manuals, Smart Cards, and carrying case.

No. 3671 – Genisys USA 2006 Domestic scan and scope with InfoTech 2006 software kit.

(USA Asian OBD I cables not included; see Kit No. 3421-87.) (USA ABS/Air Bag cables not included; see Kit No. 3421-54.)

### Genisys USA 2006 Domestic Scan, Gas, and Scope with InfoTech 2006 Software

Includes Genisys scan tool, OBD II Smart Cable, Automated System Test, USA 2006 Domestic software with Pathfinder, Repair-Trac, Fast Fixes, USA 2006 Asian software, InfoTech 2006 software, USA 2004 ABS/Air Bag software, manuals, adapters, domestic OBD I vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), 4-channel lab scope module with 4 DMM leads, ground lead, kV conventional ignition lead, GM HEI ignition adapter, ignition sync lead, manual, Smart Cards, Performance 5-Gas Analyzer Module with hose, probe, Gas M-P software, filters, and carrying case.

**No. 3681** – Genisys USA 2006 Domestic scan, gas, and scope with InfoTech 2006 software.

(USA Asian OBD I cables not included; see Kit No. 3421-87.) (USA ABS/Air Bag cables not included; see Kit No. 3421-54.)



INCLUDES 4 HOURS OF FREE ON-SITE TRAINING, U.S. ONLY

3671

3681







### Nemisys™ Scan Tool









#### Nemisys™ Scan Tool

Nemisys<sup>™</sup> is an automotive scan tool designed in the new millennium and powered by OTC Genisys<sup>™</sup> technology. Nemisys covers early OBD I systems and all OBD II protocols, including the newly released Controller Area Network (CAN) protocol. CAN protocol was introduced in 2003 model year vehicles and is the mandated protocol in all new vehicles by 2008.

#### **Many Powerful Features**

- 320 X 240 Monochrome Graphic Display
- Data Graphing
- USA Domestic OBD I & OBD II coverage (1984 thru 2006)
- Global OBD II Asian & European coverage (1996 thru 2006)
- Domestic Enhanced Data & DTCs
  - Engine, Transmission, ABS, Air Bag
- CAN Enabled—no adapters to buy
- OBD II Mode 6
- Domestic Repair Information
  - Typical Sensor / Data Specs
- Record / Playback
- ScanMate Lite PC Software
   File Disubasis File
  - File Storage, File Playback, File Print

Ford '84-2006

• Vehicle Protocols: CAN, J1850 VPM, J1850 PWM, ISO 9141, Keyword 2000, UART, SCP, SCI, CCD, and more.

#### 2006 Vehicle Coverage

GM '84–2006

Chrysler '88–2006

Jeep '91–2006 Saturn '91–2006. Asian '96–2006 (Global OBD II).

European '96–2006 (Global OBD II).

#### Improved ScanMate PC Software

Upload recordings, play back recordings, print reports, export captured data in spreadsheet format, get Internet updates, email and share data recordings, view data in line graph, bar graph, meter, digital, or superimposed format.

#### Nemisys USA 2006 Domestic Scan Kit

Includes Nemisys scan tool loaded with 2006 Domestic software; OBD II cable; Ford, GM, Chrysler OBD I cables; ScanMate Lite PC software; scan tool to PC cable; 12-volt power cable; Quick Start Guide included with CD-based manuals in Spanish, French, English; and a professional carrying case.

No. 3797 - Nemisys USA 2006 Domestic scan kit.

No. 3774-11 – Nemisys USA 2006 Domestic update kit ('84–'06).

**No. 3774-12** – Nemisys USA 2006 Asian update kit includes '96-2006 software with enhanced data on Toyota, Honda, Nissan, Mitsubishi, and Mazda.

**No. 3774-13** – Nemisys USA 2006 combination update kit. Includes USA 2006 Domestic update ('84–'06) and USA 2006 Asian update ('96–'06).

#### Nemisys Cables

No. 3774-01 – DB25 to OBD II cable.

- No. 3774-02 DB25 to GM OBD I cable. No. 3774-03 – DB25 to Ford OBD I cable.
- **No. 3774-04** DB25 to Chrysler OBD I cable.
- **No. 3774-05** Cigarette plug power cord.

#### ABS Reader II

The latest technology for servicing ABS and air bag systems. The new Genisys-based tool is loaded with Genisys ABS/Air Bag and Global OBD II software. The ABS software also includes system codes and data from Domestic and Asian 2005.

#### The ABS Reader II features:

- Graphic display
- Fast data retrieval
- · Enhanced data and recording functions
- ScanMate ABS PC software for uploading recorded files, storage, and printing
- · Internet/memory card update capability
- · Protective rubber over-mold and 3-year warranty

#### ABS/Air Bag Software features and coverage:

- Diagnose ABS pattern failures with Repair-Trac<sup>™</sup> Tech-Tips
- Expanded ABS Pathfinder™ troubleshooting
- Tests through 2004 for GM, Chrysler, and Jeep
  - Chrysler/Jeep: many systems added, including rear wheel ABS and brake bleed for some systems
  - GM: bi-directional tests updated
- Expanded Ford coverage through 2005
- Volvo coverage from 1993 through 2004
- Volkswagen supported from 1990 through 2004
- Audi supported from 1992 through 2003
- Asian ABS and air bag coverage: Toyota, Lexus, Honda, Acura, Mazda, Mitsubishi, Nissan, Infiniti, Isuzu
  - Toyota/Lexus ABS special tests added
  - Honda ABS data added
- Powerful scan functions
  - Read and erase fault codes on ABS and air bag systems
  - Provide accurate definitions of fault codes
  - Display data stream information on most vehicle systems
- Over 900 new advanced diagnostic bi-directional functions on Delco, Bosch, and Teves
  - GM "motor rehome"
- Manual and hydraulic control
- Gear tension relief
  Brake bleeding tests
- Enable relays
   Voltage and lamp test
- Solenoid test
- ABS Reader II 2005 Kit

Kit includes: ABS Reader II tool; System Smart Inserts; cables and adapters necessary to support Domestic, Asian and European coverage; ScanMate ABS PC software; operations manual, and carrying case.

No. 3416 - ABS Reader II 2005 Kit.

#### ABS Reader II 2005 Exchange Kit

This exchange kit is intended for owners of the No. 3762 ABS Reader. It includes: ABS Reader II tool; System Smart Inserts; cables and adapters necessary to support Domestic, Asian and European coverage; ScanMate ABS PC software, and operations manual. Note: Owners will use existing No. 3762 case and some existing cables.

#### No. 3416-01 - ABS Reader II 2005 Exchange Kit

(Owners of the No. 3761 who did not update with the No. 3763 ABS 2002 kit will require additional cable purchases.)



**OTC** 15

### OTC ScanPro™





3499

#### OTC OBD I and OBD II ScanPro™

OTC ScanPro is an ergonomically designed, full function OBD I and OBD II scan tool that provides enhanced powertrain coverage for GM, Ford, and Chrysler. All compliant manufacturers 1996 to 2006 are covered with Global OBD II including CAN-basedvehicles.

#### Features:

- OBD II enhanced functionality displays enhanced vehicle data from vehicle computer for 1996 and newer vehicles
- Graph data 1996 and newer only (OBD II)
- · Multilingual menu options English, French, Spanish
- · Read, record & playback live sensor data
- OBD I functionality cables included for '84-'95 Ford, '84-'95 GM and '89-'95 Chrysler vehicles
- · USB cable included for product updates
- · Updateable via the internet

#### **Other Features:**

- · PC compatible with ability to print
- State OBD II check (emissions)
- · Battery powered for review of data off vehicle
- OBD II code library built into tool
- Vehicle information (includes VIN number and calibration IDs)
- · O2 monitor test
- Diagnostic monitor test
- Large, graphic backlit LCD
- Optional cables available: 3498-11 Chrysler LH cable 3498-10 Ford MECS cable

#### **NEW FEATURES!**

- Supports OBD I & OBD II enhanced functionality for GM, Ford & Chrysler
- Honda OEM enhanced DTC's for OBD II
- Enhanced data stream

#### Scanning Suite C.D.

- Browse Manuals
- Update Tool
  DTC Look-up
- Print Companion

**OTC ScanPro®** Includes CD with the new Scanning Suite software, manual, padded nylon storage case, 6 AAA batteries, USB cable, with vehicle cables to support OBD II, Ford OBD I MCU/ EEC-IV, Chrysler OBD I SCI, and GM OBD I ALDL.

No. 3499 - OTC ScanPro®.

# ELECTRONIC DIAGNOSTICS OTC OBD I and OBD II Code Scanner®

#### OTC OBD I and OBD II Code Scanner®

OTC Code Scanner is an ergonomically designed multi-function code scanner that retrieves GM, Ford and Chrysler OBD I and all generic OBD II diagnostic trouble codes for all 1996 to 2006 foreign and domestic OBD II compliant vehicles as well as display selected enhanced codes for GM, Ford, Chrysler and Toyota and certain manufacturer's specific codes for Asian and European vehicles.

#### **Functions:**

- · Read hard and pending codes and their definitions
- · Erase codes and reset MIL
- · View freeze frame data
- PC upload and printing capability
- Off vehicle data review

#### Features:

- OBD I functionality cables included for '84-'95 Ford, '84-'95 GM and '89-'95 Chrysler vehicles
- · Functions on all 1996 to current OBD II compliant vehicles
- CAN capability
- · Internal library of trouble code definitions
- · Fully upgradeable to support future vehicles and tool enhancements via flash programming
- · Easy to use, menu driven software
- · Large, 128 x 64 backlit graphic display with adjustable contrast
- · Displays codes and descriptions on the same screen
- Padded ballistic nylon storage case
- Detachable cable
- 3-year warranty

#### **NEW FEATURES!**

- Supports OBD I & OBD II enhanced functionality for GM, Ford & Chrysler
- Honda OEM enhanced DTC's for OBD II
- · Scanning Suite C.D.
  - Browse Manuals Update Tool
  - Print Companion DTC Look-up

#### **OTC Code Scanner®**

Includes CD with the new Scanning Suite software, manual, padded nylon storage case, 6 AAA batteries, USB cable, with vehicle cables to support OBD II, Ford OBD I MCU/EEC-IV, Chrysler OBD I SCI, and GM OBD I ALDL.

No. 3498 - OTC Code Scanner®.





3498

### OTC AutoCode™ & OTC Ready Scan™



3494

#### PO305 Cylinder5 Misfir

The Tool Features provides trouble code data telling you why the "Check Engine" light is on.



Erases trouble code turning off the "Check Engine" light.



Helps you determine if you will pass emission test by reading I/M monitors (can display 11 different I/M monitor codes).

#### OTC AutoCode™

OTC AutoCodeTM can easily retrieve diagnostic trouble codes (DTCs) from your vehicle's computer, leading you to the problem area. Use on all OBD II and CAN compliant cars and light trucks sold in the U.S. from 1996 to current.

Features and Benefits

- Compatible with all 1996 and newer vehicles (including the new CAN protocol)
- Provides trouble code data telling you why the "Check Engine Light" is on
- Erases trouble code turning off the "Check Engine Light"
- · View freeze frame data
- · Code look up through internal library of definitions
- No vehicle manual required, trouble code data displayed on screen
- Provides pending code data notifying you of potential problems
- Helps you determine if you will pass emission test by reading I/M monitors
- · Hot keys for quick read and erase DTC
- · Large, menu-driven, easy to read LCD display
- Field upgradable

#### OTC AutoCode™

Includes CD with DTC Look-up software, Attached 8' OBD II cable and a blow-molded storage case. **No. 3494** – OTC AutoCode<sup>™</sup>



#### OTC Ready Scan<sup>™</sup> Readiness Monitor Tool

A drive cycle is required after any emissions related repair. The 3358 OTC Ready Scan eliminates drive cycle guesswork by notifying any driver, or your customer, with color coded LEDs and built in speaker that the drive cycle has been completed and the vehicle is Ready.

Once the vehicle's OBD II system is Ready, repair work is confirmed. If a state emission inspection is required, a retest can then be performed. The compact tool works on 1996 and newer OBD II and CAN compliant vehicles.

#### Features and Benefits:

- Easy to install and no set up required–Connects easily into the vehicle's OBD II connector and is able to display status in 15 seconds.
- Bright color coded LED's provide Readiness Status. Green LED- Vehicle is Ready.
- Built in speaker provides audible tone every 5 minutes when vehicle becomes Ready.
- Ready Scan is powered from the vehicle-no batteries required.
- Rugged Poly carbonate housing has molded grips and OTC logo.
- 1-year warranty.
- · Assembled in USA.
- No. 3358 OTC Ready Scan™ Readiness Monitor Tool.

#### Ready Scan provides these added benefits:

- Designed to increase productivity, you no longer need to tie up expensive technician time or scan tools to perform a drive cycle.
- Ready Scan safely alerts a driver or your customer when it is time to return the vehicle to the shop. Ready Scan eliminates drive cycle guesswork and increases customer satisfaction by confirming readiness status.
- Updateable. Future update capability allows Ready Scan to be configured to specific readiness criteria.



### **ELECTRONIC DIAGNOSTICS** OTC Family Scan Tool Comparison Chart

#### **OTC Scan Tool Family Comparison Chart**



	-			V.	and the second se
	AutoCode™	Code Scanner®	ScanPro™	Nemisys	Genisys
	3494	3498	3499	3797	Works Kit
Scan Functionality					
CAN Enabled Tool (no adapters to buy)					
Global OBD II (Dom., Asian, Euro.)					
OBD II Generic DTCs					
DTC Definitions	•				
Flash Upgradeable					
State OBD Check					
Manufacturer Specific DTCs					
Manufacturer Enhanced DTCs					
Generic Data Stream					
Graph Data Stream			Single Data Item		
Enhanced Data Stream					
Domestic OBD II Enhanced					
Domestic OBD I		(DTC only)			
Domestic Non-Engine Coverage		(Trans)		(ABS, Airbag, Trans)	
Asian OBD II Enhanced		Toy/Honda DTC's	Toy/Honda DTC's	Optional	
Asian OBD I					
Asian Non-Engine Coverage				Optional	
European OBD II Enhanced					
European OBD I					
European Non-Engine Coverage					
PC Software	DTC Lookup	Scanning Suite	Scanning Suite	ScanMate	ConnecTech
Vehicle Repair Information			Ū		
Pathfinder Troubleshooting Diagnostics				Domestic Sensor Data	
Repair-Trac® VIN Specific Tech Tips					
Fast Fixes® VIN Specific Most Likely/					
Overlooked Causes					•
					•
InfoTech® Component Test S/W					•
InfoTech® Component Test S/W Options					•
InfoTech® Component Test S/W Options GM All Models Reprogramming					
InfoTech® Component Test S/W Options GM All Models Reprogramming WiFi Wireless					
InfoTech® Component Test S/W Options GM All Models Reprogramming WiFi Wireless 4-Channel Scope					
InfoTech® Component Test S/W Options GM All Models Reprogramming WiFi Wireless 4-Channel Scope 5-Gas Analyzer					
InfoTech® Component Test S/W Options GM All Models Reprogramming WiFi Wireless 4-Channel Scope 5-Gas Analyzer Hardware					
InfoTech® Component Test S/W Options GM All Models Reprogramming WiFi Wireless 4-Channel Scope 5-Gas Analyzer					

### Tech 2 Flash with GM Authentic Software



### Authentic GM software puts you in the driver's seat to fix GM vehicles right the first time.

- Graphic screen displays both test and graphics, and is capable of showing nine sensors at once.
- Snapshot graphing shows you any failures or glitches at a glance.
- Supports on-board diagnostics for all GM systems 1992-2007.
- The authentic GM software will provide full bi-directional control when performing powertrain, chassis, and body diagnostics.

GM's Service Programming System merges your Tech 2 Flash, a required PC\*, and GM's SPS CD-ROM, and lets you reprogram controllers on '93 and newer GM/reprogrammable controllers.

#### **CANdi Module**

Includes the CAN diagnostic interface module and instruction sheet. IMPORTANT: For the CANdi module to work, you must have a 32 MB PCMCIA card with at least software version 24.001 in your Tech 2 Flash.

No. 3625-20 - CANdi module. Wt., 1 lb. 4 oz.

#### Tech 2 Flash Basic Kit

Includes the OTC Tech 2 Flash, vehicle power cables, vehicle adapters, and 32 MB '92–'07 GM PC diagnostic card. Packed in a heavy-duty storage case.

**No. 3628** – Tech 2 Flash basic kit. Wt., 17 lbs. 4 oz. **Note:** Candi module is not included with this kit.

#### Tech 2 Flash Deluxe Kit

Includes the OTC Tech 2 Flash, vehicle power cables, CANdi module, vehicle adapters, and 32 MB '92–'07 GM PC diagnostic card. Packed in a heavy-duty storage case.

No. 3646 - Tech 2 Flash deluxe kit. Wt., 17 lbs. 4 oz.

#### GM ACDelco TIS Starter Kit.\*

This kit provides you with the ability to reprogram 1993-2007 GM powertrain, body, and chassis controllers. In addition, this option contains software that allows you to use your PC to update the software on your Tech 2 Flash's PCMCIA card as the updates become available. The PC-based software also gives you the ability to play back and analyze snapshots taken with your Tech 2 Flash. Kit includes a 12-month subscription to the authentic GM aftermarket ACDelco TIS software on CD-ROM disks, which will keep you updated.

No. 3625-17 - GM ACDelco TIS starter kit.\* Wt., 2 lbs. 13 oz.

#### Authentic GM Software Update Kit

This includes a 32 MB PCMCIA memory card loaded with authentic GM software covering '92–'07. Includes a one-year subscription. **No. 3625-14** – Authentic GM software update kit. Wt., 1 lb. 2 oz.

\* Your shop computer must conform to the GM SPS minimum requirements listed on page 9. For the latest GM minimum PC specifications visit HTTP: service.gm.com (select techline).

Note: GM will be moving to a new Web based Software Delivery Process in the near future. This will replace DVD's.

### **ELECTRONIC DIAGNOSTICS** Accessories and Cables

#### **GENERAL APPLICATIONS**

	Number	Description
	212541	"Y" battery connector. Used for splitting the power supply from the cigarette lighter or 12-volt power supply to the Monitor, printer, or other accessories. Wt., 4 oz.
	212636	6-ft. vehicle extension cable for Monitor 4000E or 2000 only. Wt., 5 oz.
	212638	Battery adapter for Monitor or Genisys. Used for under-hood access to 12-volt power supply. Wt., 4 oz.
	212641	12-volt power supply. Use when battery power is unavailable and you need to review data from the Monitor. Wt., 1 lb., 4 oz.
	3305-71	DB-25 extension cable to connect 25-pin Monitor and Genisys adapter cables. Wt., 13 oz.
<b>S</b>	3305-72	DB-25 to 8-pin DIN extension cable. Use with Enhanced Monitor 4000 only, to connect 8-pin vehicle adapter cables. Wt., 12 oz.
	3421-04	AC/DC power adapter for Genisys. Wt., 1 lb. 7 oz.
	3421-08	6' PC to scan tool cable, DB-9 to RJ-45. Wt., 4 oz.
	3421-44	20' PC to scan tool cable, DB-9 to RJ-45. Wt., 8 oz.
	239180	9.6V Genisys battery. Wt., 7 oz.

### SYSTEM SMART CABLES AND INSERTS

SSI 25-Pin	Number	Description	Applications
59	3421-88	OBD II Smart Cable Requires 2006 software (Genisys only) Wt., 1 lb. 2 oz.	Replaces 3305-73 cable and all system smart inserts
64	3305-73	System Smart Insert OBD II 25-pin cable Wt., 13 oz.	Use with Monitor Elite, Monitor Enhanced or Genisys. Use with 25-pin SSI.
And the second second	3306-05	Chrysler System Smart Insert Wt., 2 oz.	Chrysler Neon '95–'06 Chrysler '96–'06 OEM Enhanced
Carling and the state of the	3306-11	GM ABS Smart Insert Wt., 2 oz.	Kelsey-Hayes
Charles and a state of the stat	3306-12	GM SPS Reprogramming Smart Insert Wt., 2 oz.	SPS and all Modules Reprogramming
	3306-13	Saturn Smart Insert Wt., 2 oz.	Saturn air bag only '04
Later and the second	3306-14	Dodge/Cummins Smart Insert Wt., 2 oz.	24-valve Cummins '04 engine and '98 and up transmissions
A CONTRACTOR OF THE OWNER	3306-15	GM Smart Insert Wt., 2 oz.	Grand Prix ABS '98–2002
A DECEMBER OF A	3306-16	Mercedes-Benz Smart Insert Wt., 2 oz.	Transmission only. '04 Use 3306-22 to access engine
And the second second	3306-17	Mercedes-Benz Smart Insert Wt., 2 oz.	All engine '04 configurations and V12 right bank.
	3306-18	Mercedes -Benz Smart Insert Wt., 2 oz.	Transmission '04 data access
Carton and	3306-19	Mercedes-Benz Smart Insert Wt., 2 oz.	V12 engine '04 configurations. Left bank only.
Construction of the second	3306-20	Nissan Smart Insert Wt., 2 oz.	Use with 2003 & 2005 '04 Asian Import Software
	3306-21	Chrysler Smart Insert Wt., 2 oz.	Chrysler OEM '04 Enhanced
Ratification and and and	3306-22	CAN/OBD II Smart Insert Wt., 2 oz.	Control Area Network '04 plus all other OBD II protocols.
	3306-23	Mercedes-Benz Smart Insert Wt., 2 oz.	MB diagnostic '04 module
	3306-24	Dodge Smart Insert Wt., 2 oz.	Dodge diesel SCI '04
And the second second second	3306-26	Ford Smart Insert Wt., 2 oz.	Ford UBP #1 '04 protocol systems
	3306-27	Ford Smart Insert Wt., 2 oz.	Mid Speed (MS) '04 CAN protocol systems

#### SYSTEM SMART CABLES AND INSERTS

TSTEM SMART C	ADLES A	IND INSERTS	
SSI 25-Pin	Number	Description	Applications
Record of the second state	3306-28	Saturn Smart Insert Wt., 2 oz.	Saturn ABS system
	3306-29	Volvo Smart Insert Wt., 2 oz.	Volvo system
	3306-31	GM Smart Insert Wt., 2 oz.	Single wire low speed CAN
	3306-32	Honda Smart Insert Wt., 2 oz.	OBD II Body, Chassis engine and transmission
	3306-33	Toyota Smart Insert Wt., 2 oz.	Engine
	3306-34	Toyota Smart Insert Wt., 2 oz.	Transmission
	3306-35	Toyota Smart Insert Wt., 2 oz.	ABS
	3306-36	Toyota Smart Insert Wt., 2 oz.	Traction Control
	3306-37	Toyota Smart Insert Wt., 2 oz.	Suspension
La contrata de la con	3306-38	Toyota Smart Insert Wt., 2 oz.	Air Bag
Canal Andrewski and Andrewski	3306-41	Toyota Smart Insert Wt., 2 oz.	Air Conditioning
	3306-48	Heavy-Duty Smart Insert Wt., 2 oz.	J1587 / J1708 and J1939 / CAN
	ATION		

#### DOMESTIC APPLICATION

DOMESTIC AFFEIC	Anon			
GM	Number	Description	Model	Year
	212550	Adapter block (gray) Wt., 3 oz.	GM 5-pin diagnostic connectors	'81–'82
	212633	GM 14" vehicle adapter cable. Wt., 3 oz.	GM most systems	'82–'95
	212653	Tuned port inj. adapter cable (gray). Wt., 4 oz.	GM 5.0L TPI GM 5.7L TPI GM 2.8L V6 P4	'86 '86–'89 '87–'88
	213486	UNIV B 12" adapter cable. Wt., 4 oz.	GM ABS Teves II and Kelsey Hayes	'88–'94
	213487	CARB/UNIV A 12" adapter cable. Wt., 4 oz.	GM 4.3L GM ABS	'80½ '88–'95
	3305-17	Geo/lsuzu adapter cable. Wt., 6 oz.	GM Geo & Spectrum GM Isuzu and Luv	'87–'95 '81
	3305-18	UNIV 80 adapter cable. Wt., 3 oz.	GM 3.8L	'80 <sup>1</sup> /2
	238464	GM ABS cable. Wt., 3 oz.	GM ABS Kelsey Hayes	'90–'95
Ford	Number	Description	Model	Veer
Ford	Number	Description	wouer	Year
Ford	3305-27	Ford ABS cable. Wt., 3 oz.	Ford ABS Mystique Econoline Van	'95 '94–'96
		Ford ABS cable.	Ford ABS Mystique	'95 '94–'96 '81–'95
	3305-27	Ford ABS cable. Wt., 3 oz. Ford II 14" adapter cable (gray).	Ford ABS Mystique Econoline Van Ford EEC IV MCU, ABS, suspensio Use with Pathfinder II	'95 '94–'96 '81–'95 n.
	3305-27 3305-58	Ford ABS cable. Wt., 3 oz. Ford II 14" adapter cable (gray). Wt., 6 oz. Ford III, 25-pin, 18" cable (red) with 4' power lead.	Ford ABS Mystique Econoline Van Ford EEC IV MCU, ABS, suspensio Use with Pathfinder II or newer software. Ford EEC IV DCL ABS, suspension. Use with Pathfinder III	'95 '94–'96 '81–'95 n.
	3305-27 3305-58 3305-84	Ford ABS cable. Wt., 3 oz. Ford II 14" adapter cable (gray). Wt., 6 oz. Ford III, 25-pin, 18" cable (red) with 4' power lead. Wt., 10 oz. CARB/UNIV A 12" adapter cable.	Ford ABS Mystique Econoline Van Ford EEC IV MCU, ABS, suspensio Use with Pathfinder II or newer software. Ford EEC IV DCL ABS, suspension. Use with Pathfinder III or newer software.	'95 '94-'96 '81-'95 n. '83-'95
	3305-27 3305-58 3305-84 213487	Ford ABS cable. Wt., 3 oz. Ford II 14" adapter cable (gray). Wt., 6 oz. Ford III, 25-pin, 18" cable (red) with 4' power lead. Wt., 10 oz. CARB/UNIV A 12" adapter cable. Wt., 4 oz. Universal "C", 8-pin,	Ford ABS Mystique Econoline Van Ford EEC IV MCU, ABS, suspensio Use with Pathfinder III or newer software. Ford EEC IV DCL ABS, suspension. Use with Pathfinder III or newer software. Ford EEC II & III Ford/Mazda	'95 '94-'96 '81-'95 n. '83-'95 '79-'83
	3305-27 3305-58 3305-84 213487 3305-74	Ford ABS cable. Wt., 3 oz. Ford II 14" adapter cable (gray). Wt., 6 oz. Ford III, 25-pin, 18" cable (red) with 4' power lead. Wt., 10 oz. CARB/UNIV A 12" adapter cable. Wt., 4 oz. Universal "C", 8-pin, 12" cable. Wt., 4 oz.	Ford ABS Mystique Econoline Van Ford EEC IV MCU, ABS, suspensio Use with Pathfinder II or newer software. Ford EEC IV DCL ABS, suspension. Use with Pathfinder III or newer software. Ford EEC II & III Ford/Mazda mfd. vehicles, ABS.	<sup>995</sup> 94– <sup>996</sup> <sup>181–<sup>195</sup> <sup>183–95</sup> <sup>79–183</sup> <sup>93–94</sup></sup>

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# **ELECTRONIC DIAGNOSTICS** Accessories and Cables

DOMESTIC APPLICATION						
Chrysler	Number	Description	Model Ye	ear		
	212635	Standard 12" adapter cable. Wt., 4 oz.	Chrysler '84	-'95		
	3305-65	Chrysler III 25-pin, 18" cable. Wt., 12 oz.		-'95 -'95 nisys		
Hamess	3305-22	Chrysler CCD 14" adapter cable. Wt., 10 oz.	Chrysler CCD '88 with 4000E Non Enhanced only	-'95		
	213487	CARB/UNIV A 12" adapter cable. Wt., 4 oz.	2/3/9-pin connector Colt '85	ost –'94 –'86		
000	216094	Universal test leads. Wt., 2 oz.	Chrysler/Mitsubishi			
	3305-20	Mitsubishi/Hyundai cable. Wt., 3 oz.	М	ost		
	3305-92	Chrysler OBD II "Y" adapter.	Use on Talon, '95, 2 Avenger, & Sebring Wt., 4 oz.	2002		
	3305-93	Chrysler OBD II to 6 pin adapter.	Use for accessing '95 CCD systems at the J1962 connector. Wt., 4 oz.	, '96		

#### ASIAN APPLICATIONS

Number	Description	Model	Year
212633	GM 14" adapter cable Wt., 3 oz.	Isuzu Pickup (3.1L) Rodeo Trooper II	'91–'95 '91–'95 '89–'95
213486	UNIV B cable 12" adapter cable Wt., 4 oz.	Geo/Metro Suzuki/Swift	'91–'95 '89–'95
213487	CARB/UNIV A 12" adapter cable Wt., 4 oz.	Mitsubishi Starion Mirage Galant Cordia Tredia	'84–'86 '85–'95 '85–'95 '84–'95 '84–'95
213487	CARB/UNIV A 12" adapter cable Wt., 4 oz.	Suzuki Swift GT Swift Geo/Metro	'90–'95 '89–'95 '89–'95
213487	CARB/UNIV A 12" adapter cable Wt., 4 oz.	Daihatsu Charade Rocky	'89–'95 '90–'95
213487	CARB/UNIV A 12" adapter cable Wt., 4 oz.	Chrysler Colt Conquest TSI	'84–'94 '84–'86
3305-68	Honda/Acura Jumper Wt., 2 oz.	Honda Acura	'89–'95 '91–'95
213596	MECS 6' adapter cable Wt., 5 oz.	Mazda	'83–'95
3305-14	MET adapter cable Wt., 6 oz.	Mazda 323/Protege 929 Miata MX-3	'90–'95 '92–'95 '90–'95 '92–'95
216044	Nissan 12" adapter cable Wt., 4 oz.	Nissan	'87–'95
216094	Universal test leads Wt., 2 oz. Hyundai	Diahatsu, Mitsubishi '85-'88	'89–'92

ASIAN APPLICATIO	ONS			
	Number	Description	Model	Year
	3305-13	Toyota/Lexus	Toyota/Lexus	
		adapter cable.	Lexus-Engine	'90–'93
		Includes auxiliary	Camry-Engine	'92–'94
500-00D		probe and power	Cressida-Engine	'89–'92
		adapter.	Lexus	'90–'93
1		Wt., 10 oz.	MR2 Cressida	'85–'91 '83–'92
	Þ		Supra	83–92 83–91
Le line			Camry	'83–'94
			Celica	'85–'91
			Corolla	'85–'91
			Starlet	'83-'84
			Truck	'85–'91
			4Runner	'91
			Van	'90
	3305-15	Subaru adapter cable	Subaru	
		Wt., 6 oz.	SPFI	'87–'93
			MPFI (Except Justy)	'88–'93
			EFC (Justy)	'88–'90
	3305-16	Toyota adapter cable	Toyota	
		Wt., 5 oz.	Cressida	'83–'84
			Supra	'83–'84
	3305-17	Geo/Isuzu adapter cable	lsuzu	
		Wt., 6 oz.	I-Mark (Fuel Inj.)	'88–'89
			I-Mark (Carb.)	'87–'89
			I-Mark	'85–'86
			Impulse	'84–'92
			Pickup, Amigo	'88–'93
			(2.3 & 2.6L)	
			Rodeo	'91–'93
			Trooper II	'89–'91
	3305-17	Geo/Isuzu adapter cable	GM Import	
BA		Wt., 6 oz.	Spectrum	'87–'89
			Storm	'90–'93 '00–'00
			Geo/Metro	'90–'93
	3305-19	MECS ABS Cable	626/MX-6	'92–'93
So To		Mazda ABS	MX-3	'92–'93
		Wt., 8 oz.		
	3305-48	Mitsubishi/DS adapter cable	Mitsubishi Diamante	'92–'93
		Wt., 8 oz.	Precis	'90–'93
		111., 0 02.	3000GT	'91–'93
			Truck	'89-'93
OTC			Eclipse	'90–'93
A 50			Starion	'87-'89
			Mirage	'89–'93 '80_'03
A.			Montero Van	'89–'93 '87–'90
<b>6</b>			Sigma	'89–'91
			Galant	'87–'93
	3305-48	Mitsubishi/DS adapter	Chrysler Import	
		cable	Stealth	'91–'93
		Wt., 8 oz.	D50 Truck	'91–'93
AL OTC			Laser	'91–'93
N= 82			Vista	'89–'93 '00_'03
			Talon Colt	'90–'93 '88–'93
			Summit	'89–'93
<b>\$</b>			Raider	'89
			Conquest TSI	'87–'89
	3305-48	Mitsubishi/DS adapter	Hyundai	
OR		cable	Sonata	'89–'93
ACT		Wt., 8 oz.	Scoupe	'91–'92
			Excel (MPI only)	'90–'92
<b>W</b>				
	3305-124	Accord adapter cable	Accord	'92–'95
	l .	Wt., 4 oz.		
and the second second				
	1			
	3305-141	Nissan OBD I and II	Nissan	'89–'99
	3305-141	Nissan OBD I and II Wt., 4 oz.	Nissan	'89–'99
	3305-141		Nissan	'89–'99
	3305-141		Nissan	'89–'99
	3305-141		Nissan	'89–'99

# **ELECTRONIC DIAGNOSTICS** Accessories and Cables

EUROPEAN					
	Number	Description	Model	Year	
	3306-47	38 Pin SSI Wt., 8 oz.	Mercedes	'86–'05	
P.	3421-41	38 Pin adapter cable Wt., 8 oz.	Mercedes	'86–'05	
12	3421-42	1 Pin adapter cable Wt., 8 oz.	Mercedes	'86–'95	
Q	3421-43	VW 4 pin adapter cable Wt., 8 oz.	Volkswagen	'86–'94	
	3421-76	BMW adapter cable Wt., 8 oz.	BMW	'87–'05	

TECH 2 FLASH	_	
	Number	Description
	3000095	DLC cable use with Tech 2 Flash adapter, 10'. Wt., 1 lb., 8 oz.
	3000096	Cigarette lighter power cable WL, 4 oz.
	3000097	Battery adapter power cable Wt., 10 oz.
	3000098	OBD II 16-pin DLC adapter. '95 to current OBD II. Wt., 4 oz.
	3000099	GM 12-pin NAO DLC adapter '82–'95 GM applications. Wt., 4 oz.
	3000109	DLC loopback adapter for Tech 2 Flash troubleshooting. Wt., 4 oz.
A Contraction	3000113	110 volt to 12-volt converter. Wt.,1 lb., 8 oz.

#### **Nemisys Cables**

	Number	Description
	3774-01	DB25 to OBD II cable
	3774-02	DB25 to GM OBD I cable
	3774-03	DB25 to Ford OBD I cable
	3774-04	DB25 to Chrysler OBD I cable
P	3774-05	Cigarette plug power cord

### Pro-Link<sup>®</sup> Tester Kits



#### **Pro-Link® GRAPHIQ**

Heavy-duty standard kit. The heavy-duty standard application provides the functions necessary to diagnose most SAE/TMC J1708/J1587 OBD electronic control system/engine, transmission, brakes, and instruments.

#### **Pro-Link GRAPHIQ applications**

- Allison diagnostic WTEC II & III
- Bendix application
- D.D. Mercedes-Benz
- MBE 900/4000 engine
- Allison reprogramming
- Detroit dsl. III/IV engine
- Detroit diesel DDEC V

- Dana/Eaton RoadRanger
- Heavy-duty standard
- Mack V-Mac III
- Meritor WABCO ABS
- ZF Meritor transmission
- Navistar NAVPAK

**No. 3104** – Heavy-duty standard kit. Includes: Pro-Link<sup>®</sup> GRAPHIQ with multi-protocol cartridge, HDS software, PCMCIA card, 6-pin and 9-pin Deutsch cable, data and power cable, manual, carrying case. \* Applications are sold separately.

#### Multi-Protocol Cartridge (MPC)

No. 3101-11 – Multi-Protocol cartridge.

#### Light- and Medium-Duty Truck

**No. 3101-80\*** – '99–2004 GM, Ford, and Chrysler cartridge, 3101-09 GM/Ford OBD II adapter, 3101-01 Chrysler OBD II adapter, and manual.

No. 3101-02 – '81–2001 GM and Ford cartridge, 3101-09 GM/Ford OBD II adapter, and manual.

\* Compatible with Pro-Link GRAPHIQ only.

#### Heavy-Duty MPC Software\*

No. 3101-61	Allison Diagnostic WTEC II & III
No. 3101-16	Bendix Application
No. 3101-72	D.D. Mercedes Benz
	MBE 900/4000 Engine
No. 3101-65	Detroit Dsl. III/IV Engine
No. 3101-77	Detroit Diesel DDEC V
No. 3101-15	Dana/Eaton RoadRanger
No. 3101-17	Heavy-Duty Standard
No. 3101-45	Mack - V-Mac III
No. 3101-14	Meritor WABCO ABS
No. 3101-69	ZF Meritor Transmission
No. 3101-63	Navistar NAVPAK
No. 3101-79	Heavy-duty fault code manual

\* No. 3101-11 Multimeter-Protocol cartridge (MPC) required.

#### Heavy-Duty Vehicle Cartridge

3101-52	Caterpillar V 1.11
3101-46	Eaton Vorad
3101-47	Detroit Diesel I & II V 4.1
3101-70	Kelsey-Hayes ABS/ATC
3101-49	Detroit Diesel II & III V 5.2
3101-56	Navistar MRD
3101-57	Hino Injection Pump
3101-71	Navistar IPC
3101-41	Mack V-MAC I V 3.1
3101-62	Volvo VED 12 V 2.1
3101-44	Mack V-MAC II V 2.1

3101-80



No. No. No.

No. No. No.

No.

No. No. No. No.

Heavy-Duty MPC Software

3101-11

Heavy-Duty Vehicle Cartridge

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### Heavy-Duty PC Diagnostic



No. 3103 – Heavy-duty standard Lite Link<sup>™</sup> adapter.

### Solarity™ with InfoTech 2006 Software







#### Solarity with InfoTech Software

Solarity is a powerful 4-channel scope with the functionality required to analyze the most sophisticated vehicles. InfoTech software provides the key information to transform a driveability or component fault into a fast and accurate repair.

#### **Solarity Scope Features and Benefits**

- 4-channel full function scope.
- 4 MHz sample rate on all channels.
- Adjustable glitch capture.
- Update via Compact Flash or PC.
- Smart Card security.
- Print via standard desktop color printer.
- Custom enclosure-horizontally oriented and ergonomic.
- · Sunlight readable display.
- · Modular design allows for future expansion capabilities.

#### Ignition Scope Capabilities:

- Primary/secondary Distributorless ignition
- Coil-on-plug Raster
- Parade Superimposed
- Single cylinder Record

### 4-Channel High Speed Lab Scope Graphing and Digital Multimeter:

- Volts Ohms RPM
- Frequency Duty cycle

#### InfoTech 2006 Software Coverage

- Domestic, Asian, and European vehicle coverage for vehicles on the road today.
- · Engine, transmission, and ABS systems covered.

Feature	Domestic	Asian	European
Component Functional Tests – includes reference waveforms			
and display presets	1985– <mark>2006</mark>	1985– <mark>2006</mark>	1985– <mark>2006</mark>
Component Specifications	1984– <mark>2006</mark>	1984– <mark>2006</mark>	1984– <mark>2006</mark>
Component Wiring Diagrams	1993– <mark>2006</mark>	1993– <mark>2006</mark>	1993– <mark>2006</mark>
Circuit Description	1993– <mark>2006</mark>	1993– <mark>2006</mark>	1993– <mark>2006</mark>
Component Locations	1993– <mark>2006</mark>	1993– <mark>2006</mark>	1993– <mark>2006</mark>
Control Module Locations	1993– <mark>2006</mark>	1993– <mark>2006</mark>	1993– <mark>2006</mark>
Vehicle System Tests	All	All	All
Torque Specifications	1984–2004	1984–2004	-
Oil Light Reset	1984– <mark>2005</mark>	1984– <mark>2005</mark>	1985– <mark>2005</mark>
Transmission Pan ID Charts	1984-2004	_	-
Indexed Information	All	All	All
Repair-Trac Quick Fixes	All	All	All

NOTE: Red text indicates updates from InfoTech 2005.





### Solarity<sup>™</sup> with InfoTech 2006 Software

#### Vehicle Specific Component Tests and Information

For each vehicle specific component, the following information is available:

- Functional Tests walks user through complete test procedure.
- **Circuit Description** gives user description about how the circuit functions.
- Component Locations provides on-vehicle location of sensor.
- Circuit Diagrams shows component wiring diagrams including wiring colors and names.
- **Connector Diagram** displays connector pinout providing correct hookup to circuit.
- Component Specifications lists the correct sensor operating values for specific operating conditions.
- Reference Waveforms displays exactly what the user should, and should not, see when connected to circuit.

#### **Vehicle System Tests**

### Complete test procedure and circuit connection diagrams are provided for key driveability systems:

- · EGR system tests.
- · Canister purge system.
- Fuel control including injectors, M/C solenoid, and O<sub>2</sub> sensor.
- Fuel delivery, including fuel pressure, fuel volume, pressure regulator, fuel pump voltage, and current.
- Charging system including alternator voltage, current, and diode.
- Starter cranking tests and voltage drop.
- · Ignition system including coil, module, wires, and plugs.
- OBD system including idle controls, out-of-range, and no-signal tests.
- No-start including ignition, fuel, and compression.
- Transmission pressure, solenoid, and TCC tests.
- · Back pressure.

#### **Additional InfoTech Features**

- **Repair-Trac** known fixes and fast repairs for today's high-tech vehicles.
- **Domestic Transmission Pan ID** transmission pan identification graphics.
- **Torque Specs** cylinder head and intake manifold torque sequence pictures, including torque and torque angle specifications.
- **Tune-up Specification** includes fuel and ignition systems specifications.
- Oil Light Reset Procedures includes the manual reset procedures for oil service lights.
- **Indexed Information** helpful information including definitions and how-to procedures for scope and automotive terminology.







### **Solarity Performance Gas**



#### Select Air Intake Test Accelerator Enrichment Test Air Injector Test Cataytic Converter Test Crankcase Saturation Test Cylinder Balance Test Coolant System Leak Test EGR System Test EVAP Canister Purge Test Fuel Mixture Test

Possible Cause / Diagnost Select High HC only High CO only High NOX only High HC and CO only High HC, CO and NOX

#### lect

Air Intake Test Accelerator Enrichment Test Air Injector Test Cataytic Converter Test Crankcase Saturation Test Cylinder Balance Test Coolant System Leak Test EGR System Test EVAP Canister Purge Test Fuel Mixture Test

#### Ve

Vehicle Information Emission Information Complete Diagnostics Test Component Tests Drive Cycle Repair Effectiveness

#### **Solarity Performance Gas**

The Solarity Performance Gas is the most advanced stand-alone gas analyzer available. The Gas M-P software features advanced diagnostics providing the ability to troubleshoot emission related or mechanical system failures. The Performance Gas module meets the latest BAR accuracy requirements, while providing automated functions to simplify use and operation.

#### Live Data Display

Gas M-P software offers complete 5-gas functionality with hot links directly into vehicle diagnostics.

- Vehicle entry information. Entering pertinent vehicle information provides tailored diagnostic information.
- Comparison values displayed in conjunction with live data provide typical operating range values based off current operating conditions, and quick identification of out-of-range readings.
- Adjustable limits show out-of-range data in red.
- Possible causes available directly from the live display automatically detect which readings are out of range.

#### Mechanical System Diagnosis

Gas M-P software, combined with the Genisys built-in diagnostic software, provides the ability to perform automated mechanical system tests such as:

- Leaking head gaskets
- Fuel system leaks

Cylinder balance

- Restricted air intake ev
- Leaking intake manifold gaskets
- Restricted air intake system
- Catalytic converter condition

#### **Emission Related Diagnosis**

The vehicle diagnostics menu provides the user with a complete emissions manual, plus interactive testing.

- On-board diagnostics provide possible causes of excessive emissions and describes the vehicle system that is likely to be causing the condition.
- Component tests allow for automated testing of components suspected of causing excessive emissions.
- Diagnostic tests instruct the user how to perform the test and automatically collect data throughout the procedure to provide a summary.
- Drive cycle explains the correct vehicle operating conditions to best test emission systems.
- The Repair Effectiveness feature utilizes average mass calculation and baseline/verification strategy to provide a highly accurate and repeatable test process for validating emission repairs.

#### **Features and Functions**

- Automatic water purge eliminates the need to disassemble the water trap or manually drain water.
- Fluid overload protection keeps liquids from entering the system.
- Automatic Zero mode eliminates the need to remove the sample probe from the tailpipe.
- Heavy-duty pump has extended life expectancy compared to other portable analyzers.
- Heavy-duty filtration has two-ten times longer life compared to competitive analyzers, which dramatically reduces operating costs.

### Electronics

Print

#### Features and Functions continued

- Heavy-duty pump and filtration, along with the  $\rm O_{_2}$  and NOx sensors are user serviceable.
- Meets or exceeds the following accuracy standards: BAR 97, OIML Class 0.
- Average Mass feature allows you to convert recorded data to grams-per-mile; then you can compare pre-repair to post-repair data to verify emission improvement after repairs are made.
- Software can be configured to 3-, 4-, or 5-gas.
- System configuration lets you choose reading gasses from gas, propane, methane, or variable fuel vehicles.
- Contains recommended maintenance schedule and gas analyzer status.

 ${\bf No.~3851}$  – Solarity platform with InfoTech and 5-Gas software–does not include scope or gas module.

No. 3850-02 - 12-volt power adapter, isolated ground.

No. 3850-05 – High capacity battery and high output wall changer.

#### **Solarity Performance 5-Gas**

The Solarity emissions repair solution. Kit includes Solarity with plug-in 5-Gas Analyzer Module, hoses, exhaust probe, power cable and battery adapter, RS232 cable, AC power supply, Smart Card, Gas M-P software CD, filters, manual, and carrying case.

No. 3855 - Solarity performance 5-gas.

#### Performance Gas Module Kit

Kit includes the plug-in 5-Gas Analyzer Module, hoses, exhaust probe, Smart Card, Gas M-P software CD, filters, manual, and carrying case.

No. 3780 - Performance gas module kit.

 $\ensuremath{\text{No. 3700-60}}$  – Gas M-P software kit. Update for MicroGas module. Includes update CD, Smart Card, and manual.

#### Performance Gas Accessories and Replacement Parts No. 3700-25 – Calibration gas No. 3780-04 – Pump replacement

- No. 3700-25 Calibration gas No. 3780-01 – Filter kit (4 primary, 4 secondary) No. 3780-02 –  $O_2$  sensor replacement No. 3780-03 – NOx sensor replacement
  - No. 3780-05 Regulator No. 3780-08 – Exhaust probe replacement
  - No. 3780-09 Sample hose replacement

#### Solarity 4-Channel Scope Kit

Includes Solarity with plug-in 4-channel scope module, 4 scope/DMM leads with 5-way alligator clips, ground lead, kV ignition lead, ignition sync lead, HEI adapter, manual, InfoTech Smart Card, CD, and carrying case.

No. 3852 - Solarity 4-channel scope kit.



#### Solarity 4-Channel Scope Master Kit

Includes Solarity with plug-in 4-channel scope module, 4 Scope/DMM leads, ground lead, kV ignition lead, ignition sync lead, HEI adapter, low amp probe 0–60A, pressure/ vacuum adapter, temperature adapter, COP adapter (5 OEMs), COP adapter cable, 14-piece terminal adapters, BNC/banana adapter cable, 3 test probes, 3 back probes, manual, InfoTech Smart Card, CD, and carrying case.

No. 3852M – Solarity 4-channel scope master kit.

No. 3852MT – Includes 3850M with a 4-hour training coupon. (Note: Coupon valid in U.S.A. only.)



		AN	erage Mass		
Comp	pariso	on Report			-
BASE	-T8C				
		Baseline	Verification	Result	
NOX	g/mi	49.13	49.13	-0.00	l
co	g/mi	45.62	32.03	0.14	
HC	g/mi	0.10	0.10	0.00	
CO2	g/mi	358.49	358.49	0.00	
				- Fult	
Over	an M	eport Cor	npleted. Pres	SEXIL	ų

Measurement Ranges
HC 0–30,000 ppm
CO 0–15 %
CO <sub>2</sub> 0–18 %
NOx . 0–5,000 ppm
O <sub>2</sub> 0–25 %







### Automotive Scope



3-year warranty

#### Automotive Scope Features and Benefits

- · 2-channel lab scope.
- A 25 MHz sample rate per channel for rapid data updates.
- True RMS GMM (Graphing Multimeter) measurements and graphs.
- A unique "Glitch Capture" feature captures, displays, and optionally saves abnormal signal patterns in the Scope mode for component testing.
- Real-time comparison between actual waveforms and reference waveforms on the same screen for component testing.
- Preset tests enable the user to check the majority of automotive sensors, actuators, and systems easily and quickly.
- Powerful built-in reference information for each preset test includes a test procedure, a normal reference signal pattern, theory of operation, and troubleshooting tips.
- The extremely powerful Help Menu lets you find answers fast.
- The secondary ignition single function displays the waveform along with the spark voltage, RPM, burn time, and burn voltage at the same time.
- USB interface supports update for code and data over the internet.
- Over-molded case technology disperses shock over more of the case than a conventional rubber boot design.

**No. 3840** – Automotive scope kit. Includes red and yellow test leads, black ground lead, 3- and 5-way alligator clips, 3 test probes, 3 back probes, ignition probes, inductive pickup, lead extensions, AC adapter, update cable/software, soft carrying case, and user manual.

#### **Replacement Accessories**

No. 3840-01 - Red and yellow test leads.

- No. 3840-06 Ignition probe.
- No. 3843-07 Inductive pickup.
- No. 3843-11 User manual.

#### Scope and Meter Accessories (Amp Clamps)

**No. 3820-13** – Low-range amp probe with display – use alone or connected to scope. Long, small jaws combined with superior performance are ideal for:

- Ignition coils
- Fuel injectors Fuel pumps Relays Electric motors
- Parasitic draw
- 0-60A range, measure to 90A, 100mV/A
- · High accuracy, and low noise interference
- Non-intrusive AC/DC current measurement
- Resolution: 10mA
- Average responding, RMS calibrated
- · Auto ranging, auto zero, data hold, low battery indicator

No. 3820-06 – Low-range amp probe.

Measures current in two ranges: 0-60 amps AC/DC

- · Ignition coils · Fuel injectors · Relays · Electric motors · Parasitic draw
- Non-intrusive AC/DC current measurement

**No. 3500-01A** – Mid-range amp probe. Measures current in a range of 2–600 amps AC/DC.

**No. 3500-01** – Mid- and high-range amp probe. Amp probe measures current in two ranges: 2–200 amps AC/DC and 2–2000 amps AC/DC.

3840

### Scope and Meter Accessories



#### **Multimeters**



#### Kit Contents:

	Description	3535	3545
А	Red & black leads	Х	Х
В	Red & black probes	Х	Х
С	Red & black large alligator clips		Х
D	Back probes		Х
Е	5-way alligator		Х
F	Test lead extension		Х
G	Ignition secondary/RPM probe		Х
Н	Blue lead		Х
Ι	Blow-molded case		Х
J	Manual	Х	Х

#### OTC's Digital Automotive Tester (DAT) is much more than a standard multimeter. It would take several tools to match the functions and features found in the DAT's electronic toolbox.

- Full Function Multimeter
- Fuel Injector Tester
- Sensor Tester
- Battery Drain Tester
- Charging System Tester
- Pressure Tester\*
- Ground Tester Noid Lights

\* Auto set-up on DAT, optional adapter required.

The DAT automatically sets up the test for the circuit being tested. Simply turn the dual action selector wheel, and/or press a function button to select the function desired. The DAT is ready to go, no additional set up required!

No. 3545 — Ignition DAT complete kit. All features are included: volts, ohms, amps, batt, elect, sen, fuel, and ign. See chart for kit contents.

No. 3535 — Electrical DAT kit. Features volts, ohms, amps, battery drain test, and electrical system test functions. See chart for kit contents.

Accessories exclusive to the DAT:

- No. 3500-30 Ignition secondary/RPM probe.
- No. 3500-40 Case blow-molded.
- No. 3500-41 Manual.
- No. 3500-42 DAT replacement fuse.
- No. 3500-43 Coil-on-plug adapter.
- No. 16543 Battery.



#### Autoranging Multimeter

This high quality, low cost multimeter has features you'd expect to find only on more expensive meters:

- · Analog display with a 34 segment bar graph for checking TPS and other readings.
- · Diode test for checking alternators, relays, solenoids, and A/C clutch compressor diodes.
- · Continuity check for quick "Go-No Go" tests on fuses, wires, and switches.
- Inductive rpm pickup for conventional ignitions.
- Duty cycle and dwell angle for checking fuel injection, feedback carburetors, and ignitions. No conversion charts needed!
- Autoranging for volts, ohms, amps, and frequency.
- Frequency for checking MAP. MAF. and other components for output.
- 10 meg ohm impedance protects sensitive components on today's electronic systems.
- · Low battery indicator.
- · 3-year warranty.

No. 3505 - 100 Series autoranging multimeter set. Includes multimeter, test leads, large insulated alligator clips, inductive rpm pickup, bead type temperature probe.

No. 233870 - 10 amp fuse.

No. 233871 - 1.5 amp fuse.



#### **Automotive DVOM**

- Accurate ms-pulse width function to test on-time for fuel injectors, IAC motors, and transmission controls.
- Inductive rpm for 1–8 cylinders (2- or 4-stroke), inductive clamp included in the kit.
- Direct dwell readings and duty cycle. DC volts and mV, AC volts, ohms, continuity, frequency.
- Four step adjustable ± trigger.
- 4-1/4" digit display. Analog bar graph, 41 segment.
- · Auto ranging, automatic power off, and data hold features.
- No. 3514 Automotive DVOM. Wt.,

#### Pocket DVOM

- · CE/UL.
- DCV, ACV, ohms, continuity/diode, micro and milli amps.
- · Auto power off/low battery indicator.
- Auto ranging data hold/max hold.
- · Self-contained probe storage and carry pouch.
- No. 3509 Pocket DVOM. Wt., 1 lb., 15 oz.

Test Description Multimeter	3509	3514	3505	3535	3545
Volts AC/DC		0014	0000		
	-		•		-
Ohms	•	•	•	•	•
Amps AC/DC	•	•	•	•	•
mA AC/DC	•	•	•	•	•
Fused amps		•	•	•	•
Diode check	•	•	•	•	•
Continuity beeper	•	•	•	•	•
RPM		•	•	•	•
4-cycle / 2-cycle		•		•	•
Duty cycle		•	•	•	•
Frequency		•	•	•	•
Temperature			•	•	•
Bar graph		•	•	•	•
Digital display	•	•	•	•	•
Low battery indicator	•	•	•	•	•
Data hold	•	•	•		
Auto power off	•	•		•	•
Direct dwell readings		•	•		•
Autorange	•	•	•	•	•
Min./Max.	•			•	•
Averaging				•	•
Delta				•	•
Logic check				•	•

#### **Comparison Chart**

Test Description Multimeter	3509	3514	3505	3535	3545
Backlighting				•	•
+/- Triggering		•		•	•
Adj. triggering level				•	•
Smoothing				•	•
Overmolded enclosure				•	•
Sleep mode				•	•
Dual display				•	•
LEDs				•	•
Adjustable logic probe				•	•
PC connectivity					•
Ground test				•	•
Charging system test				•	•
Battery drain tester				•	•
O2 sensor with signal out					•
TPS sensor with glitch					•
MAP/BP sensor (dedicated mode)					•
MAF sensor (dedicated mode)					•
Magnetic pickup (dedicated mode)					•
Noid Light (low impedance circuit)					•
Fuel injection (on-time, peak V.)					•
Pressure/vacuum (dedicated mode)					•
Ignition - peak kV/Burn Time/Spark kV					•
			1		



3509



Multimeters

### Terminal Test Kits





3569





## Terminal Test Kit with LED Circuit Tester (Extended Adapters)

- 14-piece extended terminal adapter set for the popular Packard Weather Pack, Metri-Pack, and Micro-Pack style connectors. External-internal versions of adapter styles.
- Computer safe circuit tester with two color LEDs indicate proper connection and probed voltage or ground source. Interchangeable probes for use with terminal test adapters for use on 6-12-24 volt systems.
- Terminal adapters have extended leads allowing for use with close pitch connectors. Also eliminates damaged connector terminals that result from testing with a standard test probe.
- Sturdy aluminum storage case with clear top.

No. 3969 - Terminal test kit with circuit tester.

No. 3969-1 - Circuit tester.

## Terminal Test Kit with Circuit Tester (Standard Adapters)

- 14-piece standard terminal adapter set for the popular Packard Weather Pack, Metri-Pack, and Micro-Pack style connectors. External-internal versions of adapter styles.
- Circuit tester with bulb for 6-12-24 volt systems with interchangeable probes for use with terminal test adapters. Heavy-duty coil cord extends to 12 ft.
- Terminal adapters have flexible joints that eliminate damaged connector terminals that result from testing with a standard test probe.
- · Complete kit in plastic storage case.

No. 3569 - Terminal test kit with circuit tester.

No. 3525 - Circuit tester.

#### Terminal Test Kit (Extended Adapters)

- Excellent accessory when testing with a scope or meter.
- 32-piece extended terminal adapter set for the popular Packard Weather Pack, Metri-Pack, and Micro-Pack style connectors. Multiple external-internal versions of adapter styles.
- Set of 4 patch cords (4 ft.) included for use on multiple terminal connectors, for use with terminal adapters.
- Terminal adapters have extended leads allowing for use with close pitch connectors. Also eliminates damaged connector terminals that result from testing with a standard test probe.
- · Sturdy aluminum storage case with clear top.
- No. 3987 Terminal test kit.

#### Terminal Test Kit (Standard Adapters)

- Excellent accessory when testing with a scope or meter.
- 32-piece standard terminal adapter set for the popular Packard Weather Pack, Metri-Pack, and Micro-Pack style connectors. Multiple external-internal versions of adapter styles.
- Terminal adapters have flexible joints that eliminate damaged connector terminals that result from testing with a standard test probe.
- Set of 4 patch cords (4 ft.) included for use on multiple terminal connectors, for use with terminal adapters.
- Complete kit in plastic storage case.

No. 3587 - Terminal test kit.

#### **Battery Powered Continuity Tester**

Designed to test any type of non-live electrical circuit. Track down broken wires, bad grounds, and blown fuses quickly.

#### Features and Benefits

- Comes with AAA alkaline battery.
- Ergonomic, slim designed clear handle.
- 12', red coil cord.
- · Low voltage replaceable bulb.
- · Molded strain relief.
- · Heavy-duty stainless steel probe with insulated shaft.
- · Heavy-duty clip with positive soldered connection.

No. 3630 - Battery powered continuity tester.

#### Heavy-duty Logic Probe Tester

Multi-functional design allows testing range of 3–26 volts. Bright red and green LEDs interpret voltage signals such as ground, power, and frequency. Tests fuel injectors, solenoids, presence of serial data, and tach reference signals. Output tests on MAF, Cam, Crank, Hall Effect VRS sensors and more. High impedance input compatible with computer circuits and sensors.

#### **Features and Benefits**

- · Air bag safe.
- 12', heavy-duty, twin clip, red coil cord lead.
- · Checks 6-,12-, and 24-volt systems.
- Ergonomic, slim designed clear handle.
- · Positive contact molded strain relief.
- · Heavy-duty stainless steel probe with insulated shaft.

No. 3631 – Heavy-duty logic probe tester.

#### 12V–36V Truck Circuit Tester

#### **Features and Benefits**

- Works on 12-36 volt systems.
- Features 7" stainless steel probe.
- 24' coil cord.
- · Extra large clamp.

No. 3642 - 12V-36V truck circuit tester.

#### **Mini-coil Cord Circuit Tester**

Small handle with needlepoint stainless steel probe allows easy back probing and piercing. Special threaded probe comes with screw on alligator clip for additional versatility. Useful in testing electrical circuits and locating shorts, grounds, and open circuits.

#### **Features and Benefits**

- 12', heavy-duty, red coil, cord lead.
- Checks 6- and 12-volt systems.
- Ergonomic, slim designed clear handle.
- Bright red, high intensity/slim style replaceable bulb.
- · Positive contact-molded strain relief.
- · Heavy-duty, stainless steel probe with insulated shaft.
- · Heavy-duty clip with positive soldered connection.

No. 3633 - Mini-coil cord circuit tester.







3633

**OTC** 35

### **Circuit Testers**





3644



#### Heavy-Duty, Straight Cord Circuit Tester

Designed for testing electrical circuits and locating shorts, grounds, and open circuits.

#### **Features and Benefits**

- 5-foot heavy-duty cord.
- · Checks 6- and 12-volt systems.
- · Ergonomic, slim designed clear handle.
- · Bright red, slim style replaceable bulb.
- Positive contact-molded strain relief.
- · Heavy-duty, stainless steel probe with insulated shaft.
- · Heavy-duty clip with positive soldered connection.

No. 3634 - Heavy-duty, straight cord circuit tester.

#### Heavy-Duty, Coil Cord Circuit Tester

Designed for testing electrical circuits and locating shorts, grounds, and open circuits.

#### Features and Benefits.

- 12-foot, heavy-duty, red coil cord lead.
- · Checks 6- and 12-volt systems.
- · Ergonomic slim designed clear handle.
- · Bright red, slim style replaceable bulb.
- · Positive contact-molded strain relief.
- · Heavy-duty, stainless steel probe with insulated shaft.
- · Heavy-duty clip with positive soldered connection.

No. 3636 - Heavy-duty, coil cord circuit tester.

#### Extra Long, Heavy-Duty Circuit Tester

Long 7" probe shank allows access to difficult to reach areas for testing electrical circuits and locating shorts, grounds, and open circuits. **Features and Benefits** 

- 12-foot, heavy-duty, red coil cord lead.
- · Checks 6- and 12-volt systems.
- · Ergonomic, slim designed clear handle.
- · Bright red, slim style replaceable bulb.
- · Positive contact-molded strain relief.
- · Heavy-duty, stainless steel probe with insulated shaft.
- · Heavy-duty clip with positive soldered connection.

No. 3639 - Extra long, heavy-duty circuit tester.

#### 12-Pack Display Assortment

Stand-up display of 12 circuit testers contains an assortment of all 6 circuit testers in a point-of-purchase display. Contents include:

- No. 3630 Battery powered continuity tester (1)
- No. 3631 Heavy-duty logic probe tester (1)
- No. 3633 Mini-coil cord circuit testers (3)
- No. 3634 Straight cord circuit testers (2)
- No. 3636 Coil cord circuit testers (3)
- No. 3639 Extra long circuit tester (1)
- No. 3642 12V-36V truck circuit tester (1)
- No. 3644 12-pack display assortment.

#### **Replacement Bulbs**

No. 3630-10 - 10 pack of replacement bulbs for No. 3630 No. 3633-10 - 10 pack of replacement bulbs for Nos. 3633 - 3639

No. 3642-10 - 10 pack of replacement bulbs for No. 3642

36 **отс**
### ELECTRONIC DIAGNOSTICS Circuit Testers

#### **OTC Test Leads**

Constructed from high quality polyurethane, these high visibility coil cord test leads have superior memory retention and resistance to grease and oil, making them a perfect compliment to any technician's arsenal of test equipment. Test leads come with a variety of interchangeable tips suited for just the right application.

**No. 3902** – Twin 5' jumper leads. High visibility black and red leads stretch to over 5 feet in length.

**No. 3903** – 24' jumper leads. From headlight to taillight, this extra long test lead stretches to over 24 feet in length.

**No. 3904** – Twin 5' multimeter lead set. Expand the usefulness of any standard multimeter. This set includes one black and one red test lead, 2 multimeter probes, 2 banana plugs, and 4 alligator clips.

**No. 3905** – Twin 5' multimeter/piercing jumper lead set. Pierce small gauge wires with this complete jumper lead set. This set includes one black and one red test lead, 2 multimeter probes, 2 banana plugs, 2 bed-of-nails, and 2 alligator clips.

**No. 3906** – Twin 5' piercing test lead set. With 2 banana plugs and 2 bed-of-nails, this test lead set has just the right combination of tips for most testing applications.

#### Heavy-Duty, Remote Starter Switch

Allows one person to start and crank engine while under the hood or from either side of the vehicle.

#### **Features and Benefits**

- With convenient hot circuit indicator, red ready light glows when starter switch is connected to a hot circuit; light goes off when switch is depressed.
- High current, heavy-duty push button switch ensures reliable operation and long service life.
- 5' leads made from heavy-duty, oil and grease resistant, 12-gauge wire.
- High current clips with protective boots open to an extra wide 5/8" for ease of hook-up.
- Soft, non-slip rubber grip.

No. 3650 - Heavy-duty, remote starter switch.

#### **Component Diagnostic Guides**

Sensor Testing & Specifications – Test procedure descriptions of powertrain sensor tests including sensor specifications. Component Locations – Vehicle component diagrams clearly

labeled with sensor locations for simple identification.

**Wiring Diagrams** – Diagrams are broken down into systems for engine and transmission applications. Includes wire colors, circuit and component descriptions.

**No. 3565** – Component diagnostics guide, domestic OBD II, 1996–2004. Combination kit includes manual and CD.

**No. 3565-CD** – Component diagnostics guide, domestic OBD II, 1996–2004. CD only.

No. 3567 – Component diagnostics guide, Asian and European Imports OBD II, 1996–2004. Combination kit includes manual and CD.
No. 3567-CD – Component diagnostics guide, Asian and European Imports OBD II, 1996–2004. CD only.

No. 3564 – Component diagnostics guide, domestic OBD I, 1985–1996.

**No. 3566** – Component diagnostics guide, Asian and European Imports OBD I, 1985–1996.







### **TPMS Tire Pressure Monitor Tool**



Learn Mode

Menu

Activate

#### **Total Solution for TPMS Servicing - OTC TPM Tool Kit**

The OTC Tire Pressure Monitor Kit is designed to be a complete universal kit covering vehicles with Tire Pressure Monitoring Systems (TPMS). The software has the option to AutoScan the wheel sensor or utilize the vehicle entry system for easy and accurate access to the proper interface to the vehicle. The manual contains the critical reset procedures along with all the system information including torque specifications and wiring diagrams.

The monitor has a graphical interface that allows for use of the tool with little or no knowledge of TPM systems. The monitor and manual frequently updated to keep up with changing vehicle requirements.

The TPM Tool includes software that includes the following features:



#### AutoScan

The new AutoScan features provides the capability to walk up to any TPM equipped vehicle and activate the sensor with the push of a button. This will search through all the communication protocols until the sensor is activated, then a successful activation is shown on the display.



#### Diagnostics

The Diagnostics feature allows for quick check of sensor via the **Make – Model – Year** vehicle entry system. Selection of the specific vehicle eliminates the search time of proper protocol. Live sensor information is displayed when available. Powerful feature that allows the technician to validate that all the sensors are functional before any work is started.



### **TPMS Tire Pressure Monitor Tool**

#### **Reset Procedure** Please Wait . . . The Reset Procedure is the key function that "resets" F the tire locations and will turn off the dash light. This function is accessed via the vehicle entry and walks the user through all the necessary steps to complete the reset procedure. **Reset Procedure** Point the Antenna At Left Front Tire Refer to the Reset section of Near the Valve Stem the OTC Manual for: 2005 Cadillac Escalade EXT Menu Place Vehicle in learn Mode Test In Process... Select Start **DID HORN SOUND?** Menu Start Redo Menu Yes Sales and Services Support Material 1.1 Service Procedure 3833-19 Service Procedure 3833-18 Flowchart Color **Application Flip Chart** Wall Poster 25-1/2" x 33" marchines) 3833-20 CDTPMS0506 **Consumer Poster TPMS Training Video** Counter Display 11" x 17"

### 3833-18

Application Flip Chart	Make	Model	Year	Type of System	After Tire Rotate	Reset After Sensor Replace	Reset After Tire Change	Used For Reset	Bolt or Nut Torque Inch LbsN-m
Servicing Vehicles with Tire Pressure Monitoring System	Lexus	GS 430	2006	Direct	Yes	Yes	Yes	No	35/4.0
	Lexus	GX 470	2004-06	Direct	No	Yes	Yes	Yes	35/4.0
Quick Stort Quide	Lexus	IS 250	2006	Direct	Yes	Yes	Yes	No	35/4.0
Quick Start Guide	Lexus	IS 350	2006	Direct	Yes	Yes	Yes	No	35/4.0
	Lexus	LS430	2004-06	Indirect	Yes	Yes	Yes	No	n/a
	Lexus	LX 470	2006	Direct	No	Yes	Yes	Yes	35/4.0
	Lexus	RX330	2004-06	Indirect	Yes	Yes	Yes	No	n/a
	Lexus	SC430	2004-06	Direct	No	Yes	Yes	Yes	27/3.1
	Lincoln	Aviator	2003-05	Direct	No	Yes	Yes	Magnet	44/5.0
	3833-18								<b>C</b> 39

### **TPMS Tire Pressure Monitor Kits and Accessories**



#### **Tire Pressure Monitor Base Kits**

Includes a TPM tool with latest software subscription, activation magnet, quick start guide, latest comprehensive reset manual, update cable, CD training video, 3 C batteries, backup software CD, and a blow molded case. Base kits are available with three different reset manual formats;

**No. 3833** – Tire pressure monitor base kit, with printed full volume manual set. Wt., 10 lbs., 8 oz.

**No. 3833QR** – Tire pressure monitor base kit, with printed Quick Reference manuals. Wt., 6 lbs.

No. 3833CD – Tire pressure monitor base kit, with CD manual. Wt., 1 lb.



#### **Tire Pressure Monitor Master Kits**

Includes a TPM tool with latest software subscription, activation magnet, quick start guide, latest comprehensive reset manual, update cable, CD training video, 6 nM Hi rechargeable batteries and recharging station, backup software CD, digital tire pressure gauge, 4-way valve tool, valve core torque driver, laminated application flip chart, service procedure flowchart poster, consumer poster, and a blow molded case. Master kits are available with 3 different reset manual formats;

**No. 3833T** – Tire pressure monitor master kit, with printed full volume manual set. Wt., 13 lbs., 12 oz.

**No. 3833TQR** – Tire pressure monitor master kit, with printed Quick Reference manuals. Wt., 9 lbs.

**No. 3833TCD** – Tire pressure monitor master kit, with CD manual. Wt., 5 lbs.



3833T

3833-9



3833-11



Tire Pressure Monitor Master Update Kit

Includes material to turn a Tire Pressure Monitor Base Kit into a Master Kit (ex; 3833QR to a 3833TQR). Includes latest comprehensive reset manual supplement, latest software CD subscription, update cable, CD training video, 6 nM Hi rechargeable batteries and recharging station, digital tire pressure gauge, 4-way valve tool, valve core torque driver, laminated application flip chart, service procedure flowchart poster, and consumer poster.

No. 3833-9 – Tire pressure monitor master update kit. Wt., 10 oz.

#### Tire Pressure Monitor 2006-2007 Software Update Kit

Includes 2006-2007 software subscription CD, 2006-2007 reset manual supplement, and update cable.

No. 3833-11 – Tire pressure monitor 2006-2007 software update kit. Wt., 8 oz.

#### **Tire Pressure Reset Tool for Nissan**

This tool is designed to extinguish the Tire Pressure Warning Light on 2003 and newer Nissan vehicles with TPM Reset Connector. The connector end of the cable mates to the vehicle connector found behind the DLC connector under the dash. The alligator clip is clipped onto the metal bracket that holds the DLC connector. Once connected and the ignition is turned on, the tool trigger is pressed 5 times within 10 seconds causing the warning light to start flashing. With the tool disconnected, the vehicle can be started and driven over 30 mph until the light stops flashing, which completes the procedure.

No. 3831 - Tire pressure reset tool for Nissan. Wt., 1 lb.

#### **Tire Pressure Monitor Tool Accessories**

Part No.	Description	Part No.	Description	3833-7
3833-2	TPM Manual-Printed, full volume manual set	3833-14	Batteries - 6 nM Hi and Charger	
3833-3	TPM Manual-CD	3833-15	Digital Tire Gauge – 0-150 psi, red backlight	3833-15
3833-4	TPM Magnet	3833-16	Valve Nut Tool – Installs valve stem grommets	
3833-5	TPM Quick Ref Guide & 2006 Supplement	3833-17	Valve Core Torque Driver – 2-5 inch pounds	
3833-6	TPM Case	3833-18	Application Flip Chart – 8" x 5" laminated pages	3833-16
3833-7	TPM Update cable	3833-19	Procedure Flowchart - Full color wall poster	
3833-8	Serial to USB Adapter	3833-20	Consumer Poster – for counter display	
3833-9	Update base kit(s) to a Master Tool Kit.	CDTPMS0506	TPMS Training Video – CD	
3833-11	TPM Update 2007 Subscription			3833-17

#### **IR/RF Signal Tester**

- Provides quick and easy vertification of RF and IR transmitter signal with audibile beep and LED light.
- RF Example; Key fobs, garage door openers, tire pressure sensors activation tools, aftermarket key fobs, and remote starters, etc.
- IR Example; IR printer ports, in-vehicle audio/video remote controls, general IR remote control and signals.
- · Designed to detect RF signals between 0-900 MHz.
- · Operates on 9V battery (included).
- No. 3891 IR/RF signal tester. Wt., 10 oz.

#### **Diesel Glow Plug Tester**

#### Features;

Glow Plug Tester provides fault detection thru LED's for a quick analysis; Short Circuit, Over Current, Normal Operation, Open Circuit/Under Current.

#### Benefits:

- Glow Plug Tester allows for testing without removing glow plug from engine.
- Powers the glow plug to test the plug in it's operating state.
- Much more accurate test than a cold resistance test, which can miss short circuits.
- Tester uses a current measurement to accurately determine proper operation and check for short circuits.

No. 3673 - Diesel glow plug tester Wt., 1 lb.

#### **Diesel Fuel Pressure Tester**

#### Features:

- Simple one wire connectivity to the fuel pressure sensor signal wire. Designed for diesel engines that have a fuel pressure sensor reading used by vehicle computer.
- Displays pressure in PSI or BAR.
- Range 0-22,000 PSI (0-1500 BAR).

#### Benefits:

- · Read diesel fuel pressure in vehicle.
- No fittings required.
- · Readings alternate between current and max pressure.

No. 3674 - Diesel glow plug tester Wt., 1 lb.





3891

### **Universal Breakout Box**





3226



**42 OTC** 



3239



#### Universal Breakout Box

- · An easy, affordable way to really "pick the brains" of domestic and import computerized vehicles with or without a data stream system.
- Designed to "T" into the vehicle wiring harness leading to the engine and various other computers. This unit permits vital readings of voltage, resistance, frequency, pulse width or duty cycle, depending on the instrumentation with which it's used. With each accessory vehicle adapter cable (VAC) kit, you get a specially designed cable and a custom magnetic pin panel overlay that matches the make of vehicle system being tested.
- Used with any DVOM or scope, such as the Digital Automotive Tester or the Perception 2-channel scope.
- · Exclusive isolated ground lead and tipjack prevents a faulty ground from interfering with a correct diagnosis, and permits locating bad grounds in just seconds.

#### Ford EEC-V 104-Pin Breakout Box

- · Unit accesses all connections to the Powertrain Control Module (PCM) on all 1994 and newer EEC-V systems.
- Adapter cable interfaces with the PCM connector and vehicle's harness connector.
- Includes a plastic overlay panel and a connecting cable for numeric identification of each jack to match the vehicle's PCM pinout.

No. 3235 - Ford EEC-V 104-pin breakout box. No. 3225-10 - 104- to 60-pin BOB adapter, Ford BOB.

#### EEC-IV 60-Pin Breakout Box

Use to completely test all 1983 and later EEC-IV vehicles. Critical resistance and voltage measurements are easily accessible from all 60 electrical circuits of the EEC-IV system through the remotely located diagnostic breakout box. No. 3225 - EEC-IV 60-pin breakout box.

#### **80-Pin Breakout Box**

- No. 3226 80-pin breakout box.
- No. 3226-04 60-pin VAC, Ford '83-up EEC-IV vehicles.
- No. 3226-13 10' extension cable. use with No. 3226.

#### 180-Pin Universal Breakout Box

Universal breakout/pinout box with 180 pins. Consists of the No. 3238 and the No. 3238-UPD. Use in conjunction with vehicle adapter cable (VAC).

No. 3239 - 180-pin universal breakout box.

#### 100-Pin Breakout Box

Universal breakout/pinout box with 100 test points. Use for vehicle diagnosis via voltage and resistance measurements. Not designed for signal injection. Expandable to 180-pin with No. 3238-UPD to handle future vehicle systems. Use in conjunction with a vehicle adapter cable (VAC). No. 3238 - 100-pin breakout box. Same as J-39700.

#### 80-Pin Expansion Panel for 3238

Expands the 100-pin No. 3238 with an additional 80-pin panel, resulting in a 180-pin No. 3239. Used with No. 3238. No. 3238-UPD - 80-pin expansion panel for No. 3238.

3238-UPD

#### Inductive Timing Light

Professional inductive timing light designed for standard base timing.

#### **Unique features**

• On/off touch control.

#### Standard features

- All metal inductive pickup.
- · Reflected, super bright xenon flash.
- · Removable leads with positive twist-lock connector.
- · One touch control.
- · Durable, plated ABS housing with over-molded grips.
- · Heat resistant over-molding on clips.
- · Blow-molded case included.

No. 3363 - Inductive timing light.

#### **Advance Timing Light**

Professional advance timing light allows accurate adjustment of base and advance timing reading.

#### **Unique features**

- Adjustable knob measures centrifugal, vacuum, and computer advance.
- On/off touch control.

#### Standard features

- All metal inductive pickup.
- Reflected, super bright xenon flash.
- · Removable leads with positive twist lock connector.
- · One touch control.
- Durable, plated ABS housing with over-molded grips.
- · Heat resistant over-molding on clips.
- · Blow-molded case included.

No. 3365 – Advance timing light.

#### **Digital Timing Light**

Professional digital timing light has advanced features with a bright LED screen and mode indicator lights.

#### **Unique features**

- · Microprocessor-controlled circuitry.
- · LED tachometer display reads 0-9999 rpm.
- LED advance display indicates to 1/10.
- · Unique flashlight feature.
- · 2/4 cycle and rpm/advance lights.
- · Up and down scroll buttons.

#### Standard features

- All metal inductive pickup.
- Reflected, super bright xenon flash.
- · Removable leads with positive twist lock connector.
- · One touch control.
- · Durable, plated ABS housing with over-molded grips.
- · Heat resistant over-molding on clips.
- · Blow-molded case included.







#### Timing Light Comparison

Timing Light - Functions/Features	3363	3365	3367
Conventional, electronic, computer	•	•	•
controlled ignition systems			
DIS and 2-cycle systems	•		•
On/off touch control	•	•	
Adjustable advance		•	•
Digital LED readout tach and advance			•
2- to 4-cycle & rpm/advance mode lights			•
2- to 4-cycle selector button			•
Flashlight feature button			•
RPM to advance selector button			•
Up or down scroll buttons			•

# <u>ELECTRONIC DIAGNOSTICS</u>

### **Digital Pressure Gauge**



No need to have fuel or transmission hoses inside vehicle during a road test.

No makeshift taping of gauges to the windshield.



"Delta Zero" monitors fuel pressure drop

"Min/Max." pinpoints:

Displays readings in BAR for checking European specs.

Permits comparison of ABS brake pressures at each wheel.

See Scope/Meter accessories for temp probes. page 31.

#### Multi-Application Digital Pressure and **Temperature Analyzer**

Combining the functions of vacuum, oil pressure, hydraulic system pressure, fuel pressure, transmission pressure, compression, and air conditioning-all in one!

No. 3490 – Deluxe digital pressure/temperature analyzer with four pressure input receptacles and protective boot. Set includes (500 psi) transducer, 12' cable, 8-1/2" hose, bead-type temperature probe, assorted fittings, plastic storage case, instruction manual.

Wt., 4 lbs., 8 oz.

No. 3492 - Heavy-duty digital pressure/temperature analyzer with four pressure input receptacles and protective boot. Set includes: No. 3491-02 (5,000 psi) transducer, No. 3491-13 20' cable, No. 3500-05 bead-type temperature probe, assorted fittings, No. 3491-31 plastic storage case, instruction manual. Wt., 5 lbs.

#### Accessory Options:

No. 3491-01 - 500 psi transducer. Wt., 4 oz.

No. 3491-02 - 5,000 psi transducer. Required for ABS and power steering pressure readings. Wt., 4 oz.

No. 3491-03 - 10,000 psi transducer. Wt., 4 oz. (Note: For No. 3492 only.)

No. 3491-11 - 6' cable. Wt., 4 oz.

No. 3491-12 - 12' cable. Wt., 7 oz.

No. 3491-13 - 20' cable. Wt., 12 oz.

#### Universal Gauge and Component Tester

This is the fast way to pinpoint problems in fuel, oil, temperature, and vacuum electrical gauges. This gauge and component tester includes a test light and switch to also test instrument voltage regulators on various vehicles. Plus, you can use it as an instrument gauge tester by attaching the alligator clips to sensors and wiring harnesses on a variety of vehicles. Included is an instrument gauge application data sheet listing resistance set points for GM, Ford, Chrysler, Toyota, Nissan, VW, Mack, Navistar, and John Deere.

No. 3385 – Universal gauge and component tester. Wt., 1 lb., 15 oz.



converter temperatures.

#### Noid Lite/IAC Test Kits

- Noid Lites are a proven test device to quickly determine if the electrical signal is present at the fuel injector.
- Simplest method for eliminating the EFI system or idle air control as possible faults on no-start vehicles.
- Disconnect the fuel injectors, plug in a Noid Lite, and crank the engine. A flashing noid light indicates normal pulsing voltage.
- Expanded set of eight specific Noid Lites covers: GM PFI, Ford TBI, Geo TBI, Bosch PFI, GM TBI, GM SCPI, and new applications of Bosch 2 and Multec 2. Also includes two GM IAC testers (flat and square fourconnector applications) with red and green LEDs.
- Kit comes in a molded plastic case and includes a harness extension that allows for convenient remote viewing from the driver's seat.

#### Noid Lite Test Kit

Set includes (available separately): No. 7187 – GM TBI Noid Lite. Wt., 2 oz. No. 7188 – Bosch PFI Noid Lite. Wt., 2 oz. No. 7601 – Ford Noid TBI Lite. Wt., 2 oz. No. 6023 – GM Multec 2 Noid Lite. Wt., 2 oz. No. 7602 – GM PFI Noid Lite. Wt., 2 oz. No. 7608 – Geo TBI Noid Lite. Wt., 2 oz. No. 7828 – GM SCPI Noid Lite. Wt., 2 oz. No. 6266 – Bosch 2 Noid Lite. Wt., 2 oz. No. 6260 – Fiber optic Noid Lite extension. Wt., 5 oz. No. 3050C – Noid Lite test kit. Wt., 1 lb. 1 oz.

#### Noid Lite/IAC Test Kit

Set includes (available separately): No. 7187 – GM TBI Noid Lite. Wt., 2 oz. No. 7188 – Bosch PFI Noid Lite. Wt., 2 oz. No. 7601 – Ford Noid TBI Lite. Wt., 2 oz. No. 6023 – GM Multec 2 Noid Lite. Wt., 2 oz. No. 7602 – GM PFI Noid Lite. Wt., 2 oz. No. 7608 – Geo TBI Noid Lite. Wt., 2 oz. No. 7828 – GM SCPI Noid Lite. Wt., 2 oz. No. 6266 – Bosch 2 Noid Lite. Wt., 2 oz. No. 6260 – Fiber optic Noid Lite extension. Wt., 5 oz. No. 3052S – '82 and newer GM TBI/PFI with square 4-pin connector. Wt., 2 oz. No. 3053S – '87 and newer Model 700 TBNI/PFI with flat 4-pin connector. Wt., 2 oz.

No. 3054C - Noid Lite/IAC test kit. Wt., 1 lb. 3 oz.

#### **General Motors IAC Signal Test Lights**

For checking the electronic control module signal that provides direction to the idle air control motor on General Motors vehicles with throttle body or port fuel injection systems.

No. 3051 – Set consists of Nos. 3052S and 3053S. Wt., 2 oz.
No. 3052S – Signal test light for 1982 and newer GM TBI and PFI fuel injection systems with square 4-pin connector. Wt., 2 oz.
No. 3053S – Signal test light for 1987 and newer GM Model 700 TBI and PFI fuel injection systems with a flat 4-pin connector. Wt., 2 oz.



### Oil Light Reset Tool



3596E

#### **Oil Light Reset Tool**

- Oil changes are the #1 service your shop will perform each year. Enhance your service with this complete electronic tool and manual kit, No. 3596E.
- This kit eliminates the need to take the vehicle to the dealer or use an OEM scan tool to reset oil service lights.
- Electronic tool set includes the adapters and interface module required to reset the oil service lights on Volkswagen, Audi, Mercedes Benz, BMW, and Volvo.
- Manual includes oil light reset procedures for all domestic and import vehicles not requiring electronic tools to reset, but have manual reset procedures.

Dash on

**Driver side** 

#### Kit Includes:

- No. 3596-1 Oil reset monitor V2.1.
- No. 3596-2 Mercedes-Benz cable.
- No. 3596-3 BMW cable.
- No. 3596-4 Volvo cable.
- No. 3596-5 VW and Audi cable.
- No. 3596-6 VW and Audi OBD II cable.
- No. 3596-8 Case.
- No. 3596-9 Oil light reset manual.
- No. 3596-10 Battery power adapter cable.
- No. 3596E Oil light reset tool kit.

#### Sample of manual contents:

#### BMW

#### Vehicle Adapters / Data Link Connector Locations for BMW

There are two vehicle adapters for BMW vehicles. The illustrations below show the adapters and their data link connector (DLC) / socket locations.



BMW-OBD II 16-pin Vehicle Adapter (for the 3596E Oil Reset Tools only)



Manufacturer	Model	Year	Reset Tool	Procedure
BMW	5-Series (E39, E53)	2000-2005	X	<ul> <li>Oil Reset Tool:</li> <li>Use the BMW-OBD II 16-pin Vehicle Adapter.</li> <li>Select BMW then E46 (OBDII).</li> <li>Manual Reset:</li> <li>1 Turn off the ignition.</li> <li>2 Press and hold the TRIP ODOMETER button in the instrument cluster and turn the ignition to Accessory (1).</li> <li>3 Keep the button pressed for approximately 5 more seconds until OIL SERVICE RESET (RE) or INSPECTION RESET (RE) appears in the display. Then release the button.</li> <li>4 Press and hold the button again for approx. 5 seconds until RE or RESET flashes in the display. Then release the button.</li> <li>5 With the display flashing, press the button briefly to reset and display the new Service Interval. After this, END SIA appears in the display for approximately 2 seconds.</li> </ul>

16-pin DLC

(under dash on driver side)

### ELECTRONIC DIAGNOSTICS Phototach and Bore Scopes

#### Phototach

- No. 3665 phototach can be used as a contact as well as a non-contact tachometer.
- Four styles of contact adapter tips clip easily to the top of the phototach.
- Infrared technology makes the phototach accurate, convenient, and easy to use.
- · Infrared beam not affected by ambient light.
- Non-contact design results in (zero) torque loss for true precision.
- Phototach is equipped with a laser pointer for accurate targeting.
- Reflective tape placed on a revolving object can be measured at distances from 2" to 20".
- Wide measuring range and high resolution, 2.5 to 99,999 rpm with a large 5-digit display, autoranging, min/max memory storage, and low-battery indicator.

No. 3665 – Phototach contact/non-contact.

No. 3660 - Phototach non-contact only.

No. 3660-03 - Replacement reflective tape, 10' roll.

#### **Flex-View UV Bore Scope**

- Flex-View fluoresces UV dyes.
- Use as a traditional bore scope.
- · Battery powered.
- Quick detection of leak dye in hard-to-see and reach places.
- Ability to inspect inside components.
- Confirms leaks where component removal would normally be required.
- Saves time trying to diagnose A/C evaporator leaks.
- Inspects the top side of fuel tanks for EVAP leaks without removal.
- Saves costs by eliminating the need to remove and replace unrelated components.
- A/C systems: Evaporator/condenser, hoses, compressor.
- · EVAP system.
- · Engine oil, transmission, and power steering fluid.
- · Coolant and fuel systems.
- ACR2000.
- EVAP Tester.
- Any system using fluorescent dye.

No. 3591 - 18" Flex-View UV bore scope in a sturdy case.

#### **Flex-View Bore Scope**

- Ultra-thin 1/4" cable.
- Small diameter cable allows for inspection in tighter locations.
- White light, non-fluorescent bulb.
- Uses two AA batteries.
- · Flexible cable does not retain a set shape.

No. 3598 – 36" Flex-View bore scope in a sturdy case.





To check for leaks in the evaporator, the technician simply drills a 1/2" hole in the housing top and inserts the Flex-View. UV dye leak is fluoresced by the Flex-View.

3591

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### Fuel Injection and Ignition









#### **Fuel Injection Tester**

Fuel injectors can pass a resistance test but still fail under load. With this tool, you can check and balance fuel injectors. Also tests fuel injector coil windings under load, and detects intermittent fuel injector coil faults. Adjustable current output. Works on both throttle body and multiport fuel injectors. TBI adapter included.

No. 3397 - Fuel injector tester. Wt., 3 lbs., 5 oz.

#### **Fuel Injection Pulse Tester**

Fuel injector testing requires precision equipment. This vehiclepowered tool fills that requirement. It enables you to check cylinder balance by firing individual injectors at 1/2-second increments in three different ranges: 1 pulse of 500 milliseconds, 50 pulses of 10 milliseconds, 100 pulses of 5 milliseconds.

- · Power and output lights indicate test activation.
- · Includes wiring harness adapter and instructions.

No. 3398 - Fuel injection pulse tester. Wt., 8 oz.

No. 306677 - Replacement lead. Wt., 2 oz.

#### **Electronic Stethoscope**

Quickly pinpoints noise and location of bad bearings, bushings, dirty fuel injectors, wind/air leaks, valves, and lifters.

- Flexible shaft reaches tight areas.
- Ultra-sensitive mic and amplifier provide a full range of sounds needed by the professional.
- 7 sound-level control settings; 60 dB to 120 dB.

No. 3590 - Electronic stethoscope. Wt., 3 lbs., 7 oz.

#### Ignition System Quick Test Kit

This kit enables technicians to do power-balance tests and diagnose problems on standard, electronic, or distributorless ignition systems. Comes with brass adapters to fit all auto coils, test probes and leads, spark gap tester, and step-by-step instructions that lead technicians through the power-balance test.

- Performs power-balance in less than 5 minutes on standard, electronic, or distributorless ignition systems.
- Spark gap tester checks for adequate kV voltages on electronic ignition systems, providing instant diagnosis of problems–whether a faulty coil, ignition wire, or spark plug.
- Ideal for checking spark in no-start condition, instead of wasting time trying to "ground out your screwdriver."
- Step-by-step instructions lead technician through tests to check if ignition has a bad ground all the way to defective coils.

No. 3589 – Ignition system quick test kit. Wt., 2 lbs., 1 oz. No. 3579 – Ignition system adapters, set of six. Wt., 14 oz.

#### **Spark Testers**

6589

6588

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Check for spark on gasoline engines used in import and domestic cars and trucks, plus small engines.

No. 6588 – Standard ignition spark tester. Wt., 4 oz.

No. 6589 - Electronic ignition spark tester. Wt., 4 oz.

### Self-Contained Spark Plug kV Tester – Digital

Features a display providing live, minimum and maximum readings for the following spark plug measurements:

Firing voltage
 Burn time
 Burn voltage

This information permits accurate, professional diagnosis of the spark plugs, plug wires, ignition system, fuel control, and most other factors affecting the spark plug voltage and combustion chamber. Fully tested on both conventional and distributorless ignition systems, and direct spark systems using an additional spark plug wire. A simple rotary switch selects firing voltage, burn time, and burn voltage. All readings are taken on each firing of the spark plug. The tester may be used on any gas engine, including those on motor vehicles, lawn mowers, snow blowers, motorcycles, personal watercrafts, snowmobiles, marine and industrial equipment, etc. Tester has an internal battery. On-screen indicator advises when battery replacement is needed. An operator's manual is included.

No. 3141 – Self-contained spark plug kV tester – digital. Wt., 1 lb., 1 oz.

#### Self-Contained Spark Plug kV Tester – LED

- Display indicates spark plug firing voltage on either conventional or distributorless ignition systems (DIS).
- Permits accurate, professional diagnosis of spark plugs, plug wires, fuel control, and other factors affecting performance.

No. 3142 - Self-contained spark plug kV tester - LED. Wt., 10 oz.

#### **Two-in-One Idle Tester**

- · Idle Air Control
- Idle Speed Control

Now there's one convenient tester for GM idle speed control, GM idle air control, and Chrysler/AMC automatic idle speed control. Use for adjusting high- and low-idle speed settings and controlling rpm for ignition and cylinder balancing testing. See page 43 for IAC signal testers.

No. 3320 - 2-in-1 tester for idle air control, idle speed control on GM and Chrysler/AMC vehicles. Wt., 10 oz.

No. 46589 - GM/Chrysler replacement cable. Wt., 2 oz.

#### Anti-Static Wrist Strap

Virtually eliminates the possibility of static electricity causing damage while working on electronic components.

- One-size-fits-most adjustable wrist strap.
- Includes a 6' coil cord with alligator clip.
- No. 7744 Anti-static wrist strap. Wt., 4 oz.

#### **GM Code Retrieval Key**

This key retrieves trouble codes from pre-OBD II model GM vehicles.

**No. 7739** – ECM code retrieval key. Jumps between A and B terminals on ALDL connector to retrieve trouble codes from the ECM. Wt., 2 oz.

#### **Angle-Tip Relay Pliers**

- Designed to remove and install relays, which are usually located in confined, hard-to-reach areas.
- · Specially coated tips offer a solid grip on the relay.

No. 4493 – Angle-Tip Relay Pliers. Wt., 10 oz.









3320



7739

### Electronic Tools



### ELECTRONIC DIAGNOSTICS Air Bag Simulator

#### Universal Air Bag Simulator... includes PC diagnostic software!

Universal design emulates nearly all OE simulators currently available. You need only this one tool, not several vehicle specific tools.

- The No. 3770 replaces the air bag in the system and puts the proper electrical load on the circuit. With no air bag installed, there is no chance for accidental deployment during testing.
- If a deployment condition is present in the system, the simulator will "blow," not the expensive air bag. You can then find the problem and verify the fix before making the air bag "live" again.
- All systems typically turn themselves off after an intended deployment due to a collision. Use the No. 3770 to check for other problems before re-arming the system with an air bag scan tool such as the OTC No. 3761.

Included with the No. 3770 is an incredibly valuable tool– a Tools & Techniques CD which offers comprehensive air bag information on 1983–2000 vehicles. It includes diagnostic procedures, wiring schematics, and re-arming procedures on 1983 thru 2000 domestic and import cars, vans, and light trucks.

#### **Schematic Drawings**

Detailed drawings and component locations will lead you to easy repairs, if problems exist in an air bag system.

#### **System Inspection**

Recommended OE procedures for post-collision inspection. You can print this out, and attach it to the work order to show you've done the work by the book!

#### **Trouble Code Diagnosis**

Track down codes that keep the air bag warning light on! Procedures give you step-by-step information on all codes to help you find the problem.

#### Applications

• GM • Ford • Chrysler • Saturn • Honda • Mitsubishi

**No. 3770** – Air bag simulator. Includes the simulator, leads for U.S. domestic and import vehicles, Tools & Techniques for air bags on CD-ROM, and a handy storage case. Wt., 5 lbs., 10 oz.

#### Ford Air Bag Simulator

When plugged into the vehicle harness connector, power is restored to simulate a complete circuit for diagnostic purposes.

**No. 7954** – Ford air bag simulator. For use on most Ford 1989 to 1991 air bag systems and 1992 Ford air bag system I. Wt., 6 oz.

**No. 7955** – Ford air bag simulator. Special one-ohm resistor for use on air bags on Probe vehicles. Wt., 6 oz.

#### Air Bag Release Tool Kit

- · Use to remove the air bag module from the steering wheel.
- · Work on many GM, Ford and Mercedes Benz vehicles.

**Applications:** Ford 2000-2004 Taurus/Sable, 1999-2003 Windstar Van GM 1999-2005 Chevrolet Impala, Lumina, Monte Carlo, Venture, Pontiac Bonneville, Grand Prix, Montana, Buick LeSabre, Century, Regal, Olds Intrigue, Cadillac El Dorado, Deville, STS,SLS

Mercedes Benz Models 107,123, 124, 126, 129, 140, 163, 164, 170, 201, 202, 203, 208, 209, 210, 211, 215, 219, 220, 221 and 463







**No. 7956** – Ford air bag simulator. Special two-ohm resistor for use on 1993 and newer Ford system II air bags. Wt., 6 oz.

**No. 7957** – Ford air bag simulator. Special three-ohm resistor for use on Ford Villager air bag systems. Wt., 6 oz.



Vision Premier



# Vision Premier

State-of-the-Art Engine Analyzer Fast, High-Resolution Color Scope **Preselect Waveforms** Intuitive, Easy-to-Use Software **On-line Help and Operator Guide** Flexible Meter Display Automated Diagnostic System Tests **Custom Fuel System Measurement Screen** 

#### Detailed diagnostic screens make for quick, accurate diagnostics!

#### Coil-on-Plug (COP)

- · Primary and secondary ignition pattern display capability; single- or multiple-cylinder display in parade, raster, or 3-D view.
- Dedicated COP vehicle-specific database.
- Easy-to-read test instructions.
- Actual pictures of lead connection points.

#### Oscilloscope

- 4-channel display.
- · Color separation of cylinder patterns.
- · Fastest digital automotive scope on the market.

#### **Ignition Tests**

- · View primary and secondary data.
- Optional timing light.
- Review kV, firing time, and firing line kV.
- · Easy navigation.

#### Starting/Charging Tests

- · Volts/amps graph.
- Procedural tests.
- · Disable ignition.
- · Display live diode. Waveforms.

#### **Cylinder Tests**

- Measure cranking amps and vacuum per cylinder.
- · Cylinder contribution for DIS, interprets and reports.
- Cylinder kill-measuring percentage drop for each cylinder.

#### **Fuel/Emission System Tests**

- Optional 4- or 5-gas bench analyzer.
- · Microgas 4- or 5-gas modules available for portable, cost effective, gas analysis.
- Horiba 4-gas module available for stationary, automated, gas analysis.

#### **Custom Screens**

· For maximum flexibility, you can customize up to seven different screens using up to four measurements.

**52 ОТС** 



#### Gas Analyzers



#### Measurement Ranges:

- Hydrocarbons (HC): 0-30,000 ppm
- Carbon Monoxide (CO): 0–15%
- Carbon Dioxide (CO<sub>2</sub>): 0–20%
- Oxygen (O<sub>2</sub>): 0-25%
- Oxides of Nitrogen (NOx): 0-5000 ppm

Rev Per M		4409	6384 1345 0
		1	rpm 190 <mark>6.0 second sl</mark> Starting
🝯 нс		120	ppm
0 CO2		12.00	%
🖸 co		2.00	%
02		1.00	%
🛛 NOX		40	ppm 🚽
Frame: 1 i	Press Left Arrow fo	r Freeze Data	
Record	😔 Analog	† То Тор	🖸 More

Performance 5-Gas Analyzer Module—Powerful diagnostics software automatically detects out-of-range readings and describes the vehicle system most likely to be causing the condition.

Measurement Ranges					
HC	0–30,000 ppm				
CO	0–15 %				
CO <sub>2</sub> .	0–18 %				
NOx .	0–5,000 ppm				
0,	0–25 %				
<u>Overal</u>	I Dimensions				
6.4"W x 4.9"H x 3.9"D					



**No. 3740** — Deluxe MicroGas 5-gas module kit for use with OTC Vision Premier engine analyzer or your shop PC with the PC gas software. Includes the module along with sampling hose, probe, cables, filters, and PC gas software with cable.

#### **MicroGas Accessories**

- No. 3700-25 Calibration gas, 5-gas
- No. 3700-26 Sample inlet hose, 21'
- No. 3700-27 Sample probe
- No. 3700-28 Base filter, 10 pack
- No. 3700-29 Nox upgrade/replacement cell
- **No. 3700-30**  $O_2$  replacement cell
- No. 3700-36 Water trap pre-filter 10 pack
- No. 3700-39 Filter-internal water trap, 1 filter, and short hose
- No. 3700-41 Power cable
- No. 3700-60 Genisys/MicroGas Gas M-P vehicle diagnostic software
- No. 234977 Cleaning kit
- No. 234978 Replacement pump
- No. 234979 Replacement sample cell
- No. 234980 Annual maint. kit, includes: swabs, base filter kit (10), water trap pre-filter (10), internal water trap.
- No. 235973 Manual
- No. 236404 Replacement printer cable
- No. 236406 Replacement calibration hoses
- No. 3780-05 Regulator

#### Performance 5-Gas Module

#### **Complete Emission Analysis and Diagnostics!**

When you combine the compact, repair grade, Performance 5-Gas Plug-in Module with the Genisys scan tool, you have the complete interactive emission repair solution. This powerful combo covers any emission-related diagnosis required, and also gives you the ability to test for mechanical failures. The system meets or exceeds BAR 97, OIML Class 0 standards.

The module includes a reliable, heavy-duty pump, automatic water purge, water overload protection, automatic zero mode, easy pump and sensor servicing, and covers the full measurement ranges for HC, CO, CO<sub>2</sub>, NOX, and O<sub>2</sub> gases.

**Genisys—at the core of integrated diagnostics solutions!** Genisys takes the lead with new ID<sup>™</sup> (Integrated Diagnostics) solutions—our exclusive capability lets you display 5-gas and scan data simultaneously. But this is just the beginning. It's the direction technology is going that will give technicians access to more usable data—from a variety of sources—to service today's high-tech vehicles faster and more accurately.

#### **Solarity Performance 5-Gas**

The Solarity emissions repair solution. Kit includes Solarity with plug-in 5-Gas Analyzer Module, hoses, exhaust probe, power cable and battery adapter, RS232 cable, AC power supply, Smart Card, Gas M-P software CD, filters, manual, and carrying case.

No. 3855 - Solarity performance 5-gas.

#### **Smoke Check 1667 Diesel Emission Tester**

In some states, failing the on-road emission test can result in a "must appear in court" citation, and up to an \$1,800 fine. Add the downtime, missed delivery, rescheduling, and the potential for lost business. More states are adopting emissions standards and testing programs. This can cost time and money for local and interstate fleets.

#### SMOKE CHECK 1667 DIESEL EMISSION TESTER

- Fleets can determine immediately if the truck will pass state standards and interstate emission programs.
- Completely portable; all components in one case; there is no PC. One person can do the entire test. Windows-based, PC downloadable program transfers up to 100 stored tests.
- No warm-up time needed; perfect for random roadside testing or in your PM Service Program.
- The partial flow meter clips inside any smokestack; testing can be performed in any weather.
- Digital LCD screen walks you through each step; when testing is complete, a printout of results is produced for verification.
- This is the same meter used for enforcement in California, New York, Illinois, and the majority of states that test for diesel emissions compliance.
- · Meets the latest SAE J1667 specifications.

#### SPECIFICATIONS

Range	
Accuracy	+/-1.0%
Light Source	
Power	12 VDC battery (built-in)
Battery Life	
Warm-up Time	
Response Time	
Control Unit	
Maintenance	Clean lens w/cotton swab
Weight:	
Control Unit	
Sensor	

#### ORDERING INFORMATION

**No. RM1020CPC** – Smoke Check 1667 diesel smoke opacity tester. Includes partial flow meter, base unit with hand-held display, built-in printer, ambient sensors, two battery chargers – one for vehicle or shop, 20 ft. cable, telescoping rod, spring clamp, neutral density filter, and sensor head case.

#### **OPTIONAL ITEMS**

**No. OTC3020CPC** – Standard meter listed above with OIL/RPM software and accessories. These options are required for

state approval testing in New York and New Jersey. **No. OTCSH** – New sensor head with quick detach release.

**No. OTCSHCS** – Sensor head case for new or existing meters and accessories.





RM1020CPC

**OTC** 55

### **Battery and Electrical Systems**



#### Sabre HP

Sabre HP is designed to let you quickly diagnose bad batteries in a discharged state without needing to charge them first. By utilizing a patented SPX micro-load testing method, this tester ensures accurate test results without any interpretation on vehicle battery, starting, and charging systems. Ships with 3' leads.

#### Features and Benefits

- Digital circuitry precisely controls battery test loads to accurately determine battery conditions using SPX patented micro-load test technology.
  - Tests the battery both statically and dynamically with multiple fixed loads.
  - · Provides the most accurate test results.
  - Less susceptible to erroneous results from remote or bad connections, surface charge, and parasitic drains.
- Accurately tests both absorption glass mat (AGM) and flooded lead acid (FLA) batteries.
- Tests vehicle's starting and charging systems with minimal user interaction; automatically applies loads for accurate charging system tests.
- Tests all 6- and 12-volt batteries with a 50–2000 CCA operating range.
- Tests batteries down to 1 volt state of charge.
- Temperature and low charge compensation.
- · Detects bad cells.
- Scales: CCA, CA, AHR, MCA, JIS, DIN.
- 4 x 20 backlit display shows CCAs, voltage, and good/bad status.
- · Over-molded enclosure with soft-touch keys.
- · Built-in infrared printer interface for remote printing (printer optional).
- Flash upgradeable memory in field.
- Removable/auto-sensing leads (3' leads included in kits; optional 10' leads available).
- Printout has date/time stamp and user definable header and footer.
- Optional amp clamps for current drain tests and starting/charging measurements-the only hand-held battery tester with this feature.
- Reverse polarity protection.
- · Hard carrying case.
- 3-year warranty.

#### SABRE HP

Includes SABRE HP, 3' test leads, side-post terminal adapters, instruction manual, and molded-plastic carrying case.

No. 3167 - SABRE HP.

#### SABRE HP Deluxe Kit

Includes SABRE HP, 3' test leads, side-post terminal adapters, instruction manual, infrared wireless printer, and molded-plastic carrying case.

No. 3168 - SABRE HP deluxe kit.

#### Accessories:

No. 3169 – Infrared wireless printer for use with No. 3167 (included with No. 3168). No. 3167-01 – 3' test leads. No. 3172 – 10' test leads.

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# **ELECTRONIC DIAGNOSTICS** Heavy-Duty Battery and Electrical Systems

#### Sabre Heavy-Duty Battery and **Electrical System Diagnostic Tester**

- · Heavy-duty for 24-volt battery and electrical systems.
- · Diagnoses battery packs in series, parallel, or series/parallel.
- · Tests AGM/gel-cell batteries.

HIGHEST CCA capacity ranges (50-4000 CCA - 24V). LARGE DISPLAY for less scrolling, more detailed instructions. It's also backlit for all light conditions. **INDUSTRY FIRST** amp-clamp connection ports for live amperage readings using optional external amp-clamp. 15 FT. CABLE to perform tests from the cab of the vehicle. FIELD UPDATEABLE to accommodate new battery types, system updates, feature additions.

#### **Battery Testing**

- · Tests the following battery pack configurations:
- One battery (6V or 12V).
- Two batteries in series (24V); 2, 3, or 4 batteries in parallel (12V).
- Two banks in parallel, each bank having 2 batteries in series (24V).
- · Uses pack configuration in algorithm design.
- Step-by-step user instructions for easy test completion.
- · Tester-applied loads used on all pack combinations.

#### **Electrical System Testing**

- 12V and 24V charging system tests.
- 12V and 24V starting system tests.
- 12V and 24V diode tests.
- Amp-clamps available (not included) for starting/charging and current draw tests.

#### **Features**

Amp-Clamp Connection - allows current drain tests and starting/charging analysis.

Tests Both FLA (flooded lead acid) and AGM (absorbed glass mat) battery types.

Scales - CCA, CA, AHR, MCA, JIS, DIN

User Definable - print header and footer.

Removable Test Cables - easily field replaceable.

PC Interface Port – allows for field updateable software.

**IR Compatible** – allows optional infrared wireless printer. Readout Display - backlit for low light conditions, easy to view data in direct sunlight (4 x 20 character display).

Security Cable Connection - protects against stolen or dropped units.

Over-molded Surround with Soft-touch Keys - ruggedly built, easy to use, even with gloves.

No. 3167-HD - Sabre HD deluxe kit includes 24-volt heavy-duty battery tester, 15' test leads, instruction manual, molded-plastic carrying case.

No. 3168-HD - Same as No. 3167-HD above, but also includes an infrared wireless printer.

#### Accessories:

No. 3172-15 - 15' lead set. No. 3169 – Infrared wireless printer.



### **Battery and Electrical**



#### Battery Charging/Starting System Professional Analyzer Kit

Made for the professional technician, No. 3185 tests batteries and starting/charging systems faster than ever before. The BCS system analyzer has an operating range of 50–2000 CCAs and is able to store data in memory or remotely print out the results using an infrared printer interface. It also measures voltage, and tests starting and charging systems at the push of a button.

#### **Features and Benefits**

- Utilizes cost effective, conductance test technology for accurate testing at a value price point.
- Quick 1-second initial results.
- Tests charging and starting systems 50–2000 CCA range accurate to 5 CCAs.
- Tests 6V and 12V batteries.
- Temperature and low charge compensation.
- Detects and identifies loose leads.
- Supports CCA, IEC, EN, BCI, and DIN scales.
- 4-line, 20-character LCD display shows CCAs, voltage, and good/ bad status.
- Displays results in seven languages: English, French, Spanish, German, Italian, Dutch, Swedish.
- Built-in infrared printer interface for remote printing.
- Detachable cable leads.

**No. 3184** – BCS system analyzer kit. Includes BCS system analyzer, a 12' extension cable for in-cab testing, two voltmeter probes, battery side- and threaded-post adapters, detachable leads, 9-volt battery, soft- sided carrying case.

No. 3185 – BCS system analyzer kit.

Same as No. 3184, but also includes an infrared printer.

#### **Digital Battery Tester**

Speed. Accuracy. Reliability. These are the cornerstones behind the technology in our digital battery testers. No. 3183 tests 12-volt batteries (125–1400 CCAs) and analyzes by measuring multiple parameters within the battery to deliver accurate results. A live voltmeter allows easy starting/charging system testing. Its bright, 4-digit LED display indicates the battery's good/bad status, voltage, and available CCAs. It even compensates for cold temperatures.

#### **Features and Benefits**

- Utilizes cost effective, conductance test technology for accurate testing at a value price point.
- Quick 1-second initial results.
- 125–1400 CCA range.
- Analyze starting/charging system voltages.
- Tests 12V batteries.
- · Temperature and low charge compensation.
- · Detects and identifies loose leads.
- Detects bad cells.
- · Surface charge warning.
- · Measures multiple international units: CCA, IEC, DIN, BCI, and EN.
- 4-digit LED display shows good/bad status, available CCAs, and voltage.

**No. 3183** – Includes digital battery tester. Includes digital battery tester and soft-side carrying case.

3183

58 **олс** 

### ELECTRONIC DIAGNOSTICS Battery and Electrical

#### 130-Amp Digital Battery Load Tester

Produce more accurate results with this 130-amp digital battery load tester. The compact, lightweight design is rugged enough for everyday testing of 6- and 12-volt batteries.

#### **Features and Benefits**

- · Large, easy-to-read display.
- · Side-clamp mount.
- · Comfortable, easy-to-grip, ergonomic handle.
- · Alternator test lead.
- Ripple detection light.
- 0-16 volt range.
- Dual jaw load clamp design.
- · State of charge.
- · Battery load test.
- · Starter and charging system test.
- · Alternator ripple test.

**No. 3182** – Digital battery tester. Includes 130-amp digital battery tester and test leads.

#### 130-Amp Heavy-Duty Battery Load Tester

Applying an industry-leading 130-amp load, this ergonomically designed, heavy-duty battery tester provides accurate, reliable test results in just 10 seconds. It includes uniquely designed clamps for a positive grip on top- and side-post batteries and an extra-large, easy-to-read display.

#### **Features and Benefits**

- · 130-amp load capacity for accurate results.
- 0-16 volt range.
- Uniquely designed clamps for both top- and side-post batteries.
- · Extra-large display with zero adjust.
- · Works on both 6V and 12V batteries.
- Ergonomic handle design.
- · Side tabs for on-tool clamp storage.
- · Back brackets for tool storage on wall or toolbox.

No. 3181 - 130 amp heavy-duty battery load tester.

#### **100-Amp Battery Load Tester**

Tests batteries on or off the car in just 10 seconds. Convenient, portable size and easy-to-read scales.

#### **Features and Benefits**

- · Heavy-duty, copper-plated clamps.
- · 100 amp load capacity.
- 0–16 volt range.
- · Load safety switch prevents arcing.
- · Heavy-duty, chrome-plated, ventilated steel case.
- · Works on both 6V and 12V batteries.
- Ceramic insulators.
- · Determines state-of-charge, cranking, and charging volts.
- · Determines good/bad status.
- · Extra-large display with zero adjust.

No. 3180 - 100-amp battery load tester.







### **Battery and Electrical**



#### Parasitic Draw Test Switch

Finding electrical problems that drain the battery is getting harder all the time. But using No. 7645 with your digital amp meter takes the guesswork out of a complicated job. Attach the test switch between the negative battery cable and the battery, and then roadtest the vehicle. Next, connect an amp meter to the switch to determine the parasitic amperage draw, and locate the excessive electrical drain on the battery. Works on any vehicle with side- or top-post batteries.

No. 7645 - Parasitic draw test switch. Wt., 8 oz.

#### Parasitic Drain Tester with Memory Saver

- Provides instant feedback of a possible battery drain condition, eliminating unnecessary replacement of battery or charging system components.
- Memory saver feature protects vehicle's computer memory, preserving stored fault codes, driveability parameters, and programmed electrical settings, such as clock, radio, seat position, etc.
- No. 3382 Parasitic drain tester.
- No. 3382-01 Charger.

#### **Parasitic Battery Drain Tester**

- Connects between battery and negative battery cable, providing instant feedback of a possible parasitic battery drain condition in an undriven vehicle.
- Prevents unnecessary replacement of a suspected battery or charging system component by verifying that a parasitic drain is responsible for a low battery.
- Calibrated to vehicle manufacturer standards to allow certain parasitic loads while detecting those that are above acceptable limits.

No. 3381 - Parasitic battery drain tester.

#### Antizap Auto Surge Protector

- Connects to battery, and becomes part of vehicle's electrical circuit. If a voltage spike is detected, the Antizap automatically clips it to a safe level to prevent damage to sensitive electronic systems.
- Protects fuel gauge, ABS brakes, radios, tape and CD players, car alarms, SRS air bags, LED instrumentation, EFI, fuel, and climate control systems. Protects against welding (Arc, Mig, and TIG).

No. 3386 – Antizap auto surge protector.



60 **OTC** 

12 Volts only

### **Battery and Electrical Systems**

#### MinuteMan Plus saves you hours when you're testing batteries, starters, alternators, regulators, and charging systems.

#### Features

- Special AGM test options for accurately diagnosing AGM and spiral (six-pack style) batteries.
- Can switch between English and Spanish languages with a menu-based selection.

#### **Battery Testing**

The way it has been: Your customer brings in a dead battery and you have to charge it up to test it. Then, if it's a keeper, you have to recharge it. Hardly efficient use of your valuable time. With MinuteMan Plus on the job, you can test discharged batteries down to as low as two volts, and it won't drain a charged battery you are testing. You won't waste time charging bad batteries.

Works on all 12-volt automotive-type batteries with cold cranking amp ratings of 100–1500. This includes batteries found in motor-vehicle, marine, agricultural, forestry, and industrial applications. The tester operates from either 110 volts AC or its own internal, rechargable 6-volt battery. Features self-calibration, an internal battery check, and an automatic shut-down to reduce power consumption.

On certain competitive, carbon-pile load battery testers, the technician must interpret the readings, then make the electrical system diagnosis. With MinuteMan Plus, all you have to do is read simple test results on the LCD display.

#### **Starter Testing**

The MinuteMan Plus display shows cranking volts and amps, and indicates either "Good Starter" or "Bad Starter." Excessive starter current draw can indicate a defective starter. Excessive engine drag, due to tight or damaged bearings or piston drag, can also cause an abnormally high starter draw.

#### **Charging System Testing**

Checks the charging system at high rpms and at idle, and stores the data. Results show regulator volts, peak amps, and a diode condition. MinuteMan Plus utilizes waveform analysis when testing alternator diodes, which provides more accuracy than the commonly used "ripple voltage" tests.

#### **Battery Tachometer Capability**

Unique, patented direct-from-battery technology gives you tachometer readings without having to make complicated connections to the ignition system. Provides battery-sensing measurements to 4,000 rpm, with 1 rpm resolution.

#### **Order Information**

**No. 3130AGM** – MinuteMan Plus multi-application electrical system tester. Includes connector cables, internal rechargeable battery, battery charger, and instructions. Wt., 27 lbs.

**No. 3131AGM** – Same as No. 3130AGM, but also includes roll-around cart with two additional shelves for other equipment. Wt., 53 lbs.

No. 3135 – Printer kit.

No. 3131-02 - Dust cover.



### Battery Analyzer and Charger

Heavy-duty all

steel construction.

ne Step

Display window shows menus and input screens.

Numeric key pad for entering information fast is kept clean by a sealed membrane.

> Heavy-duty power switch lights up for power-on indication.

Scroll and menu keys to move through information or select main menu. Circuit protection is on the front of unit for easy reset and visual status.

"Go" key to start test program, and "Clear" key to remove information or stop testing procedure.

LED status lights show Power, Progress, Fault, or Completed test procedure.

#### Specifications:

Battery Test Range: 12 volt, 150 - 1500 CCA

**Battery Type:** Works on all constructions of 12-volt lead-acid, gel-cell, absorbed glass mat (AGM), wet cell, spiral-wound batteries.

**Operating Temperature Range:** 4° F – 158° F ambient air temperature.

Humidity: 0 – 85%

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**Voltage Input:** 115 volt 20 amp dedicated. Optional 15 amp input available.

#### OneStep<sup>™</sup> Battery Analyzer and Charger

The OneStep is a bench-top battery tester and charger that provides extremely accurate battery diagnosis. The combination of SABRE heavy load, dynamic charge, and accuracy test technologies yields unparalleled accuracy, and the addition of charge acceptance into the test algorithms further increases the level of accuracy. Precise high-output charging can test, fully charge, and return a battery to service in under 45 minutes. It also provides analysis of a battery's charge acceptance by testing the battery again following the charge cycle. It is specifically designed for all forms of the newer AGM (including spiral wound types), gel cell and deep cycle batteries, as well as conventional FLA (lead-acid) batteries.

#### Features and Benefits

OneStep gives the user one piece of equipment to completely test and charge batteries with the highest accuracy.

- **Precise High-output Charging**—returns charged batteries to service in less than 45 min.
- Compatible with AGM, FLA, Gel Cell, and Spiral-Wound batteries.
- Extremely accurate testing—combination of Heavy-Load, Dynamic Charge and Accuracy Test Technology.
- Sealed Numeric Keyboard—clear covering keeps unit clean as you enter data.
- LED Status Lights-quickly identify test status.
- **Built Rugged**—all-steel construction with solid copper transformer.
- Compact Flash Card Port—updates software and add memory as needed.
- Low Cost of Ownership—designed with internal overload protections for high volume use; field replaceable cables.
- **Precise Output Charging**—computerized control of charging voltage and current.
- Easy-to-Use Menus—screen prompts guide user through procedures.
- **Expandability**—easy to update and expand as new battery technologies are released.
- Bar Code Reader—optional feature for fast and accurate entry of battery specifications.
- Battery Warranty Output Code—allows easy warranty administration analysis.

No. 3641 – OneStep battery analyzer/charger, 20-amp input. Wt., 68 lbs.

No. 3640 – OneStep battery analyzer/charger, 15-amp input. Wt., 68 lbs.

No. 3136 - Serial printer kit.

### ELECTRONIC DIAGNOSTICS Alternator and Starter

#### The Judge–Rotating Electrical Alternator/ Starter Bench Tester

This rotating electrical tester, using advanced computer technology, lets you quickly diagnose alternators and starters with extreme accuracy—validated by component manufacturers. It features an integrated self-test to eliminate bad test leads, thus improving test results and reducing warranty costs to the auto parts retailer. Your tester investment is protected by The Judge— it can be updated to accommodate manufacturer's new starters and alternators, or to change test parameters on existing devices.

The Judge is easy to use and will test virtually every alternator and starter precisely, providing accurate results.

- No More Flip Charts—Integrated "Lester-based" part number database, or by vehicle selection.
- Faster Set-up—new improved mounting for alternators and starters.
- Integrated Self-test Features provide a lead check application—ensuring bad test leads are eliminated.
- **ETL Certified**—with circuitry specifically designed for reliability and durability.
- Hooded Test Bay—allows observation while capturing debris, grease, or oil when testing a well-used component.
- Full-Color Touch Screen—easy-to-use interface screen (10.5" display).
- Ease of Component Mounting—improved flexibility supports the latest mounting configurations.
- Easy-to-Use Menus—screen prompts guide technician through procedures.
- Expandability—easy to update and expand as new alternators/starters are developed.
- Compact Flash Card Port—update software and add memory as needed.
- Bar Code Reader—optional feature for fast and accurate test set-up.
- Interlock Switch—prevents operation when door is open.

**No. 3643** – Judge rotating electrical tester. Includes bench tester, mounting pins, alternator cable, starter cable, solenoid cable, test leads, manuals.

- No. 3643-01 High-speed serial printer.
- No. 3643-78 Printer mount.

Hooded test bay with observation window improves safety. Door interlock switch prevents operation when door is open.



Innovative alternator mounting with tensioned idler and a newly designed starter vise.

Easy-to-use, 10.5" color touchscreen allows intuitive user interface.



3643-78 Printer mount.



### The Judge Rotating Electrical Test Cable Chart

