SRS Troubleshooter CD ROM
(Airbags—Supplemental Restraint)

User's Manual

INSTALLATION INSTRUCTIONS

To install the software, perform the following easy steps:

1. **Double click** on the "SRS Troubleshooter Installation Files" folder.
2. **Double click** on the "Setup" icon. This will start the installation program.
3. A "Welcome to the SRS Troubleshooter" screen will start immediately. **Click the "OK" button**.
4. A screen with a BIG square installation button and icon appears. Click on the **big square button** to prepare for the install.
5. Next, a choose the program group screen will appear. The setup will automatically install on the "Programs files". This is recommended, **so click the "Continue" button**.
6. At this point in time the SRS Troubleshooter program will begin the **brief installation process**.
7. Finally, an installation complete screen appears and you're done. **Click the "OK" button**.
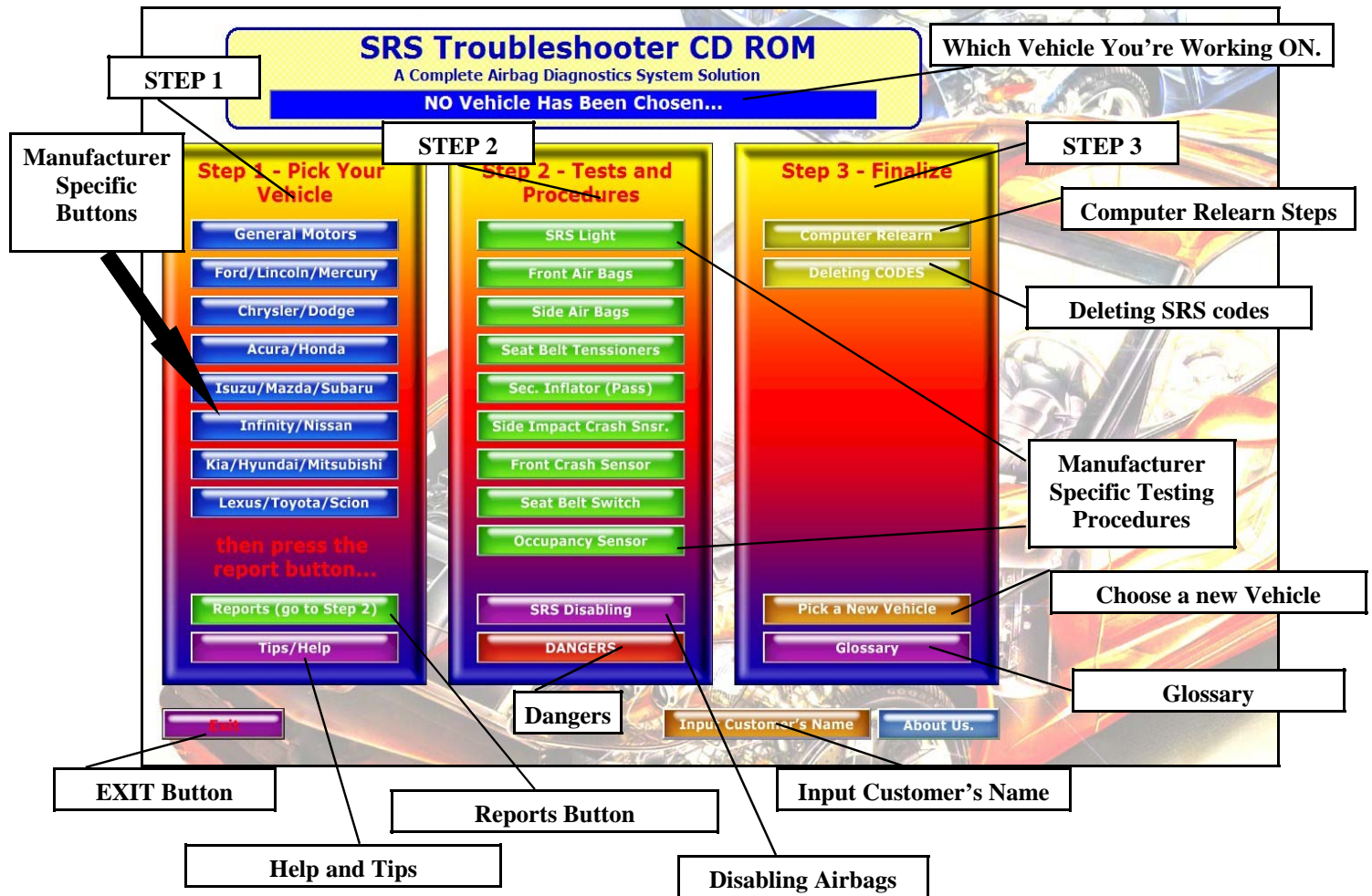
To start the SRS troubleshooter, click start, all programs, and then the SRS Troubleshooter should be seen. Click on it.

To put an icon on the "Desktop" or the main windows screen, click "Start", My Computer, then click the C: DRIVE or where the program was installed, double click "Program Files" and then SRS Troubleshooter. Just copy and paste the icon to the program on the "Desktop". Now every time you need to open the SRS Troubleshooter, just double click on this desktop icon.

The SRS Troubleshooter is an all encompassing troubleshooting and information systems developed only to diagnose airbag units. This software is able to guide the tech on any Domestic and Asian SRS diagnostics.

This is the "Start Up" screen, which prompts you to read and accept the "Warning" message on SRS airbag Systems. This is a very straightforward message. Take your time to at leas read it for the first time, since the information contained can prevent a possible injury, due to accidental airbag deployment.

SRS Troubleshooter CD ROM
A Complete Airbag Diagnostics System Solution
NO Vehicle Has Been Chosen...

Which Vehicle You're Working ON.

STEP 1

STEP 2

STEP 3

Manufacturer Specific Buttons

Step 1 - Pick Your Vehicle

General Motors
Ford/Lincoln/Mercury
Chrysler/Dodge
Acura/Honda
Isuzu/Mazda/Subaru
Infinity/Nissan
Kia/Hyundai/Mitsubishi
Lexus/Toyota/Scion

then press the report button...

Reports (go to Step 2)
Tips/Help

Step 2 - Tests and Procedures
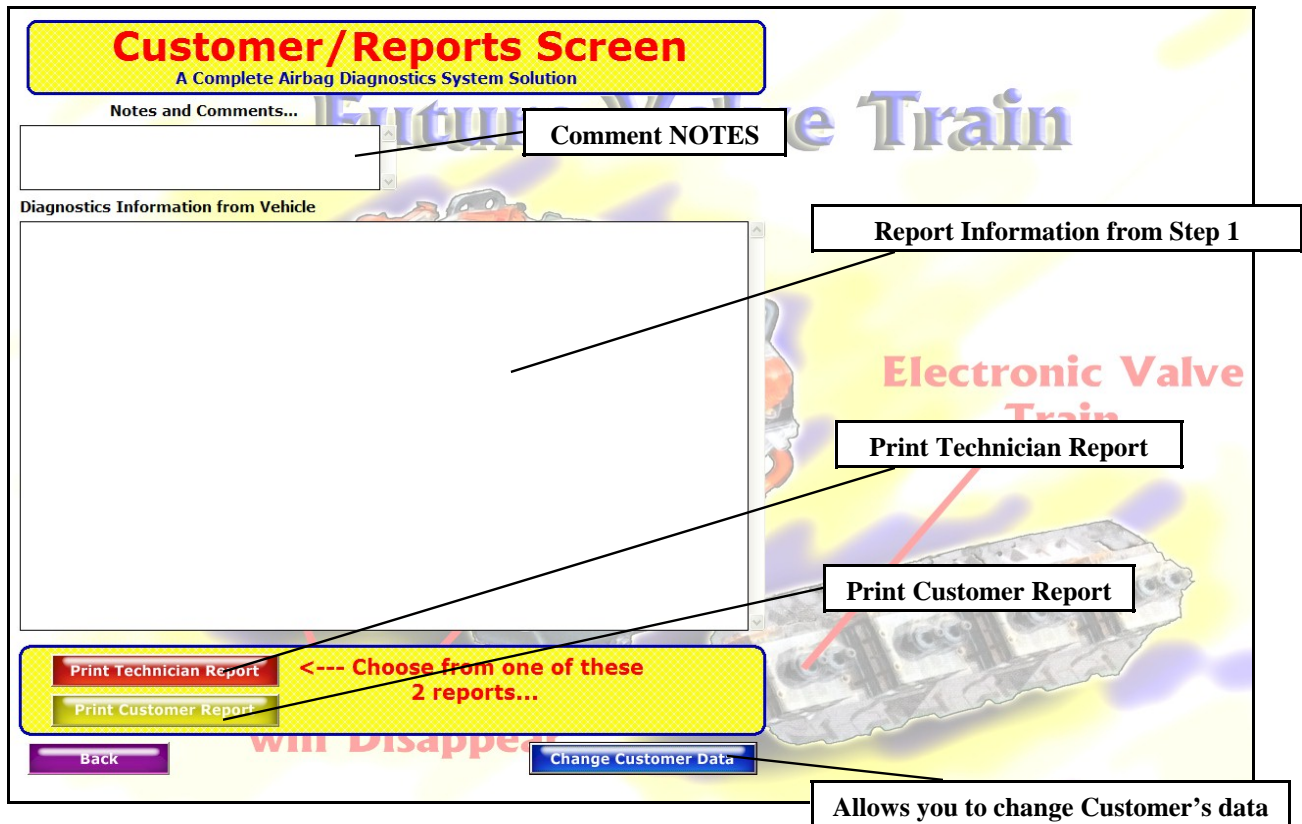
SRS Light
Front Air Bags
Side Air Bags
Seat Belt Tenssioners
Sec. Inflator (Pass)
Side Impact Crash Snsr.
Front Crash Sensor
Seat Belt Switch
Occupancy Sensor

SRS Disabling
DANGERS

Step 3 - Finalize

Computer Relearn
Deleting CODES

Pick a New Vehicle
Glossary

Computer Relearn Steps

Deleting SRS codes

Manufacturer Specific Testing Procedures

Choose a new Vehicle

Glossary

Dangers

Input Customer's Name
About Us.

EXIT Button

Reports Button

Input Customer's Name

Help and Tips

Disabling Airbags

MAIN MENU: Is composed of 3 steps, step 1 you click on the manufacturer of the vehicle you're working on. This option will then shift you into another screen where you then go into each primary SRS specific tests and procedures. Within step 1, you get to view the SRS codes for that model vehicle, how to do electrical tests, look for open and short circuits, how to access codes, operation, etc. **The software will always remember which vehicle you're working on, even after you leave step 1—** so that when you get to the specifics of step 2, the program will only show you the information specific for the vehicle SRS system that you're diagnosing. In Step 2 you'll see all the test & procedures. Again, the software will only show you the procedures for the vehicle you're working on. Finally, in Step 3 you get specific information on finalizing the repair like computer relearning, SRS code clearing and a glossary.

General Motors
A Complete Ai...

Follow the numbered sequence ...

- System Operation
- How to Access Codes
- SRS CODES 1
- SRS CODES 2
- SRS CODES 3
- Trucks SRS CODES 4
- Component Location
- Diagrams
- Back

IMPORTANT! Due to the large amount of DATA in this program, whenever the SRS CODES BUTTON is pressed, there may be a small lag time (no response). DO NOT touch the computer while this is happening. It is a normal software behavior. If any other button is pressed during the CODE search operation, the program may quit working.

Press CONTROL-C then press the button below
Send to REPORT
← WARNING: Press this button to send data to the REPORT. DO NOT send too much data or your report will take up too many pages.

Labels: System Operation · How to Access Codes Button · Information Screen · All SRS CODES · Truck SRS Codes · Component Location · Send To Report Button · Specific Diagram Button

VEHICLE SPECIFIC SCREEN: Within this screen you have the ability to start the SRS diagnostics process with vehicle specific SRS codes, electrical testing procedures, how to access SRS codes, and component locations. Then at the bottom you have a button that (RED) allows you to send the information to a report found on the main menu.
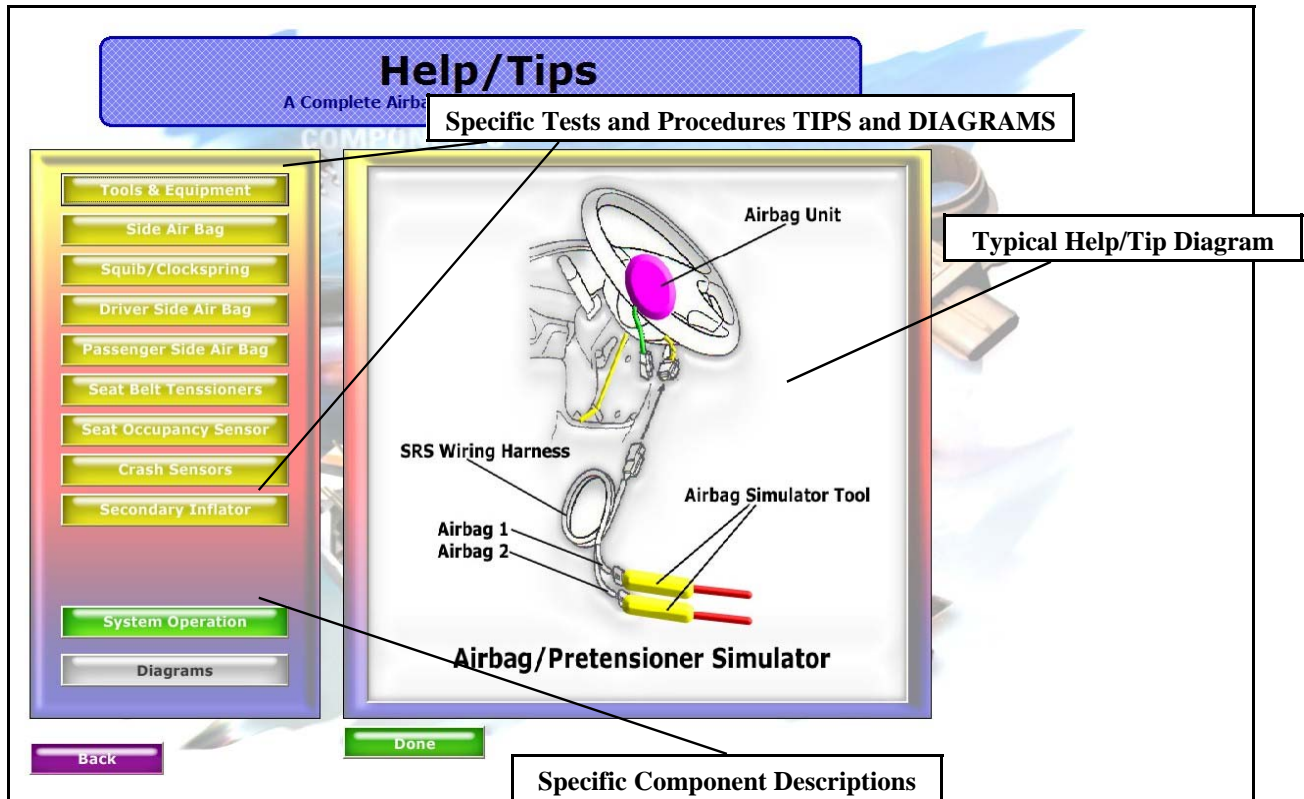
Very important facts are found here regarding the repair, such as the "Specific Resistance" values of each airbag and "How to Substitute" the airbag using an AIRBAG RESISTOR SIMULATOR. This information can only be found here. By using an airbag simulator you can determine if the fault is due to a faulty airbag or wiring circuit. The amount of data within these buttons is vast and covers all Domestic and Asian Airbag systems. At the bottom is a "Diagram Button" that points to the specifics of the vehicle is question.

Customer/Reports Screen
A Complete Airbag Diagnostics System Solution

Notes and Comments...

Comment NOTES

Diagnostics Information from Vehicle

Report Information from Step 1

Print Technician Report

Print Customer Report

Print Technician Report   <--- Choose from one of these
Print Customer Report   2 reports...

Back   Change Customer Data

Allows you to change Customer's data

In this REPORT screen, you then have the option of printing two types of reports. There is a nice looking customer report and a technician specific report that will later be used in Step 2.

At the very top of the report screen you also have the option of writing any comments that might be useful to the technician or customer. This allows more communication with other techs in the shop that will pick up on the work or for the customer him-self.
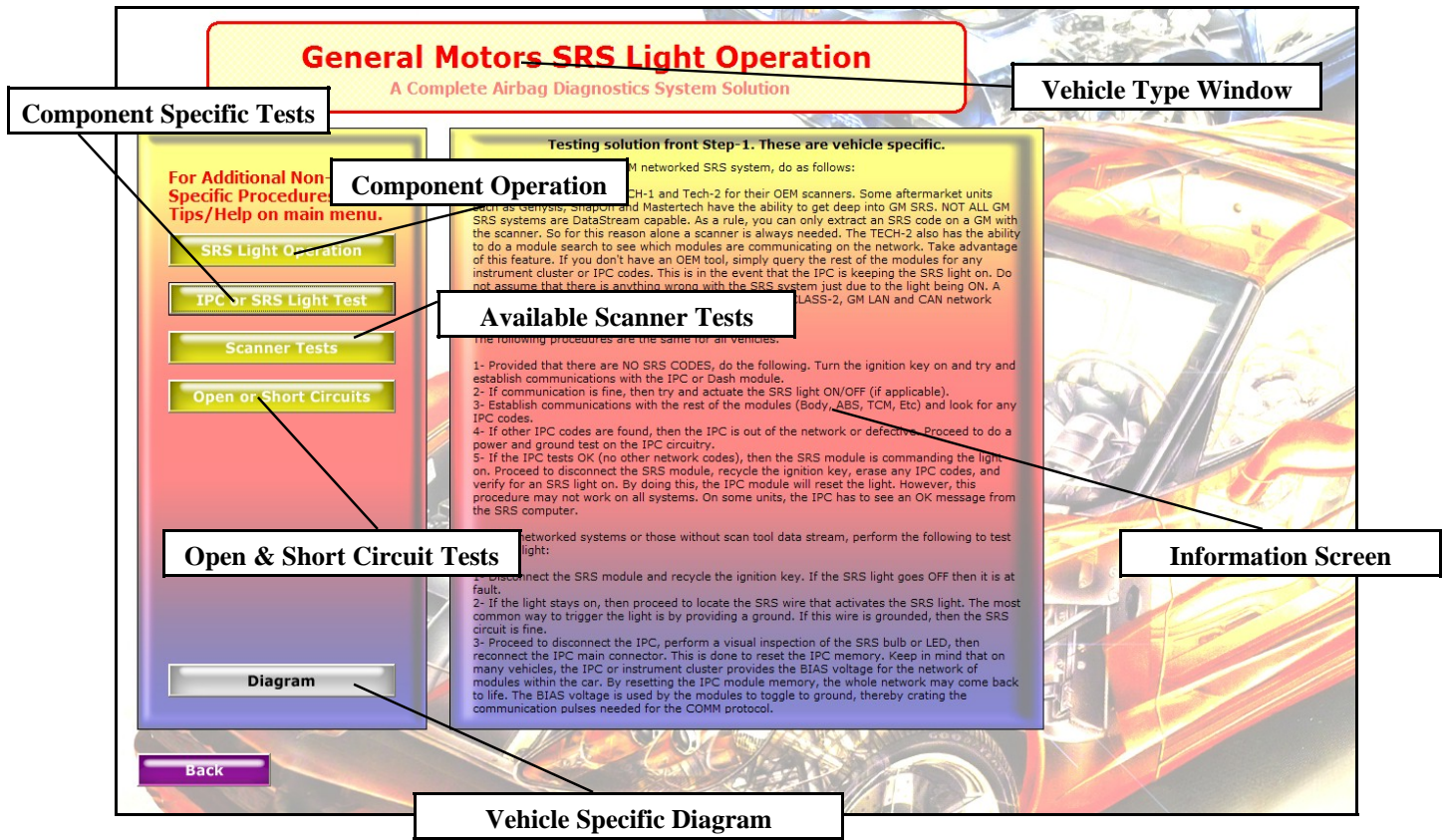
The "Change Customer's Data" button allows you to change the information that'll show up on the report. You may also use this data and type in your shops name as you see fit.

Help/Tips
A Complete Airb...

Specific Tests and Procedures TIPS and DIAGRAMS

Typical Help/Tip Diagram

Tools & Equipment
Side Air Bag
Squib/Clockspring
Driver Side Air Bag
Passenger Side Air Bag
Seat Belt Tenssioners
Seat Occupancy Sensor
Crash Sensors
Secondary Inflator

System Operation
Diagrams

Back
Done

Airbag Unit
SRS Wiring Harness
Airbag Simulator Tool
Airbag 1
Airbag 2
Airbag/Pretensioner Simulator

Specific Component Descriptions

On this part of the program, you get a variety of help options that may shed some light on the problem you're working on. These help options were made as a special program section to familiarize you with the different aspects and components of SRS systems. The idea is to prepare and give the technician a generalize idea of SRS systems as a whole.

Here you also get a deeper explanation of each of the more important SRS components and what to look for. Different options such as Tools and Equipment, side airbag units, front airbags, crash sensors, clocksprings etc are covers in a general manner so as to help the tech during the different steps of this program. The diagrams exposed are full of information and nicely done.

General Motors SRS Light Operation
A Complete Airbag Diagnostics System Solution

Vehicle Type Window

Component Specific Tests

For Additional Non-Specific Procedures Tips/Help on main menu.

Component Operation

SRS Light Operation

IPC or SRS Light Test

Available Scanner Tests

Scanner Tests

Open or Short Circuits

Open & Short Circuit Tests

Information Screen

Diagram

Back

Vehicle Specific Diagram

Testing solution front Step-1. These are vehicle specific.

GM networked SRS system, do as follows:

TECH-1 and Tech-2 for their OEM scanners. Some aftermarket units such as Genysis, Snapon and Mastertech have the ability to get deep into GM SRS. NOT ALL GM SRS systems are DataStream capable. As a rule, you can only extract an SRS code on a GM with the scanner. So for this reason alone a scanner is always needed. The TECH-2 also has the ability to do a module search to see which modules are communicating on the network. Take advantage of this feature. If you don't have an OEM tool, simply query the rest of the modules for any instrument cluster or IPC codes. This is in the event that the IPC is keeping the SRS light on. Do not assume that there is anything wrong with the SRS system just due to the light being ON. A ... CLASS-2, GM LAN and CAN network

The following procedures are the same for all vehicles.

1- Provided that there are NO SRS CODES, do the following. Turn the ignition key on and try and establish communications with the IPC or Dash module.
2- If communication is fine, then try and actuate the SRS light ON/OFF (if applicable).
3- Establish communications with the rest of the modules (Body, ABS, TCM, Etc) and look for any IPC codes.
4- If other IPC codes are found, then the IPC is out of the network or defective. Proceed to do a power and ground test on the IPC circuitry.
5- If the IPC tests OK (no other network codes), then the SRS module is commanding the light on. Proceed to disconnect the SRS module, recycle the ignition key, erase any IPC codes, and verify for an SRS light on. By doing this, the IPC module will reset the light. However, this procedure may not work on all systems. On some units, the IPC has to see an OK message from the SRS computer.

... networked systems or those without scan tool data stream, perform the following to test ... light:

1- Disconnect the SRS module and recycle the ignition key. If the SRS light goes OFF then it is at fault.
2- If the light stays on, then proceed to locate the SRS wire that activates the SRS light. The most common way to trigger the light is by providing a ground. If this wire is grounded, then the SRS circuit is fine.
3- Proceed to disconnect the IPC, perform a visual inspection of the SRS bulb or LED, then reconnect the IPC main connector. This is done to reset the IPC memory. Keep in mind that on many vehicles, the IPC or instrument cluster provides the BIAS voltage for the network of modules within the car. By resetting the IPC module memory, the whole network may come back to life. The BIAS voltage is used by the modules to toggle to ground, thereby crating the communication pulses needed for the COMM protocol.

This is Step 2 at its best. This screen is just one of the many component tests and procedures intended as "Vehicle Specific" program areas. Every time the technician goes to Step 1, the vehicle make is stored in memory. So that when he/she enters step 2, the software remembers the manufacturer and provides only the relevant information far that type of SRS system.

Many test and procedures are covered here, such as Operation, components specific tests, any scanner testing if any, and how to detect OPEN and SHORT circuits. These types of electrical faults actually plague 85% of all SRS systems. Most of the time, when it comes to SRS systems, you'll be diagnosing a possible electrical fault like an open or short circuit to power feed or ground/earth. A vehicle specific diagram button is also found at the bottom of the screen. This diagram may show one of any important aspects of the repair, such as the SRS DLC pinout or location, which is extremely important during the repair.
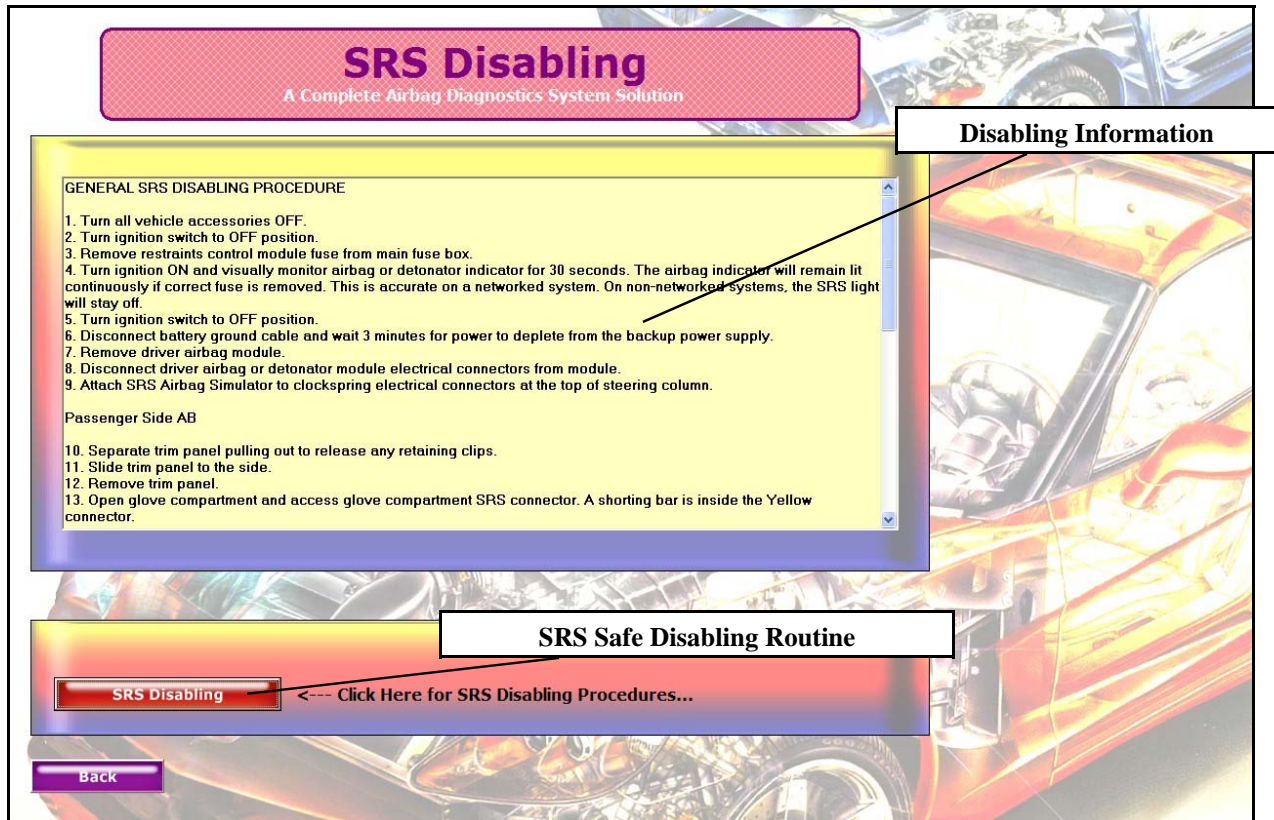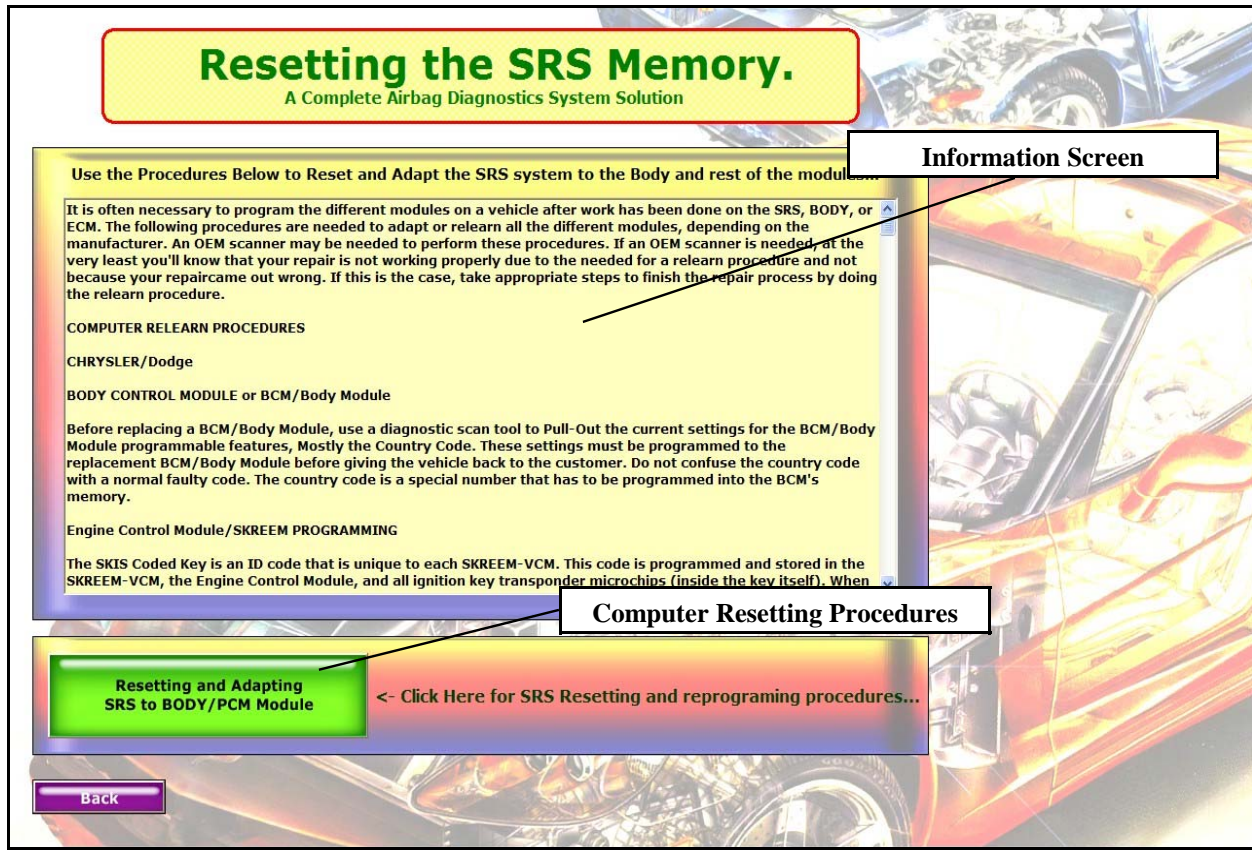
This screen provides the technician with information destine to disable the SRS airbag system. Often time this routine is ignored by the techs, by it is an integral part of the SRS repair process.

SRS Disabling information is needed many times to comply with certain STATE laws that require an SRS information system to be present at the repair shop site. It is simply a very important piece of information to be left out of your shop's arsenal of repair help data.
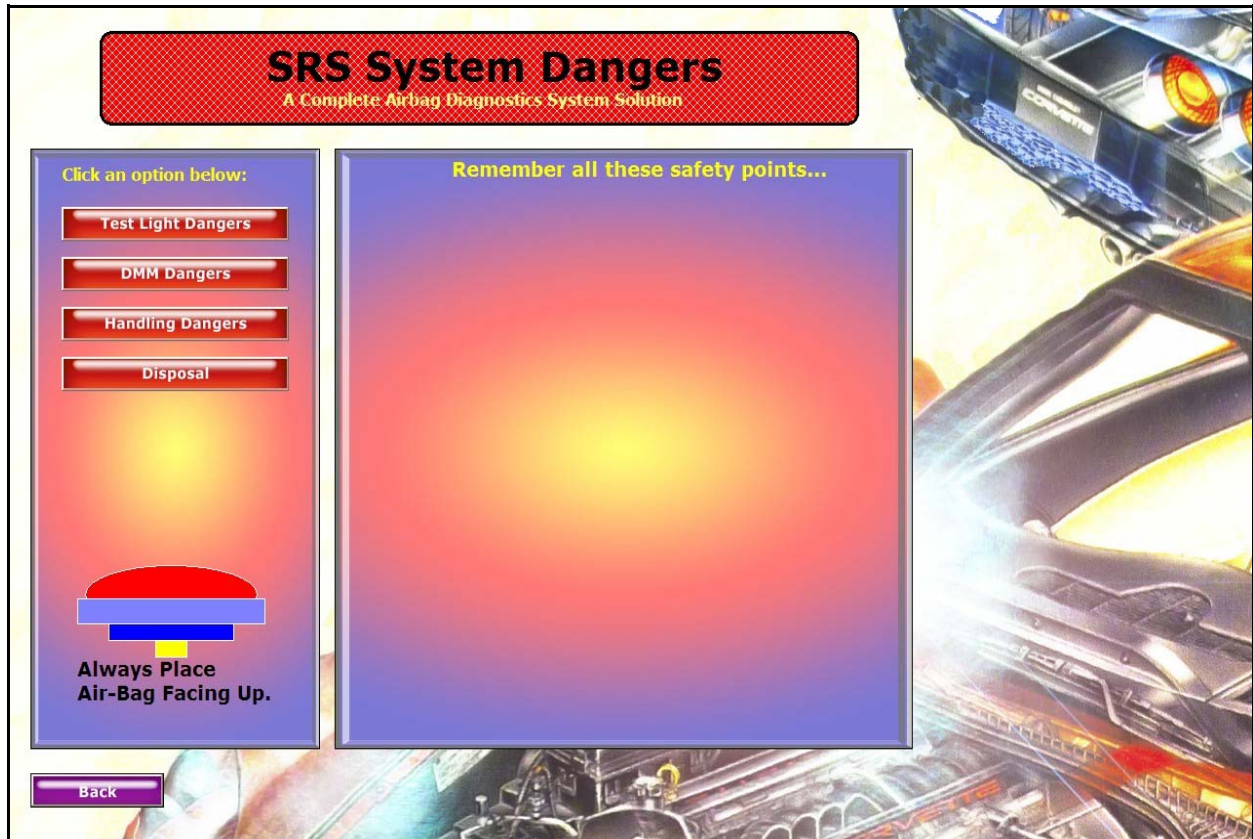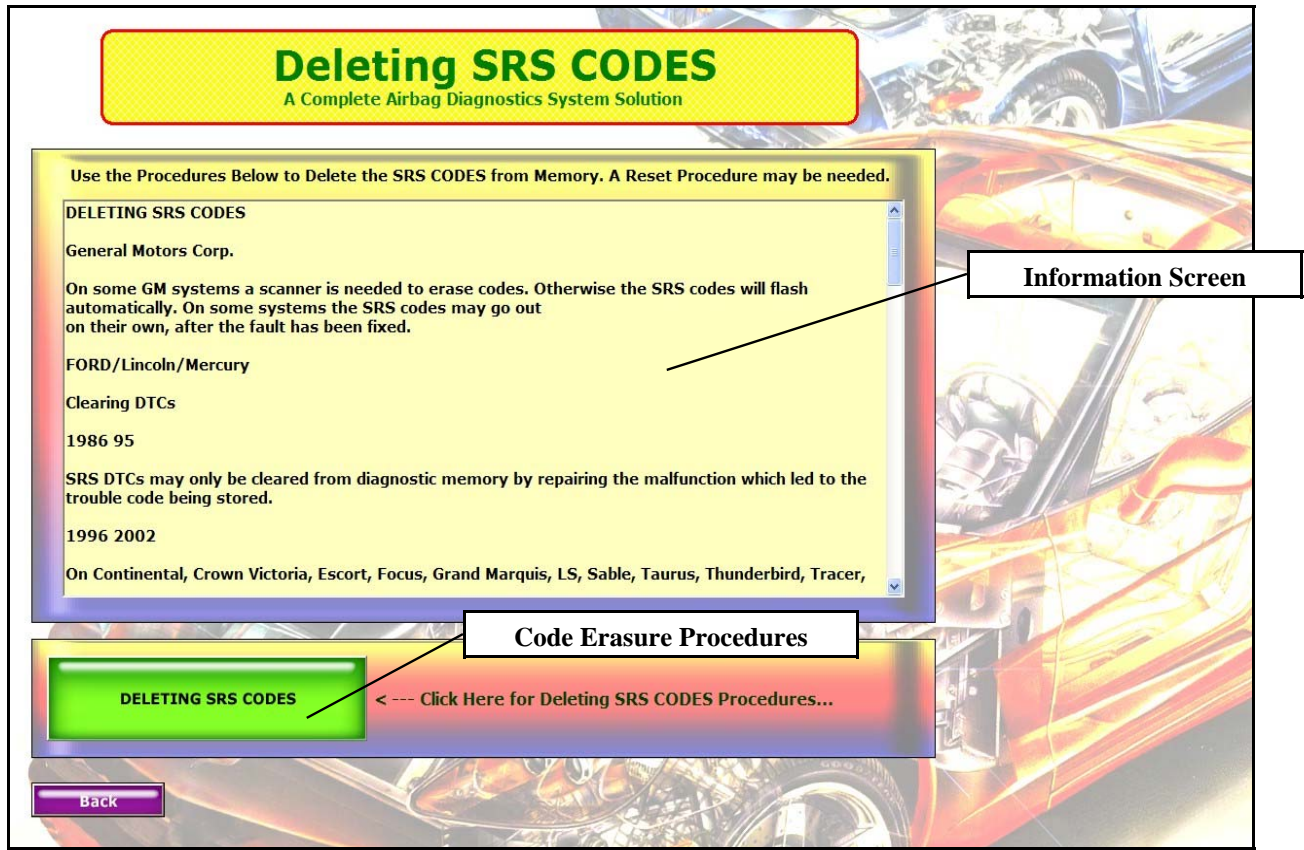
Again, to be in compliance with certain laws and regulations, the information found here will simply put the tech on the same wavelength when it comes to being aware of the needed to recognize the dangers of SRS repairs.

This is fairly simply but concise information screen that trains and make s the technician aware of the Do's and DON'Ts associated with airbag repairs. A few buttons will alert the technician to which equipment NOT to use, Disposal procedures, and handling process.

Resetting the SRS Memory.
A Complete Airbag Diagnostics System Solution

Use the Procedures Below to Reset and Adapt the SRS system to the Body and rest of the modules...

It is often necessary to program the different modules on a vehicle after work has been done on the SRS, BODY, or ECM. The following procedures are needed to adapt or relearn all the different modules, depending on the manufacturer. An OEM scanner may be needed to perform these procedures. If an OEM scanner is needed, at the very least you'll know that your repair is not working properly due to the needed for a relearn procedure and not because your repaircame out wrong. If this is the case, take appropriate steps to finish the repair process by doing the relearn procedure.

COMPUTER RELEARN PROCEDURES

CHRYSLER/Dodge

BODY CONTROL MODULE or BCM/Body Module

Before replacing a BCM/Body Module, use a diagnostic scan tool to Pull-Out the current settings for the BCM/Body Module programmable features, Mostly the Country Code. These settings must be programmed to the replacement BCM/Body Module before giving the vehicle back to the customer. Do not confuse the country code with a normal faulty code. The country code is a special number that has to be programmed into the BCM's memory.

Engine Control Module/SKREEM PROGRAMMING

The SKIS Coded Key is an ID code that is unique to each SKREEM-VCM. This code is programmed and stored in the SKREEM-VCM, the Engine Control Module, and all ignition key transponder microchips (inside the key itself). When

Information Screen

Computer Resetting Procedures

Resetting and Adapting
SRS to BODY/PCM Module

<- Click Here for SRS Resetting and reprograming procedures...

Back

Many times it is necessary to disconnect or disable other modules or computers to repair an SRS problem. For the most part, there will also be a need to remove the vehicle's battery whenever dealing with any SRS dangerous component, such as an airbag. This presents a problem, since most modules will loose the adaptive memory whenever the battery gets disconnected.

This section of the program simply gives the tech the information needed to make the different modules reset or relearn these parameters. Even after an SRS repair is done, you simply can't give the vehicle back to the customer, without it being fully operational. The ability to put the vehicle back into proper working order is a must in SRS repair and diagnostics.

Deleting SRS CODES
A Complete Airbag Diagnostics System Solution

Use the Procedures Below to Delete the SRS CODES from Memory. A Reset Procedure may be needed.

DELETING SRS CODES

General Motors Corp.

On some GM systems a scanner is needed to erase codes. Otherwise the SRS codes will flash automatically. On some systems the SRS codes may go out on their own, after the fault has been fixed.

FORD/Lincoln/Mercury

Clearing DTCs

1986 95

SRS DTCs may only be cleared from diagnostic memory by repairing the malfunction which led to the trouble code being stored.

1996 2002

On Continental, Crown Victoria, Escort, Focus, Grand Marquis, LS, Sable, Taurus, Thunderbird, Tracer,

Information Screen

Code Erasure Procedures

DELETING SRS CODES   < --- Click Here for Deleting SRS CODES Procedures...

Back

This option in Step 3 is a compendium of all the SRS code erasing procedures involved in the different SRS systems on the market. It is intended to be a one stop during the last step of the repair process. Often times, the technician has been able to perform all the work, but has no idea or resources that tell him how to proceed further. This section addresses the lack of information when it comes to erasing and resetting SRS memory codes.

The section is a straightforward and simple one-stop routine in the repair process. Simply depressing the button at the bottom of the screen will show the relevant information.
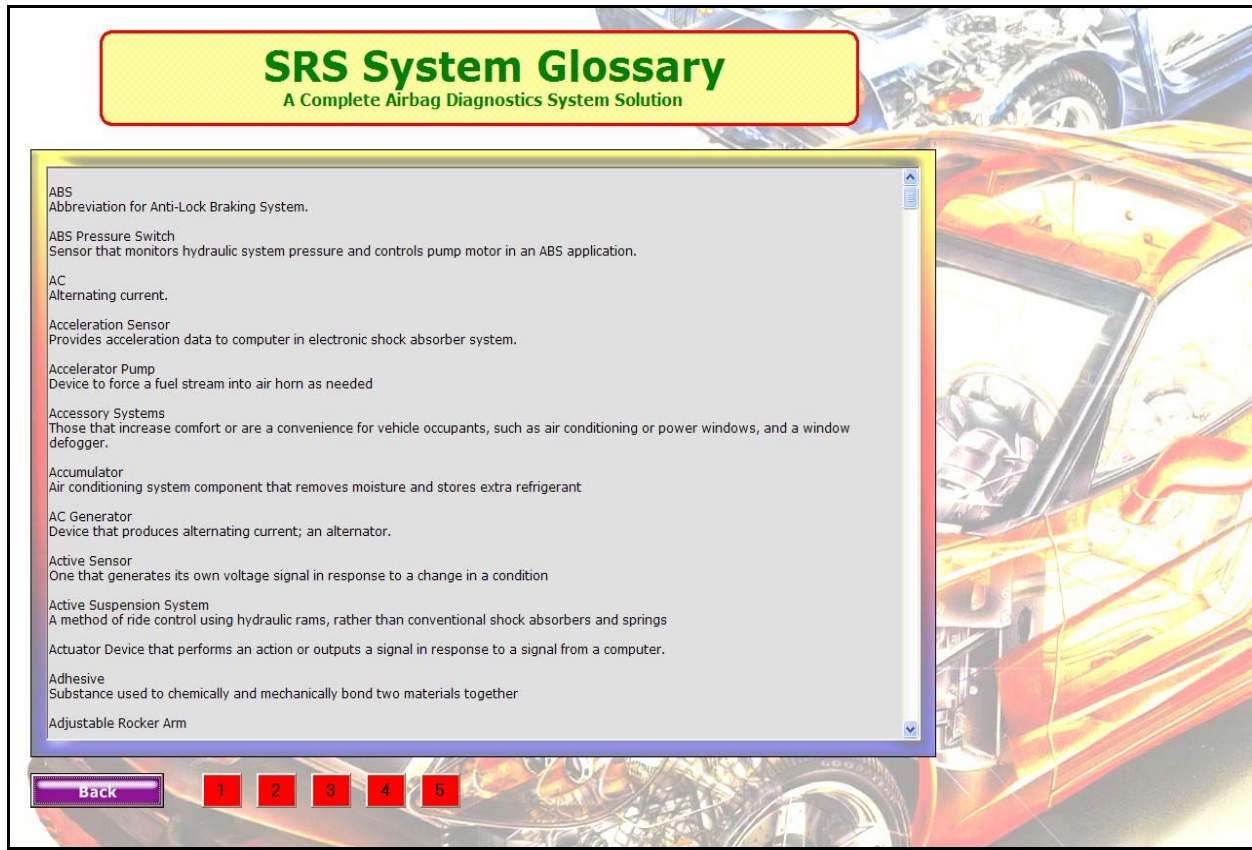
The software's Glossary is a one stop section dealing with automotive terminology, not just for airbag systems. Most mechanical and electrical terminology is discussed here, with definitions.

The screen section is composed of one main information screen and five data buttons. Each time a button is depressed, a different set of data bound definitions is accessed and shown on screen. The section is also intended to lead the tech on reading and deciphering other kinds of information systems.
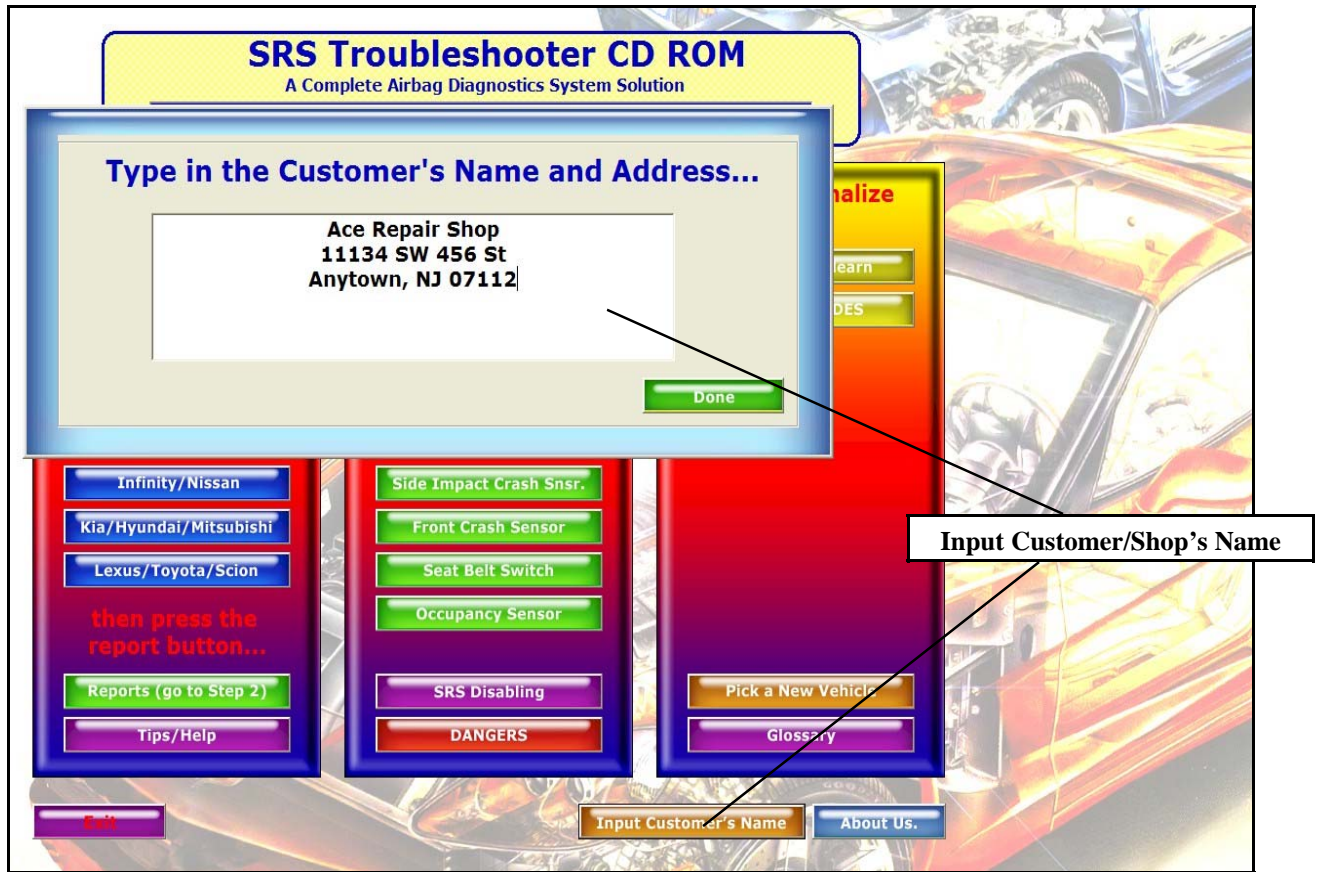
This button and screen combination allows the technician to tailor the printed report (customer's or technician's) to his specific needed. Many times the customer demands a written report of the situation with his/her vehicle. This button combined with the "Information Input Screen" can tailor the report to look made for your clientele. The end result is the ability to look and be professional.

The input screen is simple enough. Just depress the button on the lower right section of the main menu and type in the relevant information. After which you must depress the "DONE" button to confirm the data. This information will then stay in memory until the "Pick a New Vehicle" button is depressed. At which time, the entire software's memory will reset itself, and the system will then be ready for a new vehicle system.
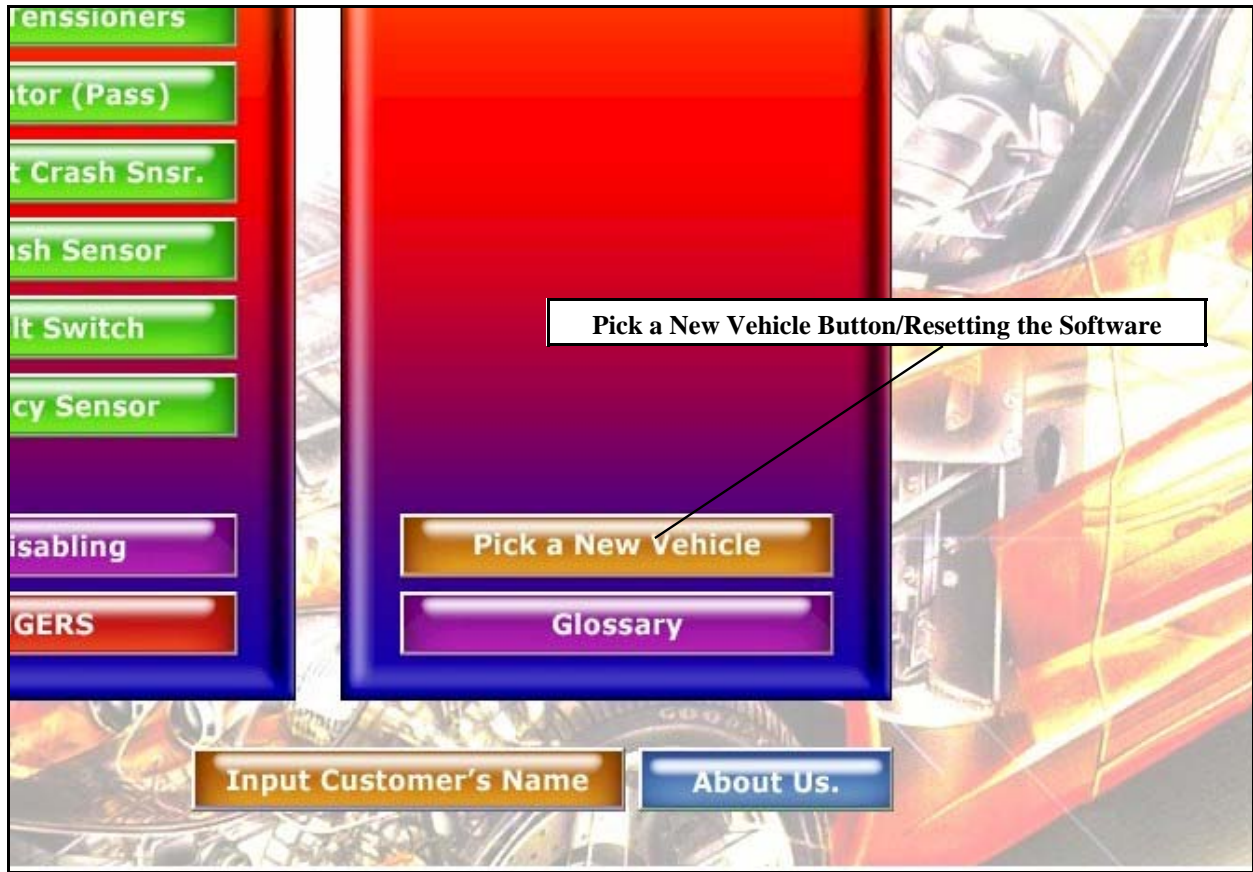
This last point to remember is the "Pick a New Vehicle Button". It is a very important button since it actually resets the entire software to its original state (of no vehicle chosen). Keep in mind that the software always remembers and tailors itself to the vehicle make and system you're working on. By pressing this button, the program no longer remembers and you'll have to start over. The reason for this buttons to reset the system memory whenever you're finished with the repair and are ready to start with another vehicle. In essence, it's like Exiting and Restarting the program again.

NOTES