

Honda S2000 Sound Deadening Installation

by [r733up](#) Apr 9



This is the starting point for the interior.



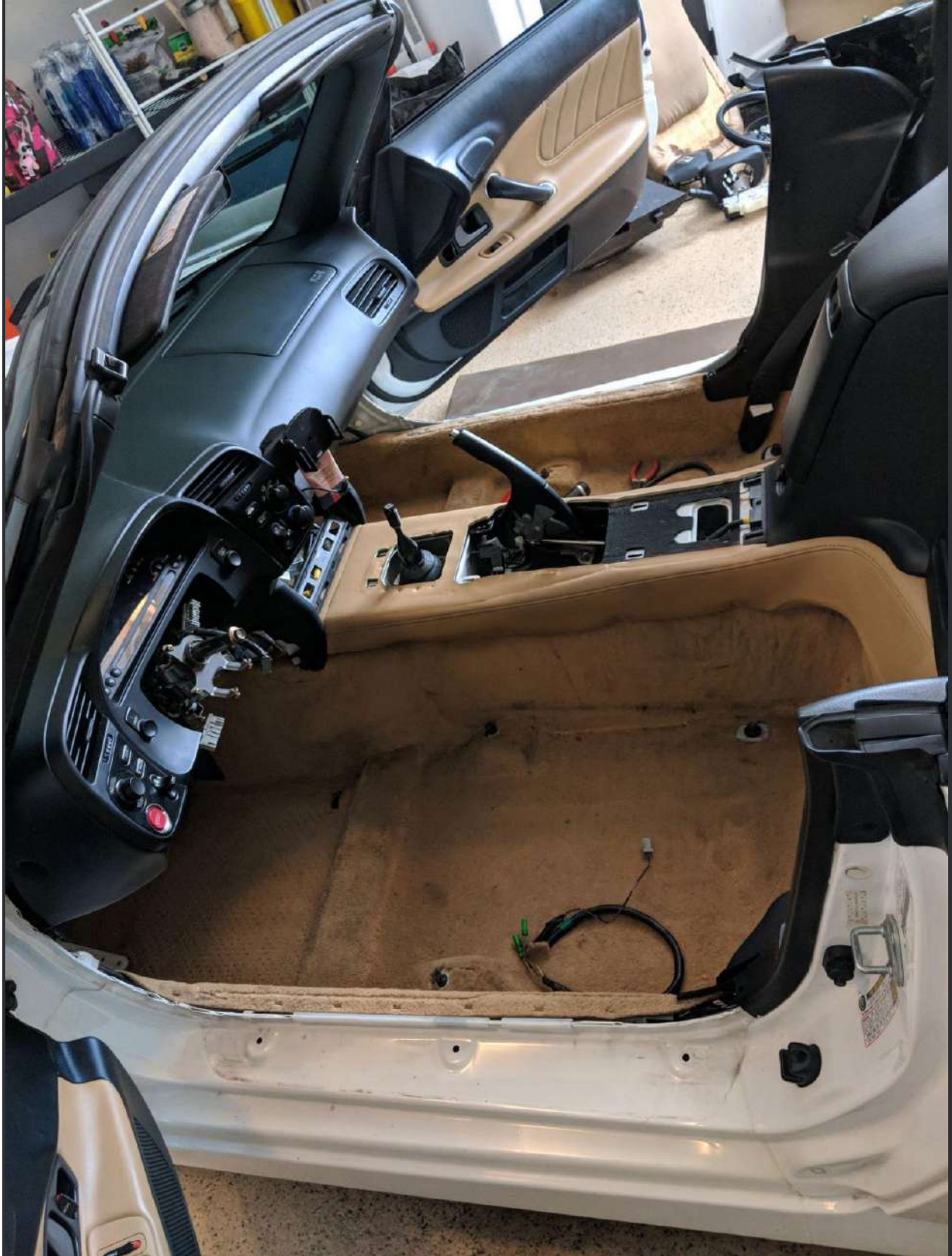
I found that to completely strip the interior, I had to start with the trunk, so that I could access the panels and hardware behind the seats. Stripping the trunk is very easy, there are only 5 panels, all of which are held in place with push clips. This is what it looks like with the panels and the spare tire removed.



With grit and determination, i.e. colorful language and bloody knuckles, the rear tray is removed. It, and a panel that sits atop it's rear edge, are both held in with varying styles of push clips. Once those panels are removed, the back of the rear console is accessible. A trim panel on the rear of the rear console is removed by removing 2 Philips head screws, which then exposes 3 more Philips head screws that help to hold the rear console in place. Those 3 screws will also need to be removed.

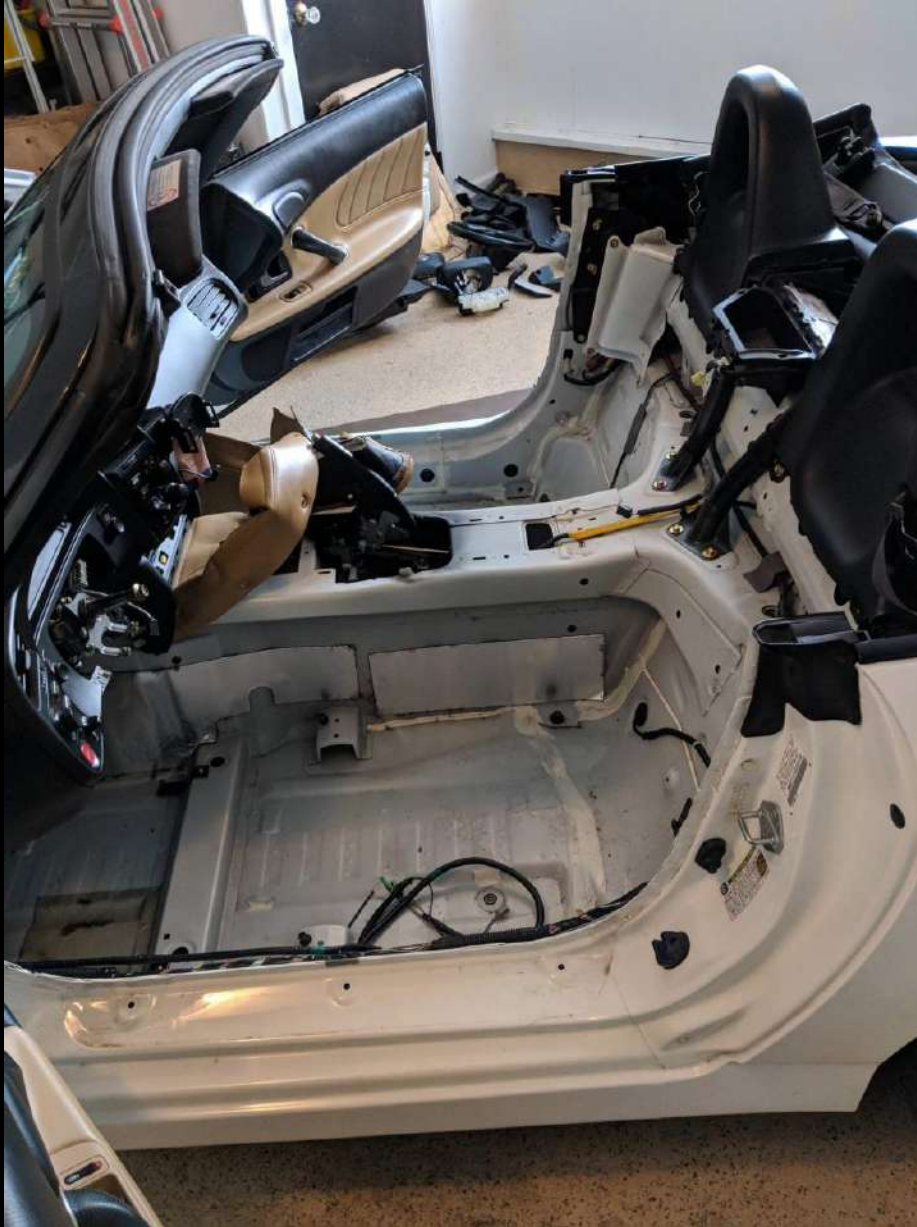


The center console is removed simply by first unscrewing the shift knob, then pulling up on the center console. The two plugs for the hazard light switch and the convertible roof switch will need to be disconnected before the center console can be fully removed.



To make the whole project easier, I removed the steering wheel. At this point, you'll need to disconnect

the battery and wait at least 3 minutes (per the Honda factory service manual) before you go messing around with the airbag. The airbag is held to the steering wheel with a pair of T30 Torx bolts. Once the airbag is removed and the wiring disconnected, the steering wheel bolt can be loosened and removed, and then the steering wheel itself can be pulled off. Pro tip: Straighten your wheels and steering wheel before removing the steering wheel. It'll make aligning the steering wheel on reinstallation much easier. After removing the steering wheel, I pulled the seats. Each seat is held in by 4 bolts, 2 are 12mm and 2 are 14mm. My seats have the optional factory headrest mounted speakers, to those connectors need to be disconnected before removing the seats, in addition to the driver's seat seatbelt sensor.

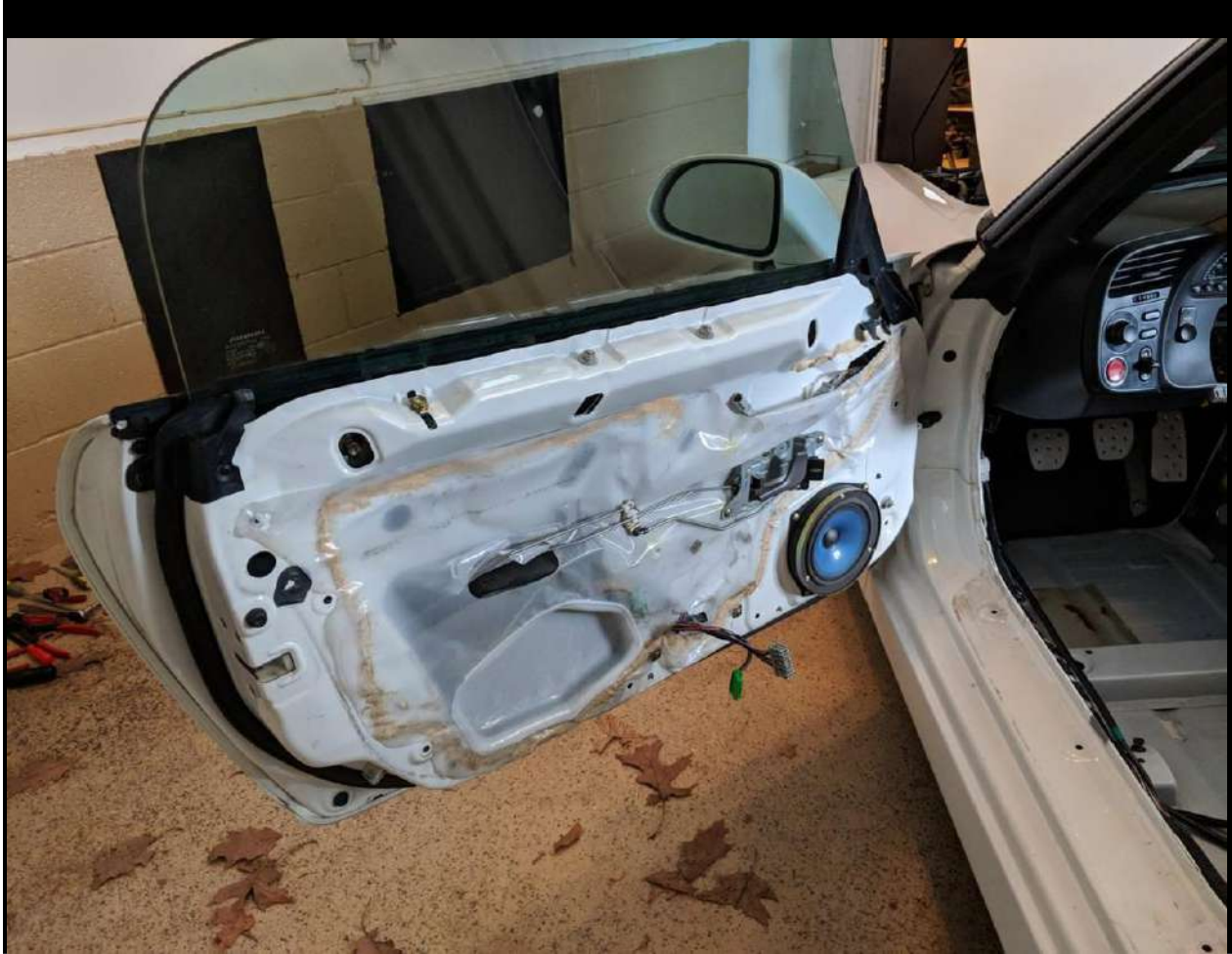


The rear console can be removed at this point. It's held in with 9 more Philips head screws, 2 at the base, 1 on either side, 1 inside the console, and 4 at the very top. The trunk release button and accessory power port will need to be disconnected. The passenger side cargo net needs to be removed, by removing 4 Philips head screws. The dead pedal cover needs to be removed, simply by pulling it up, and

a piece of plastic trim underneath the gas pedal needs to be removed by removing 2 12mm nuts. Then the push clips securing the carpet in place can be removed, and then the driver's side and passenger's side carpets can be removed. The center console carpet can't be fully removed without either fully removing the dash or simply cutting the carpet. Rather than take either of those options, I simply angled the center console carpet out of my way.



The door panels need to be removed. Each is held in with 3 Philips head screws (2 in the door handle, 1 behind the door pull), a push clip next to the mirror, and a sequence of plastic clips around the perimeter. Disconnect the window switch and tweeter before completely removing.



The driver's side is nearly identical to the passenger side, the only real difference being an additional electrical connector for the mirror adjustment controls.



With the interior suitably stripped, we can begin the installation of the first layer of sound deadening, CDL tiles. All of the surfaces that are to receive sound treatment need to be cleaned with isopropyl alcohol or some other sort of oil and grease remover, to promote adhesion of the CDL tiles and velcro tape. Here you can see 6 segments of CDL tile applied to the backside of the interior quarter panel trim pieces.



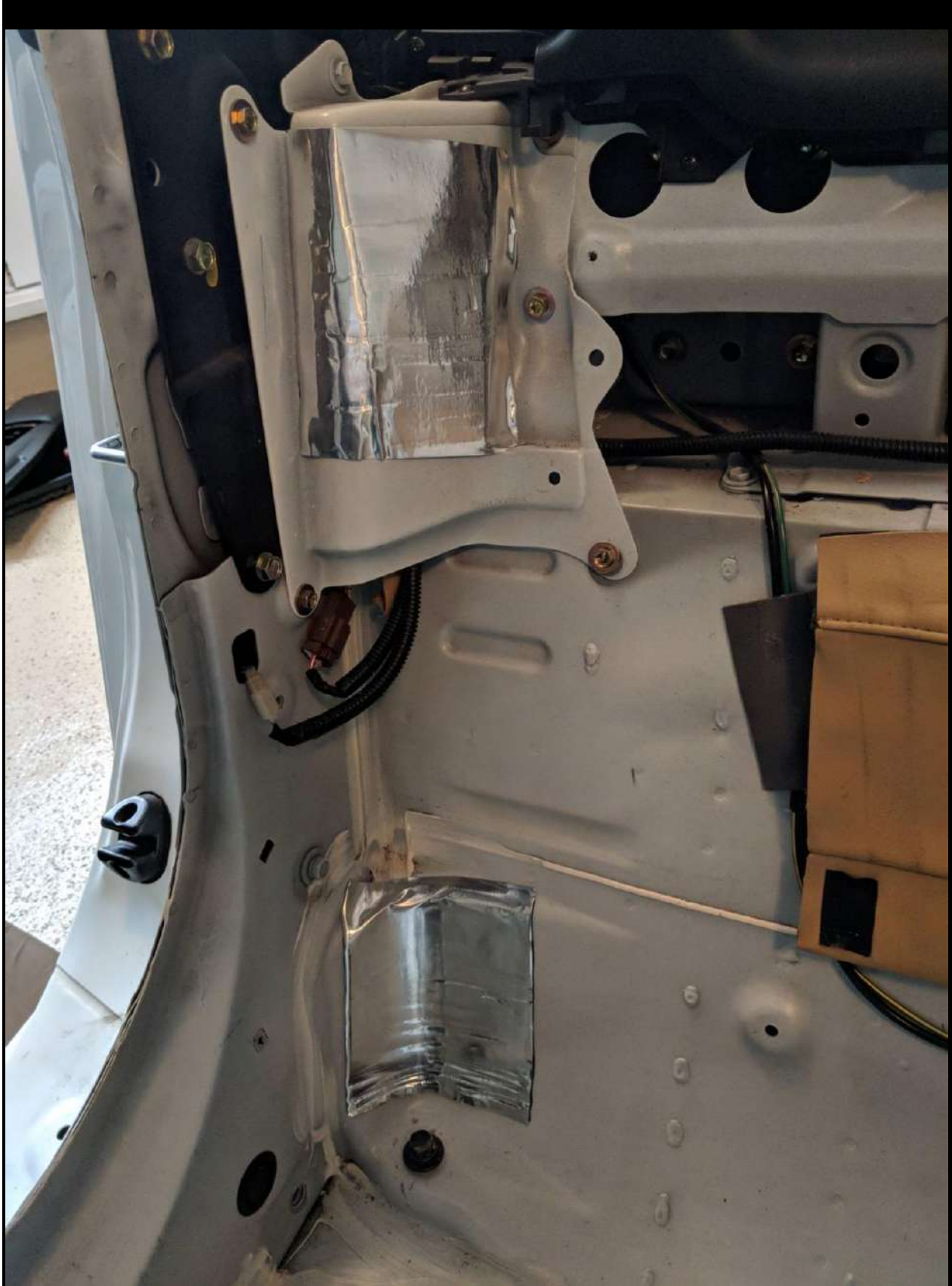
Here, a few pieces of CDL tile were applied to top of the center tunnel. The sides of the tunnel already had something similar applied at the factory. This is the only factory application of this material that I found on this car.



CDL tiles were applied to the driver's side floor. The kit from SDS has recommendations on how many tiles should be applied to each area.



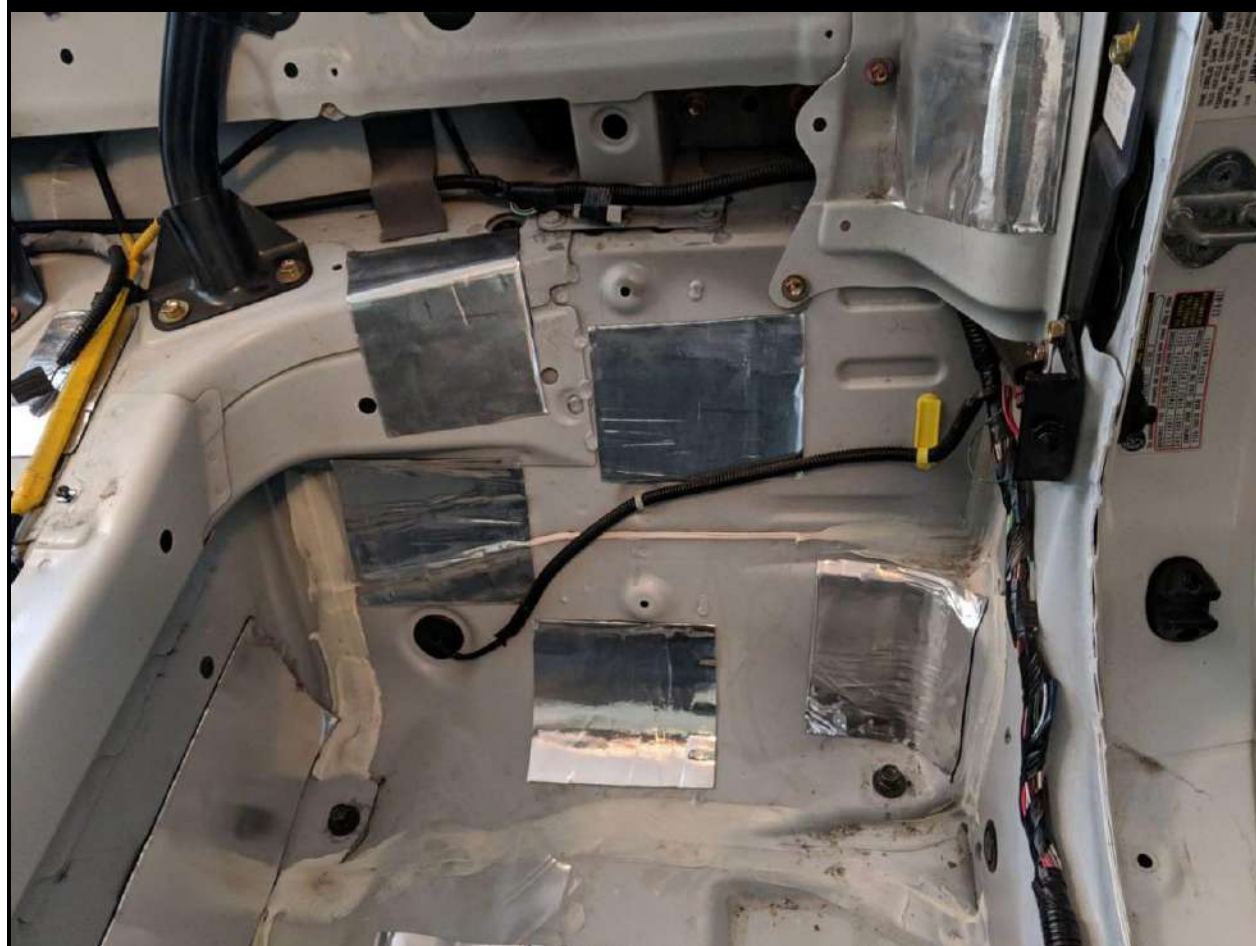
CDL tiles were applied to the interior driver's side quarter panel itself



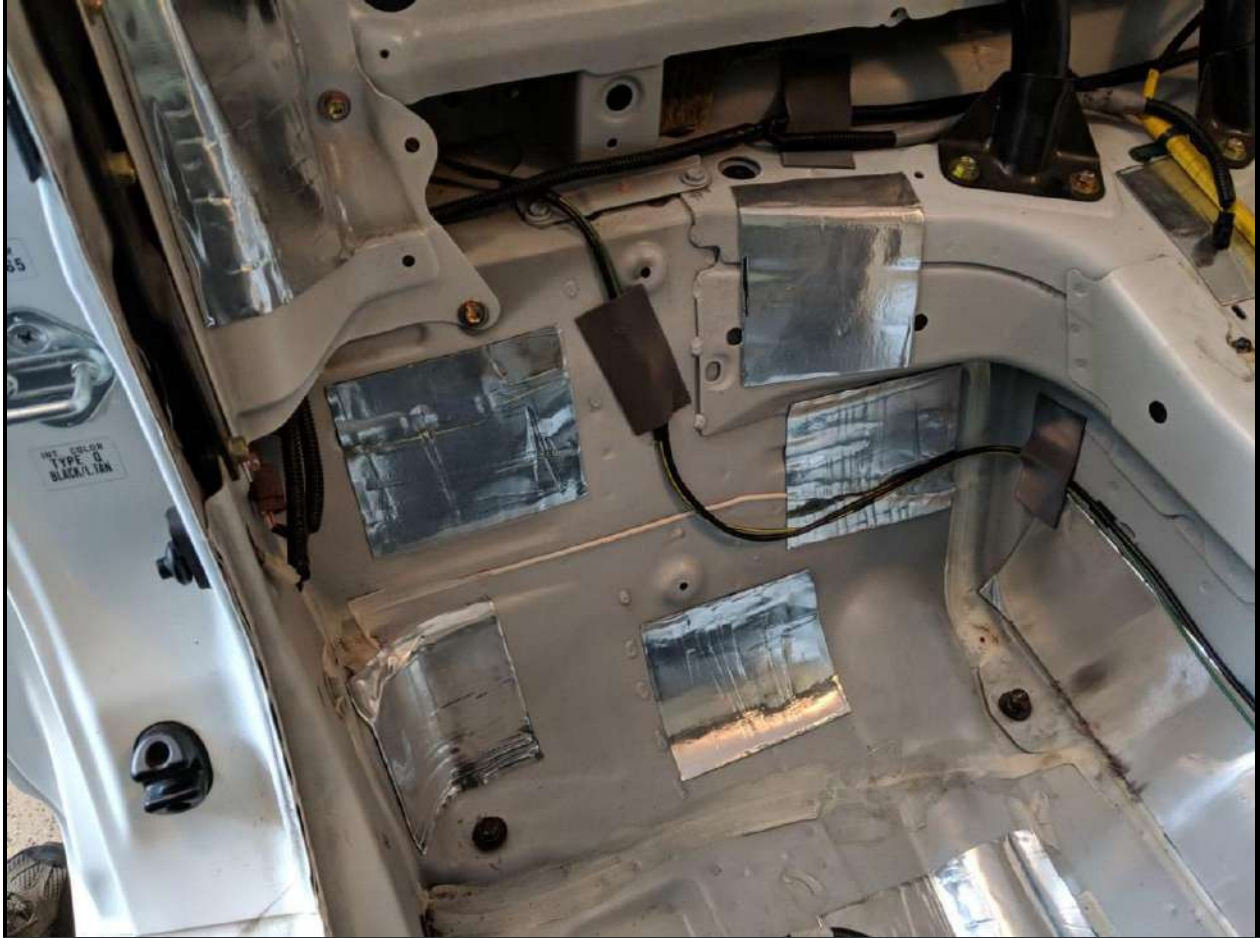
Tiles were likewise applied to the passenger side quarter panels



CDL tiles were applied to the passenger's side floor. The goal is to have about 25% coverage towards the center 50-75% of each panel, per SDS, but the vehicle itself will dictate where things will actually be installed. Obviously, bolt holes and other attachment areas should be avoided.



The rear of the driver's side compartment was covered with CDL tiles



And the passenger's side received similar treatment



The driver's side of the trunk gets CDL tile treatment



The passenger's side of the trunk gets the same treatment



The well in the trunk also gets treated with CDL tiles



As does the spare tire compartment



It's a good idea to take lots of pictures of components before disassembling them. In this case, I took pictures of the door latch/lock mechanism, as I would have to take it apart to remove the vapor barrier, to access the inner skin of the door.



This is the passenger's side door before I started to take it apart.



Once the outer skin of the door is accessible, it gets CDL tile treatment. The inner skin and trim panel also get CDL tile treatment.



With all the CDL tiles applied, we can begin installation of the other 2 layers of sound deadening materials, Closed Cell Foam (CCF) and Mass Loaded Vinyl (MLV). The MLV will make you regret starting this project, it's very difficult to work with. Keep going though, the results will be worth it. Here, I've taken a series of measurements for the driver's side floor, and I've applied them to a sheet of CCF. This piece is then cut out.



The CCF piece is test-fitted and further trimmed, for a tight fit.



Here, the shape of the correctly sized CCF is transferred to MLV and cut out. Note the holes that will be cut for mounting hardware for the seats and carpet.



The completed shape transfer, before cutting



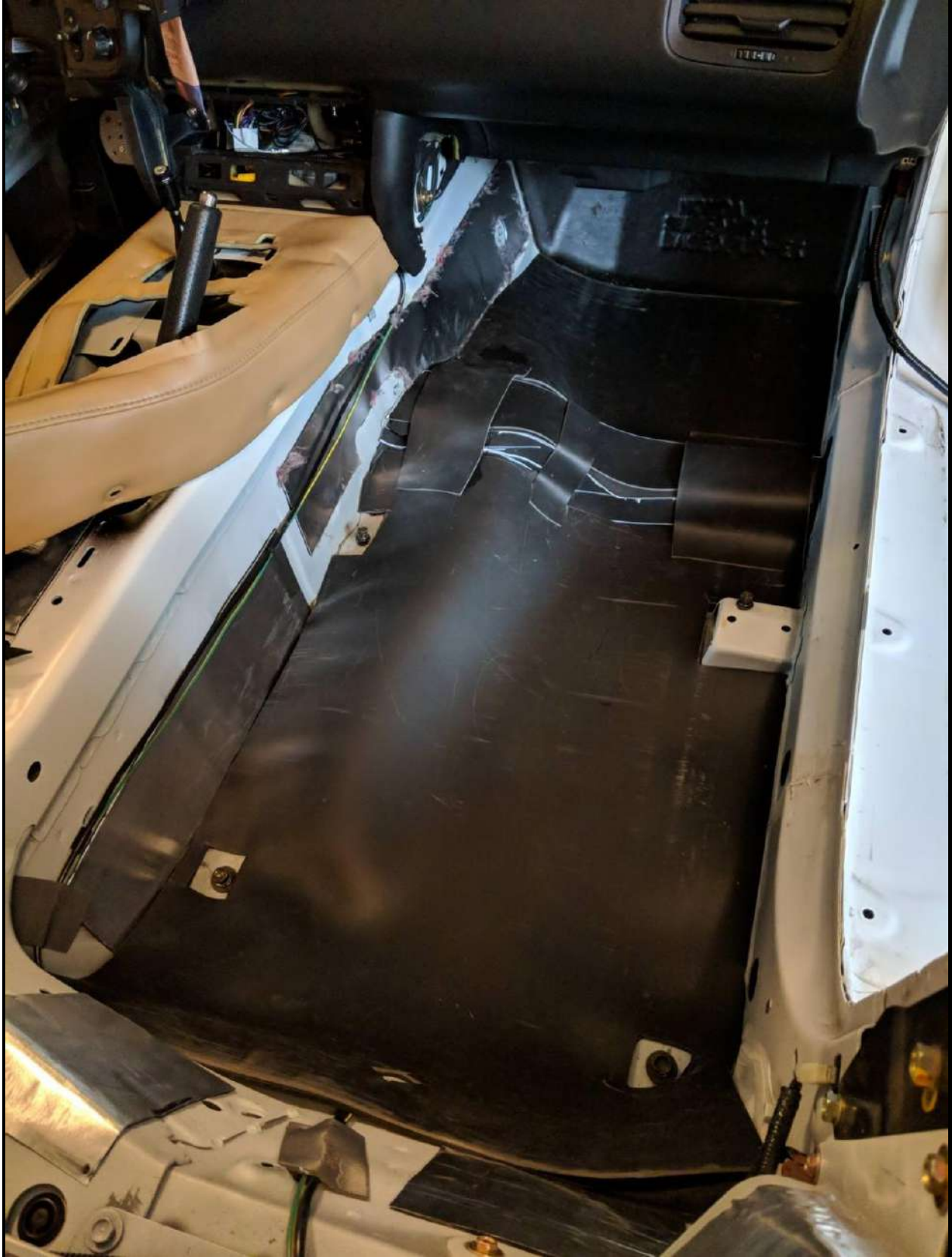
When the MLV is test-fitted successfully, double-sided velcro tape pieces are applied to the panel to which the CCF and MLV is to be applied. The locations of the velcro tape need to be cut out from the CCF. The CCF will be sandwiched between the MLV and the panel, with the velcro tape holding the MLV in place. Here you can see the CCF for the driver's side floor with the new holes for the velcro tape.



This was the most challenging part of this project, the passenger's side floor. The MLV simply can not be formed to complex shapes. The floor here has compound curves for what appears to be a relief to accommodate the catalytic converter. Although the CCF can be shaped without much difficulty, the MLV will need to be built up from numerous pieces. Here, you can see the 2 primary pieces.



Here you can see 3 more pieces of MLV cut to wrap around a structural support.



All of the pieces are attached together with more MLV and a healthy application of rubber cement. Here, you can see some of the pieces that were glued in place. Eventually, all of the seams between adjacent pieces of MLV should be covered with more MLV glued in place.



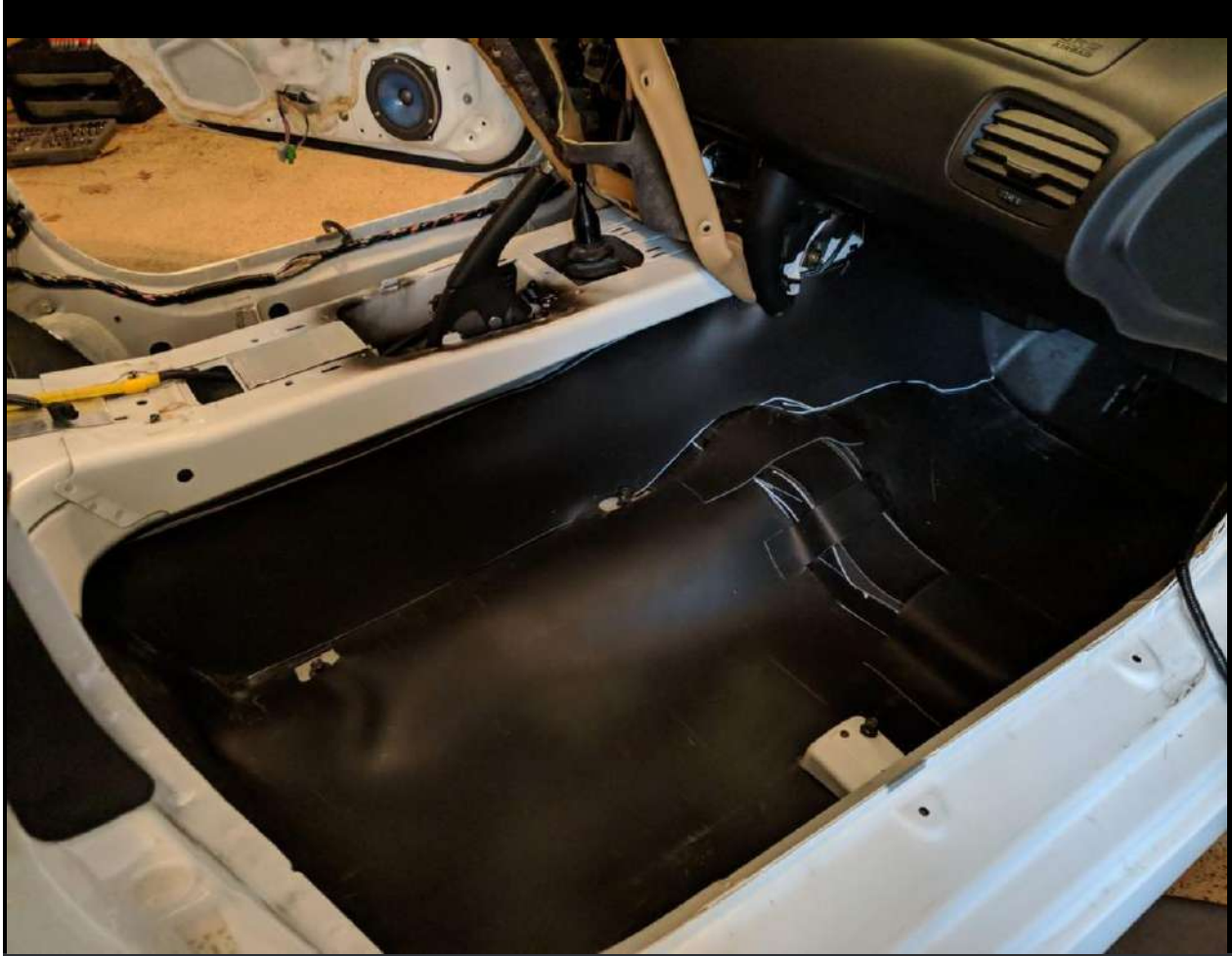
The CCF and MLV for the driver's side of the center tunnel is sized, cut, and installed



The CCF for the passenger's side of the center tunnel is measured and traced out. From here it is cut out and then trimmed to fit. Once it fits properly, the size is transferred to MLV, for a matching piece.



Here, the CCF, with the holes cut for the velcro tape, is laid onto the MLV for the passenger's side of the center tunnel



And the two pieces are installed on the tunnel itself



The passenger's side kick panel and under door area is treated with CCF and MLV



And the same for the driver's side



The back of the passenger compartment also got treated with CCF and MLV, and the majority of the interior can now be reinstalled. The carpet will fit somewhat more loosely now, as there is slightly less surface area to cover. You can either trim the excess or tuck it behind adjacent panels.



This is the first mockup for the driver's side door treatment. Both CCF and MLV are applied here



Some trimming was done to the CCF and MLV, to allow the door panel to sit properly on the door. A large center section had to be removed, as it was fouling the door latch/lock mechanism



The passenger's side door treatment is also mocked up and trimmed



While the doors were open, I replaced the stock speakers with Infinity Reference speakers. These were installed with Metra adapters, so the stock speakers can easily be reinstalled. The trim rings included with the new speakers had to be trimmed so that they would not foul the door panels.



The floor of the trunk is treated with CCF and MLV, with holes cut out for mounting the trim panels



The back of the trunk and the trunk well are also treated with CCF and MLV



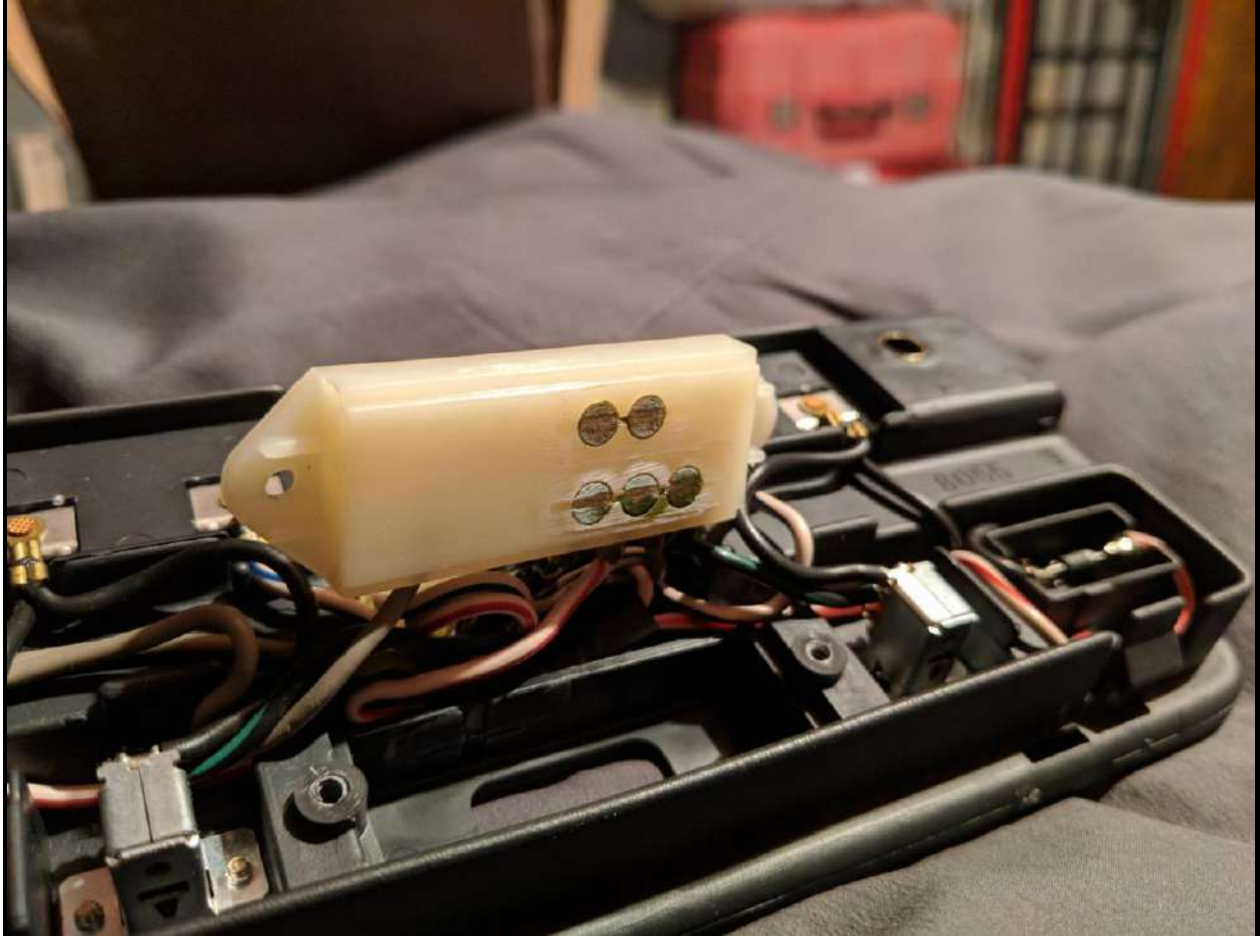
Here you can see an example of covering the MLV seams with strips of more MLV and rubber cement. The MLV treatment throughout the vehicle should have the seams sealed similarly :-)



The trunk trim panels are reinstalled

Speed	Gear	Top	Windows	SPL		
				Before	After	Delta
35	4	Down	Down	78	76	-2
		Down	Up	75	72	-3
		Up	Up	74	71	-3
	2	Down	Down	86	83	-3
		Down	Up	84	82	-2
		Up	Up	83	80	-3
55	5	Down	Down	87	84	-3
		Down	Up	83	80	-3
		Up	Up	81	78	-3
	3	Down	Down	89	87	-2
		Down	Up	88	85	-3
		Up	Up	87	84	-3
75	6	Down	Down	93		
		Down	Up	85		
		Up	Up	84		
	4	Down	Down	95		
		Down	Up	88		
		Up	Up	87		

Was the sound deadening actually worth it? I took before and after measurements with a handheld sound meter. I haven't completed the 75 mph data set just yet, but across the 35 mph and 55 mph data sets, there's a definite drop that averages out to -2.75 dB. A drop of -3 dB equates to cutting the noise in half. The car is much quieter and much more pleasant to drive. Because no sound deadening was added to the firewall, the engine noise is now more prominent, a nice bonus.



While I had the car apart, I worked on a few other things. One issue was the intermittent operation of the dome light. I took the switch apart, and found the contacts covered in corrosion and lithium grease. I cleaned the contacts up, and the dome light works perfectly now.



I also installed a frameless autodimming rearview mirror with HomeLink, and a dash cam. The wiring for both was run behind the header trim panel, down the driver's side A pillar, and down to the fuse box which has spare power taps for Constant Source, Ignition Source, and Lighting Source. I connected the dash cam and autodimming power to the Ignition Source and the HomeLink power to the Constant Source.



Here you can see the mirror as the driver would normally see it. It obscures the dash cam and EZ Pass tag well.



From the other side of the windshield, you can see the dash cam and mirror mount, as well as the small amount of exposed wiring.