

Equipped with AEM® *Dryflow™ Filter*No Oil Required!

# **INSTALLATION INSTRUCTIONS** PART NUMBER: 21-678

2011-2014

**MITSUBISHI** 

**Lancer Evolution** 

L4-2.0L

2008-2010

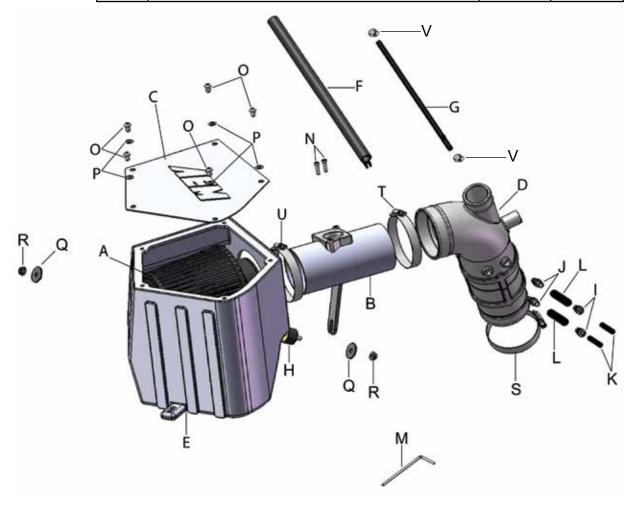
**MITSUBISHI** 

**Lancer Evolution** 

L4-2.0L C.A.R.B. E.O. # D-670-6

# **PARTS LIST**

	Description	Qty.	Part Number
Α	Air Filter Assy. 3.00 X 5" Dry Ele.	1	21-203DK
В	Inlet Pipe	1	2-6781
С	Air box Lid, Evo X	1	20-6781
D	Hose, Adapter Evo X	1	5-6781
Е	Air box, Evo X	1	9-6781
F	Edge Trim, 14"	1	8-4014
G	Hose; 1/4"ID X 16"L	1	5-6018
Н	Mount, Rubber 5/8" X 6mm	1	1228598
1	Connector, Alum. 5/16"-5/32"	2	2-926
J	Connector, Plastic 5/16" Straig.	2	8-148
K	Hose; 5/16ID X 2.75"L	2	5-2275
L	Hose; 5/32"ID X 4"L	2	5-3004
М	L-key, T20	1	69801
N	Bolt, Socket M47 X 8mm	2	1-2105
0	Bolt, Button Head M6-1.0 X 10mm	5	1-112
Р	Washer, #12 Nylon 6/6	5	1-3001
Q	Washer, 6mm Soft Mount	2	08160
R	Nut, M6 Hex Serrated	2	444.460.04
S	1/2" Bnd. Hose Clamp, 2.31-3.25"	1	9444
Т	1/2" Bndhose Clamp, 2.56"-3.50"	1	9448
U	1/2" Bnd. Hose Clamp, 2.90"-3.75"	1	9452
V	Hose Clamp, 5/8"	2	4093-3



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.

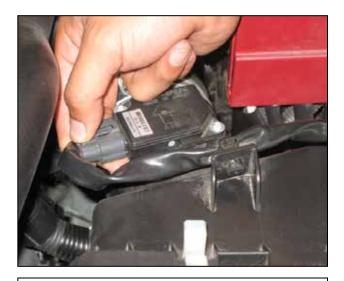
## 2. Removal of stock system



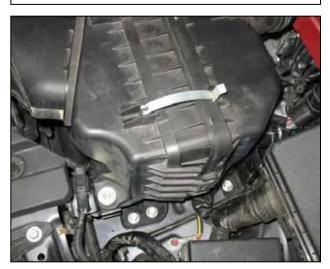
a. Stock air box system installed.



c. Using a small screwdriver remove the two tree mount zip ties from the air box housing tabs.



b. Disconnect the mass air flow (MAF) sensor harness connector from the MAF sensor.



d. Remove the bolt securing the OE air box to the vehicle.



e. Loosen the hose clamp securing the rubber inlet tube to the stock air box assembly.



g. Remove the two plastic rivets securing the air inlet duct.



i. Disconnect the air bypass valve hose from the air bypass valve.



f. Remove the air bypass valve hose from the OE inlet by pulling it toward the passenger side of the vehicle.



h. Disconnect the OE inlet tube from the air box, then remove the air box from the engine bay by pulling straight up.



j. Use pliers to compress the hose clamp securing the vacuum line to the air bypass valve and slide it away from the air bypass valve.



k. Disconnect the vacuum line from the air bypass valve.



m. Disconnect the two vacuum lines that connect to the wastegate solenoid, they connect to the inlet tube.



o. Remove the vacuum line from the vehicle that was connected to the air bypass valve.



I. Disconnect the PCV hose from the OEM inlet tube.



n. Loosen the hose clamp securing the inlet tube to the turbo inlet. Remove the inlet tube.



p. Remove the air bypass valve from the inlet hose by loosening the hose clamp on the inlet tube.



q. Remove the hose clamp from the inlet tube.



s. Unclip the two clips holding the air box housing together.



u. Remove the two grommets on the bottom of the air box housing. They will be reused in a later step during the  $AEM^{\otimes}$  intake system installation.



r. Remove the MAF sensor from the air box housing using the supplied tamper proof torx tool.



t. Separate the air box housing, then remove the inlet duct from the air box by squeezing the top two tabs and pushing out.

### 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 rubber mount onto the air box and secure it with a washer and lock nut.

NOTE: The rubber mount section should sit on the outside of the air box.



d. Install the two OE rubber grommets onto the bottom of the AEM® air box. The grommets were removed from the stock air box in step 2u.



f. Align the air box tab with the mount the OE air box mounted to. Secure the air box to the mounting tab with the bolt removed in step 2d. Do not over torque the bolt, 15 ft-lbs.



c. The inlet duct should snap into place in the oval opening of the air box. Also, install the edge trim around the inlet hole on the rear side of the air box.



e. Place the AEM® air box in the engine bay, aligning the two rubber grommets of the air box with the two dowels protruding from the mounting location.



g. Secure the inlet duct using the plastic rivets removed in step 2g.

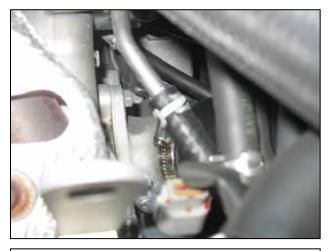


h. Insert the two white connectors into the rubber inlet hose.

NOTE: Using glass cleaner to lubricate the parts will help with installation.



j. Insert the two aluminum connectors into each of the 5/16" hoses. Connect the 5/16" hose to the white connectors attached to the rubber inlet as shown.



I. Install the rubber inlet into the vehicle, positioning the air bypass valve toward the top of the engine. Loosely secure the inlet to the turbo inlet with a hose clamp (9444).



i. Install the air bypass valve into the rubber inlet hose and secure with the OE hose clamp.



k. Install the MAF sensor to the intake pipe and secure with the supplied socket bolts.



m. Install the PCV hose into the rubber inlet hose.



n. Connect the two 5/32" hoses onto the two nipples of the wastegate actuator exposed in step 2m. Then connect the two aluminum connectors attached to the 5/16" hoses to the 5/32" hoses.



p. Reconnect the bypass hose to the bypass valve and secure it using the OE hose clamp.



r. Align the holes of the aluminum air box lid with the threaded holes of the air box. Install 5 button head screws and plastic washers to secure the lid to the air box.



o. Install the aluminum intake pipe into the rubber inlet hose. Align the intake pipe's bracket to the rubber mount, then secure the intake pipe to the rubber inlet hose with hose clamp (9448).



q. Install the AEM® air filter onto the end of the intake pipe and secure it with hose clamp (9452). Reconnect the MAF sensor harness connector to the MAF sensor.



s. Using the 1/4" hose and the hose clamps (4093-3), secure the hose to the bypass valve nipple and the vacuum tube (exposed in step 2o).



Factory air box system installed



AEM® 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 any rubber mounts, 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 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 state 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® intake tube.

NOTE: DO NOT USE aluminum polish on powder coated AEM® intake tubes.