

TURBOCHARGERS

INSTALLATION REFERENCE GUIDE



AUTO-KOOL

TECHNICAL BULLETIN REF# 0189

This installation guide for turbochargers, commonly known as “turbo,” serves as a general reference for individuals possessing automotive expertise, experience, tools, and facilities necessary to perform the work safely and effectively. It is not suitable for those lacking sufficient automotive knowledge and qualifications in repair. Professional service is advisable when replacing a turbo.

SAFETY PRECAUTIONS ARE PARAMOUNT. ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT & FOLLOW STANDARD SAFETY PROTOCOLS.

RECOMMENDED TOOLS:



All Auto-Kool turbochargers, “turbos”, are packaged with an application specific installation hardware kit and pre-filled engine oil syringe for lubrication of turbo prior to installation. Additional tools recommended for turbo installation include but are not limited to:

- Gloves and safety glasses
- Appropriate gaskets, bolts, clamps, and fittings
- Pliers, wrenches, ratchets and sockets, and screwdriver sets
- Engine oil, oil filter and air filter
- Engine oil lines, if necessary
- High-temperature anti-seize compound

Please refrain from using liquid gasket, sealant, exhaust gum, or air/power tools during turbo installation. Instead, utilize a high-temperature anti-seize compound on all threaded fasteners connected to the turbo.

PRIOR TO TURBO REMOVAL:

1. Evaluate the system to determine the cause of the original turbo failure and identify any additional replacement parts required, such as a leaking intercooler, damaged intake or return lines, faulty exhaust gas recirculation (EGR) valve, or clogged air filter. Note: If the turbo failed due to a seized turbine/compressor wheel, often caused by contaminants/foreign objects, consider replacing the intercooler as well.
2. Identify and take note of location of bolts/studs, gaskets, and o’rings to ensure proper installation of the new turbo.
3. Fill the turbo oil inlet port generously with clean engine oil before attaching the oil feed line.
4. Verify oil levels and pressure to confirm a leak-proof system.

INSTALLING THE NEW TURBO:

FAILURE TO CHANGE ENGINE OIL & FILTER MAY VOID WARRANTY.

1. Remove all protective caps and ensure the turbo is clean and clear of any debris.
2. Check the oil intake and return lines for clarity and condition. In cases where the oil intake line may have internal damage due to proximity to a heat source, it is recommended to replace it along with the turbo.
3. Before connecting the oil intake and return lines, start the engine without igniting it until a consistent stream of oil flows from the drain port.
4. Position the new gasket precisely centered over the exhaust manifold opening to ensure optimal performance and prevent issues like whistling noise or reduced engine power.
5. Securely mount the turbo to the exhaust on the engine block and torque the studs/bolts according to specifications.
6. Allow the engine to idle for a minimum of 3 minutes after turbo installation to ensure proper lubrication of the turbo system. If the turbo is connected to engine coolant lines, ensure coolant circulates through the turbo to prevent damage from excessive heat.

