



Thor B5 & B5.5 Passat Skid Plate Installation Instructions

Parts List:

- 1 Aluminum Skid Plate
- 2 Aluminum Side Wings
- 12 10mm Flat Washers
- 2 8mm Flat Washers
- 2 8mm Speed Clips
- 2 10x40mm Bolts
- 2 8x35mm Bolts
- 2 Rivet-nuts
- 2 1/2" Aluminum Spacers
- 1 Rivet-nut Install Tool
- 7 10mm Lock Washers
- 1 6mm Internally Threaded Bolt
- 4 10x25mm Bolts

Tools You Will Need:

- Driver with Extension and Metric Socket Set
- Set of Large Metric Wrenches
- Vise Grips
- Flat Head Screw Driver
- Crescent Wrench
- Car Ramps or Jack with Jack Stands
- Never Seize Compound
- Regular Lubrication Grease
- Jack Stands For Your Safety

Now that you have familiarized yourself with the parts of the skid plate and prepared the tools you will need to do the job, you're ready to get started.

Step #1: Drive your car onto a set of car ramps or jack the car up and place jack stands under the vehicle for safety. Also make sure to apply your emergency brake, (we recommend using both the ramps and the jack stands). Start by removing all of the plastic skid plates using your flat head screw driver. Also you will want to remove the metal bracket that is located just behind your lower sub frame. It is the black metal bracket that attaches to the frame with two 10mm head bolts. The following picture shows this bracket.

Picture A: Metal bracket that needs to be removed.



Some of the newer Passats will have an extra plastic piece under your front fender liner that needs to be removed. It is held on with one Torx screw that is located directly in front of the tire in the fender well.

Picture B: Plastic lip that needs to be removed (Left) and Torx screw in the fender liner (Right).



Once everything has been removed you will have access to the whole underside of your vulnerable engine compartment. Depending on the engine and transmission type, it should look similar to the following picture.

Picture C: Underside of your engine and transmission.



Step #2: Next you will be installing the two Rivet-nuts into the two existing Hexagon shaped holes on the rear sub frame located right behind your oil pan. There are only two holes there that are shaped this way so they won't be hard to locate.

Picture D: Location of where the two Rivet-nuts will be installed on the rear sub frame.



Step #3: To install the Hexagon Rivet Nuts you will want to take one of the 10x40mm bolts in your kit and slide the gold colored washer onto it. Then insert the bolt into the hole on the flat aluminum install tool and then slide the star washer onto the bolt as well. Next you will want to grease the threads on the 10x40mm bolt just like in the picture below. Now simply thread one of the Hexagon rivet-nuts onto the bolt until it is tight against the flat aluminum tool.

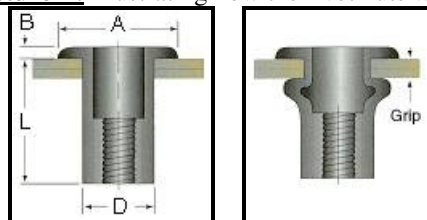
Picture E: Grease applied to the threads of install bolt. (Left) Rivet nut install tool assembled. (Right)



Now simply insert the Rivet Nut that's on the install tool into either hole and tighten to 35 foot pounds torque. While tightening the bolt, make sure the head of the Rivet Nut stays flat against the frame by holding upward pressure on the driver while tightening the bolt. Also the flat aluminum install tool acts as a wrench and will need to be held in place so there is no spinning of the rivet nut. Once tight, remove the bolt and repeat the same procedure for the other Rivet Nut. Don't forget to add more grease to the threads of the bolt.

***Note:** What is happening when you're tightening the bolt is the piece of the rivet-nut inside the hole is basically mushrooming down and pinching the metal causing it to stay very tight. Tight enough to the point where it won't spin when you are finished. Be careful not to strip the threads on the rivet-nut, it takes a lot of strength to do it, but it is possible. Here is an uninstalled (Left) and an installed (Right) picture of a rivet-nut.

Picture F: Illustrating how the rivet nuts work.



Step #4: On either side of the steel lower intercooler pipe or radiator bracket (V6) depending on your engine, there is an existing clip on the thick plastic right beside the radiator. Both of these clips need to be pulled off using a flat head screwdriver. Once they are both removed, the two 8mm speed clips from your new kit get slid onto the same location right over the same hole.

Picture G: 8mm speed clip fully installed.

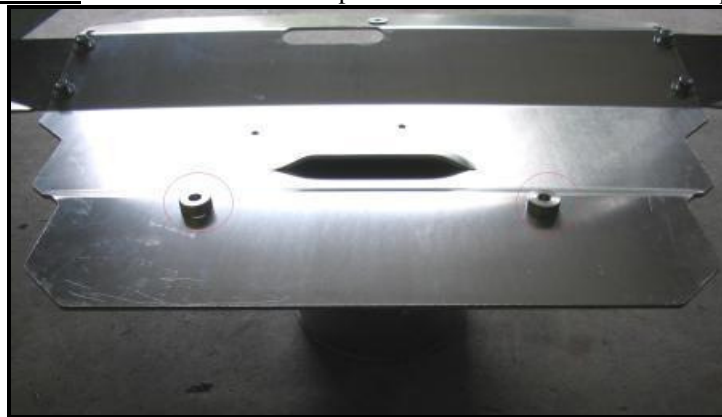


Step #5: Now that all the mounting hardware is installed, you will slide the front of the skid plate in and underneath the plastic front valance into exactly the same position as the stock plastic skid plate. Once slid in you will line up the back two holes of the skid plate with the two rivet-nuts. Take both of the 10x40mm bolts with the lock washer and flat washer on and thread the bolts into the rivet-nuts 3 full turns.

***Note:** Make sure to put Anti Seize compound on all of the bolt threads or they may seize in place over time.

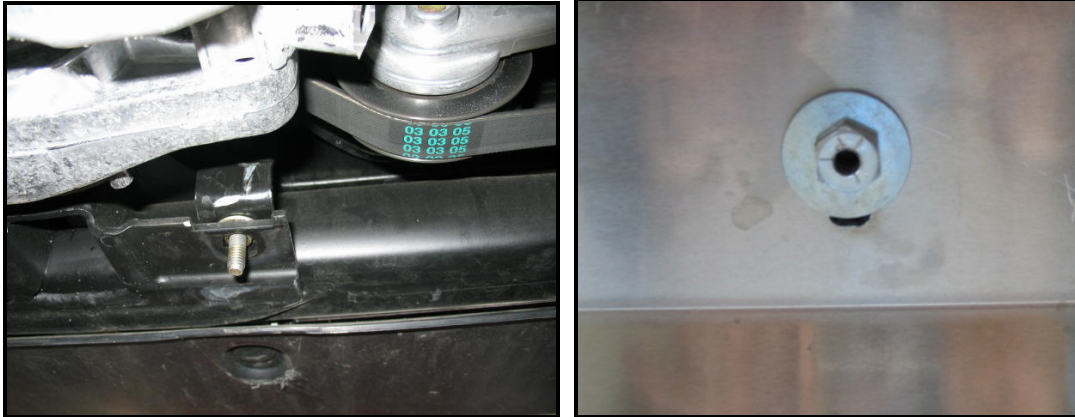
Step #6: (Optional) If you would like to have extra air flow directed over your transmission, you may install the two 1/2" aluminum spacers between the skid plate and the rear subframe. This will create a small gap between the skid plate and the subframe so the air vent on the skid plate can direct the air flow in the appropriate direction. Simply remove one of the 10x40mm bolts and slide one of the spacers on top of the skid plate until it is directly underneath the rivet-nut. Then reinstall the bolt. Repeat the same procedure for the other spacer and bolt.

Picture H: Location of where the spacers are to be located on the skid plate.



Step #7: Next you will want to install the 6mm internally threaded bolt with lock washer and flat washer onto the 6mm stationary bolt right below the radiator. Hold the skid plate so it is firmly against the intercooler bracket or radiator support and thread the bolt onto the 6mm stationary bolt. At this point you will only want to thread it on 3 turns.

Picture I: Stationary bolt. (Left) 6mm internally threaded bolt installed. (Right)



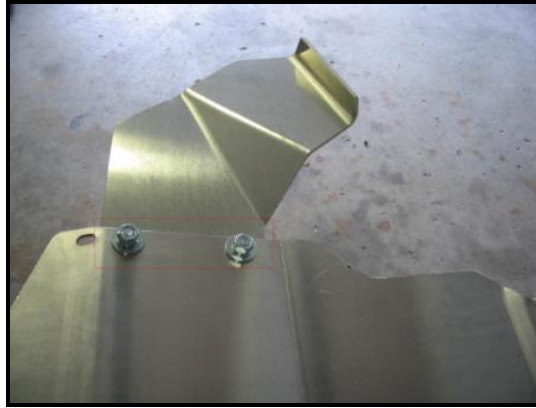
Step #8: Now you will need to thread the bolts into the speed clips on either side of the radiator. These two bolts have lots of length to make it easy to get them into the speed clips.

Picture J: Skid plate bolted to one of the two front speed clips.



Step #9: This next step is to stop the front of your fender liners blowing back into your tires at highway speeds. The side wings bolt onto the skid plate with two bolts and stretch back to hook onto the front of the fender liner. Take the left wing and slide the outer edge slightly under the side valance and line the two hole locations up with the ones on the skid plate. Make sure that the side wing has hooked the fender liner so that the fender liner is being held forward by the side wing. Take one of the 10x25mm bolts with a flat washer on it and insert it through the bottom hole while holding the wing in place. Then place one of the flat washers onto the top side of the bolt and then a lock washer as well. Then take one of the 10mm nuts and thread it onto the bolt until it is finger tight. Repeat the same process for the top front hole only finger tight as well and install the right side wing in the same manner only finger tight as well.

Picture K: How the side wings bolt to the skid plate.



Step #10: Now you will want to snug up the first 5 bolts that bolt the skid plate to the frame. The reason why the bolts were never tightened as soon as they were installed is so you can maneuver the skid plate to line up with the next bolts that needed to be installed. Now once those five bolts are tight you will want to finish the installation of the side wings. Push the side wing as far forward as possible to hold tension on the fender liner. While holding it forward, tighten the back bottom bolt and nut to hold the wing in place. Next tighten the front bolt and nut. Next you will repeat the same procedure with the other wing. This is the only time these wings will need to be installed as they are now part of the main skid plate and will come off as a complete unit at oil change time.

Picture L: Side wing holding the front of fender liner forward.



Installation Completed
Your baby (car) is now fully protected.

If you have any questions or run into any difficulties, please only contact us or the distributor you purchased from as we are the best resource to answer your questions. 250-245-3893

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