



FILTERCHARGER[®] INJECTION PERFORMANCE KIT

— INSTALLATION MANUAL —

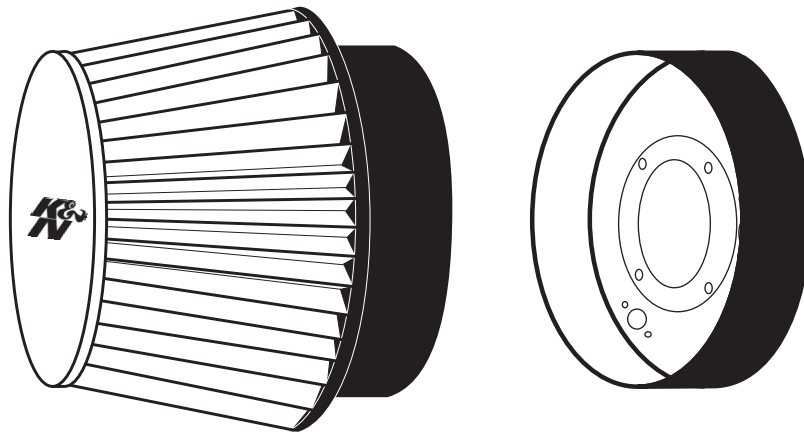
Nissan 240SX

1989-1993

L4-2.4L

P/N 57-6000

CARB E.O. # D-269-3



K&N Engineering, Inc.

1455 Citrus Avenue

P.O. Box 1329

Riverside, CA 92502

K&N Filtercharger® Injection Performance Kit #: 57-6000

Application: 1989-93 Nissan 240SX L4-2.4L engine

Air-flow sensing device: hot-wire air flow meter

BASIC DESIGN CONCEPT

This K&N Filtercharger® Injection Performance Kit (hereafter referred to as: **FIPK**) is designed to be less restrictive than the OEM air filter system. Low restriction air filters allow the engine to have better throttle response as well as more power throughout the RPM band. K&N has designed this **FIPK** to exactly replace the OEM factory air cleaner case, with a precision engineered aluminum adapter and all the necessary mounting brackets, bolts, screws and nuts. Additionally, it is important to note, if the O.E.M. air cleaner case has emission control devices and/or hoses, that all these parts will be installed as necessary to the new assembly.

Each **FIPK** has a specially designed filter with woven cotton fabric sandwiched between 2 layers of wire mesh screen. The screen and fabric combination creates a grid-like effect which actually straightens out the incoming air as it passes through the filter. In addition to the filter, this kit has a uniquely designed adapter with a built-in velocity stack. This velocity stack is beneficial in further smoothing out the incoming air flow and allowing for a less restrictive entry into the engine. (Air moving in a straight direction moves faster than tumbling air thus creating an increase in air flow). See the figure below.

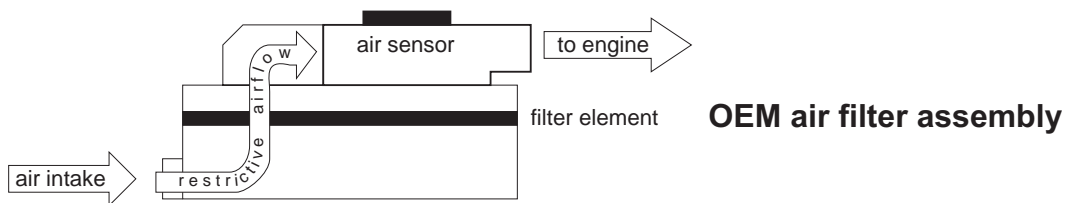
AIR CLEANER DESIGN EFFECTIVENESS

To design an effective performance air filter assembly, two factors must be considered: the air filtering element and the air filter adapter. On fuel injected, computer controlled vehicles, there can be a substantial gain in performance by using a less restrictive air filter assembly. Original equipment air filter assemblies tend to be more restrictive than the performance enthusiast would like, therefore, by changing to the less restrictive K&N **FIPK**, the air flow potential of the engine can be fully maximized without jeopardizing important emission standards. (see figures below)

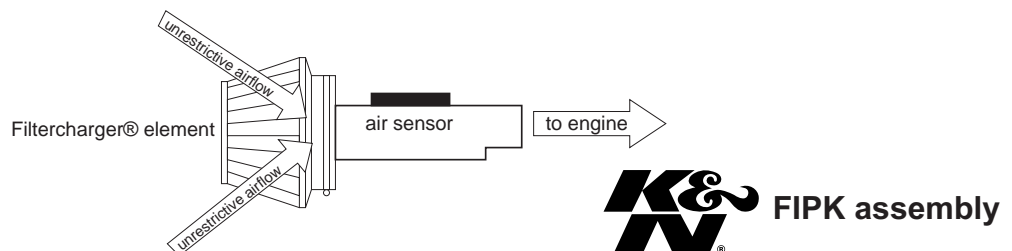
EMISSIONS LEGAL

The **FIPK** is street legal for use on the emission controlled vehicles that it was originally designed to fit. These kits replace the original air filter case and do not eliminate the emission controls. The high temperature label contains the EO # assigned by C.A.R.B. that will allow a vehicle installed with the **FIPK** to pass the visual inspection at an authorized Smog Inspection station.

BEFORE F.I.P.K.



AFTER F.I.P.K.

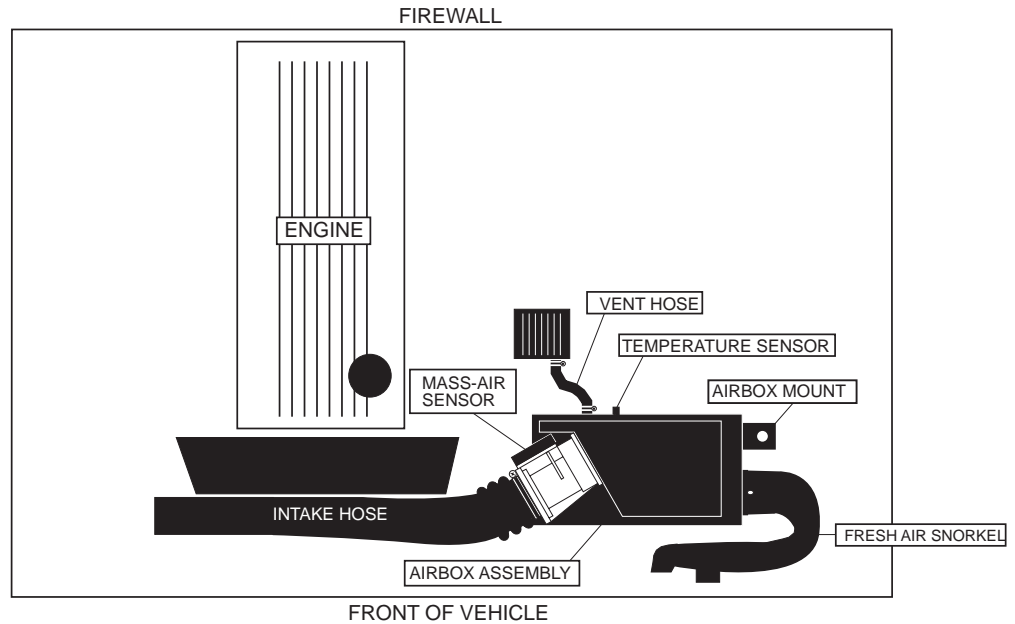


INSTALLATION INSTRUCTIONS

CAUTION!! PLEASE READ CAREFULLY AND COMPLETELY BEFORE BEGINNING WORK ON YOUR VEHICLE. K&N suggests that you have a repair manual available for reference during installation of the K&N Filtercharger® Injection Performance Kit.

NISSAN 240SX ENGINE COMPARTMENT

Refer to this diagram for the location of the various parts listed in the installation instructions.



INSTALLATION

- 1) Disconnect the vehicle's negative battery cable.
- 2) Remove the temperature sensor from the airbox lid, held in place by two screws. Carefully set the sensor aside for use later.
- 3) Loosen the hose clamp from the vent tube on the airbox lid. Un-hook the hose from the airbox and discard the clamp. Do not remove the hose from the vehicle.
- 4) Remove the four bolts that hold the mass-air sensor to the airbox lid.
- 5) Remove the screw holding the fresh-air snorkel to the airbox base. Do not remove the snorkel.
- 6) Remove the single bolt holding the airbox assembly to the body. The bolt screws into a rubber grommet and may require applying upward pressure to the airbox to keep the grommet from spinning.
- 7) Push the airbox assembly towards the engine, this will slide the lower retaining grommets out of their receptacles in the body and the airbox may then be removed from the vehicle as a unit. Save the stock rubber O-ring that goes between the mass-air sensor and the airbox for re-use later.
- 8) Remove the plastic clip from the lower airbox mount on the vehicle. This hole must be drilled out to 1/4". Loosely install the bracket with the supplied hardware. Use the supplied ziptie to secure the wires. (See fig. 1)
- 9) Loosen the clamp that holds the mass-air sensor into the intake hose. Rotate the mass-air sensor so that the power cable is on the bottom and the bracket lines up with one of the mass-air mounting holes. (See fig. 2)

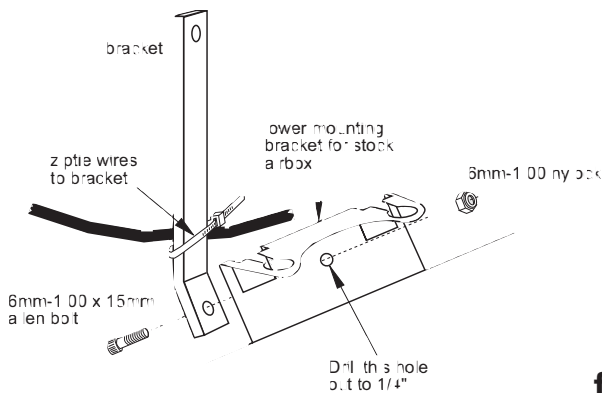


fig. 1

Rotate the mass-air sensor until this hole lines up with the hole in the bracket.

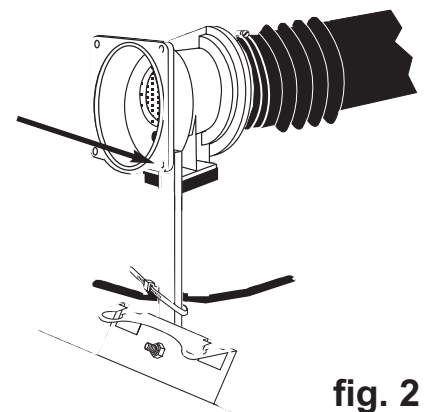


fig. 2

- 10) Carefully thread the supplied vent elbow into the die-cast filter adapter using teflon pipe-thread sealant. Do not over-tighten the elbow or the adapter might crack. (See fig. 3)
- 11) Without removing the temperature sensor from the vehicle, install the sensor into the filter adapter, using the stock screws and the rubber gasket. Do not use the metal plate. (Vehicles that don't have air temperature sensor keep rubber plug in adapter plate)
- 12) Bolt the filter adapter to mass-air sensor, using supplied hardware, and re-using the rubber O-ring. The vent elbow should be at nearly the 3 o'clock position as you look at the mouth of the mass-air sensor. This will place the K&N logo on the adapter at the 6 o'clock position and the temperature sensor in the 7 o'clock position. Use the long allen bolt in the hole that lines up with the bracket. (See fig. 4)

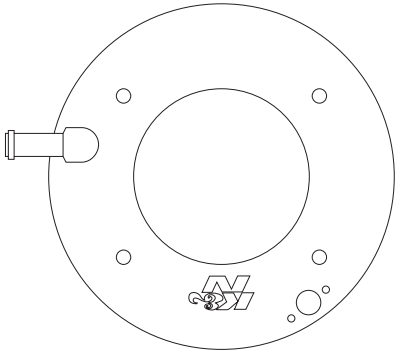


fig. 3

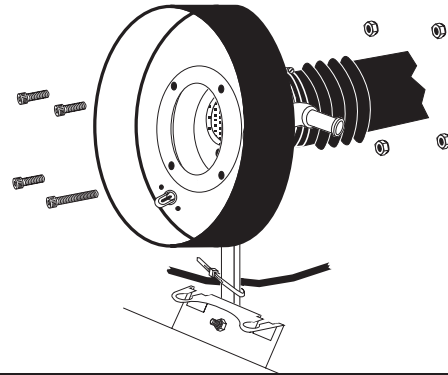


fig. 4

- 13) Tighten the bolt holding the bracket to the vehicle.
- 14) Tighten the clamp on the intake hose, for the mass-air sensor.
- 15) Loosen the remaining clamp on the stock vent hose and rotate it so that will fit onto the vent elbow. Secure the hose with the supplied #10 hose clamp. Re-tighten the stock clamp.
- 16) Install K&N Filtercharger® onto adapter, do not over-tighten hose clamp!
- 17) Re-connect battery cable. Double check to make sure everything is tight and properly positioned before starting vehicle.
- 18) 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.

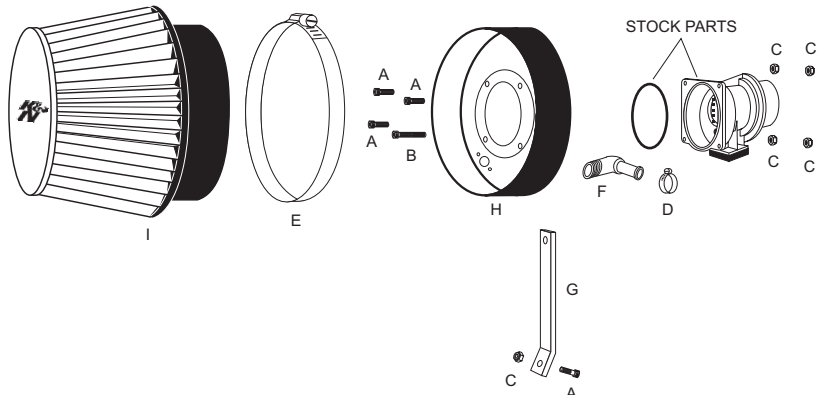
ROAD TESTING

Start the engine with the transmission in neutral or park, and the emergency brake on. Listen for any air leaks or odd noises. If there are air leaks, make sure the hose connections are secure. If there are any odd noises, check for the cause and repair before proceeding. The K&N Filtercharger® Injection Performance Kit will function identically to the factory air filter with the exception of being slightly louder than stock and much more responsive. If all preliminary checks are okay, then a road test is necessary. Listen carefully for rattling or other odd noises and fix as necessary. If the road test is fine, you can enjoy driving as normal with the added response and power. We suggest that the Filtercharger® element be checked periodically for dirt. This is now very easy due to the open element configuration. If the filter material is overly dirty, service it according to the instructions that are in the Recharger service kit, part number 99-5050 or 99-5000. If you have any questions or problems, inquire at your nearest K&N dealer, or direct to K&N Engineering at (909) 684-9762.

FREE K&N DECAL To register your warranty, please see us online at knfilters.com/register. FREE K&N DECAL

PARTS LIST

desc	qty	part#
A 6mm-1.00 x 16mm allen bolt	4	07818
B 6mm-1.00 x 25mm allen bolt	1	07859
C 6mm-1.00 nylock nut	5	07553
D size 10 hose clamp	1	08411
E size 104 hose clamp	1	08697
F vent elbow	1	08045
G bracket	1	07876
H die-cast filter adapter	1	08845
I Filtercharger® element	1	RC-2960



17784a
6/2/04