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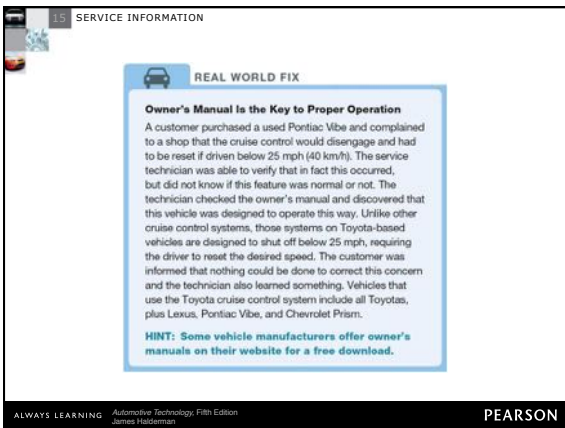
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1.5 SERVICE INFORMATION

 **TECH TIP**

**Exploded Views**

Exploded views of components such as engines and transmissions are available in shop manuals and electronic service information, as well as in parts and labor time guides. These views, showing all of the parts as if the assembly was blown apart, give the service technician a clear view of the various parts and their relationship to other parts in the assembly.

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1.5 SERVICE INFORMATION

 **TECH TIP**

**Print It Out**

It is often a benefit to have the written instructions or schematics (wiring diagrams) at the vehicle while diagnosing or performing a repair. One advantage of a hard copy service manual is that it can be taken to the vehicle and used as needed. However, dirty hands can often cause pages to become unreadable. The advantage of electronic format service information is that the material can be printed out and taken to the vehicle for easy access. This also allows the service technician to write or draw on the printed copy, which can be a big help when performing tests such as electrical system measurements. These notes can then be used to document the test results on the work order.

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1.5 SERVICE INFORMATION

 **TECH TIP**

**Look for Severe Service Times**

Many time guides provide additional time for vehicles that may be excessively rusted due to climate conditions or have been subjected to abuse. Be sure to quote the higher rate if any of these conditions are present on the customer's vehicle.

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15 SERVICE INFORMATION

**Figure 15-2** Some technical service bulletins also include the designated flat-rate time when specifying a repair procedure.

Description	Labor Time
Brake Burnish	0.2 hr
Pads, Front Disc Brake — Replace	Use Published Labor operation Time
Pads, Disc Brake — Rear R&R or Replace	Use published labor operation time
Calor Asm — Front	Use published labor time

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15 SERVICE INFORMATION

**Figure 15-3** A main menu showing the major systems of the vehicle. Clicking on one of these major topics opens up another menu showing more detailed information.

- Acknowledgement
- Essential Notes Before Proceeding
- ENGINE
- DRIVE TRAIN
- BRAKE SYSTEM
- WHEELS, TIRES, STEERING AND SUSPENSION
- ELECTRICAL ACCESSORIES
- INSTRUMENTS AND GAUGES
- CLIMATE CONTROL

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15 SERVICE INFORMATION

**? FREQUENTLY ASKED QUESTION**

**What Is the Julian Date?**

The **Julian date** (abbreviated JD) is the number of the day of the year. January 1 is day 001. The Julian date is named for Julius Caesar, who developed the current calendar. The Julian date is often mentioned in technical service bulletin where changes need to be made to certain component if the date of manufactured falls within the specified Julian dates.

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