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# Installation Instructions

# Toyota 4.0 V6 W/ Air Rail Injection Part # 2035S-2 2011-16 Tundra, 2012-14 Tacoma





This Product has been granted a California Air Resources Board (CARB) "E.O" (Executive Order) Exemption, or is considered a Direct Replacement or Consolidated Replacement part. It is 50 State Legal when installed on the appropriate vehicle per the Manufacturer Application guide and Installation Instructions.

#### 🔥 WARNING:

This product can expose you to chemicals including Lead, Nickel, Cadmium and Chromium which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Read all instructions carefully before attempting installation.

PerTronix<sup>©</sup> thanks you for choosing JBA HEADERS, the best fitting, highest quality header on the market. In order to realize the full potential of our good fit, please read and understand these instructions completely prior to starting work.

Check to make sure you received the proper parts for your application. The header number will be stamped on the engine flange. If you are unsure you have received the proper parts call before you start work.

Be sure to work safe! Whenever you work under the vehicle be sure that it is located on level, solid ground and is supported by adequate safety stands! Remember: Hot asphalt will not support most jack stands!

Many factors affect the installation of headers, some of which are broken or aftermarket motor mounts, accidents that impact the configuration of the frame, and/or the installation of different engines or aftermarket cylinder heads.

Attention Customers breaking in new engines: Due to the extreme heat generated during the break-in process, the appearance of the ceramic coating may be altered in certain areas. The protection characteristics and thermal barrier properties of the coating is never compromised. It is recommended that a cast iron manifold or old set of headers be used for this process.

Notice: The coating of these headers can be marred or scratched during installation. If the header needs to be returned and is damaged, you will be charged for recoat.

JBA uses sealing beads on all its headers. We have found that when installed correctly, the raised bead around each port increases the pressure exerted on the gasket directly adjacent to the port and effectively prevents leaking gaskets. It is normal for the flange to be raised off the cylinder head the thickness of the sealing bead. It is important when installing the header, to install all bolts loosely, then tighten evenly to ensure the flat installation of the flange. The torque sequence from one flange to another will vary, but generally every bolt on a header should be first fit snug, starting from the inside of the flange working out, alternating from top to bottom so that the bolt connects the flange to the manifold to the point where they barely touch. Second, using the same inside-out pattern, tighten each bolt until finished. This method will help prevent leakage and will give the user the best possible performance out of their pair of headers.

Place vehicle in a location where the floor is solid and flat, with adequate lighting. Do not attempt to work on a hot engine. Heat causes metal to expand and makes removal of fasteners difficult at best. Disconnect the battery cables from the battery. Raise the front of the vehicle to obtain adequate access to the bottom of the exhaust. Use large-base jack stands to support the vehicle. Do not rely on the jack! Block the tires to prevent the vehicle from rolling off the jack stands. Then unbolt and remove the front wheels.

Spray penetrating oil on all accessible fasteners and fittings before attempting to remove them.

## INSTALLATION OF THESE HEADERS REQUIRES WELDING

### READ ALL INSTRUCTIONS BEFORE ATTEMPTING INSTALLATION

The Catalytic Convertors are welded to the factory manifolds and need to be cut from the factory manifold and welded to the JBA Headers. The following steps are critical to retain the integrity of the Emissions system and must be done properly for the vehicle to remain legal for road use.

Driver side:

1. From underneath the truck, unbolt both sides of the exhaust from the catalytic converters. Unplug the 02 sensors from the harness. Remove the AIR fitting from the stock exhaust manifold.

2. Remove support bracket bolt from cat. assembly.

3. Remove support bracket bolt from side of bell housing.

4. Remove the six nuts from the manifold/cat. assembly to the cylinder head.

5. Swing support bracket back out of the way.

6. Lower manifold/cat. assembly from vehicle.

7. Remove the 02 sensor from the manifold

8. The catalytic convertor is welded to the manifold. Cut the cat from the manifold by cutting it as seen in the photos below. Be careful to cut it right next to the weld and as square as possible.

9. The cat will then slip onto the collector pipe on the JBA Header. You may have to remove any burrs from the cutting process to make sure it slips onto the JBA header.

10. Remove the 3 upper long manifold studs from the cylinder head. Install the header and gasket to the motor using the supplied bolts and original nuts on the lowers, just snug, but not torqued.

11. Install the cat assembly onto the header and connect the support bracket, and rest of the exhaust. The bracket and exhaust will realign the cat into the original factory position - this is critical to maintain proper running and calibration of your engine. Take your time and make sure everything aligns properly.

12. Tighten and snug all fasteners securely.

13. Tack weld the cat to the collector in three or more places so that it is held in position and won't move during removal for final welding.

14. Remove exhaust and brackets.

15. Remove header/cat assembly.

16. Finish welding the header and catalytic convert together. Make sure there are no pinhole leaks.

(Avoid prolonged exposure to high temperature and heat build up by welding in segments and allowing cat assembly to cool between welds)

17. Install the 02 senors into the JBA Header using sensor safe anti seize. Be careful not to get any anti seize on the sensor probe. Re-install header using supplied gasket and original nuts. Tighten the nuts and bolts starting in the center and working your way out. Install the AIR Fitting to the JBA header AIR Rail. 18. Re-connect support bracket.

Passenger side:

1. Repeat steps 2 through 17 from above for the passenger side

2. Reconnect the 02 sensor plugs to the harness on both sides.

Check all fasteners for tightness. Check to make sure that no wires or lines are contacting any potion of the exhaust.

Start the engine and check for leaks. Tighten all fasteners after 100 miles and periodically check the header bolts as they can loosen with time, this is normal.

Parts List:

(1) Driver Side Header Assembly

- (1) Passenger Side Header Assembly
- (2) Header gaskets (Header to Head flange)
- (6) Bolts & Flat Washers to replace long manifold studs
- (2) JBA Decals
- (1) CARB EO Sticker



This label is required to aid in passing the California smog check program. This label must be installed in an underhood location that is readily visible.

#### LIMITED ONE YEAR WARRANTY

All JBA HEADERS and exhaust products are guaranteed, to the original purchaser, to be free of defects in materials and workmanship for one year. This warranty covers the replacement or repair of the product only and does not cover the cost of removal and installation, customer applied aftermarket coatings or any discoloration or corrosion of finished surfaces.

Damage or product failure resulting from collision, improper installation, off-road use, road hazards, the use of exhaust insulating wrap or like products or rust occurring after installation, is not covered by the warranty. The warranty extends only to the original purchaser.

Should a part become defective it should be returned to the original selling retailer and must be accompanied with the sales receipt. If there is no retailer in your area, call the factory for a return authorization and return your part prepaid to the factory for inspection. PerTronix reserves the rights to replace or repair the alleged defective part and return the part freight collect.





