



Revision
05/08/15

CT-20 To Garret GT25R Conversion Kit Part # 1071013

1. Read all instructions through completely before starting this installation.
2. Disconnect negative battery terminal.
3. Drain coolant and oil (LC Engineering recommends changing the oil and flushing the cooling system when swapping this turbo kit).
4. Remove hot-pipe from throttle body to compressor housing.
5. Remove inlet plumbing from airflow meter to turbo inlet.
6. Remove exhaust from back of turbo to the catalytic converter.
7. Remove heat shield on exhaust manifold. Lower portion of the heat shield will not be re-used.
8. Remove coolant lines from turbo.
9. Disconnect oil drain/feed line assembly from turbo.
10. Remove lower coolant hose hard line.
11. Remove exhaust manifold and turbo charger from engine as an assembly.
12. Remove oil drain/feed line assembly from block.
13. Clean all gasket surfaces (cylinder head, oil drain on block etc...).
14. Remove turbo from exhaust manifold.
15. This will be a good time to flush the cooling system before the new turbo is installed.
16. Remove studs from exhaust manifold. Chase threads on manifold to clean up threads (M10 x 1.25).
17. Mount adapter plate to manifold with new gasket and bolts (supplied). Locktite bolts and torque to approx. 30 Ft-lbs.
18. Mount new turbo to adapter plate using the supplied gasket. Turbo will go over pre-installed studs and use the supplied copper cleve nuts.
19. Install new oil drain plate with tube on block using supplied bolts, washers and o-ring.
20. Mock-up complete turbo and manifold assembly on engine (use 3 to 4 bolts on head just to hold it in place). Determine new coolant hose and oil drain hose length. The turbo will have 5/8" fitting attached for the coolant lines but we also supplied 2 extra 3/8" to use depending on your coolant line size.
21. Remove turbo and manifold assembly.
22. Cut coolant hoses to pre-determined length and install on turbo (tighten clamps now for easier access).
23. Trim oil drain hose if needed and install on turbo (tighten clamps now for easier access).
24. Remove previously installed oil drain plate w/tube from block and pre-assemble on the end of the oil drain hose. This will make it easier to install instead of trying to bend and twist the oil drain hose onto tube with the turbo mounted in the truck.
25. Install banjo fitting and banjo bolt to stock oil feed line location on the block. Be sure to use crush washers on both sides of the banjo fitting.
26. Re-install the complete turbo and manifold assembly using the new supplied gasket. Torque manifold bolts to approx. 33 ft-lbs.
27. Connect the coolant lines with supplied clamps.
28. Re-install the oil drain flange to the block with supplied hardware (previously used in step #19).
29. Connect oil feed line from turbo (pre-installed from LC Engineering) to the banjo bolt on block (from step #25).



30. Install intake piping between turbo and air-flow sensor (use supplied hose clamps size #40). This may be a good time to replace the air filter if necessary. (The intake tube on the turbo may need to be rotated for proper fitment).
31. Your stock "hot pipe" (goes from turbo outlet to throttle body) will need to be modified.
 - a. Cut your original hot pipe in the straight area directly in front of the valve cover.
 - b. Debur and clean pipe to remove any metal shavings and dirt.
32. Use the supplied hose (2 1/8" I.D. x 4" long) and hose clamps (size #36) to connect the newly cut hot pipe together. Install hot pipe and tighten clamps. See pic below.



33. Install new downpipe using the copper cleve nuts. Using the gasket and two supplied flanges fabricate a connection between the new downpipe and your existing exhaust system.
34. Reinstall factory oxygen sensor into downtube location.
35. Fill engine with oil and install new oil filter.
36. Fill radiator and reservoir with coolant. Do not fill the radiator to the top, keep coolant level approx. 1 1/2" to 2" below full. Leave the radiator cap off until finished with step #39.
37. Re-connect negative battery cable.
38. Remove ignition coil wire from distributor and ground it out.
39. Crank engine until you get oil pressure.
40. Start engine and let it idle. Inspect for any leaks at this time. Turn heater on in the truck to allow cooling system to cycle completely through. Continue to let engine idle until the thermostat opens and the coolant level drops. Top off cooling system and install radiator cap at this time.
41. After approx. 100 miles re-torque exhaust bolts.