

Description and Operation

General Service Warnings

Review carefully the information below before beginning any repair. Following these warnings is a list of specific system warnings that must be reviewed before beginning work on any listed system.

WARNINGS:



Vehicles with scheduled remote start technology may start at any time. Make sure the scheduled remote start system is disabled when servicing or working in close proximity to rotating engine parts. Remote start features should be disabled via the instrument cluster settings. Refer to information display, settings in the owner's manual. Failure to follow this instruction may result in serious personal injury.



Wear eye and ear protection when servicing a vehicle. Failure to follow this instruction may result in serious personal injury.



Wear protective gloves when handling components or parts that have pointed or sharp edges. Failure to follow this instruction may result in serious personal injury.



Chemicals or materials specified in this manual, if used improperly, may present a personal health hazard. Always consult the material safety information sheet before using any material specified by this manual. Failure to follow this instruction may result in serious personal injury.



Do not work under the hood of a vehicle with a damaged cooling fan, as it can separate during operation. With the ignition OFF, inspect all cooling fans for damage, cracks or separation and replace with a new fan as necessary. Failure to follow this instruction may result in serious personal injury.



Cooling fans may run with the ignition off. Disable the fans before working nearby. On electric vehicles, disconnect the charging cable to prevent unexpected fan operation. Failure to follow this instruction may result in personal injury.



Vehicles with engine auto start-stop technology may start automatically with the ignition on. Make sure the ignition is off when servicing or working in close proximity to rotating engine parts. Failure to follow this instruction may result in serious personal injury.



Serious injury may occur if the engine is accidentally started by another person during service work. Remove the key from the vehicle to prevent unauthorized starts. Failure to follow this instruction may result in serious personal injury.



Before lifting the vehicle with a jack, make sure the jack capacity is adequate for the vehicle weight, including any vehicle cargo or modifications. Identify the correct jacking points in section 100-02 of this manual. Position the vehicle on a hard, level surface. After jacking, always support vehicle with jack stands. Never get under a vehicle supported only by a jack. Set the parking brake and block all wheels remaining on the ground. Failure to follow these instructions may result in unintended vehicle movement and serious personal injury or death.



Before raising the vehicle on a hoist, make sure the hoist capacity is adequate for the vehicle weight, including any vehicle cargo or modifications. Always position the hoist lift arms as shown in section 100-02 of this manual. Do not use the engine to power the drive wheels unless all drive wheels are elevated off the ground. Incorrect hoist arm

positioning or drive wheels in contact with the ground can cause unintended vehicle movement. Failure to follow these instructions may result in serious personal injury or death.



Removal of heavy components (such as engines, transmissions or axles) while the vehicle is lifted on a hoist may create a dangerous weight imbalance. Restrain the vehicle on the hoist with chains or straps to prevent vehicle movement. Failure to follow this instruction may result in serious personal injury or death.



Always secure transmission, transfer case, and axle assemblies to their service jack. Avoid obstructions while lowering and raising the jack. Improperly secured assemblies or contact with obstructions may cause the assembly to fall off the jack, which could result in serious personal injury.



Always secure engines, transmissions, or other heavy components to the support fixture with straps and wooden support blocks. Improperly secured assemblies could fall off the fixture, resulting in serious personal injury.



Never support an engine by the intake or exhaust manifolds. The engine may drop suddenly. Failure to follow this instruction may result in serious personal injury.



Turn off (disable) the power running boards (if equipped) before jacking, lifting or placing any object under the vehicle. Never place your hand between the power running board and the vehicle. Extended power running boards will retract when doors are closed. Failure to follow these instructions may result in serious personal injury.



Keep solvents away from ignition sources. Solvents may be flammable and can ignite or explode if not handled correctly. Failure to follow this instruction may result in serious personal injury.



Use tools, not fingers, to hold flagnuts. Flagnuts may slip or spin unexpectedly when removing fasteners. Failure to follow this instruction may result in injured fingers. Carefully review the safety warnings for each system using the links below before beginning any service or repair.

For additional information, refer to [in this section](#).

For additional information, refer to: [Climate Control System Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

For additional information, refer to: [Battery and Battery Charging Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

For additional information, refer to: [Brake and Clutch Systems Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

For additional information, refer to: [Body Repair Health and Safety and General Precautions](#) (100-00 General Information, Description and Operation).

For additional information, refer to: [Engine Cooling System Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

For additional information, refer to: [Gasoline and Gasoline-Ethanol Fuel Systems Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

For additional information, refer to: [Diesel Fuel System Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

For additional information, refer to: Liquefied Petroleum Gas (LPG) and Compressed Natural Gas (CNG) Fuel Systems Health and Safety Precautions (100-00 General Information, Description and Operation).

For additional information, refer to: [Pyrotechnic Device Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

For additional information, refer to: [Wheel and Tire Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

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