

VERUS ENGINEERING

Toyota GR86 Hood Louver Install

Installation Manual



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1.1. Overview: Detailed instructions on installing the hood louver for the Toyota GR86.

1.2. Difficulty: Moderate

1.3. Time Required: 3-4 hours

1.4. Tools Needed:

- 1.4.1. Ratchet
- 1.4.2. 12mm socket
- 1.4.3. Flat Head Screwdriver or clip removal tool
- 1.4.4. Scissors
- 1.4.5. 1/8" drill bit
- 1.4.6. 90 degree air grinder
- 1.4.7. Drill
- 1.4.8. Painter's tape
- 1.4.9. Cut-off Wheel
- 1.4.10. Goggles or safety glasses
- 1.4.11. Vacuum



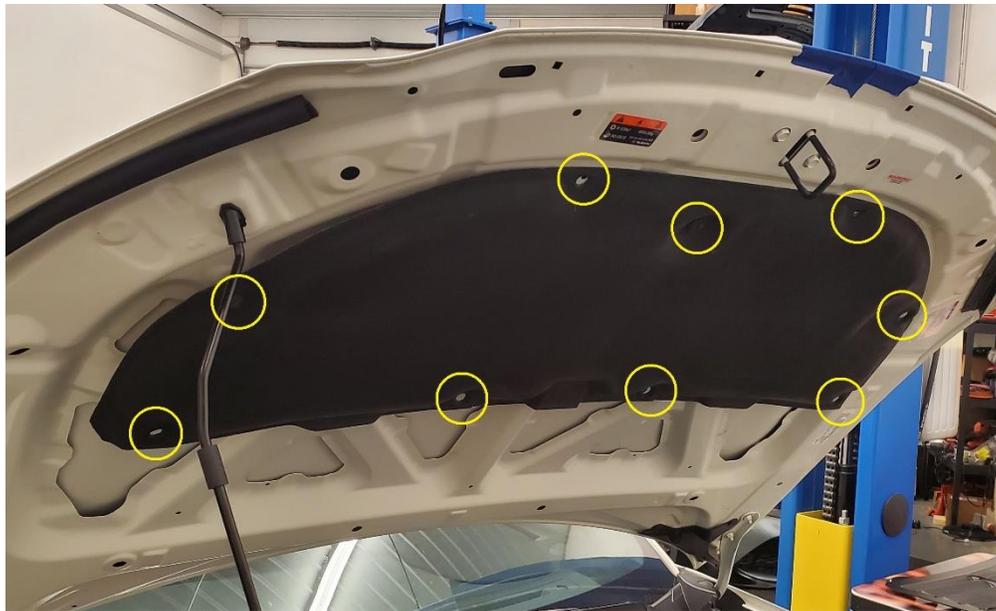
1.5. Hood Louver Components

- 1.5.1. (1) Hood louver
- 1.5.2. Hardware Bag
 - 1.5.2.1. (1) Cut Template
 - 1.5.2.2. (1) Roll of double-sided 3M VHB Tape



2. Hood Louver Kit Install

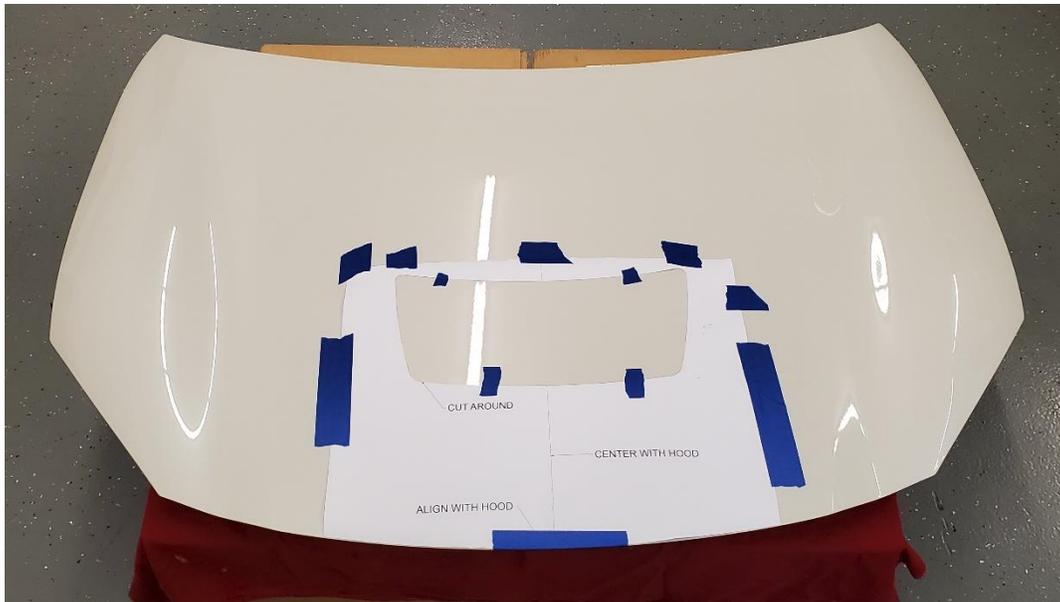
- 2.1. Verus Engineering is not responsible for damage to your vehicle by following this manual.
- 2.2. Open the hood.
- 2.3. Remove the insulator panel, by removing the push clips.



- 2.4. Using the 12mm socket and ratchet, loosen and remove the (4) nuts from the hood hinges, and remove the hood from the car, below is a picture of the driver's side nuts. It is a good idea to trace the out line of the nuts so that they can be put back in the same spot during reassembly.



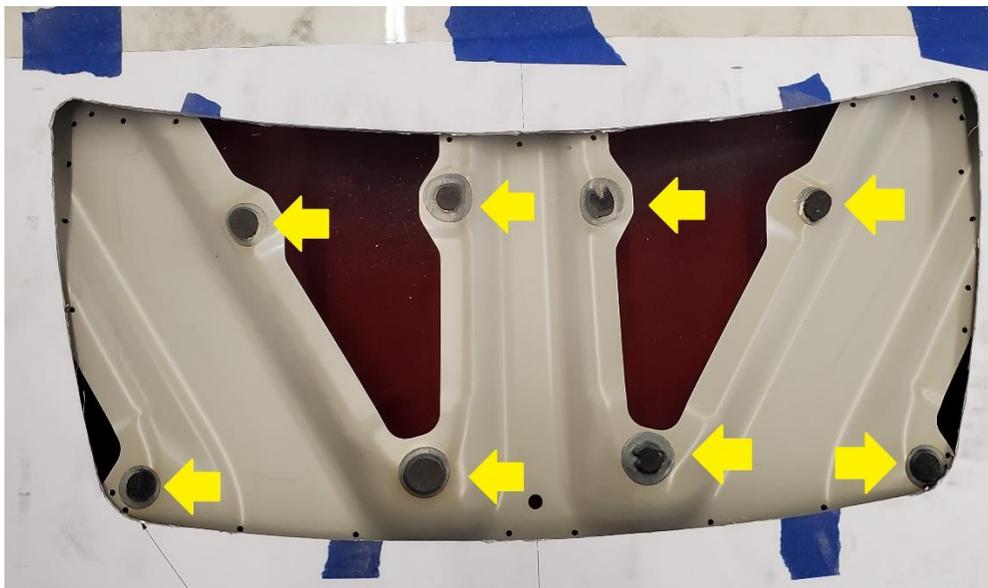
- 2.5. Place the hood upside down on a blanket or piece of carpet. Just be sure you will not be scratching the paint.
- 2.6. Locate the template, cut it out, and tape it to the hood by following the guidelines on the template as shown.



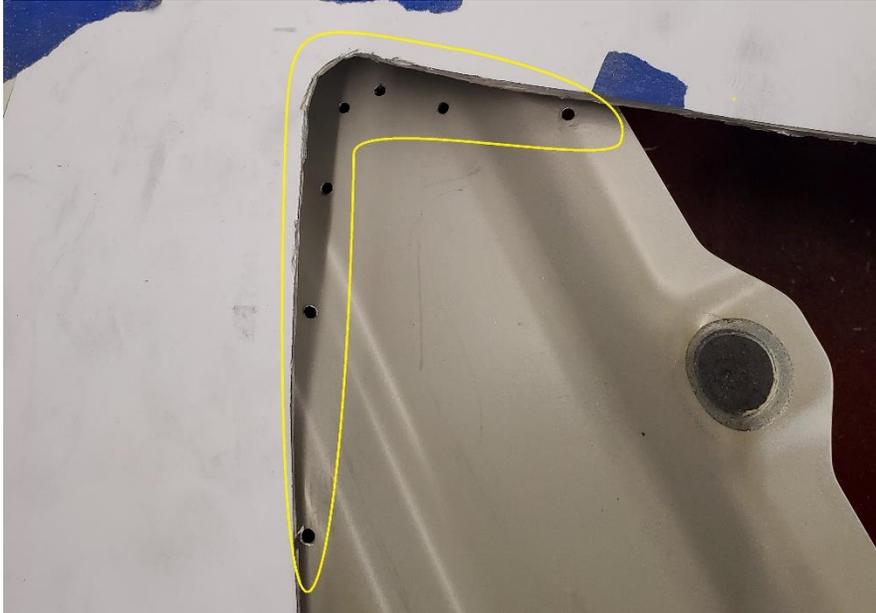
- 2.7. Using a cut off wheel or whatever cutting tool you are most comfortable with begin cutting out the top skin of the hood.



- 2.8. You may need to pull the cutout portion upward to release the bonded areas from the structure underneath.



- 2.9. Before flipping the hood over to cut out the under-hood structure, use and 1/8" drill bit, and drill a series of holes in the under-hood structure that follows the outline of top skin cut out. Refer to the image below. Do this for anywhere the under-hood structure needs to be cut out.



- 2.10. Following the Series of hole drilled in the previous steps, cut the "outline" that you have created in the previous step.



- 2.11. Remove the under-hood structure you just cut out.
- 2.12. You should be left with some pretty pointy / sharp edges. We decided to cut these pieces off, but ultimately you can skip this if it does not bother you.



2.13. Before we begin final installation of the hood vent, place it on the hood, and make sure you cannot see any of the under-hood structure through the vent. If you can, trim it back until it is no longer visible.

2.14. Clean, and deburr the raw edges. Coat the raw edges with touch up paint.



- 2.15. Prepare both surfaces, the hood vent, and the hood with a 50 / 50 mix of isopropyl alcohol, and water.
- 2.16. Cut a few strips of the supplied 3M VHB and apply them to hood vent as shown. Peel off a small section of the double-sided tape as shown. This is done so that you can set the hood vent onto the hood while still being able to make adjustments. Once, you are happy with the placement, pull the rest of the backing off of the tape and apply pressure to adhere the tape.



- 2.17. It is ***highly*** recommended to follow 3M's VHB install instructions, which are the following: **The ambient temperature should be over 50 degrees F. 50% of the ultimate bond strength will be achieved after 20 minutes, 90% after 24 hours, and 100% after 72 hours.**
- 2.18. Reinstall the hood on the car. Torque the nuts to 20 ft-lbs.

2.19. Congratulations! You have completed installation of the Toyota GR86 Hood Vent! If you have any comments, concerns, or issues, please contact sales@verus-engineering.com.

