

#### **INSTALLATION INSTRUCTIONS**

## 69-6546TWR MITSUBISHI

2008-13 Lancer Evolution X

L4-2.0L Turbo

**Excludes Ralliart Models** 

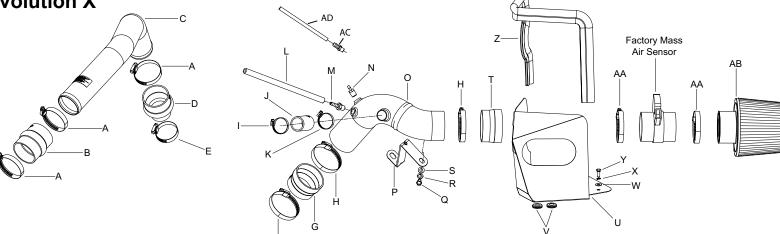
#### **TOOLS NEEDED:**

5/8" Socket 10mm Socket

12mm Socket 14mm Socket 13mm Wrench

Ratchet

Extension Flat Blade Screwdriver Phillips Screwdriver



# PARTS LIST: Description

	Boodinption	Qty.	a.c.,,								
Α	Hose Clamp #36	3	08530	K	Hose Clamp #16 Mini	1	08427	U	Heat Shield	1	073108
В	Hose; 2-1/2" ID X 3-1/8" L, Hump, Reinforced	1	08487	L	Hose; 8mm ID X 10-1/2" L	1	08077	V	Grommet; 1"OD, 1/2"ID, 1/4" Thk.	2	08167
С	Upper Intercooler Tube	1	27448TWR	M	Vent; STRT, 3/16 Barbed 1/4"NPT, Nylon	1	080021	W	Washer; 1/4"ID X 5/8"OD - SAE	1	08275
D	Hose; 2-1/2" ID To 1-13/16" ID X 3-1/8" L	1	08486	Ν	Vent; STRT, 3/8"Hose, 1/4"NPT, Plastic	1	08047	Χ	Washer; 1/4" Lock, ZN	1	08198
Ε	Hose Clamp #28	1	08483	Ο	Intake Tube	1	27450TWR	Υ	Bolt; 6mm-1.00 X 16mm, SS	1	07812
F	Hose Clamp #40	1	08554	Р	Bracket; "Z", STL, TK/PC	1	070125	Z	Edge Trim (30")	1	102489
G	Hose; 3" To 2-3/4" ID X 2" L TPRD Reinforced	1	084036	Q	Bolt; M8 - 1.0 X 20mm, TAP	1	06533	AA	Hose Clamp #48	2	08601
Н	Hose Clamp #44	2	08560	R	Washer; 8mm Spring (Wave)	1	08239	AΒ	Air Filter	1	RF-1047
- 1	Hose Clamp #20 Mini	1	08431	S	Washer; 5/16"ID X 5/8"OD, Flat	1	08276	AC	Vent; STRT, 1/2" Hose, 1/4"NPT, Plastic	1	080022
J	Hose; 1-1/4" ID X 2-1/2" L Reinforced	1	084071	Т	Hose; 3-1/8" To 3" ID X 2" L TPRD Reinforced	1	084031	AD	Hose; 1/2"ID X 12"L	1	087031

# NOTE: FAILURE TO FOLLOW INSTALLATION INSTRUCTIONS AND NOT USING THE PROVIDED HARDWARE MAY DAMAGE THE INTAKE TUBE, THROTTLE BODY AND ENGINE.

#### **TO START:**

1. Turn off the ignition and disconnect the negative battery cable.

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NOTE: Disconnecting the negative battery cable erases pre-programmed electronic memories. Write down all memory settings before disconnecting the negative battery cable. Some radios will require an anti-theft coded to be entered after the battery is reconnected. The anti-theft code is typically supplied with your owner's manual. In the event your vehicles' anti-theft code cannot be recovered, contact an authorized dealership to obtain your vehicles anti-theft code.



2. Disconnect the mass air sensor electrical connection and unhook the wiring harness from the air box mounting locations.





3. Loosen the hose clamps, which secure the upper intercooler hose to the turbo outlet and intercooler inlet.



4. Remove the upper intercooler hose assembly from the vehicle.



5. Release the spring clamp that secures the bypass valve signal line and then disconnect the bypass valve signal line from the bypass valve.



6. Loosen the hose clamp securing the bypass valve to the intake tube and then disconnect the bypass valve from the intake tube, set it to the side.



7. Loosen the spring clamp which secures the crank case vent hose to the valve cover and then disconnect the crank case vent hose from the valve cover.



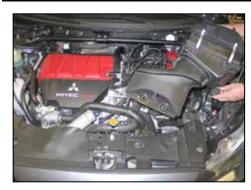
8. Loosen the hose clamps which secure the intake tube to the turbo inlet and mass air sensor. Remove the intake tube partially out of the vehicle and then disconnect the remaining vacuum line. Once the vacuum line is disconnected the complete intake hose assembly can be removed from the vehicle.



9. Remove the two plastic retaining screws and air box retaining bolt which secure the fresh air scoop as shown.

## Continued

## **INSTALLATION INSTRUCTIONS**



10. Remove the complete air box assembly from the vehicle.

NOTE: K&N Engineering, Inc., recommends that customers do not discard factory air intake.



11. Remove the two bolts which secure the transmission/engine lifting bracket and remove the engine lifting bracket from the transmission.

NOTE: One of the factory bolts will be reused in a later step.



12. Remove the two bolts which secure the mass air sensor to the air box and then remove the mass air sensor from the air box.



13. Remove the factory gasket and the two spacers from the mass air sensor.



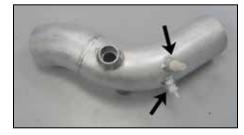
14. Open the air box halves and then push the fresh air intake scoop out of the front air box half.



15. Install the tube mounting bracket (070125) onto the transmission/engine lifting bracket location using the factory bolt removed in step #11.

NOTE: Do not completely tighten at this time.

NOTE: Do not completely tighten at this time. The tube mounting bracket should be attached to the upper mounting boss.



16. Install the two ¼"NPT fittings onto the K&N® intake tube as shown.

NOTE: On 2010 model year and later vehicles, it will be necessary to install the larger 1/2" barbed NPT fitting in place of the 3/16" barbed NPT fitting.

NOTE: Plastic NPT fittings are easy to cross thread. Install the vent fitting "hand" tight, then turn it two complete turns with a wrench.



17. Install the silicone hose (084036) onto the K&N® intake tube as shown and secure with the provided hose clamp.



18. Install the provided edge trim onto the heat shield as shown.

NOTE: Some trimming of the edge trim will be necessary.



19. Install the two provided grommets into the heat shield as shown.



20. Install the heat shield assembly onto the factory air box mounting location and secure with the hardware provided.



21. Install the K&N® intake tube onto the turbo inlet and align with the mounting bracket installed in step #15. Secure the intake tube with the provided hose clamp and hardware.



22. Connect the factory vacuum line to the ¼ NPT fitting as shown.



23. Connect the provided crank case vent hose to the remaining ½ NPT fitting and then to the valve cover port as shown.

NOTE: On 2010 model year and later vehicles, it will be necessary to install the larger 1/2"id vent hose in place of the 8mm vent hose.



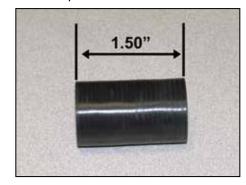
24. Install the provided silicone hose (084031) onto the mass air sensor and secure with the provided hose clamp.



25. Install the K&N® filter onto the mass air sensor and secure with the provided hose clamp.



26. Install the mass air sensor assembly onto the K&N® intake tube and secure with the provided hose clamp.



27. Cut the provided silicone hose (084071) to a length of 1.5" as shown.

#### **Continued**

## **INSTALLATION INSTRUCTIONS**



28. Install the cut section of silicone hose (084071) onto the bypass valve and secure with the provided hose clamp.

NOTE: The provided hose is a tight fit onto the blow off valve. It may be helpful to use silicone spray lubricant and/or completely remove the blow off valve from the vehicle to assist in installing the hose onto the valve.



29. Install the bypass valve with silicone hose onto the K&N® intake tube and secure with the provided hose clamp.

NOTE: It will be necessary to loosen the hose clamp securing the bypass valve to the factory hose for adjustment and proper fit. It may be necessary to trim the factory bypass hose one inch for proper hood clearance.



30. Reconnect the factory vacuum hose to the bypass valve and secure with the factory hose clamp.



31. Install the silicone hose (08486) onto the turbo outlet and secure with the provided hose clamp.



32. Install the remaining silicone hose ( 08487) onto the K&N® upper intercooler tube as shown, slide the hose completely onto the tube and do not secure at this time.



33. Install the K&N® upper intercooler tube into the silicone hose on the turbo outlet, align with the intercooler inlet, slide the silicone hose onto the inlet and then secure with the provided hose clamps.



34. Install the fresh air intake scoop into the heat shield as shown and then secure with the factory retaining clips.



35. Clip the mass air wiring harness onto the heat shield and then reconnect the mass air sensor electrical connection.

NOTE: The wiring harness retaining clips may need to be adjusted for proper fit.



- 36. Reconnect the vehicle's negative battery cable. Double check to make sure everything is tight and properly positioned before starting the vehicle.
- 37. 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.
- 38. It will be necessary for all K&N® high flow intake systems to be checked periodically for realignment, clearance and tightening of all connections. Failure to follow the above instructions or proper maintenance may void warranty.

#### **ROAD TESTING:**

- 1. Start the engine with the transmission in neutral or park, and the parking brake engaged. Listen for air leaks or odd noises. For air leaks secure hoses and connections. For odd noises, find cause and repair before proceeding. This kit will function identically to the factory system except for being louder and much more responsive.
- 2. Test drive the vehicle. Listen for odd noises or rattles and fix as necessary.
- 3. If road test is fine, you can now enjoy the added power and performance from your kit.
- 4. K&N Engineering, Inc., 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 and re-oil, purchase our filter Recharger® service kit, part number 99-5050 or 99-5000 and follow the easy instructions.