



Equipped with AEM® Dryflow™ Filter
No Oil Required!

INSTALLATION INSTRUCTIONS

PART NUMBER: 22-633

2004-2006

SATURN ION L4 2.0L

C.A.R.B. E.O. # D-670

* **NOTE:** Legal in California only for racing vehicles which may never be used upon a highway

PARTS LIST

Description	Qty.	Part #
Short Pipe	1	2-6331
Air Filter Assy. 3.25 X 5" Dry Ele.	1	21-2110DK
Hose, Silicone 3.00x1.5" Blk.	1	5-315
Hose, Adapter 3.00/3.25x3" Blk.	1	5-320
1/2" Bnd. Hose Clamp, 2.56"-3.50"	3	9448
1/2" Bnd. Hose Clamp, 2.90"-3.75"	1	9452
1/2" Bnd. Hose Clamp, 3.15"-4.00"	1	9456
Hose Clamp, 1"	2	99024.032
Hose; 1/2"ID X 2"L	1	5-5002
Zip Tie, 11.25 Long	1	1-115

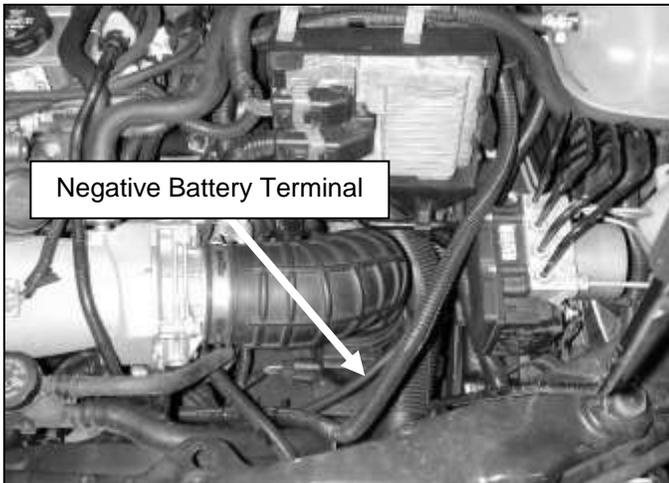
Read and understand these instructions **BEFORE** attempting to install this product. Failure to follow installation instructions and not using the provided hardware may damage the intake tube, throttle body and engine.

IMPORTANT: Please see steps 3d and 3e before beginning installation process. Special tools and/or complex installation procedures are necessary to properly install the AEM® intake system and may increase the amount of time required for the installation process.

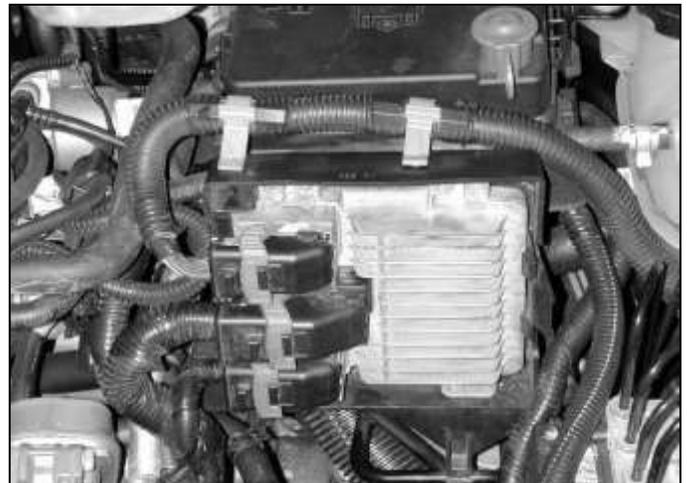
1. Preparing Vehicle

- a. Make sure vehicle is parked on level surface.
- b. Set parking brake.
- c. If engine has run in the past two hours, let it cool down.
- d. Disconnect all negative battery terminals.
- e. Do not discard stock components after removal of the factory system.

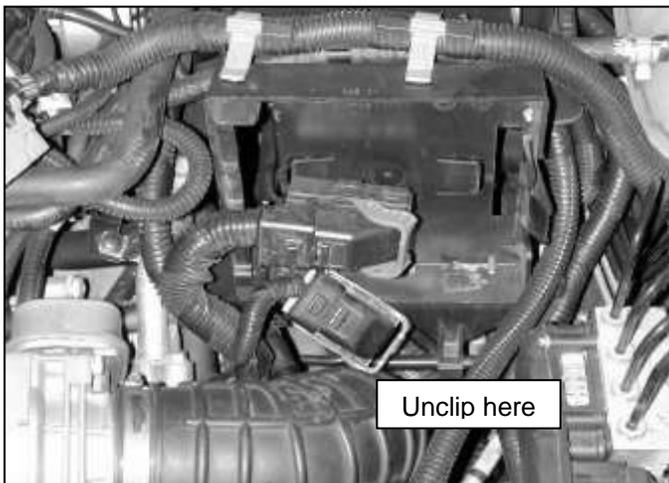
2. Removal of stock system



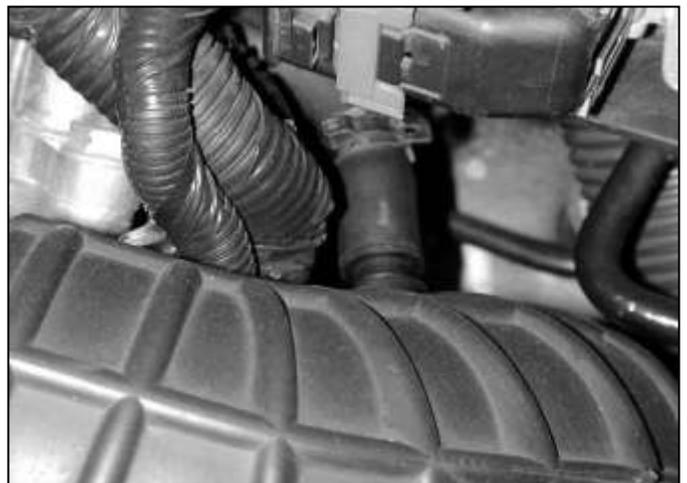
a. Locate the negative battery terminal and disconnect.



b. Disconnect the main harness from the ECU. This is done by releasing the lock down and pulling on the wire side of the 3 plugs.



c. Remove the ECU from the housing by unclipping it on the driver's side.



d. Using pliers, remove the retaining clamp from the breather hose attached to the air inlet tube. Disconnect the breather hose from the inlet tube.



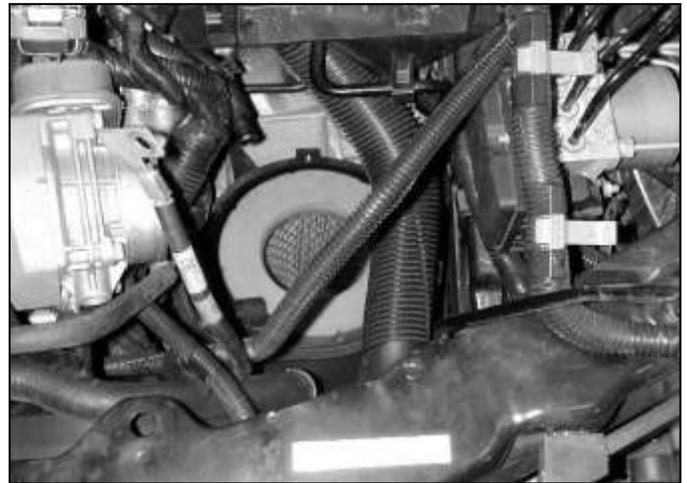
e. Loosen the hose clamps on the throttle body and the stock air filter housing. Remove the air inlet tube.



f. Unclip the Mass Air Flow (MAF) sensor wiring harness from the sensor.



g. Remove the three screws securing the stock air box lid. Lift up on the lid and rotate it in order to separate the lid from the stock air filter.



h. Remove the stock air filter from the air filter housing.



i. Unclip the idle air hose from the throttle body. Remove the four bolts securing the throttle body to the intake manifold.



j. Unplug the throttle body wiring harness from the bottom side of the throttle body.

3. Installation of AEM® intake system.

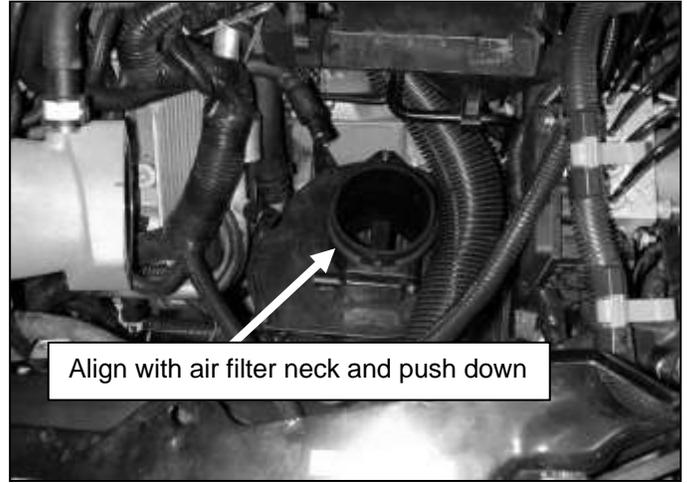
- a. When installing the intake system, do not completely tighten the hose clamps or mounting hardware until instructed to do so.



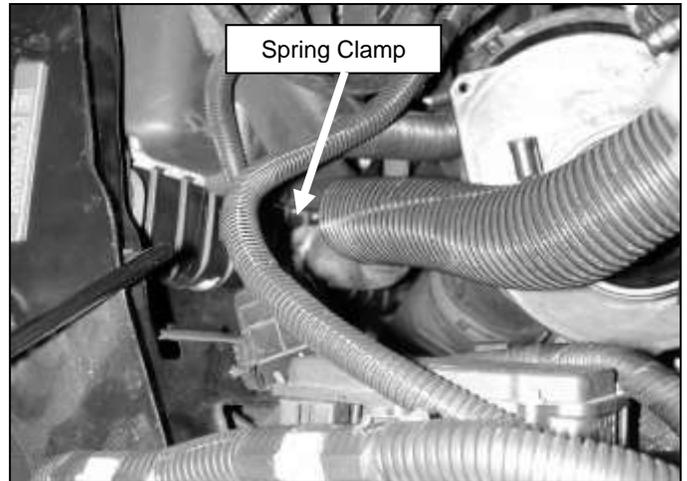
- b. Check to be sure the AEM® air filter is free from any foreign objects. Set the air filter in the stock air filter housing. Be sure to angle the hose clamp towards the center of the grill as shown.



- d. This step is complicated so take your time. Using a 90 degree pick, slide the pick into the hole on the top of the housing and under the lip on the filter. Pull up on the filter until it is all the way on the air box inlet tube. **Be careful not to damage the MAF sensor.** Tighten the hose clamp on the filter by lifting up on the air box lid as shown.



- c. Install the air box lid by sliding it under the radiator hose and aligning the air box inlet tube with the air filter neck. Push down on the air box lid once it is aligned.



- e. If step 3c is too complicated or you do not have the proper tools, the radiator hose can be removed to install the air filter and air box lid.

NOTE: Ensure the engine is completely cool before removing the coolant hose, or hot coolant will escape from the cooling system and cause injury or damage.

To do this, the radiator coolant must first be drained. Follow the procedure described in your vehicle's factory service manual to drain the coolant. Compress the spring clamp holding the hose onto the radiator and pull the hose off the radiator. Once the radiator hose has been moved out of the way, there will be sufficient space to install the air box lid.

NOTE: Be sure to capture any lost coolant in an appropriate container so it can be recycled back into the system in a later step.



f. If step 3e was performed, reinstall the radiator hose. Be sure to replenish any coolant that was drained or lost during the process. For any additional details regarding this procedure refer to the factory service manual.

Plug the throttle body back in and install the four bolts securing it to the intake manifold. Connect the idle air hose to the nipple.



g. Reinstall the three screws to secure the air box lid. Install the reducing couple onto the air box outlet tube. Secure the coupler using a #52 hose clamp as shown.



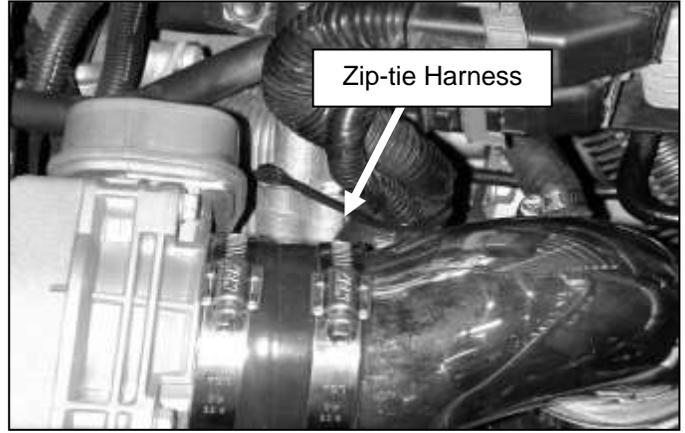
h. Using the supplied 1/2" hose, attach the hose to the stock plastic barb fitting. Secure using the supplied 3/4" hose clamps.



i. Install the supplied 3" straight coupler onto the intake pipe end opposite the nipple. Place the nipple side of the intake pipe into the reducer coupler installed in step 3g. Rotate the pipe around to align the 3" coupler with the throttle body. Slide the coupler over the throttle body and secure using the three remaining #48 hose clamps.



j. Install the 1/2" hose onto the AEM[®] intake pipe nipple and secure with the 3/4" hose clamp.



Zip-tie Harness

k. Reinstall the ECU and reconnect the harness. Use the supplied zip tie to secure harness wires as shown.



Factory air box system installed



AEM[®] intake system installed

4. Reassemble Vehicle

- a. **MAF Sensor:** Connect the MAF sensor wiring harness connector to the MAF sensor.
- b. If step 3e was performed, ensure that radiator hose was reinstalled properly and all engine coolant was replenished. Please refer to the factory service manual for details regarding this procedure for your vehicle.
- c. Position the inlet pipes for the best fitment. Be sure that the pipes or any other components do not contact any part of the vehicle. Tighten the rubber mount, all bolts, and hose clamps.
- d. Check for proper hood clearance. Re-adjust pipes if necessary and re-tighten them.
- e. Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tightened.
- f. Reconnect negative battery terminals and start engine. Let the vehicle idle for 3 minutes. Perform a final inspection before driving the vehicle.

5. CARB Sticker Placement

- a. The C.A.R.B. exemption sticker, (attached), must be visible under the hood so that an emissions inspector can see it when the vehicle is required to be tested for emissions. California requires testing every two years, other states may vary.

6. Service and Maintenance

- a. It is recommended that you service your AEM® Dryflow™ filter every 20,000 miles for optimum performance. Use AEM Dryflow cleaning kit part # 21-110.
- b. Use aluminum polish to clean your polished AEM intake tube.
- c. Use window cleaner to clean your powder coated AEM intake tube. **(NOTE: DO NOT USE aluminum polish on powder coated AEM intake tubes)**

For technical inquiries e-mail us at sales@aemintakes.com or call us at 800.992.3000

AEM Air Intake System Warranty Policy

AEM® warrants that its intake systems will last for the life of your vehicle. AEM will not honor this warranty due to mechanical damage (i.e. improper installation or fitment), damage from misuse, accidents or flying debris. AEM will not warrant its powder coating if the finish has been cleaned with a hydrocarbon-based solvent. The powder coating should only be cleaned with a mild soap and water solution. Proof of purchase of both the vehicle and AEM intake system is required for redemption of a warranty claim.

This warranty is limited to the repair or replacement of the AEM part. In no event shall this warranty exceed the original purchase price of the AEM part nor shall AEM be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product. Warranty claims to AEM must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser of product and is nontransferable. Improper use or installation, use for racing, accident, abuse, unauthorized repairs or alterations voids this warranty. AEM disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by AEM. Warranty returns will only be accepted by AEM when accompanied by a valid Return Merchandise Authorization (RMA) number. Credit for defective products will be issued pending inspection. Product must be received by AEM within 30 days of the date RMA is issued.

If you have a warranty issue, please call (800) 992-3000 and our customer service department will assist you. A proof of purchase is required for all AEM warranty claims.