

UPPER PLENUM & LOWER INTAKE REPAIR KIT

FITS 1995-2003 GENERAL MOTORS VEHICLES WITH 3800 ENGINE (VIN K -- RPO L36)

Avoids replacing part numbers 17113136 & 24508923

Some vehicle owners are complaining of excessive engine coolant consumption, or an engine coolant leak near or under the throttle body area of the upper intake manifold. The problem is that the EGR passage melts the upper intake plenum, so that composite material degrades around the EGR stove pipe and could result in an internal or external coolant leak.

If the coolant leaks into the upper plenum it could result in "hydro-lock" of the cylinders, requiring at best, spark plug and oil pan removal in order to free up the engine's moving parts. This, however, does not correct the problem.

The new repair kit from KEN-CO Industries Ltd. forgoes the process of replacing both the upper and lower manifolds, as is suggested by General Motors at a retail cost of \$1200-\$1400. The job is made inexpensive with the replacement valve and adapter found in our kit. In addition the smaller diameter of our EGR passage tube supplies an air space between the "plastic" of the upper plenum and the hot EGR exhaust tube to assist in cooling.

The entire process should take under three hours to R & R the upper plenum as well as replace the EGR passage tube and correct the top plenums problem with our new sleeve.

Our kit contains three pieces to make the repair at a fraction of the OE cost with labor savings resulting from not having to remove the bottom intake. All the tech needs to supply in addition to this kit would be a new gasket.

The three pieces are identified as:

1. Replacement lower intake EGR port (tube)



2. New upper plenum reinforcing sleeve



3. New fast cure epoxy



Instructions:

1. Follow the upper intake manifold (upper plenum) removal instructions found in the Engine Unit Repair Section of the Service Information Manual.
2. Inspect the inner diameter of the EGR passage for signs of material degradation. Degradation will appear as "pitting" of the composite material in the EGR port passage.
3. If degradation of upper intake manifold composite material is found, continue to step 4. If degradation is not apparent, evaluate the vehicle for other causes of excessive coolant consumption.
4. Using a pair of vise grips, remove the EGR tube from the bottom plenum and clean the area of all debris.
5. On the lower intake, tap into place using a deep 5/8" socket the new EGR port tube supplied in the replacement parts kit. The part is installed when the flanged portion is flush with the top of the lower manifold.
6. On the upper plenum, clean the damaged area of debris and sand the pitted area to a smooth finish.
7. Using the epoxy supplied in the kit, coat the new adapter bushing and install it into the upper plenum. Make certain that the sleeve is centered properly to allow the EFR port tube to fit freely. Allow about 10-15 minutes for the epoxy to cure.
8. Sand the cured epoxy so that it is smooth to both sides of the upper plenum.
9. Reinstall the plenum according to the General Motors Engine Unit Repair Section of the Service Information Manual.