

Warning: Please follow these installation instructions carefully. The K&N Drycharger included in this kit must be installed on the K&N air filter when used with a K&N Typhoon Cold Air Intake System. The K&N Typhoon Intake System is a performance product that can be used safely during mild weather conditions. During hard and inclement weather conditions, you must convert your Cold Air Intake System into a short ram configuration, or Freturn your vehicle to the stock OEM airbox and intake tract configuration. Failure to follow these instructions can void your warranty.

# INSTALLATION INSTRUCTIONS

# 69-0500

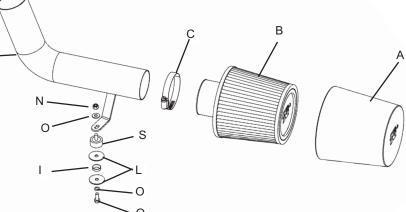
Alfa Romeo 147, 2000-2005 1.6L 16v 105 & 120 PS

Tools Needed:
Flat Blade Screwdriver 7mm socket spanner 3mm Allen Wrench 10mm Ratchet, Socket & Extension Car Jack Pair of Axle Stands 8 mm Spanner 10 mm Spanner Torx T25 Screwdriver (provided) Torx T30 Screwdriver Torx T40 Screwdriver

# Stock Mass Air Sensor G

### **PARTS LIST**

Description	Qty.	P/N
A Drycharger Element B Filtercharger Element C Hose Clamp #40 D Cold Air Extension Tube E Hose Clamp #44 F Silicone Hump Hose G Intake Tube H Silicone Step Hose I Washer nylon, conical J Silicone Breather Hose L Washer large M Bolt, button head, M5 N Nut, Nylock, M6, SS O Washer, 6mm, Flat, SS P Vibration Mount, M6, M/M Q Bolt, M6x16, SS R Bracket, Straight S Vibration Mount, M6, M/F	1 1 4 1 1 1 1 1 1 2 2 4 6 1 2 1	RX-4990DK KRU4950E 08554 27315 08560 084018 27314 084016 08180 08485 08151 07734 07512 08269 07727 07812 06477 070228



## TO START:

1. Turn the ignition OFF and disconnect the vehicle's negative battery terminal.



2. Remove the oil filler cap, undo the 4 fixing screws and remove the engine cover from the vehicle as shown.



3. Unclip and remove the electrical harness plug from the mass air sensor (MAS).



4. Undo the hose clamp and remove the breather hose from the cam cover.



5. Undo the hose clamp and pull the intake tube from the air box as shown.



6. Undo the hose clamp at the throttle body and remove the intake tube assembly from the vehicle as shown.



7. Unscrew and remove the indicated cover from the inner wing as shown.



8. Open the fuse and relay box. Unclip the front of the fuse and relay tray and tilt it backwards as shown.



9. Carefully remove the black cover at the bottom of the box and undo the indicated nut.



10. Unclip the fuse and relay tray from its box. Carefully lift the fuse and relay box upwards from its mounting bracket. Undo the two nuts and remove the mounting bracket.



11. Undo the air box mounting nut located on the front of the battery tray as shown.



12. Undo the indicated intake snorkel securing screw from the left hand inner wing as shown.



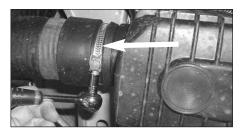
13. Taking all the necessary safety precautions, as per manufacturer's instructions raise the front of the vehicle and support it with axle stands. Then, remove the under tray from the

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# **INSTALLATION INSTRUCTIONS**



14. From underneath the car, unclip and remove the air box lid as shown, then, remove the filter element.



15. From underneath the car, undo the indicated hose clamp as shown and pull the intake snorkel from the air box base.



16. From underneath the car, carefully push the air box base upwards from its mounting grommets and remove it from the vehicle.



17. From undernath the car, remove the intake snorkel securing screw. Now carefully remove the intake snorkel from the vehicle by pulling it downwards



18. Re-install the mounting bracket and fuse and relay box, using their respective original nuts as shown.



19. Fit the male/male ruber stud to the under side of the fuse and relay box as shown, using a 6mm washer and M6 nylock nut supplied.



20. Re-install the fuse and relay tray back into its box, then, re-install the plastic cover as shown. Re-install the cover removed instep 7 using its original screws as shown.

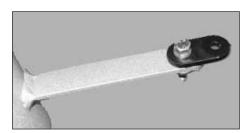


21. Unscrew and remove the MAS from the original intake pipe as shown.



22. Install the MAS into the intake tube using the M5 allen head screws supplied.

NOTE: Clean the inside of the tube of any dirt or debris before installing the MAS!



23. Fit the small bracket to the bracket on the intake tube using a M6 bolt, nylock nut and 2 washers supplied. Don't fully tighten yet!



24. Fit the stepped silicone sleeve onto the intake tube using a #40 hose clamp supplied, and fit the #44 hose clamp over the sleeve as shown. Don't fully tighten either yet!



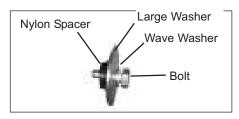
25. Feed the intake tube into the sleeve as shown. Do not fully tighten the #44 hose clamp



26. From underneath the car, fit the bracket onto the rubber stud. Align the tube for best clearance and fully tighten all its securing hardware



27. Place a large metal washer and the M/F rubber stud over the slot in the lower air box mounting plate as shown.



28. Fit the waved washer, large washer and the nylon spacer over the shaft of an M6 bolt as shown. From underneath the vehicle, screw this assembly into the rubberstud placed in the previous step. Don't fully tighten yet!



29. Fit the silicone hump hose onto the previously installed intake tube using a #40 hose clamp as shown. Don't fully tighten yet!



30. Fit the "B" tube into the silicone hump hose as shown, but don't tighten the #40 hose clamp vet!



31. Fit the weld-on bracket of the "B" tube onto the rubber stud using a 6mm washer and M6 Nylock nut supplied as shown. Don't fully tighten vet!



32. Fit the K&N Drycharger over the K&N Filter as shown. **NOTE:** The Drycharger's water repellant properties will last up to 2 years. See parts list to re-order Drycharger if necessary.



33. Fit the filter onto the "B" tube using the #40 hose clamp supplied as shown. Align filter and "B" tube for best clearance, and fully tighten all the hardware.



34. Fit the breather hose supplied between the intake tube and the cam cover as shown. Trim the hose as necessary.

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# **INSTALLATION INSTRUCTIONS**



35. Re-install the engine cover and reconnect the MAS electrical connector as shown.



36. Re-install the under tray re-moved earlier. NOTE: if the under tray is not present on your car, K&N strongly suggests that you contact your car dealer to purchase one.



37. Reconnect the negative battery terminal. installation is now completed.



38. Double check to make sure everything is tight and properly positioned before starting the

39. It will be necessary for all Typhoons to be checked periodically for realignment, clearance and tightening of all connections. Failure to follow the above instructions or proper maintenance may void warranty.



40. This K&N Typhoon intake kit has been designed to be used in two different configurations. In the case of inclement weather, the cold air tube can be removed and the filter can be clamped onto the first intake tube located in the engine compartment as shown to avoid the possibility of ingesting water into the engine.

### **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 suggests checking the Filtercharger element periodically for excessive dirt build-up. When the element becomes covered in dirt (or once a year), service it according to the instructions on the Recharger service kit available from your K&N dealer, part number 99-5003EU.

P.O. BOX 1329, RIVERSIDE, CA, 92502 USA

(951) 826-4000 FAX (951) 826-4001 TECH: (800) 858-3333

http://www.KNFilters.com

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