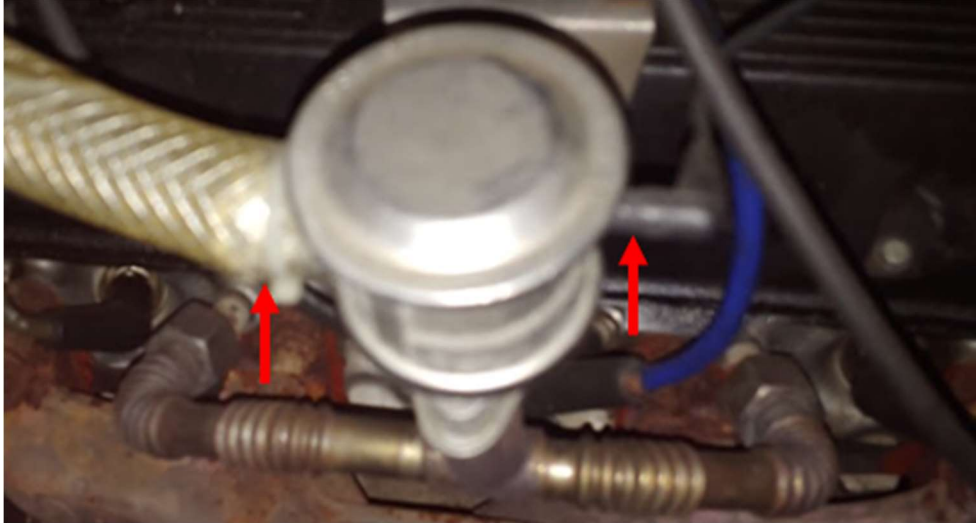


Coil Relocation Kit Instructions

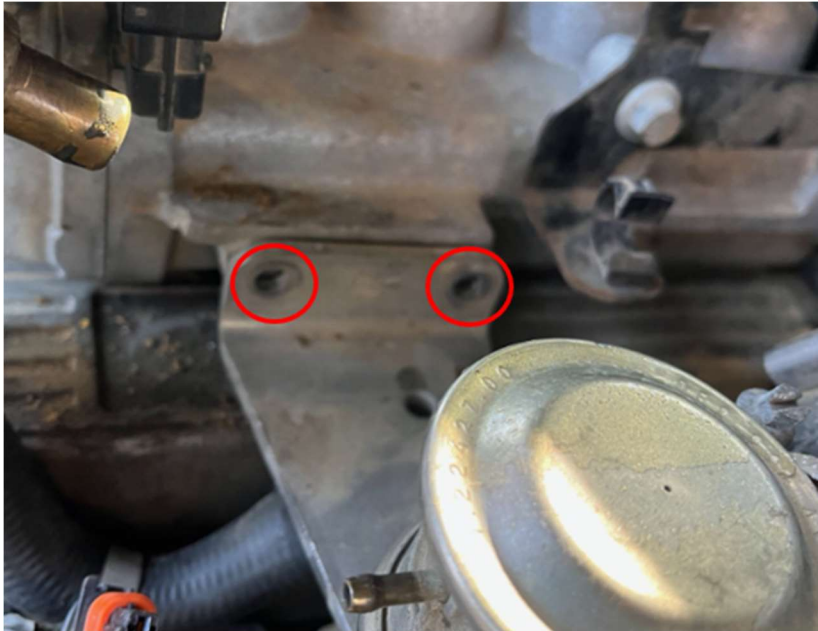
Steps

SAI equipped trucks

1. Disconnect SAI hoses from SAI valve fitting.



2. Remove mounting nuts that mount SAI tube brackets to upper intake manifold.



3. Gently bend SAI tube brackets down out of the way

All trucks

1. Open lever clips connecting MAF housing to airbox



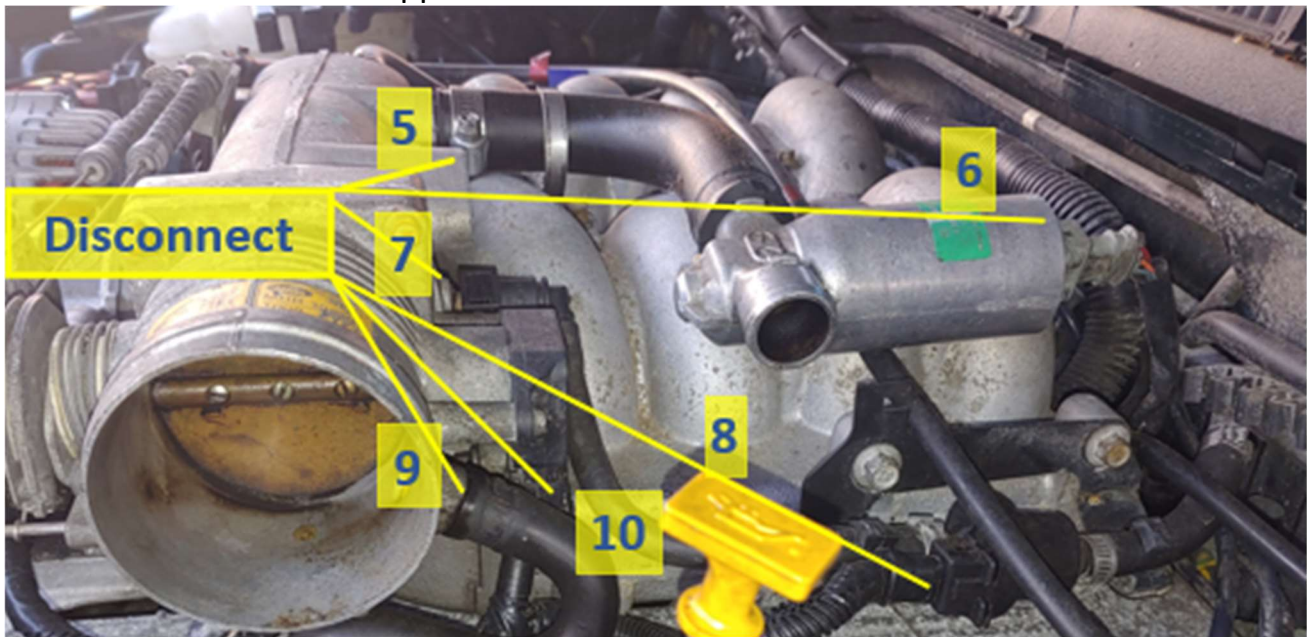
2. Loosen intake hose clamp at throttle body



3. Loosen IAV hose clamps at intake manifold and intake air hose



4. Gently remove intake air hose taking care not to stress ICV hose fitting in intake air tube. If too much force is used you can pull the hose fitting out of the air intake tube.
5. Remove hose from IAV to upper intake



6. Unplug IAV wire connector
7. Disconnect purge valve hose from upper intake fitting
8. Remove purge valve solenoid and SAI solenoid from bracket
9. Disconnect valve cover hose from throttle body
10. Disconnect throttle body sensor
11. Disconnect power brake vacuum hose and move out of the way – push in on the ring to pull the hose out of the manifold.
12. Disconnect PCV valve hose by releasing the hose clamp (grab the crimped section of the clamp with a pair of pliers and twist to disengage the overlapping sections) and move out of the way

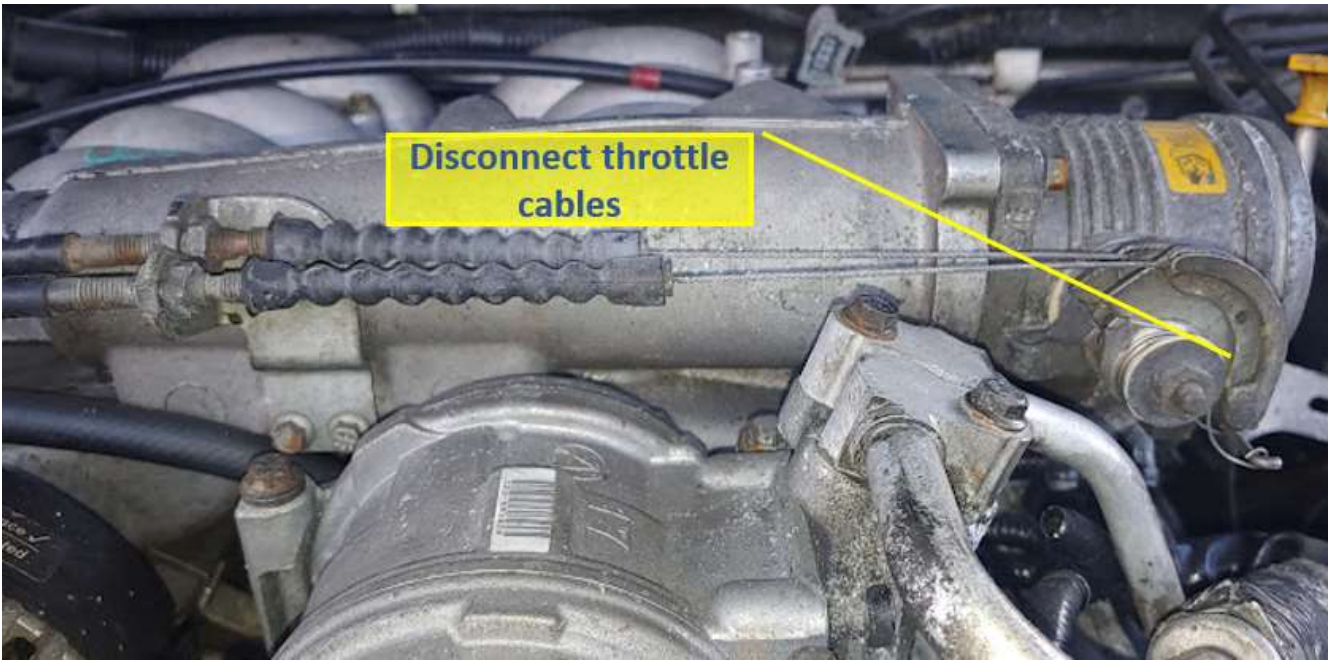


13. Remove the throttle body heater hoses from the throttle body heater nipples.

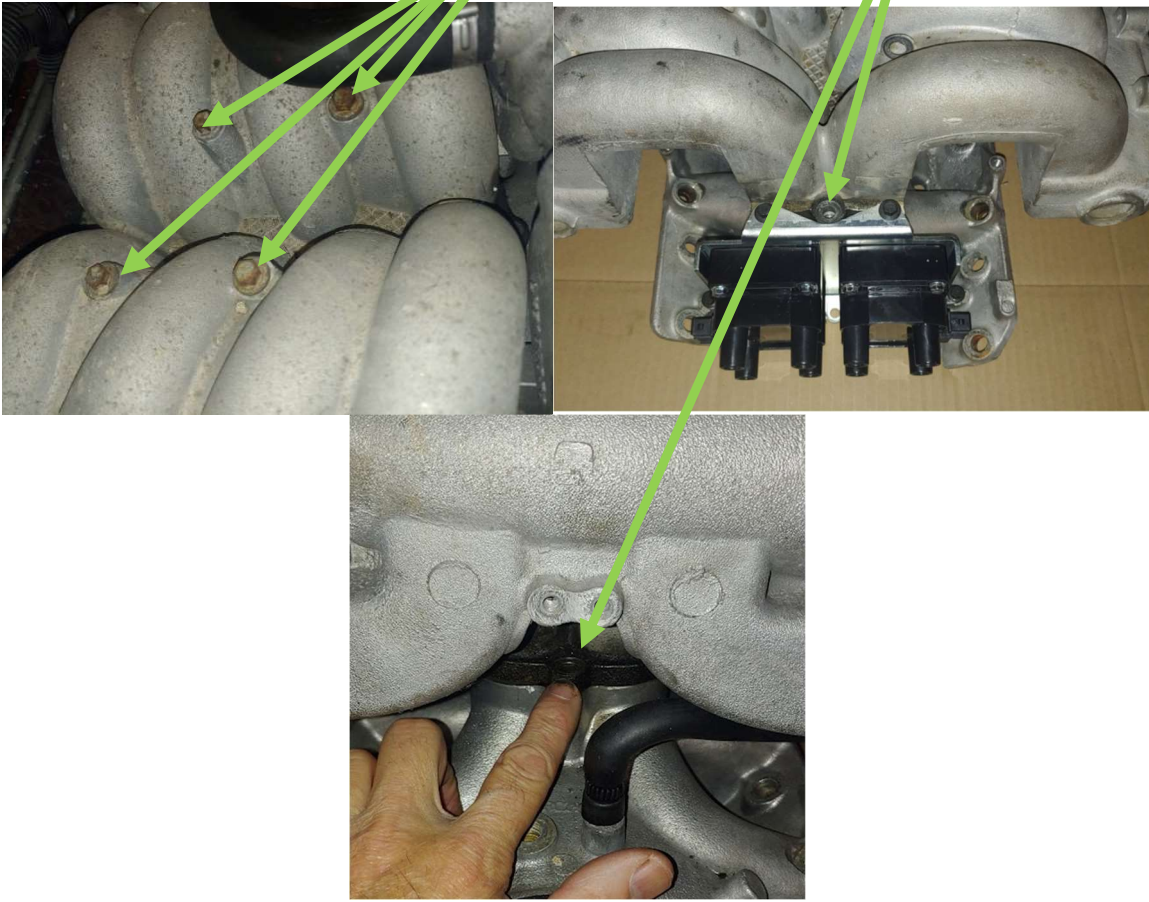
14.



15. Disconnect throttle cables from throttle cams



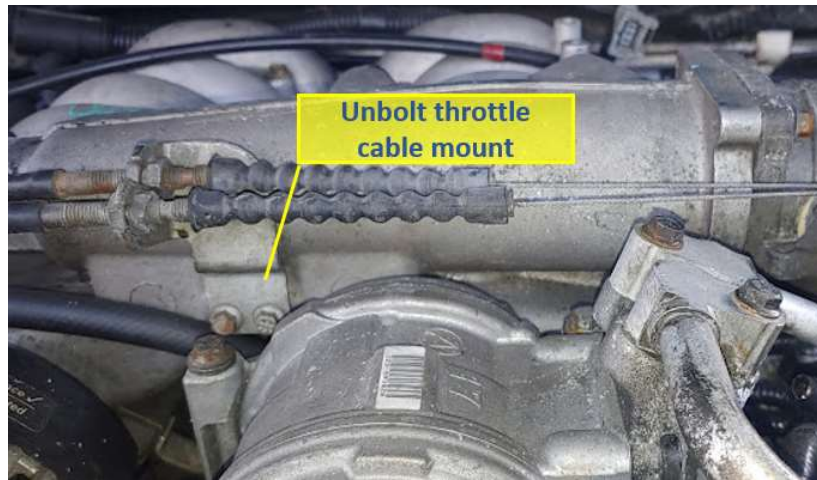
16. Remove upper intake bolts, the four in the middle and one at each end (from the top)



17. Remove bolts securing coil mounting bracket to intake manifolds. This is best done with 1/4" drive ratchet and long extensions, bolts are more located by feel than sight.



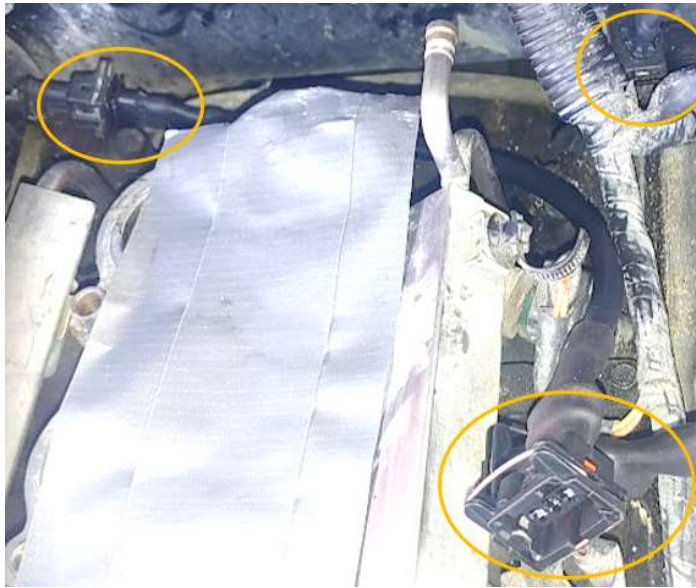
18. Lift front of upper intake manifold and remove throttle cable bracket bolts.



19. Remove upper intake manifold and gasket and set to the side.
20. Using duct tape or other appropriate tape seal off opening in lower intake manifold so no bolts are dropped into intake manifold.



21. Remove SAI stainless tubing and set aside
22. Disconnect coil power wire connectors.
23. Move ignition coils down and remove spark plug wires from coils, removing coil assembly to workbench
24. Remove ignition coils from factory ignition coil bracket. Retain factory screws, discard factory bracket.
25. At this time, if throttle body coolant hose is being replaced, replace hose from intake manifold to coolant bottle or throttle body as appropriate.
26. Install kit coil connector extension wires.



27. Assemble kit mounting bracket assembly using provided bolts, spacers, and o-rings as shown. O-rings go below the spaces to retain spacers on the bolts during installation. Note, depending on spacer fit to bolts your kit may not come with o-rings. The o-rings are there to retain the spacers to the bolts.



28. Refit upper intake manifold - do not install bolts yet.
29. Refit throttle cables on to throttle and reinstall throttle cable bracket.
30. Install coil mounting bracket assembly with bolts, tighten to 16 ft-lbs. Do not install short end bolts as they are unnecessary.



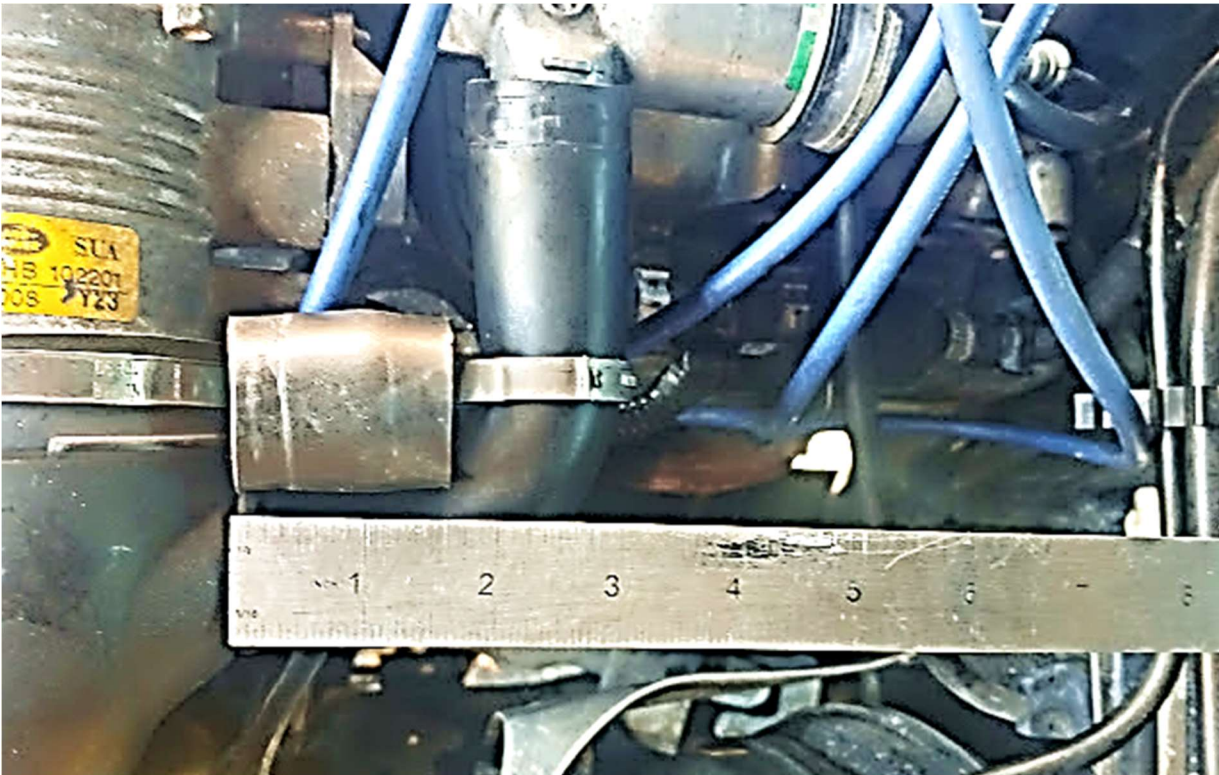
31. Install provided cylinder labels as show in the photos below

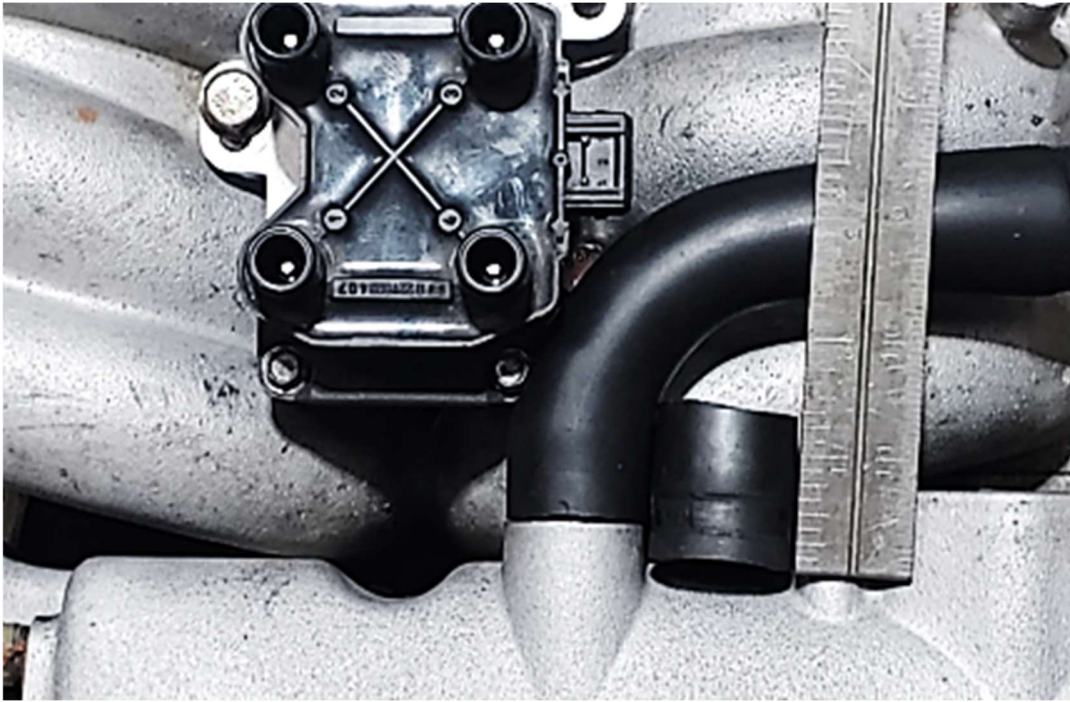


32. Install coils with connector plugs facing drivers side as shown using factory coil bolts. Connect the rear coil to the passenger side connector and the front coil to the driver side connector.



33. Idle control valve intake manifold hoses will need to be shortened per illustration below (roughly 1.5 inches or 36mm). Shorten and install





34. Reinstall ICV moving mounting up to fit hoses.
35. Reinstall all all other hoses
36. Install spark plug wires per the labeled coils. Replace #7 and #8 factory spark plug wires with #3,4, 5, or 6 wires.

37. The hood is designed with a stiffening rib at the rear of the hood. The majority of the rib is located behind the relocated ignition coils however the front edge is close to the #5 ignition wire on the coil. In front of the rib the hood sheetmetal moves up with about 1.5" of clearance over the ignition coils. This photo is with the factory noise insulation removed for clarity on the construction.



38. Due to variations in frame, engine and body dimensions on some vehicles the #5 sparkplug wire can be close enough to the hood to misfire in extreme conditions. In our five development vehicles this happened on one vehicle only when towing a 5000 lb load up a steep mountain grade.

39. In an abundance of caution for this rare occurrence, we are providing a self-adhesive insulator to be applied to the hood. In the vast majority of vehicles this prevents any misfires.



40. There is no need to remove the hood or the factory sound insulation to install the insulator, the insulator is slipped under the factory sound insulation centered on the ignition coils, with the rear edge of the insulator aligned with the rear edge of the stiffening rib and the front rolled down in contact with the stiffening rib.



41. In extremely rare instances (about 1 in 50 or 2%) the variations in frame, engine and body dimension on some vehicles causes enough interference that even the insulator is not enough. In this case it is recommended to clearance the hood slightly. The factory D2 hood is aluminum and weighs about 20 lbs. To clearance the hood we recommend removing the hood and placing upside down on a large stack of towels to prevent scratching the upper surface of the hood. Once positioned upside down the clearance needed can be created by deforming the stiffening rib using a standard pall peen hammer and about 10 sharp blows with no damage to the exterior of the hood. There is no need to remove the fiberglass noise insulator, just move it up out of the way when striking the hood.

