

INSTALLATION INSTRUCTIONS Gas Tank Skid Plate Kit For: Jeep YJ Kit 66550

Your safety, and the safety of others, is very important. To help you make informed decisions about safety, we have provided installation and operating instructions and other information on labels and in this guide. This information alerts you to potential hazards that could hurt you or others. It is not possible to warn you about all potential hazards associated with this product, you must use your own good judgment.

CARELESS INSTALLATION AND OPERATION CAN RESULT IN SERIOUS INJURY OR EQUIPMENT DAMAGE. READ AND UNDERSTAND ALL SAFETY PRECAUTIONS AND OPERATING INSTRUCTIONS BEFORE INSTALLING AND OPERATING THIS PRODUCT.

This guide identifies potential hazards and has important safety messages that help you and others avoid personal injury or death. **WARNING** and **CAUTION** are signal words that identify the level of hazard. These signal words mean:

AWARNING signals a hazard that *could* cause serious injury or death, if you do not follow recommendations.

ACAUTION signals a hazard that *may* cause minor to moderate injury, if you do not follow recommendations.

This guide uses **NOTICE** to call attention to important mechanical information, and **Note**: to emphasize general information worthy of special attention

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Introduction

Dear Customer:

Congratulations on your purchase of a new WARN Gas Tank Skid Plate!

We are delighted to have you as a customer and want to make sure that your experience with Warn is a positive one.

The information in this manual helps insure that your Warn product is installed properly and operated safely. Although we believe the manual is complete and understandable, it is not a definitive guide to every possible situation or circumstance. We have designed the Warn skid plate to fit a stock vehicle. It will also accommodate vehicles with some modifications. However, there may be situations where it will not fit a vehicle due to extensive modifications to the exhaust system, suspension, etc. that reduces clearance around the gas tank. Know how your vehicle differs from stock, especially in the area surrounding the gas tank, before attempting installation. If, after reading this manual, you have any questions - please call us. At Warn, we pride ourselves on customer service and product support.

For future reference, please record the following information:

Model/Part Number:_____ Date of Purchase:_____

Sincerely,

Your WARN Industries Customer Service Team **United States:** Phone: 503.722.1200 or (800) 543-9276 (US only) Fax: 503.722-3000 **International:** Phone: 503.722.3008 Fax: 503.722.3005 Warn P. <u>PART NO.</u> 67966

QUANTITY

DESCRIPTION Gas Tank Skid Plate

Tools

Flat head screwdriver 1/2" short & deep socket wrench 1/4" & 5/16" nut driver

Safety Precautions

Light weight oil Needle nose pliers 1/2" Wrench Floor Jack Rags

WARNING A Injury Hazard Failure to observe these instructions could lead to severe injury or death. □ ALWAYS WEAR SAFETY GLASSES WHEN INSTALLING THIS KIT. FALLING DIRT CAN CAUSE EYE INJURY. SPLASHED FUEL CAN CAUSE EYE INJURY. ALWAYS DISCONNECT ALL WIRES AT BATTERY TERMINALS. DISCONNECT AT NEGATIVE TERMINAL FIRST. NEVER SMOKE, CARRY LIGHTED TOBACCO OR OPEN FLAME OF ANY TYPE OR HAVE ANY TYPE OF HEAT OR SPARK GENERATING DEVICE IN THE VICINITY WHEN WORKING ON OR NEAR ANY FUEL-RELATED COMPONENT. HIGHLY FLAMMABLE MIXTURES ARE ALWAYS PRESENT AND CAN BE IGNITED, RESULTING IN POSSIBLE PERSONAL INJURY OR DEATH. ALWAYS RELIEVE FUEL SYSTEM PRESSURE BEFORE BEGINNING WORK. FUEL IN THE FUEL SYSTEM REMAINS UNDER HIGH PRESSURE EVEN WHEN THE ENGINE IS NOT RUNNING. BEFORE DISCONNECTING ANY OF THE FUEL LINES OR FUEL SYSTEM COMPONENTS, THE FUEL SYSTEM PRESSURE MUST BE RELIEVED. □ ALWAYS RELIEVE PRESSURE IN FUEL TANK BY REMOVING GAS CAP, BEFORE BEGINNING WORK ON FUEL TANK COMPONENTS. ALWAYS DRAIN FUEL FROM OPEN LINES, TAKING CARE NOT TO ALLOW ANY FUEL TO SPLASH ON ANY BODY PART OF ANYONE. NEVER INHALE FUEL VAPORS. WHEN DISCONNECTING FUEL LINES, ALWAYS WORK IN A WELL-VENTILATED AREA TO AVOID POSSIBLE INJURY.

Installation

Note: Always keep an appropriate fire extinguisher on hand, when working with fuel related components.

- 1. Try to run the vehicle so there is a very small amount of fuel left in the tank, preferably where the low fuel light is on. Do not attempt this installation with more than 1/4 of a tank of fuel.
- 2. Disconnect all wires attached to the battery terminals. Disconnect negative terminal first. Be careful to avoid contacting the positive battery terminal with the tool being used to disconnect the negative battery terminal.

3. Remove the gas cap. **NOTE: THIS IS IMPORTANT BECAUSE IT RELEASES THE PRESSURE IN THE TANK.** You may either remove the complete fuel filler assembly or disconnect the fuel lines directly from the tank.

If you choose to remove the complete assembly, remove the 6 screws holding the filler neck in place behind the license plate mount. Be careful when removing the six small screws, they will be reinstalled later.

If you choose you may disconnect the fuel filler and overflow lines directly from the tank instead of removing the complete fuel filler neck from the vehicle. Do this by loosening the hose clamps and carefully pulling the lines off of the tank.

- 4. Undo the plastic shield between the gas tank and the filler neck. Be careful not to damage any of the plastic Christmas tree fasteners, they will be reinstalled later.
- 5. Remove the bolt holding the exhaust pipe in place next to the fuel tank on the passenger side of the vehicle.
- 6. Place a floor jack under the center of the gas tank. Remove the 7 fasteners holding the gas tank and original skidpan to the vehicle. Do not remove the nuts securing the straps in place yet. Refer to **Figure 1**.



Figure 1: Removal of exhaust bolt, jacking point and Factory skid plate mounting points. NOTE: Having an assistant for the next couple of steps makes the tasks a lot easier.

7. The next step involves unhooking the high-pressure fuel line and the vent lines.

NOTE: Fuel will come out of fuel lines when they are disconnected. Make sure to catch fuel in a container and/or have rags ready to absorb the fuel. Do not stand or lay directly beneath the fuel lines when you disconnect them, otherwise you may spill fuel on yourself or your assistant.

Using the floor jack lower the gas tank approximately 2-3" while guiding the filler neck down out of the body. Disconnect the electrical connector. Disconnect the fuel lines and vapor lines. If necessary, mark the line so you know where you unhooked them. Take the appropriate steps to keep debris from getting inside the tank, filler neck, or the fuel/vapor lines. Refer to **Figure 2** for location of lines.

Slowly lower the fuel tank the rest of the way out of the vehicle.

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Figure 2: Top view of tank and hose locations.

- 8. Remove the nuts holding the straps to the original skid pan and remove the tank. (Some early YJ models will have only one strap. Note location before removing.)
- 9. Before placing the tank into the Warn Skid Plate check the fit of the Warn Skid Plate on the vehicle. Once this has been done attach the straps to the Warn Skid Plate, place the tank into the skid plate, and bolt the straps to secure the tank to the skid plate. Due to manufacturing variances, the nuts may not need to be tightened as far as they were with the factory skid plate. The straps are only meant to keep the tank from sliding around. Slowly and evenly tighten the straps while checking to see if the tank is secure. The torque spec for the straps is 120 inch pounds (10 ft/lbs). DO NOT OVER TIGHTEN THE STRAPS. (Some early YJ models will have only one strap. Reinstall it in same location it was removed from.)
- 10. In order to get the tank and skid plate into the mounting position the filler neck will need to be removed from the hoses connected to the tank. Remount the Filler neck to the body.
- 11. Using the jack lift the Warn Skid Plate and gas tank up into place. The passenger side needs to go up first to slide past the exhaust pipe. When it is approximately 2-3" from the mounting location reattach the fuel and vapor lines. Reconnect the electrical connector. Loosely install the skid plate with the 7 nuts. Once all seven nuts are started torque the nuts to 204 inch pounds (17 lb-ft).
- 12. Place a small amount of lightweight oil around the inner part of the gas tank hoses and the filler neck where they mate. Reattach the filler hoses to the filler neck.
- 13. Reinstall tailpipe retention bolt and tighten.
- 14. Reattach all the vehicle wires to the battery terminals. Attach negative terminal of the battery last.
- 15. Start the vehicles engine and check for fuel leaks.