

Equipped with AEM<sup>®</sup> Dryflow<sup>™</sup> Filter No Oil Required!

# INSTALLATION INSTRUCTIONS PART NUMBER: 21-9022

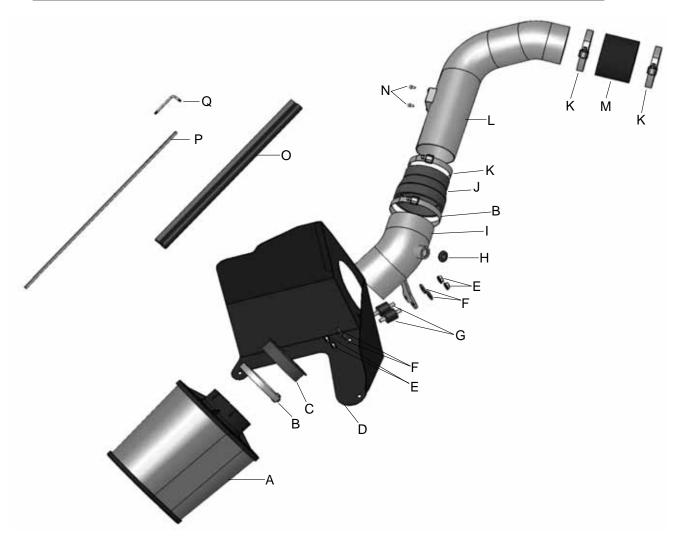
2005 CHEVROLET	Silverado 2500 HD	V8-6.6L DSL		C.A.R.B. E.O. # D-670
2005 CHEVROLET	Silverado 3500	V8-6.6L DSL		C.A.R.B. E.O. # D-670
2005 GMC	Sierra 2500 HD	V8-6.6L DSL		C.A.R.B. E.O. # D-670
2005 GMC	Sierra 3500	V8-6.6L DSL		C.A.R.B. E.O. # D-670
2004 CHEVROLET	Silverado 2500 HD	V8-6.6L DSL	LLY Only	C.A.R.B. E.O. # D-670
2004 CHEVROLET	Silverado 3500	V8-6.6L DSL	LLY Only	C.A.R.B. E.O. # D-670
2004 GMC	Sierra 2500 HD	V8-6.6L DSL	LLY Only	C.A.R.B. E.O. # D-670
2004 GMC	Sierra 3500	V8-6.6L DSL	LLY Only	C.A.R.B. E.O. # D-670

Make note that not all 2004 model year vehicles are equipped with the LLY engine type. 21-9022 will only fit 2004 model year vehicles with LLY engine types. 2004 model year vehicles with the LLY engine type can be identified by VIN number. The 8th number of the VIN will be "2" on 2004 model year vehicles with the LLY engine type.

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

## PARTS LIST

	Description	Qty.	Part Number
A	Element Parts Kit 4.00x 9" DSL Oval Dry	1	21-2259DK
В	1/2" Bnd. Hose Clamp, 3.56"-4.50"	2	9464
С	Insert, Diesel A/F Assy. 4"	1	5-2259
D	Heat Shield, 01-04.5 Duramax	1	20-8021
E	Nut, M8 Hex Serrated	4	444.460.08
F	Washer, 8mm Soft Mount	4	559960
G	Mount, Rubber 1" X 8mm	2	1228560
Н	Grommet, 1/2" 3/32	1	784646
I	Inlet Pipe, Lower	1	2-80222
J	Hose, Adapter 4.00/3.50x3" Blk.	1	5-435
K	1/2" Bnd. Hose Clamp, 3.15"-4.00"	3	9456
L	Inlet Pipe	1	2-80221
М	Hose, Silicone 3.50x3" Blk.	1	5-350
N	Bolt, Socket 8-32 X 5/16 SS	2	1-2023
0	Edge Trim, 18"	1	8-4018
Р	Rubber Edge Trim 20"	1	8-3020
Q	Wrench; Torx T20 T/R, L-Key	1	69801



Read and understand these instructions <u>BEFORE</u> 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. Factory air box system installed.



c. Lift up on the intake resonator to pop it off the mount and gain access to the hose clamp on the inlet tube. Loosen the hose clamps on both ends of the inlet tube.



b. Unplug the mass air flow sensor (MAF) wiring harness.



d. Remove the inlet tube and resonator from the engine bay.



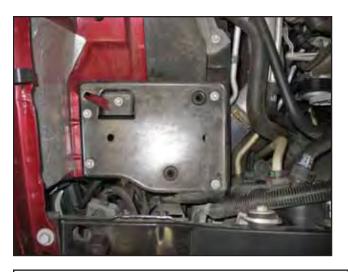
e. The air filter housing is held in plce by two grommets on the mounting plate. Gently lift up on the air filter housing and remove it from the engine bay.



g. Remove the mounting plate.



i. Using the supplied tamper-proof torx key, remove the two bolts secuing the MAF sensor to the air filter housing. Carefully remove the MAF sensor from the housing.



f. Remove the mounting plate for the air filter housing by removing the five bolts that secure it.



h. Remove the factory air filter restirction gauge from the stock air filter housing.



j. Factory air box system removed

#### 3. Installation of AEM<sup>®</sup> intake system.

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



b. Install the supplied rubber edge trim onto the edge of the hole in the heat shield. Trim to fit.



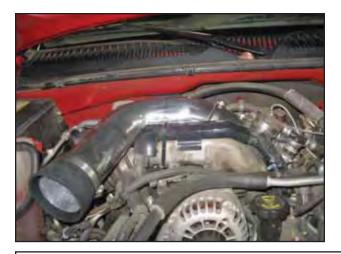
d. Install the heat shield in the engine bay aligning the holes with the moutning plate bolt locations. Secure it using three of the bolts removed during step 2f.



c. Install the previously removed MAF sensor into the upper intake pipe using the two supplied 8-32 bolts. Install the reducing coupler and #56 hose clamp onto the straight side of the upper intake pipe.



e. Install the straight coupler onto the turbo inlet hose and secure using two supplied #56 hose clamps as shown.



f. Install the upper intake pipe into the coupler on the turbo inlet. Slide the reducing coupler completely onto the pipe to allow room for the lower intake pipe to be positioned.



h. Install the rubber grommet into the nipple on the lower intake pipe as shown.



g. Install the two supplied rubber mounts into the slot on the heat shield. Secure each rubber mount with a washer and M8 nut. Secure the mounts with just enough slack for the mounts to slide in the slot.



i. Install the previously removed air filter restriction gauge into the grommet installed in previous step. Also install the rubber filter adapter onto the filter end of the lower pipe.



j. Slide the air filter into the engine bay with the filter neck facing the engine. This will ease the installation as the air filter cannot be installed before the lower intake pipe is installed.



I. Slide the lower pipe and reducing coupler down the upper pipe until mounting bracket face is flush with the rubber mounts. Install the remaining M8 washers and nuts to secure the lower pipe.



n. Plug the MAF sensor into the wiring harness. Be sure that the harness is not in contact with any hot part of the engine.



k. Install the lower pipe by aligning the two holes in the mounting bracket with the two rubber mounts installed on the heat shield. Slide the reducer coupler over the lower intake pipe and secure using a #64 hose clamp.



m. Install the AEM<sup>®</sup> Dryflow<sup>™</sup> filter onto the end of the lower pipe, over the rubber filter adapter. Rotate the filter until it is not in contact with the vehicle and secure it using a #64 hose clamp.





Factory air box system installed

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

#### 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<sup>™</sup> 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<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<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.