

# Forced Performance

## Subaru Oil Line Installation Guide- 2022 Revision

By far the single most common turbo failure mode for Subaru EJ and FA engine applications is insufficient oil pressure at the turbocharger. Performance applications should avoid 0w-30 and 5w-30 engine oils that are designed around fuel economy at the sacrifice of film strength. Running a 10W-40 or a 15W-40 motor oil can increase hot oil pressure at the turbo 50% from 5-7psi at idle to 12-15psi and offer much better film strength protection for your turbocharger bearings. This is even more important in non-factory engines where the engine bearing oil clearances are often greater than stock engines. If you are shocked to learn that a typical EJ engine makes 5-7psi hot idle oil pressure at the turbo you are not alone, take the right steps and avoid problems.

Using this guide, you will be able to install your oil feed line with relative ease. This kit is only designed for Forced Performance turbochargers in the factory location and will provide your larger than stock turbo with additional oil pressure and volume.

Your FP Subaru Oil Line Kit (henceforth referred to as the kit) has the following components shown in the picture below. Please identify and familiarize yourself with them.

-4an sheathed oil line

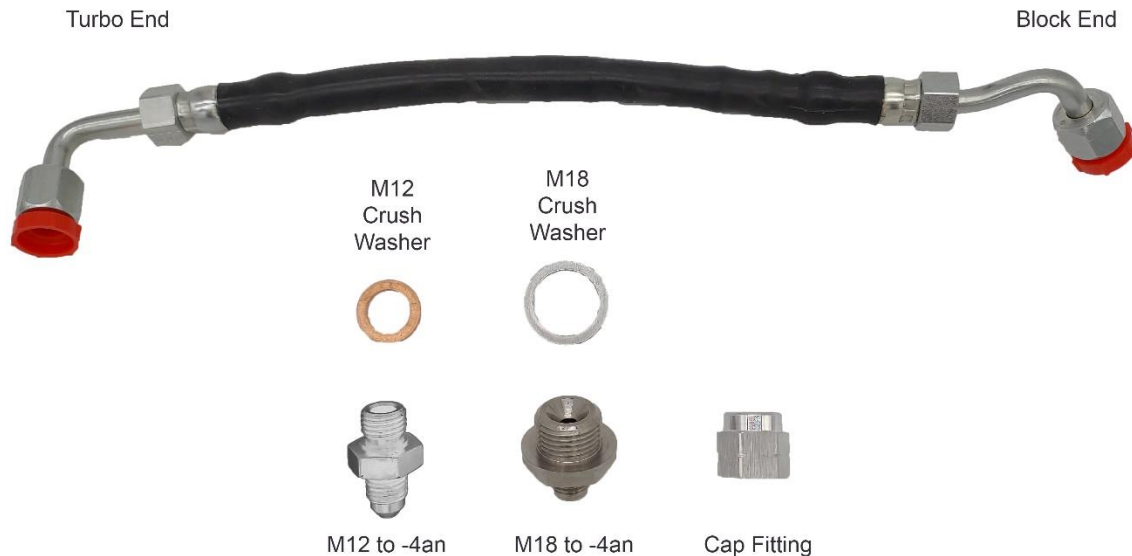
M18 to -4an male adapter with M18 crush washer

M12 to -4an male adapter with M12 crush washer

Aluminum cap fitting

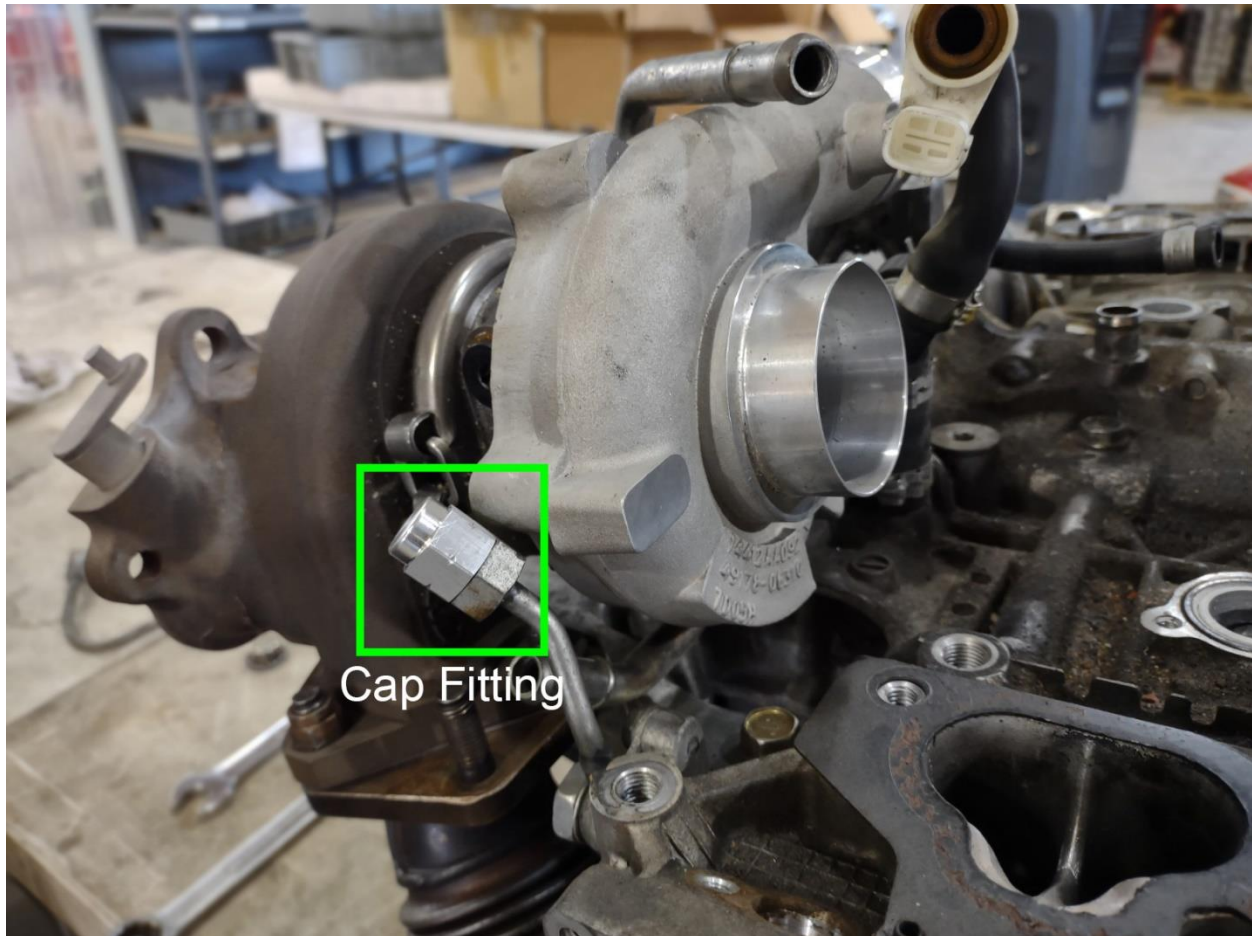
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#### Subaru Oil Line Parts List

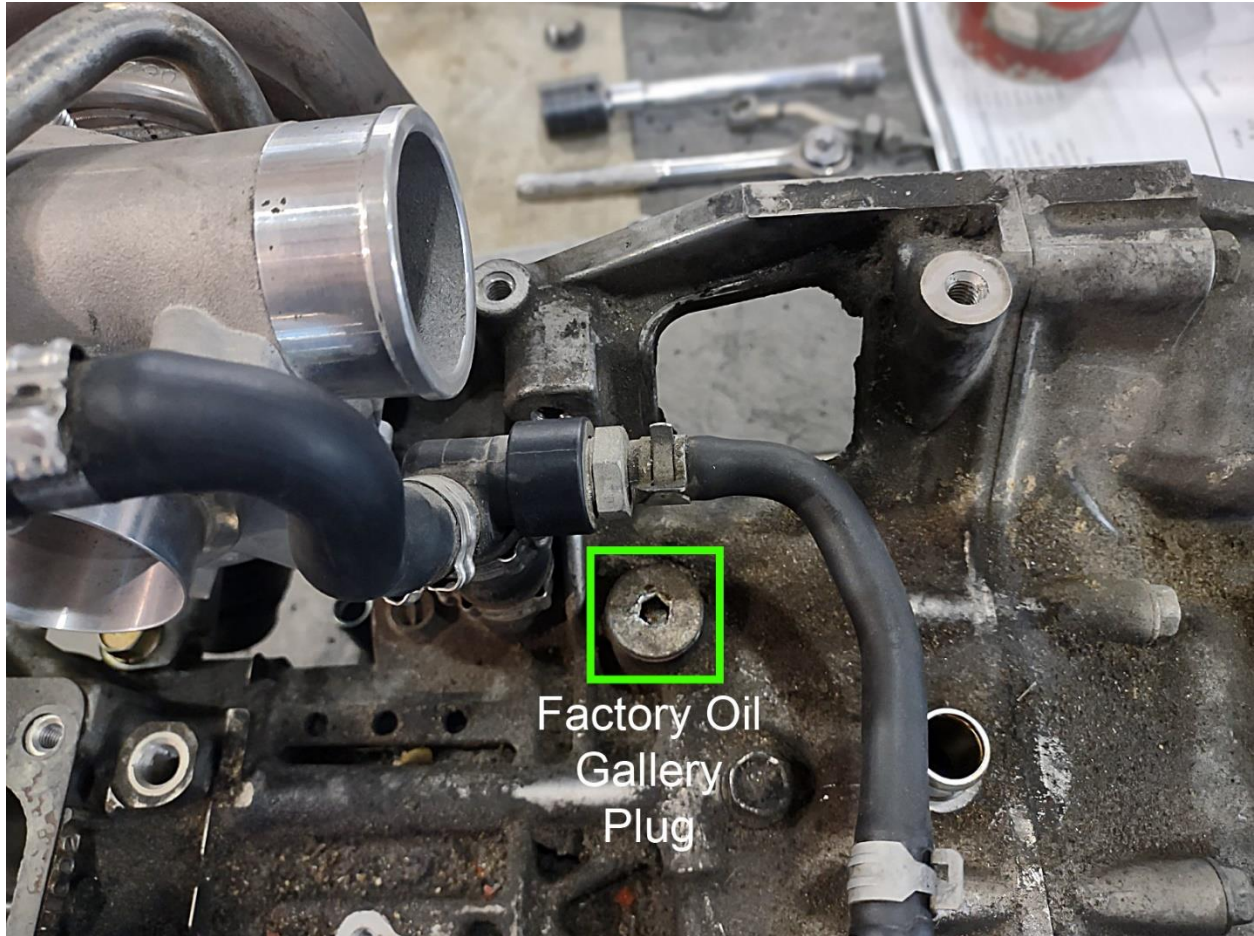


The kit is easiest installed with the intake manifold off the engine, however you can still install with the intake manifold in place. Removal of the intake manifold allows easier access, better visibility, and makes installing your new turbo even easier.

Remove the OEM turbo feed and cap the hard line at the rear of the passenger side cylinder head using the provided aluminum cap fitting. Use a wrench on the factory hard line side to resist twisting when tightening.



Remove the rear passenger side main gallery plug using an allen key socket. From the factory this is sealed using a thread locker, please verify it came out cleanly and nothing has fallen in the hole. It is easy to remove any material if anything dropped in, please take the time to verify with a flashlight. Thread in the provided M18 to -4an adapter fitting making sure the aluminum crush washer is in place on the fitting.

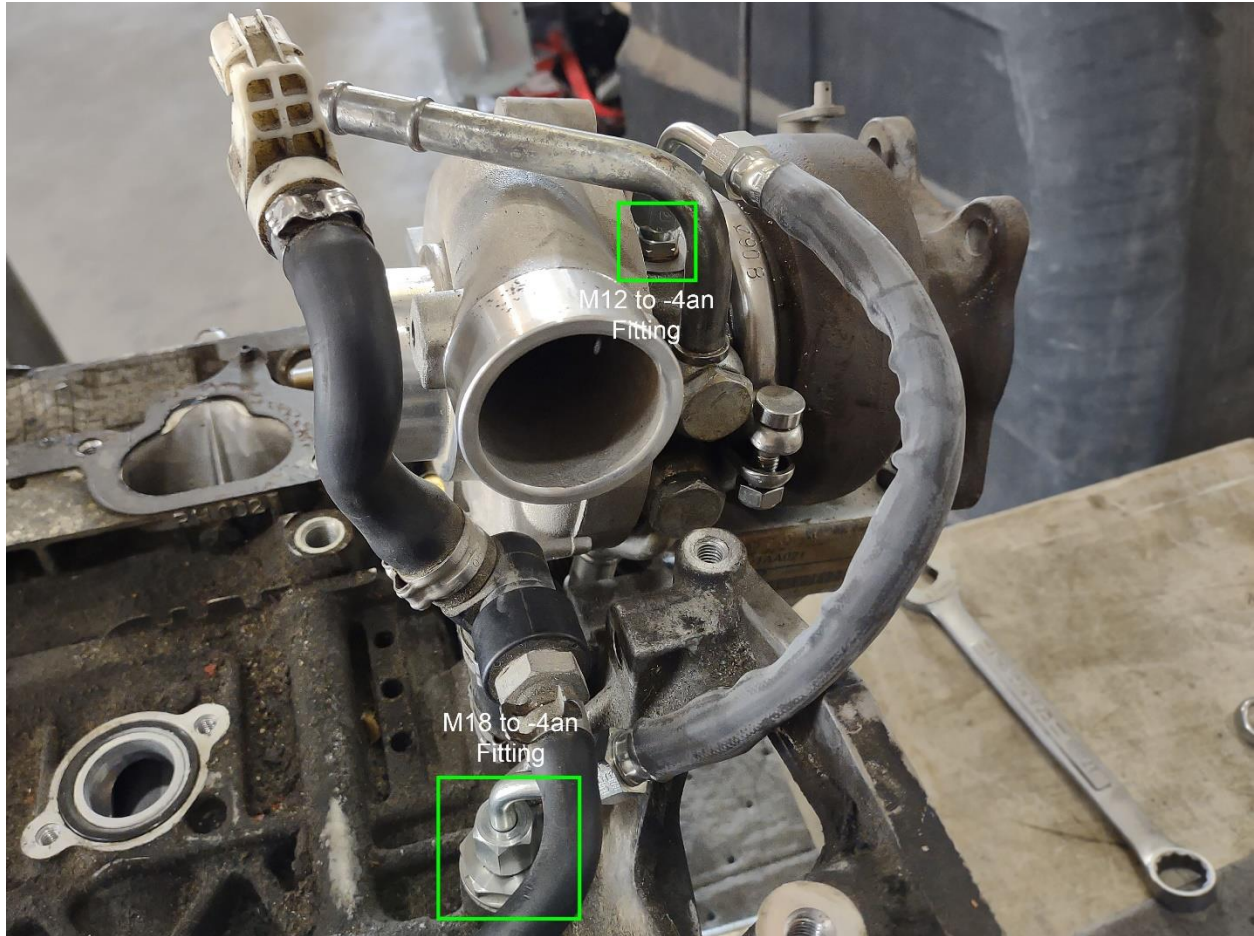


With the turbocharger in place, install the M12 to -4an adapter into the top of the bearing housing. Verify the copper crush washer is in place prior to tightening.

Install the 45 degree end of the -4an oil line to the M18 adapter in the engine block and tighten the line to the fitting when you are satisfied with the angle. The 90 degree end goes to the M12 adapter on the top of the turbocharger.

Make sure the line is not rubbing on anything before you tighten both ends.





After everything is installed and back in place, give the engine a once over inspection. If all your components seem to be back in place and happy, prime your oil system by cranking the car without fuel until you build oil pressure, usually a few seconds is sufficient. Start the car and verify you have no oil or coolant leaks, having an extra pair of eyes can be helpful here. If there are no leaks present, nice job on installing your kit!

Installed

