

Automotive Technology 6th Edition

Chapter 15 SERVICE INFORMATION









Opening Your Class

KEY ELEMENT	EXAMPLES
Introduce Content	This Automotive Technology 6th text provides complete coverage of automotive components, operation, design, and troubleshooting. It correlates material to task lists specified by ASE and ASEEducation (NATEF) and emphasizes a problem-solving approach. Chapter features include Tech Tips, Frequently Asked Questions, Case Studies, Videos, Animations, and ASEEducation (NATEF) Task Sheets.
Motivate Learners	Explain how the knowledge of how something works translates into the ability to use that knowledge to figure why the engine does not work correctly and how this saves diagnosis time, which translates into more money.
State the learning objectives for the chapter or course you are about to cover and explain this is what they should be able to do as a result of attending this session or class.	Explain the chapter learning objectives to the students as listed: <ol style="list-style-type: none"> 1. Discuss the importance of vehicle service records, owner's manuals, lubrication guides and labor guide manuals. 2. Discuss the importance of service information. 3. Discuss the advantages and disadvantages of hard copy versus electronic service information. 4. Explain electronic service information. 5. Explain hotline services, specialty repair manuals, and aftermarket supplies guides and catalogs.
Establish the Mood or Climate	Provide a WELCOME , Avoid put downs and bad jokes.
Complete Essentials	Restrooms, breaks, registration, tests, etc.
Clarify and Establish Knowledge Base	Do a round robin of the class by going around the room and having each student give their backgrounds, years of experience, family, hobbies, career goals, or anything they want to share.

NOTE: This lesson plan is based on the 6th Edition Chapter Images found on Jim's web site @ www.jameshalderman.com

DOWNLOAD Chapter 15 Chapter Images: From <http://www.jameshalderman.com/>

[automotive_principles.html](http://www.jameshalderman.com/automotive_principles.html)NOTE: You can use Chapter Images or possibly Power Point files:

ICONS	Ch15 Service Information
	<p>1. SLIDE 1 TITLE: SERVICE INFORMATION</p>
	<p>Check for ADDITIONAL VIDEOS & ANIMATIONS @ http://www.jameshalderman.com/ WEB SITE IS CONSTANTLY UPDATED</p>
	<p>2. SLIDE 2 READ Figure 15-1 owner's manual has a lot of information pertaining to operation & maintenance and resetting procedures that technicians often need.</p>
	<p>http://www.jameshalderman.com/automotive_principles.html DOWNLOAD</p>
	<p>Crossword Puzzle (Microsoft Word) (PDF) Word Search Puzzle (Microsoft Word) (PDF)</p> <p>http://www.youtube.com/watch?v=q5yhKPA-eQk Online service manual http://www.youtube.com/watch?v=gTGpibt8fm4 Writing effective repair orders</p>
	<p>DISCUSSION: ASK STUDENTS TO REVIEW SAMPLES OF VEHICLE OWNER'S MANUALS. ASK STUDENTS TO SPECULATE ABOUT WHY SO FEW OWNERS READ THESE MANUALS</p>
	<p>DEMONSTRATION: SHOW STUDENTS EXAMPLES OF FACTORY & AFTERMARKET SERVICE MANUALS. HOW ARE THESE DIFFERENT FROM OWNER'S MANUALS? HOW ARE THESE SERVICE MANUALS DIFFERENT FROM EACH OTHER?</p>
	<p>DEMONSTRATION SHOW STUDENTS AN EXAMPLE OF A VEHICLE SERVICE HISTORY, AND DISCUSS WHY IT'S SUCH AN IMPORTANT RECORD TO A TECHNICIAN SERVICING VEHICLE.</p>

ICONS

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HOST DISCUSSION: SERVICE HISTORY

WE ALL HAVE OUR OWN SERVICE HISTORY, AS DOCUMENTED IN OUR MEDICAL RECORDS. HOW DO PHYSICIANS USE MEDICAL HISTORIES TO HELP PATIENTS? HOW IS THIS SIMILAR TO AN AUTOMOTIVE TECHNICIAN DIAGNOSING A PROBLEM WITH AN AUTOMOBILE? USE THIS ANALOGY AS BASIS FOR CLASS DISCUSSION. USE ONE COLUMN ON FLIP CHART OR BLACKBOARD TO SHOW ELEMENTS OF MEDICAL HISTORY. USE ANOTHER COLUMN FOR CORRESPONDING ELEMENTS OF AN AUTOMOTIVE SERVICE HISTORY.



HOST A DISCUSSION ON ADVANTAGES VS. DISADVANTAGES OF HARD COPY VS. ELECTRONIC SERVICE INFORMATION



3. **SLIDE 3 Figure 15-2** Some technical service bulletins also include the designated flat-rate time when specifying a repair procedure.



DISCUSS FREQUENTLY ASKED QUESTION: WHAT IS THE JULIAN DATE?

The Julian date (abbreviated jd) is the number of day of year. January 1 is day 001. The Julian date is named for Julius Caesar, who developed current calendar. Julian date is often mentioned in technical service Bulletins where changes need to be made to certain components if the date of manufacturing falls within Specified Julian dates.

ICONS

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EXPLAIN TECH TIP: Print It Out

It is often a benefit to have written instructions or schematics (wiring diagrams) at the vehicle while diagnosing or performing a repair. The advantage of electronic 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. The schematic can be color-coded to show where there should be voltage and where a ground should be detected. These notes can then be used to document the test results on the work order.





4. SLIDE 4 READ Figure 15-3 main menu showing major systems of vehicle. Clicking on one of these major topics opens up another menu showing more detailed information

5. SLIDE 5 READ Figure 15-4 Whenever calling a hot line service be sure that you have all of the vehicle information ready and are prepared to give answers regarding voltage readings or scan tool data when talking to the vehicle specialist



EXPLAIN TECH TIP: Use a Bluetooth Hands-Free Telephone. When talking to a hotline service provider, it is wise to be looking at the vehicle during the call to be able to provide information about the vehicle and perform the suggested tests. This makes the job of troubleshooting easier and faster for both the technician and the service provider, resulting in shorter length calls. Using a Bluetooth handsfree telephone should help shorten the length of calls, which means the cost will be less for the help service.

ICONS	Ch15 Service Information
	<p><u>ANIMATIONS</u> Complete Work Order Estimate (View) (Download) Complete Work Order Technician Copy (View) (Download) Complete Work Order Total Cost (View) (Download) Work Order Customer Copy (View) (Download)</p>
	<p><u>HANDS-ON TASK SHEETS</u> Vehicle Service History (A1-A8-A-3) PG 25 Technical Service Bulletin (A1-A8-A-3) PG 26 Service Manual Usage (A1-A-3)V PG 27</p>