

# *42 Draft Designs*

## Mk3 VR6 Test Pipe – Installation Instructions

**Tools Recommended:** floor jack & 4 jack stands, penetrating lubricant, 17mm socket & ratchet, metal cut-off saw, reciprocating saw or grinder, 22mm open end wrench or adjustable wrench, two 1/2” open end wrenches.

Before you get started, make arrangements to get the car up in the air. If you have access to an automobile lift – use it. In many cases the stock cat bolts must be cut & ground off. 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, ever 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. It must not wobble or teeter.
  - Always wear eye protection when underneath a car!
  - Always work on a cold car! Exhaust piping can be hot for 1-2 hours after driving.
1. With the car in the air, first spray penetrating lubricant on the two 17mm nuts of the stock band clamp and the oxygen sensor. Take a look at the hardware on the stock cat to downpipe connection. Typically these bolts are severely rusted. If you feel you have a chance to remove them using a wrench, determine the wrench sizes and also spray thoroughly with penetrating lubricant. Let everything soak for at least 15 minutes.
  2. Remove the 3 nuts and bolts connecting the cat and downpipe flanges. If you can remove them with a wrench, good luck! If you cannot turn them with a wrench you will need to cut them off. The easiest tool to use for this would be a reciprocating saw or a pneumatic cut-off wheel. An angle grinder can also be used. Before moving forward, put on your safety glasses. If you have a full face shield – wear it as well. Cut the heads off the bolts, or cut the nuts off the bolts. Do not worry about the hardware, but do try to avoid grinding into the flanges.
  3. Pop the hood and locate the oxygen sensor connections. The connectors should be located behind the motor on the passenger side of the engine bay. Specifically, the harnesses are bracketed above the rear motor mount. OBD1 cars – unplug the black connector and undo any clips holding the wire in place. OBD2 cars – unplug the brown connector and undo any clips holding the wire in place. Underneath the car, undo any other clips holding the oxygen sensor wire in place until it hangs freely. Remove the oxygen sensor using a 22mm open end wrench. If you do not have a 22mm open end wrench, an adjustable wrench will work but may be inconvenient
  4. Loosen both 17mm nuts on the stock band clamp. Remove the cat by pulling downward and sliding out of the stock band clamp. Remove the stock gasket if it already hasn’t fallen off.
  5. Pull down on the exhaust and slide the test pipe into the stock band clamp. You may lubricate inside the clamp for an easier install. Rotate the test pipe until the flange meets the downpipe flange. Due to the bend it can only be installed one way.
  6. Slide the new gasket between the test pipe and the downpipe flanges. Install the included hardware. The bolts should install through the downpipe flange and the nuts and washers should fasten on the test pipe flange. Tighten the nuts using two 1/2” wrenches. Torque by hand. A torque wrench or impact gun is not necessary. Tighten the stock band clamp using a 17mm socket. Tighten each side of the clamp as equally as possible.
  7. Install the oxygen sensor at this time. Re-install the wire into the stock clips and re-connect the connector inside the engine bay. Tuck any additional wire under the heatshields & use zip ties when necessary to avoid any extra length of wire dropping to the ground.
  8. Drive It!

**What To Expect:**

- The exhaust 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.
- Listen for leaks and tighten any hardware if necessary.
- Removing catalytic converter and replacing with a test pipe may result in a CEL. Please read our FAQ carefully if this CEL will be a problem.
- Over the next few years the flange on the pipe will rust. This is normal, our flanges 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. There are many coatings you can use to protect the test pipe. Please read over our FAQ for tips & available options.

**Installation Tips:**

- After installing, listen for leaks and tighten any hardware if necessary. It may be necessary to replace the stock sleeve clamp.
- 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.

**FOR OFF ROAD USE ONLY!**