

# Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

## 2002 FORD Thunderbird OEM Service and Repair Workshop Manual

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Do not carry personal electronic devices such as cell phones, pagers or audio equipment of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions may result in serious personal injury.

#### **WARNING**

Always disconnect the battery ground cable at the battery when working on an evaporative emission (EVAP) system or fuel-related component. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions may result in serious personal injury.

#### **WARNING**

When handling fuel, always observe fuel handling precautions and be prepared in the event of fuel spillage. Spilled fuel may be ignited by hot vehicle components or other ignition sources. Failure to follow these instructions may result in serious personal injury.

#### **WARNING**

Remove the fuel filler cap slowly. The fuel system may be under pressure. If the fuel filler cap is venting vapor or if you hear a hissing sound, wait until it stops before completely removing the fuel filler cap. Otherwise, fuel may spray out. Failure to follow these instructions may result in serious personal injury.

#### **WARNING**

Avoid contact with fuel during a visual inspection for fuel leaks with the engine running. Do not work on the fuel system until the pressure has been released and the engine has cooled. Fuel in the high-pressure fuel system is hot and under very high pressure. High-pressure fuel may cause cuts and contact with hot fuel may cause burns. Failure to follow these instructions may result in serious personal injury.

## WARNING

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.

## WARNING

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.

## WARNING

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.

## WARNING

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.

## WARNING

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.

## WARNING

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

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.

#### WARNING

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.

#### WARNING

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: [High Voltage System Health and Safety Precautions - Overview](#)(100-00 General Information, Description and Operation).

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).



## High Voltage System Health and Safety Precautions - Overview

<b>100-00 General Information</b>	<b>2022 F-150</b>
<b>Description and Operation</b>	<b>Procedure revision date: 02/17/2022</b>

### High Voltage System Health and Safety Precautions - Overview

#### WARNING

Service of the high voltage system on this vehicle is restricted to qualified personnel. The required qualifications vary by region. Always observe local laws and legislative directives regarding electric vehicle service. Failure to follow this instruction may result in serious personal injury or death.

#### WARNING

To prevent the risk of high-voltage shock, always follow precisely all warnings and service instructions including instructions to depower the system. The high-voltage system utilizes high-voltage cables to its components and modules. The high-voltage cables and wiring are identified by orange harness tape or orange wire covering. All high-voltage components are marked with high-voltage warning labels with a high-voltage symbol. Failure to follow these instructions may result in serious personal injury or death.

#### WARNING

Disconnect the 12 V battery before servicing the direct current to alternating current (DC-AC) inverter or alternating current (AC) powerpoint to prevent the risk of high voltage shock. Failure to follow this instruction may result in serious personal injury.

#### WARNING

## Liquefied Petroleum Gas (LPG) and Compressed Natural Gas (CNG) Fuel Systems Health and Safety Precautions

<i>100-00 General Information</i>	<i>2022 F-150</i>
<i>Description and Operation</i>	<i>Procedure revision date: 09/19/2017</i>

### Liquefied Petroleum Gas (LPG) and Compressed Natural Gas (CNG) Fuel Systems Health and Safety Precautions

#### WARNING

Service of Compressed Natural Gas (CNG) or Liquefied Petroleum Gas (LPG) vehicle systems is restricted to qualified personnel and authorized workshops. The required qualifications vary by region. Always observe local laws and legislative directives regarding CNG or LPG vehicle service. Failure to follow this instruction may result in serious personal injury or death.

#### WARNING

Compressed Natural Gas (CNG) or Liquefied Petroleum Gas (LPG) is highly flammable and toxic when contained in unventilated work areas. Work in a dedicated area with good ventilation and no sources of ignition. Failure to follow these instructions may result in serious personal injury or death.

#### WARNING

Liquefied Petroleum Gas (LPG) is capable of harming eyes or freezing skin. Always wear personal protection gear, including safety goggles and gloves to avoid contact with liquid gas. Failure to follow these instructions may result in serious personal injury.

#### WARNING

## Pyrotechnic Device Health and Safety Precautions

<b>100-00 General Information</b>	<b>2022 F-150</b>
<b>Description and Operation</b>	<b>Procedure revision date: 04/25/2022</b>

### Pyrotechnic Device Health and Safety Precautions

#### WARNING

Service and handling of Pyrotechnic Components is restricted to qualified personnel. The required qualifications vary by region. Always observe local laws and legislative directives regarding Pyrotechnic Components service and handling. Failure to follow this instruction may result in serious personal injury or death.

#### WARNING

Always carry a live airbag with the deployment door, trim cover or tear seam pointed away from the body. Do not place a live airbag down with the deployment door, trim cover or tear seam facing down. Failure to follow these instructions may result in serious personal injury in the event of an accidental deployment.

#### WARNING

Always carry or transport a live safety belt inflator with the safety belt buckle bolt installed in the inflator tube hand tight. Failure to follow this instruction may result in serious personal injury in the event of an accidental deployment.

#### WARNING

where it meets each roof B-pillar trim panel. Remove any other damaged components or hardware and replace with new. Always use new torque-prevailing type J-nuts when installing the Safety Canopy. Failure to follow these instructions may result in the Safety Canopy or side air curtain deploying incorrectly and increases the risk of serious personal injury or death in a crash.

#### **WARNING**

Do not repair or service restraint component connector terminals. If restraint connector terminals need repair, replace with the service connector pigtails. Failure to follow this instruction may result in incorrect operation of the vehicle safety restraint, which increases the risk of serious personal injury or death in a crash.

#### **WARNING**

Never disassemble or tamper with seat belt deployable components, including pretensioners, load limiters and inflators. Never back probe deployable device electrical connectors. Tampering or back probing may cause an accidental deployment and result in personal injury or death.

#### **WARNING**

Never tamper with, repair, or modify a Restraints Control Module (RCM) or any other Supplemental Restraint System (SRS) component. Failure to follow this instruction may result in incorrect operation of the Supplemental Restraint System (SRS), which increases the risk of serious personal injury or death in a crash.

#### **WARNING**

Never probe the electrical connectors on airbag, Safety Canopy or side air curtain assemblies. Failure to follow this instruction may result in the accidental deployment of these assemblies, which increases the risk of serious personal injury or death.

#### **WARNING**

Do not handle, move or change the original horizontal mounting position of the restraints control module (RCM) while the RCM is connected and the ignition switch is ON. Failure to follow this instruction may result in the accidental deployment of the Safety Canopy and cause serious personal injury or death.



## WARNING

Always carry the live hood actuator by holding it around the cylinder with the mounting bracket up and with the cap pointing away from the body. Always place the live hood actuator on its side with the cap pointing away from people. Never place anything in front of the cap. Failure to follow these instructions may result in serious personal injury in the event of an accidental deployment.

## WARNING

If a vehicle has been in a pedestrian impact, inspect the impact sensor mounting areas for damage. If damaged, a new bumper cover must be installed. New pedestrian impact sensors must be installed. Failure to follow these instructions may result in serious personal injury or death in a pedestrian impact.

## WARNING

Do not repair or service pedestrian protection system component connector terminals. If pedestrian protection system connector terminals need repair, replace with the service connector pigtails. Failure to follow this instruction may result in incorrect operation of the vehicle pedestrian protection system, which increases the risk of serious personal injury or death in a pedestrian impact.

## WARNING

Never tamper with, repair, or modify a pedestrian protection system component. Failure to follow this instruction may result in incorrect operation of the pedestrian protection system, which increases the risk of serious personal injury or death in a pedestrian impact.

## WARNING

Never probe the electrical connectors on pedestrian protection system pyrotechnic assemblies. Failure to follow this instruction may result in the accidental deployment of these assemblies, which increases the risk of serious personal injury or death.

## WARNING

Pyrotechnic components are very hot immediately after deployment and might be covered with pyrotechnic residuals. Do not handle pyrotechnic components immediately after deployment. Always wear



## Symbols Glossary

<i>100-00 General Information</i>	<i>2022 F-150</i>
<i>Description and Operation</i>	<i>Procedure revision date: 02/14/2022</i>

### Symbols Glossary

Symbols are used inside the graphics and in the text area to enhance the information display.

#### Movement Symbols

Movement symbols provide detailed information to a required component movement. These component movements can be rotational or 1-3 dimensional movements.

Sample