



COLD AIR SYSTEM

Installation Instructions for:
Part Number 21-514
2004 Honda S2000

ADVANCED ENGINE MANAGEMENT INC.
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Instruction Part Number: 10-7041

2004 Honda S2000 2.2L C.A.R.B. E.O. #Pending

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.

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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: 21-514

Quantity	Part Number	Description
1	2-569	Upper Inlet Pipe
1	2-570	Lower Inlet Pipe
1	21-2110	3.25" Air Filter & Clamp
2	444.460.04	6mm Nylock Nut
2	559999	6mmx25mmx1mm Washer
1	1228599	Rubber Mount
1	5-325	3.25" Connector
1	5-323	3.25" to 3.00" Reducer Connector
3	103-BLO-4820	Hose Clamp 2.81-3.75"
1	103-BLO-4420	2.75" Hose Clamps
1	99024.032	1.00" hose clamps
30"	65532	5/32" vacuum hose
12"	516-006	5/16" Hose
12"	65116	Breather Hose 1/2"
1	8-145	Duck Bill Drain
1	10-7041	Instructions
2	10-922S	AEM Silver Decal
1	10-400W	White License Plate Frame

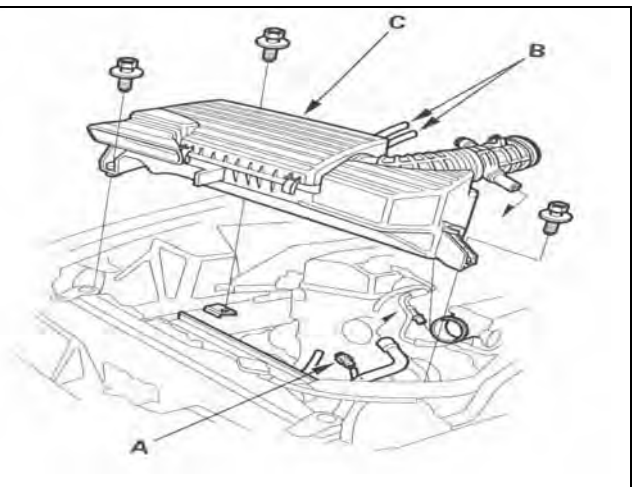
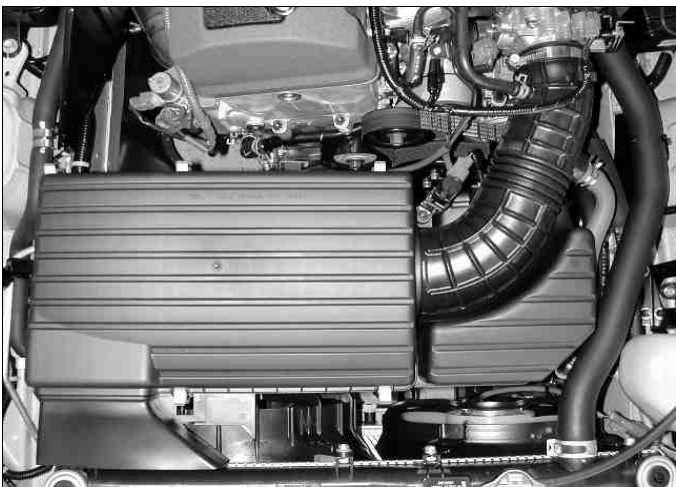
Read and understand these instructions **BEFORE** attempting to install this product.

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

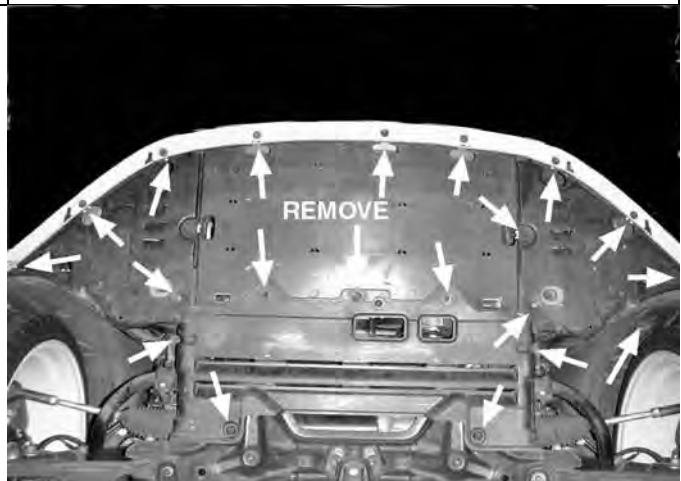
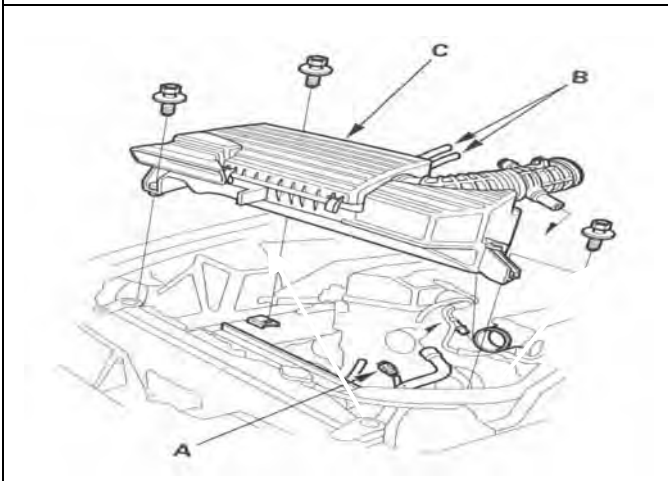
- a) Make sure vehicle is parked on a level surface.
- b) Set parking brake.
- c) Make sure you have the anti-theft code for the radio.
- d) Disconnect negative battery terminal.
- e) If engine has run within the past two hours let it cool down.

2) Removing the stock air inlet system



a) Before removing any of the O.E. components, **label each individual part so that no components become mixed up during the installation process.** There is one breather hose, one vacuum hose, and one Air Control Solenoid.

b) Disconnect the Air Control Solenoid Valve Connector (A), then remove the vacuum hoses (B).



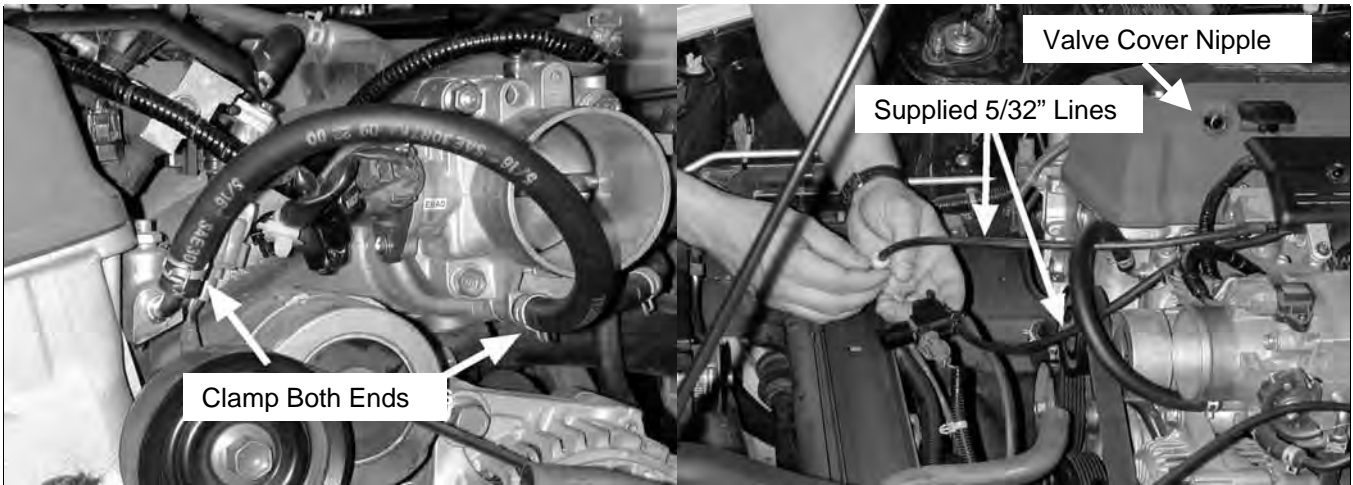
c) Loosen the throttle body hose clamp, loosen the three mounting bolts, and remove the air cleaner housing/intake duct (C) assembly.

d) Remove the front passenger side wheel. Remove the plastic under trays, and loosen the passenger side inner fender liner as shown.



e) 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. Remove the metal tubing loom, which will include the breather hose, coolant hose and air control solenoid valve vacuum hoses. Make sure to note proper hose routing. (Place a rag under the loom, as coolant will leak from the lower hose).

3) Installing the AEM CAS Intake

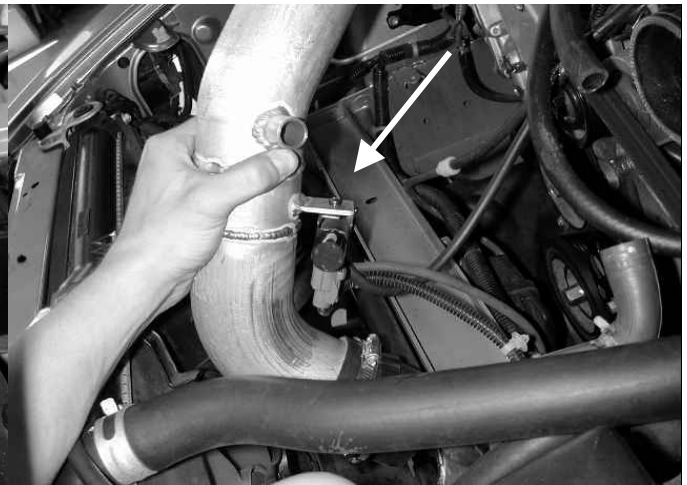


a) Install the provided 5/16" hose between the throttle body and the bleeder outlet vacated by the removal of lower hose of the metal tube loom. Use the factory hose clamps as shown.

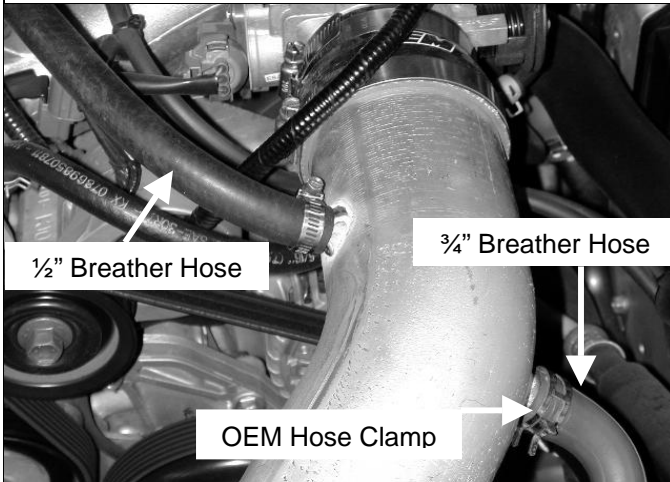
b) Replace the factory Air Control Solenoid Valve vacuum lines with the supplied 5/32" lines, as shown. Use the two supplied zip ties to zip tie the hoses away from the serpentine belt. Install the supplied breather hose onto the valve cover nipple using the supplied hose clamps.



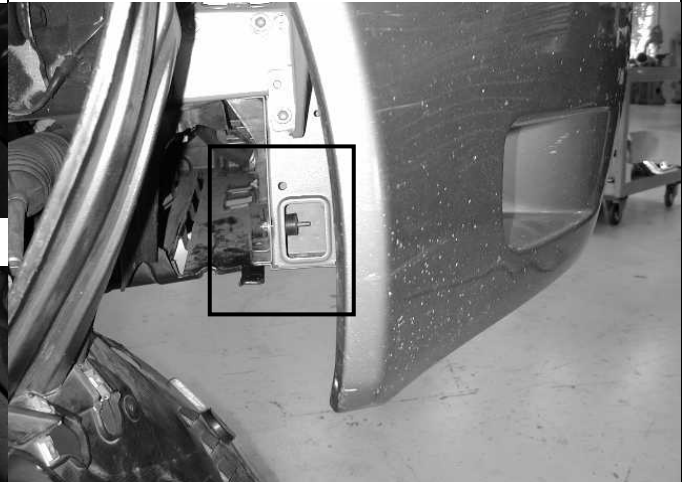
c) Install the 3.00"-3.25" reducing coupler on to the throttle body using the #44 hose clamp. Check to see that the inside of the **AEM CAS** inlet pipes and air filter are clean and free from any foreign objects and/or obstructions.



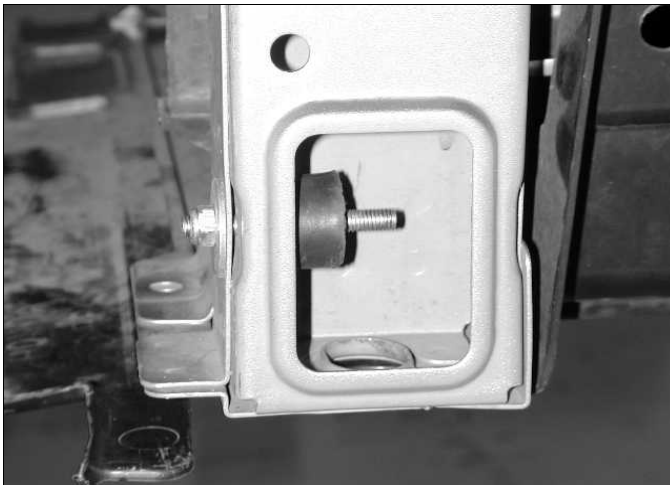
d) Using the factory bolt, secure the Air Control Solenoid Valve to the bracket on the upper Cold Air Pipe as shown. Note: if vacuum lines are installed incorrectly, the vehicle will show a check engine light when started. Disconnect the battery and reinstall the vacuum lines properly.



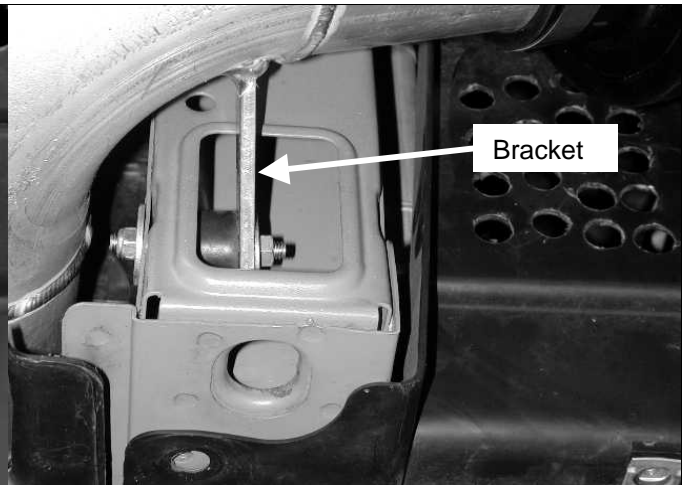
e) Install the Upper Intake Pipe by inserting the end with the 1/2" nipple into the 3.25" side of the coupler on the throttle body. Attach the 1/2" breather hose and the 3/4" factory breather hose as shown. Use the factory hose clamp on the 3/4" hose and the supplied hose clamp on the 1/2" hose.



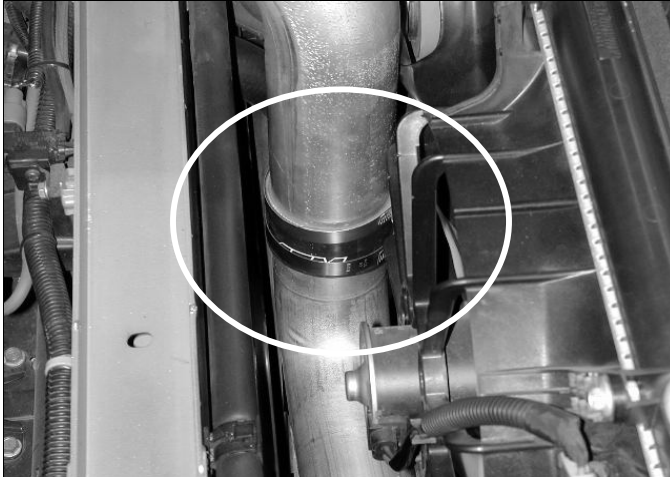
f) Install the supplied rubber mount into the passenger side radiator support frame rail as shown. When tightening the nut, tighten until the thin outer wall of the support starts to deflect (See next picture g) for closer view).



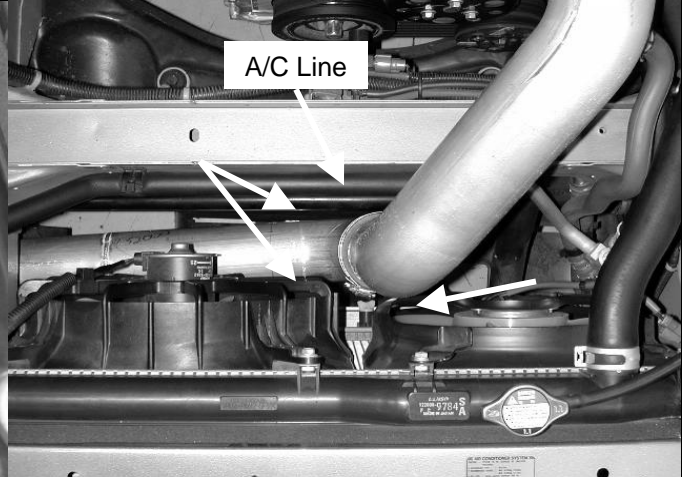
g) Install the supplied rubber mount into the passenger side radiator support frame rail as shown. When tightening the nut, tighten until the thin outer wall of the support starts to deflect.



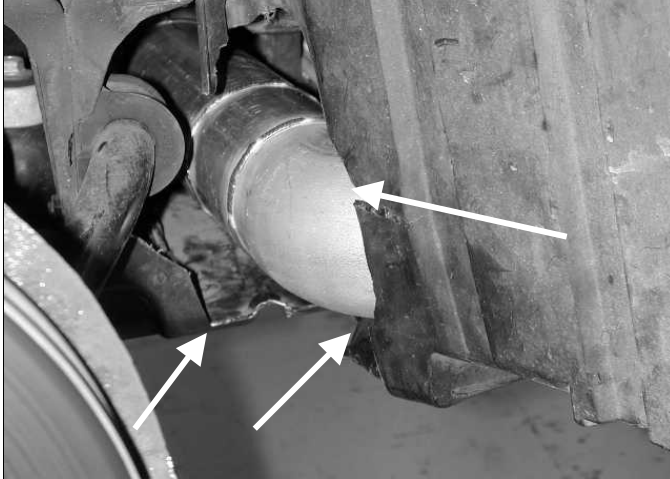
h) Install the Lower Intake Pipe behind the radiator with the bracket sliding onto the rubber mount. Use the washer and screw on the nylok nut but do not tighten at this time.



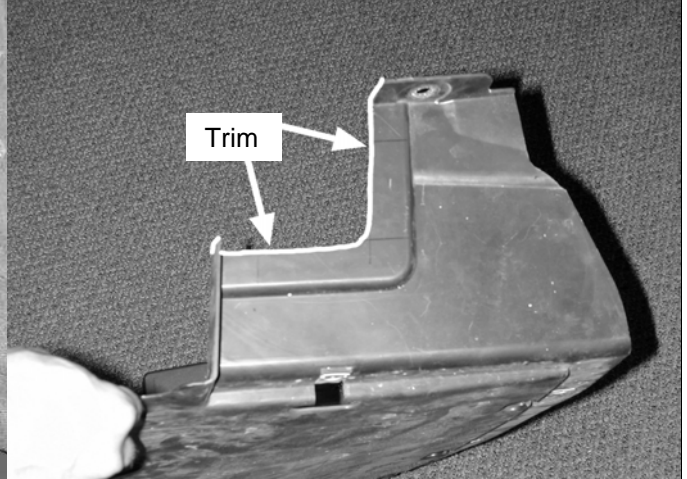
i) Using the 3.25" Silicone Hose and two #48 hose clamps supplied, attach the Upper and Lower Intake pipes together.



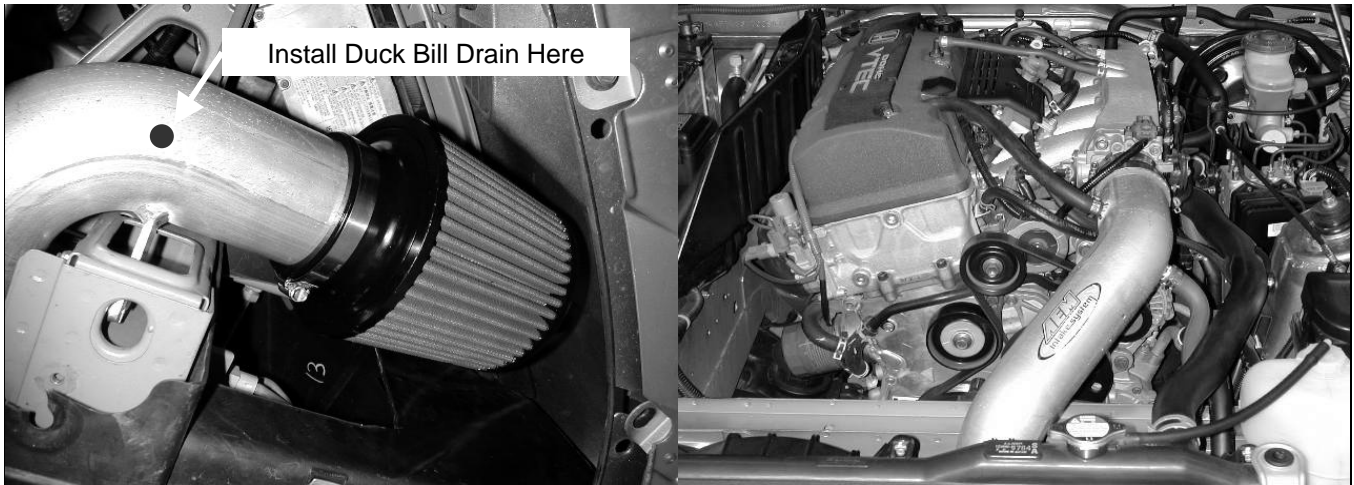
j) Check the Lower Intake pipe clearance between the radiator fan guard, the A/C line, and the Sway Bar.



k) Trim Inner Fender liner and under tray as shown for proper fit.

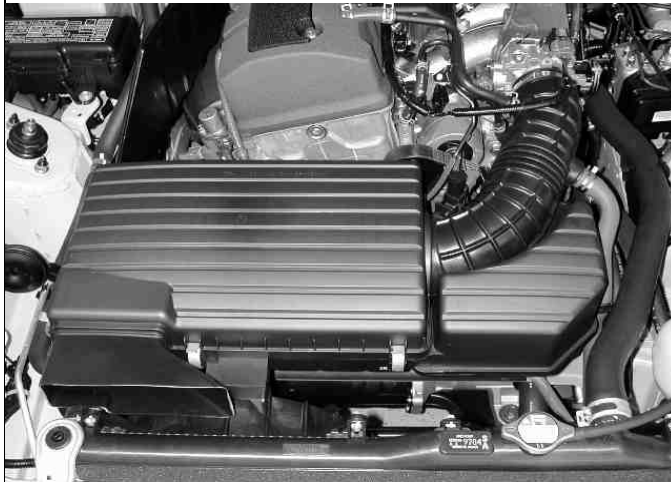


l) Trim the passengers side undertray as shown to provide cooler air to the filter element. Reinstall the undertrays, trimming or notching them for tube clearance where required.



m) 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.

n) Check that the filter is not touching any part of the vehicle. Position the inlet pipe for best fitment. Be sure that the pipe or any other component is not in contact with any part of the vehicle. Tighten the hose clamps at the throttle body and silicone coupling. Tighten the nut on the mounting bracket. Check for proper hood clearance. Re-adjust pipe if necessary. Reinstall the inner fender liner fasteners and the passenger side wheel.



Before



After

4) 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 e) of the stock intake removal.
- c) Reconnect the battery cable to the battery.
- d) Start the vehicle and check for proper operation of all the components that were removed.

**For Technical Inquiries
E-Mail Us At
tech@aempower.com**