



Equipped with AEM® Dryflow™ Filter  
No Oil Required!

# INSTALLATION INSTRUCTIONS

## PART NUMBER:41-1002

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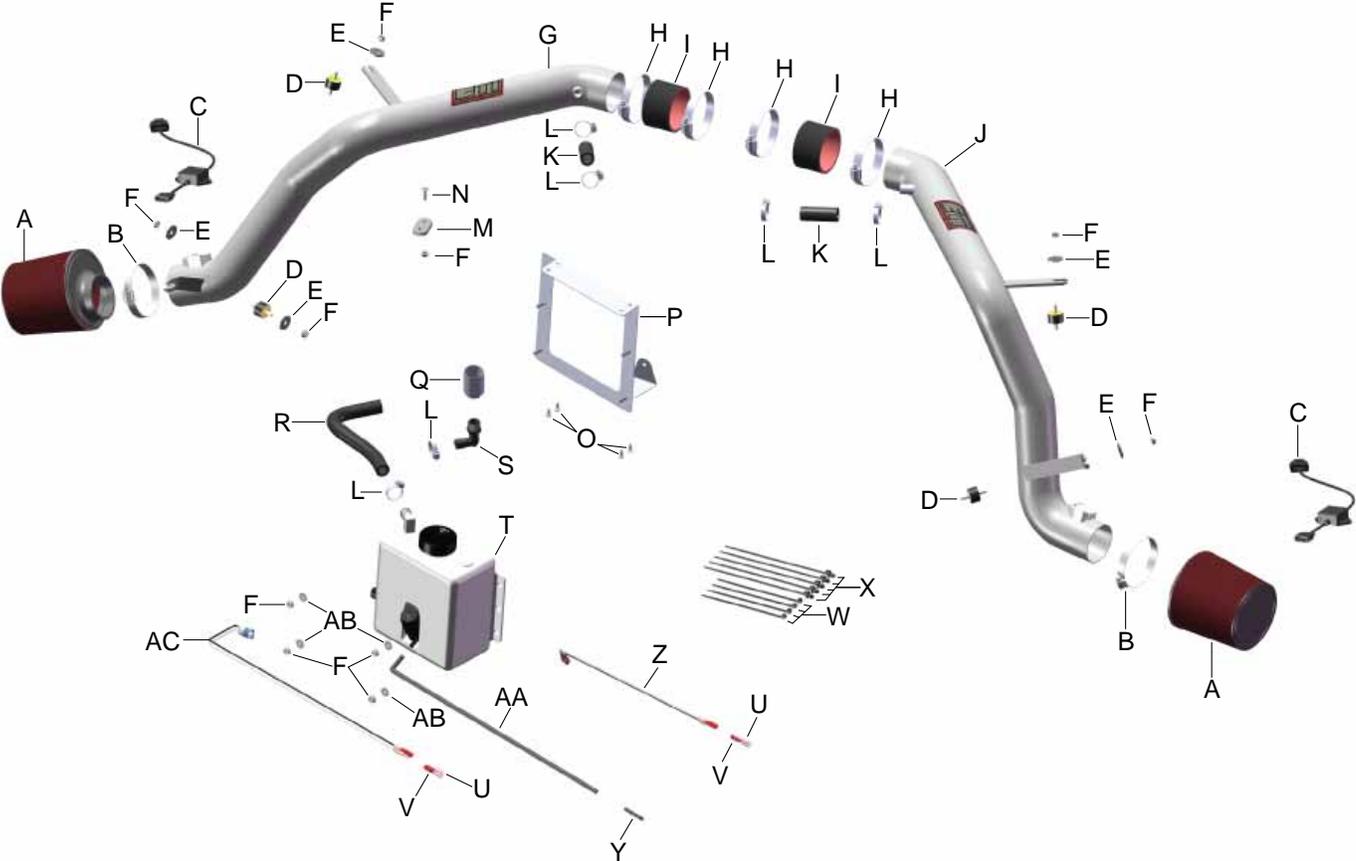
2009-2010 NISSAN 370Z NISMO V6-3.7L \* SEE NOTE

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

## PARTS LIST

Description	Qty.	Part Number
A	2	21-202DOS
B	2	9448
C	2	40-1002-002
D	4	1228598
E	5	08160
F	10	444.460.04
G	1	2-10012
H	4	9444
I	2	5-272
J	1	2-10011
K	2	5-7002
L	6	08411
M	1	2-677
N	1	1-2038
O	4	1-2085
P	1	32-3078
Q	1	7-249
R	1	5-7010
S	1	08040FK
T	1	9-0384
U	2	8-352
V	2	8-353
W	4	1-113
X	5	1-127
Y	1	08703
Z	1	8-195
AA	1	5-3009
AB	4	1-3028
AC	1	8-196

# KIT DIAGRAM



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.

The AEM® intake system is a performance product that can be used safely during mild weather conditions. During harsh and inclement weather conditions, you must return your vehicle to stock OEM airbox and intake tract configuration. Failure to follow these instructions will void your warranty.

## 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. Raise the front of the vehicle with a jack. Refer to your owner's manual for proper jack and jack stand placement to properly support vehicle. Support your vehicle using properly rated jack stands before wheel removal or while working under the vehicle.  
**NEVER WORK UNDER A VEHICLE WITHOUT USING JACK STANDS.**
- f. This intake system includes a replacement windshield washer system.
- g. Do not discard stock components after removal of the factory system.

## 2. Removal of stock system



a. Remove the 4 silver bolts, 3 plastic clips and 12 Philips head bolts securing the belly pan.



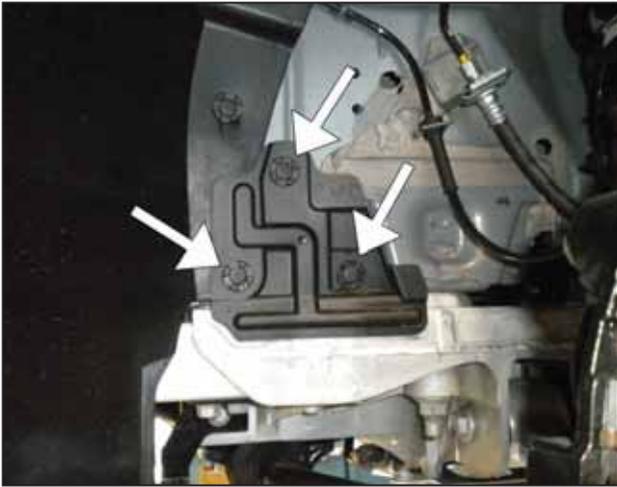
b. Remove the belly pan.



c. Remove the driver side front wheel.



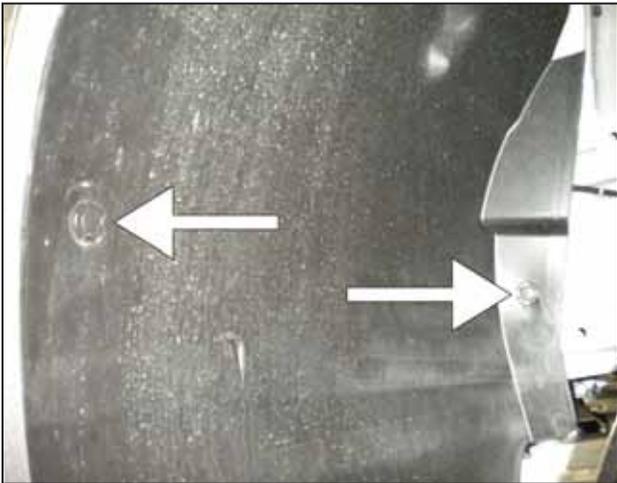
d. Remove the passenger side front wheel.



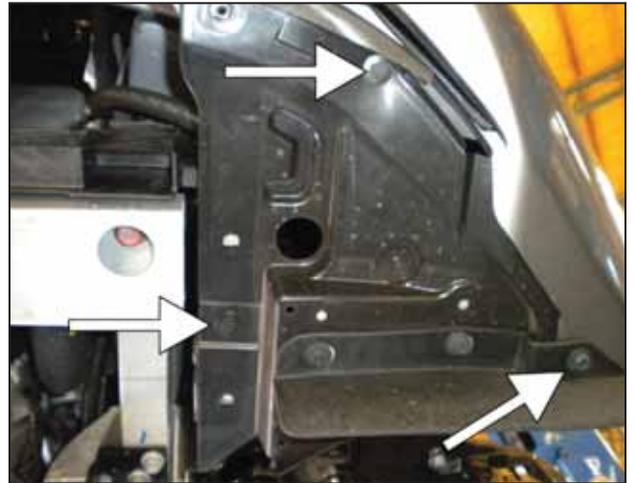
e. Remove the small plastic cover on the driver side that is exposed once the wheel is removed, 3 clips hold it.



f. Remove the two upper clips securing the fender liner on the driver side.



g. Remove the two lower clips securing the fender liner on the driver side.



h. Remove the two bolts and one clip securing the fender liner on the driver side fender.



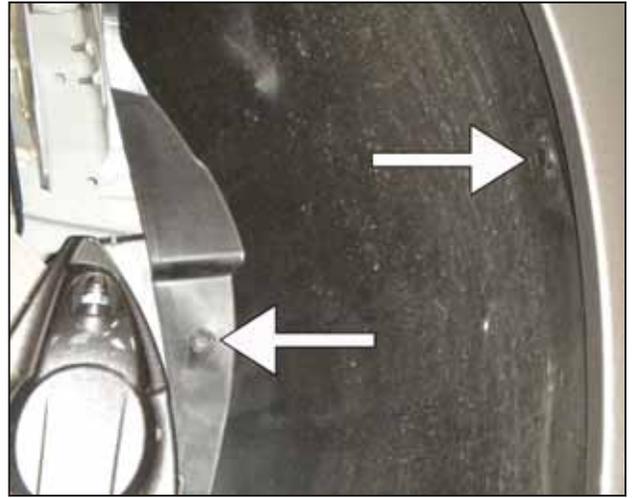
i. Remove the driver side fender liner.



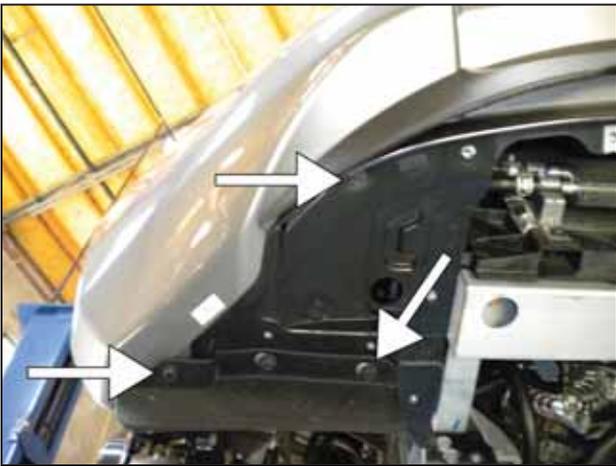
j. Remove the small plastic cover on the passenger side that is exposed once the wheel is removed, 3 clips hold it.



k. Remove the two upper clips securing the fender liner on the passenger side.



l. Remove the two lower clips securing the fender liner on the passenger side.



m. Remove the two bolts and one clip securing the fender liner on the passenger side fender.



n. Remove the passenger side fender liner.



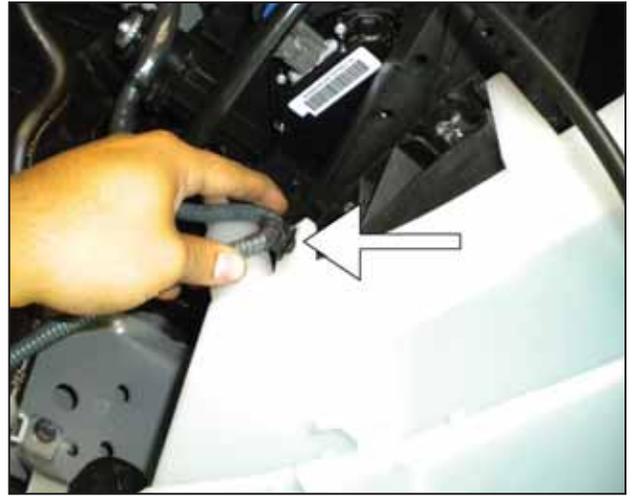
o. Disconnect the brown connector connected to the windshield washer reservoir level sensor.



p. Disconnect the grey connector connected to the windshield washer reservoir pump.



q. Unhook the wire harness from the windshield washer reservoir.



r. Unclip the zip tie from the windshield washer reservoir.



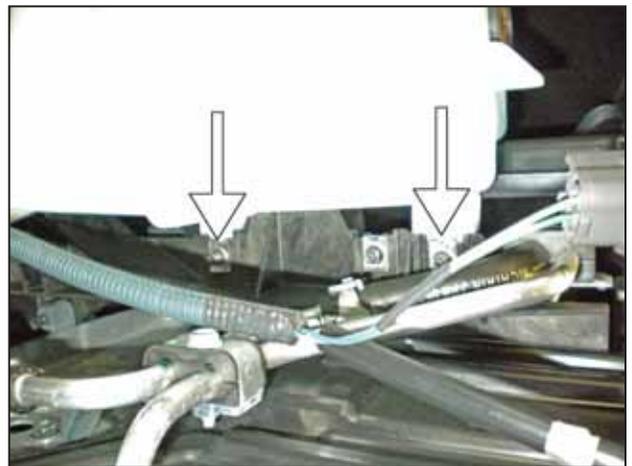
s. Unhook the fluid line from the windshield washer reservoir.



t. Unplug the fluid line from the windshield washer reservoir pump.  
**NOTE: Once the fluid line is disconnected, the pump must be plugged or the windshield washer fluid must be drained into a clean container.**



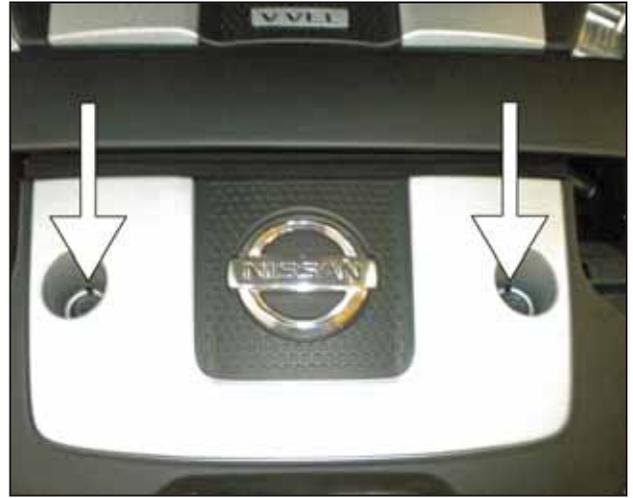
u. Remove the upper bolt securing the windshield washer reservoir to the vehicle.



v. Remove the 2 additional bolts securing the windshield washer reservoir.



w. Remove the windshield washer reservoir.



x. Remove the 2 bolts securing the engine cover to the engine. Remove the engine cover.



y. Disconnect the MAF sensor from the driver side inlet tube.



z. Remove the bolt securing the driver side airbox.



aa. Loosen the hose clamp on the driver side throttle body.



ab. Loosen the hose clamp connecting the driver side inlet tube to the airbox.



ac. Disconnect the inlet tube from the driver side airbox.



ad. Remove the driver side airbox.



ae. Release the hose clamp to remove the PCV hose.



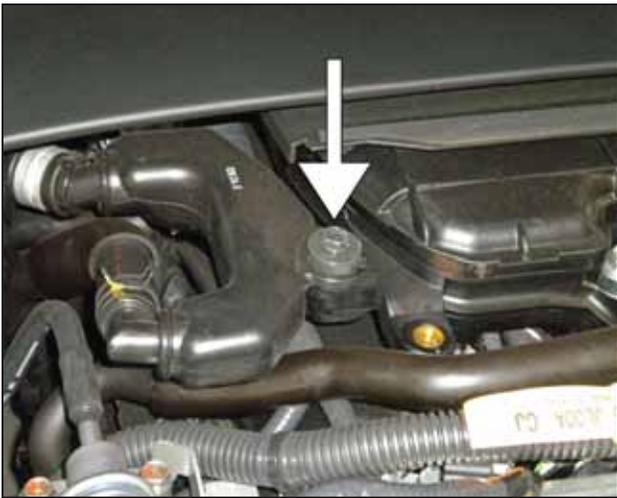
af. Remove the driver side inlet tube.



ag. Disconnect the MAF sensor from the passenger side inlet tube.



ah. Remove the bolt securing the passenger side airbox.



ai. Remove the bolt securing the passenger side resonator.



aj. Loosen the hose clamp on the passenger side throttle body.



ak. Loosen the hose clamp connecting the passenger side inlet tube to the airbox.



al. Remove the passenger side airbox.



am. Release the hose clamp to remove the PCV hose.



an. Remove the passenger side inlet tube.



ao. Remove the clip next to the windshield washer filler cap as shown.



ap. Remove the windshield washer fluid spout.



aq. Remove the 13 clips securing the front cover.



ar. Remove the 1 clip on the driver side as shown.



as. Remove the front black cover by lifting up on the inner edge of the cover (just below the black plastic trim) to avoid breaking the 4 plastic prongs inserted in the support bracket. The circled areas specify the approximate locations of where the prongs attach to the support bracket.



at. Remove the bolt and undo the clip to release the scoop on the driver side.



au. Remove the scoop on the driver side.



av. Remove the bolt and undo the clip to release the scoop on the passenger side.



aw. Remove the clip connecting the wire harness to the scoop.



ax. Remove the scoop on the passenger side.



ay. Locate the lower windshield washer reservoir clip on the passenger side fender shroud.



az. Remove the lower windshield washer reservoir clip.



ba. Remove the nuts securing the strut tower brace and remove the strut tower brace.



bb. Remove the shroud on the driver side.

### 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. Install the supplied 5-272 coupler on the driver side throttle body, then install the two 9444 hose clamps.



c. Install one of the 5-7002 hoses on the PVC resonator.



d. Thread the upper rubber mount in the driver side stock airbox mount location.



e. Remove the horn assembly. Thread the lower rubber mount where the horn bracket was previously installed.



f. Install the mass air flow (MAF) sensor in the driver side intake pipe using the stock MAF bolts.



g. Install the driver side intake pipe 2-10011, aligning the upper bracket with the upper rubber mount and the lower bracket with the lower rubber mount.



h. Install the 6mm washer and nut on the upper rubber mount.



i. Plug in the AEM® ETI module into the MAF sensor harness, then feed the ETI module plug down to the MAF sensor.



j. Plug in the ETI module into the MAF sensor.



k. Use two tree mount zip ties to secure the ETI module to the A/C line as shown.



l. Loosen the 8mm nut connecting the horn to the horn bracket.



m. Install the horn bracket over the intake pipe's lower bracket, then install the supplied washer and nut.



n. Install the air filter as shown in the picture to allow for clearance in the fender well.



o. Install the 5/8" hose clamps on the PCV hose and connect the hose to the pipe.



p. Install the supplied 5-272 coupler on the passenger side throttle body and install the two 9444 hose clamps.



q. Install the remaining 5-7002 hose onto the PCV resonator; trim as necessary to ensure clearance for the intake pipe installation.



r. Thread the upper rubber mount in the passenger side stock airbox mount location.



s. Locate the square hole on the passenger side fender bracket. Install the rubber mount to this bracket, secure in place with the provided washer and nut.



t. Install the MAF sensor in the passenger side intake pipe using the stock MAF bolts.



u. Install the passenger side intake pipe 2-10012, aligning the upper bracket with the upper rubber mount and aligning the lower bracket with the lower rubber mount. Install the supplied washers and nuts for the two rubber mount assemblies. Install 5/8" hose clamps onto the PCV hose as was done for the driver side resonator in step 3o.



v. Install the air filter as shown in the picture to allow for clearance in the fender well.



w. Plug in the AEM® ETI module into the MAF sensor harness, then feed the ETI module plug down to the MAF sensor and plug into the MAF sensor.



x. Cut the stock zip tie off of the OEM MAF harness.



y. Install the supplied aluminum bracket onto the metal bracket on the passenger side of the engine using the supplied M6X1 bolt and nut.



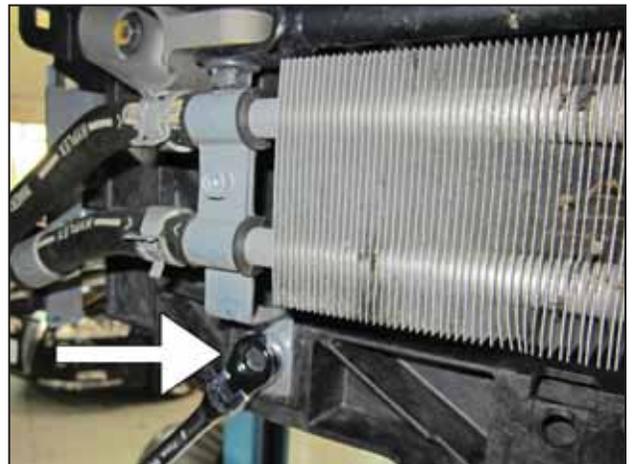
z. Wrap the supplied tree mount zip tie to the OEM MAF harness.



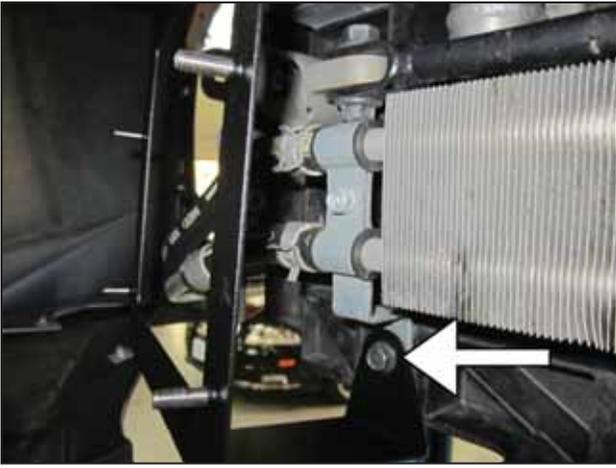
aa. Attach the zip tie to the aluminum bracket.



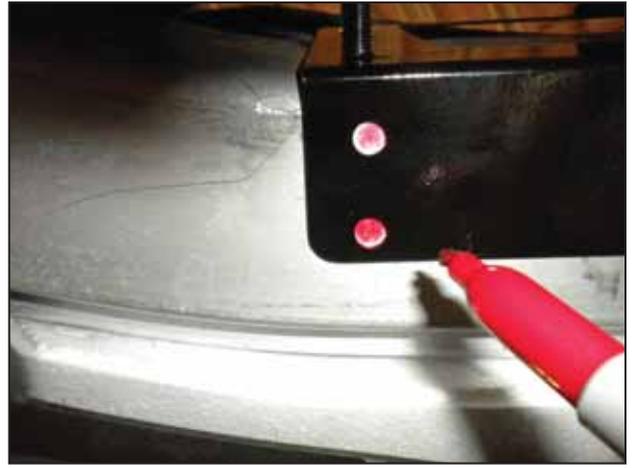
ab. Use the tree mount zip ties to secure the ETI module to the OEM wire loom as shown.



ac. Remove the M6 bolt on the oil cooler.



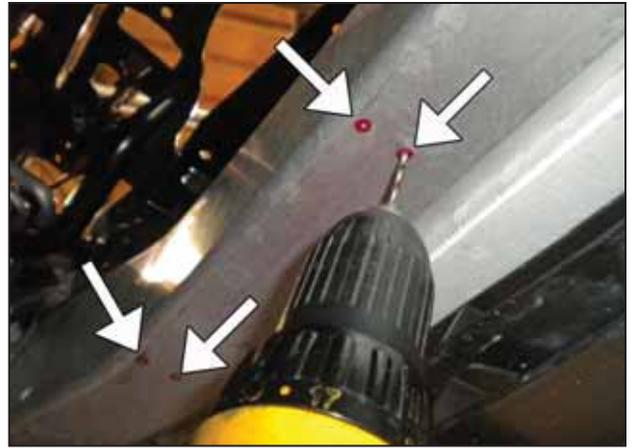
ad. Set the washer bottle bracket in place and reinstall the M6 bolt.



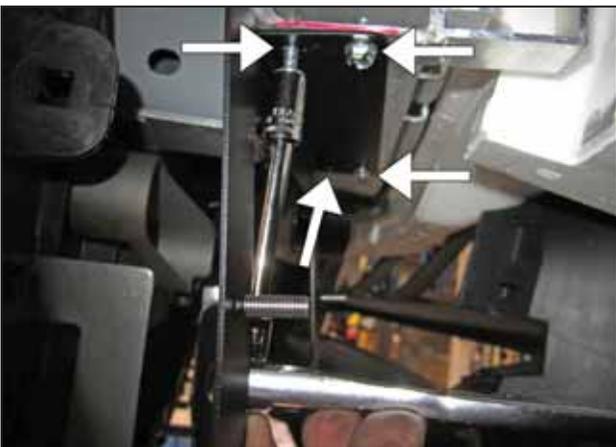
ae. Mark the four washer bottle bracket mounting holes on the aluminum bumper support. Remove the bracket once the holes are marked.



af. Remove the bracket, use a center punch to mark the four locations that are marked for drilling.



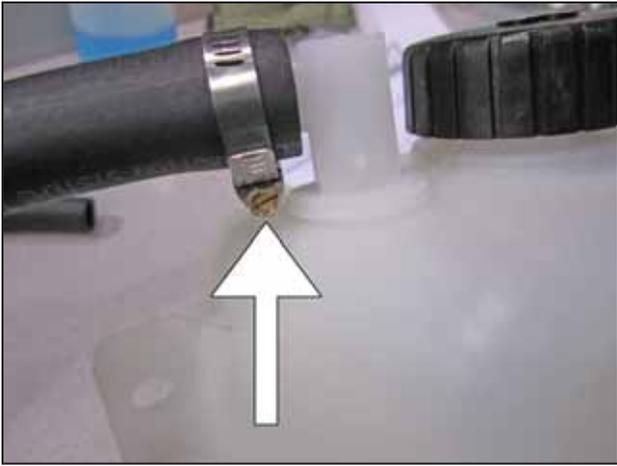
ag. Use a 5/32" pilot drill to drill a hole for each of the four markings.



ah. Set the washer bottle bracket back in place and drive the four 12X0.5" sheet metal screws into the bumper support to secure the bracket in place.



ai. Attach the supplied 5/8" hose to the windshield washer fluid bottle.



aj. Install the supplied hose clamp.



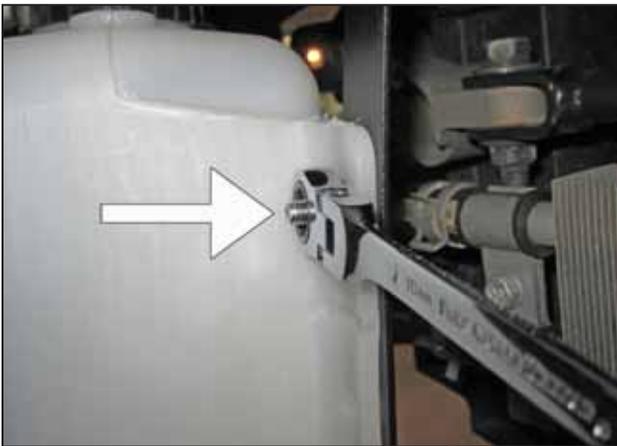
ak. Install the white wire onto the positive terminal of the pump and the black wire onto the negative terminal of the pump



al. Connect the washer fluid hose to the pump.



am. Install the washer bottle onto the bracket.



an. Secure the washer bottle to the bracket using the four M6 nuts supplied.



ao. Screw the 90° fitting into the filler neck adapter. Use some Teflon tape, or thread sealant on the threads to prevent leaks.



ap. Make sure that the stock o-ring is in place on the filler neck. Attach the adapter onto the filler neck.



aq. Reinstall the filler neck with the adapter and fitting.



ar. Install the 5/8" hose and secure to the fitting with a hose clamp as shown .



as. Attach the 19" washer fluid hose to the stock washer fluid hose using the supplied hose mender.



at. Cut the stock pump connector off of the OEM harness leaving some wire on the connector as shown. Do the same for the level sensor.



au. Strip the wires on the harness side of the pump.



av. For 2009-2010 model year vehicles: Crimp the red female connector onto the green wire and the pink male connector onto the blue wire.  
For 2011 model year vehicles: Crimp the red female connector onto the red wire and the pink male connector onto the blue wire.



aw. Strip the wires on the harness side of the level sensor. Crimp one red female connector and one pink male connector to each wire. The colors do not matter on this harness.



ax. Connect the newly crimped pump ends to the 8-187 extension harness, then connect the female side of the harness connector back onto the pump.



AEM® intake system installed

#### 4. Reassemble Vehicle

- a. **Strut Tower Brace:** Install the strut tower brace removed in step 2ba.
- b. **Front Cover:** Install the plastic front cover that is removed during step 2as.
- c. **Engine Cover:** Install and secure the engine cover that was removed in step 2x.
- d. **Fender liners:** Install the fender liners and any hardware that was removed during steps 2e through 2n.  
**NOTE: Failure to install the fender liner will result in diminished performance and increase the potential for engine damage due to water ingestion in rainy conditions.**
- e. **Plastic Cover:** Install the driver and passenger plastic covers that were removed in steps 2e and 2j.
- f. **Wheel:** Install the driver and passenger side wheels using the factory torque specification (see owner's manual).
- g. **Belly pan:** Install the belly pan that was removed during step 2a and 2b.
- h. **Washer Bottle:** Fill the new washer bottle with the windshield washer fluid that was drained in step 2t.  
**NOTE: If the instrument cluster low level washer fluid is on, turn the level sensor 180°.**
- i. 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.
- j. Check for proper hood clearance. Re-adjust pipes if necessary and re-tighten them.
- k. Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tightened.
- l. Reconnect negative battery terminals and start engine. Let the vehicle idle for 3 minutes. Perform a final inspection before driving the vehicle.

#### 5. 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.