



t restaurants, the initial presentation is everything. From the moment you pass through the door through the time you're seated at your table, you're taking it all in. Unfortunately, the warm welcome offered by the staff, the fabulous decor, and the fact that you're seated at the best table all go out the window the second you see a fly on your plate. After you've seen the fly, nothing else seems to matter. For me, a scratch on a car is like the fly in the restaurant. If it's your car, it takes a few minutes to sink in. When did this happen? Was it a kid on a bike? Did someone crash their drone? A shopping cart assassin? Ultimately, it doesn't matter. The car is scratched and it's got to be fixed. Fortunately, there are a couple of ways to go about it.

Option number one is to pay someone. In that case, you can use a body shop or a mobile dent repairer. There are great body shops out there, but if you don't know where to look, you may not like where you end up. We've all heard the body shop horror stories where prices were based on how much they think you're good for. Not the quality of their work or the actual price of the job,



by Jay Pill and Marcus Blair Fitzhugh

but rather, "The customer rolled up in an expensive car, and they're wearing a nice watch. Based on that, the repair bill is at least \$2K more than the regular price." Since most of us don't frequent body shops, it's best to ask around. Friends, family, forums, club members, someone somewhere knows a good place in your area.

The second choice when it comes to paying someone is a mobile dent repair service. Mobile dent repair services come to you and make the repair at your home or workplace. They show up with everything needed and can typically do the job in a few hours. The advantages are, they cost less and you won't need a rental car. Like body shops, you'll want to ask for a recommendation.

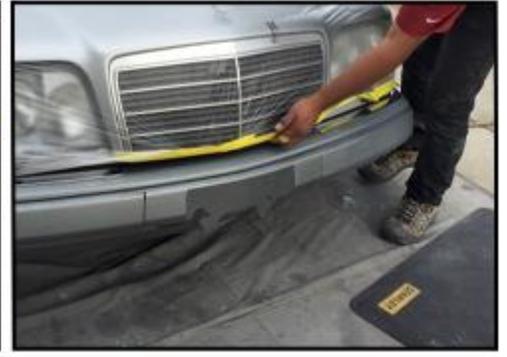
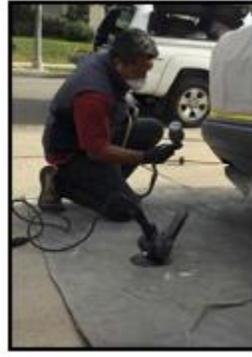
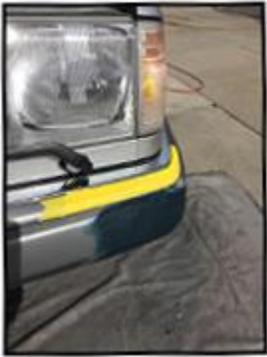
The next page has some photos of work

recently performed by a mobile shop. The car in the photo is a W124 cabrio and as you can see, the front bumper was damaged and the rear valance was cracked. Some body shops would take one look and say, "We'll order a new front bumper cover, new rear valance, paint them, mount them, and your fee will reflect the fact that this limited production Mercedes-Benz was very expensive when new." The mobile shop that did the work, patched the hole, strengthened and filled the crack, primed & painted the bodywork, shot the clear coat and charged less than \$400.

Some may feel body shops do a better job because they spray in paint booths. Maybe they do and maybe they don't. At most body shops, paint booths are valuable workspaces. Although body shops paint whole vehicles in the booth, that doesn't mean spot jobs are done in the booth. It also doesn't mean anything will be allowed to tie up the booth while it dries. It depends entirely on the shop. OSHA requirements determine whether a shop must paint in a booth. Those rules are based on the amount of paint being applied, whether the space being used to paint has sprinklers, if there are electrical outlets, and what other work is being done nearby. OSHA rules are centered around health and fire prevention, not the quality of the paint job.



Before



During



After

As you can see from the photos, this mobile repair was made outdoors. It took about 3 hours, and the mobile repair facility did an excellent job.

Another option is for this to be a DIY project. If that sounds intimidating, bodywork may be a new venture for you. Like most automotive DIY tasks, three things are important for a successful outcome; being safe, meticulous, and proficient.

Safety should be considered because paint is dangerous. The fumes are toxic. The fumes won't cause someone to drop dead on the spot, but they can cause permanent damage. Anyone sanding and painting should wear a mask and eye protection. It's also good to keep in mind that paint fumes are flammable and have been known to ignite in an enclosed area.

Although we occasionally criticize in generalities, We like to praise by name

It's regularly said that 90 percent of the work involved in a good paint job is the prep work and only 10 percent of the time is spent actually painting the car. Part of the prep is in knowing what to buy and where to buy it. Like body shops and mobile repairers, you might want to ask around. For example, there are some places that sell single stage paint. Single stage sounds great. With single stage paint, no clear is necessary to produce gloss. You lay a few coats of paint and you're done. It's glossy, it's durable, and I'm not sure how it allegedly matches. That's because everything at my house has a two stage paint job. Your cars may be different. Also, the paint may have to be mixed. If that's the case, three materials will have to be mixed; the paint, the reducer and the hardener (activator). The paint contains the color, the reducer thins the paint down so you don't end up with orange peel problems, and the hardener helps the paint cure. If this sounds like it's getting a bit too complex, I agree. If the customer has to mix three ingredients and then discovers the paint doesn't match, it doesn't take much guesswork to figure out what the supplier is going to say – it was mixed incorrectly. Rather than go through any of that, here's a recommendation; Automotivetouchup.com offers ready to spray paints that match the factory colors. I recommend buying all your supplies from them. If you go with a different supplier, I recommend buying all your supplies from that place. The reason is simple; your supplier knows what works with their product. The primer, basecoat, and clear coat work together. Buying everything from one supplier ensures the products are compatible.



Before going any further, let me say, this isn't for a \$100K car. If you've got a \$100K car, call your insurer and let them fix it. If you have a car that originally cost \$100K, but it was so long ago the original price is irrelevant, this may be for you. Some might be thinking – "You've lost your mind. A DIY paint job is going to ruin somebody's Benz." Look at the other side of the coin – a factory quality paint job on the average 10-year-old Benz costs more than the car is worth. If anyone feels they can't do this, they shouldn't. They should pay someone to do it.

For a minor fix, the materials needed from Automotive Touch Up are fairly inexpensive. Aerosol paint, clear, primer, a spray gun tool, vapor respirator, sand paper, wax & grease stripper, tape, masking film, and tack cloths all come in at around \$80. That's about a fifth of what a mobile dent repair would charge, and roughly 10% of a body shop bill.

Before getting too enthusiastic, let's think about the second thing needed for this project; you should be meticulous. If you're inclined to cut corners or lack the time and patience, just pay someone.

Here's what I mean when I say meticulous: If you don't know how to sand a car, are you willing to take the time to learn? Are you willing to wait the drying times for fillers, primer, and paint before moving forward? Will you read the instructions that come with the materials? If you can't truly be meticulous, but you want a good job, follow my earlier recommendation and pay someone.

If you are willing to do this the right way, you may find this opens a lot of doors. For example, many people want AMG bumper covers and side skirts, but they hold off until they find a set in their color. If you can paint, you don't have to. Just buy a set and paint them. The same applies to anything you need painted.



To get started, you'll need a clean car. Wash it thoroughly - and this is the only time you should ever use dishwashing soap to clean a panel. I use P21S, but the results are the same; the contaminants are removed. Rinse the car and make sure it's completely dry. I use an air hose to blow out the edges and cracks.

After cleaning the panel, wipe the surface with the wax and grease remover. This will remove any oils and grease. If you don't, whatever you do next will drive all those contaminants down into the finish or metal. They won't stay there, though. You'll see them again after you've finished, and they may ruin the paint job.

Regardless as to whether you need bodywork, you're going to have to tape the car. Your paint supplier has automotive grade masking tape, paper, and pre-taped film. That's what you should use to mask any areas where you don't want primer or paint. Some people use newspaper, but newspaper has lint. Always run lines of tape along the edges of the paper to completely seal it.

Those paper edges should be taped down so they don't blow open during spraying. Doorjamb's should be taped shut before spraying primer or paint anywhere near them. When taping, don't make a hard line in the middle of a panel. If you've ever seen a square patch of primer, that's what you want to avoid. The edge of the square is higher than the paint and will have to be sanded before being painted.

If you need bodywork, the panels should be straight. If filler is needed, it shouldn't be used to span a gap or applied thicker than 1/8 of an inch. Naturally, it should never be used over rust. The purpose of filler is to smooth the surface of sheet metal. When you mix the filler, do it on a plastic mix board or on a piece of sheet metal. You don't want to mix it on anything that will absorb the resins in the filler. Use a plastic spreader to mix it, and try not to trap air in it while mixing. After the filler is mixed, it should have a smooth even color.



When spreading the filler on the bodywork, use a plastic spreader to apply it and wipe it smoothly in one direction.

Some people sand the filler as soon as it hardens. However, if you let it sit a day (or two) you'll know it's done shrinking. That's a personal preference and an advantage to doing it yourself. When you start sanding, use 80 grit paper to rough out the filler. Finish sanding with 180 grit sandpaper. If any places were too low for the sandpaper, you'll need another coat of filler. If you have to add a new coat of filler, hand sand the low areas so the next coat can have some bite. Make sure to blow the dust off.

Depending on the area, you may want to make another pass with a fine filling glaze. The glaze will fill the scratches in the filler. The glaze should be sanded with 180 grit and finished with 280 or 320 grit sandpaper.

Sanding is important and if you get it wrong, you may see your mistake after you've applied the paint. Using the palm of your hand or your fingertips is the wrong way to do it. Use a sanding block or board to get the surface smooth. For large flat areas, use a long board sander. For long smooth curves, use a flexible sander. For everything in-between, there are short blocks, round blocks, square blocks, soft blocks and hard blocks. The basic premise is to use a block sander to smooth minor surfaces waves and imperfections. Sanding works best when the sandpaper makes full, even contact with the surface. Also, for a large panel, sand in an "X" pattern. If you sand in a simple back and forth motion, you'll make a flat spot.

Now you're ready for primer. Do not spray primer, paint or clear coat in direct sunlight. If you're going to use an airbrush or an HVLP paint gun, make sure you don't have water vapor or oil vapor passing through the airlines from the compressor. Moisture will contaminate your work. An oil/water separator is inexpensive and will save you from having to redo the job. If you're using Automotive Touch Up's aerosol cans, this isn't a problem.

If you find yourself using an epoxy or etch primer, those are not made to provide fill or to be sanded. They're designed to protect metal and to give regular build primer something to adhere to. Epoxy primer is used because build primer can peel from bare metal. If it does, the paint on that primer goes with it. The rule is, if you sand down to metal, use epoxy primer first then build primer. Read the cure time for all primers.

Apply the primer in thin, even coats. Plan on three coats to completely cover the surface. Don't apply too much primer too fast because thick coats will cause problems. After the primer has cured, use 600 grit wet/dry sandpaper to smooth out the surface. Next, clean and dry the area. Replace any masking tape and paper that have dust.

If you use guide coat, that will show you if the panel is as flat and smooth as possible. To use guide coat, lightly mist it over the primer. If you remove all the guide coat pretty evenly as you sand, that's it, you're done. If the guide coat shows areas that aren't sanded, those areas are low. If you remove some areas quickly, those areas are high.

Got low areas? You'll have to hand scuff those areas so the new primer will stick. Then clean, prime, and start sanding again. You did say you wanted perfection, right?

After sanding, you're finally ready for paint. To properly blend new paint into an existing panel, start spraying before the bodywork, and bring the sprayer in between 8 and 10 inches away from the surface, perpendicular to the body panel. Then pull away as you get to the car's good paint. Always keep the sprayer moving. If it looks like part of the body was missed, you'll get it on the next pass. Only spray from side to side, not up and down. Apply four coats, waiting however long the paint supplier says you should between



coats. If you make a mistake while spraying, continue spraying the current coat of paint. However, do not apply the next coat of paint until the mistake has been repaired. If it's paint buildup or a run, use a piece of sandpaper to lightly sand away the mishap. It's important to allow the paint to dry before correcting mistakes.

Following the paint manufacturer's instructions, wait before applying the clear. While you're waiting for the basecoat to dry, you may notice the new paint doesn't shine like the surrounding paint. That's normal. The clear is what makes the paint shine. Clear is sprayed just like the basecoat.

Depending on the paint, clear coat can either lighten or darken the paint. Holding the sprayer further away lightens the color. Using it closer darkens it. Naturally, using it too close or too far is bad. This is a technique that requires practice.

After the clear is cured, wait a day before sanding out orange peel or any dust in the clear coat. The sanding should be done with 1500 wet sandpaper, followed by rubbing compound. This will really bring out the gloss.

Now that you're done, as tempting as it is, don't wax the car for 30 days.

The one thing we haven't touched on is proficiency. Before your first paint job, you may want to practice. Practice is the only way I know of becoming good at this. Many people practice with a car panel from a salvage yard or a piece of steel from a home improvement center. Sand it, prime it, sand it, paint it, shoot the clear, and let it cure. Afterwards, scratch the panel and fix it again. If you're happy with the panel, you'll be happy with your car.

The results of a DIY job can be surprisingly good. I've had people ask me if an entire car can be painted in a garage at home. Yes, but a body shop would be much better. Dust will settle on a large flat surface like a hood, trunk or roof, and a clean room is needed to prevent it. However, for touch up, you have three choices – body shop, a mobile repair, or you. All three are capable of performing a good job at three different price points.

