

THE GROUND FLOOR

What It Takes To
Provide a Solid
One-Piece Foundation
for '68-'72 Chevelles



Ron Whitehurst's car is receiving the first prototype of Goodmark's one-piece floor to verify in-field replacement. Understand that this amazing piece is a complete floor that runs from the front section (foot wells) all the way up to the beginning of the C-pillar section. Before making the first cut, Craig Hopkins locked the pan over to make sure that all factory bracing and brackets were already installed. The pan was complete.

Crispy, crunchy, toasty and cheesy. Folks, we're not talking about food here. These are but a few of the tasty descriptions that people have used when describing the floor pans found in certain old muscle cars they've seen, and at best, they describe the amount of rust that is found and must be repaired or replaced.

How many times have you looked at a car and uttered these same sentiments to yourself after locating a car you thought you wanted to buy? It's all pretty common in today's market as rust and muscle cars simply seem to go together. With the number of old cars driving around nowadays that have real estate signs pop-riveted to the floorboards or plywood caulked into place to fill the voids, the words "quality" and "repair" should not be used in the same sentence, and the thought of progressing with such a project shouldn't go into action until the floor is repaired or replaced.

When Ron Whitehurst bought his '72 Chevelle, he was of fortunate in that the seat brackets weren't caving through the floor, but the floor pans were definitely crispy in several places. This didn't stop or slow Whitehurst down as he decided up front that he wanted to build his car correctly, and that meant first providing a solid foundation on which to build the car. He took the car to Craig Hopkins at the Installation Center in Cleveland, Georgia, because he had in mind one serious body lift. The only body parts that were not scheduled to be replaced on the car were the outer rocker panels, firewall, cowl and

roof. Everything else required new sheet-metal if for no other reason than because Whitehurst took his Chevelle build very seriously.

Luckily for Whitehurst, at about the time his car arrived at the Installation Center, Goodmark's prototype one-piece '68-'72 A-body floor pan also became available as Goodmark was in search of a real-world prototype to field-test the actual installation of this thoughtfully engineered part that would replace piecing the replacement floor together. Their search began with finding a suitable candidate as the car needed to be original and fairly undamaged or tweaked, and Whitehurst's car fit the bill perfectly.

Although Goodmark offers floor patch panels for both left- and right-hand floor pans, this replacement piece covers the entire floor width, eliminating the need to stitch multiple pans together to form one

solid replacement pan. And because Whitehurst wanted to build the car in much the same way as it came from the factory, this was a marriage waiting to happen as his car was an ideal candidate for a complete floor; its condition was that poor.

In order to help other people with their own rebuilds, Whitehurst allowed us to follow along in a series of articles so that you can see that how a rusted floor and other items can be replaced to make the car as good as new before deciding if this is a project you wish to tackle yourself or have a professional shop perform it for you. Here, you will be able to follow along with the build to see firsthand how a pro shop undertakes such a project. But before we get into all of the related replacement sheetmetal, the very first step is to build a solid foundation, and that requires installing a new floor. So follow along as the Installation Center gets to it. **CR**

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1 The entire bottom of this car is going to be removed, so much of the structural integrity of the car will be gone. To support the flexi-body, it would need triangulation, so the crew at the Installation Center made body braces that bolt onto the areas where the door hinge and door striker post mount. 2 To make the body as rigidly stable as possible and to maintain its original integrity, it required X-braces that run diagonally across the car. 3 The cutting begins. You can use various tools to do this, even a cut-off wheel or a power chisel. The Installation Center used a new ESAB plasma cutter that they wanted to try out. 4 The ESAB plasma cutter makes a smooth and quick cut and worked exceptionally well for this job. 5 It only takes minutes to get to the rocker area, and depending upon the damage in your particular car, any of those areas can be cut out and replaced with new sheetmetal as you do not want to weld the new floor pan to badly damaged panels. 6 Hopkins moves to the back of the car and begins to cut out the rear floor pan. 7 Here, the car has already been cut across the back and is now being cut down the transmission hump so that the floor can be taken out in pieces. 8 The transmission hump is still being cut, but Hopkins is now cutting between the floor braces. The object of cutting like this is to simply be able to remove large sections of the floor, and this method makes it easier. 9 Since the entire floor and the braces are going to be replaced with the new Goodmark one-piece floor, it is not essential to retain the braces, but it is important not to remove anything that is required. 10 Lock in the lower left portion of the photo, where Hopkins peeled back a U-shaped area to show where a floor brace should run. If you are simply replacing a section of the floor and plan to keep the braces, then you would cut the area out as seen here. The sheetmetal attached to the top of the brace would be chiseled away, leaving the brace. We will address this approach in a future article on installing multiple floor pieces, but for this install, that is not necessary. 11 There goes a section of the floor. It is now time to cut out the remainder of the floor. 12 Now that a section of the floor is removed, Hopkins is able to climb inside the car to continue cutting, watching carefully what he removes. The bracing you see through the sparks is the jig that the Installation Center created and built to mount the body while performing this work. As they are in the business of replacing major body components such as this, these custom-built jigs stabilize the cars.

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13 Hopkins cuts around the wheelhouse area and across the back of the car. Goodmark's floor pan replaces this entire area, making it all new once again. **14** Before cutting anything, it's necessary to take a good look at the original parts you are replacing as well as the new part. In the case of Goodmark's one-piece pan, it comes with all of the braces and brackets, but the brace shown here is not considered part of the floor pan. Again, be careful and diligent as you would be creating unnecessary work that would have to be addressed if you cut through it. **15** Where's the floor? This is what you sometimes find as someone had already done a hacked job on the back seat upright, so the Installation Center replaced this before the car left the shop. You will want to replace any old work that was poorly done as it makes little sense to cobble the foundation together. **16** The rest of the floor is now out of there, and it's time for cleanup to ready the area for the new floor pan. **17** Always rough-cut the floor area, and then do your cleanup work. All of the excess metal where one piece was layered onto another must be removed. Hopkins uses a chisel to slice between the two layers of metal. **18** Hopkins continues to clean the area to make the installation easier to complete. If you do not do this, then the new panel will not fit tightly when it is installed, and you'll want a tight fit for a good weld. When welding in the new piece, the areas to be bonded must be tight, or you will more than likely blow a hole through both the new piece and the old piece. If this happens, then you'll have to repair it, so do the job correctly to avoid more work than necessary. **19** The old floor pan joint must be removed from the inner wheelhouse, too. Everything needs to be cleaned on the car and ground for welding. **20** Here's a shot of the brace that Hopkins was careful to leave. He is going to lift the car and clean this area from underneath. The rust in the inner structure of the quarter panel will be repaired after the floor is installed. Don't try to do it all at one time; concentrate on one section at a time, even the small repair areas. If an area requires attention prior to the floor pan install, then do it now rather than later. **21** The body fit with the jig or frame table is lifted so that Hopkins can work from the bottom of the car. There are many ways to triangulate the car so that it is stiff and rigid while movable so that you can get to all of the areas to be welded. **22** Now that the car is up, Hopkins will remove the braces. These are already attached to the Goodmark floor. **23** Hopkins is standing inside of the car and removing any braces that attach to the inner rocker. The inner rockers are going to be replaced, so Hopkins simply cuts into this one so that a new one can be installed. **24** This is the brace that Hopkins saved. This piece sits on top of the floor pan and



must be totally clean. **25** Hopkins starts cleaning up this brace. When he is finished, as we mentioned, only the top layer of metal will remain. **26** The cutting continues. Here, Hopkins almost has the inner rocker completely rough-cut. It will still need a lot of cleanup, but this is an important step even for a good welder. **27** Using a chisel, Hopkins keeps cleaning the old metal. Do this until all of the old metal is cleaned. **28** The floor pan was attached to the wheelhouse. Hopkins uses a chisel to remove the old pan. **29** Our same old brace is being peeled. This gives you an idea of how much work goes into a car. The best way to take a car apart is the reverse of how it was put together, so study your car and approach it in the same fashion. **30** When chiseling a panel away, the chisel is kept flat so that it won't rip into the area you wish to retain. A little practice is a good thing as these power tools can be tricky to use if you are not familiar with them. After repeating all of these steps on both sides of the car so that the entire area is clean, Hopkins is ready to install the Goodmark floor pan. **31** Hopkins uses an abrasive wheel on the areas that were spot-welded to help smooth them. Any areas that are going to be welded must have the paint removed for a good bond. If you do not want to leave these areas raw, a good weld-through primer can be used on these parts. **32** Hopkins tests the placement of the inner rocker before the initial test fit is done. Since this is a prototype, Goodmark wanted to make sure that everything was set up correctly and fit as designed before production began. As a result of all this good work, the production pieces already have the inner rockers attached.

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33 The floor pan is clamped into place. As you can see, the original wheelhouses are still in the car. This type of material will be replaced and covered in a future article. **34** The floor pan slipped right into place as designed, and it looks great. The work was done well going in, so there are no production problems that will require attention with the Goodmark prototype. It comes out for one final inspection by the Goodmark technicians, and then it can be final-primed for the actual installation. **35** The pan was moved to a worktable to remove the EDP (electro-deposit primer) from any of the areas that will be welded so that there will be metal-to-metal contact and good



weld bonding. **36** In the production piece, the inner rockers are already attached on the Goodmark floor pan, but Hopkins wanted to test it without having the rockers installed on the prototype piece. This rocker is being prepped for installation. **37** The Installation Center tries to duplicate factory spot welds on the cars they reassemble as they never know if the car is slated to a 100-percent restoration. They do the job right, and this is a good lesson to follow. **38** The inner rocker is going to be clamped into place. The area has been sanded because it will have several welds once it is final-installed in the car. **39** After the rockers are installed, the car moves back to the lift, and the floor is readied for installation. **40** The floor is then clamped into place as it is precisely fit. Remember two things; properly locate the pan prior to clamping and welding, and weld only on clean metal. **41** This floor looks dusty but great. Check out how the braces meet the floor pan. It's a good thing that the proper work was done so that they were not accidentally chopped into. **42** The pan fits well where the new and old sheetmetal meet. Once again, make sure that the area is clean when you are going to weld. **43** A little hammer work needs to be done on the braces as good contact is important for a good weld. Because the Installation Center's spot weld won't reach this area, the holes are to be plug-welded. **44** Factory spot welders demand a clean surface and good contact. Hopkins makes sure that the arms are in place. **45** The metal to be spot-welded must be tight and clean. Keep clamps close to the area to be spot-welded, or you will blow a hole in the metal. **46** You can see that the lower and inner rockers are clean and have welds every few inches so as not to distort the sheetmetal. **47** Hopkins plug-welds this area. A plug weld is a very strong weld. **48** Once this area is completed, the other side of the car will get the same treatment. Any areas of raw metal will then be put into primer. As you can see, this is a very smooth and nice-looking installation. If you hadn't seen it presented in a step-by-step manner, you would likely never know that this wasn't the original floor in the car. The installation looks as good from the bottom as it does from the top, and with a little patience, you can duplicate this same work at home, but it might take you longer than it did the crew at the Installation Center.