



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

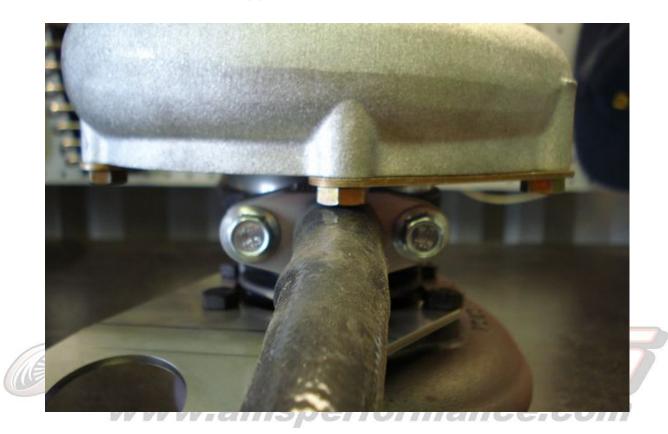
A vehicle modified by the use of performance parts may not meet the legal requirements for use on public roads. Federal and state laws prohibit the removal, modification, or rendering inoperative of any part or element of design affecting emissions or safety on motor vehicles used for transporting persons 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, installation, 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.

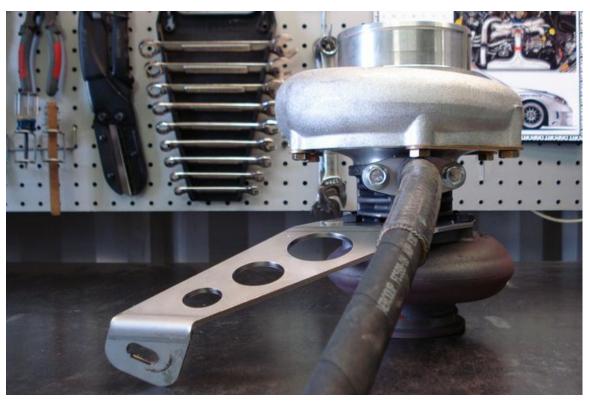
If you have any questions or issues at any time during the installation of your AMS product(s) please call us for technical assistance. The AMS tech line can be reached at 847-709-0530 during business hours.

Turbo Clocking

Use the pictures below to correctly clock the turbo, install oil feed and return lines and install support mount.









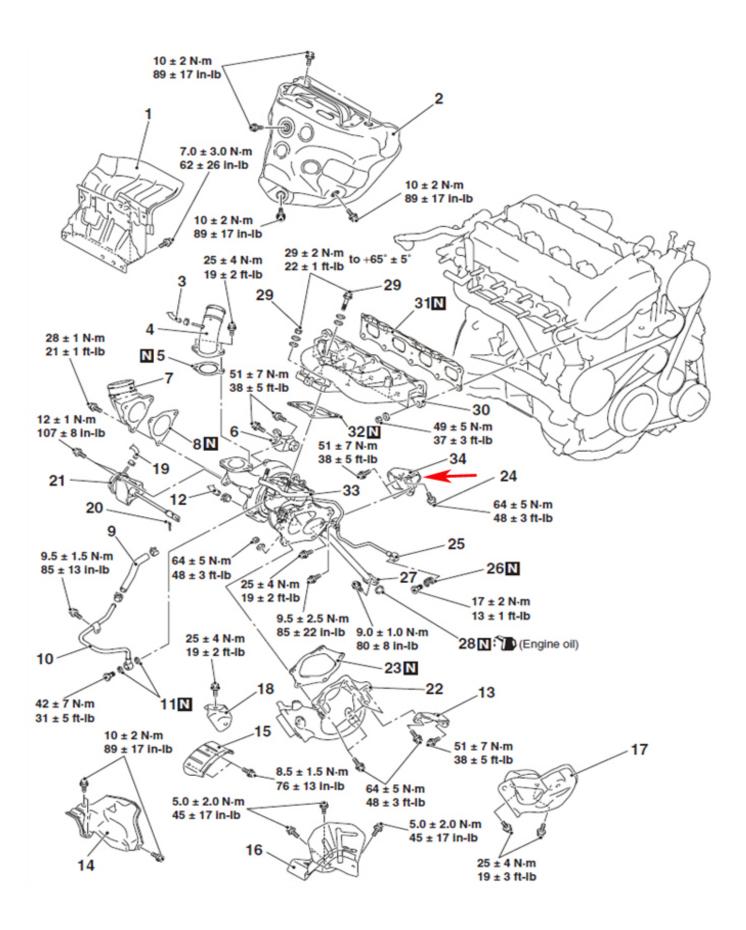
Install Instructions

- 1. Disconnect ground terminal of the battery, the battery is located in the trunk behind the passenger side panel.
- 2. Remove the strut tower brace and plastic engine cover
- 3. Remove the air intake system.
- 4. Remove the OEM intercooler pipe connecting the turbo to the intercooler
- 5. Jack up front and use suitable jack stands to safely support car
- 6. Remove the undertray
- 7. Drain oil and coolant
- 8. Remove the factory exhaust manifold and turbocharger, the below steps are from the factory service manual. Leave bracket #34 on the engine this is used to support the new turbo.

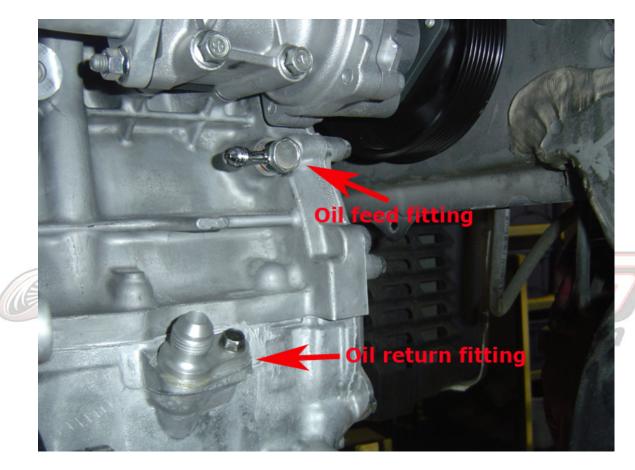
Turbocharger Removal steps

- 1. Dash panel heat protector
- 2. Exhaust manifold cover
- 3. Emission vacuum control hose connection
- 4. Turbocharger air outlet fitting
- 5. Turbocharger air outlet fitting gasket
- 6. Turbocharger compressor bracket
- 7. Turbocharger air inlet fitting
- 8. Turbocharger air inlet fitting gasket
- 9. Turbocharger water feed hose
- 10. Turbocharger water feed pipe
- 11. Gasket
- 12. Turbocharger water return hose
- 13. Turbocharger exhaust outlet fitting bracket
- 14. Transfer heat protector
- 15. Drive shaft heat protector
- 16. Steering gear and linkage heat protector
- 17. Turbocharger protector A
- 18. Turbocharger protector B
- 19. Emission vacuum control hose connection
- 20. Turbocharger pin
- 21. Waste gate actuator
- 22. Turbocharger exhaust outlet fitting
- 23. Turbocharger exhaust outlet fitting gasket
- 24. Turbocharger bracket and turbocharger assembly coupling bolt
- 25. Turbocharger oil feed tube connection
- 26. Gasket
- 27. Turbocharger oil return tube connection
- 28. O-ring
- 29. Exhaust manifold and turbocharger assembly coupling bolt and nut
- 30. Exhaust manifold
- 31. Exhaust manifold gasket
- 32. Turbocharger gasket
- 33. Turbocharger assembly





- 9. Install AMS exhaust manifold.
- 10. Install supplied cam sensor shield w/ supplied bolt. This protects the rear cam sensor on the driver's side of the motor.
- 11. Install return line flange.
- 12. Install oil feed banjo bolt.

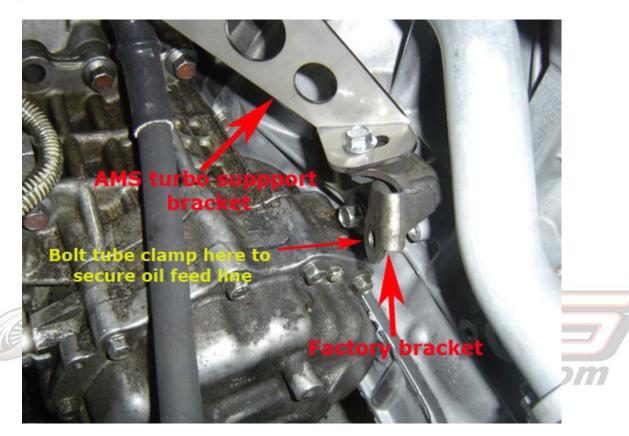


13. Install turbo assembly loosely with v-band clamp. You may have to slightly bend the metal vacuum lines up for clearance.





14. Take a look at the support bracket where it bolts to the factory bracket. IF there is a space in between the two this space must be filled with the supplied thick M12 washer, this must be done to ensure the support bracket will not be getting pulled down. Install the nylock nut and bolt at bottom of support bracket to hold the assembly in place. Leave loose for now to allow movement of the turbo.



15. At this point you can now tighten the v-band clamp connecting the turbo to the manifold a little more but still allow the turbo to rotate. Notice the orientation of the clamp the nut should face towards the passenger's side and be parallel to the firewall. Make 100% sure the turbo is perfectly lined up with the manifold. The receiver groove in the turbine housing will mate up with the raised ridge on the manifold.



16. Install downpipe and once all connections are lined up tighten the downpipe to the exhaust connection, the downpipe to turbine housing connection, the turbine housing to the exhaust manifold connection and finally the support bracket mount.



- 17. Attach return line to -8 fitting on block.
- 18. Install oil feed line, route away from heat.



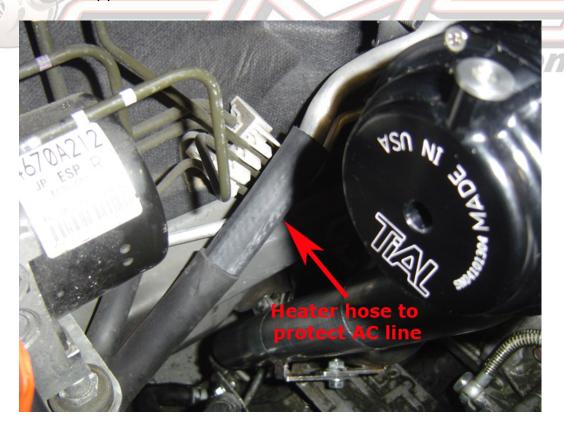
19. Install wastegate and dumptube. (If you bought the wastegate water cooling kit refer to those instructions now).



20. Loop turbo coolant lines. (Don't do this if you bought the optional wastegate water cooling kit.



21. Install supplied heater hose on AC line that is on the firewall.



22. Install firewall shield.







23. Install manifold shield.



- 24. Install hot-side intercooler piping. Wrap area near turbo with heat reflective tape.
- 25. Install intake. If clearance between the evap, brake booster and fuel lines is tight lightly bend hard lines up for added clearance. Also, if you are running a pcv and/or a boost control return line to the intake you will need to drill for the included vacuum fittings and grommets. The drill size is $\frac{1}{2}$ ".
- 26. Refill oil and coolant
- 27. Start vehicle and CHECK FOR LEAKS!
- 28. Check oil level
- 29. Let car warm up to bleed cooling system and let fan turn on
- 30. **GET TUNED!!!!!!!**

