

Lexus RCF Header Installation Guide



*Professional Installation Highly Recommended.

*New dealer manifold to engine gaskets are optional, but recommended. If re-using the old manifold gaskets, we recommend using copper silicone around the ports of the gasket.

*An alignment may be required after installation.

*The ISF race headers are not legal for street use. For off road use only.

Estimated Install Time: 8hrs.

Removal Procedure:

1. Remove exhaust midpipe

- a. Disconnect O2 sensors
- b. Remove body braces
- c. Remove midpipe

2. Remove Front Suspension Cross Member:

A. REMOVE FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY

B. REMOVE FRONT ENGINE MOUNTING INSULATOR

C. REMOVE ENGINE UNDER COVER SUB-ASSEMBLY LH

- (a) Remove the engine under cover sub-assembly LH.

D. REMOVE ENGINE UNDER COVER SUB-ASSEMBLY RH

HINT:

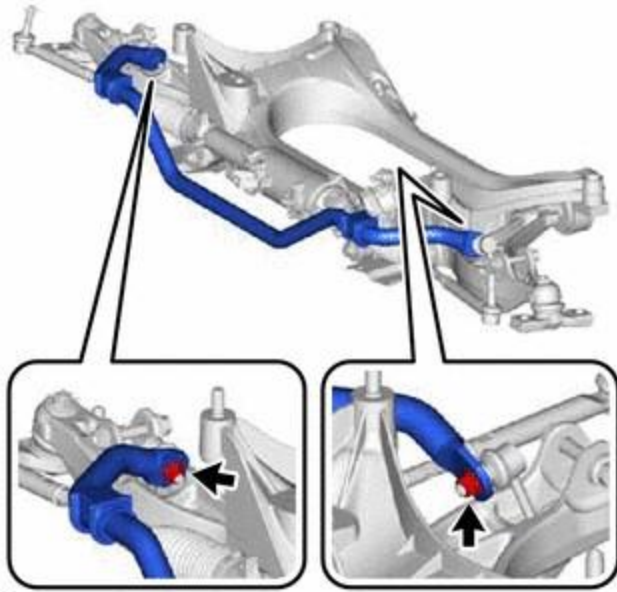
Perform the same procedure as for the LH side.

E. REMOVE FRONT STABILIZER BAR

- (a) Remove the 2 nuts and front stabilizer bar.

HINT:

If the ball joint turns together with the nut, use a 6 mm hexagon wrench to hold the stud bolt.



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F. SEPARATE FRONT LOWER SUSPENSION ARM ASSEMBLY LH

(a) Remove the 2 bolts, 2 nuts, washer and front suspension member mount bracket sub-assembly, and separate the front lower suspension arm assembly LH.



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G. SEPARATE FRONT LOWER SUSPENSION ARM ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

H. REMOVE POWER STEERING LINK ASSEMBLY

(a) Remove the 2 bolts, 2 nuts, 2 washers, 2 front suspension member brace plates and power steering link assembly from the front suspension crossmember subassembly.

HINT:

Remove the power steering link assembly together with the front lower suspension arm assembly LH and front lower suspension arm assembly RH.



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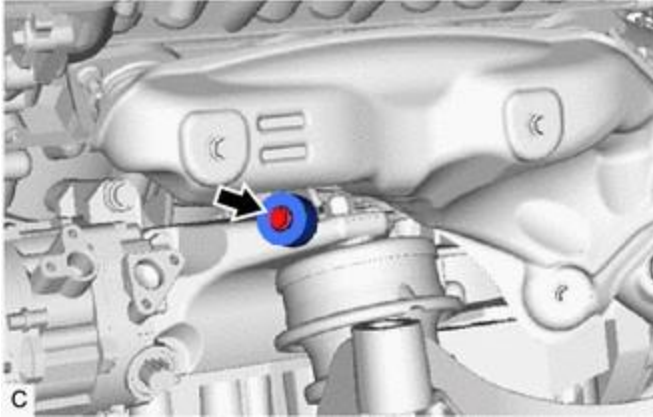
Remove Factory Manifolds:

1. REMOVE AIR FUEL RATIO SENSOR

[Click here](#)

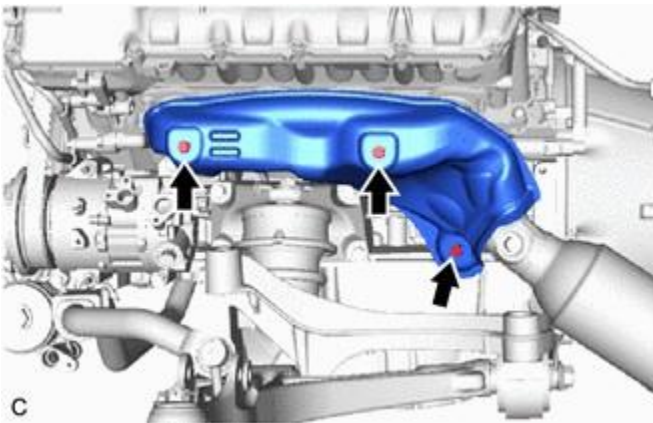
2. REMOVE ENGINE MOUNTING DAMPER

(a) Remove the bolt and engine mounting damper from the front No. 1 engine mount bracket.



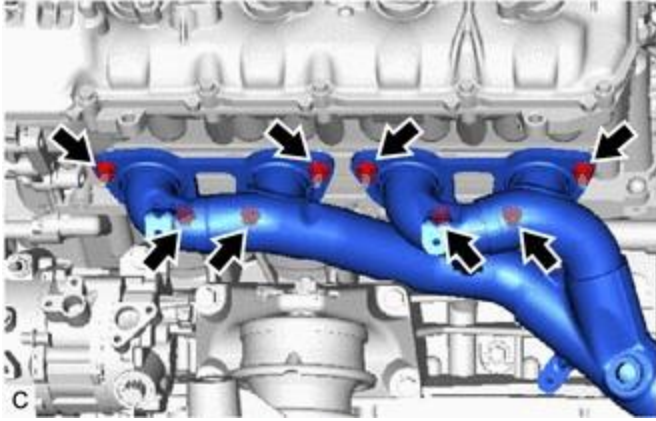
3. REMOVE NO. 2 EXHAUST MANIFOLD HEAT INSULATOR

(a) Remove the 3 bolts and No. 2 exhaust manifold heat insulator from the exhaust manifold sub-assembly LH (TWC: Front Catalyst).



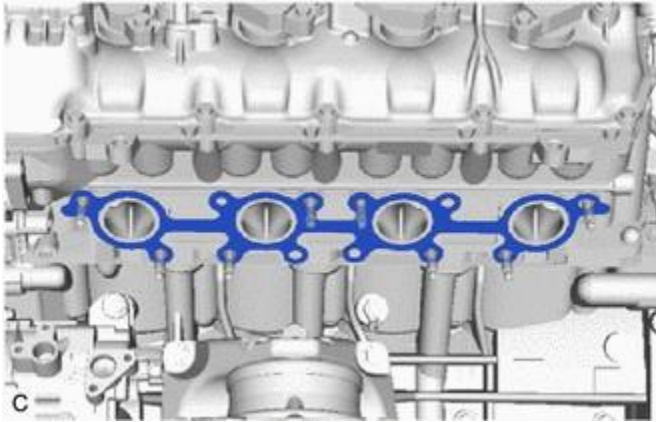
4. REMOVE EXHAUST MANIFOLD SUB-ASSEMBLY LH (TWC: Front Catalyst)

(a) Remove the 8 nuts and exhaust manifold sub-assembly LH (TWC: Front Catalyst) from the cylinder head subassembly.



5. REMOVE EXHAUST MANIFOLD TO HEAD GASKET (for Bank 1)

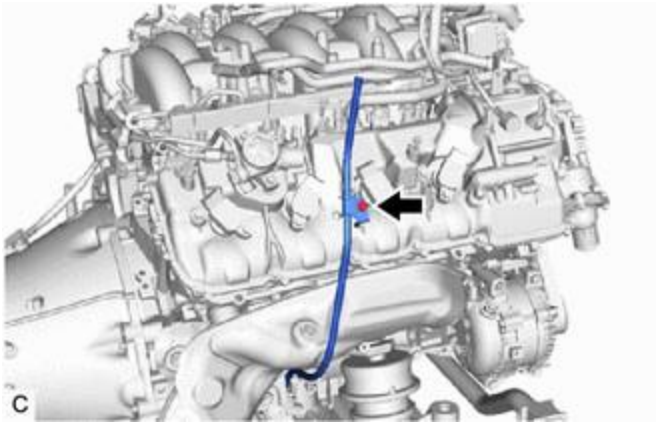
(a) Remove the exhaust manifold to head gasket from the cylinder head subassembly.



6. REMOVE ENGINE UNDER COVER SUB-ASSEMBLY RH

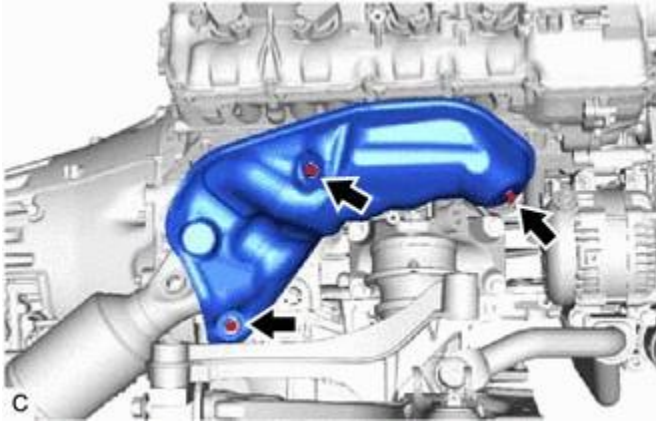
7. REMOVE ENGINE OIL LEVEL DIPSTICK

8. REMOVE ENGINE OIL LEVEL DIPSTICK GUIDE



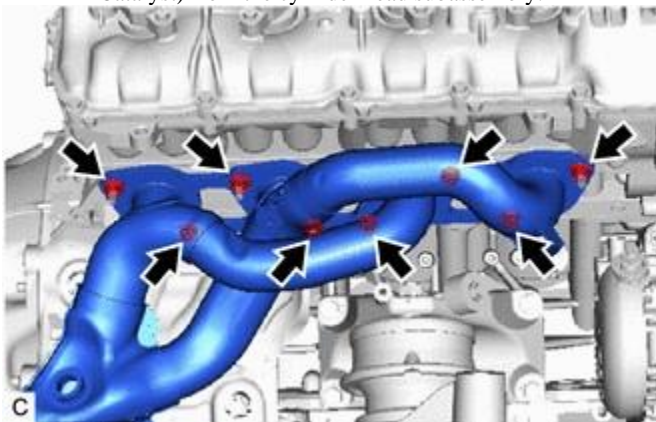
9. REMOVE NO. 1 EXHAUST MANIFOLD HEAT INSULATOR

(a) Remove the 3 bolts and No. 1 exhaust manifold heat insulator from the exhaust manifold sub-assembly RH (TWC: Front Catalyst).



10. REMOVE EXHAUST MANIFOLD SUB-ASSEMBLY RH (TWC: Front Catalyst)

(a) Remove the 8 nuts and exhaust manifold sub-assembly RH (TWC: Front Catalyst) from the cylinder head subassembly.



Installation:

1. Remove O2 sensor connectors from their mounts on both sides.
2. Install O2 sensor wiring extensions into engine harness connector and route behind heatshields.
3. Remove manifold studs from engine



4. Install gasket onto engine
5. Install header onto engine and secure with at least 2 nuts
6. Install the remaining manifold studs into the engine and secure with nuts
7. Make sure that the damper on the motor mounts are removed, they will not be re-used.
8. Install driver side motor mount.
9. Install steering shaft, but leave bolt loose to adjust later.
10. Modification of the dipstick tube is necessary to fit back in.
 - a. Increase the bend angle at the bottom two bends as pictured



- b. Use relocation bracket to bolt dipstick tube to motor.



11. Install passenger side motor mount
12. Install air fuel sensors into headers and secure wiring away from any hot or sharp areas.
13. Install front suspension cross member in reverse order of removal.
 - a. Make sure to tighten steering shaft bolts.
14. Install midpipe and rear O2 sensors.