



## ATLAS SKID PLATE INSTALL GUIDE

### Once you receive your new Atlas Skid Plate you should have these parts:

- - 1 Aluminum Skid Plate
- - 2 Steel Front Brackets
- - 6 10mm Gold/Silver Rivet Nuts (1 is a spare)
- - 2 10mm Grey Rivet Nuts
- - 3 10x40mm Bolts
- - 6 10x30mm Bolts
- - 3 Polyethylene Washers
- - 5 10mm Large Fender Washers
- - 4 10mm Small Flat Washers
- - 9 10mm Lock Washers
- - 2 10mm Star Washer
- - 2 10mm Countersunk Bolts (For Atlas w/oil cover only)
- - 1 Hexagon Oil Hole Cover (For Atlas w/oil cover only)
- - 1 Rivet Nut Install Tool

### Tools You Will Need:

- Set of Large Metric Wrenches Or Socket Set with Driver
- Flat Head Screwdriver
- Driver with **Wobble Head Extension** and Metric Socket Set
- 1/2" Drill Bit, Utility Knife, Hack-saw, Jig Saw or Die Grinder with Cutoff Blade
- Car Ramps or Jack Stands with Jack
- Anti Seize Compound
- Regular Lubrication Grease
- Torx T20 Screwdriver
- Medium Strength Blue Loctite (For Atlas w/oil cover only)
- 6mm Alan Wrench (For Atlas w/oil cover only)

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 ramps or jack your car up and place jack stands under your car. Also put your emergency brake on and block the rear tires (we recommend using both the ramps and the jack stands). Start by removing all of the Torx T20 screws holding the plastic skid plate to the engine bay side skirts. Remove the old plastic skid plate. (If you have a gas motor you will have a small air deflector skid plate and not the larger plastic skid plate like in the following picture.)

**Picture A:** Showing a plastic skid plate (TDI).



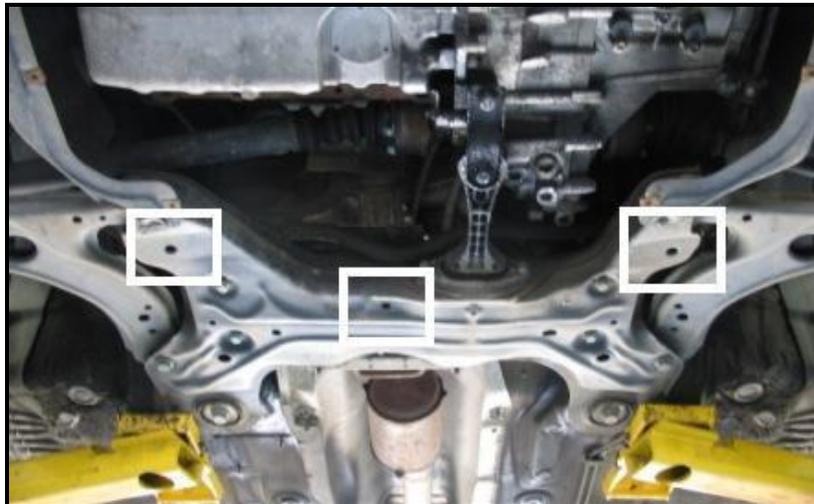
**Step #2:** Now you will need to remove the engine bay side skirts. Both side skirts have two round metal star clips holding them on to stationary bolts on the upper frame rails. To remove them they need to be turned counter clockwise and threaded off the stationary bolts using a flat head screwdriver (careful not to damage the side skirts as you will want to put these back on ). There will also be one Torx screw at the back bottom of each side skirt connecting the side skirt to the lower sub frame. Remove the two Torx screws using your Torx T25 driver. Once the star washers are threaded off the bolts and the Torx screws are removed, the side skirts can be removed by wiggling them forward and backwards while you pull them down and out. On the turbocharged cars you may have to take off the nut on the back end of the lower intercooler pipe so you will have enough room to get the passenger side skirt off.

**Picture B:** Showing the round metal star clips on your side skirts. You will need to thread these off of the stationary bolts (two each side).



**\*Note:** Now that you have removed your plastic skid plate and side skirts you should take some time to familiarize yourself with the underside of your vehicle and where you will be installing the seven Rivet-nuts.

**Picture C:** The following picture shows the lower sub-frame where 3 of the Rivet-nuts will be installed (not yet installed in picture). The left and right holes will have the Grey Rivet-nuts and the center will have a Gold/Silver Rivet-nut installed.



**Picture D:** Here is a picture of our Rivet-nut install tool fully assembled with a Rivet-nut on and ready to be installed. To assemble the install tool take one of your 10x40mm bolts and put a small 10mm flat washer on it. Then insert the bolt through the end hole of the install tool and slide one of the star washers onto the bolt. Next apply a small amount of grease to the threads of the bolt and thread the Rivet-nut onto the bolt all the way down until it is locked tight in place just like in the picture below. A complete description on how to install the Rivet-nuts is in step 3 and 4 of this guide.



**Picture E:** This picture demonstrates how much grease needs to be applied to the threads of the bolt for installing the rivet nuts



**\*Note:** Now that you are ready to install the Rivet-nuts. Make sure to clean the holes the Rivet-nuts will be going into along the upper front frame rails, removing as much wax in the holes as possible (we recommend using a rag draped over a screw-driver to clean the holes if your finger won't fit). Installing the Rivet-nuts is the hardest part of the job so take it from us: "Take your time and enjoy the process of working on your VW."

**Step #3:** Starting with the driver side hole on the lower sub frame, simply insert the Grey Rivet-nut that is already on the Rivet-nut tool into the first hole. Now take your 17mm wrench and start to tighten the bolt while holding upwards pressure to keep the Rivet-nut tight against the hole. The head of the Rivet nut has to stay flat against the sub frame (this also has to happen when installing the front rivet nuts onto the upper front frame rails). The aluminum install tool acts as a wrench and needs to be held tight in one spot so the Rivet-nut does not spin. Keep tightening the bolt until it gets hard to turn. 25 foot pounds of torque at the minimum is required. Once tight, remove the bolt and install tool and repeat the same steps on the passenger side hole of the lower sub frame using the last Grey Rivet-nut. You can install these by yourself however having a second person giving you a hand can make a big difference. One tip is to put a very small amount of grease on the flat washer of the Rivet-nut tool where the bolt head will be spinning. There is a lot of friction there so the grease will make it turn easier.

**Picture F:** How to install the Rivet-nuts on the rear sub frame.



Next you will be installing a Gold/Silver Rivet-nut into the center hole on the rear sub frame. Assemble the tool and Rivet-nut exactly like the picture shows in Picture G. The star washer must be in place with the Rivet-nut for the Rivet-nut to install properly. Insert the Rivet-nut into the hole exactly like in Picture G and tighten to at least 25 foot pounds torque. The process for installing all the Gold/Silver Rivet-nuts are the same as the Grey ones. If you have any issues installing the Rivet-nuts, please call us for support.

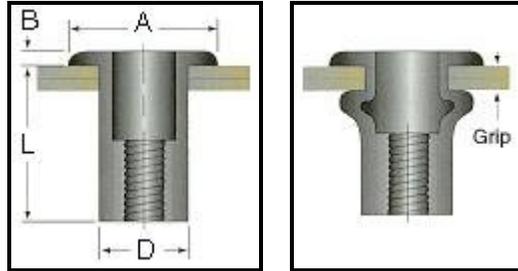
**Picture G:** Showing how to install the Rivet-nut into the center hole on the lower sub frame.



**\*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 frame 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. The pictures are upside down compared to how you will be installing your Rivet-nuts.

**Picture H:** Illustrating how the rivet nuts compress.



Once you feel that the Rivet-nut is tight enough you can start to loosen the bolt, while still holding the aluminum install tool to make sure the Rivet-nut does not spin. Remove the Rivet-nut tool completely and try threading one of the other new 10mm bolts slowly into each Rivet-nut while watching to see if the Rivet-nut spins in the hole. If any Rivet-nut does spin in the hole, remove the bolt and tighten the Rivet-nut more with the Rivet-nut tool to make sure the Rivet-nut does not spin in the hole.

**Step #4:** Now you will be installing the four Rivet-nuts in the upper front frame rails. For this area you will assemble the Rivet-nut install tool with two Rivet-nuts just like in Picture I. Using two of the 10x40mm bolts with a 10mm flat washer on them, insert the bolts through the far left and far right holes in the install tool. The center hole should be left open. Next put a star washer onto both 10mm bolts, apply a small amount of grease to the threads and thread a gold Rivet-nut all the way down both bolts as well. Now bring the whole install tool up to the driver's side upper front frame rail and insert both rivet nuts into the two holes at the same time making sure the Rivet-nut heads are tight against the frame. Then using your driver with wobble head extension, tighten both bolts on the install tool to compress the Rivet-nuts. By having both Rivet-nuts being installed at the same time, this eliminates the need to hold the install tool in place like on the lower sub frame as the second Rivet-nut holds it in place. Now remove the bolts and tool and repeat the same steps on the passenger side upper front frame rail.

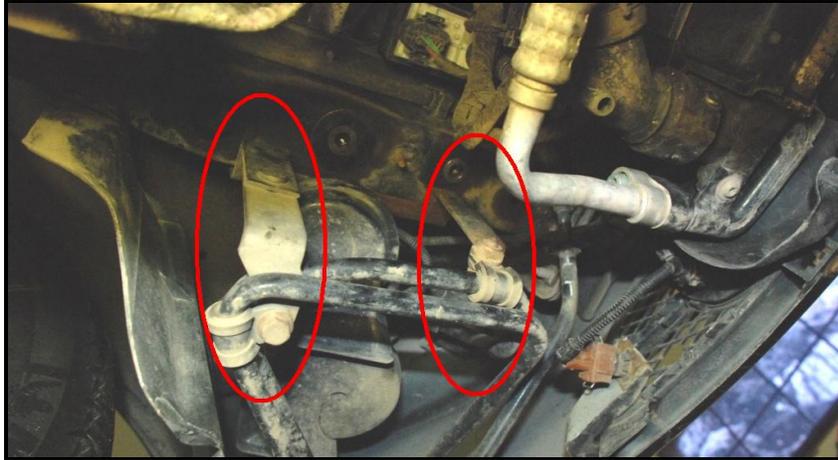
**Picture I:** The Rivet-nut install tool with 2 Gold/Silver Rivet-nuts on it, ready to be installed.



**\*Note:** For Beetle Owners: There will be a metal bracket on the front driver's side of the car that holds some metal tubes. The bracket may have to be loosened off slightly at the top for installation of the rivet-nuts and bracket. There are two size 13mm head bolts holding it on, they only have to be loosened a little, not removed.

**\*Note:** Vehicles with a turbo may have an easier time installing the Rivet-nuts on the passenger side upper front frame rail if the lower intercooler pipe is temporarily removed.

**Picture J:** Metal bracket on the Beetles driver's side that may have to be loosened off.



**Picture K:** Install tool with 2 Rivet-nuts being installed by your driver with wobble head extension.



**Step #5:** Now you are going to modify the top front of each side skirt. You can use a 1/2" drill bit to drill two holes or simply use a utility knife, hack saw, jig saw or die grinder with cutoff disc to cut out a small section of your side skirts. #1 you can simply drill two 1/2" holes into the side skirts where the front brackets will be bolting to the Rivet-nuts. #2 you can cut out the two sections shown in [Picture M](#) where the top of the bracket meets the side skirt.

**Picture L:** This is where you will be drilling your holes or where you can cut out the section in your side skirts. Do not cut away the metal star clip or mount.



**Picture M:** Cutting the area of the side skirts.



**Step #6:** Now install the side skirts back on the car as they were before. If you drilled two holes into the side skirts, make sure they line up with the Rivet-nut holes. If the back bottom of your side skirt is still intact put one of the screws back in, to hold it on to the frame of the car.

**\*Note:** We suggest that you put Anti Seize Compound on the bolts before installation so they won't seize or rust inside. Also provided are 3 Polyethylene washers as a buffer between the aluminum plate and the steel frame on the back three bolts. This is for those concerned about corrosion 20 years down the road.

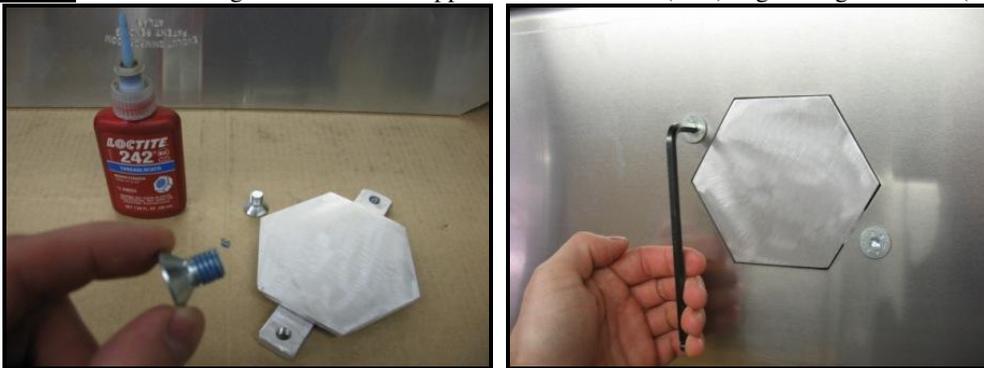
**Picture N:** One of the insulating washers in place and the bolt is ready to be tightened.



**Step #7:** Now loosely bolt both the drivers and passenger blue steel front bracket to the Rivet-nuts in the upper front frame rails. You will be using 4 of the 10x30mm bolts with a lock washer, smaller flat washer and Anti Seize on the threads. The bolts must be loose as you will need a little play in the brackets so you can align the skid plate easier!

**Step #8:** This step only applies to you if you ordered the Atlas skid plate with the hexagon oil cover. To install the hexagon cover, place the cover from the top side of the skid plate so the two threaded holes of the cover line up with the two holes on the plate. Then put a generous amount of Blue Locktite onto the threads of the two counter sunk 10mm bolts like in the following picture.

**Picture O:** Medium strength Blue Locktite applied to the threads. (Left) Tightening the bolts. (Right)



Now simply insert the countersunk bolts through the holes on the skid plate and thread them into the threaded portions of the cover. Tighten the bolts until they are snug and there is no movement of the hexagon cover.

**\*Note:** You must put Blue Locktite onto the threads of these two bolts every time you remove and reinstall them.

**Step #9:** Now you will want to prepare the 5 bolts that will be holding the skid plate onto the car. Take the last two 10x30mm bolts and the three 10x40mm bolts and put a 10mm lock washer onto each one. Now place a 10mm fender washer onto each bolt as well. This would be the best time to put a coating of Anti Seize Compound on the threads of the bolts. Place all the bolts within reach so you can bolt the skid plate on. Now bring the aluminum skid plate into position under the car with the cigar shaped hole towards the back of the car and put the two 10x30mm bolts through the front two holes of the skid plate and into the bottom nut of each front bracket. Then thread in the back three 10x40mm bolts 2-3 turns into the Rivet-nuts on the lower rear sub frame. Once all of the bolts are started you can now tighten the bolts at the top of the blue steel front brackets.

**\*Note:** The reason you are not tightening the bolts right in as you attach them is because you will need some movement of the skid plate for a correct fit. Also make sure all 9 bolts have the supplied lock washers and flat washers on before securing the skid plate. If you want the Polyethylene washers between the skid plate and the lower sub frame, now is the time to put them in.

Once all the bolts are in you can start to tighten the bolts using your driver with a 17mm socket. Start with the back middle bolt, then the back outside 2 bolts and check all other bolts to ensure they are tight.

**\*Note:** Your eyes should not be bugging out when you tighten these bolts, 25 foot pounds will suffice. If you strip out a Rivet-nut you can order replacement ones from us or order some at your local dealership using part number: N 908 106 02

**\*Note:** For Beetle Owners: Don't forget to tighten the front driver's side bracket that you loosened off earlier.

Congratulations!! You are done and your baby (car) is 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. 250-963-3232

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