

**ENGINE COOLING  
SYSTEM  
SERVICE MANUAL  
(MP7, MP8 AND MP10 SERIES ENGINES)**

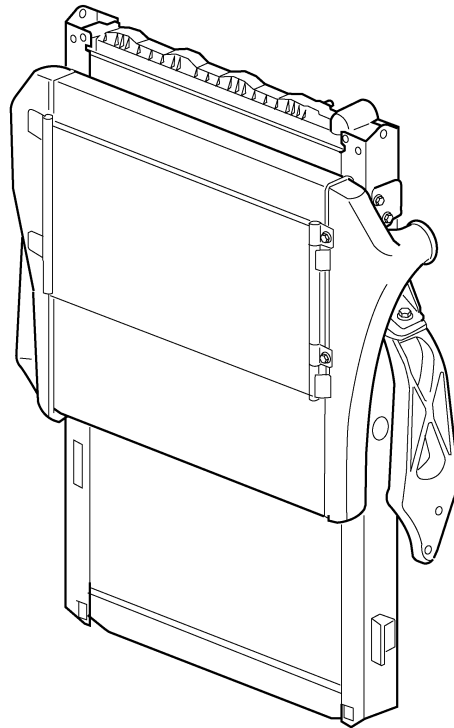


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# ENGINE COOLING SYSTEM SERVICE MANUAL (MP7, MP8 AND MP10 SERIES ENGINES)



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MP7, MP8 AND MP10 ENGINES 7-002

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## **ATTENTION**

**The information in this manual is not all inclusive and cannot take into account all unique situations. Note that some illustrations are typical and may not reflect the exact arrangement of every component installed on a specific chassis.**

**The information, specifications, and illustrations in this publication are based on information that was current at the time of publication.**

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# INTRODUCTION

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## INTRODUCTION





# INTRODUCTION

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## SAFETY INFORMATION

### Advisory Labels

Cautionary *signal words* (Danger-Warning-Caution) may appear in various locations throughout this manual. Information accented by one of these signal words must be observed to minimize the risk of personal injury to service personnel, or the possibility of improper service methods which may damage the vehicle or cause it to be unsafe. Additional Notes and Service Hints are used to emphasize areas of procedural importance and provide suggestions for ease of repair. The following definitions indicate the use of these advisory labels as they appear throughout the manual:

#### **DANGER**

***Danger indicates an unsafe practice that could result in death or serious personal injury. Serious personal injury is considered to be permanent injury from which full recovery is NOT expected, resulting in a change in life style.***

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#### **WARNING**

***Warning indicates an unsafe practice that could result in personal injury. Personal injury means that the injury is of a temporary nature and that full recovery is expected.***

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#### **CAUTION**

***Caution indicates an unsafe practice that could result in damage to the product.***

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#### **NOTE**

Note indicates a procedure, practice, or condition that must be followed in order for the vehicle or component to function in the manner intended.

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#### **SERVICE HINT**

A helpful suggestion that will make it quicker and/or easier to perform a procedure, while possibly reducing service cost.

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# INTRODUCTION

## Service Procedures and Tool Usage

Anyone using a service procedure or tool not recommended in this manual must first satisfy himself thoroughly that neither his safety nor vehicle safety will be jeopardized by the service method he selects. Individuals deviating in any manner from the instructions provided assume all risks of consequential personal injury or damage to equipment involved.

Also note that particular service procedures may require the use of a special tool(s) designed for a specific purpose. These special tools must be used in the manner described, whenever specified in the instructions.

### **DANGER**

- 1. Before starting a vehicle, always be seated in the driver's seat, place the transmission in neutral, apply the parking brakes, and push in the clutch pedal. Failure to follow these instructions could produce unexpected vehicle movement, which can result in serious personal injury or death.***
- 2. Before working on a vehicle, place the transmission in neutral, set the parking brakes, and block the wheels. Failure to follow these instructions could produce unexpected vehicle movement, which can result in serious personal injury or death.***

### **DANGER**

***Engine-driven components such as Power Take-Off (PTO) units, fans and fan belts, driveshafts and other related rotating assemblies, can be very dangerous. Do not work on or service engine-driven components unless the engine is shut down. Always keep body parts and loose clothing out of range of these powerful components to prevent serious personal injury. Be aware of PTO engagement or nonengagement status. Always disengage the PTO when not in use.***

### **DANGER**

***Do not work under a vehicle that is supported only by a hydraulic jack. The hydraulic jack could fail suddenly and unexpectedly, resulting in severe personal injury or death. Always use jackstands of adequate capacity to support the weight of the vehicle.***

### **CAUTION**

***Before towing the vehicle, place the transmission in neutral and lift the rear wheels off the ground, or disconnect the driveline to avoid damage to the transmission during towing.***

**REMEMBER,  
SAFETY . . . IS NO ACCIDENT!**