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QUIET RIDE

Putting In What the Factory Left Out

Before

After

Okay, insulation installation isn't a particularly glamorous job, nor is it stunningly impressive on cruise night, unless, of course, you want a quiet ride or wish to damp out the elements–both cold and hot. Insulation, in one form or another, is one of the most important things you can do to your ride, especially if you plan to put many miles on it.

This article may be lost on those of you who consider that a blown big-block '33 Willys with an all-aluminum interior and a 'chute out back, or a single-seat Track T with headers along both sides, is the answer to our everyday street rod needs. In your case, none of this applies, but if time on the road is the primary reason you are building your rod, then this information will greatly improve the sound quality and the temperature control of your hot rod.

There are many ways to insulate a car today, but the purpose here is not to compare or make those recommendations, but rather to pick the brain of Timothy Cox at Quiet Ride Solutions. Then we will watch as he installs one of his insulation kits in this '47 Ford delivery at his shop in Stockton, California. Cox has spent years studying new insulation materials and assorted products, and continues to do so each time a new prod-

Product Profile

Quiet Ride Solutions Dept. SRB, 6507 Pacific Ave., Suite 334, Stockton, CA 95207, 209/477-4840, www.quietride.com

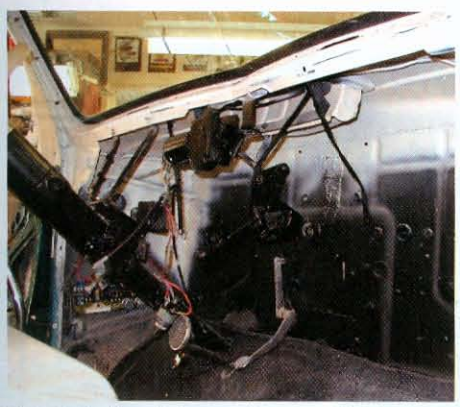
Step By Step ▲ Quiet Ride

1) Here's a stack of firewall insulators, fresh out of the forming machine. They go on the inside of the firewall to keep engine heat out of the interior.

2) A close-up of a typical firewall insulator shows the detail Quiet Ride puts in its product. If you're going for a silver cup at the "concours" with your factory-authentic '32 Ford roadster, you'd better have the correct "chicken-scratch" pattern on your firewall pad. You can see the insulation backing through the holes. continues

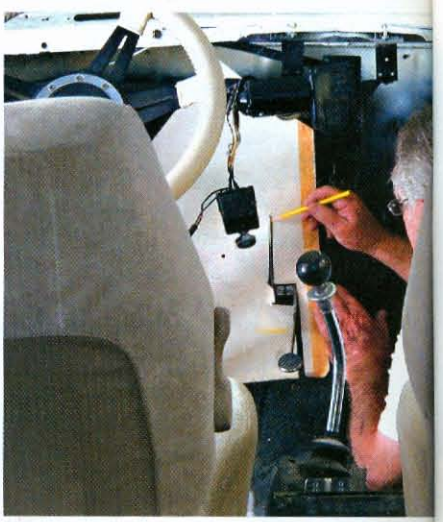
3) Here's a typical AcoustiShield kit ready for shipping. This one happens to be a floor kit for a '64 to '68 Mustang. Everything needed is in the bag. Prices range from under $300 for pickups to about $500 for the average car.

4) This is looking at the inside of the firewall on the passenger side before the insulation was installed. With the dash removed, you can see the old carpet pulled away, revealing what's left of the factory cardboard-laminate insulator. Not much.



5) Here's the firewall after complete removal of the original insulator. We painted the light color to facilitate photography. The original mounting holes along the top will be reused to mount the new insulator. Note all the pressed-in reinforcements. These eliminate the need for the vibration-killing sound-insulation strips.

6) The insulator was a perfect fit. You can order it with or without factory holes. Ours is without holes. The only interference we ran into was the throttle pedal.



7) The best way to make just about any cutout is to first mark a pattern on cardboard, cut the hole, put it in place and trim to fit.

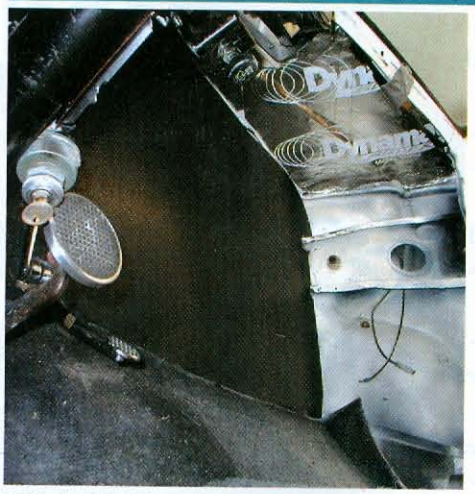
8) Transfer the pattern cutout to the insulator and carefully trim out the opening. Since the material is ABS plastic, you can cut it with just about anything. continues

uct is introduced. The reasons are obvious—in this business you need to stay up with technology, and when change dictates change, when something better comes along, you need to either be there or get left behind.

If you are not familiar with automotive insulation, here's a primer: first, understand that the word "insulation" is generally interchangeable between sound and heat when talking about vehicles. If you installed insulation in your house, it was to control temperature more than noise. Few buildings are specifically insulated for sound, but since cars generate so many sounds on their own, not to mention all the outside noise encountered, sound deadening is a crucial component in building a car today. It is what makes the difference between a Chevy and a Pontiac, a Ford and a Mercury, or an Econoline and Econoline Chateau. You most likely never paid much attention to the lack of insulation in your '30s or '40s car, because you expect it to be noisy. But imagine a '39 Chevy sedan that rides as quietly as a new Buick Park Avenue. Enter Quiet Ride Solutions.

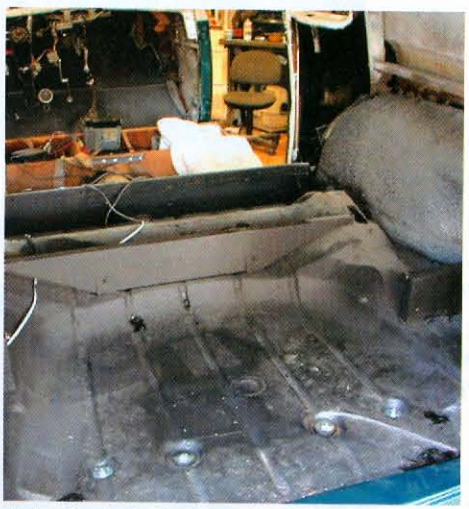
The AcoustiShield insulation kits contain separate materials for sound and heat insulation. In his search for the ultimate insulator, Cox has determined there is no single material that does both well, since sound deadening requires density and thermal insulation needs some form of "air space." His solution is the combination of 0.070-inch-thick Dynamat Original, a Styrene-Butyadine-Rubber body panel vibration damper, and 0.375-inch-thick Quality Heat Shield insulation, a "barrier" material of needle-punched synthetic fiber, faced with a double layer of 99.5-percent-pure aluminum foil.

If you have insulated a previous project using several rolls of shiny silver material, you'll love this part: it is a piece of cake to install. Cox and crew have recruited hundreds of cars and trucks, individually determined their specific needs, cut and installed the proper materials, and generated patterns of every piece so that they can reproduce perfect-fitting kits to match the original installation. You don't measure a thing. You don't cut anything, and you don't waste material. They even provide the correct adhesive. Complete instructions are provided as well, as there is a layout of your car's interior showing where each piece goes. Nothing to it. **SRB**



9) We installed the insulator using 1-inch-long tubular-threaded fasteners found at Home Depot. The ABS plastic upholstery-panel-based insulators are backed with AcoustiShield and embossed with exact factory-texture detail. It looks great as is, or it can be painted or covered with carpet.

10) The bare sheetmetal roof and walls were cleaned with a power wire brush and then thoroughly washed with hot, soapy water, rinsed and blown dry with the air hose. We then rattle-canned on a coat of light-gray primer to prevent surface rust and as a photographic aid.



11) Looking in the back door, with the wood floor removed, we find plenty of heat- and sound-generating surfaces the factory had left completely bare.

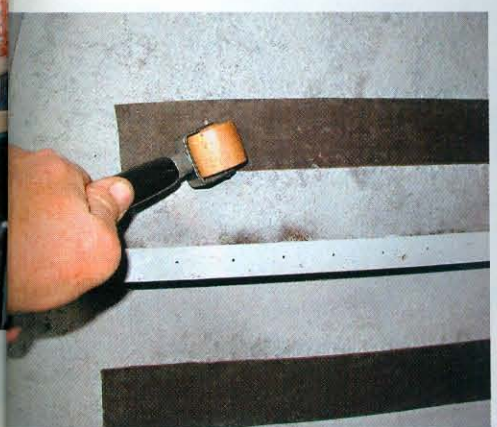
12) Here's a close-up look at the Quality Heat Shield insulation. What may look like ground-up rags and carpet is actually called "needle-punched synthetic fiber," a high-tech name for ground-up rags. It is very tightly bonded (we had to use pliers to pull this apart) to two layers of aluminum sandwiching and a fiberglass web for strength. This results in a thermal rating of R-18.3, the same as 6 inches of house insulation.

13) A typical AcoustiShield kit consists of precut pieces of Heat Shield, strips of Dynamat, spray adhesive and foil tape. This one is for a '57 Chevy pickup and includes the optional firewall insulator. The step-by-step instructions show exactly where everything goes in your specific vehicle.

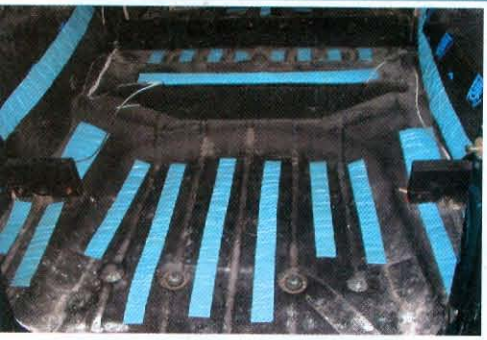
14) The first step in creating a kit for our "FANTM 47" coupe delivery was laying out the Dynamat strips needed to cancel the drum effects of that very large top. You can see them cut to length on the top.

15) Here, those same strips are applied to the underside of the roof, a simple matter of peeling off the protective backing and sticking the adhesive-backed sound deadener in place.

16) Before he started the top, Cox explained the Dynamat damping philosophy by taping three strips to the blank wall. A flat area of sheetmetal will "ring" or vibrate like a drum top, producing interior noise. Spreading equally spaced strips across the panel absorbs the vibration and cancels out the sound. Any seam or bodyline pressed into the panel, as well as curved sections, will have the same effect.



17) To ensure complete adhesion, the Dynamat needs to be thoroughly pressed in place with a roller. Once rolled down, you can't peel it off. continues



18) Looking in the back floor, you can see the placement of the strips before they are adhered.

19) This is the rear-seat floor area, done the same way. People have been known to completely cover the inside of a car with Dynamat, usually in a quest for perfect audio acoustics. If they did, they spent way too much money and effort and added considerable weight to the car. The coverage you see here is all that's needed.

20) Next came the layout of the actual insulation (on top of the roof). Notice how it "pooches up" over the peak above the windshield. A kit piece for this position would have a wedge cut at that point to accommodate the shape.

21) It took awhile for it to dawn on us why Cox was taking measurements, making patterns and marking cut lines on the outside of the car. Duh. It sure beats working upside-down underneath.

22) Here is where the patterns become kit pieces. Miles of insulation cross this table each week. A special cutter from Bosch makes cutting the tough material a snap.

23) With all the pieces cut to fit each position, Cox begins the sidewall installation. Here, he's using the supplied spray can to apply an even coat of adhesive to the area. Note the fume-filtering facemask.

24) Next comes a very important step: spraying a matching, even coat of adhesive on the insulation piece. We're sure you've noticed that the insulation sheets are installed foil side in. This allows the rag side to absorb the heat and the foil side to block it from getting into the interior.

25) Piece after piece, the inside goes from the bare-metal walls that it has run with for the last 10 years to something Henry Ford never envisioned.

26) The least fun part was saved until after we all enjoyed a great pizza and salad lunch set up by the ladies at the big table in the office. Okay, so we exaggerated about our whole job being a piece of cake—yours will be easier.

27) After all the insulation is glued in place, it's time to seal every joint and seam with the supplied foil tape. This forms a one-piece inner skin of insulation with no small cracks or holes to allow heat to penetrate.

28) You've just gotta love a nice chrome interior! Especially when it is so effective in keeping your street rod as cool and quiet as a new Cadillac. We can't wait to get the interior built and the weatherstripping in so we can truly appreciate the new sensation.

29) A tired but happy and proud Tim Cox takes it easy after a good day's work. Had this been a kit, it would have taken only a few hours to install, even in what is probably the most cavernous early Ford ever built! SRB

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