

42 Draft Designs

VW Mk7 TSI 3" Downpipe – Installation Instructions

Tools Recommended:

- 6mm Allan Wrench
- 7/16" & 1/2" Sockets
- 7/16" & 1/2" Open End Wrenches
- Anti-Seize Compound
- 9mm, 10mm, 13mm, 17mm Sockets
- 9mm, 10mm, 13mm, 17mm, & 22mm Open End Wrenches

Warning! Hot metal burns! Always work on a cool motor.

Before You Begin:

Please read our Mk7 3" Downpipe FAQ prior to performing this installation. A copy may be provided with the product; however our website will always be up to date. Reading our FAQ will ensure that you are 100% familiar with the product and expected results before performing the installation or paying for installation.

Make arrangements to get the car up in the air. If you have access to an automobile lift – use it. The factory downpipe is fairly large and requires some manipulation to remove. This is much easier and safer to do with the car up high. If you do not have access to an automobile lift, this installation can be performed using a floor jack and 4 jack stands. When using jack stands, always follow these precautions:

- Never use the stock jack! It's dangerous.
 - Always lift the car on a flat concrete surface! Jack stands will sink into asphalt.
 - NEVER get under the car when supported by only a floor jack.
 - Be smart – use 4 jack stands on the proper lift points.
 - Always test to be sure the car is sitting solid on the jack stands.
 - Always wear eye protection when underneath a car!
 - Exhaust piping can be hot for 1-2 hours after driving.
1. Starting in the engine bay, loosen the socket cap bolt on the factory v-band clamp using a 6mm Allan wrench. Remove the bolt, open the v-band clamp and slide it onto the turbocharger. The downpipe will remain held in place by the support bracket.
 2. Disconnect the post-catalytic converter (cat) O2 sensor wire from the connector on the firewall. The post-cat O2 sensor has a light gray shield on the wire. Remove the wire from all restraint clips after disconnecting.
 3. Next, raise the vehicle to work underneath. On the back of the engine, locate the axle heat shield. Remove the two 17mm bolts connecting the heatshield to the engine and remove the heatshield.
 4. Now locate the downpipe support bracket. Remove the two 13mm nuts holding the bracket to the catalytic converter. Remove the two 13mm bolts holding the bracket to the engine block. Remove the bracket. The downpipe should now be loose.
 5. At the end of the downpipe, remove the brace by removing four 13mm nuts. Be sure to note the orientation of the brace before removing. Loosen the bolts on the factory sleeve clamp using a 13mm socket. Slide the clamp off the downpipe and onto the cat-back. The downpipe will now be supported only by the front hanger.

6. Move to the front subframe and locate the hanger bracket. Loosen and remove the 13mm bolts from the hanger bracket. The downpipe will now be completely loose.
7. Remove the downpipe by twisting 180° clockwise and pulling through the exhaust tunnel. Be sure to support the catalytic converter and protect the oxygen sensor! The stock downpipe is very flexible and is easier to remove with one person supporting each end.
8. With the downpipe on the ground, note the orientation of the hanger bracket and remove it from the stock downpipe. Remove the oxygen sensor using a 22mm open end wrench.
9. Pre-assemble your new downpipe before installing. Starting with the downpipe and catalytic converter, the tabbed downpipe flange will connect to the catalytic converter flange. When assembled the oxygen sensor bung should face the passenger side of the vehicle. To assemble, slide a washer under the heads of three bolts. Place a gasket in-between the flanges and slide a bolt through the flanges. Install a washer, then a locknut on the back. Align the flanges and use a ½" socket and ½" open end wrench to tighten the bolts with reasonable torque. Repeat to install the cat-back adaptor. WAIT to install the hanger bracket and support bracket!
10. Install the assembled downpipe by placing the v-band end up-side down on the power steering rack. Rotate the downpipe counterclockwise as you push the v-band through the tunnel and upwards towards the turbo. Align the v-band with the turbo charger and allow the downpipe to rest on the power steering rack. Slide the cat-back sleeve clamp over the adaptor to hold the downpipe in place.
11. With the downpipe resting carefully in place, lower the car and prepare to work in the engine bay. Slide the v-band clamp over the assembled v-band flanges and re-install the bolt. Tighten to secure the flanges, but leave loose enough for later adjustment.
12. Raise the car and locate your new downpipe support bracket. Slide the female end of the bracket over the male bracket welded to the downpipe. Bolt the bracket to the engine block using the 13mm bolts previously removed. Tighten these bolts finger-tight. Slide the included 10mm stainless steel hex bolts through the assembled support bracket. Tighten the copper locking nuts with a 9mm open end wrench, leaving room for adjustment.
13. Your new exhaust hanger should come pre-assembled. Locate your factory hanger bracket and note the orientation. Press the pins into the hanger bracket and re-install. The hanger should be located behind the tabbed flange, in-between the flange and the subframe. The slots on the flange and the holes in the bracket should align.
14. Center and tighten the factory hanger bracket using the 13mm bolts previously removed. Bolt the hanger to the flange using the included hardware. Slide a washer under the head of each bolt, pass through the flange and the hanger, add another washer and secure with a locknut. Tighten using 7/16" tools but leave room for adjustment.
15. At this point the entire exhaust system should be installed but free to move. The system should be tightened in a specific order. The following step will lead you through the tightening procedure. For each step, use the same tools used to remove or install.
16. Align the exhaust tips and have a friend hold the muffler in place if a tip is sagging. Center the sleeve clamp and tighten fully. Re-install the underbody brace. Verify that the flex section is roughly centered in-between the power steering rack and the firewall. Tighten the hanger bracket to the tabbed flange. Next, tighten the two bolts holding the downpipe support bracket to the engine block. Tighten the support bracket to the downpipe. Re-install the axle heatshield. At this point the only connection that remains loose is the v-band.
17. Install the post catalytic converter O2 sensor in your new downpipe. Be sure to apply anti-seize to the sensor BEFORE installing. Connect the female end of the extension wire to the O2 sensor and route the cable above the underbody shield. Continue to route the cable over the power steering rack and behind the ABS module. This route keeps the cable far away from the exhaust.
18. In the engine bay, tighten the bolt on the v-band connection. Route the O2 extension cable across the firewall making use of all OEM clips. Plug the male end of the extension cable into the female connector on the firewall.
19. Start the car and listen for any leaks. Wait for the engine to quiet down. There will be no leaks, but it's best to check before removing the car from the lift. Check for leftover hardware or any extra parts. The only thing leftover should be the factory downpipe.
20. Drive it!

What to expect:

- The downpipe should smell like burning oil for about 100 miles. There are oils on the metals leftover from manufacturing. Once burned off, this smell will never return.
- You will feel an immediate increase in boost response. The car will boost faster and maintain power considerably longer.
- Removing two factory catalytic converters and increasing pipe size will result in a louder exhaust note.
- Removing the two factory catalytic converters and replacing with a high-flow converter may result in a CEL. Please read our FAQ carefully if this CEL will be a problem.
- Over the next few years the flanges on the system will rust. This is normal, they are bare steel. The piping will remain the same finish for years, protected by a coating of aluminum. Some rust is normal and does not indicate a sudden death failure.

Installation Tips:

- ALWAYS apply anti-seize to the threads of an oxygen sensor before installing. Oxygen sensors are incredibly expensive these days. Don't risk a seized sensor!