

# MODIS

## Modular Diagnostic Information System



# THE COMPLETE GUIDE

## YOUR DAILY DIAGNOSTIC COMPANION

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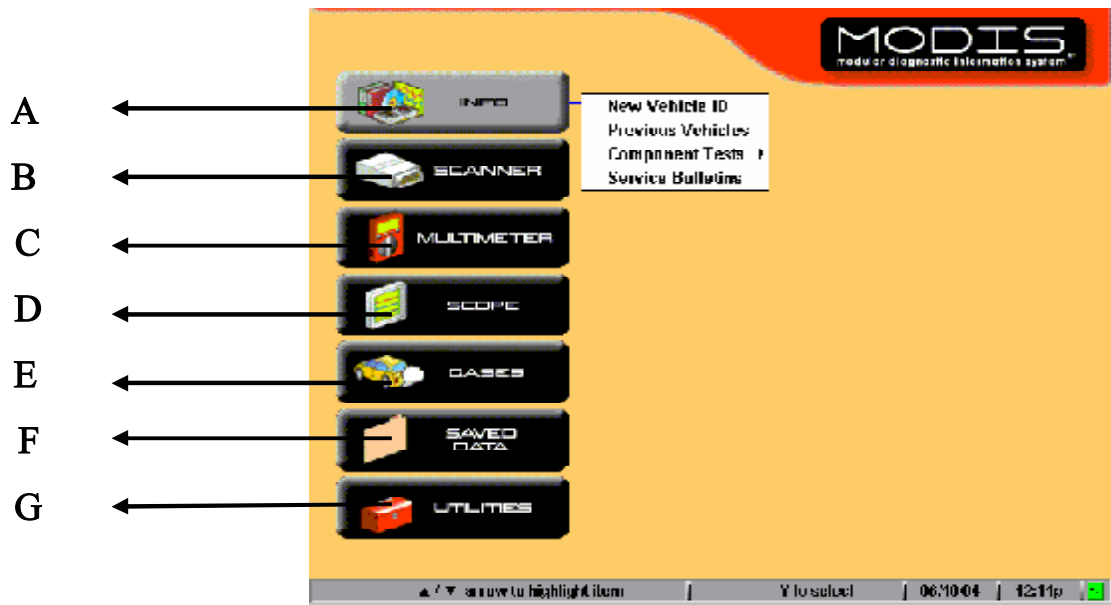
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# LET'S GO INSIDE



**A** – The **INFO** icon provides access to the Fast-Track® Component Test module that consists of the New Vehicle ID, Previous Vehicles, and Component Test menu options, and the *optional* Technical Service Bulletins viewer.

**B** – The **SCANNER** icon provides access to the Vehicle Communication and the Troubleshooter sub-menus.

**C** – The **MULTIMETER** icon provides access to the Graphing and Digital Meter menus.

**D** – The **SCOPE** icon allows you to operate the MODIS unit as a 4-channel lab scope or a two-channel ignition scope.

**E** – The Snap-on **Flexible Gas Analyzer (FGA)** is a self-contained battery-operated unit that connects to the MODIS display unit and uses the MODIS **GASES** software mode for emissions testing. The MODIS **GASES** mode can not operate without being connected to the FGA unit. When the units are properly set up, the hardware and software configure the MODIS display unit to function as a gas emissions analyzer with data storage capability.

**F** – The **SAVED DATA** icon allows you to load, edit, delete, copy and move files that are stored in memory. This function also allows you to manage the saved files on your system utilizing internal storage memory and an external CompactFlash® storage card.

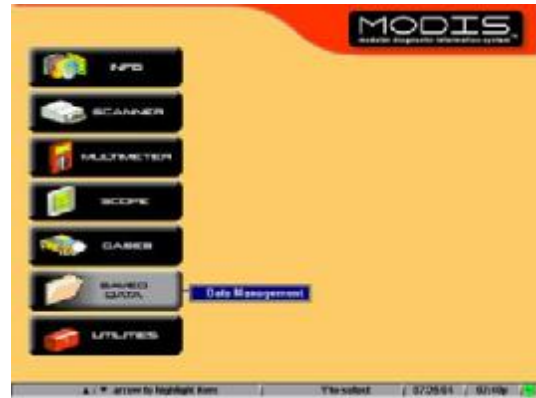
**G** – The **UTILITIES** icon provides access to system information and various tool adjustment controls that affects overall functionality of the MODIS unit.

# IDENTIFYING SAVED DATA

## Select Saved Data



## Select Data Management



Saved files are stored with the following identification information and are listed by;

**Size** is the percentage of available storage space usage  
**Date & Time** is the date and time that the data was saved  
**Year** is the vehicle model year  
**Make** is the vehicle manufacturer.  
**Sensor** is the component tested  
**Condition** is for good, bad, or unknown status options

### TYPE

The Data Source Identifiers may include:

- MM = Multi-meter (Graphing Meter only)
- LS = Lab Scope
- IS = Ignition Scope
- SP = Scanner™ Plug-in
- GB = Gas Bench

Data Type Identifiers may include:

- (C) = Preset
- (M) = Movie
- (P) = Snapshot
- (S) = Screen

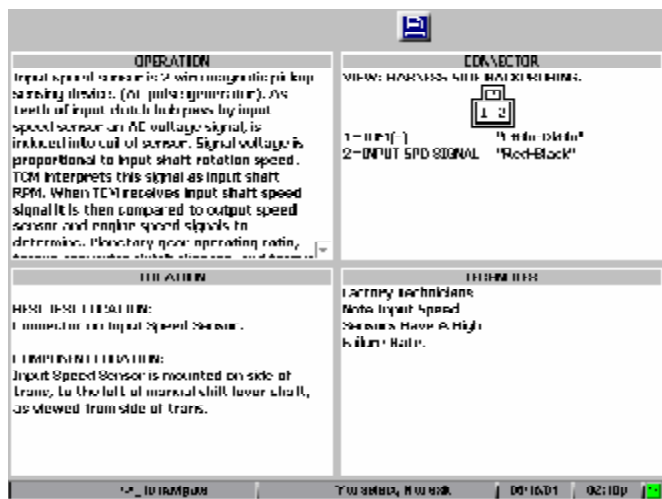
Type	Size	Date/Time	Year	Make	Component	Condition
SP(S)	0.2%	07/08/04 13:17		User001		
LS(P)	0.8%	05/26/04 09:27		User001		
LS(S)	0.1%	05/24/04 19:05	2000	Chrysler	CKP Sensor	Bad
LS(S)	0.1%	05/24/04 19:02		User002		
LS(S)	0.1%	05/06/04 09:32		User001		
SP(S)	0.2%	05/05/04 15:19		User003		
SP(S)	0.2%	05/05/04 15:18		User002		

Additional Information:

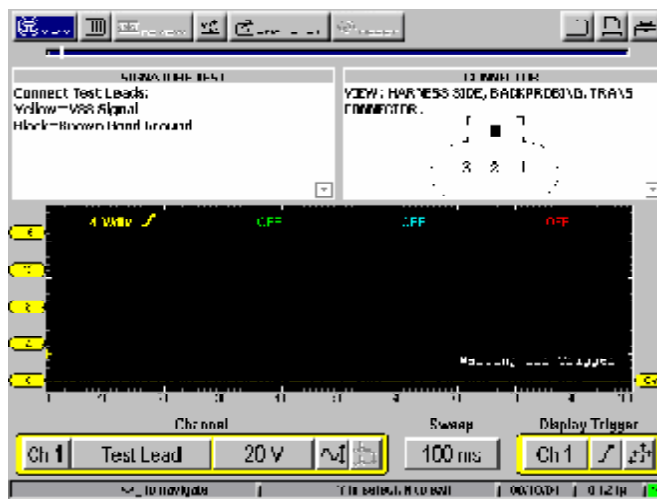
# WHAT IN THE WORLD AM I LOOKING AT?

For this demonstration, let's use a 2000 Chrysler Minivan 3.8 liter; Trans concern

## Component Information



## Component Test



## COMPONENT TEST SCREEN LAYOUT

A segmented screen format is used. When you select COMPONENT INFORMATION the segmented screen allows you to view all the appropriate text information for a selected component. When you select a TESTS option the segmented screen lets you simultaneously view component-specific test help from the diagnostic database along with test meter readings.

The COMPONENT INFORMATION screen can have up to 4 text display windows, containing one or more of the following information sections:

- **OPERATION** — Contains a general description of the normal component operation.
- **CONNECTOR** — Contains information about what the component connector looks like, and gives you printouts and wire color information.
- **LOCATION** — Contains information about where the component is located, and where to test the component.
- **TECHNOTES** — Contains component test-related tips such as common failures or faults, and common difficulties when testing or replacing the selected component. May also include update or recall information.

The TESTS screen combines two text sections with one test meter:

- **Test Procedure window (upper-left)** — Contains the testing instructions and is used to navigate through a text-based test procedure.
- **Support window (upper-right)** — Contains support information, typically a picture-based connector view for the selected component.
- **Test Meter window (bottom)** — Contains either a Lab Scope or DVOM screen, as required, to test the selected component. This window is located under the Text and Support windows.




## QUESTION #2

How do I change the units of measurements on my Lab Scope?



Scroll up on thumb pad to move highlighter to the upper toolbar.

Or press "N" if in easy scroll mode to highlight the upper toolbar

Right thumb pad over to the toolbox icon  press "Y"  
Select units it's that simple.



The Units option opens the Units dialog box. This allows you to change the displayed units of measurements used in the Graphing Meter and Scope functions for Vacuum, Pressure, and Display As.

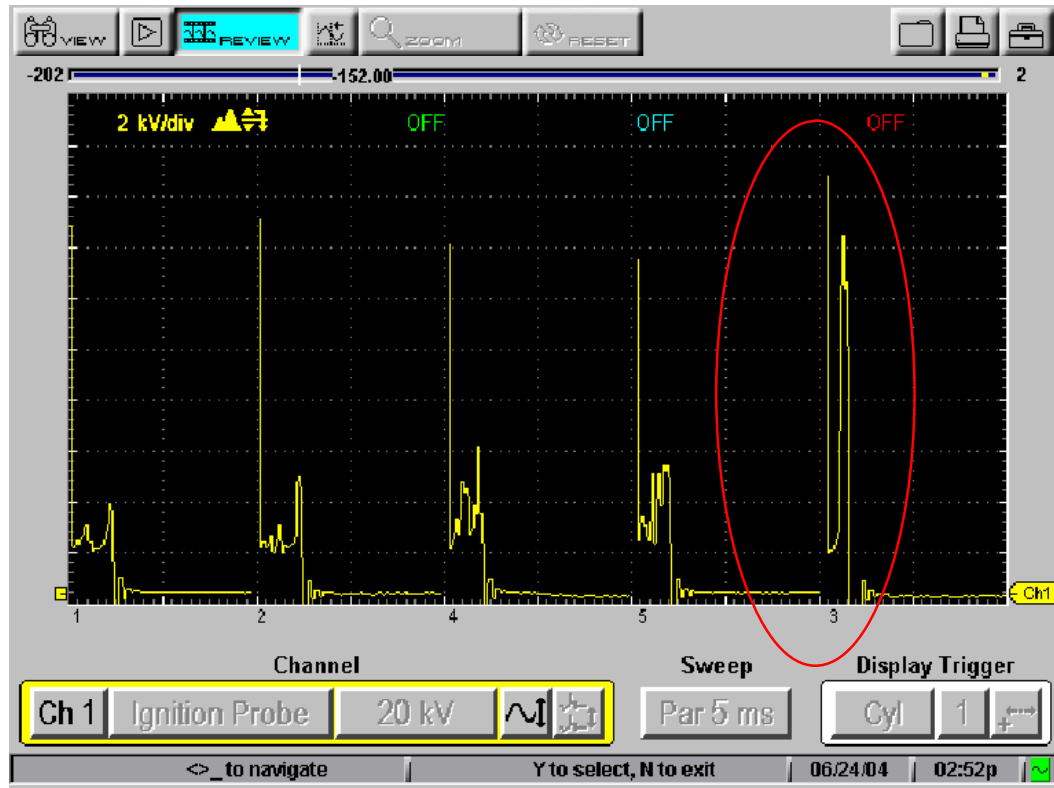
You can also access units via the Utility from the main menu.

1. Select Utility
2. Select Tool Setup
3. Select Units



Done

## IGNITION SYSTEM "REAL WORLD"



Fuel injectors spray patterns and fuel delivery could quite possibly be one of the most difficult components to diagnose. Voltage checked (ok) waveform analyzed (ok), plus the injectors are buried underneath plenums and harnesses.

Fuel delivery from the injectors can be viewed/checked with the MODIS Ignition Scope:

1. Set up the scope to read Ignition System Parade 5 ms (see page 82 if you forgot how)
2. Bring the engine to operating temperature
3. Snap the throttle several times
4. Press the Freeze/Run icon to freeze the pattern
5. Replay your pattern frame by frame

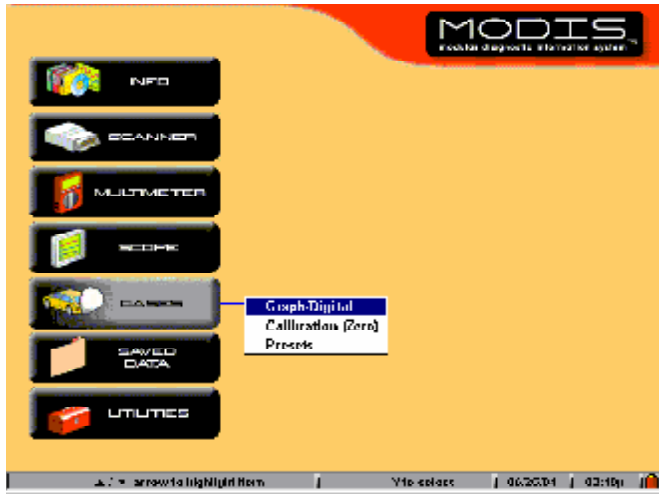
When the end of the spark line (burn) tries to reach the same height as the firing line, that cylinder's Injector may not be delivering sufficient fuel. Remember, O2 is an insulator and has high resistance. *(Refer to above illustration and note cylinder number 3 Injector is at fault)*

# GASES

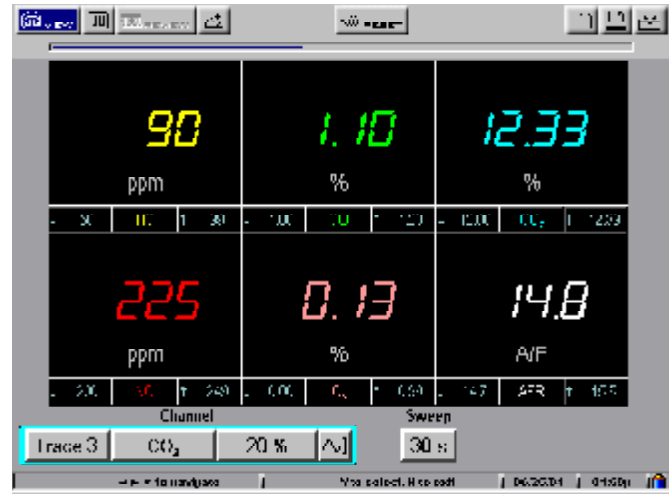
## “MODIS HAS THAT HANDLED TOO”

With the **optional** FGA unit connected to the MODIS serial connector, selecting GASES from the Main menu lets you perform emissions testing with the MODIS unit.

**Select GASES**  
Highlight Graph/Digital Press “Y”



Now you're ready to go

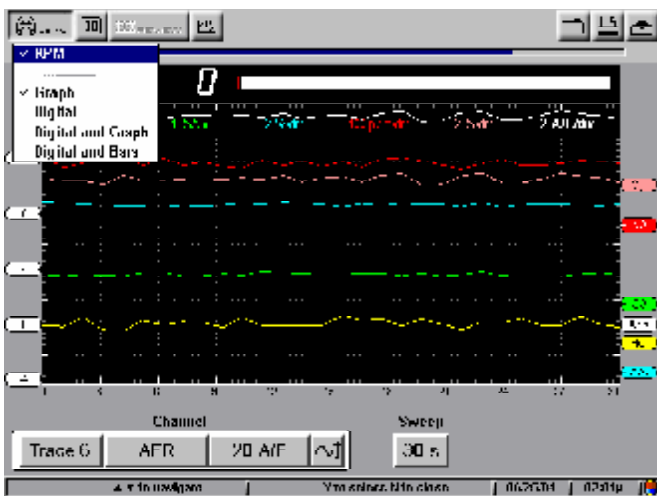


## What choices of viewing do I have?

Well how about...

- Graph
- Digital
- Digital and Graph and
- Digital and Bars

Select View and choose “Graph”



Digital

