

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

# INSTALLATION INSTRUCTIONS PART NUMBER: 21-563

2000-2003

TOYOTA

Celica GT-S L4-1.8L

C.A.R.B. E.O. # D-670-2

WWW: http://www.aemintakes.com

### **PARTS LIST**

Description	Qty	Part Number
Element Parts Kit 2.75 X 5" Dry Ele.	1	21-202DK
Inlet Pipe	1	2-524
Hose, Adapter 2.75/3.00 X 3" BI.	1	5-273
Hose; 1/2"ID X 23"L	1	5-5023
Mount, Rubber 1" X 6mm	1	1228599
Zip Tie,11.25 Long	1	21590
Adapter, Ecu Tube Lower Celica - Anodize Clear	1	2-672
Adapter, Ecu Tube Upper Celica - Anodize Black	1	2-673
Vacuum Cap, 1/8"	1	8-105
Hose; 3/8"ID X 10"L	1	5-1010
Bolt, Socket 8-32 X 5/16 SS	2	1-2023
Washer, 6mm Soft Mount	1	08160
Nut, M6 Hex Serrated	1	444.460.04
Hose Clamp, 3/4"	2	4093-5
1/2" Bnd. Hose Clamp, 2.31-3.25"	1	9444
Hose Clamp, 1"	2	08407
1/2" Bnd. Hose Clamp, 2.56"-3.50"	2	9448
Decal, Warning Celica Vacuum	1	10-904

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.

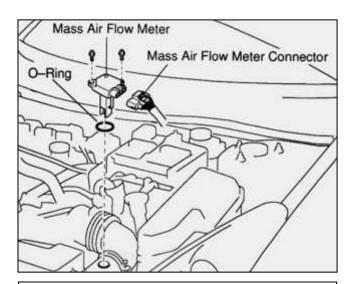
The AEM<sup>®</sup> intake system is a performance product that can be used safely during mild weather conditions. During harsh and inclement weather conditions, you must return your vehicle to stock OEM air box and intake tract configuration. Failure to follow these instructions will void your warranty.

#### 1. Preparing Vehicle

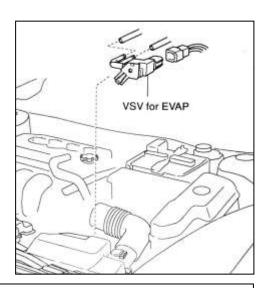
- a. Make sure vehicle is parked on level surface.
- b. Set parking brake.
- c. If engine has run in the past two hours, let it cool down.
- d. Disconnect negative battery terminal.
- e. Do not discard stock components after removal of the factory system.

#### 2. Removal of stock system

a. There are three Vacuum Switching Valves (VSV), and one air flow meter that have electrical and/or vacuum connections going to them. Be sure to label these connections before disconnecting them. Refer to the following diagrams for the identification of these components.



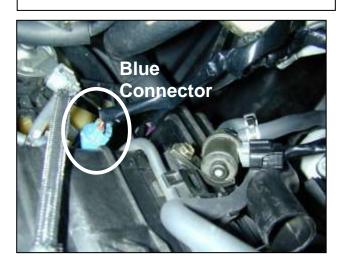
b. Remove the air flow meter connector, then remove the air flow meter by loosening the two screws. Be extremely careful with this component as it can be damaged easily. Set the air flow meter aside in a safe place.



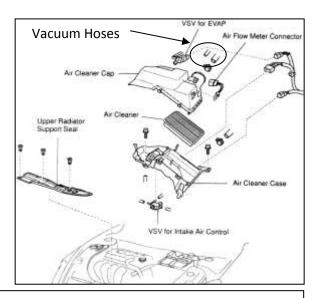
c. Disconnect the wire harness and remove the Vacuum Switching Valve (VSV) for EVAP from the air cleaner cap. Do not disconnect the vacuum hoses from the VSV for EVAP. Remove the metal mounting tab from the VSV for EVAP, and save the mounting bolt for later use.



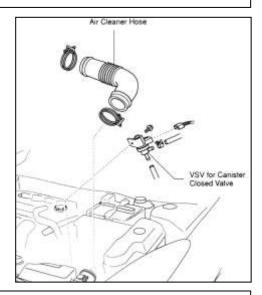
d. Remove the upper section of the ECU cooling duct. The upper piece should pull forward out of the ECU compartment; the other end will pull up off of the lower part of the duct.



f. On the underside of the lower air cleaner case, unplug the blue wire connector from the VSV for Intake Air Control Valve (IACV) and the small vacuum line going to the nipple on the intake manifold just to the left of the throttle body. The VSV for IACV and associated vacuum lines will not be reused with the AEM® intake system.



e. Remove the two vacuum hoses on the backside of the air cleaner cap. Disconnect the air cleaner hose from the throttle body, and remove the air cleaner cap and air cleaner element. Remove the upper radiator support seal. Remove the two bolts securing the lower air box. Lift the lower air cleaner case to gain access to the under side.



g. Remove the bolt that attaches the VSV for Canister Closed Valve (CCV) and remove the vacuum line from the lower port of the VSV for CCV. The vacuum line from the side port of the VSV for CCV to the hard line on the vehicle's chassis should be left in place. Remove the lower air cleaner case from the vehicle. The VSV for CCV should remain in the vehicle.



h. Pry the plastic rivet that secures the lower ECU cooling duct away from the engine bay. Pull the lower part of the duct out of the radiator fan shroud. Remove the entire lower ECU cooling duct from the engine bay.

## 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 1/8" vacuum cap onto the vacuum port that was left exposed upon the removal of the vacuum line in step 2f.



c. Thread the rubber mount into the hole where the bottom of the air cleaner case was located.



d. Install the MAF sensor into the AEM® intake pipe using the two supplied screws.

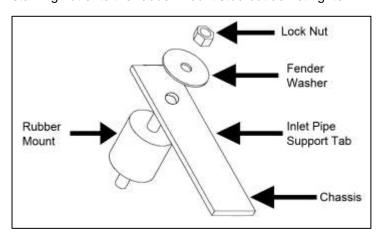
e. Raise the front of the vehicle with a jack. Refer to your owner's manual for proper jack and jack stand placement to properly support vehicle. Support your vehicle using properly rated jack stands before wheel removal or while working under the vehicle.

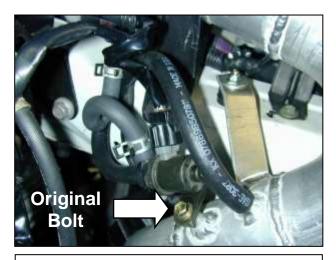
#### NEVER WORK UNDER A VEHICLE WITHOUT USING JACK STANDS.

- i. Remove driver side wheel.
- f. Remove the inner fender liner to allow installation of the inlet pipe.

NOTE: If the liner or any other splashguard is removed, they must be re-installed. Failure to install the plastic splashguard will result in diminished performance and increase the potential for engine damage due to water ingestion in rainy conditions.

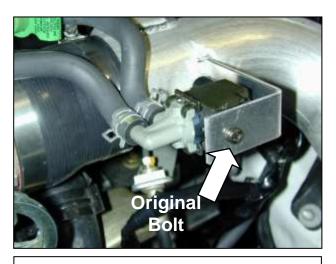
- g. i. Install the 3" side of the reducer connector hose on the throttle body along with two hose clamps.
  - ii. Insert the pipe into the connector on the throttle body, and then position the inlet pipe so that the slot on the mounting tab goes over the rubber mount. The throttle body end on the pipe is the end with the air flow meter adapter.
  - iii. Install the washer and retaining nut onto the rubber mount stud but do not tighten.





h. Using the original bolt, mount the VSV for CCV onto the mounting tab on the AEM<sup>®</sup> inlet pipe. Run the 10" section of vacuum hose, between the bottom port of the VSV for CCV (left open in step 2g) and the nipple on the inlet pipe. Secure both ends of the vacuum hose with the supplied hose clamps.

NOTE: The hose used in this step is the shorter smaller diameter hose.



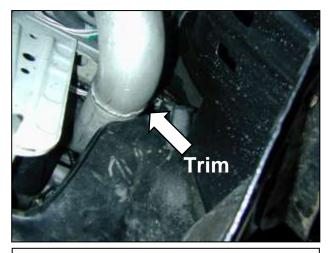
i. Using the original bolt, mount the VSV for EVAP to the bracket on the AEM® inlet pipe near the throttle body. Reconnect the wire connector.



j. On some vehicles, the wire harness connected to the bumper light may interfere with air filter placement. If this occurs, remove the plastic harness clip from the bracket near the tow hook to allow more clearance.



k. Install the AEM® air filter onto the end of the inlet pipe.



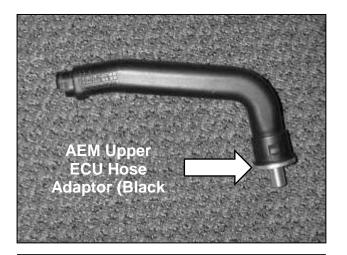
I. Trim the lower splashguard to clear the AEM<sup>®</sup> intake pipe. Hold the splashguard up to the pipe and trim only enough to clear the pipe. Resecure the lower splashguard using the original hardware.



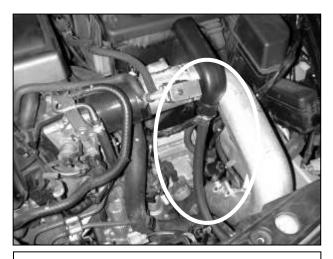
m. Trim the inner fender liner in the same manner. Re-secure the inner fender liner using the original hardware.



n. Position the inlet pipe for best fitment. Ensure that the pipe and any other components do not make contact with any part of the vehicle. Tighten the hose clamps at the throttle body, then tighten the nut on the rubber mount. Check for proper hood and radiator clearance. Readjust if necessary.



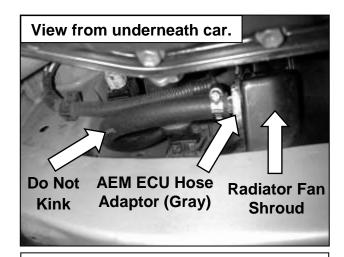
o. Insert the AEM® upper ECU hose adaptor into the stock upper ECU duct.



p. Install the upper ECU duct back into the factory location as shown. Attach the supplied section of ½" hose with one of the remaining ¾" hose clamps. Route the hose as shown towards the bottom of the radiator fan shroud.



Stock air box system installed



q. Install the AEM® lower ECU hose adaptor (gray color) in to the radiator fan shroud. Push until it clicks into position. This process will require a moderate amount of force, but use care not to crack the radiator fan shroud. Attach the other end of the supplied hose with the remaining ¾" hose clamp. Route the hose as shown to avoid kinks.



AEM® intake system installed.

If the AEM® bypass valve (part # 20-402S) is installed, install the bypass valve as shown in the figure below. The intake pipe will require modification so follow the instructions included with the AEM bypass valve accordingly.

NOTE: The fuse & relay box adjacent to the bypass valve location should be bent out of the way slightly to allow clearance of the bypass valve. Gently push the fuse & relay box metal bracket away from the pipe until it no longer interferes with the bypass valve.



AEM® bypass valve installed on AEM intake system

#### 4. Reassemble Vehicle

- a. Wheel: Install the driver side wheel using the factory torque specification (see owner's manual).
- b. 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.
- c. Check for proper hood clearance. Re-adjust pipes if necessary and re-tighten them.
- d. Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tightened.
- e. 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.
- c. Use window cleaner or mild soap and water 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.