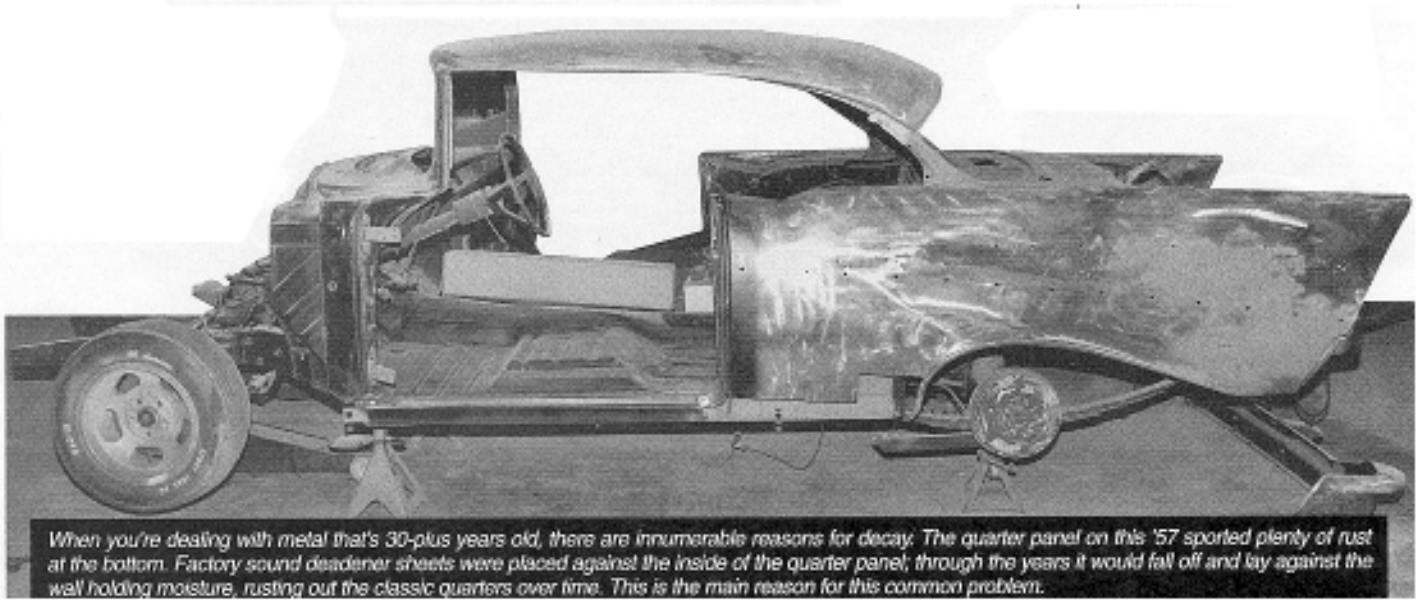
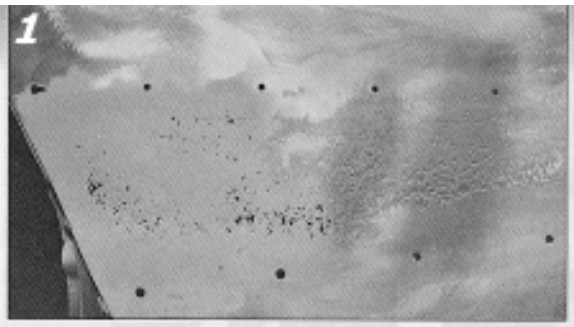
Replacing Quarter Panels on 1955-57 Chevys

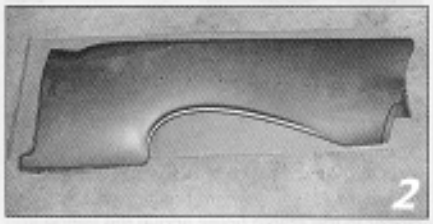
Rustout and body damage are, in fact, the biggest reasons most people will decide on quarter panel replacement for their Chevy. And if this is not enough reason, take another look down the side of your classic Chevy: more than likely, you'll come face-to-face with "the bulge." As much as 50% of all remaining 1955-57 Chevy quarter panels have a bulge in the middle of their eight-foot slab of historicaly-shaped metal, some worse then others. The factory tolerances and road stress have a way of making this problem unsightly.



When you're dealing with metal that's 30-plus years old, there are innumerable reasons for decay. The quarter panel on this '57 sported plenty of rust at the bottom. Factory sound deadener sheets were placed against the inside of the quarter panel; through the years it would fall off and lay against the wall holding moisture, rusting out the classic quarters over time. This is the main reason for this common problem.



There are many other reasons for replacing a quarter. Excessive rustout under the Bel Air aluminum side trim is another problem, created by moisture held by the factory caulk adhesive used to hold the trim tight and squeakproof. Your first step is to remove all the mouldings, side, upper and rear stainless trim and taillight housings and bumper.

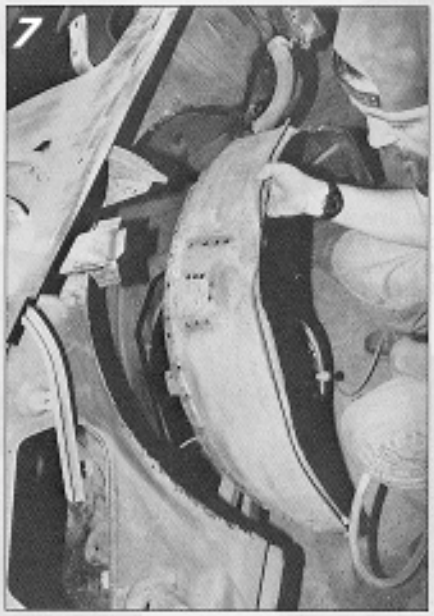


The best (and only) full quarter panel available is from C.A.R.S., Inc. It fits right and looks good.

Tape off your existing quarter panel at the very top, two inches outward from the crown of the quarter or Bel Air moulding holes. Do this from the end of the tailfin to the roof post if it is a hardtop; on a convertible, go past where the snaps for the CV top would end by the quarter window. As shown, cut on the tape line using a cutoff tool or an Ingersol-Rand Shear.

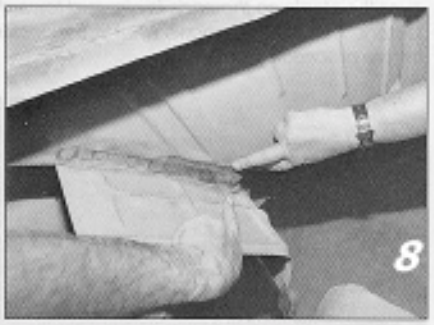
Cut along the edge of the quarter to the outside of the panel as shown. You want to leave some of the old panel to allow for the fitting of the new panel.

Wire wheel all spot-weld locations, such as the flange at the rear of the quarter behind the bumper and stainless trim. Behind the roof pillar where the quarter window is, there are welds holding the inner quarter lip in place; drill out the spot welds (Jeff used a Motor Guard weld cutter with a built-in drill bit in the center). Run the drill about 800 rpm, squirting water on it every 15 seconds. This will prolong the life of the cutters.

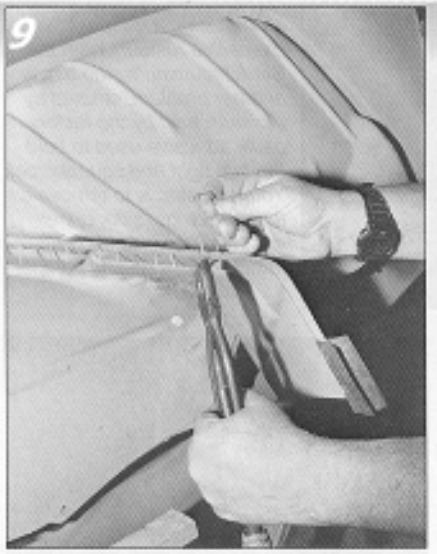


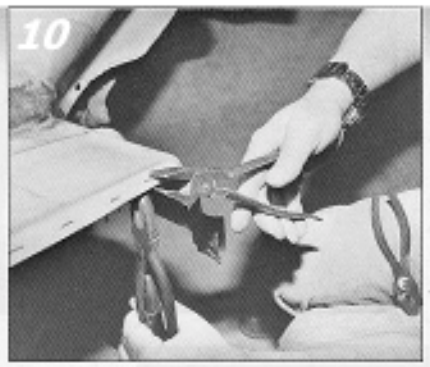
If, like we did, you decide to replace the outer wheelhouse while replacing quarters due to rustout, drill out the spot welds to seperate the outer wheelhouse from the inner, then remove the wheelhouse from the car and scrape off any undercoat left behind. Sandblast the entire inner structure of your classic for cleanliness and longevity. The outer wheelhouse also is from CARS Inc. and comes in three sections.

Once the outer quarter panel has been removed, you'll need to scrape the undercoat from the inner wheelhouse and check for rust damage. Use a 1300 degree heat gun and stiff putt knife.



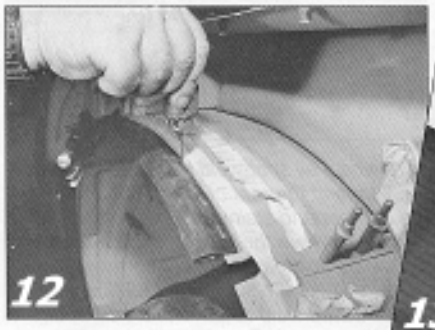
Attach the drop-off toward the rear first. This is the middle panel in size and location. This panel fits in a groove and is pretty much mistake proof; you should be able to weld it in place from inside the trunk if you've drilled the spot welds from that area. Note: Attach the largest outer wheelhouse to the sidewalls in the approximate area you took the old one off. Attach with clecos or self-tapping screws to temporarily hold in place.

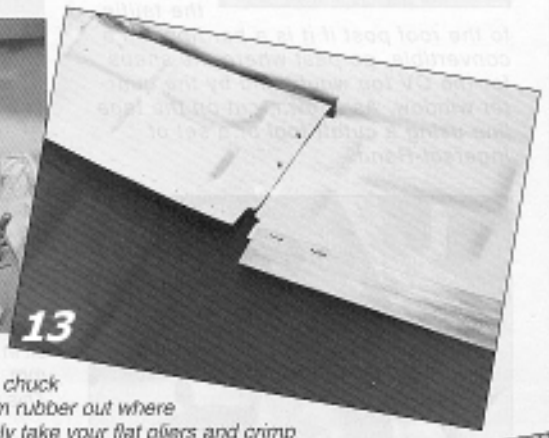




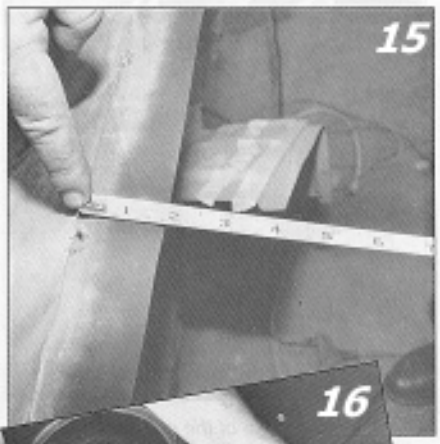
To be factory correct you'll need to install the rubber seal and support strip with staples. We use Blue Point .051 soft stainless steel wire from Snappon, preferably using an automatic center-punch mark every half inch in the middle of the flange. Then, using a .052 drill bit, drill holes in all marked flanges and deburr all holes. Start with an eight-inch-long piece of wire, insert one end through the first hole drilled and pull through a half inch, then start the other end in the hole next to it. Pull this end through also. Lilly used twist-locking pliers to pull the other end down tight to take any slack out of the wire. Vise grips will also work well. If you desire a flatter staple, use a pair of flatnose (glass) pliers and clamp down on top of the staple while the ends are being pulled down. Repeat this procedure until all staples are made. Cut the ends off half an inch in length protruding from each hole.

Remove the staples and place them under the tape that runs the length of the outer wheelhouse. Place another strip of tape a length closer to the staple holes above the flange and mark where each staple hole is located, then place the rubber seal on the flange. Guided by your marks, run a punch through the rubber and find the holes, then simply place the staples into holes and clamp.



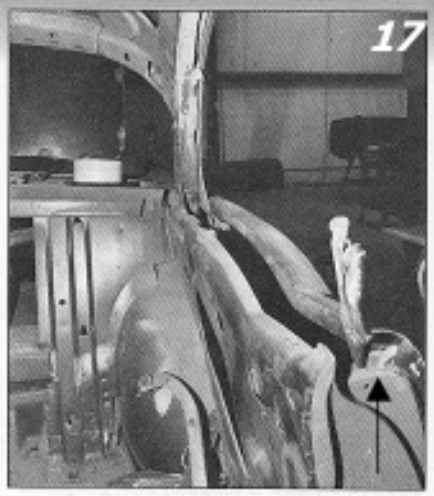


If you're having difficulty pushing staples through the rubber, a small 3/8 drill chuck works well (with the .052 drill bit) to ream rubber out where the staples will go through it. Then simply take your flat pliers and crimp over the staple so the ends lay inward toward one another as did the factory. This closeup shows what you're looking for. Finish all the rubber before proceeding.



Fit the new quarter to the car and clamp all the main attaching points.

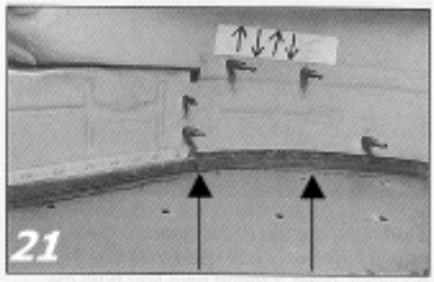
Measure the top of the quarter every three inches to see what you have to work with, from the center holes outward of where the Bel Air crown moulding studs would be. Make the same measure on the new C.A.R.S. quarter at the very top center edge. Allow a quarter inch of extra material on the new quarter compared with the measurement you took every three inches on the original panel still on the car. Tape these measurements off and cut right on the line from tailfin to roof post.



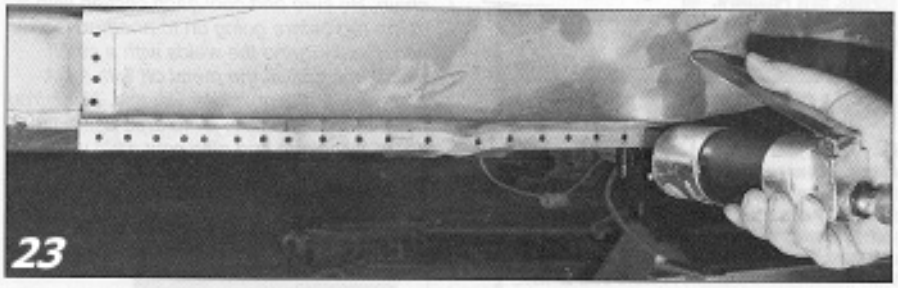
Be sure and clamp the quarter window area to ensure correct alignment. Note: The quarter laps over the door striker edge by half an inch—you need to trim this part for a close fit. (see arrow)

Be sure it's flush around the door edge, then use self-tapping screws to hold it tight and scribe this area from top to bottom. Now remove the quarter. You should now have a nice scribe line on the door edge. Grind the metal right to the scribe and no more. Refit the quarter after you have the door jamb area fitting properly with a butt fit. When you're confident of the panel alignment (including door gap, etc.), scribe the top length of quarter with a carbide scribe to leave a nice, legible silver line. Remove the new quarter and trim the orginal metal right to the silver line. Remove quarter again.

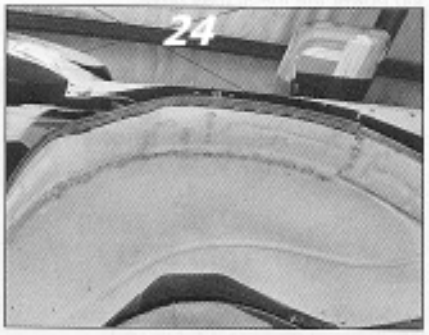
Place a 3/8-inch rope in the groove of the rubber, then pull the rope out after you fit and permanently weld the quarter. This will flap the rubber and seal up as per the factory technigue. You will also need to install a new seal to the support side



Slide under the quarter and loosen the clecos that have been holding the rear long inner wheelhouse; slide it in or out to make the rubber seal fit, just touching the panel (arrows). Use self-tapping screws to hold the panel in place before welding. Also fit the splash pan in its proper location, welding it to the wheelhouse only.

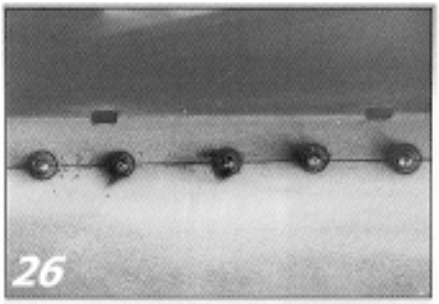


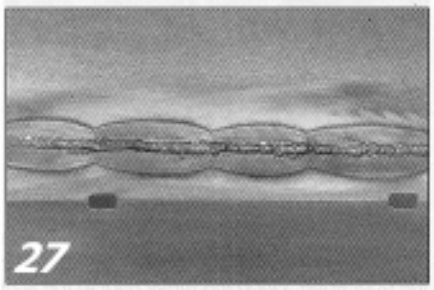
Using a hole puncher or drill, place holes at the very bottom of the quarter to the rocker panel, around the taillin and all flanged edges. These will be used to weld the panel to the car's flanged edges.



From the ground looking up, this is the inner wheelhouse welded in place. It's easier to do before the quarter is permanently attached. Lilly used a Mig welder.

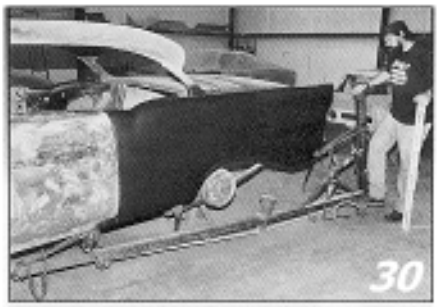
After cleaning the panel of all oils, apply two coats of epoxy to the backside to ward off any future rust. Fit the quarter for the final time. Check all your mating surfaces and be sure you're happy with the door gap. Once again, clamp everything into place. Be sure the tailight housing fits well, too.



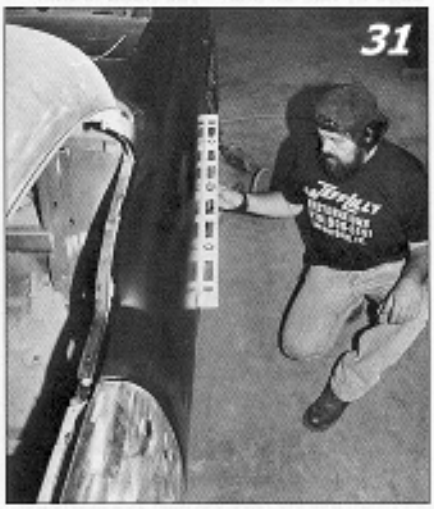


26 Starting at the top of the quarter, mate the edges together. They need to fit like this. If
27 possible, have a friend help you hold the
28 panels together. Tack weld the panels every 3/4-inch or so. Stop at the top of the taillin. When the top edge of the panel is tacked and fits to your liking, weld each section from one tack to another—it will be like a chain. Be sure and cool each section with a damp rag before going on to another section. Finally, grind the welds with a cutoff wheel, then finish the metal off with a DA and 80 grit. It should look like this. Note: You need to weld the door jamb area using the same technique and also spot weld where the puched and/or drilled holes are to attach the panels completely (do not weld up the splash pan just yet.)

Lilly acid-prepped and primed the quarter to better show you the next step. Metalmaster Andy Watkins is showing the slight bulge in the quarter panel with a straight edge. This bulge is larger on some and smaller on other cars.



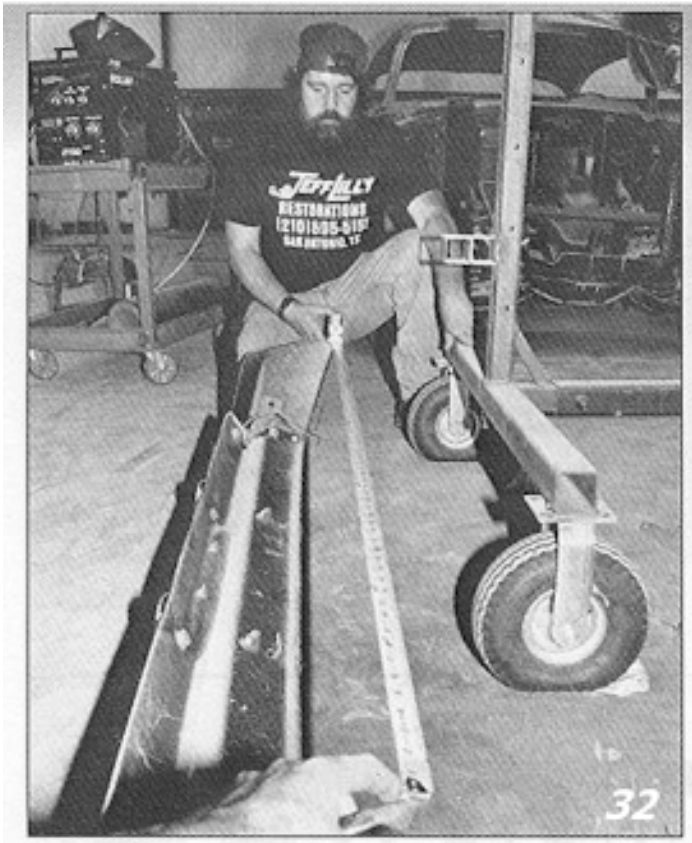
This next step goes for the new quarter panel installation as well as for existing quarters you may have on your car now, be it a 1955-57. On existing quarters, you will need to drill out the spot welds on the splash pan to release the quarter in this area. Lilly employed a frame puller with a clamp attached to the bottom of the quarter bumper flange; at home, you can use a cable-operated come-along tied to a post or tree if that's all you have— it should do the trick. Just be careful. Pull the quarter until you see the bow disappear, then pull just a bit more and tack weld the splash pan to the bottom of the quarter to hold it. Then release the tension to see what you have.

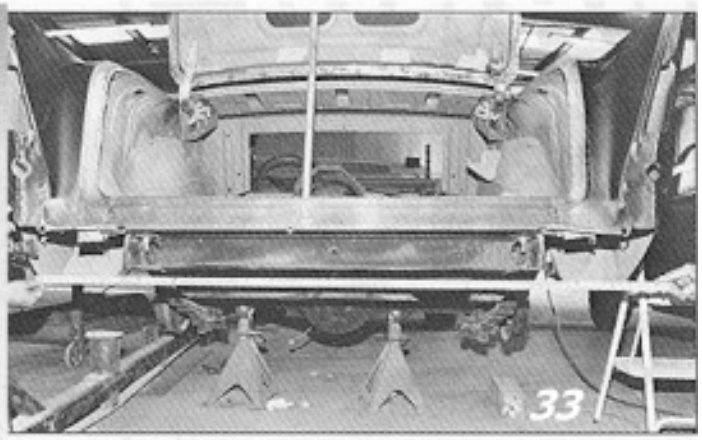


As you can see, our quarter is straight and flat just the way the Bow Busters ordered. If yours is stubborn and wants to come back when tension is released, you may need to massage the panel a bit. Try pulling the quarter back out. While tension is applied, take a slapping spoon and a body hammer; use a torch to lightly heat the wheelwell lip, then tap the lip slightly to release any holding power the metal may have.

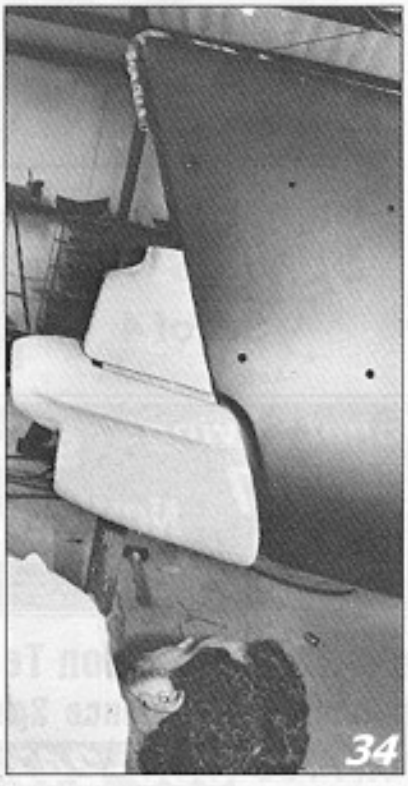
Sources

C.A.R.S., Inc.
1964 W. 11 Mile Rd.
Dept. SC
Berkley, MI 48072
(800) 521-2194





There are a few things you'll need to check before you permanently weld up the splash pan. Take the rear bumper you're going to use on the car and measure the length from the bottom inside corner to the opposite corner. With this measurement in mind, check where the bottom edge of the quarter panels are in correlation to where the bumper would be. There should be an inch and a half more total width—this would give you 3/4 of an inch between the bumper edge and sheetmetal on each side, which is optimum.



Fit the bumper and taillight housings. Mask them with two-inch masking tape if they have been replated, to protect them from scratches. Last, but not least, check the taillight housing and be sure the gap between the bumper and quarter is visually perfect. Weld up all the areas fully, and you'll have a very rare set of straight quarter panels on your car.