COLD AIR SYSTEM

Installation Instructions for:
Part Number 21-513
2004-2005 Acura TL

ADVANCED ENGINE MANAGEMENT INC.
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Instruction Part Number: 10-7034
2004 Acura TL 3.2L V6 C.A.R.B. E.O. #pending
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Cold Air Intake Systems that are pending CARB approval are illegal in California except on racing vehicles which may never be used on public highways.

Congratulations! You have just purchased the finest Air Induction & Filtration system for your car at any price!

The **AEM** Cold Air Intake System is the result of extensive development on a wide variety of cars. It is the most advanced Cold Air Intake System on the market. Each system is specifically engineered for its application. All **AEM** Cold Air Intake Systems deliver maximum performance gains through lightweight, all-aluminum, mandrel-bent tubing that is tuned in both length and diameter. The aluminum will not crack in extended use like plastic. The tube length and diameter are matched for each specific engine to give power over a broad RPM range. Unlike plastic systems that use a continually diverging cross-section, we take advantage of the acoustical energy in the inlet duct to promote cylinder filling during the intake valve-opening event. Every intake is coated with a high-gloss, heat-reducing Zirconia based powder coating. This special blend of powder coating helps reduce heat penetration, which in turn reduces the temperature of the inlet air charge. The cooler inlet air temperature translates to more power during the combustion process because cool air is denser than warm air. The filter element has also been extensively developed. An integral part of all our filter elements is a built-in velocity stack. This velocity stack is specifically engineered to improve the aerodynamic efficiency of the intake system. We have seen airflow gains on a flow bench of 12-15% by using this velocity stack. The *air mass* flow to the engine is increased because of the increased airflow and reduced inlet temperature, which translates to more power.

Bill of materials for: 21-513

Quantity	Part Number	Description
1	2-561	Inlet Pipe
1	21-2110	Air Filter Asmbly 3.25 5" & Clamp
1	1228598	Mount, Rubber 5/8" X 6MM
2	444.460.04	Nut, Nylok 6MM
2	559999	Washer, Flat M6X25
6"	8-133	1/4" Slit convoluted tubing
1	5-323	Reducer, Silicone 3.00”-3.25"
2	103-BLO-4820	Hose Clamp,2.56-3.50"
20	516-006	Hose,5/16ID
20	65116	Hose,1/2ID
2	4093-6	Hose Clamp, 1"
2	4093-5	Hose Clamp, 3/4"
1	2-680	Hex Head Plug M12 x 1.5
1	1-3038	M12 O-ring 2mm
4	1-113	Zip Tie,6" Long
2	10-922S	AEM Silver Decal
1	10-400W	White License Plate Frame
1	10-7034	Instructions

Read and understand these instructions <u>BEFORE</u> attempting to install this product.

Note: This inlet pipe kit requires the removal and reinstallation of emissions related components. If you are not familiar with the installation and/or the operation of these components then please refer this installation to a qualified professional.

1) Getting started

a) Make sure vehicle is parked on a level surface.
b) Set parking brake.
c) Make sure you have the anti-theft code for the radio.
d) Disconnect both positive and negative battery terminals.
e) If engine has run within the past two hours let it cool down.

2) Removing the stock air inlet system

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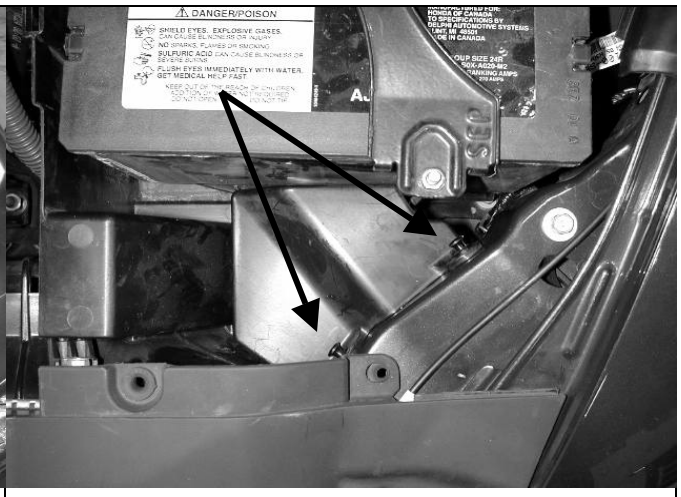
<td> 
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<td>a) Before removing any of the O.E. components, label each individual part so that no components become mixed up during the installation process.</td>
<td>b) Remove plastic shrouding covering the battery. Remove the plastic air scoop in front of the battery by pulling out the two retaining clips and lifting scoop straight out.</td>
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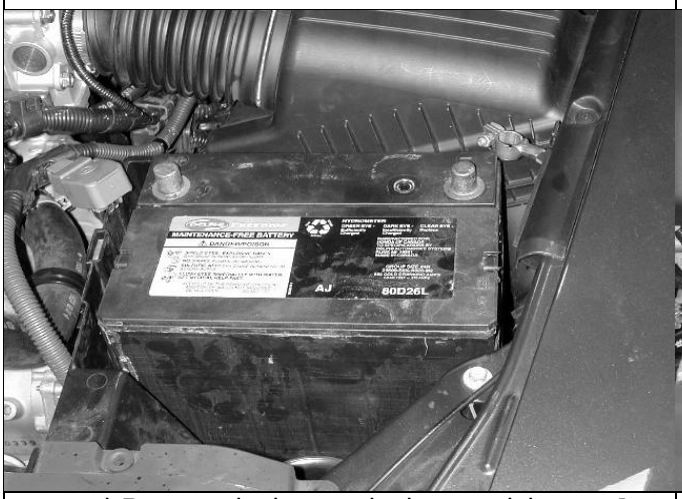
<td> 
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<td>c) Remove the battery tie down and the two J-bolts securing it. Carefully lift the battery out of the engine compartment and set aside in a safe place.</td>
<td>d) Unclip the plastic battery shroud from the positive terminal wire and remove the shroud.</td>
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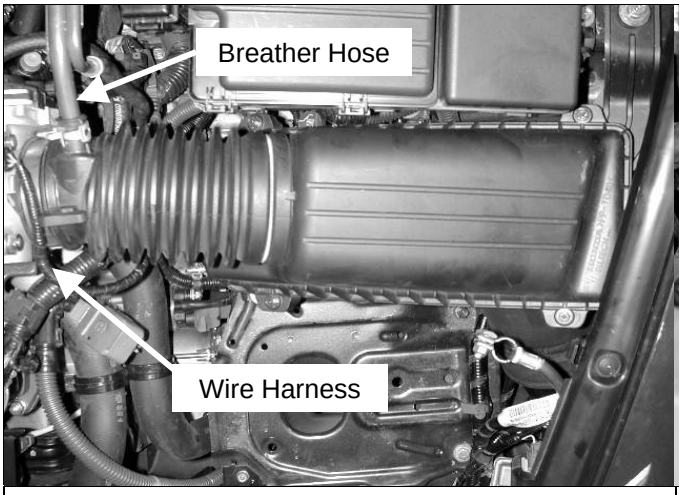
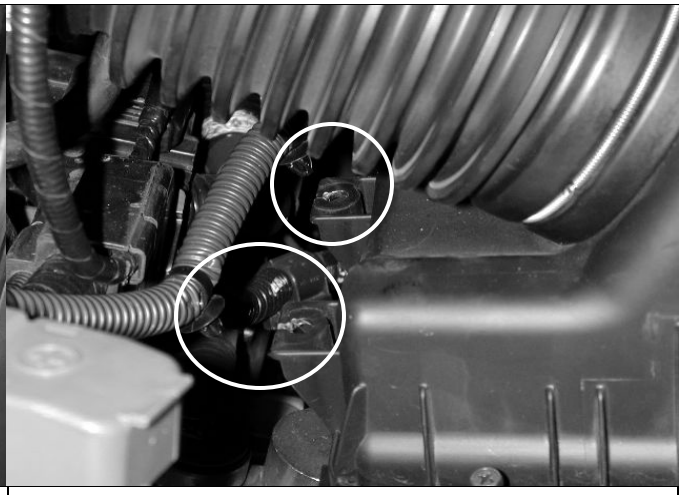
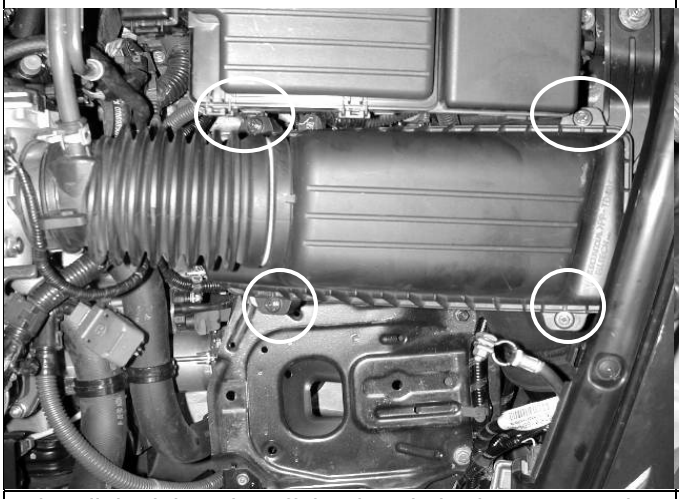


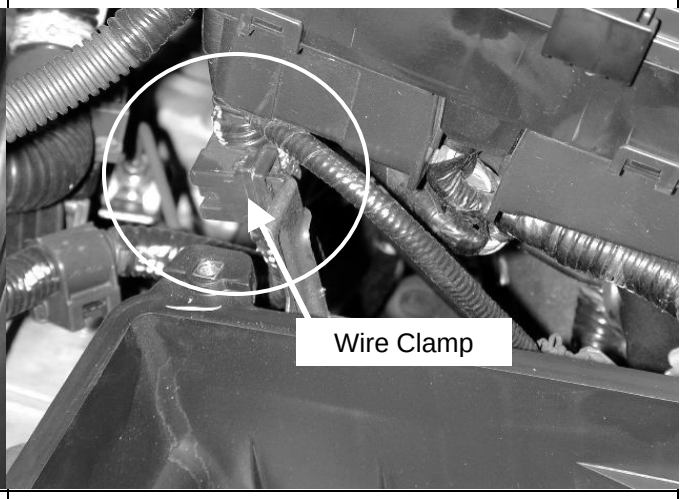
e) Loosen the hose clamp on the throttle body and unhook the wiring harness. Remove the stock breather hose from the inlet tube.



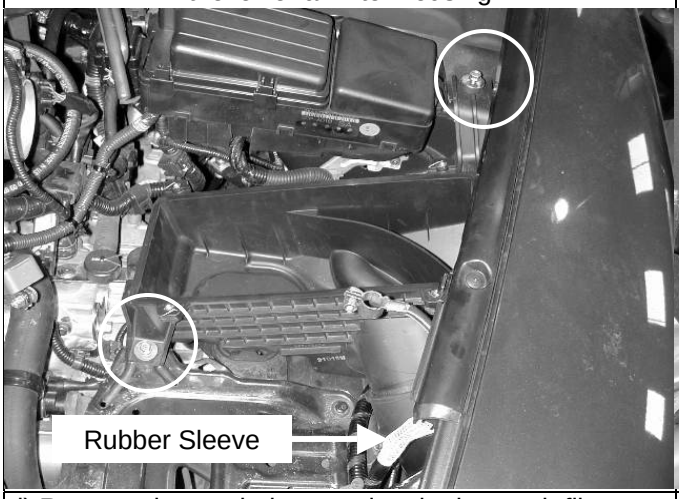
f) Remove the plastic clips holding the wiring harness to the throttle body side of the air filter housing.



g) Pull the inlet tube off the throttle body. Remove the four screws holding the top of the air filter housing to the lower air filter housing

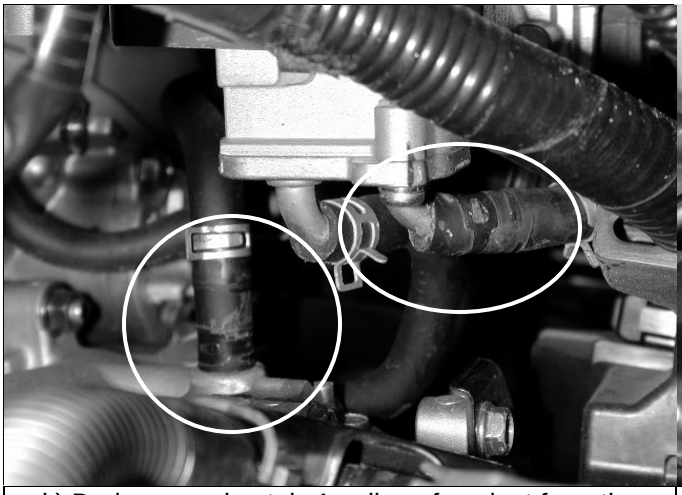


h) Remove wire clamp from the lower air box bracket

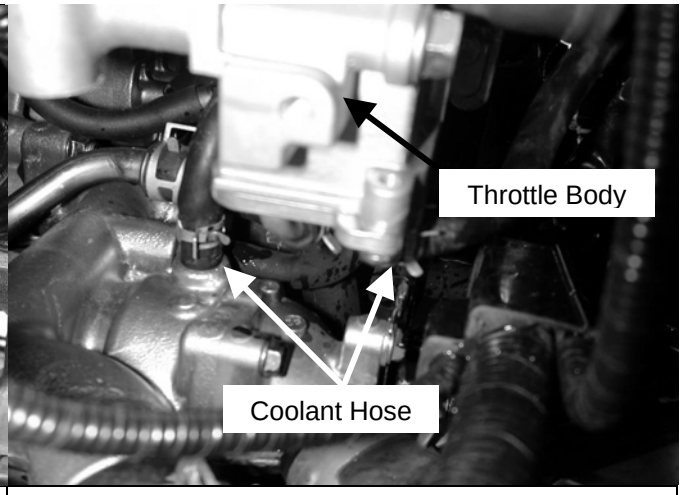


i) Remove the two bolts securing the lower air filter housing and remove housing. Pull up and remove the rubber sleeve connecting the air filter housing to the resonator below.

j) Remove the breather hose from the rear valve cover.



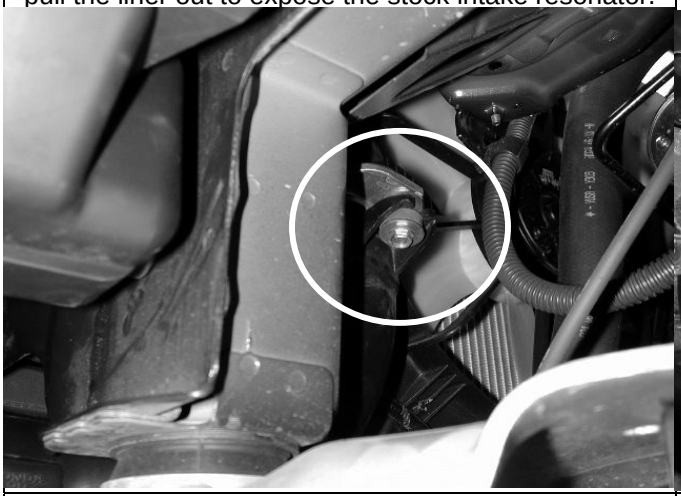
k) Drain approximately 1 gallon of coolant from the radiator into the proper container. Do not throw the coolant away because it will be used again later. The next step will be to remove the metal tubing loom, which will include the breather hose, coolant hose and a bracket holding the evap service port. Make sure to note proper hose routing.



l) Another view of tubing loom routing. Use pliers to slide the spring clamps over the breather and coolant hoses. A flat-head screwdriver may be needed to pry the hoses off the coolant line nipples.

m) Remove the driver side wheel. Remove the nuts and the plastic push rivits on the fender liner in and pull the liner out to expose the stock intake resonator.

n) **Note: Removal of the stock intake resonator requires drilling**. Start by drilling the two aluminum rivets shown.



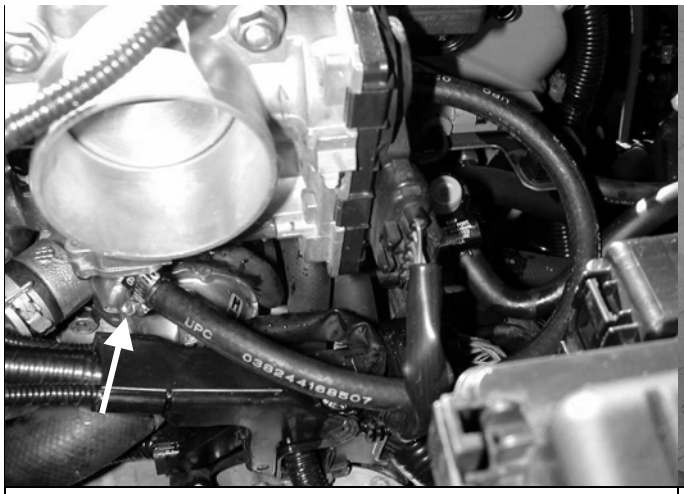
o) Remove the bolt securing the inlet tube to the frame. This can be reached through the wheel well.

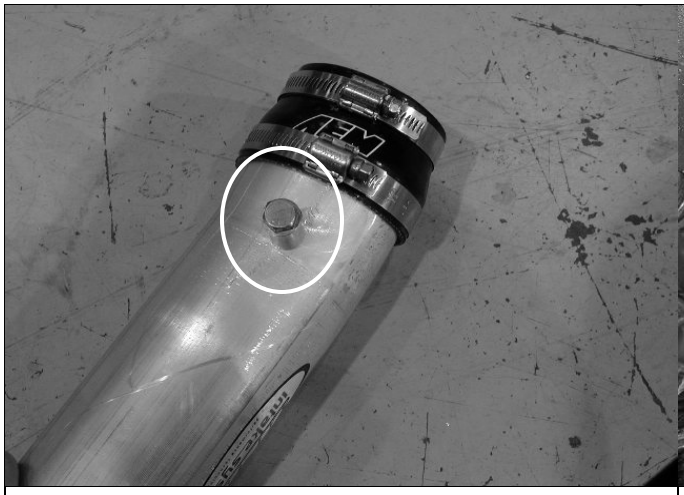
p) Using either a large screwdriver or a pry bar, pry the inlet air tube from the resonator box. Remove the inlet air tube.

	
q) Remove the two bolts securing the resonator box to the frame. Remove the resonator box.	r) Release the wire loom from the hole in the fender

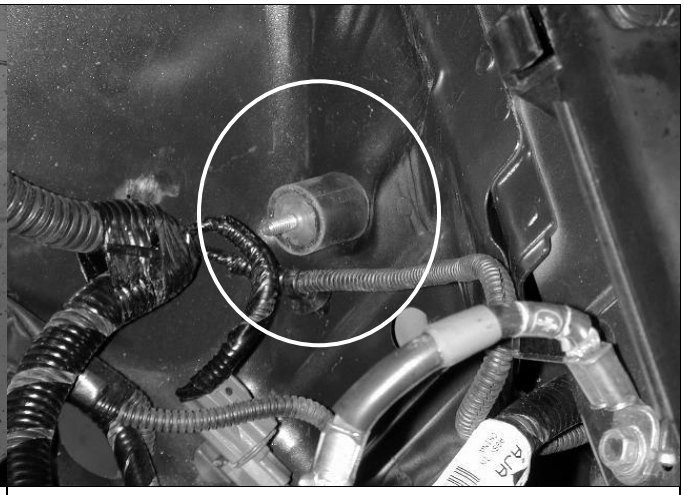
3) Installing the *AEM* CAS Intake

When installing the Cold Air Intake System, DO NOT completely tighten the hose clamps or mounting tab hardware until instructed to do so later in these instructions.

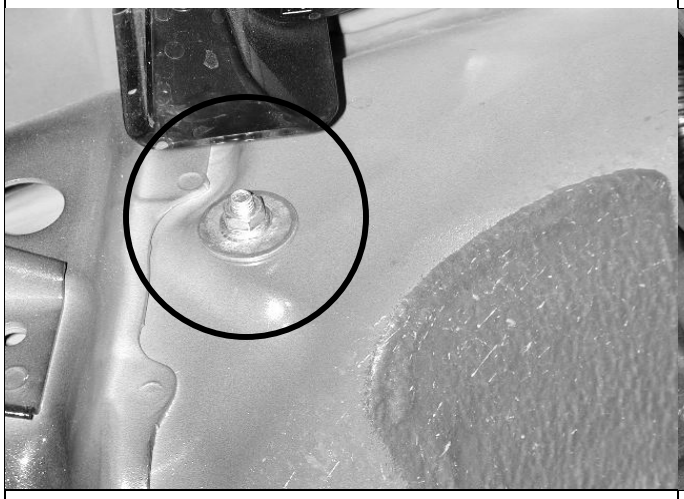
	
a) Install the provided 5/16” hose where the factory coolant line was removed. Use the supplied 3/4” hose clamps to secure the hose.	b) Check to see that the inside of the ***AEM* CAS** inlet pipe and air filter are clean and free from any foreign objects and/or obstructions. Install the 3”-3.25” silicone reducer over the throttle body end of the intake pipe using the 3” hose clamps.



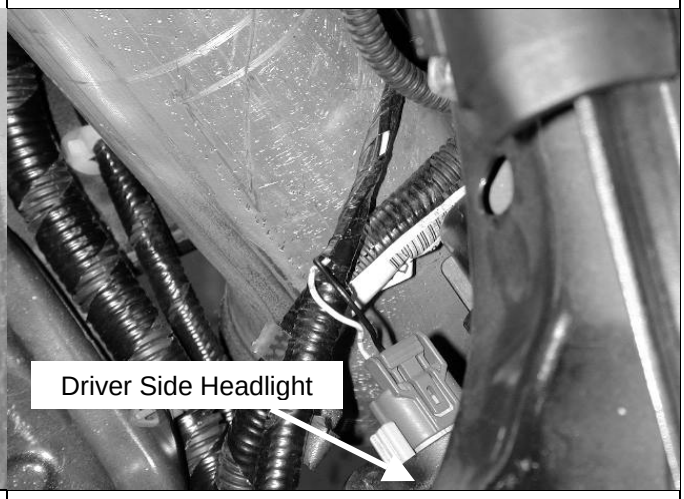
c) Insert the supplied Hex Head plug into the threaded nipple. Be sure to use the supplied O-ring.



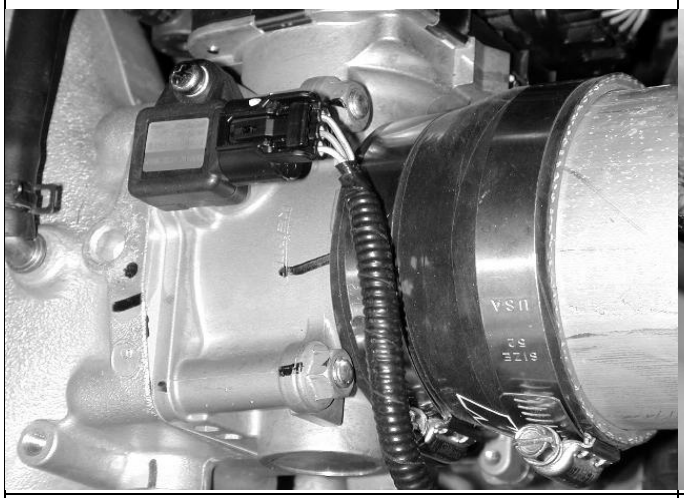
d) Install the rubber mount where the factory wire loom was removed.



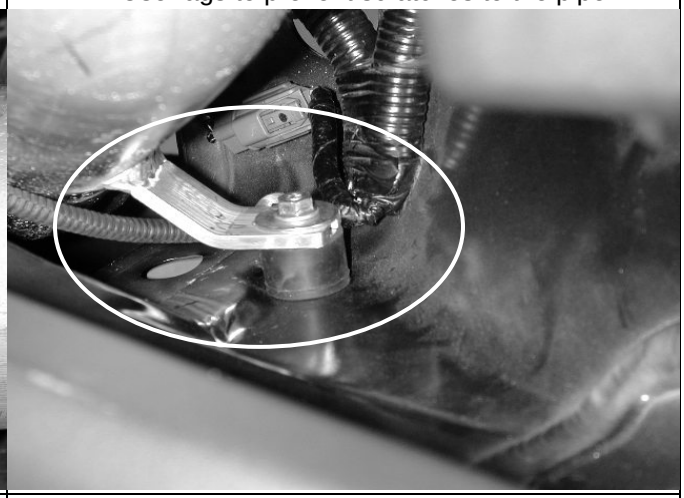
e) Secure the rubber mount using the supplied washer and nylok nut.



f) Install the ***AEM*** **CAS** intake pipe by routing the filter end of the pipe through the opening in the engine bay between the battery location and the fender. Use rags to prevent scratches to the pipe.

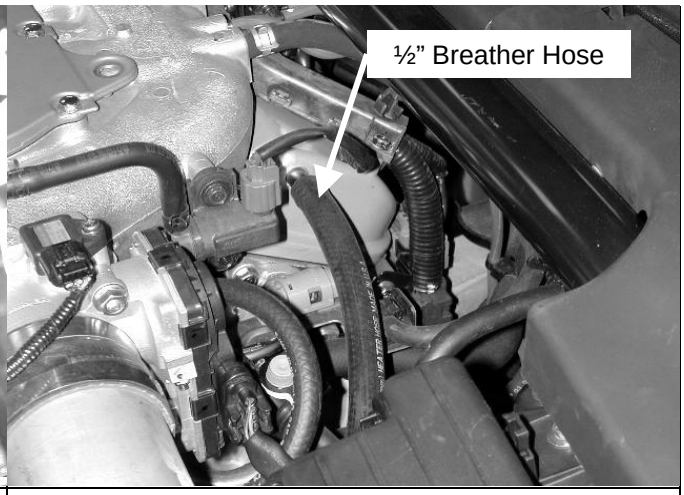


g) Install the silicone coupler attached to the ***AEM*** **CAS** intake pipe over the throttle body.

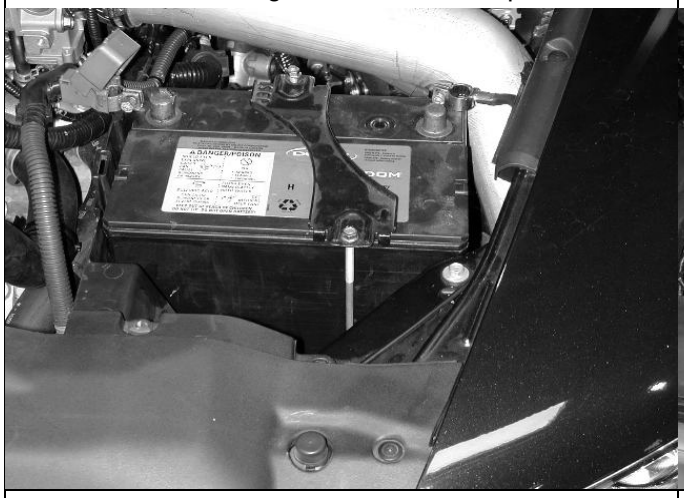


h) Guide the bracket on the intake pipe over the stud on the rubber mount. Once aligned, install the supplied washer and nylock nut onto the stud.

i) Install the ***AEM*** **CAS** filter on to the end of the inlet tube. Push the filter over the inlet pipe until the stop in the filter is reached and install one hose clamp to secure the filter onto the inlet pipe. Once fitment is checked, tighten the hose clamp.



j) Install the supplied ½" breather hose between the intake pipe and the valve cover. Secure with provided 1" hose clamps.



k) Reinstall the plastic battery under-tray, the battery, and the battery tie down bracket. Do not install the plastic battery cover. Check for proper clearance between the battery and the intake pipe. Use the supplied zip-ties to make sure no wires are in contact with the intake system.

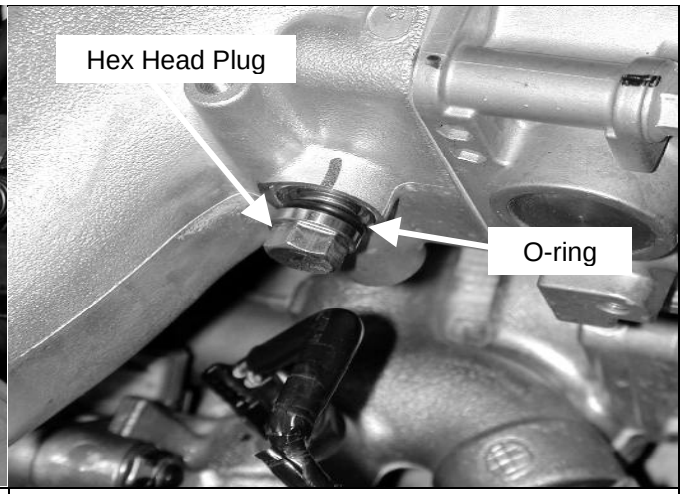
l) Check that the ***AEM*** **CAS** intake is not touching any part of the vehicle. Tighten the hose clamps at the throttle body and silicone coupling. Tighten the nut on the mounting bracket. Reinstall the inner fender liner fasteners and the driver side wheel.

Before

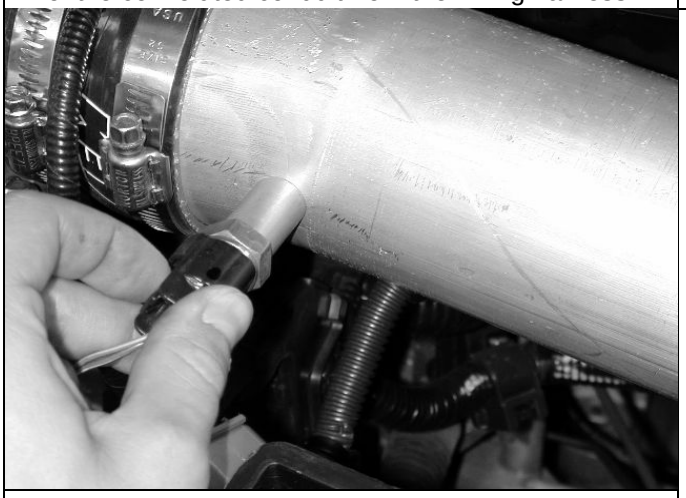
After

4) Optional Power Adder Note: This is for Off Road Use Only and voids CARB Approval!

a) Unplug the IAT sensor from the wiring harness and remove the IAT sensor from the throttle body. Strip 5" of the convoluted conduit from the wiring harness.



b) Remove the Hex Head plug from the intake pipe and insert it into the throttle body where the IAT sensor was removed using the supplied O-ring.



c) Insert the IAT sensor into the threaded nipple where the HEX Head Plug was removed in the previous step. Trim-to-fit the supplied convoluted conduit to wrap the exposed IAT sensor wires and zip-tie secure.

5) Re-assemble the vehicle

a) Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tight.
b) Reinstall the coolant drained from the radiator in step g) of the stock intake removal.
c) Reconnect the battery cables to the battery (always connect positive first).
d) Start the vehicle and check for proper operation of all the components that were removed.

For Technical Inquiries
E-Mail Us At
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