



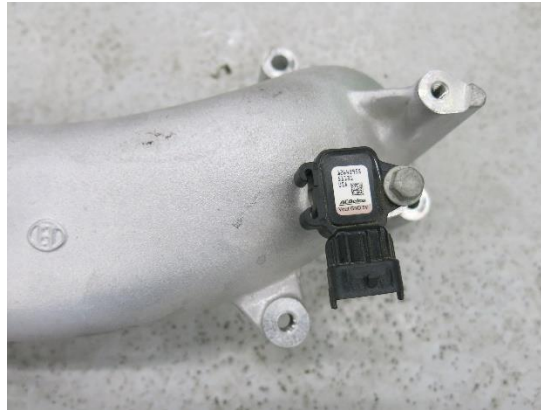
### **2011-2016 LML 3" Y-Bridge Kit or High Flow Intake Bundle Package**

Covers installation of PN's: WCF100607, WCF100691, WCF100716, & WCF100353

1. First, locate the packing list included with the kit and double check you have all items on the list.
2. Disconnect the negative battery cables from both batteries and remove the left and right-side inner fender liners.
3. Remove the factory intake, intake resonator, and plastic turbo inlet horn. Set these parts aside as they do contain components that will be reused later. (Inlet O-ring, and MAF sensors)
4. Remove the factory plastic intercooler tube from the truck. The connection at the throttle blade requires you to twist the plastic flange at the end of the pipe, which unlocks the clip and allows you to slide the plastic fitting off the intake inlet.
5. At the lower Intercooler connection, you must twist the flange and pull it off just as you did at the top side connection in the previous step. The lower connection is much more accessible if you remove the air box tray brace from the core support. Leave this off for now to help with the installation of the new intercooler pipe later.
6. Before you set aside the factory plastic intercooler tube, remove the temperature sensor from the top end of the pipe and set aside, this will be reused later.



7. Drain the Engine coolant from the lower radiator hose at the radiator connection on the passenger side.
8. Remove the factory cast aluminum inlet pipe that bolts to the factory y-bridge. Disconnect and remove the positive battery cable that fed the grid heater from the battery terminal on the passenger side battery.
9. On the factory cast aluminum Inlet pipe that bolts to the factory y-bridge, you will see the manifold air pressure (MAP) sensor. Remove this sensor from the factory pipe, it will be reused on the new WCFab Y-Bridge.



10. Now remove the OEM y-bridge, ¼" drive extensions and swivel socket make this easier.
11. Down pipe removal: First, remove the heat shield from the turbo downpipe and then remove the v-band clamps on the downpipe at the turbo and at the exhaust system. With one person on top of the engine and one person in the fender well, guide the downpipe out through the fender well.
12. The steel coolant pipe that connects to the rear engine cover can be removed.



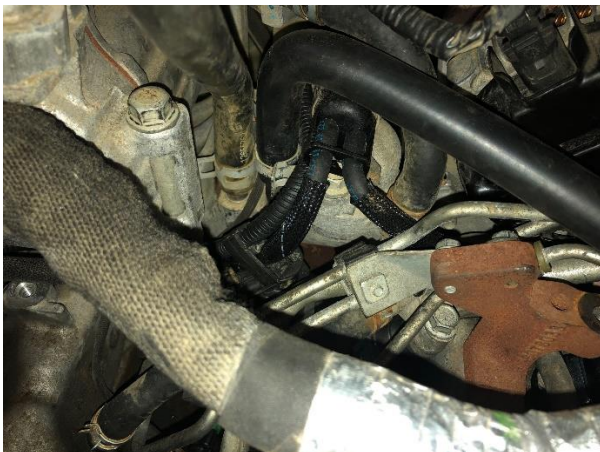
13. Locate the billet aluminum, black anodized coolant plug with O-ring in the supplied parts bag. Apply a thin layer of grease onto the O-ring, install plug into the rear engine cover and tighten the OEM bolt.



14. Remove the Coolant hose from the firewall, and the plastic clip (found on 2015+ trucks) shown below.



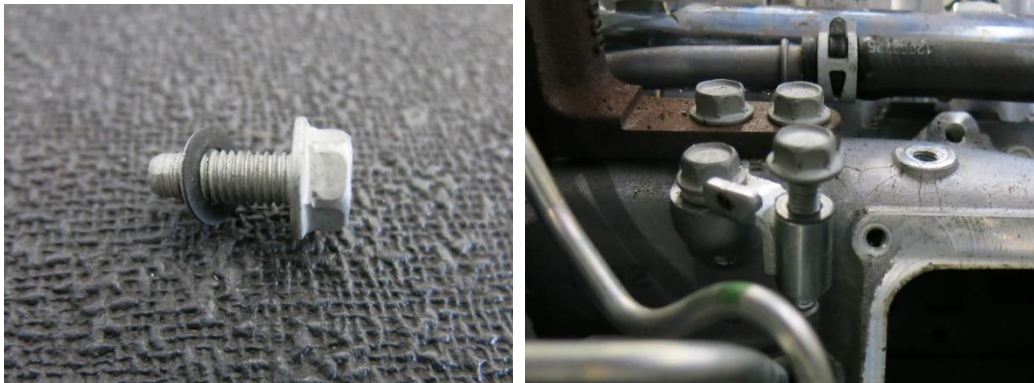
15. On the thermostat housing next to the alternator, remove the hose and save the spring clamp.
16. Connect the supplied preformed heater hose from the port on the thermostat housing to the fitting on the firewall. Use the OEM spring clamp on the new hose at the connection to the thermostat housing as shown below.



17. You can now reinstall the factory down pipe, or our 3" Stainless Steel down pipe if you purchased the bundle kit, and tighten the top and bottom v-band clamps.
18. On trucks with a CP4 still in the valley, the injector assembly on the passenger valve cover (complete assembly shown below) can be removed.



19. Once this is removed you will be left with an open port from the CP4 pump that will need to be plugged. The banjo bolt seal washer from this port will be cut in half so that it becomes only one washer instead of a banjo washer. Using a left over 8mm x 20mm long bolt from tear down, it will be reinstalled with this seal washer, to plug the hole.



20. Locate the small Aluminum plug with o-ring from the supplied parts bag.



21. The aluminum plug gets installed into the Injector Return line on the front passenger side as shown in picture below. The plastic clips of the return line are very fragile, so use care when retracting the hold down clip, and pushing the new aluminum plug into place. Make sure the outer plastic lock is pushed back in place so the plug cannot pop out.



22. Back to the y-bridge install; locate your new 3" y-bridge and install the factory MAP sensor onto the new 3" y-bridge. The supplied O-rings can also be installed into the grooves on the flanges of the new bridge.



23. If you are not using a mechanical boost gauge or boost pressure sensor, you can use the supplied 1/8" NPT pipe plug and block off the boost port on the new y-bridge. (shown in last picture)
24. Now installing the new y-bridge onto the intake runners, 1/4" drive swivel sockets and extensions help with install. FIRST get the four lower bolts/nuts started and tighten them evenly side to side in a cross pattern to ensure the bridge seats square to the runners. The LOWER hardware needs to be installed first to suck the bridge down into place before the upper holes will line up. Once the lower bolts/nuts are snug, you can install the four-new supplied m6X25mm upper bolts.
25. Now you can connect the MAP sensor plug on the engine harness back into the MAP sensor on the new y-bridge. Since this sensor use to be located on the top of the intake pipe much higher up, it will be required to take the engine wire harness and now tie it down on top of the engine while pulling it towards the passenger side slightly for the connector to reach the MAP sensor. The wire harness will no longer hang above the engine as it did previously and can be tied down to the fuel lines.
26. In the small bag of parts supplied, locate the 5/16" Silicone cap and the matching hose clamp. On the passenger side of the engine there is a hard pipe/hose assembly coming from the firewall heater core fitting, forward to a radiator hose. On this pipe you will find a small port that can be capped off with the cap and hose clamp.



27. Locate the two supplied 3" Intercooler boots and four T-Bolt Clamps. **NOTE:** 1 T-Bolt clamp is slightly larger than the other 3 clamps. This clamp is for the passenger side connection at the Intercooler.
28. Apply a small amount of grease to the inside leading edge of each 3" boot. Slide one boot onto the intercooler and install the larger of the t-bolt clamps over the boot, tighten clamp snug. Picture below shown with the 1 slightly larger clamp connected to intercooler.



29. The second boot needs to be slid onto the y-bridge all the way up to the 1/8" boost port so that only about 1" of the boot is hanging off the end of the Y-Bridge. You **must** have grease or lubricant on this boot, or you will have a very hard time sliding the boot back down in the next step!



30. Install the OEM temperature sensor from the factory plastic pipe into the bung on your new intercooler pipe. (This is NOT a 1/8" boost port, it is metric straight thread for the temp sensor only!)

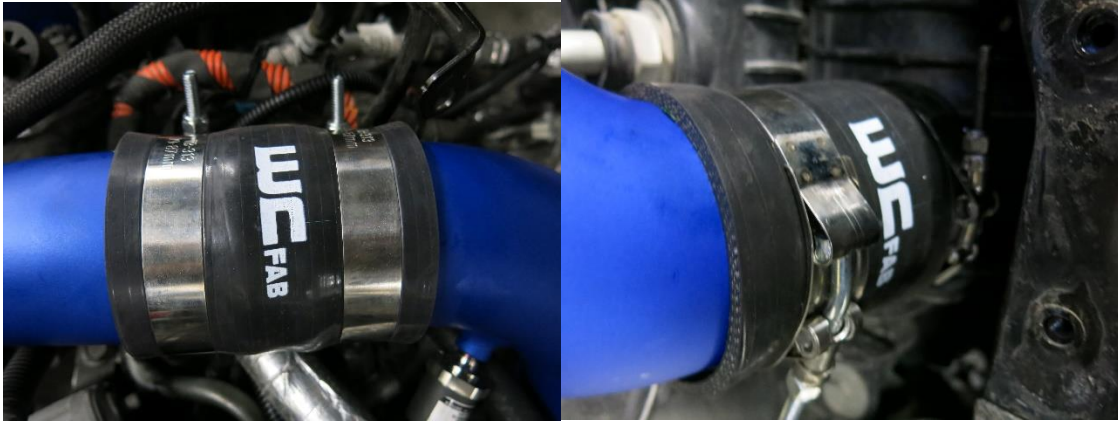


31. The intercooler pipe can now be installed from the top of the engine. Slide the pipe into the lower intercooler boot first, as far as it will go, and then push the pipe against the top boot that is on the y-bridge. With a screwdriver, work the intercooler pipe into the boot. Once it's in, you can slide the boot back down further onto the pipe so that the boot length is split evenly between the two pipes.



32. You can now install the remaining T-bolt clamps on both boots and tighten. Once the lower t-bolts are tight, you can reinstall the air box tray brace to the core support, and the passenger side fender liner.





33. Locate your new turbo Inlet pipe if you have the standard 3" y-bridge kit (WCF100607). If you purchased the y-bridge kit with one-piece intake (WCF100691) or the high flow bundle kit (WCF100776) skip to step #38.

Install the supplied 1/8" O-ring into your new turbo inlet pipe. Install the factory v band clamp onto the inlet of the turbo, it is easiest to install this clamp by fully disconnecting it and "rolling" it onto the turbo v-band to sneak it past the y-bridge as it is a tight fit against the bridge. Then reconnect the clamp, but leave it loosened all the way and slide the new turbo inlet horn into place. Now tighten the v-band clamp, only snug for now so that you can still adjust the inlet horn.

34. Locate your OEM intake or WCF 4" intake and install. Adjust the new turbo inlet pipe (by twisting up or down) to line up with the intake. Be sure to tighten the clamp at the turbo inlet once it is lined up. Completed picture below. Now move to step #43.



If you purchased the y-bridge kit with one-piece intake (WCF100691) or the high flow bundle kit (WCF100776) continue below;

35. Locate your new 4" Intake pipe. Install the supplied 1/8" O-ring into your new intake pipe flange.
36. Locate the four supplied M4 socket head allen screws and reinstall your factory MAF and Humidity sensors in the new intake now. In 2011 and 2012 trucks you will install the supplied aluminum plate on the rectangle sensor port as these model years do not have a Humidity sensor.
37. Install the factory v-band clamp onto the inlet of the turbo, it is easiest to install this clamp by fully disconnecting it and "rolling" it onto the turbo v-band to sneak it past the y-bridge as it is a tight fit against the bridge. Then reconnect the clamp, loosely for now.
38. Loosen the passenger side alternator bolt 3-4 turns, you do not need to completely remove it. Install the new 4" intake in the v-band at the turbo first and then rotate the mount bracket onto the alternator bolt that you just loosened. Once the v-band flange is aligned properly at the turbo, you can first tighten the v-band clamp and then retighten the alternator bolt that holds the intakes support bracket.
39. Install supplied air filter and outerwear's filter cover. Completed picture below.



40. Refill the engine coolant and start up. After a few initial test drives it is a good idea to check and retighten all t-bolt and v-band clamps and top off the engine coolant.

## **3" Driver Side Intercooler Pipe Supplement**

WCF100353 *(Included in High Flow Intake Bundle Package)*

1. Remove the driver side inner fender liner.
2. Remove the factory driver side intercooler pipe and OEM boots at the turbo charger outlet and intercooler inlet.
3. Install the supplied 3" silicone straight boot and t-bolt clamp onto the intercooler inlet and tighten clamp.
4. Install the supplied silicone straight reducer boot onto the turbo charger outlet with the new t-bolt clamp and tighten clamp.
5. Leave the bubble wrap on the new intercooler pipe while installing to prevent scratching the powder coat. Just remove the wrap from each end so that you can install the pipe into the boots.
6. From the top side of the engine install the new intercooler pipe downwards towards the intercooler inlet. This is much easier with one in the fender well to help guide the pipe into place. It will slide up into place with a twisting motion.
7. Install the pipe into the lower boot first, and then with the aid of a radiator hose pick or screwdriver slide the pipe into the boot that is already clamped to the outlet of the turbo. Be sure the pipe is pushed into the boot at the turbo as far as it can go and install the t-bolt clamp up against the edge of the beadroll to prevent the pipe from moving out of the boot under boost load.
8. Install the last 3" T-bolt clamp at the lower boot connection.
9. Inspect and verify that none of the engine harness or any other hoses or wires are laying against the new intercooler pipe. These pipes see very high temperatures and can melt the wire loom and harness, so you do not want any contact of these items anywhere. Tie up these such items as necessary to prevent this from happening.
10. Reinstall the inner fender liner. Double check all the t-bolt clamps after a few heat cycles.

Any Questions, Comments, or Feedback?

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Or the shop phone- 630-277-8239

Thank you for purchasing from Wehrli Custom Fabrication!