MODIS

Modular Diagnostic Information System

THE COMPLETE GUIDE

YOUR DAILY DIAGNOSTIC COMPANION

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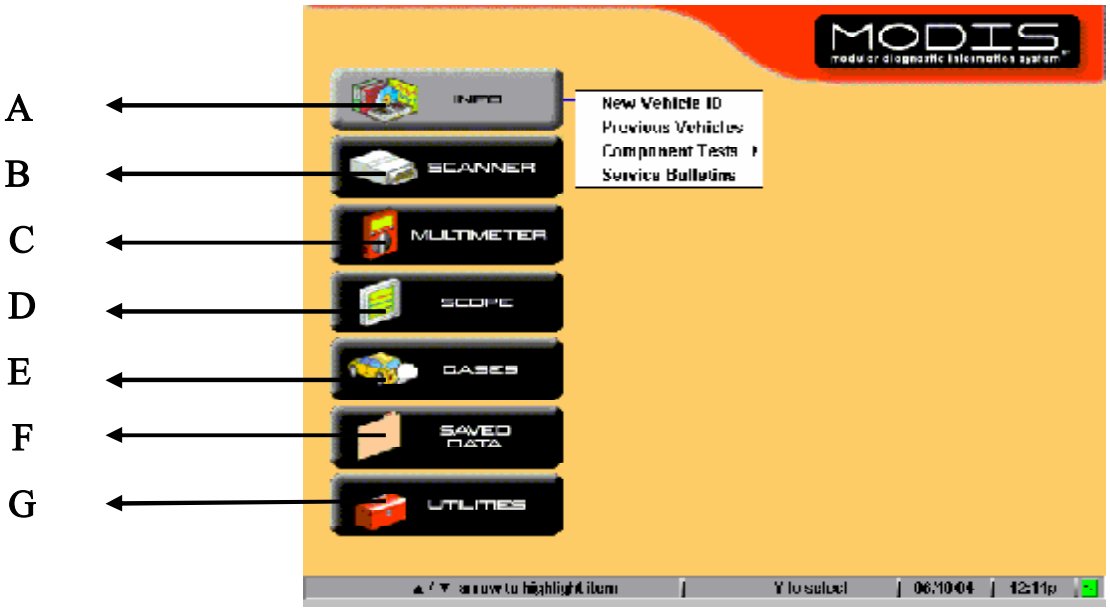


A – The **INFO** icon provides access to the Fast-Track® Component Test module that consists of the New Vehicle ID, Previous Vehicles, and Component Test menu options, and the *optional* Technical Service Bulletins viewer.

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.

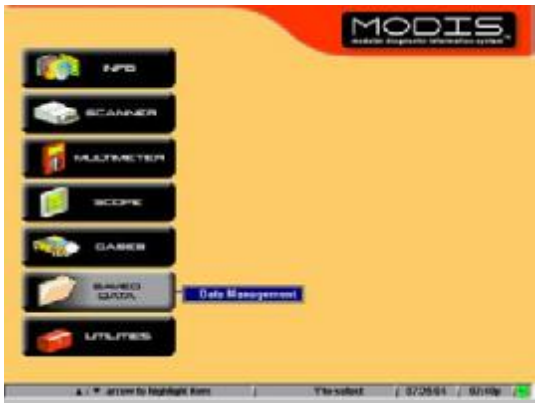
F – The **SAVED DATA** icon allows you to load, edit, delete, copy and move files that are stored in memory. This function also allows you to manage the saved files on your system utilizing internal storage memory and an external CompactFlash® storage card.

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

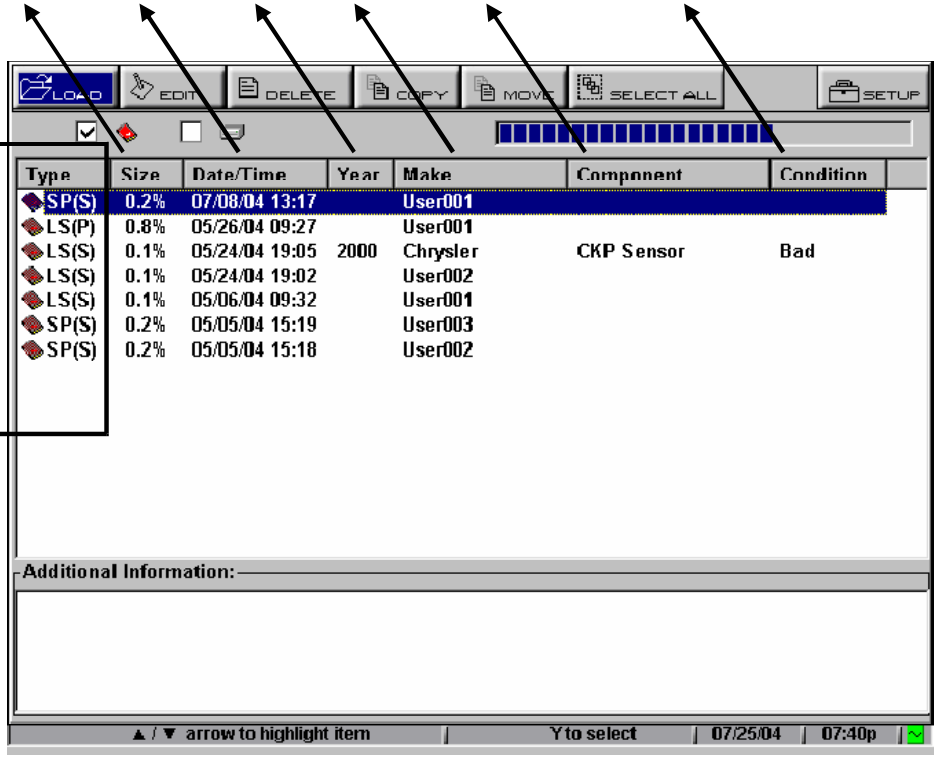
TYPE

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:

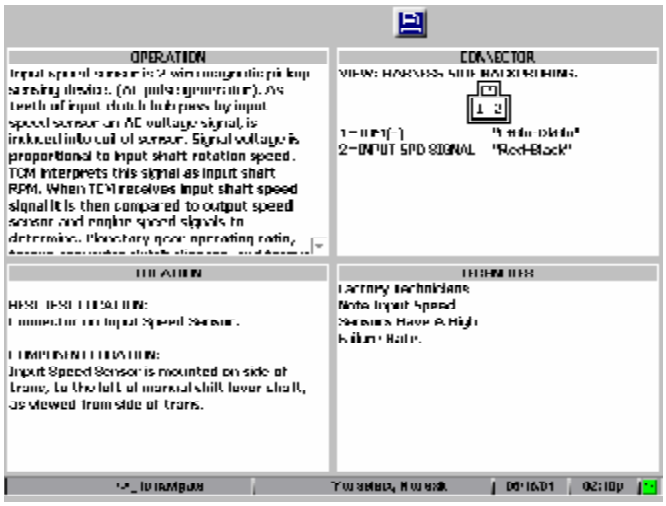
- (C) = Preset
- (M) = Movie
- (P) = Snapshot
- (S) = Screen



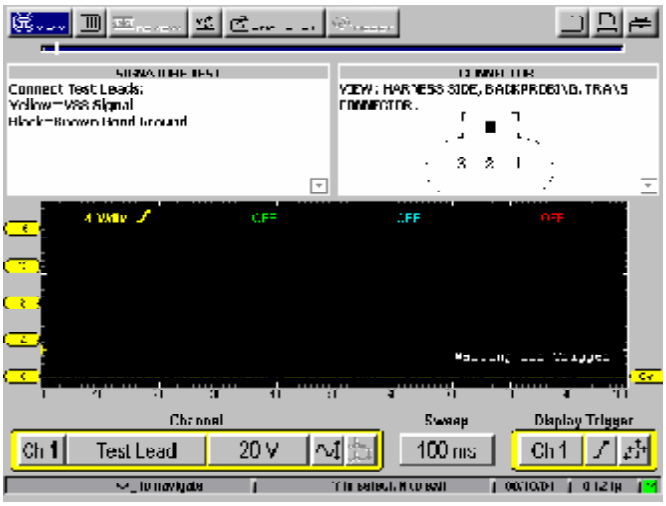
WHAT IN THE WORLD AM I LOOKING AT?

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.

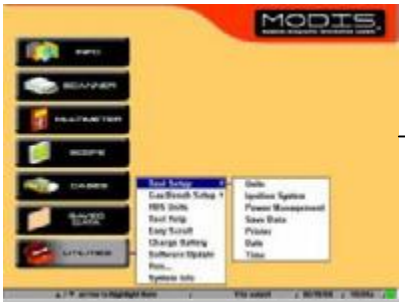
Or press “N” if in easy scroll mode to highlight the upper toolbar

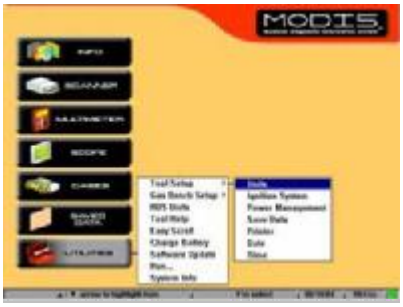
Right thumb pad over to the toolbox icon  press “Y”
Select units it’s that simple.

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.

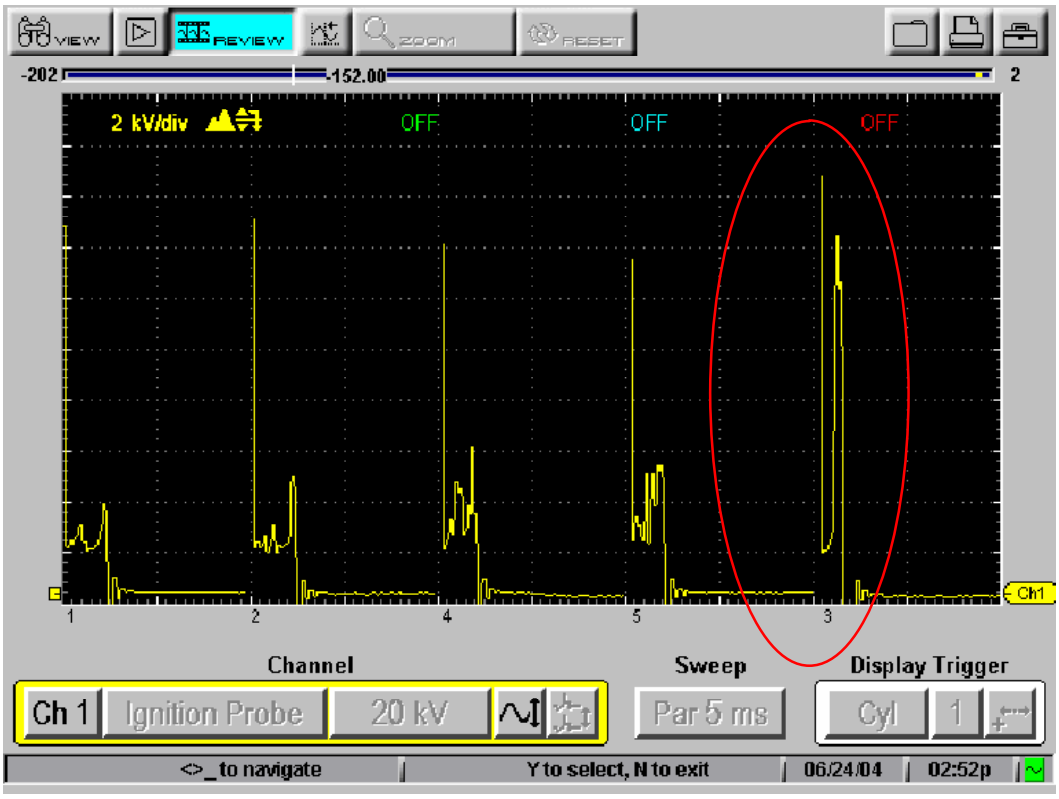
1. Select Utility
2. Select Tool Setup
3. Select Units





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

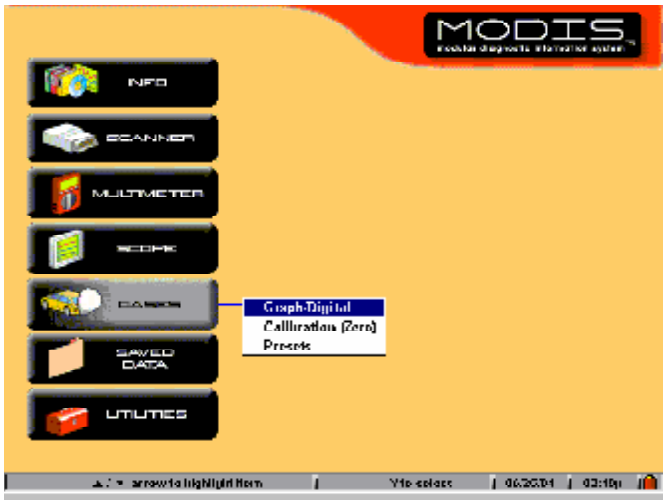
When the end of the spark line (burn) tries to reach the same height as the firing line, that cylinder's Injector may not be delivering sufficient fuel. Remember, 02 is an insulator and has high resistance. *(Refer to above illustration and note cylinder number 3 Injector is at fault)*

GASES

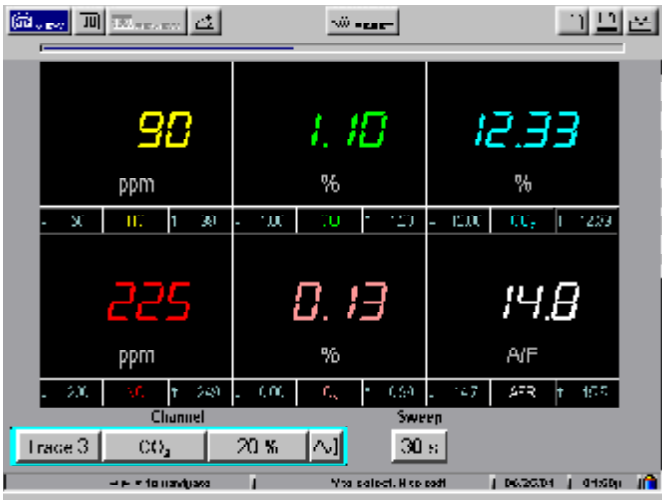
"MODIS HAS THAT HANDLED TOO"

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

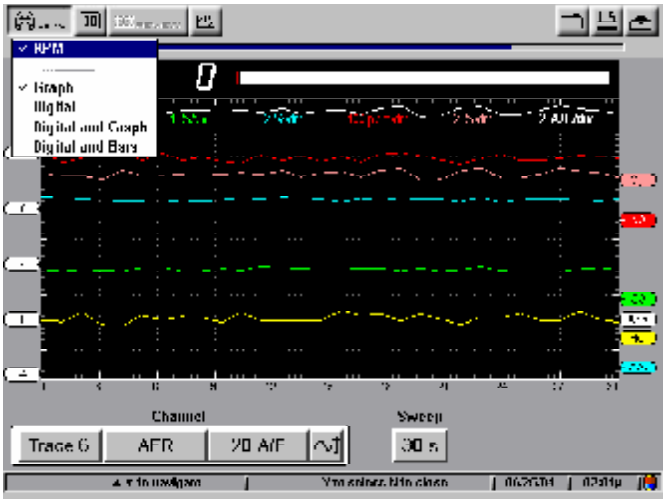


What choices of viewing do I have?

Well how about…

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

Select View and choose "Graph"



Digital