

512203 - COBB Tuning Subaru SS WRX/STO/FXT 3" Downpipe

Part Number – Part Name

WRX, WRX STI 2002 - 2007

Forester XT 2004 - 2008



Congratulations on your purchase of the COBB Tuning Subaru SS WRX/STO/FXT 3" Downpipe! The following instructions will assist you through the installation process. Please read them BEFORE beginning the install to familiarize yourself with the steps and tools needed. If you feel you cannot properly perform this installation, we HIGHLY recommend you take the vehicle to a qualified and experienced automotive technician.

IMPORTANT! Installing this kit will require custom tuning or utilizing an appropriate Stage Power Package map if you have a matching mechanical configuration. Please consult with COBB or an authorized ProTuner in your area if you have any questions!

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Parts List

- COBB Catted Downpipe
- O2 Sensor Bung Plug

OEM Parts (as needed)

- Rear Downpipe Donut Gasket
 - Subaru PN 44022AA123
- Downpipe to Turbo Gasket
 - Subaru PN 44022AA180
- Front Spring Bolts
 - Subaru PN 44059AA010
- Front Bolt Springs
 - Subaru PN 44044AA010

Tools Needed

- 3/8" ratchet
 - 3/8" 7mm socket
 - 3/8" 8mm socket
 - 3/8" 10mm socket
 - 3/8" 12mm socket
 - 3/8" 14mm socket
 - 3/8" 19mm socket
 - Oxygen Sensor Wrench
 - 10mm combination wrench
 - 12mm combination wrench
 - 14mm combination wrench
 - Torque Wrench
 - Cutting Tool
 - Tin Snips
 - or
 - Cut-off Wheel
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Vehicle Prep.

1. In a flat, level area, put the car up on jack stands
2. Allow the vehicle to cool down.



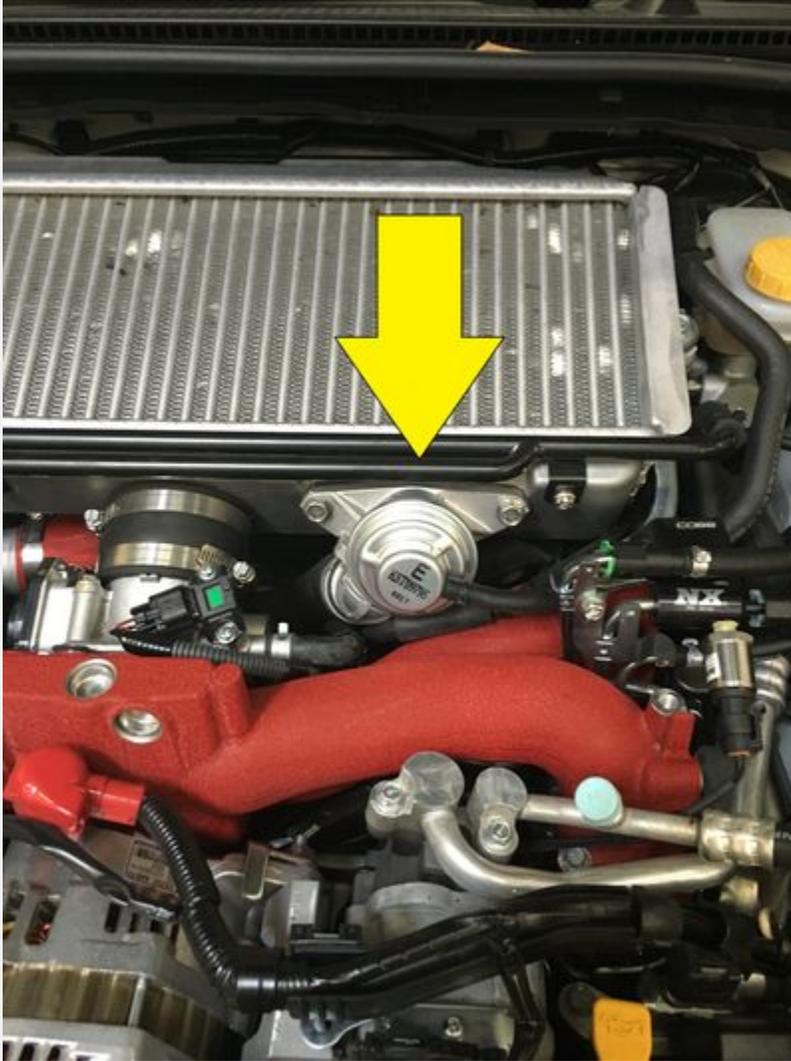
3. Once it's cool, go ahead and spray penetrating fluid on all of the bolts for the downpipe where it meets the exhaust and all of the heat shield bolts. Allow it to sit for 30 minutes or more. (These bolts are very prone to breakage so take your time! In many cases letting it set with the fluid on the bolts overnight is recommended.)

WRX & WRX STI TMIC Removal

These instructions work for the following models

- WRX 2002 - 2007
- WRX STI 2004 - 2019
- Forester XT 2004 - 2009

1. Locate your stock bypass valve.



2. Using a pair of pliers, remove the return line from the bypass valve.

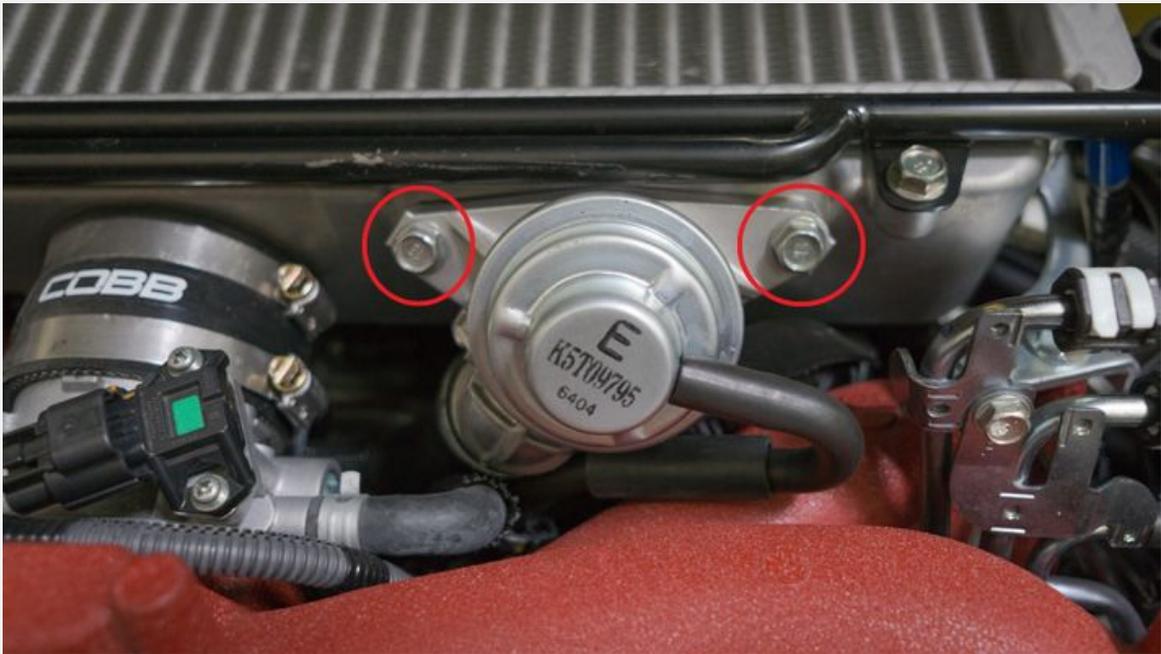


3. Remove the vacuum line from the factory bypass valve.

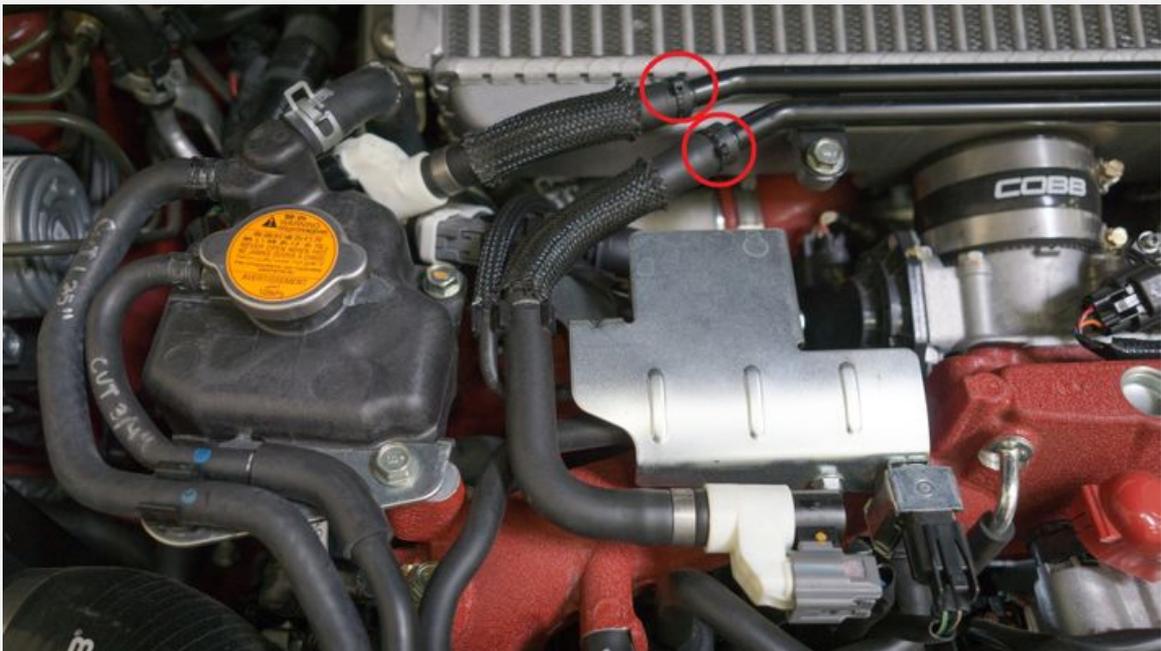


- Using a 12mm socket with ratchet, remove the 2 bolts that hold the bypass valve in place and remove it from the car.

TIP: Make sure to keep an eye on the factory gasket behind the BPV. It can fall when you remove the valve and end up in difficult to reach locations!



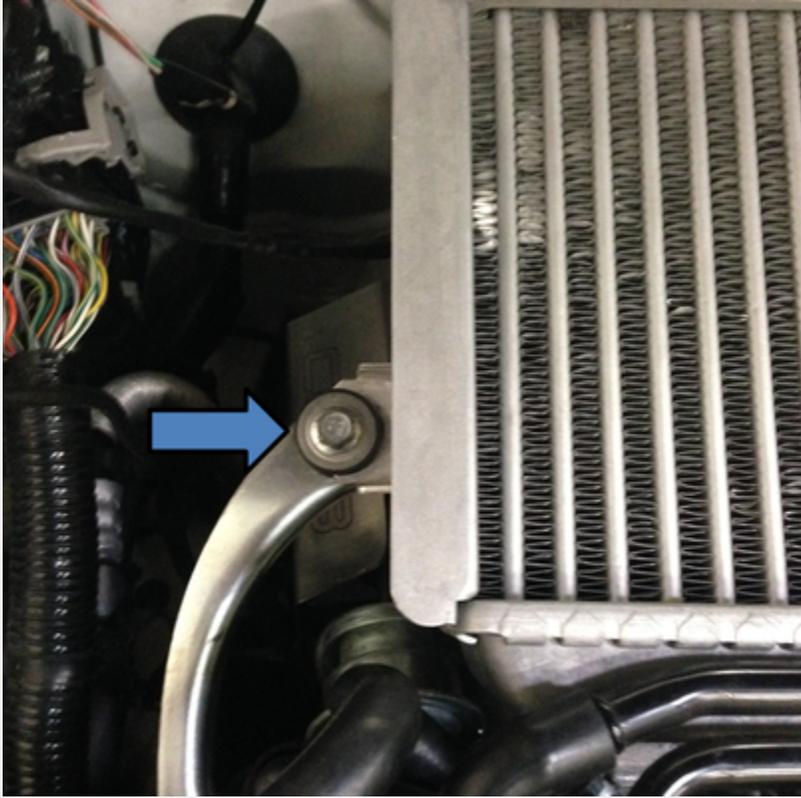
- Remove the bypass valve.
- Remove breather tubes from intercooler. Dikes can be helpful when removing the metal clamps or zip ties.



7. Loosen the turbo outlet clamp using a screwdriver or appropriately sized socket (Typically 7-8mm) along with the (2) throttle body clamps using a screwdriver or 8mm socket.



8. Remove the two bolts securing the intercooler to its brackets.



9. Gently wiggle TMIC free from engine bay by sliding it back and then out. Be careful to not damage your windshield wiper cowl.



Subaru Upper Turbo Heatshield Removal

It may be worth spraying down the bolts with a penetrating oil and allowing them to sit for a little while in order to allow them to come lose more easily without any breakage.

1. Using your 10mm socket remove the two bolts from the driver's side of the heat shield.



2. Followed down by the one on the rear passenger's side.



3. And the two low down near to the passenger's side frame rail.



4. With those items removed you can now remove the heatshield from the car.

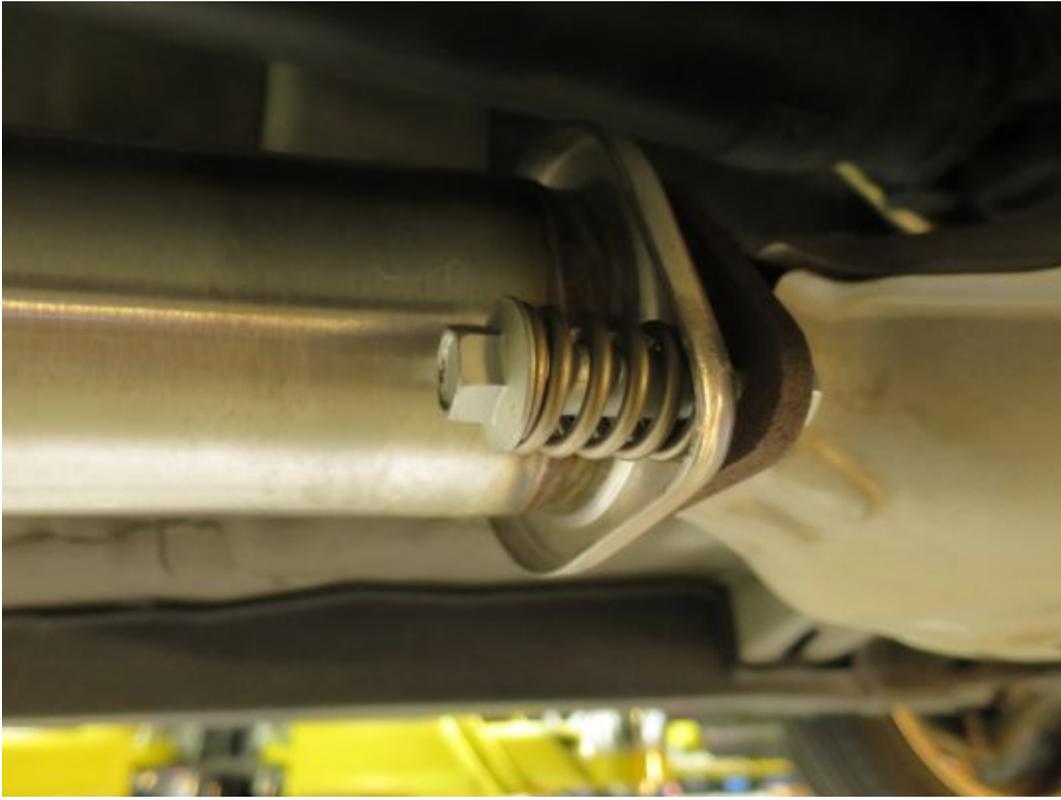
It may require re-clocking the transmission dipstick in order to have the clearance needed to remove the heatshield easily.



5. Now is a good time to check out the heat shield bracket as the factory units are quite prone to cracking and damage. Replace yours as needed.

Downpipe Removal

1. Apply penetrating oil to the bolts on the downpipe. Allow it to sit for a reasonable amount of time before removing.
2. Using a 14mm wrench remove the two 14mm nuts and bolts as well as the three 14mm nuts attaching the downpipe to the turbo. Save these as well as the bracket that held the heatshield for reuse with the COBB Downpipe.
3. Remove the 14mm bolt holding the downpipe to the transmission under the car. This bolt is not used on the COBB downpipe. On some vehicle there may be additional heat shielding preventing access to the bolt, these can be removed.
4. Remove the spring bolts holding the downpipe to your cat-back. Save them for reuse later.
5. Disconnect the rear O2 sensor wiring harness from the connector attached to the transmission.
6. Now that the downpipe is completely loose you should be able to remove it from the car with a little wiggling. If you're having a hard time you can remove the rear piece and remove it in two sections.



7. Using a 22mm oxygen sensor wrench or socket remove the stock O2 sensor (This may also be a good candidate for some penetrating oil).
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Replacement of Donut Gasket

1. In most cases you should be able to reuse the stock donut gasket. To do so slide a flat blade screwdriver under the rear of the gasket and gently pry outwards or turn the screwdriver. Go in little steps all the way around and work it out evenly. Eventually it will pop off.



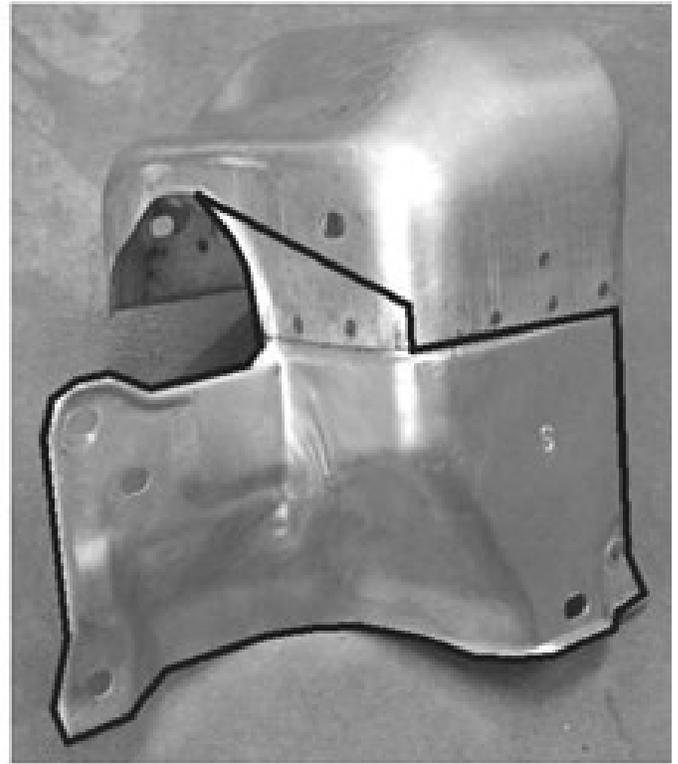
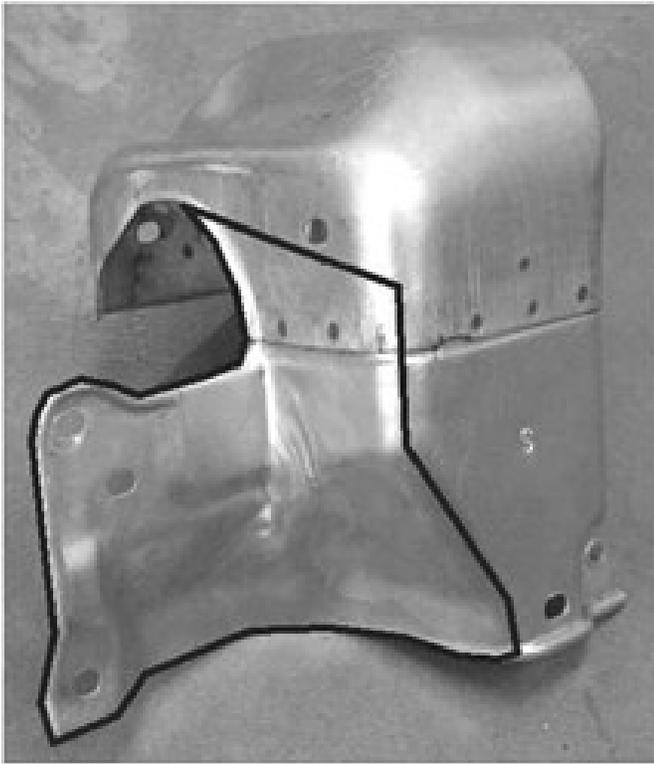
2. If damaged (like ours was) replace the gasket.



3. The new gasket should simply slide into place on the new downpipe.

Optional Step: Heat Shield Modification

If you'd like, at this time you can modify the factory heat shield in order to get it to fit with the COBB Downpipe. In order to do so cut off the lower portion of the heatshield along the lines dictated below.



Installation of COBB Downpipe

1. Install the factory O2 sensor in the rear bung of the COBB Downpipe. Use a small amount of anti-seize on the threads and ensure none gets on the probe of the sensor. Torque to 26 ft-lbs.
2. Using your 19mm socket, ensure the bung plug is tightened to 26 ft-lbs.
3. Make sure the stock downpipe gasket is in place on the turbo.



4. Apply a small amount of anti-seize onto the threads of the studs and the bolts to prevent any issues.
5. Now go ahead and place the downpipe into position sliding it onto the downpipe studs then putting some of the nuts on loosely.
6. Slide the catback into place and bolt it loosely.
7. With the downpipe somewhat in position, add in the bolts and nuts and torque them doing the bolts on the opposite side from where you started rather than the one next to it.
8. Now torque the spring bolts to the cat-back down to 12 ft-lbs
9. Plug in the rear O2 sensor. You'll likely need to remove one of the clips holding the wiring harness to a bracket under the car in order for the harness to stretch to the new location. Make sure to zip tie the harness out of the way as necessary to avoid any issues with the driveshaft.
10. Reinstall the hardware going to the bracket on the transmission torque to 26 ft-lbs.
11. If doing so, reinstall the heatshield. After applying anti-seize to the threads, torque the bolts to 12 ft-lbs.
12. Reinstall the intercooler and make sure the clamps are tight to ensure there are no air leaks.
13. Flash the appropriate map to your vehicle.
14. Go out and Enjoy!

Links

[Subaru Installation Instructions](#)

Main Installation Instruction Repository for Subaru Parts

SUBARU CALIBRATION SUPPORT

Link to Subaru Map Notes to see what map you should be on given the parts you've added

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Web Support and Tech Articles: **COBB Tuning Customer Support Center**

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