TURBOCHARGER REPLACEMENT

INSTALLATION INSTRUCTIONS

FOR CHEVROLET CRUZE 1.4L 140HP 2011-2016
FOR CHEVROLET CRUZE LIMITED 1.4L 140HP 2016
FOR CHEVROLET SONIC 1.4L 140HP 2012-2019
FOR CHEVROLET TRAX 1.4L 140HP 2010-2019
FOR BUICK ENCORE 1.4L 140HP 2013 - 2019



TOOLS NEEDED

Pliers	E10 Inverse Toex Socket
5/16 Nut Driver	7 mm / 10 mm / 11 mm Sockets
T45 Torx Bit Socket	17 mm Wrench

WARNING

To prevent damage and personal injury,please note the following-points:

Always use the turbocharger part number specified by the engine manufacture.

Do not touch before checking surface temperatures.

Do not work on a running turbocharger or engine.

Disassemble and re-assemble using the engine manufacturer's instructions.

Do not modify the turbocharger in anyway.

Professional installation is highly recommended.

TURBOCHARGER REMOVAL

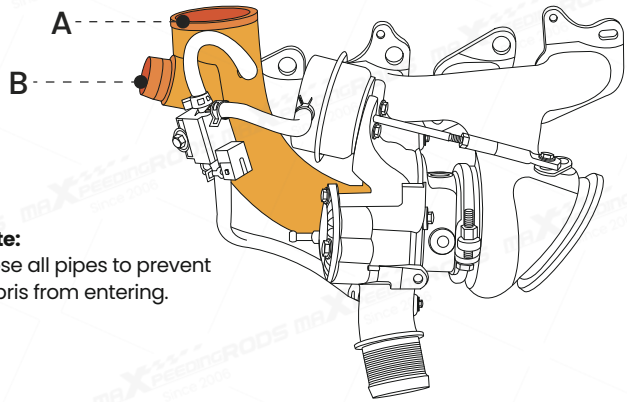
01. Open the hood.

02. Disconnect battery negative cable.

03. Drain the cooling system.

04. Remove the air cleaner outlet duct (A).

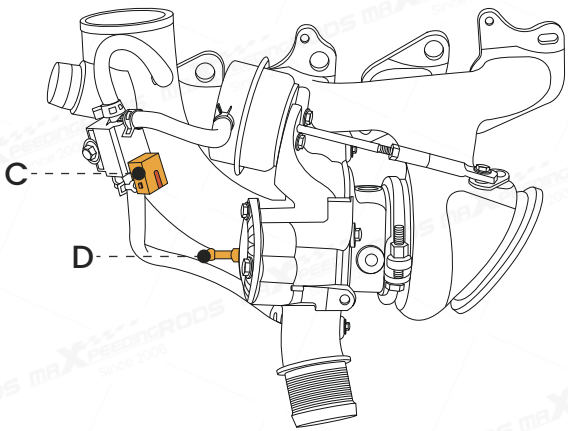
05. Disconnect the positive crankcase ventilation pipe (B) from turbocharger.



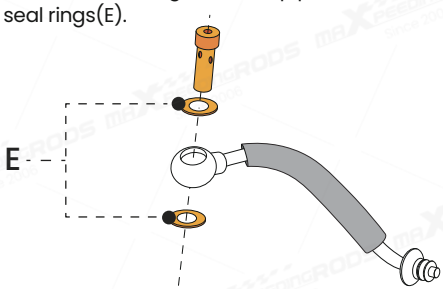
Note:
Close all pipes to prevent debris from entering.

06. Remove the exhaust manifold heat shield.

07. Disconnect the turbocharger wastegate regulator solenoid valve wiring harness connector (C) and unclip wiring harness (D).



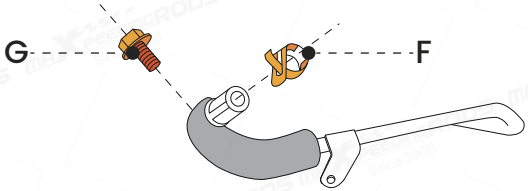
08. Remove the turbocharger oil feed pipe hollow screw. Remove and discard the 2 seal rings(E).



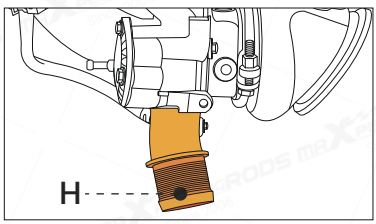
09. Remove the turbocharger oil feed pipe bolt and pipe.

10. Loosen the turbocharger coolant return hose clamp (F) and remove the turbocharger coolant return hose from the oil cooler inlet pipe.

11. Remove the turbocharger coolant return pipe bolt (G).

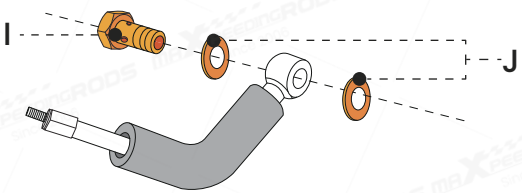


12. Remove the charge air cooler inlet air hose (H) from the turbocharger.

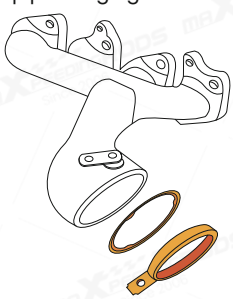


13. Remove the plastic protective cover at the bottom of the car. Remove the air conditioner bracket.

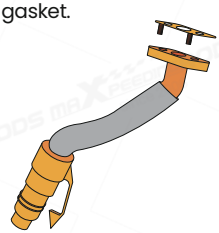
14. Remove the turbocharger coolant feed pipe hollow screw (I),Remove and discard the 2 seal rings (J).



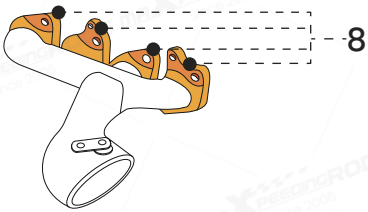
15. Loosen the exhaust pipe clamp, remove the clamp and catalytic converter. Discard the exhaust pipe flange gasket.



16. Remove the 2 turbocharger oil return pipe bolts. Remove the turbocharger oil return pipe and the gasket.



17. Remove and discard the 8 turbocharger nuts.



18. Remove the turbocharger assembly.

19. Remove and discard the turbocharger gasket.



20. Remove the turbocharger coolant return pipe and coolant feed pipe.

/// TURBOCHARGER INSTALLATION

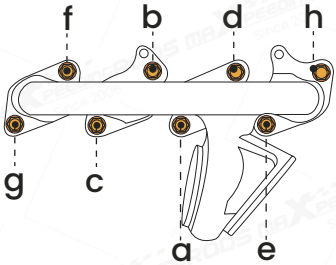
01. Install the assembly parts to the turbocharger as necessary.
Note: To avoid oil leaks, it is recommended that you replace the oil and coolant pipes.

02. Clean all sealing surfaces and all threads.

03. Install a NEW turbocharger gasket.

04. Install the turbocharger assembly.

05. Install and tighten the 8 NEW turbocharger nuts. The installation sequence refers to the following.



06. Repeat the tightening procedure to ensure a proper fastening of the turbocharger nuts.

07. The rest of the installation is the opposite of removal.