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# FORD RAPTOR & F150 ECOBOOST TURBO INLET TUBES

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## 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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## Removal

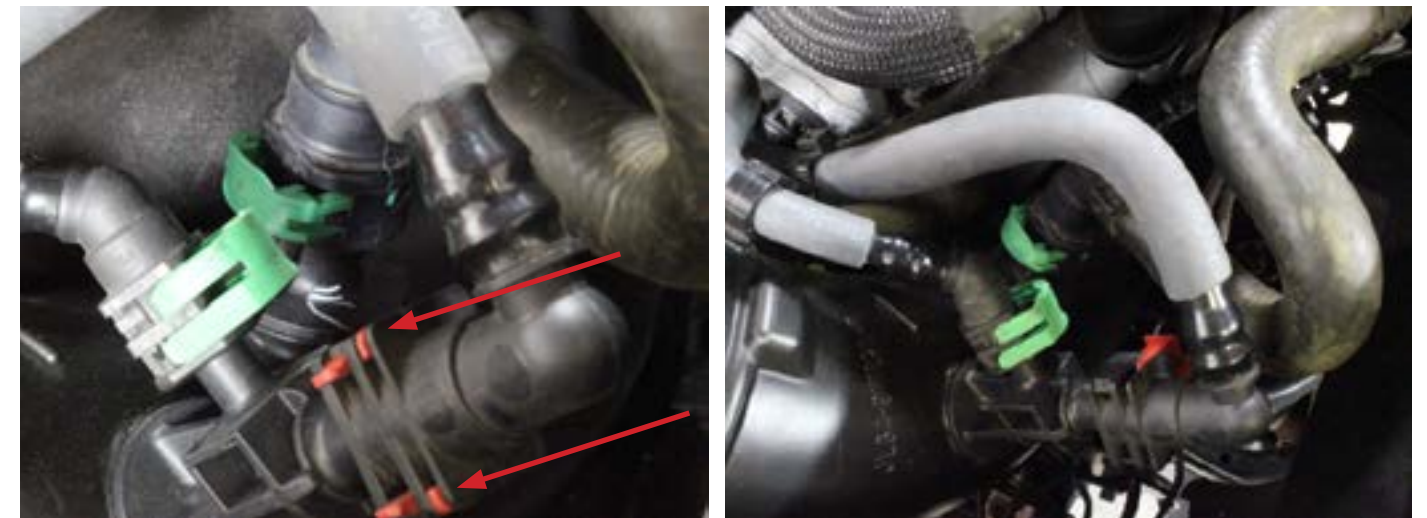
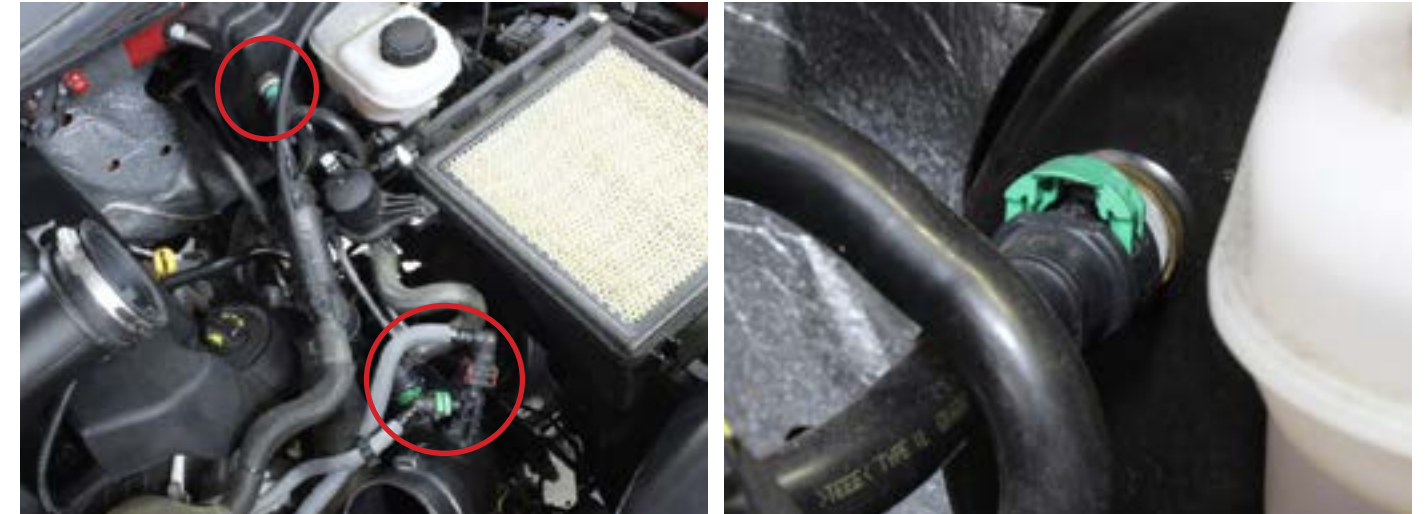
1. Disconnect IAT wiring harness and coolant bleeder hose from OEM intake assembly.



2. Release two clips for OEM airbox cover and loosen two hose clamps securing airbox cover to OEM turbo inlet tubes. Separate airbox cover from turbo inlet tubes and place airbox cover assembly on top of engine cover.



3. Disconnect the fittings shown from left (Driver's side) OEM turbo inlet tube. The green quick disconnects can be released with a flathead screwdriver. The red quick disconnect is released by pinching the lower legs together.



4. Unplug sensor harness by sliding white clip in the direction of the arrow and using flathead screwdriver to pry up on black locking tab underneath white clip. Unplug small vacuum line.



5. Use flathead screwdriver to release the sensor from airbox mounting tab. Move entire hose/sensor assembly out of the way and rest on engine cover.



6. Unplug PCV quick disconnect fitting from left tube by releasing grey locking tab.



7. Disconnect bypass valve return hose from left tube. Release quick disconnect by rotating grey connector in direction of arrow shown while pulling away from tube.

8. Use moderate force to pry left tube in direction of arrow to release tube from mounting grommet. Mount location is underneath circled area.



9. From left front wheel well, use long screwdriver or 7mm socket with extensions to loosen hose clamp on left tube.



10. Remove left side OEM turbo inlet tube from engine bay.



11. Use moderate force to pry right (Passenger side) turbo inlet tube in direction of arrow to release tube mounting grommet. Mount location is underneath circled area.



12. From right front wheel well, use long screwdriver or 7mm socket with extensions to loosen hose clamp on right turbo inlet tube. Remove right tube from engine bay.



## Component Preparation

**Note:** Orientation of silicone couplers and hose clamps are critical to ensure proper fitment. Silicone couplers are marked 'L' and 'R' to denote the correct side for installation. Orientations shown are with tubes laying on a flat surface.

13. Insert both silicone couplers onto corresponding AMS Turbo Inlet Tubes until silicone bottoms out. The coupler marked "L" attaches to the shorter tube with multiple fittings on it. Lay tubes on a flat surface and orient silicone and hose clamps to match pictures below. Fully tighten large hose clamps securing silicone to tubes to 16 in-lbs. Take care to not overtighten clamps if using a ratchet. Loosely tighten small hose clamps enough that they stay in place during installation.

**Note:** For reference, 22 in-lbs. is about as tight as you can secure a hose clamp by hand using a screwdriver.



# Install

14. Align left AMS Turbo Inlet Tube silicone and seat silicone onto turbo inlet as shown. Once the silicone is in position, loosen hose clamp 1.5-2 turns from wheel well. While firmly grasping inlet tube from engine bay, use a twisting motion while applying force towards turbo to seat silicone to turbo inlet. Ensure silicone is fully seated onto turbo inlet and tighten hose clamp.



15. Reseat left AMS Turbo Inlet Tube into mounting grommet underneath circled area. Reattach all hoses (3x green clip, 1x red clip, PCV hose, bypass valve return hose), remount sensor, and attach sensor harness. Return the white clip on sensor harness to locked position.



16. Place right AMS Turbo Inlet Tube into position and orientation shown. Use hand to squeeze silicone in direction shown by arrow with moderate to heavy pressure to clear strut tower area (circled). Picture on right shows position of tube after it has cleared strut tower area.



17. Align right AMS Turbo Inlet Tube silicone and seat silicone onto turbo inlet. Once the silicone is in position, loosen hose clamp 1.5-2 turns from wheel well. While firmly grasping inlet tube from engine bay, use a twisting motion while applying force towards turbo to seat silicone to turbo inlet. Ensure silicone is fully seated onto turbo inlet and tighten hose clamp.





18. Reseat right AMS Turbo Inlet Tube into mounting grommet underneath circled area and replace OEM airbox cover. Tighten two remaining hose clamps and reattach coolant bleed hose. Do not overtighten hose clamps especially if using T-bolt clamps or if using a ratchet to tighten clamps. Torque clamps to 16 in-lbs.

**Note: For reference, 22 in-lbs. is about as tight as you can secure a hose clamp by hand using a screwdriver.**

- 19) Double check all connections after installation.
- 20) Enjoy!

