



Equipped with AEM® Dryflow™ Filter  
No Oil Required!

## INSTALLATION INSTRUCTIONS

### PART NUMBER: 21-8500

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2001-2003	NISSAN	Frontier	V6-3.3L	C.A.R.B. E.O. # D-670
2001-2003	NISSAN	Xterra	V6-3.3L	C.A.R.B. E.O. # D-670

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

## PARTS LIST

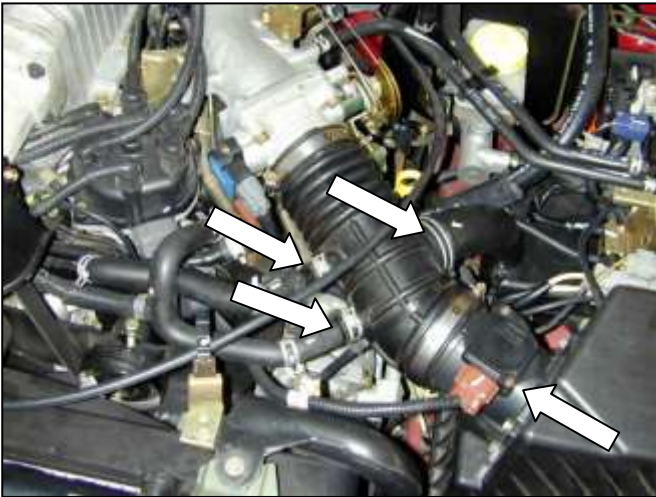
Description	Qty.	Part Number
Element Parts Kit 3.00 X 5" Dry	1	21-203D-HK
Heat Shield	1	20-85001
Inlet Pipe	1	2-85001
Adapter, MAF	1	2-682
Hose, Hump 3.00/3.00x3.0" Blk.	1	5-530
Hose, Hump 2.75/3.00x3.00"	1	5-573
Hose; 5/8"ID X 13"L	1	5-7013
Edge Trim, 14"	1	8-4014
Mount, Rubber 1" X 6mm	2	1228599
Gasket, MAF	1	2-6821
Grommet, 3/16"	1	784635
Connector, Plastic 3/16" Str.	1	8-114
Hose; Vacuum; 3/16" X 20"L	1	8-9020
Zip Tie,6 Long	2	1-113
Vacuum Cap, 0.18ID X .500	1	8-138
Spacer, .625 OD X .295 ID X .1	1	2-125
Washer, M6 X 12MM OD Zinc	2	1-3018
Nut, M6 Hex Serrated	2	444.460.04
1/2" Bnd. Hose Clamp, 2.31-3.25"	1	9444
1/2" Bnd. Hose Clamp, 2.56"-3.50"	3	9448
Hose Clamp, 1 1/16" Narrow	2	4093-6
1/2" Bnd. Hose Clamp, 2.90"-3.75"	1	9452

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. Disconnect the three hoses, pictured above, from the factory air inlet system. Unplug the Mass Air Flow (MAF) sensor and loosen the hose clamps around the throttle body and MAF sensor.



b. Remove the factory intake hose from the engine bay.



c. Undo the four snaps located around the perimeter of the air filter housing box. Unplug the small vacuum hose on the vacuum solenoid. Remove the top lid and the air filter.



d. Remove the three bolts shown in the picture and remove the lower air box housing piece from the engine bay.



e. Remove the fastener circled in the picture. Unplug the three wiring connectors shown in the picture. This will allow easier access to the intake resonator chamber.



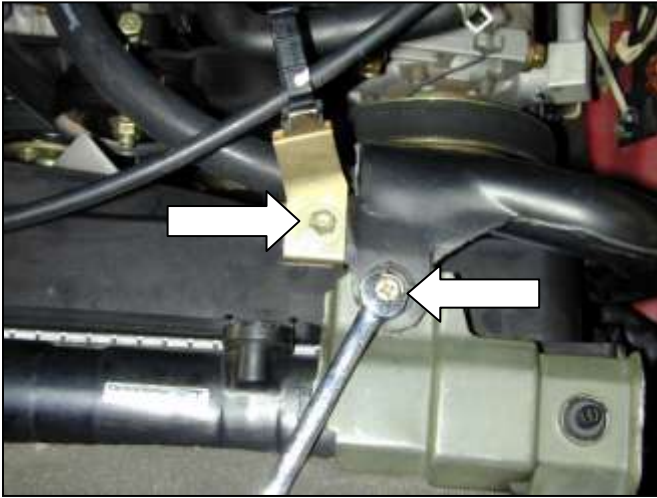
f. Remove any wiring harnesses attached to the resonator chamber and remove from the engine bay. PLUG IN THE WIRES that were unplugged in the previous step after the chamber was removed.



g. Remove the Intake Air Temperature (IAT) sensor from the plastic ducting as shown in the picture.



h. Remove the two bolts and the bracket circled in the picture.



i. From the bracket on top of the radiator, remove the two fasteners. Attach the bracket holding the throttle cable to the bracket on the radiator re-using one of the bolts. Install the included aluminum spacer underneath the throttle cable bracket so that it sits level.

**NOTE: If you have a non-supercharged vehicle, unbolt the plastic chamber from the bracket and proceed to the next step.**



j. Unsnap the ducting assembly from the inner fender and remove it from the engine bay.



k. Remove the MAF sensor from the air box by removing the four mounting bolts.



l. Use the included zip-ties to tuck the extra wires that are behind the headlight out of the way. This will keep the wires from interfering with the air filter.



m. Bend the wire plug holders as shown in the picture, this will allow additional clearance for the heat shield.

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

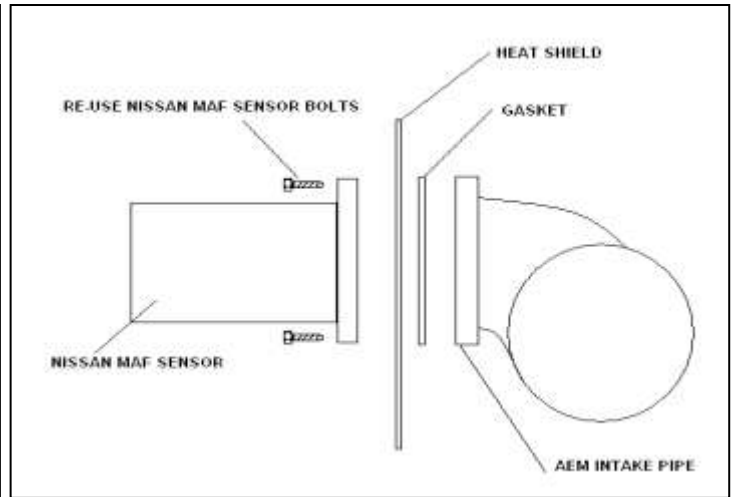
a. When installing the intake system, do not completely tighten the hose clamps or mounting hardware until instructed to do so.



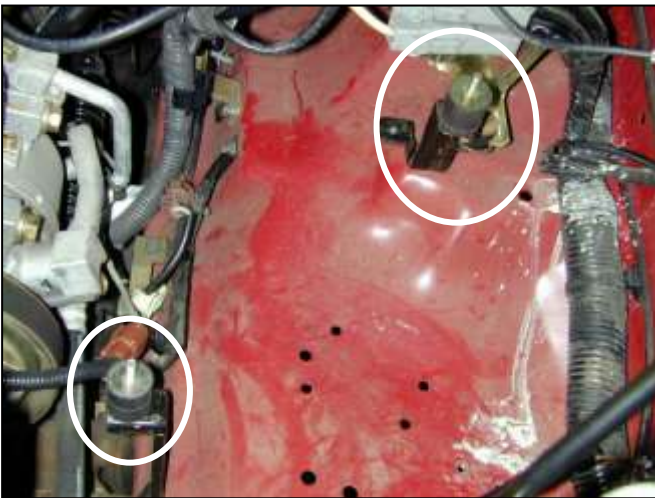
b. Place the supplied round spacer underneath the throttle cable bracket as shown. Secure the bracket in place by reusing one of the fasteners from step 2(i). Skip this step for normally aspirated vehicles.



c. Insert the rubber grommet and vacuum hose connector into the small hole on the MAF sensor adaptor pipe. On vehicles not equipped with vacuum solenoid use vacuum cap to seal off vacuum hose connector first then install into grommet.



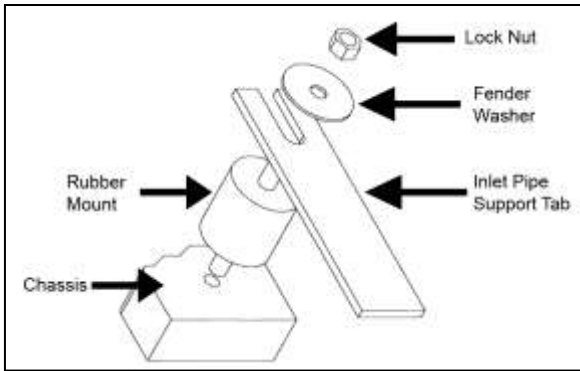
d. Create the assembly shown in the picture by following the diagram below. Make sure the AEM<sup>®</sup> pipe is oriented so that it angles downward. **Be sure not to overtighten the MAF sensor bolts, this will damage the threads in the aluminum adaptor and possibly the MAF sensor.**



e. Screw the included rubber mounts into the brackets that held the factory air box as shown. Tighten them by hand.



f. Place the assembly from step 3(d) into the engine bay as shown in the picture. Line up the tabs of the heat shield with the rubber mount studs.



g. Install, but do not completely tighten, the included nuts and washers on to the rubber mounts as shown in the above diagram.



h. Remove the rubber grommet from the IAT sensor.



i. Insert the IAT sensor into the end of the air filter and plug in the sensor. Place the air filter and hose clamp on to the end of the intake pipe inside the heat shield. Make sure the air filter is fully inserted on the pipe and tighten hose clamp.



j. Orient the upper intake pipe as shown. The straight section is the end that will connect to the throttle body.



k. Insert the 2.75"-3.0" hump hose reducer on to the throttle body end of the pipe with the 3.0" end around the pipe. Use a #48 hose clamp for the 3" end and a #44 hose clamp around the 2.75" end.



l. Place the 3" hump hose and #48 hose clamps around the other end of the pipe as shown.



m. Push the hump hoses on only until the pipe reaches the hump as shown. Tighten the hose clamps around the 3" pipe.



n. Place the assembly from the previous step into the vehicle with the 2.75" hose around the throttle body and the 3" end around the MAF sensor. Make sure the nipples are facing toward the front of the vehicle.



o. Plug in the MAF sensor.



p. Install the included 3/16" hose between the connector on the pipe and the vacuum solenoid.



q. Plug the factory idle air hose onto the upper nipple and secure it in place by reusing the factory hose clamp.



r. Use the included 5/8" ID hose and 1" hose clamps to connect the PCV tube to the lower nipple on the intake pipe.



s. Push the molding onto the upper edge of the heat shield as shown in the picture.



t. Check final fitment of the intake system and heat shield. Make sure no part of the intake system makes contact with the vehicle. After adjusting the position of the system, tighten down the mounting nuts on the heat shield and all of the hose clamps.

#### 4. Reassemble Vehicle

- a. 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.
- b. Check for proper hood clearance. Re-adjust pipes if necessary and re-tighten them.
- c. Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tightened.
- d. 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<sup>®</sup> 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<sup>®</sup> intake tube.
- c. Use window cleaner to clean your powder coated AEM<sup>®</sup> 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.