



**LCE HEADER KIT FOR TOYOTA TACOMA 2005-11 / 2005-12 FJ CRUISER,
4RUNNER 4.0L 1GRFE, 2WD/4WD (OFF-ROAD “RACE” USE ONLY)
P/N:1041050**

These exhaust headers DO NOT comply with California Air Resource Board regulations and are NOT LEGAL for sale or use on pollution controlled vehicles in the state of California. These headers are intended for use on vehicles that are involved in closed course racing applications only. They will be referred to as “RACE USE ONLY” in any other location in this instruction sheet, or any marketing information. The installation of exhaust headers onto any vehicle must be performed in accordance with all governmental regulations that pertain to the particular vehicle receiving the headers. Please call LC Engineering if there are any questions regarding the process of the installation.

NOTES:

1. We at LCE try to maintain the highest standards of quality. However, LCE cannot control the installation of the product. For this reason the warranty covers only the replacement of the components due to manufacturing defects, it does not cover labor for the installation. Product will need to be inspected by LCE before any warranty coverage is provided.
2. The use of any type of “header wrapping” immediately voids the warranty. Using any sort of wrapping material on the headers destroys the tubing’s ability to dissipate heat, causing very rapid deterioration of the composition of the metal and the subsequent failure of the headers.
3. In order to protect the metal from the environment, every LCE Header gets ceramic coated. Contamination of the surface by foreign substances may cause discoloration of the ceramic coating. Routine cleaning will help extend the life of your Ceramic Coated Headers. It is recommended to rinse off your headers at least twice a month.

Kit Contents: (Make sure you received all components before beginning the installation process).

Description	Quantity
3-into-1 Driver Side Exhaust Header	1
3-into-1 Passenger Side Exhaust Header	1
1GR Exhaust Manifold Gasket Set	1
Round Collector Gaskets	2
M10-1.25 Hex Flange Nut Top Lock	6
M10-1.25 x 40mm Hex Bolt 10.9 Zinc Plated	4
M10-1.25 x 48mm DE Stud	2
Oxygen Sensor Extension Cables	2



INSTALLATION NOTES:

Installation of these headers can possibly trigger a CEL(check engine light). This minor problem can be corrected with either a performance tune or tuner, and/or an o2 sensor simulator (P/N: 1020303).

****It is important that you read the entire instruction sheet before beginning any installation.****

1. Due to restricted room in the engine compartment your headers may come close to certain body and chassis components, this is normal for an installation of this type. However, a careful inspection must be completed to ensure that the distances and placement are reasonable and logical, especially with regard to electrical, fuel, and brake components.
2. Because of car-to-car variations, LCE strongly recommends that these headers be installed by an experienced installation shop that has welding and fabrication capabilities in the event that any modification is necessary.

INSTALLATION PROCEDURE:

OE MANIFOLD REMOVAL

1. Disconnect both battery terminals. ***IMPORTANT: Required in order to reset ECU***
2. Remove air box "s" shaped pipe.
3. Unplug the O2 sensor harness from the top area of the transmission.
4. Loosen the exhaust manifold bolts from the cylinder head.
5. Remove the bolt securing each manifold to the transmission brackets.
6. Loosen mounting bracket bolts from transmission. This will allow easier removal of the stock manifolds, and installation of the new headers.
7. Finish unbolting the exhaust manifolds and remove from below. **NOTE:** Save all factory hardware and gaskets as some may be reused for the new headers.
8. Remove O2 sensors from the exhaust manifolds and set aside. **NOTE: Do not attempt to remove O2 sensors or hardware while the engine is hot. Doing this may result in thread damage.**
9. Clean all traces of carbon from cylinder heads if necessary.

HEADER INSTALLATION

1. From the bottom, install both headers and gaskets on cylinder head. Loosely secure the new headers to the cylinder head using the original nuts. Do not fully tighten bolts at this time.
2. Loosely re-Install the bracket going from the transmission bell housing to the header collector flange on both sides.
3. Place crush gaskets between the header collector flanges and the y-pipe inlets. Secure the collector flanges to the y-pipe flanges using the supplied M10-1.25x40mm hex flange bolts, and M10-1.25 hex flange nuts. Do not fully tighten at this time. (Torque Specs at the end of instructions)



4. When you are satisfied with the positioning of your headers, you may fully tighten the header flange bolts, starting with the center and working your way out. Torque all bolts to factory specification.
5. Fully tighten hardware at the collectors to factory torque specification.
6. Lastly, fully tighten the transmission support bracket hardware. Reinstall both O2 sensors into the headers. **NOTE:** Use the lower locations with the extended harness provided with the kit.
7. Reconnect battery terminals.
8. Inspect engine compartment and components around the headers for clearance issues. Wipe excess oil, grease and finger prints off of the headers **before** starting the vehicle in order to protect the ceramic coating on your headers.
9. Start engine and check for any leaks.
10. It will be necessary to re-torque nuts and bolts once the engine has reached operating temperature, and has cooled back down.

Torque Specs:

Part Tightened	N*m	Kgf*cm	Ft.*lbf
Exhaust manifold sub-assembly RH x Cylinder head sub-assembly RH	30	306	22
Exhaust manifold sub-assembly LH x Cylinder head sub-assembly LH	30	306	22
Manifold stay x Exhaust manifold sub-assembly RH and transmission	40	408	30
Manifold stay x Exhaust manifold sub-assembly LH and transmission	40	408	30