

INTRODUCTION:

This product is the first of its kind offered by Ford Special Vehicle Operations (SVO) to improve the performance potential of your 1987 5.0 L H.O. with a manual transmission and 1988 5.0 L H.O. 49 state with a manual transmission Mustang without sacrificing driveability. As you may be aware, it is very difficult to use a production EEC-IV processor in a high performance application. The reason is because the production EEC-IV processor calculates how much air your engine is using, and delivers the correct amount of fuel based on this calculation. When an engine is modified to flow more air, this calculation is no longer valid, and the EEC-IV processor must be recalibrated.

With our commitment to high performance, Ford SVO has assembled a package as a viable solution to this concern. The Motorsport EEC-IV processor does not calculate how much air your engine is using, it measures it with a Mass Air Flow Sensor. The advantage is that if the engine is modified to flow more air the EEC-IV can "see" the difference and deliver appropriate spark timing along with more fuel, when it is needed.

The installation of this kit can be done with a minimum of mechanical experience but it is very important to closely follow the instructions. Read each step of the instructions before beginning the installation and if you do not understand it, go back and read it again. If you do not feel comfortable partially disassembling a vehicle, take this kit to an experienced mechanic to be installed.

WARNING:

- 1). Be sure to disconnect the battery before beginning any of the following steps.
- 2). When routing wires, be sure to keep them away from heat sources, sharp edges and all moving parts.
- 3). Be sure not to force any parts into place, this will cause serious damage to the Motorsport Performance parts.
- 4). This part has been designed and is intended for off-highway application only. Installation on a vehicle intended for use on public roads may violate U.S., Canadian, state or provincial laws and regulations including those relating to emission requirements and motor vehicle safety standards. (NOTE: In California this part may legally be used only on a racing vehicle which will never be operated on public roads.) In addition, installation of this part may adversely affect the warranty coverage on your vehicle.

NOTE:

This kit can be installed in approximately 2 hours by carefully following the instructions. Read each step first to familiarize yourself with the procedure and the parts involved. Work slowly and carefully and be sure not to force any parts, this will cause damage to the parts involved and can be very costly. Be sure to keep your work area and tools clean. A good method is to use a clean bench-top for off-vehicle assembly.

TOOLS REQUIRED FOR INSTALLATION:

Shallow 10 mm socket or 10 mm open end wrench
Shallow 12 mm socket
Shallow 8 mm socket
Razor Knife
Trim tool
Medium size flat blade screw driver
Medium size phillips head screw driver

Be sure your kit includes all of the parts shown in figure 1. If it does not, return the kit for a new one.

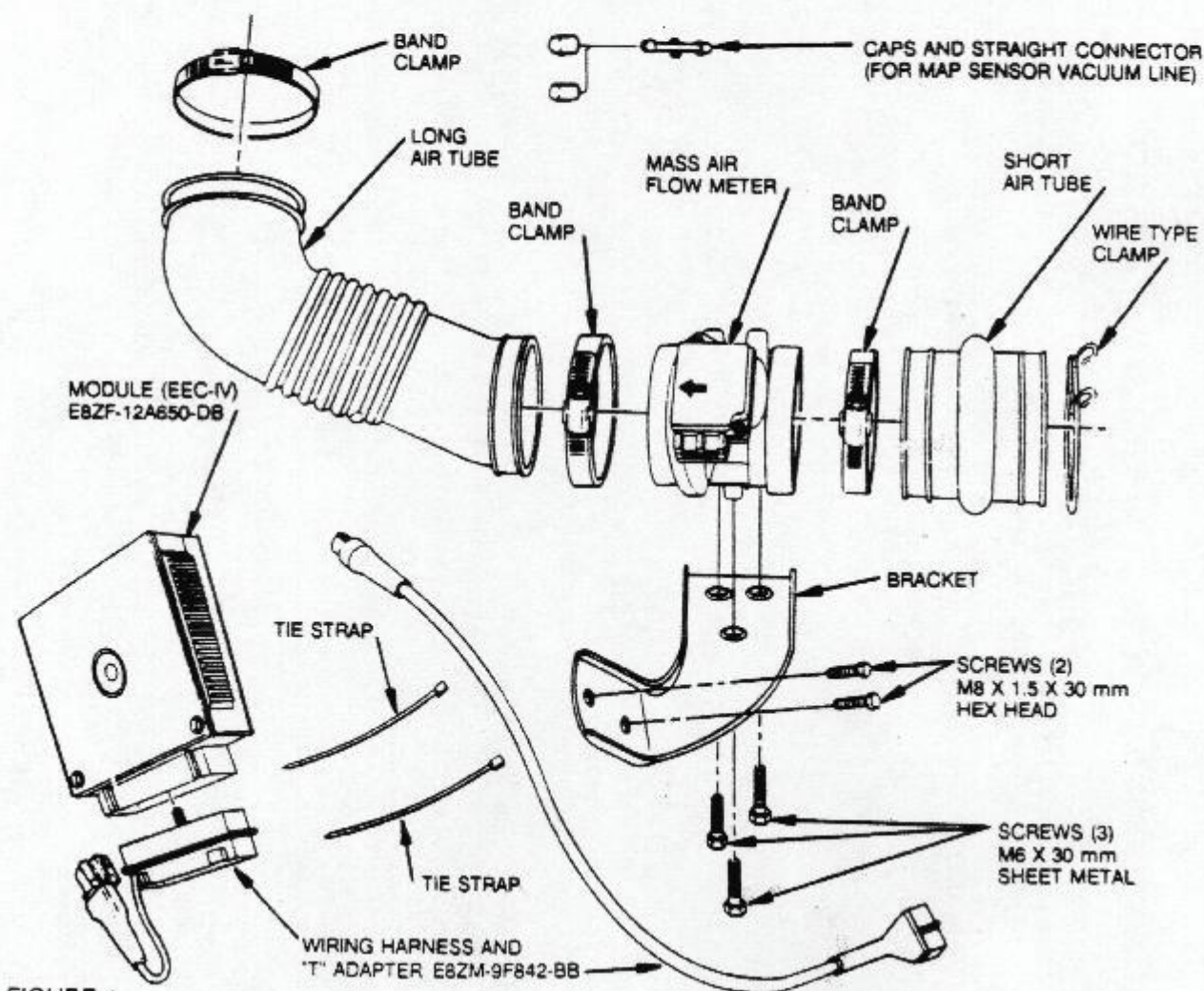


FIGURE 1

Although this kit improves the performance potential of your Mustang, many other steps can be taken to further increase engine power. Some of these are:

- 1). Cylinder head porting
- 2). Intake manifold porting
- 3). Larger valve installation

Other Motorsport performance parts are also available:

- 1). M-5246-B Stainless Steel off road exhaust kit
- 2). M-9430-E302 Header kit (cannot be used with M-5246-B)
- 3). M-4209-B355 3.55:1, 8.8 in Ring gear and pinion set
- 4). M-6049-J302 High flow aluminum cylinder heads

*other gear ratios available.

**requires Felpro intake gasket set number 17360.

STEP 1 Disconnect battery.

STEP 2 Remove the existing air inlet tube from between throttle body and air cleaner.

STEP 3 Remove the two (2) air cleaner attaching nuts located at the top of the air cleaner assembly. Carefully remove the air cleaner assembly from the vehicle. See figure 2.

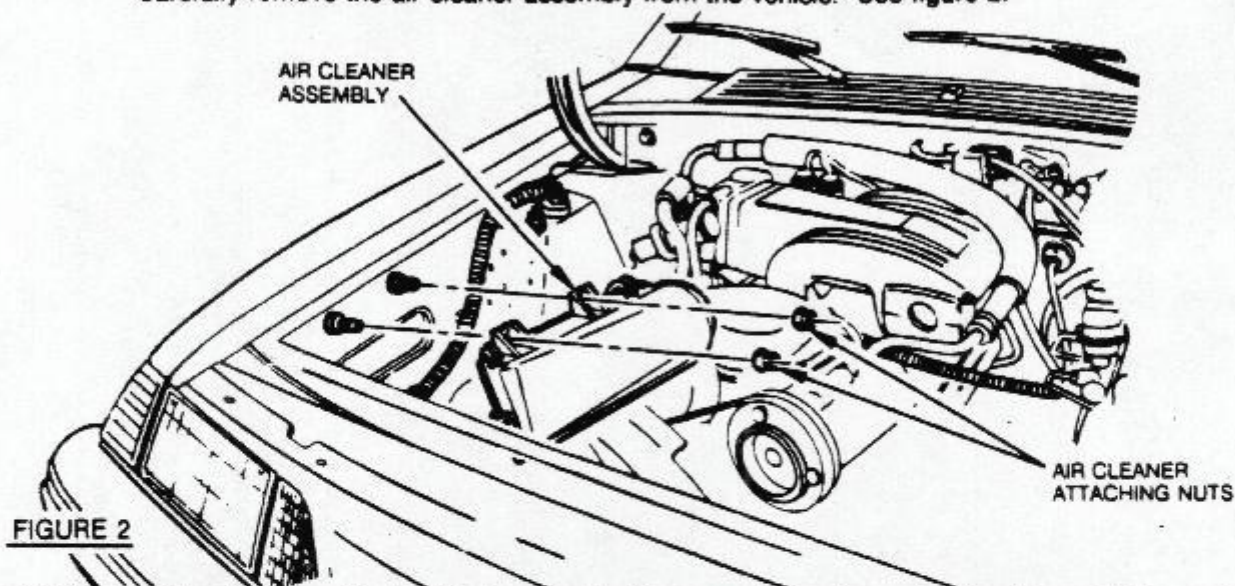


FIGURE 2

STEP 4 Remove the three (3) air inlet silencer attaching nuts. From the underside of the vehicle, carefully remove the air inlet silencer from between the front bumper fascia and the wheel skirt. See figure 3.

NOTE: Removing the air inlet silencer will increase engine power output, however the induction noise will also increase.

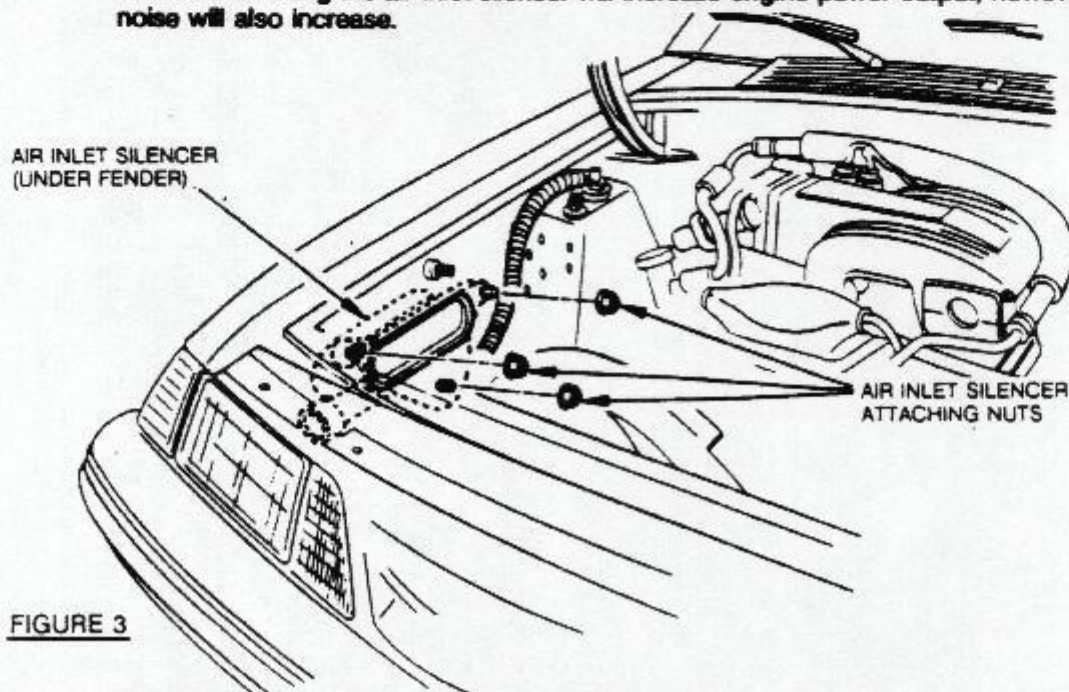


FIGURE 3

STEP 5 Position the air cleaner assembly in its original location and reinstall the two (2) attaching nuts that were removed in step 3. Refer to figure 2.

STEP 6 Attach bracket to Mass Air Flow Meter (MAF), if required, with the screws provided. Snug down but do not over tighten, see figure 4.

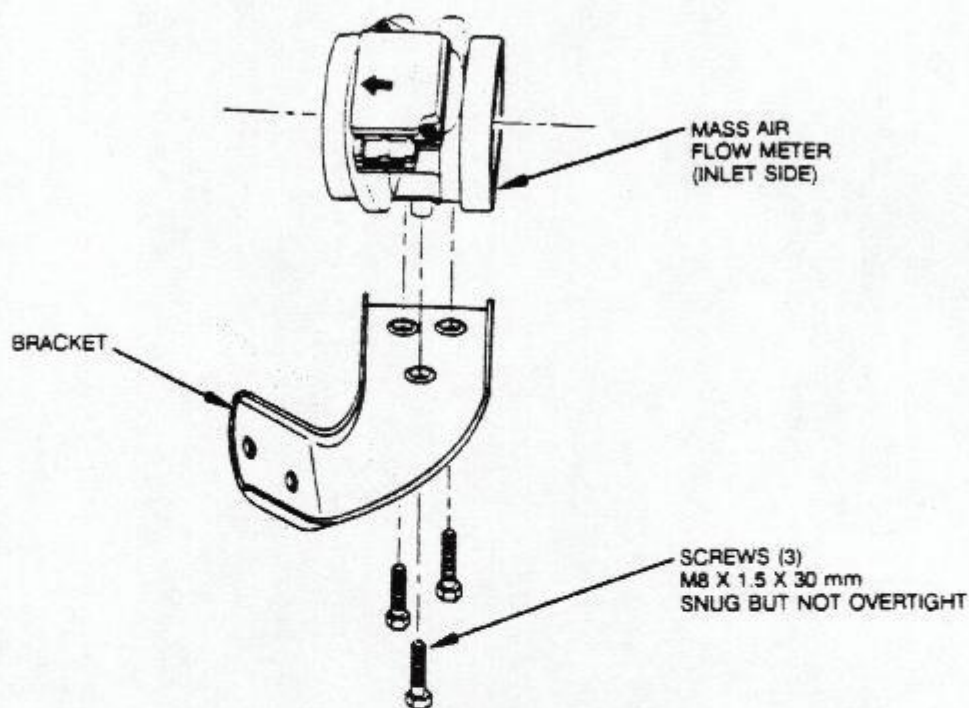


FIGURE 4

STEP 7 Install short air tube on inlet side of MAF, if required, using the band clamp provided (arrow on MAF indicates direction of flow). See figure 5.

STEP 8 Install the other end of the short air tube onto the air cleaner using the wire type clamp provided. See figure 5.

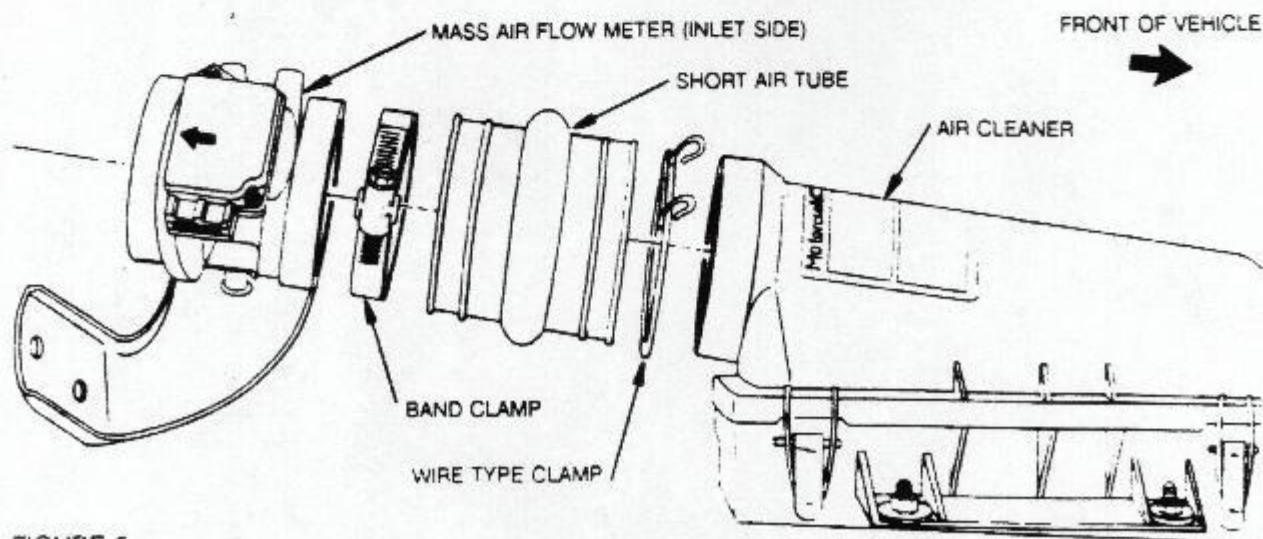


FIGURE 5

STEP 9 Attach the MAF bracket to the shock tower with the screws provided as shown in figure 6.

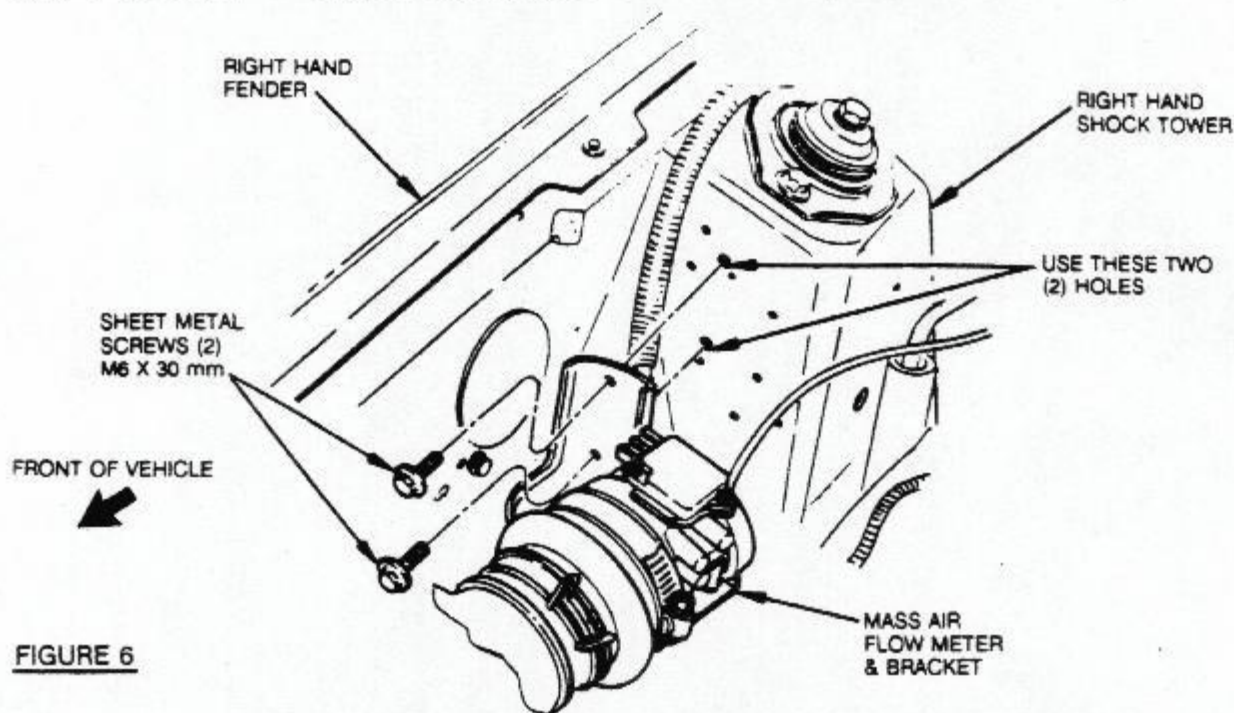


FIGURE 6

STEP 10 Install the long air tube between the MAF and the throttle body using the band clamps provided as shown in figure 7.

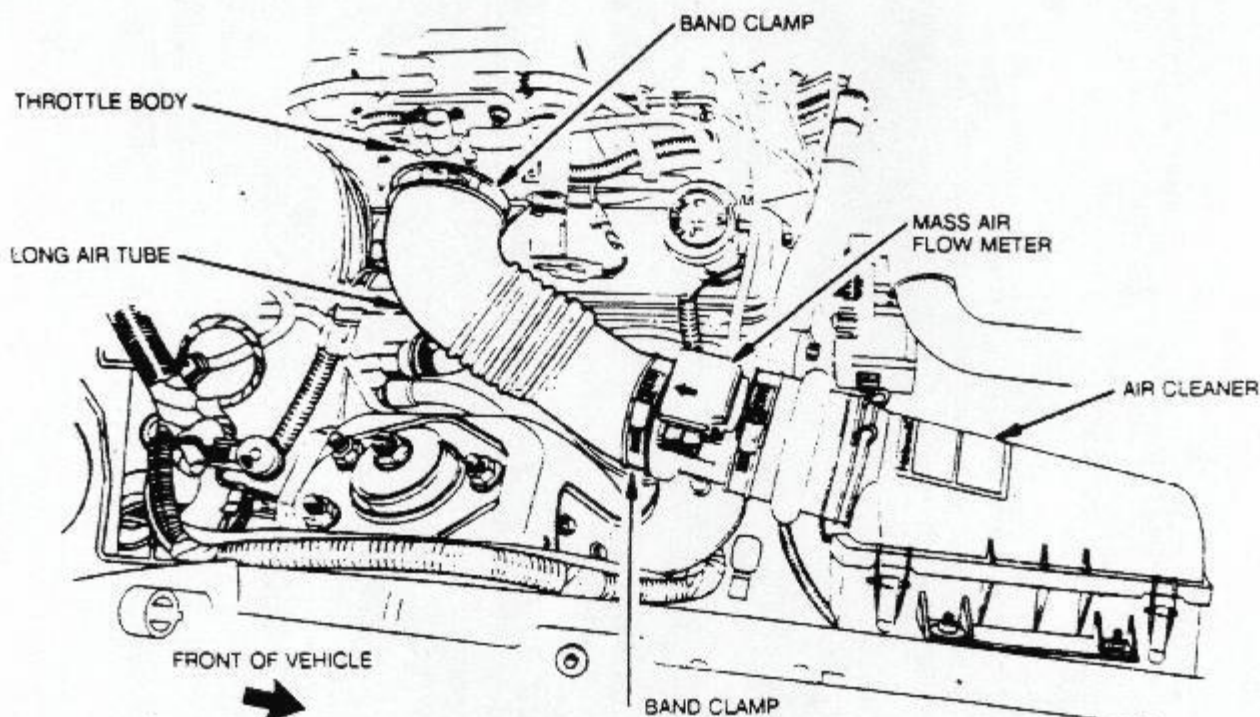


FIGURE 7

STEP 11 Inside the passenger compartment, bottom of right hand door opening, loosen the forward screw of the scuff plate. Remove the right side kick panel which is held in place by three plastic push type retainers. See figure 8.

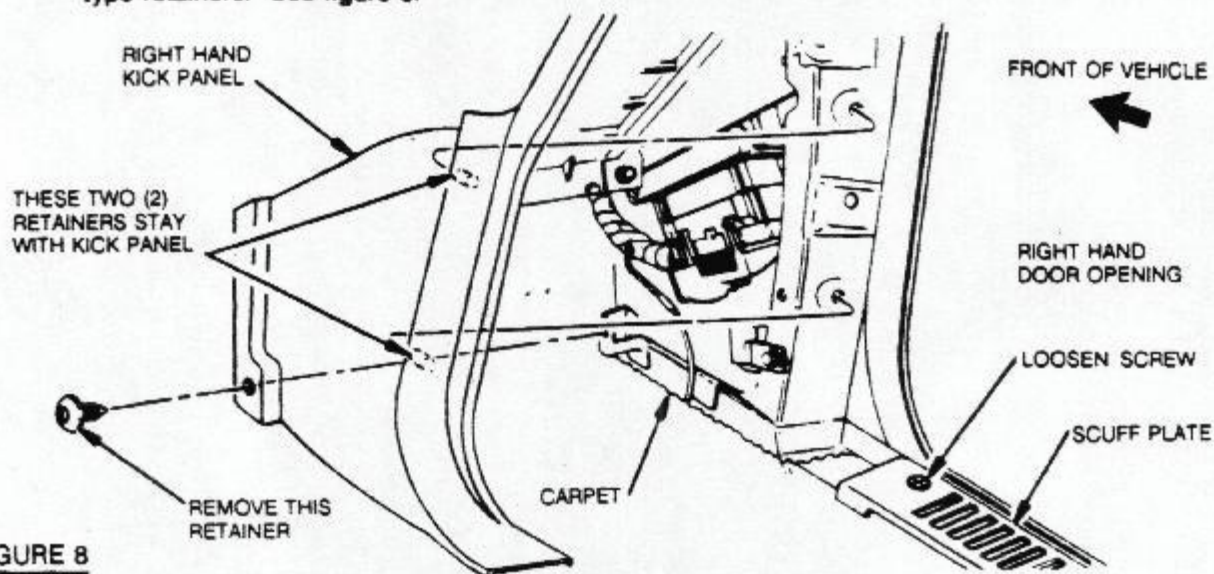


FIGURE 8

STEP 12 Disconnect the large 60 - pin connector from the existing module by loosening the locking bolt with a 10 mm socket or open end wrench and pulling gently on connector body only. Do not move harness connector out of way or pull on any of the wires as this may cause intermittent problems which are difficult to diagnose and repair. See figure 9.

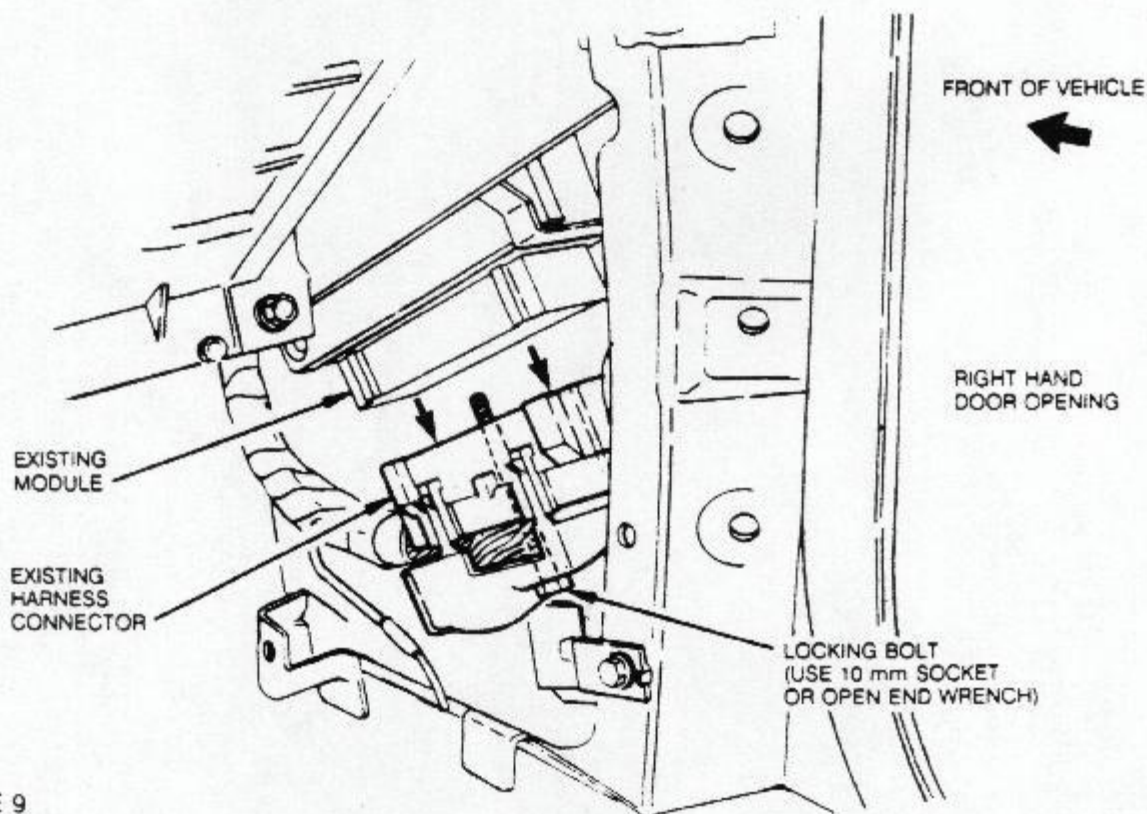


FIGURE 9

STEP 13 Back in the engine compartment, Carefully loosen the existing wiring harness grommet from the dash panel by pulling gently on the harness. Slit the grommet with a sharp knife or other tool, being sure not to cut any wires. See figure 10.

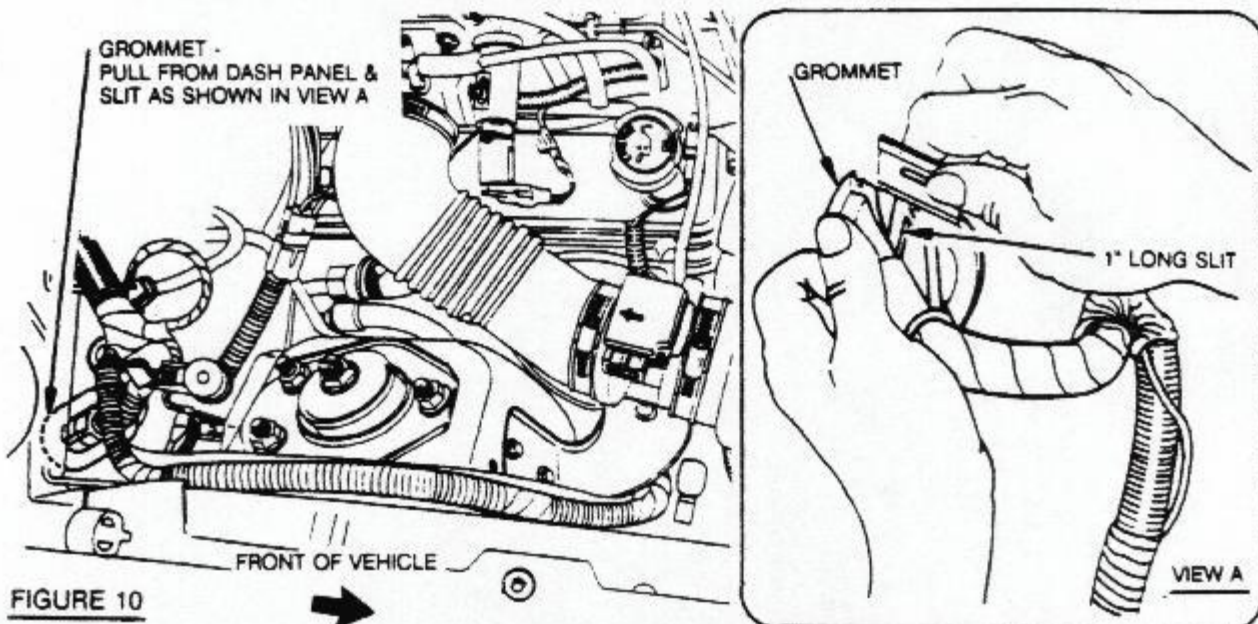


FIGURE 10

STEP 14 Plug new wiring harness in MAF meter connector, route new harness along existing harness to slit in the bulkhead grommet. Tie the new harness in two places. See figure 11.

STEP 15 Push loose end of the new harness thru the dash panel grommet hole. Fit new harness into slit in grommet and carefully re-install grommet into dash panel (silicone spray may assist in installation of grommet). Any slack in new harness should be passed thru grommet into passenger compartment.

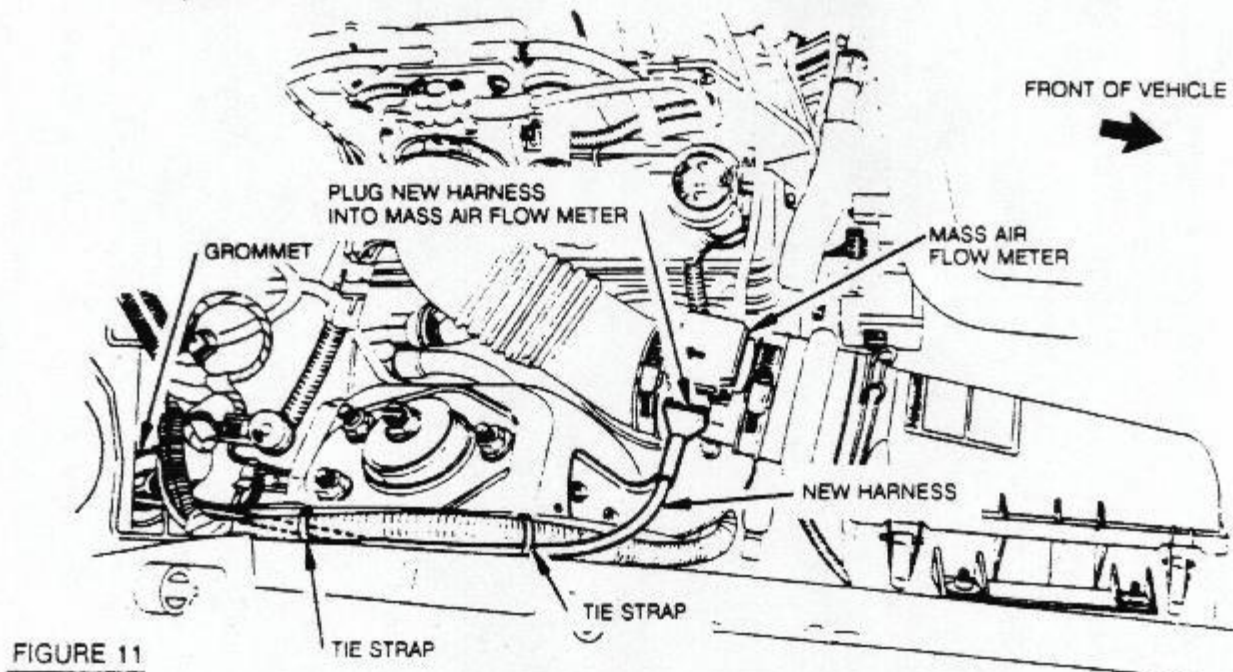


FIGURE 11

STEP 16 Locate the Manifold Absolute Pressure (MAP) sensor on the dash panel. Pull off tubing and plug tubing with the straight plastic vacuum connector and vacuum cap provided. Do not plug the map sensor port! See figure 11.

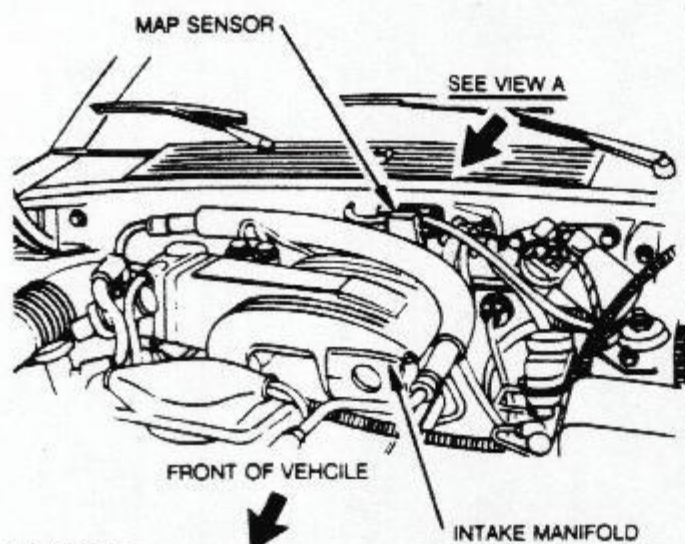
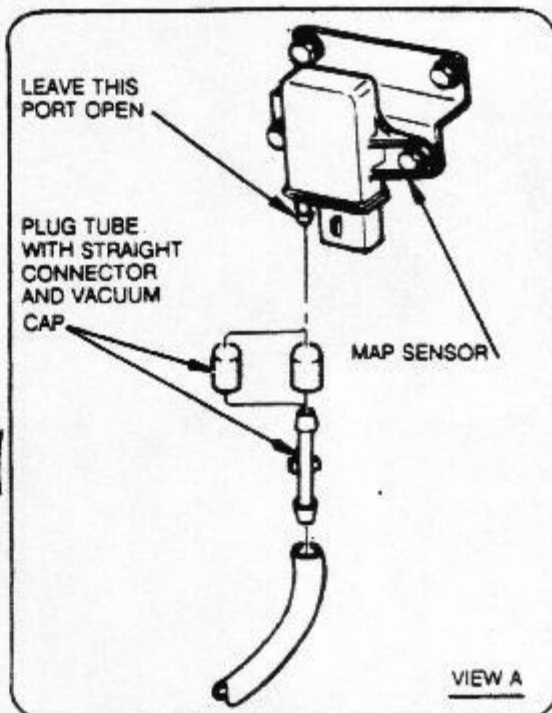


FIGURE 12



STEP 17 Remove the existing module by removing attaching bracket screw with a 5 mm socket. See figure 12.

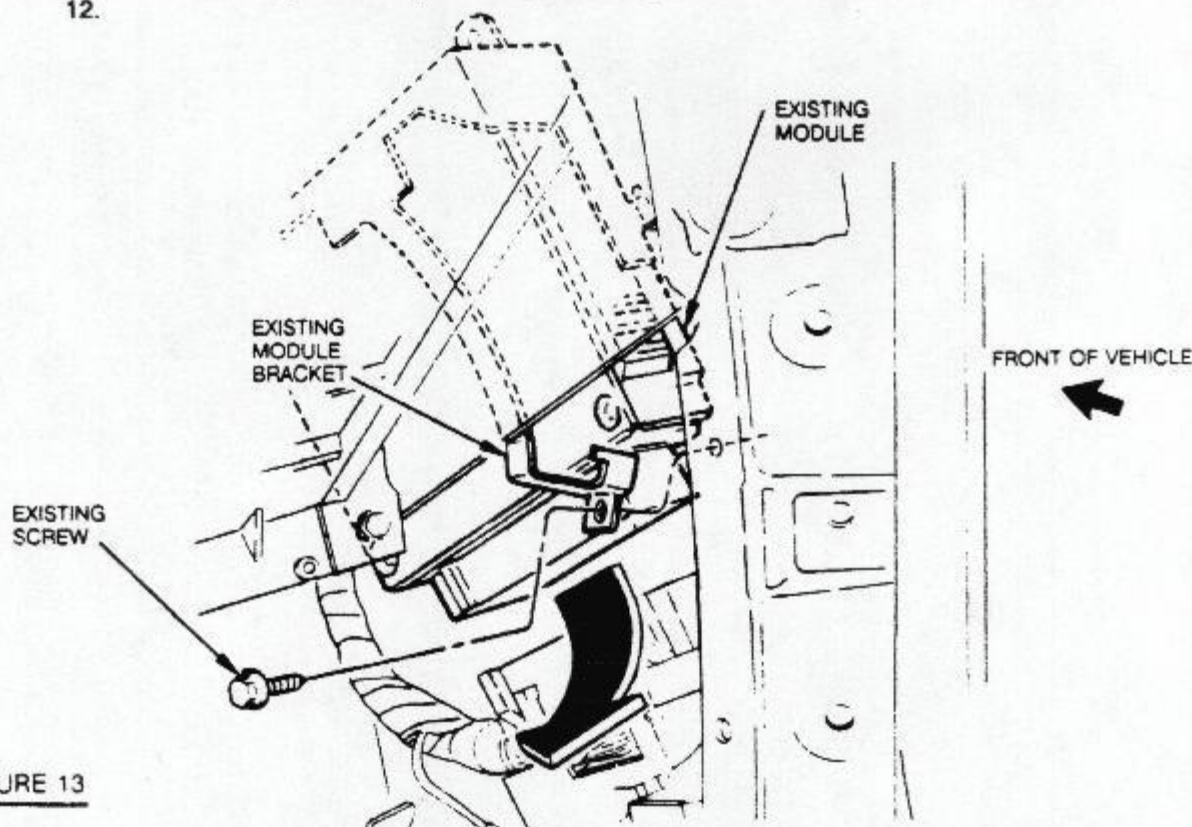


FIGURE 13

- STEP 18** Attach the new "T" adapter, with pigtail, to new Motorsport module using a 10 mm socket.
Caution: Do not overtighten this bolt as it will cause damage to the module. See figure 13.

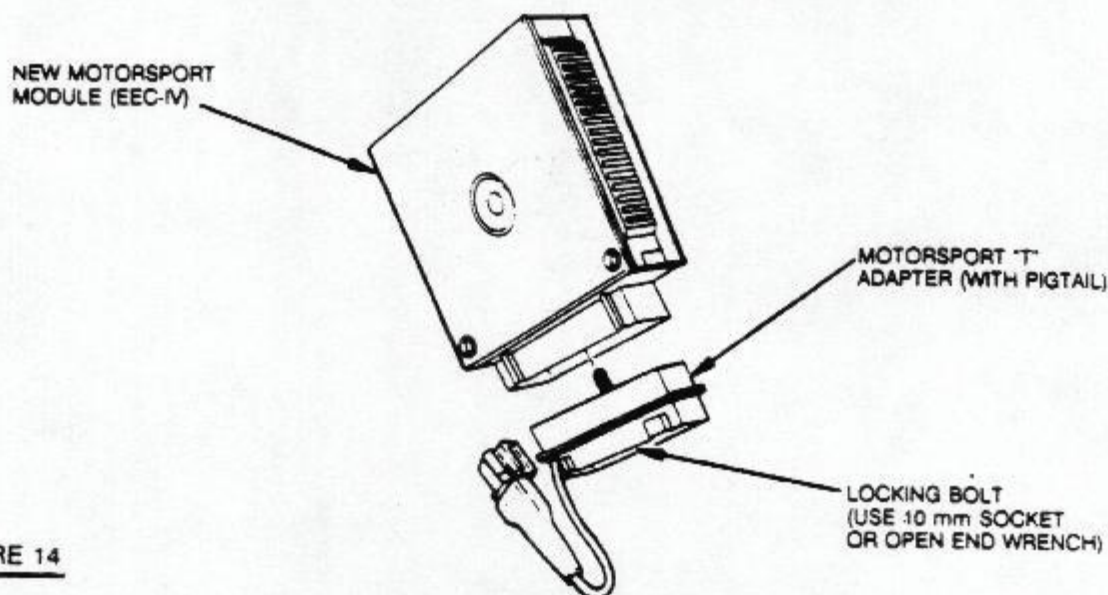


FIGURE 14

- STEP 19** Install Motorsport module using the bracket and screw removed in step 17.
- STEP 20** Attach the existing wiring harness connector, removed in step 12, to the new "T" adapter using a 10 mm socket or open end wrench. **Do not overtighten!**
- STEP 21** Route new harness from dash panel grommet along existing harness and plug into pigtail connector on "T" adapter. See figure 14.

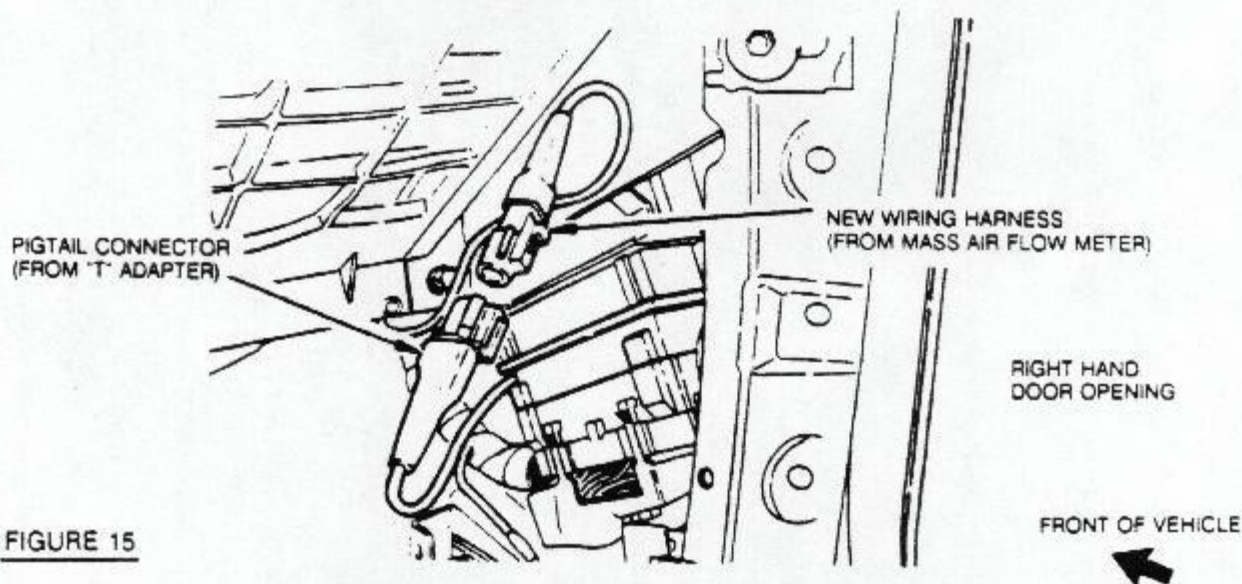


FIGURE 15

- STEP 22** Replace right side kick panel with push retainers, and tighten scuff plate screw.
- STEP 23** Reconnect the battery.

STEP 24 Remove the spout shorting plug located approximately 4 to 6 inches from the T.F.I. module. Loosen the distributor hold down bolt but do not remove. Start the engine and allow it to run approximately 3 minutes. Using a high quality timing, light set the base timing to 14 degrees before top center. **Shut the engine off.** Retighten the distributor hold down bolt and recheck the timing to be sure it did not move.

NOTE: Marking the 14 degree point on the crankshaft damper will ease this task.

STEP 25 With the key off, turn the throttle plate hardstop screw 3 turns clockwise. Disconnect the idle speed control solenoid. Start the engine and run until fully warm and stable, then turn the throttle plate hardstop screw counter clockwise until the correct idle speed is obtained according to the chart below. Reconnect the idle speed control solenoid.

NOTE: For more information refer to volume H shop manual.

IDLE SPEED CHART ACCORDING TO CAMSHAFT

STOCK CAMSHAFT	625 - 775 RPM
M-6250-B302 CAMSHAFT	875 - 950 RPM
M-6250-B303 CAMSHAFT	875 - 950 RPM