

Kswap Cold Air Intake

Install Tips:

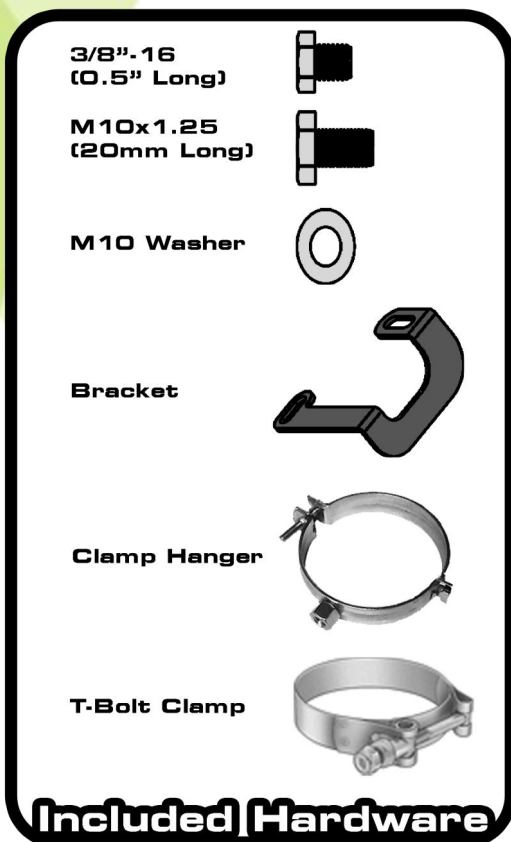
Below you will find tips on how to install your new Hybrid Racing **K Swap Cold Air Intake**. *This product may not be legal for highway use. Hybrid Racing is not responsible for any direct or indirect, actual or incidental expense attributed to the use of any performance parts sold by Hybrid Racing LLC. Purchasers agree to all of the terms of this agreement upon the purchase of parts. More information can be found at www.hybrid-racing.com.

Package Contents:

- (1) Silicone Intake Tube
- (1) Aluminum coupling tube
- (1) Hose Clamp Hanger
- (1) Mounting Bracket
- (1) Filter with worm clamp
- (1) 0.5" 3/8"-16 Bolt
- (1) 20mm M10x1.25 Bolt
- (2) M10 Flat Washers

Features:

- Silicone tube acts as an insulator from hot air exiting the radiator
- Fits RBC, RRC, RBB, and PRB Plenums
- Works with OEM and big bore throttle bodies
- Sleek design reduces the number of visible clamps and brackets once installed
- Anodized 6061-T6 aluminum coupler tube



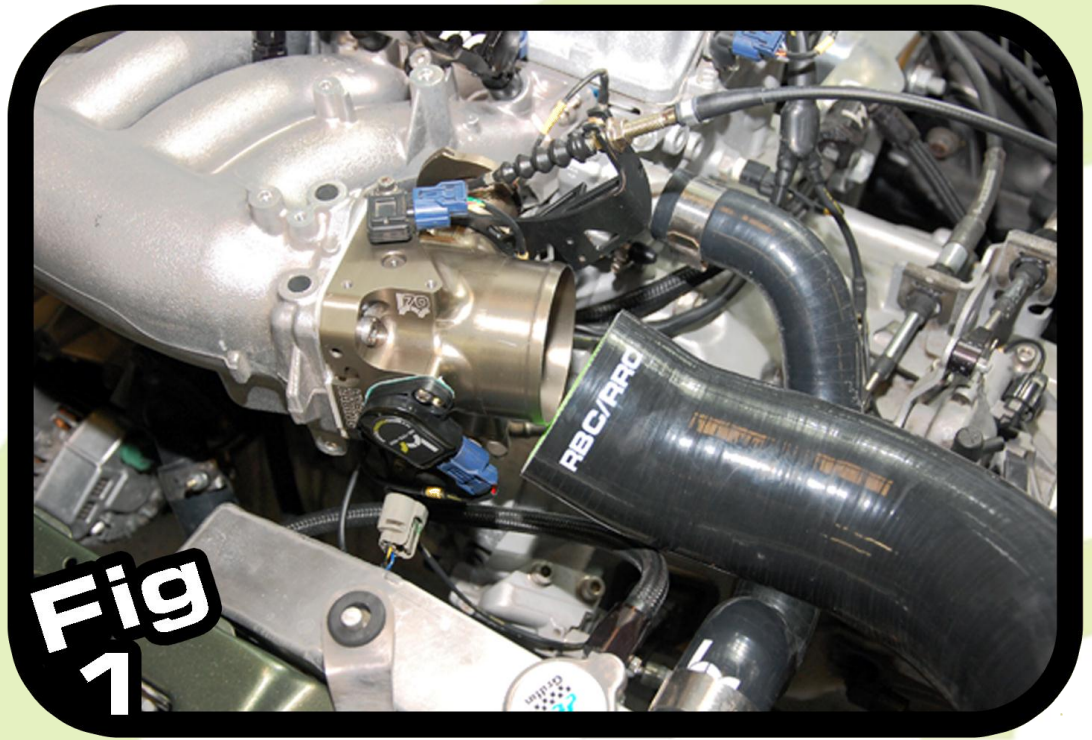
Install Guide:

This install guide illustrates the key steps and procedures needed to properly install your new cold air intake.

Shown to the left is an illustration of most hardware included with this cold air intake. For your convenience, most of the bolts for the throttle body have been supplied already threaded into their proper positions. Refer to this guide if you remove the bolts and need to determine where they were intended to go.

Step 1:

This intake is designed to mate to RBC, RRC, RBB, and PRB intake manifolds. One side is compatible with a PRB manifold. The other side is compatible with the RBC, RRC, and RBB. The intake is labeled at each end with the manifolds it is compatible with. In this guide, we will be installing the intake on a K-swapped EK with an RBC manifold. Note in **Figure 1** how the end labeled “RBC/RRC” is shown next to the throttle body on the RBC manifold. Before beginning the install, make sure the intake is oriented so that the label matches the manifold it attaches to as shown in **Figure 1**.



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Step 2:

Before installing the cold air intake, a hole must be drilled to accommodate the IAT sensor. The IAT sensor should be installed on the section of straight tubing closest to the throttle body. First, mock up the intake by slipping it over the throttle body. Position the IAT sensor connector about half way between the throttle body and the end of the nearest bend (as shown in **Figure 2**) and ensure there is sufficient wire in the harness to reach the point you've selected. The IAT sensor can be mounted on top of, underneath, or on the side of the silicone tube. Most users prefer to mount the sensor underneath to avoid unnecessary clutter. Mark the location where the IAT sensor will be installed so that you know where to drill in the next step.





**Fig
3a**

Step 3:

To install the IAT sensor, drill a 7/16" (or 11mm) hole in the location the sensor will be inserted, as shown in **Figure 3a**. Using a stepped drill bit makes the job a bit easier, but a traditional drill bit will also work. **Figure 3b** shows the IAT sensor installed after drilling.



**Fig
3b**

Step 4:

During the drilling procedure, it is likely that debris were deposited inside of the tube (see **Figure 4**). Using a damp rag or a blow gun (attached to an air compressor), remove all of the debris that was created in step 3.



**Fig
4**

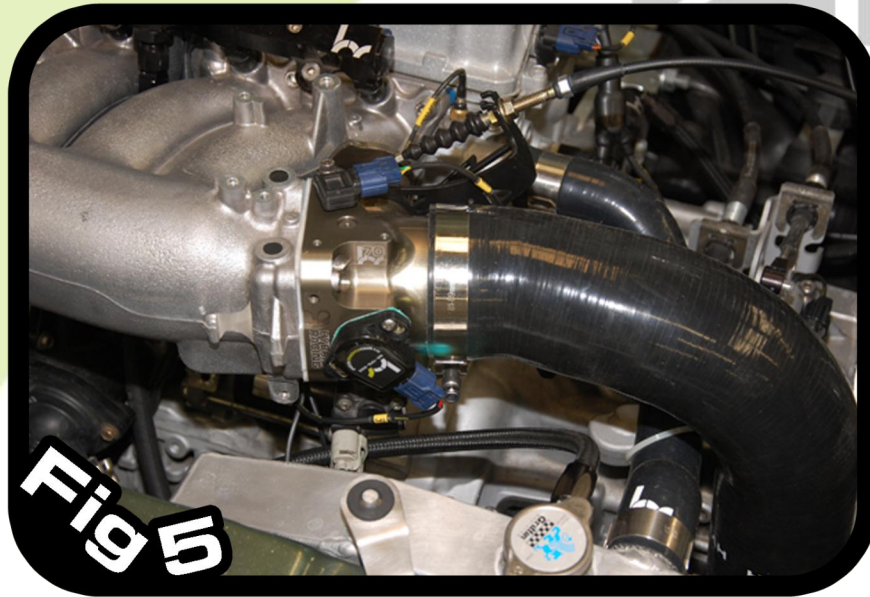
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Step 5:

With the IAT sensor installed in the newly drilled hole, slide the included t-bolt clamp over the throttle body end of the intake. Next, slide the intake over the throttle body and snug up the t-bolt clamp as shown in **Figure 5**. The t-bolt clamp included with this kit is a custom size that is not commercially available. It is designed to work on both an OEM and big bore throttle body. A *10mm deep socket or 10mm wrench* can be used to tighten the nut on the t-bolt clamp. Snug up the t-bolt clamp enough so that the CAI does not fall off the throttle body. The clamp should be left loose enough to allow for slight adjustments in the CAI's position when installing the bracket in the next few steps.

For OEM Throttle Bodies: Because the intake has a 3" inside diameter, it is necessary to tighten the t-bolt clamp quite a bit before it snugs up on an OEM throttle body. For optimal performance, install the t-bolt clamp so that the clamp partially overlaps the bead at the inlet of the throttle body. This will press the silicone around the bead at the leading edge of the throttle body to create the smoothest possible transition between the intake tube and the throttle body.

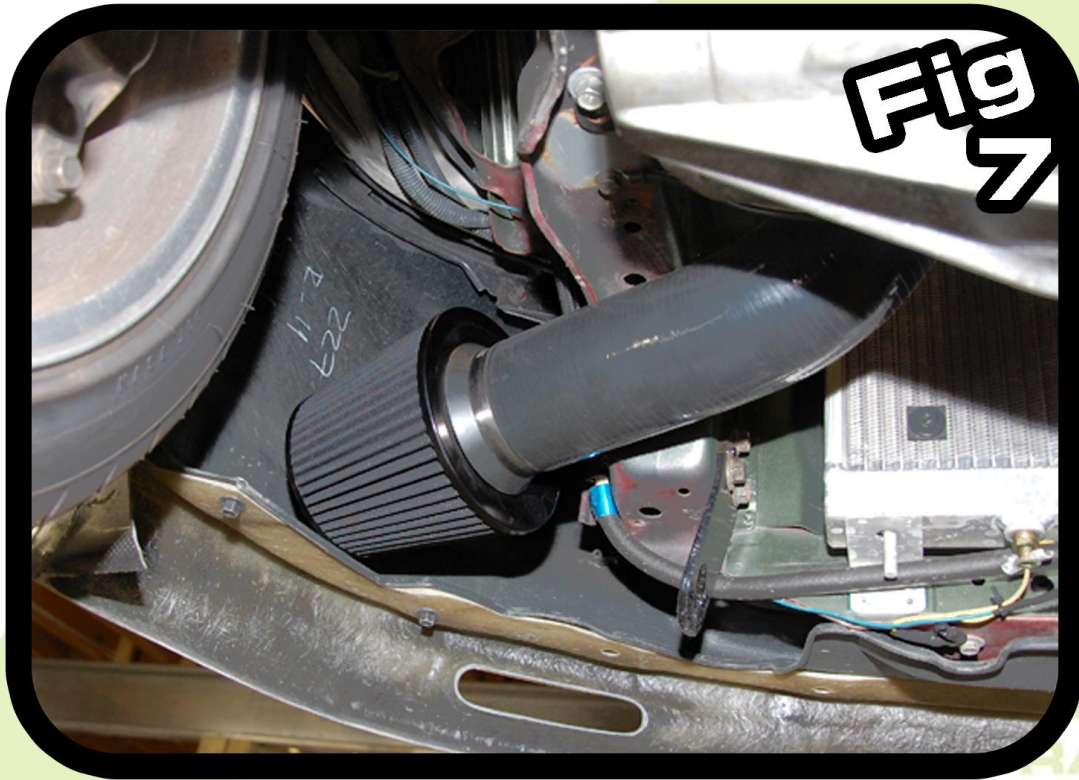
For Big Bore Throttle Bodies: If you encounter trouble getting the t-bolt clamp over the intake tube after sliding it over the throttle body, remove the nut on the t-bolt clamp and thread it back on after the t-bolt clamp is in its final position.



Step 6:

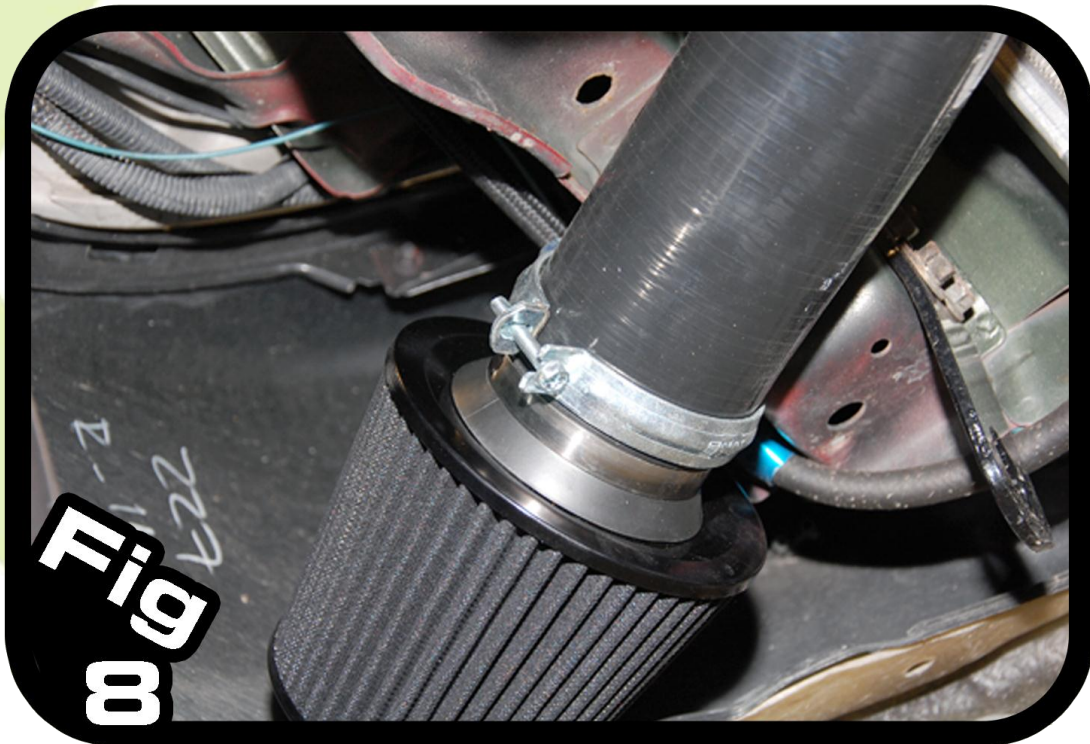
Install the 3" diameter (black) aluminum tube into the supplied air filter as shown in **Figure 6**. About 1.5" of the tube should be left sticking out of the filter once installed. A flat head screwdriver or 9/16" socket driver can be used to tighten the worm clamp on the filter. *Do not use a socket and ratchet or a long wrench to tighten this clamp as over-tightening a worm clamp can destroy it.*





Step 7:

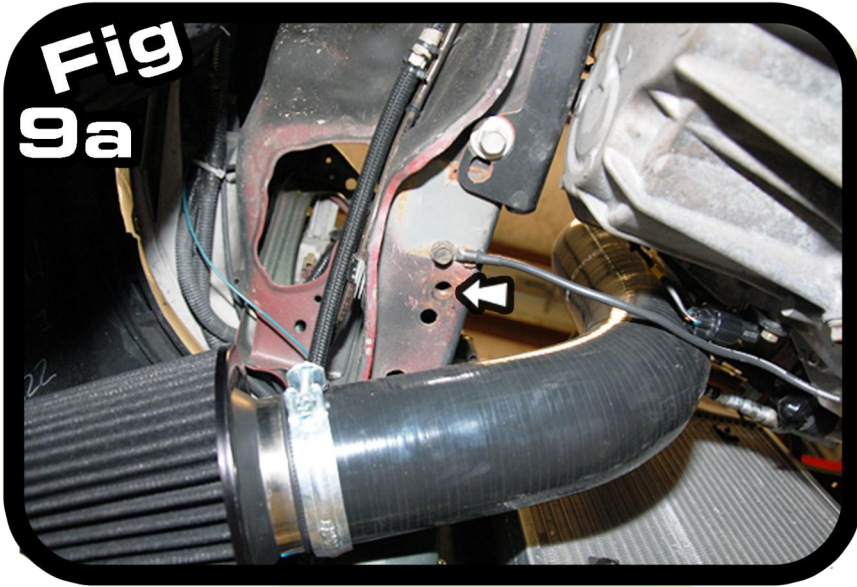
Mate the filter to the CAI by sliding the aluminum tube into the end of the CAI as shown in *Figure 7*. Since the CAI is made from silicone, it can be bent to make installing the filter easier.



Step 8:

A specialized hose clamp is included with each kit that is used to attach the intake to the supplied bracket. This clamp is also used to clamp the silicone CAI to the black aluminum tube. Install the clamp on the CAI as shown in *Figure 8*. Snug up the clamp but do not fully tighten it. The clamp should be installed so that the welded on nut points up.

**Fig
9a**

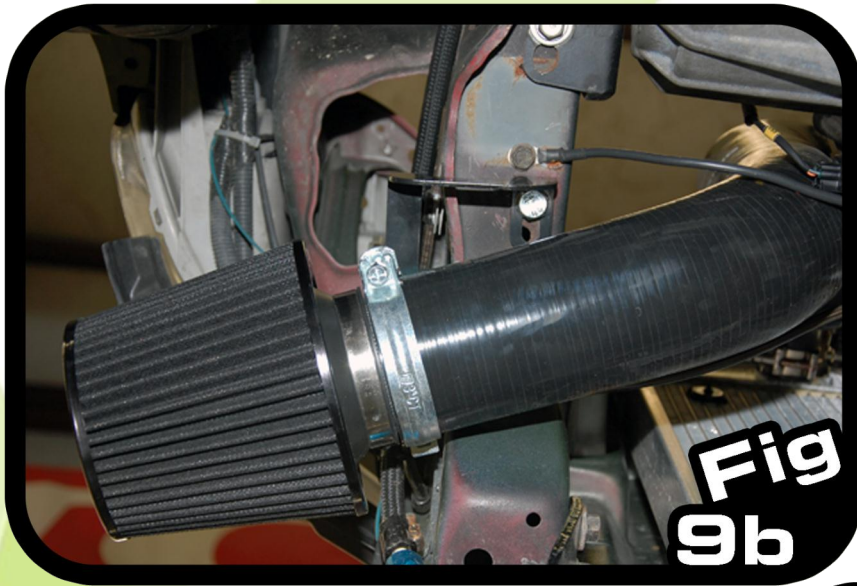


Step 9:

The included bracket is designed to bolt to the underside of the frame rail (see *Figure 9a*). Bolt the bracket to the frame rail using the supplied M10x1.25 bolt and M10 washer as shown in *Figure 9b*.

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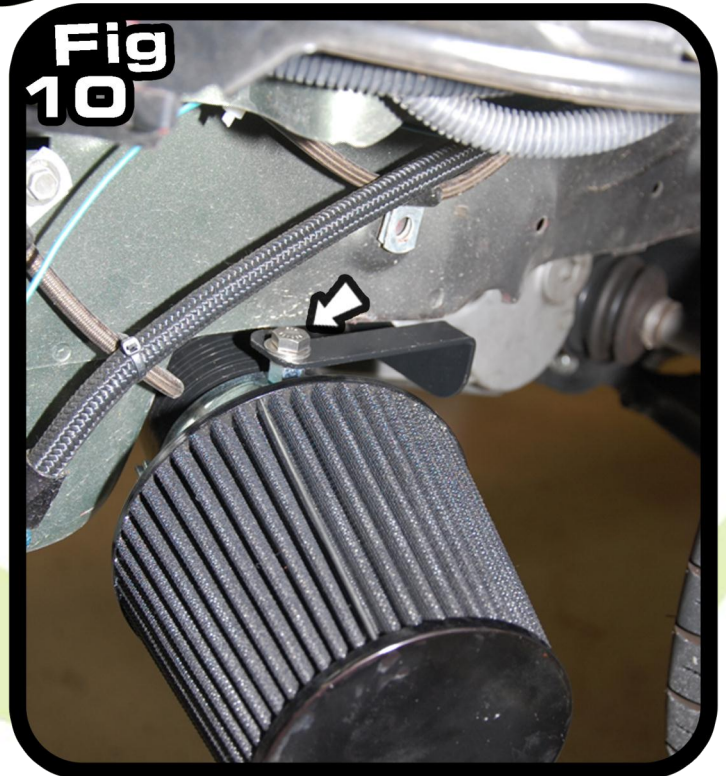
**Fig
9b**



Step 10:

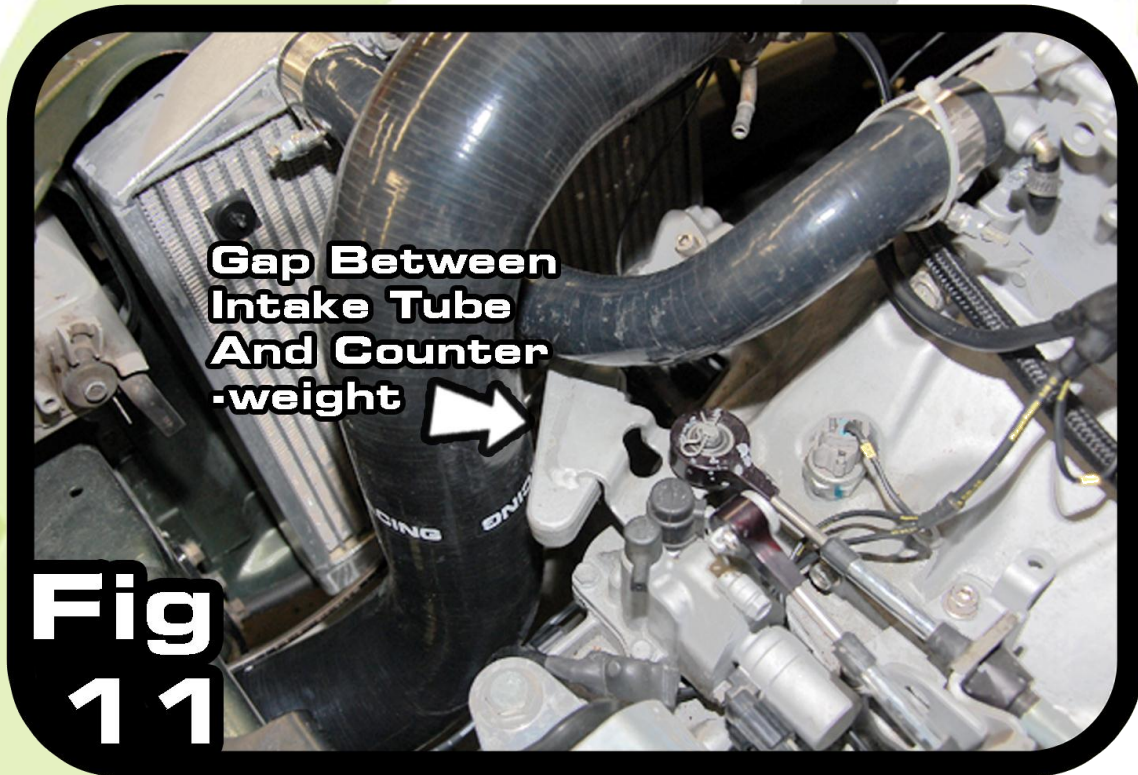
Using the supplied 3/8"-16 bolt and M10 washer, bolt the bracket to the clamp hanger as shown in *Figure 10*.

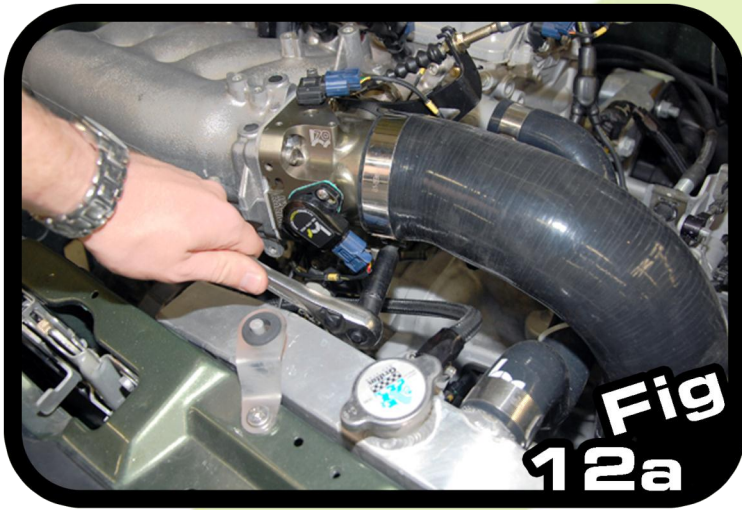
**Fig
10**



Step 11:

Before tightening all of the bolts, check the filter's position and clearance with the bumper. The bracket is slotted to allow some minor adjustment of the filter's position. Put the transmission in 1st, 3rd, and 5th gear and check the clearance between the transmission's linkage and the CAI. **Figure 11** illustrates proper clearance between the linkage and CAI. If the linkage hits the CAI before it "clicks" into gear, the CAI may cause the car to come out of gear while driving (this is true of all CAI's and even some radiator hoses on k-swaps). Adjust the bracket as necessary to achieve the desired clearance between the CAI and transmission counterweight.

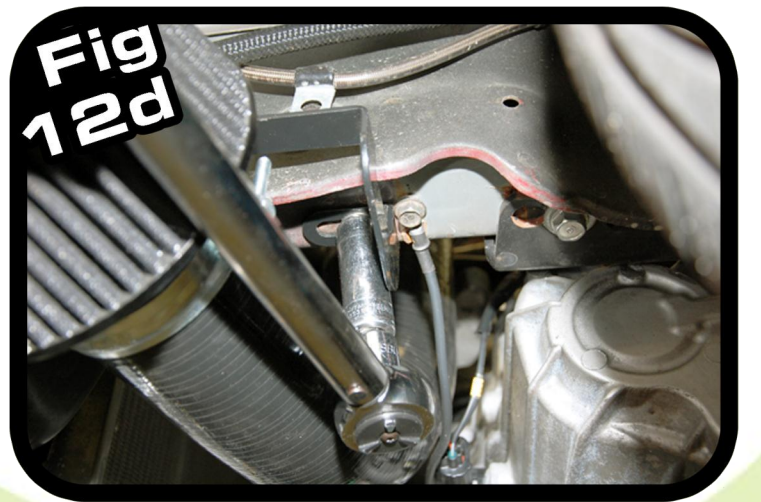
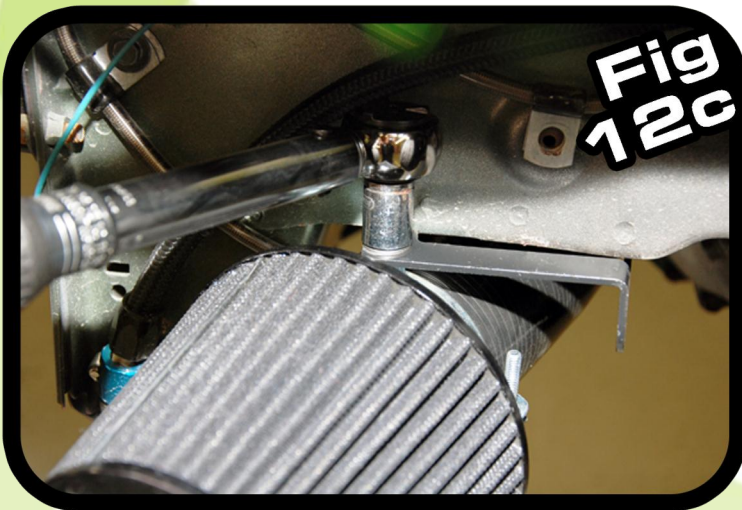




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Step 12:

Finally, all of the bolts may be tightened to their final torques. First, tighten the t-bolt clamp on the throttle body using a 10mm deep socket as shown in *Figure 12a*. Next, tighten the clamp hanger using a flat head screw driver or a 7/16" socket. The clamp should be tightened within 3-5mm of being fully closed as shown in *Figure 12b*. Next, torque the 3/8"-16 bolt on the clamp hanger to 20 ft-lbs using a 9/16" socket as shown in *Figure 12c*. Finally, torque the M10x1.25 bolt to 35 ft-lbs using a 17mm socket as shown in *Figure 12d*.



If you have any questions or comments, please email info@hybrid-racing.com
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