



Equipped with AEM® Dryflow™ Filter  
No Oil Required!

## INSTALLATION INSTRUCTIONS

### PART NUMBER: 21-8503

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2006	NISSAN	Frontier	V6-4.0L	Manual Trans.	C.A.R.B. E.O. # D-670
2005-2006	NISSAN	Xterra	V6-4.0L	Manual Trans.	SEE * NOTE

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

## PARTS LIST

Description	Qty.	Part Number
Air Filter Assy. 3.25 X 9" Dry Ele.	1	21-2109DK
Inlet Pipe	1	2-85041
Heat Shield	1	20-8503
Hose, Silicone 3.25 X 2.0"	1	5-326
Edge Trim, 16"	1	8-4016
Rubber Edge Trim 14"	1	8-3014
Mount, Rubber 1" X 8MM	1	1228560
Nipple,.625 OD X .065wL X 2.75	1	7-7013
Edge Trim, 8"	1	8-4008
Hose; 5/8"ID X 5"L	1	5-7005
Bolt, Hex M6-1 X 12mm	2	1-2065
Bolt, Hex/Flange M6-1 X 20	1	1-2038
Washer, 8mm Soft Mount	2	559960
Nut, M8 Hex Serrated	2	444.460.08
Nut, M6 Hex Serrated	2	444.460.04
1/2" Bnd. Hose Clamp, 2.90"-3.75"	2	9452
Hose Clamp #10 Mini	1	08411
1/2" Bnd. Hose Clamp, 3.15"-4.00"	1	9456

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.

### 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 negative battery terminal.
- e. Do not discard stock components after removal of the factory system.

### 2. Removal of stock system



a. Stock air box system installed. Loosen hose clamps securing inlet tube to the throttle body.



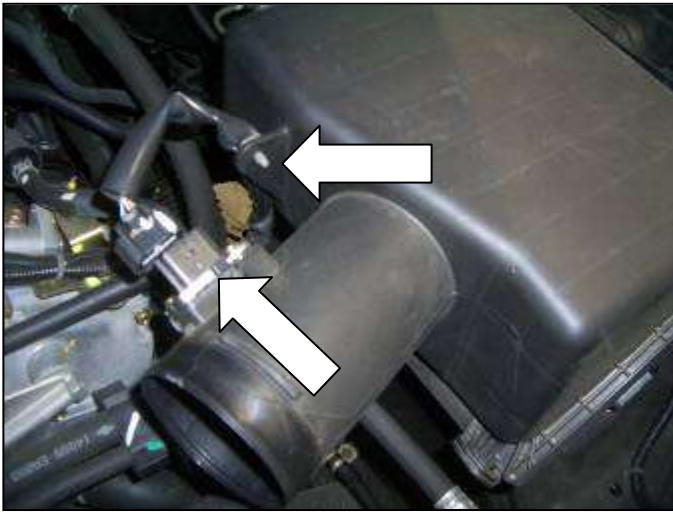
b. Loosen and remove the two bolts to the engine cover. The cover is held in place with two rubber isolators, one on each side. Remove the engine cover by pulling straight up.



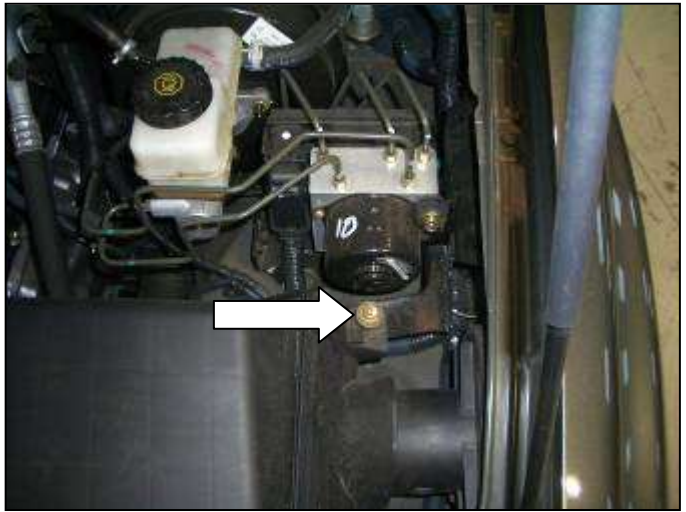
c. Loosen and remove the mounting bolts for the combination resonator chamber and inlet tube. Remove the crank case breather tube from the resonator housing.



d. Loosen the hose clamp securing the inlet tube to the air box. Remove the combination resonator chamber and inlet tube.



e. Disconnect the MAF sensor wire harness connector from the MAF sensor. Unclip the wire harness from the air box.



f. Loosen and remove the air box mounting bolt. The air box is also secured by two rubber bushings underneath the air box. Remove the air box by pulling up.



g. With the air box removed, remove the MAF sensor from its housing. Use care and be *careful not to damage the sensor!*

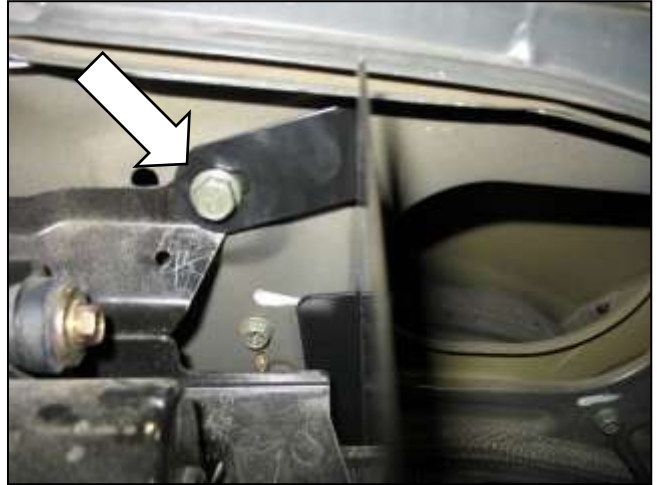


### 3. Installation of AEM® intake system.

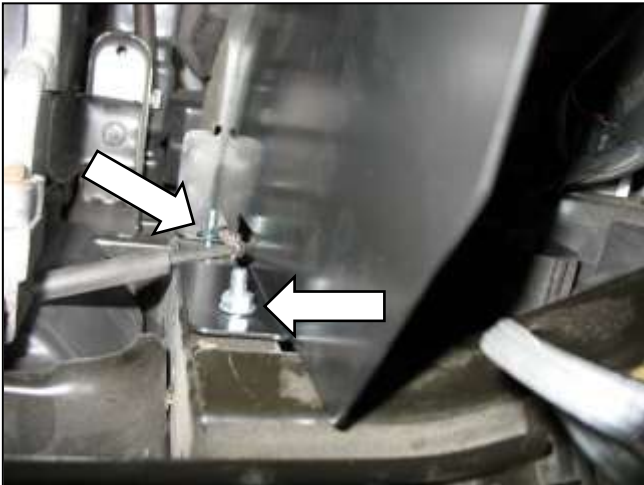
- a. When installing the intake system, do not completely tighten the hose clamps or mounting hardware until instructed to do so.



b. Insert the heat shield into the engine bay.



c. Remove the stock bolt, slide the heat shield mounting tab over the bolt hole and then reinstall the stock bolt through the heat shield mounting tab.



d. Use the two supplied bolts and nuts to secure the heat shield to the radiator support.



e. Use the stock threaded hole location to secure the heat shield as shown.



f. Insert and secure the rubber mount through the heat shield with the provided hardware.



g. Attach and secure the coupler to the throttle body with the provided hose clamps.



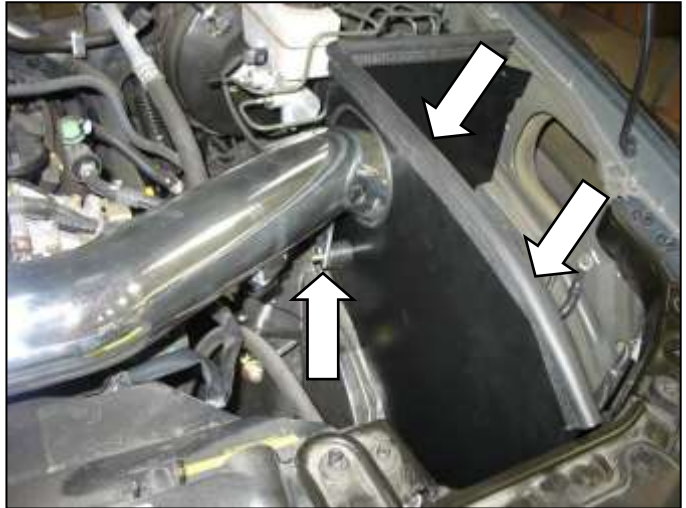
h. Attach rubber edge trim around the intake pipe opening of the heat shield.



i. Install the MAF sensor (removed in step 2g) into the intake pipe.



j. Insert the intake pipe into the coupler, but do not completely tighten.



k. Align the bracket on the inlet side of the intake pipe to the rubber mount on the heat shield. Check for proper clearance and secure the hose clamps on the throttle body. Also, attach the edge trim to the top edge of the heat shield.

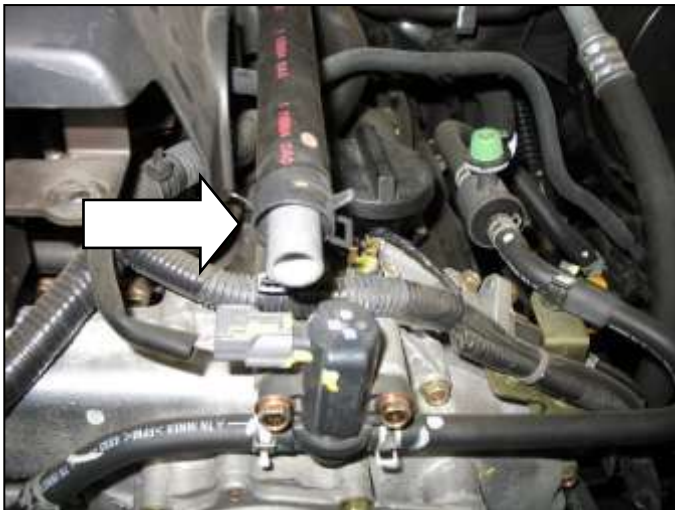


l. Reconnect the MAF sensor wire harness to the MAF sensor. Also secure the bracket with the supplied nut and washer.



m. Install the AEM® Dryflow™ air filter onto the end of the intake pipe. Be sure to check for clearance around the entire air filter (adjust as necessary).





n. Install the supplied nipple into the stock breather hose. Secure with the stock hose clamp.



o. Secure the supplied 5/8" hose to the nipple that was installed into the stock hose in the previous step. Secure with the stock hose clamp.



p. Attach the 5/8" hose to the intake pipe nipple and secure with the supplied hose clamp.



AEM<sup>®</sup> intake system installed.

#### 4. Reassemble Vehicle

- 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 any rubber mounts (if applicable), all bolts, and hose clamps.
- Check for proper hood clearance. Re-adjust pipes if necessary and re-tighten them.
- Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tightened.
- Reconnect negative battery terminal 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. AEM Induction Systems requires cleaning the intake system's air filter element every 100,000 miles. When used in dusty or off-road environments, our filters will require cleaning more often. We recommend that you visually inspect your filter once every 25,000 miles to determine if the screen is still visible. When the screen is no longer visible some place on the filter element, it is time to clean it. To clean, purchase our Synthetic air filter cleaner, part number 99-0624 and follow the easy instructions.
- b. Use window cleaner to clean your powder coated AEM<sup>®</sup> intake tube.

**NOTE: DO NOT USE aluminum polish on powder coated AEM<sup>®</sup> 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<sup>®</sup> 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.