

INTRODUCTION TO AUTOMOTIVE TECHNOLOGY

UNIT 7: VEHICLE INFORMATION

LESSON 1: SERVICE INFORMATION AND VEHICLE IDENTIFICATION

I. Vehicle service information

A. Sources

NOTE: Vehicles have become so technologically advanced that service information is used on every job. This information contains diagnosis procedures, specifications, and service procedures. Technicians must know how to locate and use the information that is available.



1. Vehicle manufacturers publish service information for each model year of the vehicles they manufacture.
 - a. This service information is the most comprehensive and the best source of information for a specific vehicle.
 - b. It includes vehicle specifications, diagnostic and repair procedures, parts diagrams, and special tools required.
 - c. Because many technical changes occur after the service information is published, manufacturers provide technical service bulletins (TSBs) to update the information. The information in the TSBs also appears in the next edition of the service information.
2. Professional general service manuals are used by independent repair shops because one manual can contain information for many domestic or foreign cars produced over several years. These books summarize the most important information and do not include all the specifics.
3. Aftermarket specialty manuals are often sold at bookstores and may cover one model of vehicle produced over several years. These manuals are written for individuals with and without experience in the automotive repair profession and are popular with the "do-it-yourself" individual.
4. An owner's manual, prepared by the vehicle manufacturer, is provided to the purchaser of the vehicle and is usually stored in the glove compartment. It includes basic information about the location and function of vehicle accessories, starting the vehicle, and maintaining the vehicle.

5. Sites on the Internet are available to find information that a shop may not have in its library, such as more up-to-date information, recall information, or information about a hard-to-diagnose repair issue.

B. Formats

1. Besides printed manuals, service information is available for use on computer hard drives, networks, and CD-ROMs.



2. Using computerized information rather than printed materials saves space. In addition, accessing the information on a computer is easier and saves time.

II. Using the manufacturer's service information

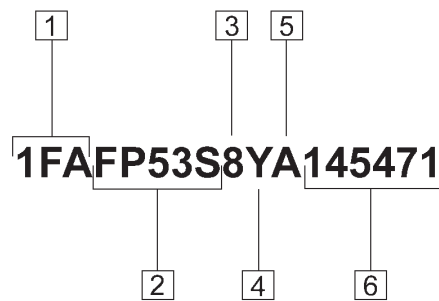
- A. Get familiar with the components of the service information and how they are organized. Doing so will help in finding information quickly.
 1. The general information section includes vehicle information such as identification (e.g., reading the vehicle identification number (VIN) to get data about the vehicle), basic maintenance, and lubrication.
 2. The repair sections, which cover each system of the vehicle, have detailed procedures for diagnosing, inspecting, testing, and repairing the systems. These sections also include the following features:
 - a. Illustrations of exploded views of parts or steps in the procedure
 - b. Diagrams showing the layout of hoses or circuits
 - c. Diagnostic or troubleshooting charts for systematically finding the source of a problem

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- B. Before performing a procedure, read it through once to get an understanding and overview of what is required.
- C. Be careful to do all steps in a procedure and perform them in the correct order. Missing steps or performing them out of order may cause unsuccessful results.

III. Locating and reading the vehicle codes

- A. In the early 1980s, the National Highway Traffic Safety Administration began requiring vehicle manufacturers to identify each vehicle made for highway use with a VIN.
 - 1. A vehicle's VIN is a code with 17 characters (letters and numbers) that is permanently affixed to the vehicle.
 - 2. The VIN is typically found in several locations on a vehicle. Some of the more common locations are listed below.
 - a. Dashboard near the lower part of the windshield on the driver's side
 - b. Certification label on the driver's door frame
 - c. Engine compartment
 - 3. The VIN uniquely identifies a vehicle and provides a great deal of information about the vehicle's origin and features. See the sample VIN below for a breakdown of the code.



- 1 — Country and Manufacturer Identifier
- 2 — Line, Series, Body Type, Engine Type, Restraint System Type
- 3 — Check Digit
- 4 — Model Year
- 5 — Plant of Manufacture
- 6 — Production Sequence Number

4. For help in reading the VIN for a specific vehicle, check the general service information section of the service information for that vehicle.
- B. An engine serial number and identification number or code is generally stamped on the engine block.
1. The exact location of these numbers depends on the manufacturer.
 2. Engine codes provide technicians with specifications for the vehicle's engine, such as the horsepower rating and whether the engine was designed for a manual or automatic transmission.