Toyota GR Corolla Front Splitter and Air Dam Kit

Install Manual

Author: Clay Warner
Release Date: 2024/02/22
Approvals: E. Hazen

Document Revisions

Rev	Date	Author	Description
01	2024/02/22	C. Warner	Initial release of install manual

Verus Engineering
sales@verus-engineering.com

CONTENTS

Toyota GR Corolla Front Splitter and Air Dam – Install Manual

1. Introduction

1.1. Overview: Detailed instructions on installing the Verus Engineering Front Splitter and Air Dam on the Toyota GR Corolla.

1.2. Difficulty: Beginner to Moderate

1.3. Time Required: 3-3.5 hours

1.4. Tools Needed:

1.4.1. Splitter and Air Dam

1.4.1.1. Jack and Jack Stands or a Lift
1.4.1.2. Drill
1.4.1.3. Impact Gun
1.4.1.4. Ratchet
1.4.1.5. Flathead Screwdriver and/or Panel Popping Tool
1.4.1.6. Phillips Screwdriver
1.4.1.7. 10mm Socket
1.4.1.8. 12mm Socket
1.4.1.9. Center Punch
1.4.1.10. 2.5mm Allen Wrench or Socket
1.4.1.11. 4mm Allen Wrench or Socket
1.4.1.12. 5mm Allen Wrench or Socket
1.4.1.13. 7mm Wrench
1.4.1.14. 9/16” Wrench
1.4.1.15. 7/16” Wrench
1.4.1.16. 3/8” Wrench
1.4.1.17. 10mm Wrench
1.4.1.18. 11mm Wrench
1.4.1.19. Center Punch
1.4.1.20. 1/8” or starter drill bit
1.4.1.21. 3/8” drill bit or step bit
1.4.1.22. Utility Knife

1.5. Splitter Kit Components

1.5.1. (1) Front Splitter
1.5.2. (1) Left Side Air Dam
1.5.3. (1) Right Side Air Dam
1.5.4. (1) Left Mounting Bracket
1.5.5. (1) Right Mounting Bracket
1.5.6. (1) Support Brace
1.5.7. **(1) Hardware Bag**

1.5.7.1. (16) M6x18mm OD Washer, Stainless
1.5.7.2. (4) M6x1.0, 45mm Long Button Head Cap Screw (BHCS), Stainless
1.5.7.3. (5) M6x12mm OD Washer, Stainless
1.5.7.4. (20) M6x1.0 Flanged Serrated Nut, Stainless
1.5.7.5. (22) M6x1.0, 25mm Long BHCS, Stainless
1.5.7.6. (1) M4x0.7, 12mm Long BHCS, Stainless
1.5.7.7. (1) M4x0.7 Nyloc Nut, Stainless
1.5.7.8. (2) M4 Fender Washer, Stainless
1.5.7.9. (1) M6 Rivet Nut Install Tool
1.5.7.10. (2) M6x1.0 Heavy Duty Rivet Nut, Steel
1.5.7.11. (2) M6x1.0, 25mm Long Low-Profile Socket Head Cap Screw (SHCS), Stainless
1.5.7.12. (6) M6x1.0, 30mm Long BHCS, Stainless
1.5.7.13. (6) M6x1.0, 70mm Long BHCS, Stainless
1.5.7.14. (2) M6x1.0 Rivet Nut for Plastic, Steel
1.5.7.15. (4) M6x1.0 Clip-On Nut, Steel
1.5.7.16. (2) M6 x 5mm Long Nylon Spacer
1.5.7.17. (8) M6 x 10mm Long Nylon Spacer
1.5.7.18. (14) M6 x 15mm Long Nylon Spacer
1.5.7.19. (18) ¼”x1.50” Fender Washer, Stainless
1.5.7.20. (2) M6 Clevis, Threaded
1.5.7.21. (2) M6 Clevis, No Threads
1.5.7.22. (2) Adjustable Support Rod (265mm to 290mm)
1.5.7.23. (1) Rubber Air Dam Edge Guard

2. Front Splitter Install

2.1. Verus Engineering is not responsible for damage to you or your vehicle by following this manual and/or installing Verus Engineering products.

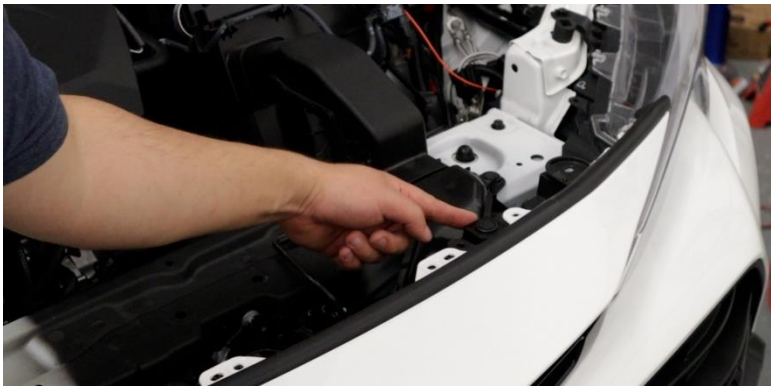
2.2. We begin by jacking the car up. You will want to chock the rear wheels and use the e-brake if you are doing this install on the ground with jack stands.

2.3. Place a jack stand on both sides of the car. You can use the frame rails or the pinch welds. You may also use a lift if you have access to one.

2.4. With the front of the car off the ground, we start by removing the front bumper. To do this, we need to first remove the 7 pop clips holding the radiator shroud to the bumper. Tom is touching the shroud in question below.

2.5. Once the radiator shroud is removed, we need to remove various clips and bolts holding the bumper onto the car. You will need a 10mm socket with a ratchet and a Phillips screwdriver to do so. Below is a photo with the top shroud removed.

2.6. Now we need to remove a section of the intake duct. Do so by using a flathead screwdriver or a panel popping tool. Two clips need to be removed here.



2.7. With the top side of the bumper now loose, we need to remove four more clips inside the fender liners. Repeat the process for the other side of the car.

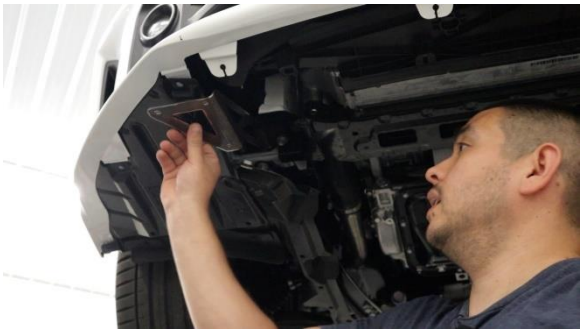
2.8. Now on the underside of the vehicle, we need to remove 6 total screws to fully remove the fender liners from the bumper.

2.9. After the fender liners are completely loose from the bumper, we now need to remove both the front and rear splash guard panels. There are various pop clips and 10mm bolts that need to be removed here.

2.10. We can now remove the bumper from the car. Do so by pulling upward and outward firmly on each side by the fender liner to start, then move towards the center. Having a second set of hands here is very helpful. **Note: There are some retaining clips in front and on top of the headlight assemblies. They will pop free by firmly pulling the bumper outward. Also, as you are removing the bumper from the car, make sure to disconnect the fog lights and adaptive cruise control module in the center of the bumper.**

2.11. After the bumper and both splash guards are removed, we need to install the mounting brackets one at a time. Remove the two 12mm bolts holding one side of the radiator support and install the bracket in this location reusing the OEM bolts. Torque to 20 ft-lbs and repeat the process for the other side.

Passenger side bolt locations

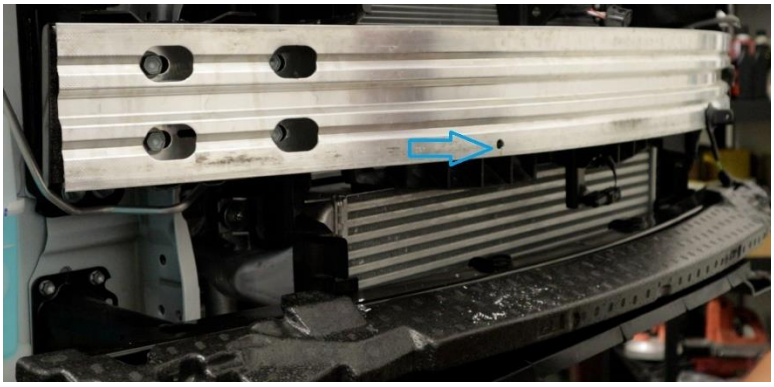


Passenger side bracket installed

2.12. Remove the Styrofoam from the crash beam by pulling outward and set aside.

2.13. Next, we need to measure and mark the holes we need to drill in the crash beam. Do so by measuring 15 ¼" inboard on the bottom rib of the crash beam. Do your best to center this mark in the bottom rib.

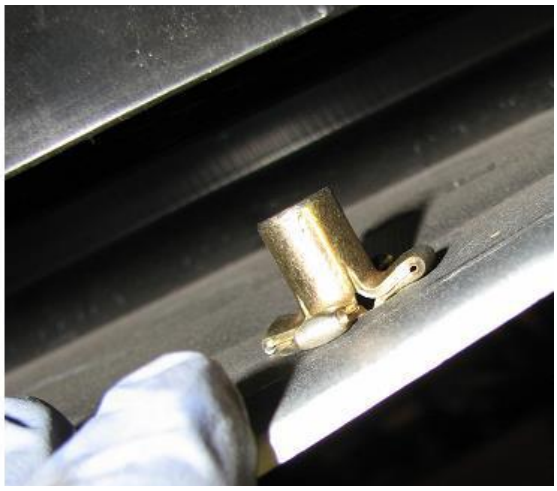
2.14. Once you have your holes marked, center punch them and drill them to 3/8". You may use an 1/8" starter bit here if you would like. Do so for both sides.



2.15. Now we need to install the heavy-duty rivet nuts into these holes. Use the following diagram to install the rivet nuts. **Note: The rivet nuts shown in the diagram are incorrect for this segment, but the install process is the same. The second image shows the correct rivet nuts to use here.**

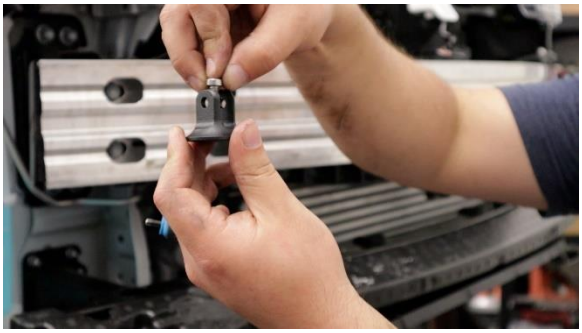
2.16. Using a 9/16” wrench and the 5mm Allen wrench, hold the nut steady and tighten the allen bolt. You will have some initial resistance, and then the rivet nut will begin to pull tighter on the material. **Use oil on the threads to ensure they do not gall.** Alternatively, you can purchase or rent a rivet nut install tool from your local hardware store or automotive store.

2.17. Below is an example of fully installed rivet nut.



2.18. Once the rivet nuts are installed, grab the two pre-drilled clevises and the two low-profile 25mm SHCS. Drop the LP SHCS through the clevis as shown below and using your 5mm Allen wrench or socket, install the clevis into the rivet nut. **Note: The clevis needs to be clocked slightly inward so that the support rods can clear the front grille. You may need**

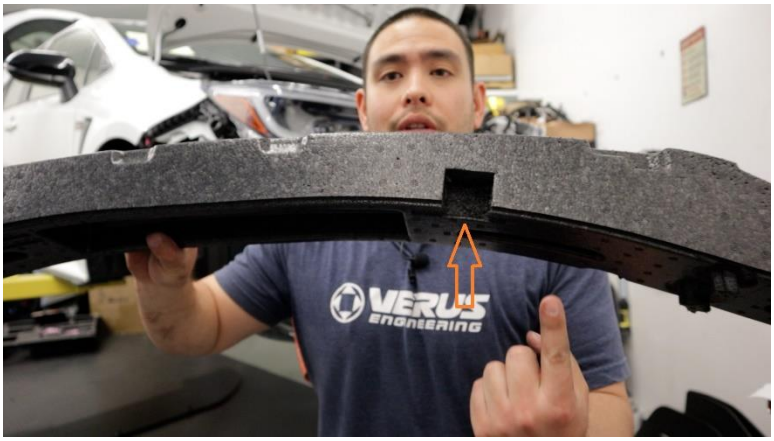
to temporarily install the bumper on the car to ensure the support rods will clear the grille. Once you have the clevis position sorted, torque these bolts to 6 ft-lbs.



2.19. Assemble your support rods as shown below. **Note: There are a left and a right-hand threaded rod end.** We found that about 11 1/8" is the ideal length for the support rods from the center of one rod end to the center of the other. This will vary slightly from car to car depending on where the crash beam clevises were installed.

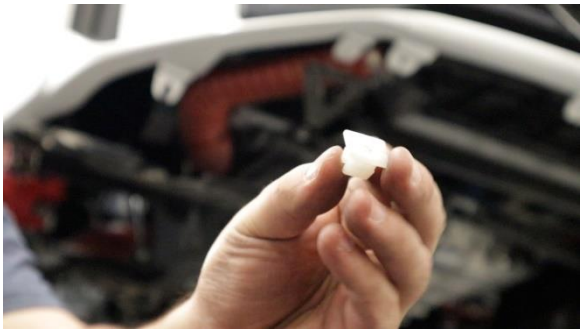
2.20. Using a 25mm BHCS, 12mm OD washer, and a serrated nut on the backside of the clevis, install the support rod. Only install hand tight for now. **(25mm BHCS > 12mm OD washer > clevis prong > rod end > clevis prong > serrated nut)**

2.21. Before we reinstall the bumper, we need to notch the Styrofoam to clear the clevises that are now installed. To do so, line the Styrofoam piece up with the dowels in the crash beam and mark the areas that will need clearance. Using a utility knife, clearance the Styrofoam. Below is a photo of how the clearanced sections should look.



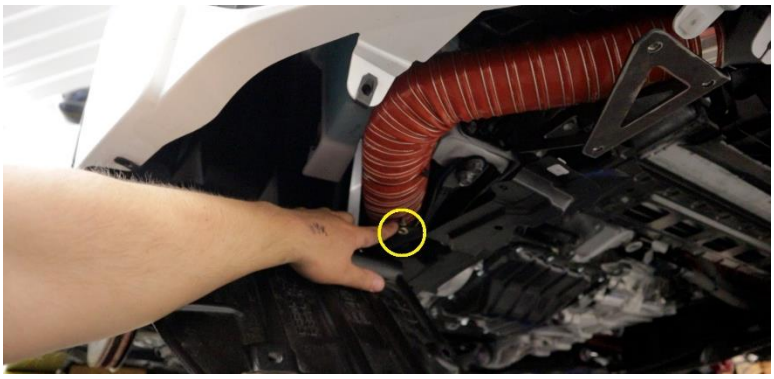
2.22. Next, we need to reinstall the bumper while ensuring we slide the support rods through the correct slots in the grille. Below is a photo showing the passenger side.

2.23. With the bumper back on the car, we need to remove two plastic pieces from the bumper tabs shown below. Do so for both sides.



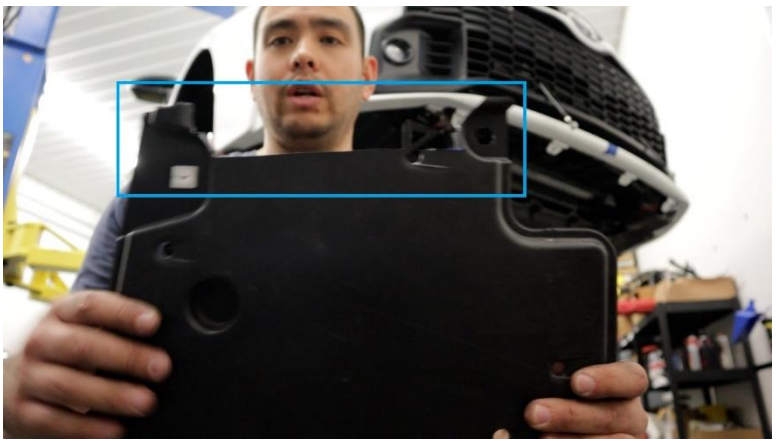
2.24. Once the white plastic pieces are removed, we need to install the supplied M6 clip-on nuts in these same locations.

2.25. Next, we need to install one more rivet nut on each side before we can start bolting up the fender liners and splash guards. The location for this rivet nut is shown below. Using the rivet nut for plastic application, install this in the hole noted below using the same install notes as the rivet nuts we installed previously.



2.26. Reinstall the rear splash guard using only the pop clips for the time being.

2.27. Before we can reinstall the front splash guard, we need to clearance the sides to fit with the newly installed splitter brackets. Hold the splash guard up to the mounting locations and mark the area that needs to be trimmed. Below is a photo showing how much we trimmed using a utility knife.



2.28. Reinstall the front splash guard.

2.29. Before fitting the splitter to the car, we need to loosely install the air dam to the splitter. First, we need to put the air dam halves together. Do so by using the M4 hardware that is provided. **(M4x12mm long BHCS > M4 fender washer > air dam mount tab > air dam mount tab > M4 fender washer > M4 nyloc nut)** You will need a 2.5mm Allen wrench and a 7mm wrench for this segment.

2.30. Using 25mm BHCS, 18mm OD washers, and serrated nuts, bolt the air dam to the splitter hand-tight for right now. You will want some movement with the air dam when

installing the splitter to the car. The splitter is pre-drilled for the air dam mounting. **(25mm BHCS > 18mm OD washer > splitter > air dam mounting tab > serrated nut)**

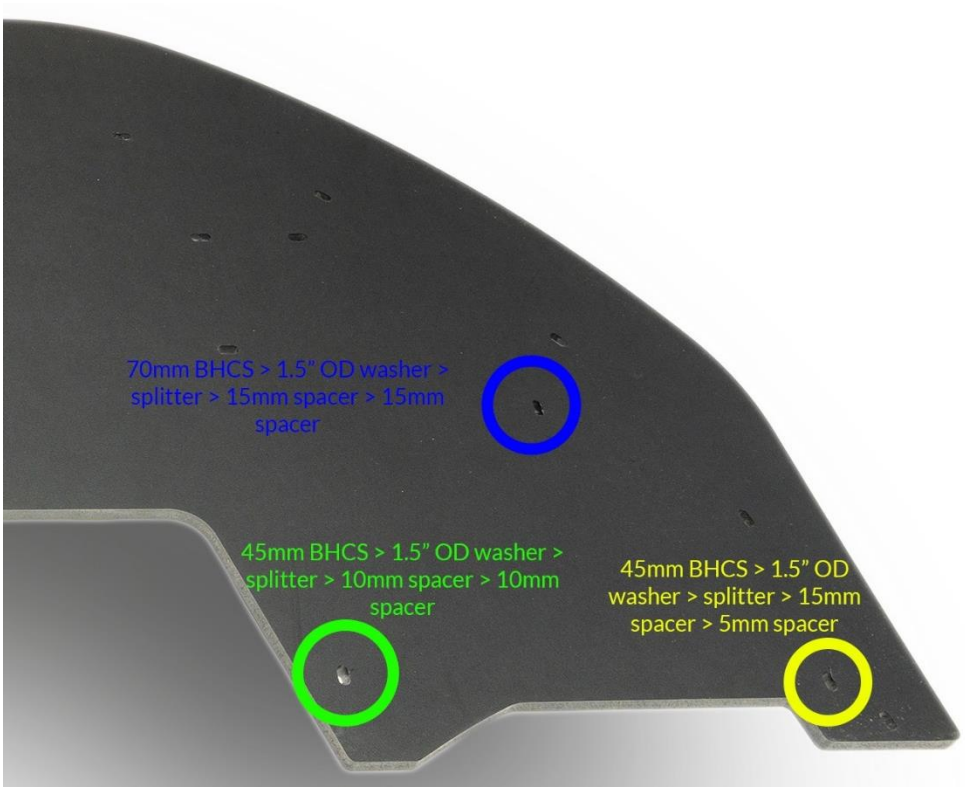
2.31. Once the air dam is bolted hand-tight to the splitter, install the supplied air dam seal. If you have an issue with the seal coming off easily or over time, a dab of black sealant helps adhere the seal to the air dam.

2.32. Start installing the front splitter using the 1.5” OD washers and 30mm long BHCS. We found it easiest to install the 3 bolts on each side that hold the splitter to the splitter brackets. Having a second set of hands to hold the splitter still is extremely helpful here.

2.33. Once the splitter is loosely bolted to the splitter brackets, grab your 70mm long BHCS, 1.5" OD washers, two 15mm spacers, and one 10mm spacer. Push the bolt through the splitter in the center rearmost mounting hole and slide the spacers on the bolt on the top side of the splitter, then start the bolt by hand. Repeat the process for the other 3 rear mounting holes, 4 in total. **(70mm BHCS > 1.5" OD washer > splitter blade > 15mm spacer > 15mm spacer > 10mm spacer > factory mounting location)**

2.34. Install the front support bracket and threaded clevises using 25mm BHCS and 1.5" OD washers here. Ensure you line up the support rod with the clevis before you fully tighten these bolts to 6 ft-lbs. **(25mm BHCS > 1.5" OD washer > support bracket > splitter blade > threaded clevis)**

2.35. Next, we need to install the 3 outer bolts, washers and spacers on each side. Below is a diagram showing what bolts and spacers should be used.



2.36. Once all the splitter mounting bolts are installed and torqued to 6 ft-lbs, it is now time to tighten up the air dam bolts. Do so by pushing the air dam towards the bumper and using an impact and a 4mm Allen socket to catch the nut and bring it tight. Do not go overboard as the splitter is plastic, but once the nut catches, you can finish tightening the nut with a handheld Allen wrench.

2.37. Lastly, we need to fully install the support rods to the clevises on the splitter. Using a 25mm BHCS, 12mm OD washer, and a serrated nut, install the support rod to the clevis and tighten to 6 ft-lbs. **(25mm BHCS > 12mm OD washer > clevis prong > rod end > clevis prong > serrated nut)** Once installed, your splitter should be parallel with the ground. If you need to adjust the support rod length, now is the time to do it.

2.38. Congratulations! You have just completed installation of the Verus Engineering Front Air Dam and Air Dam on your GR Corolla!

2.39. Please contact Verus Engineering with any questions, comments, concerns, and feedback via sales@verus-engineering.com