

## VTT E9X M3 Diff Lock Down install guide



**Thank you for your purchase of the VTT BMW E9X M3 Diff Lock Down kit! The first thing to do when you open your box is to make sure all parts are in their respective bags, and nothing has been left out or lost during shipping. Here is a breakdown of what you should have.**

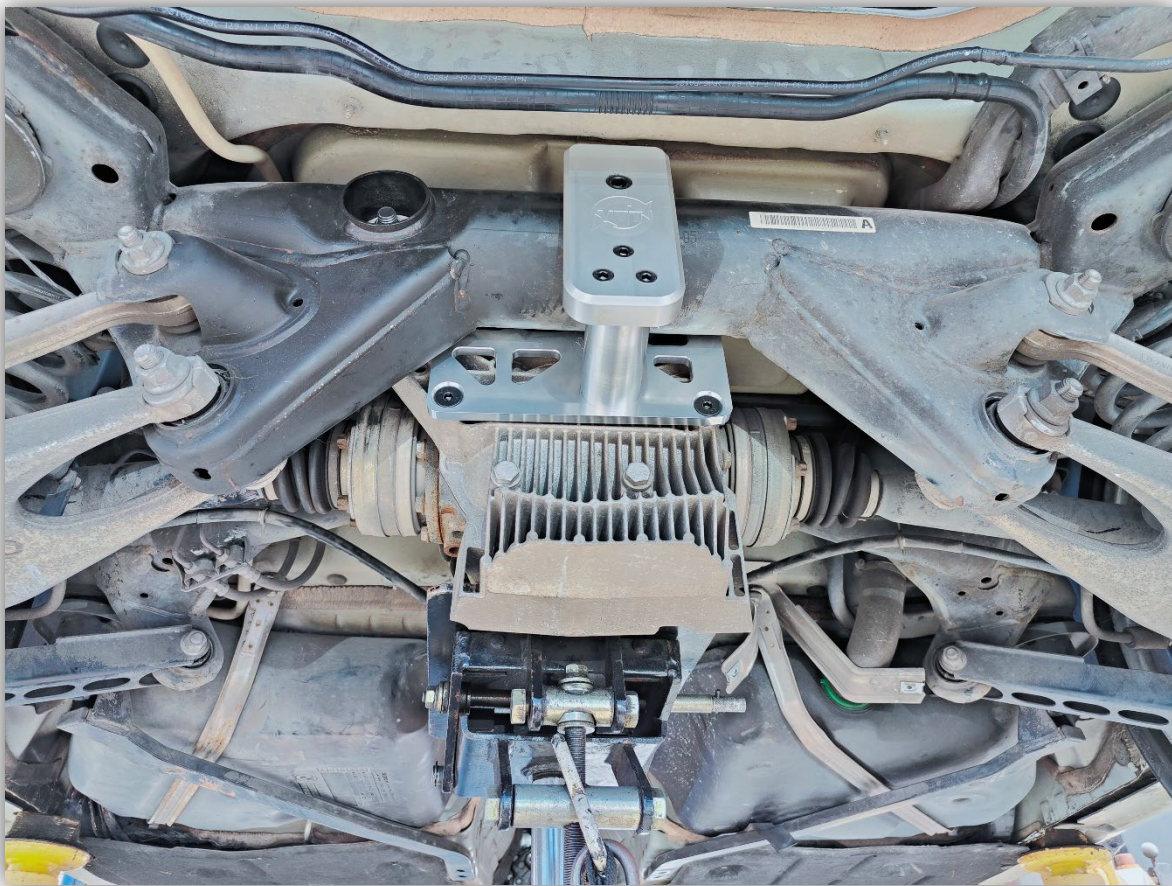
- 1 – Main Diff Plate
- 1 – Connecting Cylinder
  - 1 - Subframe Arm
- 6 - M12x90mm Counter Sunk Bolts
  - 3 – M8 Counter sunk bolts
  - 3 - M8 Socket head bolts
  - 1 – M12 Socket Cap bolt
    - 1 - M12 Riv-Nut
    - 1 - 15mm Drill Bit
    - 1 - power wire
- 1 - M14 Socket 12.9 Socket Cap Diff Bolt
  - 1 – 43mm Washer
  - 1 - 49mm Washer
  - 1 – M14 Lock nut



**Once all parts are accounted for you can proceed with the Diff Lock Down Installation.**

**We suggest this only be done by a qualified technician. If something was missing from your upgrade, please contact us immediately so we can remedy this.**

**READ THE ENTIRE GUIDE BEFORE BEGINNING INSTALLATION!**



**ANY QUESTIONS, OR FITMENT PROBLEMS, PLEASE EMAIL [SALES@VARGASTURBO.COM](mailto:SALES@VARGASTURBO.COM) BEFORE TRYING TO FORCE OR MODIFY ANYTHING. THIS UPGRADE IS PLUG AND PLAY IF THESE INSTRUCTIONS ARE FOLLOWED, ANY ISSUES NEED TO BE ADDRESSED TO AVOID PROBLEMS**

## **INSTALL GUIDE**

**Please note, this guide is intended to help with the installation of the lock down kit only. See tools needed at the end of the guide.**

1. Gain access to the rear diff by removing any undertrays, exhaust, etc. This guide is for the lock down kit ONLY, this is not a guide on how to remove or install anything else on the vehicle.
2. Remove the contents of the trunk and remove the trunk liner to gain access to the area of the subframe that will need to be drilled, and Riv-Nut added. There is one large hole in the center of the subframe arm which needs to be drilled. Using the 15mm drill, drill it out, and using the tool of choice install the M12 Riv-Nut (Fig 1, 2)
3. With that done, support the Diff with a suitable jack and loosen the two M12 bolts from the rear mounts using the 18mm socket, then remove the large diff bolt, and nut, and lower the diff just enough to get to the 6 bolts that need to be removed. PLEASE NOTE, only lower as much as required to get to the bolts, we do not want to put the axles or driveshaft at too much of an angle. Remove the top 6 bolts from the diff (Fig 3)
4. Now take your main Diff lock down plate, and on the bench install the cylinder using the 3 counter sunk M8 bolts. Use blue loc-tight, and TQ to 20 ft/lbs. (Fig 4-8)
5. Bring the main plate and cylinder to the car, and using two of the 90mm bolts install the plate on the diff loosely. Then install the other 4 bolts using blue loc-tite on all. Tq to 40 ft/lbs. (Fig 9,10)
6. Once the main plate is tight, go ahead and raise the diff back into place, and LOOSELY install the two front bolts, the new M14 12.9 bolt with the small 43mm washer against the head of the bolt, and the larger 49mm washer on the other side with the lock nut. (Fig 10-14)
7. Take the Subframe arm, and using the M8 socket cap bolts loosely attach it to the cylinder, line up the M12 hole with the subframe, and install the M12 socket cap bolt. Use Blue Loc-Tite on both. Now tighten the 3 M8 socket cap bolts to 30 ft/lbs., and the M12 socket cap to 60 ft/lbs. (this value is based on the riv-nut not the bolt strength, if you tighten further you risk stripping the Riv-Nut, if this happens you can drill it out, and install a new one) (Fig 15)
8. Once these are tight, you can tighten the two rear factory bolts to factory TQ spec 74 Ft/Lbs., and the new M14 Diff bolt/Washer combo to factory TQ spec 122 Ft/Lbs. as well.
9. At this point the lock down is installed (Fig 16). Double check all your work, and then you can install your removed components in reverse of removal, and enjoy a solidly locked down diff, improved traction, cornering, and rear end feel!

**Fig 1**



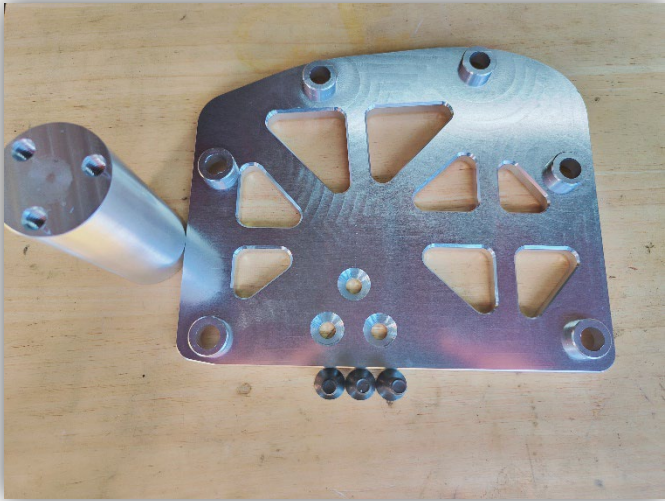
**Fig 2**



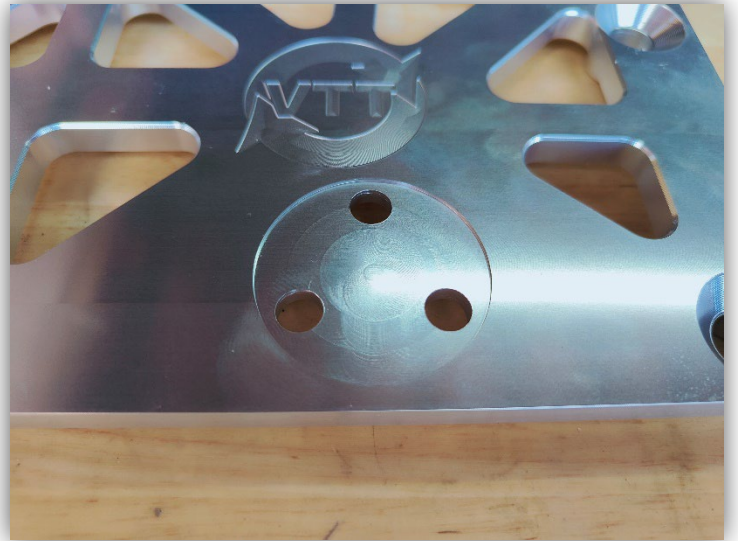
**Fig 3**



**Fig 4**



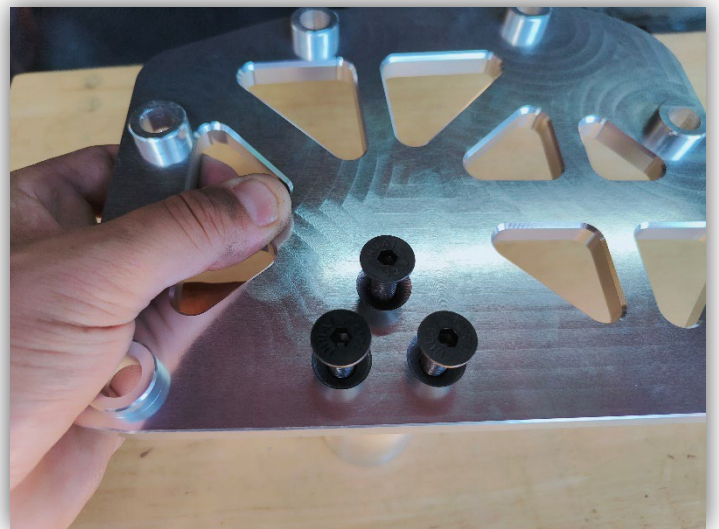
**Fig 5**



**Fig 6**



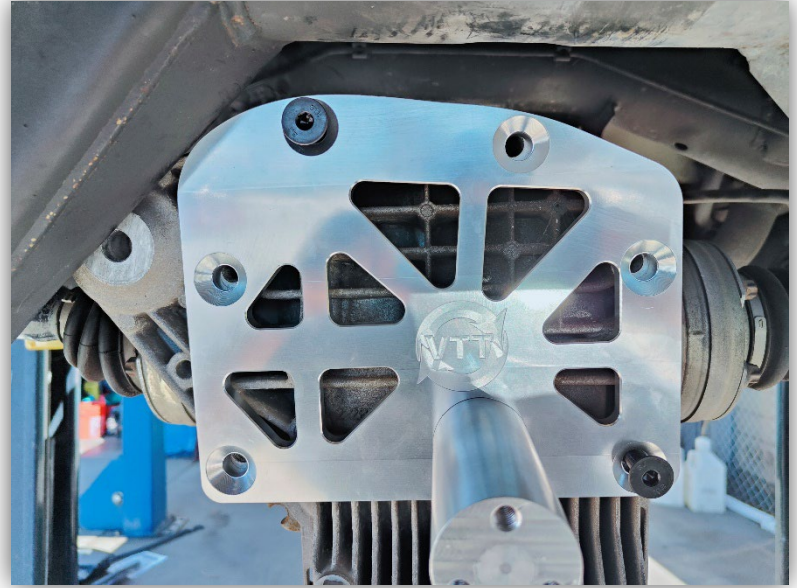
**Fig 7**



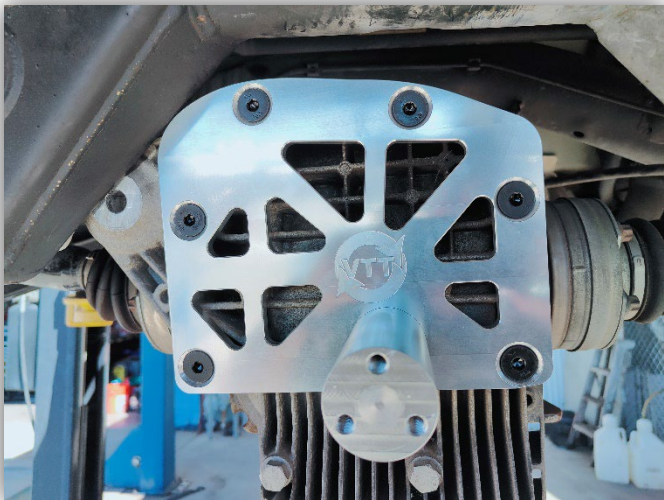
**Fig 8**



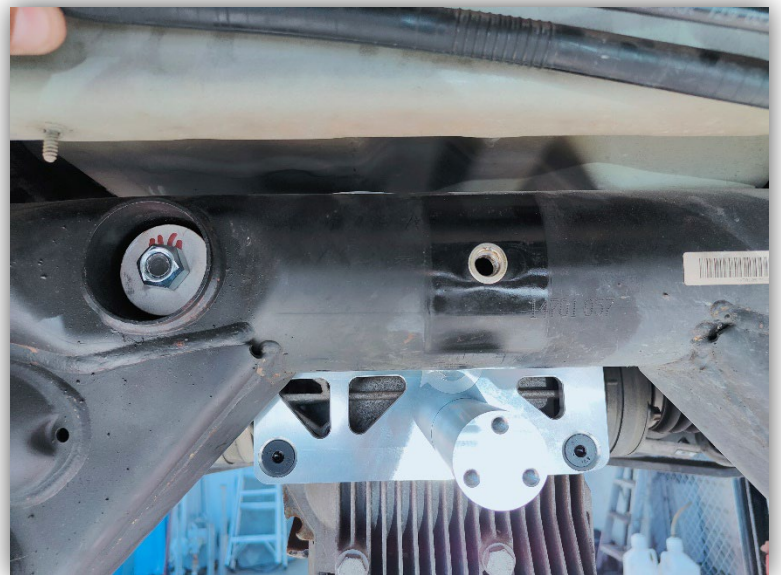
**Fig 9**



**Fig 10**



**Fig 11**



**Fig 12**



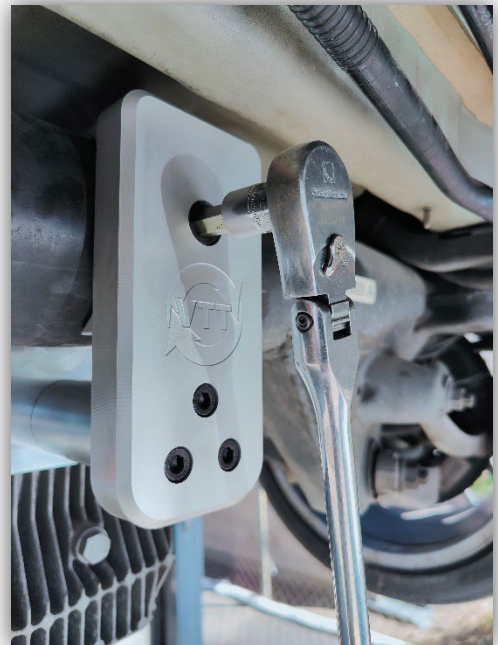
**Fig 13**



**Fig 14**



**Fig 15**





**Fig 16**



- 12mm hex socket
- 10mm hex socket
- 6mm hex socket
- 5mm hex socket
  - 10mm socket
  - 18mm socket
  - 21mm socket
  - 22mm socket
  - Ratchet
- Jack to hold the diff up.
  - Tq Wrench