ALPHA PERFORMANCE M133 2.0L AMG DOWNPIPE







Introduction

The goal of AMS Performance is to provide the highest quality, best performing products available. By utilizing research and development, and rigorous testing programs AMS Performance will never compromise the quality or performance of our products. In addition, AMS Performance will only provide the finest customer service offering only parts and advice that are in the best interests of the customer. AMS Performance was built on a foundation of integrity. This is who we are; this is what you can count on.

A vehicle modified by the use of performance parts may not meet the legal requirements for use on public roads. Federal and state laws prohibit the removal, modification, or rendering inoperative of any part or element of design affecting emissions or safety on motor vehicles used for transporting persons or property on public streets or highways. Use or installation of performance parts may adversely affect the drivability and reliability of your vehicle, and may also affect or eliminate your insurance coverage, factory warranty, and/or new OEM part warranty. Performance parts are sold as-is without any warranty of any type. There is no warranty stated or implied due to the stresses placed on your vehicle by performance parts and our inability to monitor their use, tuning, or modification.

These instructions are provided as a guide only as there are many variables that cannot be accounted for concerning your particular vehicle, including but not limited to model year differences, model differences, the presence of non-OEM parts, and modifications that may already be or were previously installed. A basic knowledge of automotive parts and systems is helpful but a better understanding of the parts and systems on your particular vehicle may be required.

If you have any questions or issues at any time during the installation of your AMS Performance product(s) please call us for technical assistance. The AMS Performance tech line can be reached during business hours at 847-709-0530 for AMS Performance products only.



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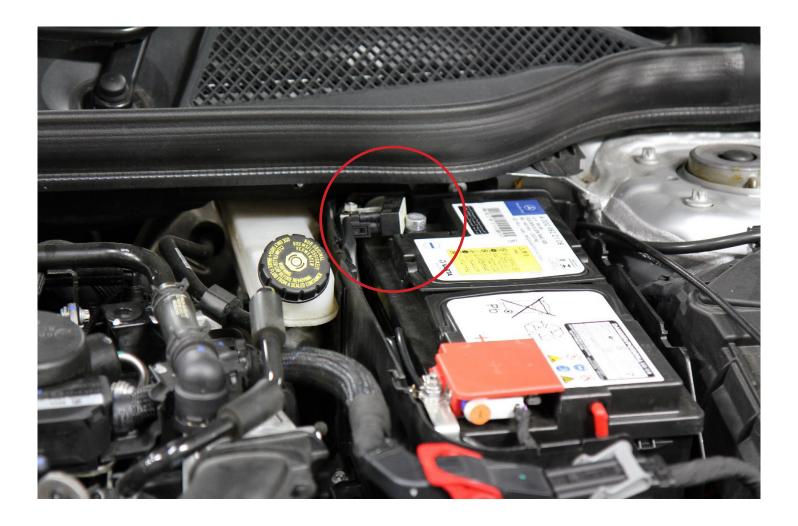




1) Remove the engine cover and battery cover. Remove the engine cover by pulling upwards while give the cover a wiggle to release the grommets holding it in place. Remove the battery cover by sliding it forwards to the front of the car and then lifting up.



2) Disconnect the negative battery terminal. The ECU may have to be removed.





3) Remove the air box inlet duct. If using our carbon inlet, first start by removing the ECU. Lift the air box up as high as possible to remove the duct. Reset the air box back into place after removing the duct.

Note: Take care releasing the ECU connectors. Carefully release the tab that holds the Grey and Red levers in place. Pull the levers one at a time to unseat the connectors from the ECU. If they are difficult to release, wiggle the connector while pulling the lever. Pull the connectors off to the side.





4) Remove the turbo heat shield by removing the three E10 Torx bolts.



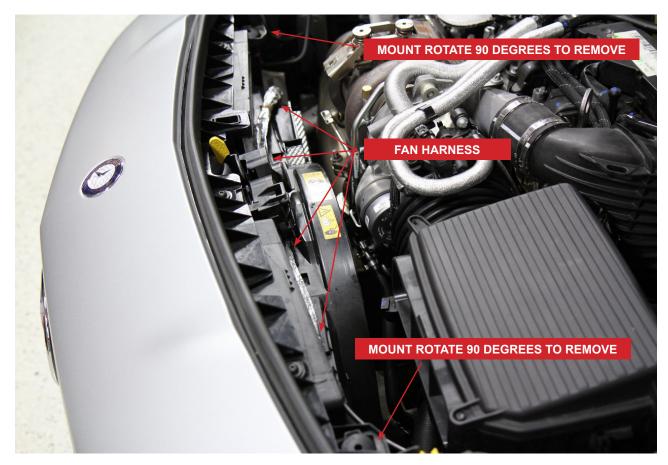
5) Remove the primary A/F sensor.





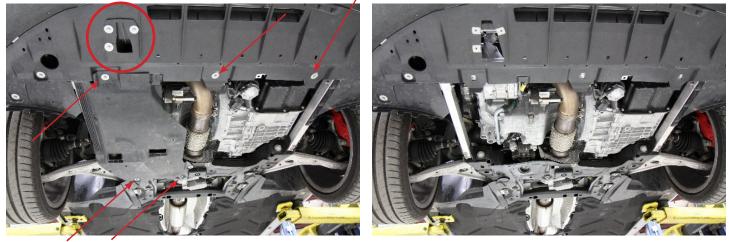
6) Remove the radiator fan. This will be the most difficult part of the install. The fan will take a bit of time to figure out how to remove it. It will take a little trial and error but will not require force to remove.

- First start by removing the upper radiator mounts. Do this by turning the upper part of the mount 90 degrees. When turned 90 degree, the tabs will clear the mounting area and can be removed. The easiest way I found to do this is to use needle nose pliers to turn the mounts. You also may have to wiggle the radiator itself to aid in removing the mounts.
- Disconnect the fan control module on the passenger side of the fan. It is a large connector with a harness covered in silver heat wrap. Once disconnected, disconnect the clips holding the harness to the fan and pull the harness over to the driver's side.
- Release the harnesses connected to the driver's side of the fan. These maybe difficult to get to at first. The harnesses are held in place by fir tree mounts. Carefully pry the mounts off the fan.
- Complete removal of the air box may aid in reaching the harnesses.
- The fan slides into brackets on the radiator. Push the radiator towards the engine, release the upper tabs of the fan and pull upwards. You will need to push the radiator towards the engine so the fan clears the hood latch.
- Take care when removing the fan. It will take a little side to side motion while pulling it upwards to remove it from the car.

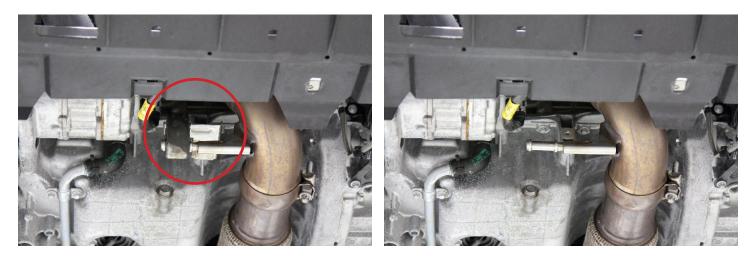




7) Under the car, remove the small under tray and the downpipe air duct shown in the picture. Also remove the two bolts shown holding the front bumper.

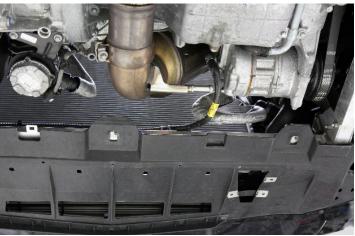


8) Remove the downpipe hanger mount by removing the two E12 Torx bolts.



9) Remove the T25 Torx screw holding the harness in place shown in the picture below. Also remove the Fir clip just to the left. The harness will need to be pushed back slightly towards the radiator when removing the stock downpipe.







10) Remove the lower downpipe section with the flex. Remove the two exhaust clamps with E12 Torx bolts. Remove the lower downpipe section out towards the front of the car.



11) Disconnect the secondary O2 sensor. The sensor can remain in the downpipe for removal. The connector is accessible from under the vehicle. The connector is located just above the outlet ball flange of the downpipe and is clipped into a bracket on the engine.

12) This step is important! Locate a thick or multiple pieces of cardboard. Place the cardboard in front of the radiator. When dropping the factory downpipe out the bottom of the car, the turbo flange will touch the radiator. Without something there to protect the radiator, the chances of damaging it will be very high.

13) Remove the two E12 Torx bolts of the V-band clamp holding the downpipe in place. Use some type of rust penetrant on the bolts prior to removal. Without it, the bolts can gall and seize in the clamp. The clamp will need to be pried off the flange. Take care when doing this so not to damage any surrounding components or allowing the downpipe to fall.







14) To remove the downpipe, move the down pipe forward to the radiator. Then slide the downpipe over to the drive's side so the turbo flange is just past the turbine housing. Once past the turbine housing, start to guide the downpipe down out the bottom of the car.



15) When the down is out, swap over the secondary O2 sensor to the new Alpha Downpipe.

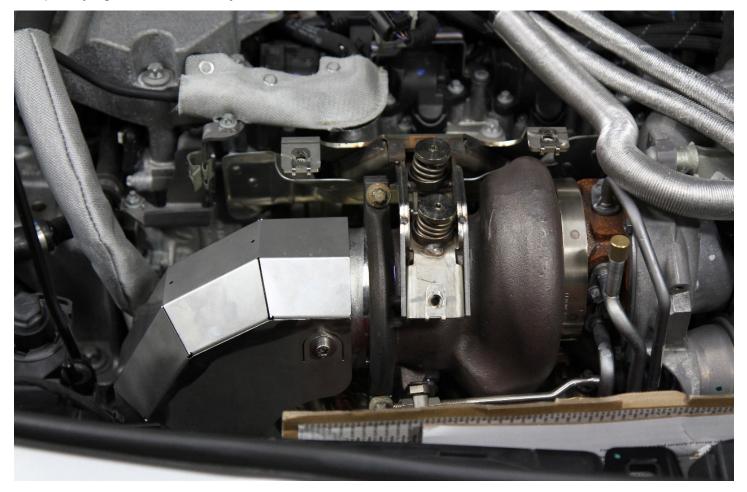
16) The upper heat shield is already installed. Double check the six bolts are tight before installing the downpipe.





INSTALLATION

17) The Alpha downpipe can be installed from the top. Carefully install the downpipe and loosely install the factory V-band clamp. Add a little bit of anti seize or rust penetrant to the bolts of the V-band prior to installation. Make sure the downpipe flange can rotate for adjustment at the bottom. Do not completely tighten the V-band yet.





18) Reinstall the factory lower downpipe section. Before completely tightening the ball clamps, make sure the clocking and alignment of the pipe is correct. During tightening of the ball clamps, make sure to apply pressure to join the flanges together, otherwise the ball clamp may not apply tension to the connection and flanges could leak.



19) Bolt AMS downpipe bracket in the stock bracket location with the stock bolts. Install downpipe bushing onto the downpipe hanger with the bushing bracket, and bolt to the AMS downpipe bracket using supplied bolts (picture below shows nuts used instead, your kit will be supplied with bolts).





20) Completely tighten the factory V-band clamp when the lower connections and mount are installed.

21) Reconnect the secondary O2 sensor.

22) Reinstall the primary A/F sensor.

23) Reinstall all the components in the reverse order of steps # 1-9. Take care when reinstalling the radiator fan making sure the fan is completely seated and the harnesses removed are in the correct locations.

24) Start the vehicle and check for any noise of exhaust leaks.

25) It will be a good idea to recheck and tighten the factory turbo to downpipe V-band after some driving. It is possible for the clamp to loosen up with the new downpipe until the flanges settle in.

26) Enjoy!

