"IMRC" Cleaning

96 thru 98 Cobras

An offshoot of the Intake Manifold Runner Controls for the screaming SHO motors, SVT adapted this idea to the 96 thru 98 Mustang Cobra mod-motors with great success. Designed to squeeze low-end torque and HP out of the Cobras, the "IMRC's" works like a champ until they get gummed up with varnish or the actuator fails completely. If your performance has fallen off and you don't feel that extra kick at about 3,000 rpm – this article is for you, and it's time to clean your IMRCs.

This is a pretty easy project if you're handy with wrenches and have a day to spend on your Cobra.

Experienced folks can walk thru this in 3 hours but give yourself plenty of time.

Tools & supplies needed:

- Complete metric socket set, including deep sockets
- Open-end metric wrenches (8mm thru 14mm)
- Good supply of rags
- Zip-Loc sandwich bags and a marker to keep you bolts organized
- Tie wraps to keep things out of the way as you take them loose
- 6 to 8 cans of carb cleaner (the cheap stuff works just as well as the more expensive stuff)
- Drain pan
- 6' of 3/8" dia. clear hose to siphon coolant
- Chemical resistant gloves and safety glasses
- Magnetic parts retriever (you will drop a bolt or two)
- Flashlight

Optional parts:

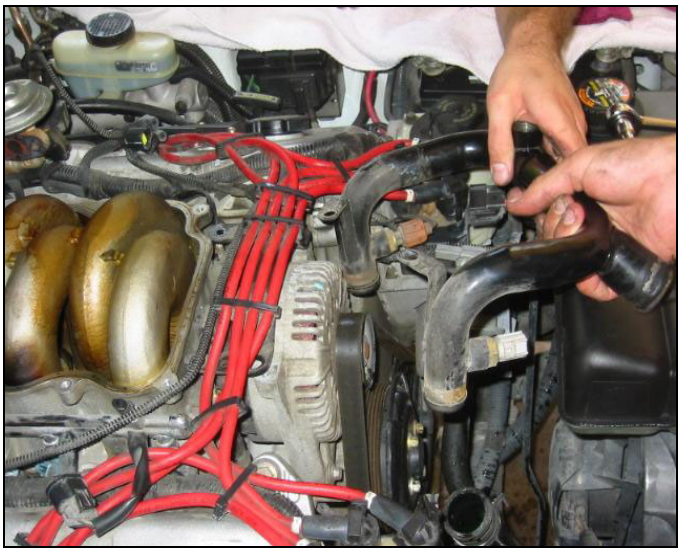
- O-rings for injectors (these are usually OK but this is a good opportunity to replace them if you see any signs of fuel leakage) Buy these at Ford – it takes two o-rings per injector – total of 16 to do them all (Ford # FOPZ-9229-A). There are 10 o-rings in the package so you'll need two packages – must be packaged for the V-10.
- O-rings (2ea) for coolant flow tube
- 2 gallons of coolant – again, a good chance to replace your anti-freeze, as you will need to drain it down a bit anyway.

Let's get started

(HINT: try to work on the motor cold – much easier on the hands and you'll not have to worry about pressure in the fuel lines if you've let the car sit over night)

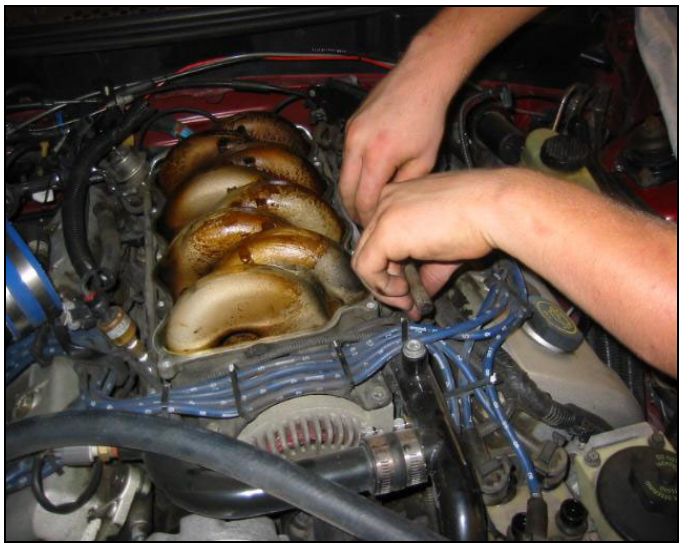
- Clean off the top of the motor as much as you can – you're going to be exposing the intake ports - (dirt and debris are our enemy).
- Disconnect the negative side of your battery and cover the battery with a disposable rag (good habit)
- Take a good long look at the way things are plumbed, connected and attached – take pictures if you'd like, you'll be glad you did.
- Remove all of the accessories that are bolted to the upper manifold and tie them back out of the way (no need to remove the throttle body)

- Drain down the coolant just a bit, unless you plan on replacing it. We found that siphoning out of the coolant flow tubes is the easiest way to insure you remove just enough – (To remove the intake manifold, the coolant flow tube must be loosened and removed – so you'll need to drain it down)



Removing Coolant Flow Tube

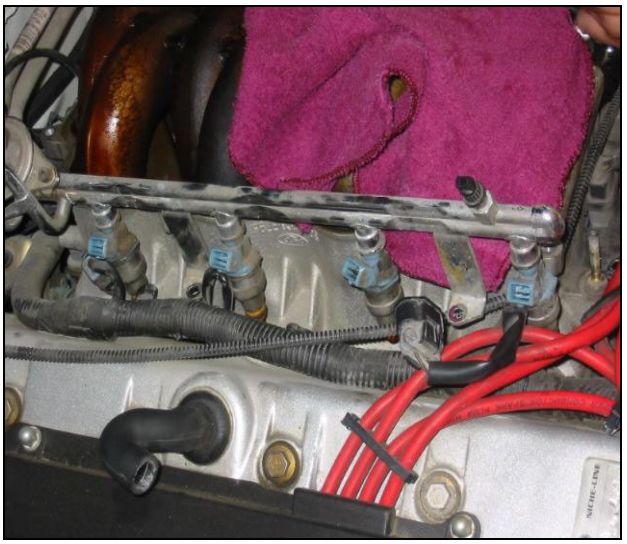
- Identify all of the bolts holding down the upper intake cover and remove & bag um
- Lift off the intake cover and set it in a safe place
- Disconnect the fuel injector wiring harness and lay it back out of the way – don't worry, it only goes back one way.
- Locate and remove the 4 bolts that hold down the fuel rails – carefully lift the fuel rail away from the injectors (don't worry if the injector comes up with the fuel rail – just keep track of everything



Lifting Fuel Rails and Injectors

- Now you can better see the 10 bolts that hold down the upper intake manifold – remove and bag um

You wondering about gaskets about now– well this is where the Ford engineers shine – these new composite gaskets, unless cut or torn, work over and over again. Let's hear it for Ford.



- With the lower intake now loose – carefully lift the manifold and notice that the IMRC actuator is bolted to the bottom of it and is connected via cables to the IMRC plates. Remove the three bolts holding the module to the manifold and remove the manifold.

Removing the IMRC Control Module

- **There's your IMRC plates and control module.**
- Disconnect the control cables from the IMRC plates and unplug the wiring harness from the control module – this will allow you to remove everything separately.
- Note how the control cables are laped thru the wiring harnesses at the rear of the motor – these need to go back the same way.
- GOOD idea to cover the now exposed intake runners on the heads with rags or tape!!!
- Back on the work bench – It's now time to put on those chemical resistant gloves and safety glasses and get busy with the carb cleaner. Spray away over a drain pan. Give everything a good fogging with the carb cleaner – let it set for

just a minute and then use the little red tube that comes with the carb cleaner – knocks it right off.

DON'T GET THIS STUFF IN YOUR EYES!!!!!!!

- You'll note that the varnish and carbon literally wash away – the more stubborn crud needs a little coaxing. A small wire brush will do the trick.

Clean as a Pin (these are 98's – a composite material)

visit us at: http://www.svtmustangcobraclub.com

These are 97's (aluminum)

- Talk a friend into cleaning the other intake parts while you focus on the IMRC plates – may cost you a hamburger but its well worth it.

Upper Intake Ready for Cleaning

- You'll be pleasantly surprised at how easily the crud comes off – carb cleaner is pretty strong stuff (hence the gloves and safety glasses)
- Once you're satisfied that everything is as clean as a pin – it's time to reinstall everything. Pretty much a reverse of the disassemble process.

If you do run into problems or would just like to talk thru the process – there are several members in the Houston chapter of the SVT Mustang Cobra Club that would be glad to help.

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