

Project: Painted Calipers and Rotors

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Car model: 1991 Honda Prelude SR

Whenever I used to take off my wheels, I would see my calipers and just say "yuck". Mine were totally caked in brake dust and grease, not really the look I wanted. I guess that's what happens when the previous owner isn't quite as much of a car nut as I am. It was time to tidy things up a little bit.

Refinishing calipers and rotors is actually quite easy. I painted mine with some caliper paint that I got from my local hardware store, and it wasn't even very expensive. The hardest part of the whole process was actually getting everything off the car and cleaning it enough to be painted. I'll walk you through it.

The first thing you'll need to do is to loosen (only loosen, not remove) the lug nuts and then jack the car up enough to take the wheels off. I'm not going to talk you through jacking a vehicle, because if you're reading this, I suspect you already know. Position the car on jack-stands so you have lots of room to work, nothing is more uncomfortable and unsafe than being crowded while you work on your car. With the car lifted, take your lug nuts the rest of the way off and remove your wheels.

Some people will tell you that you can paint the calipers while they are still somewhat attached to the car. Sure, you probably can, but doing it this way has "paint over-spray accident" written all over it. Let's not be lazy, we're going to take the calipers right off the car. Thus, in my mind, the first logical thing to do is to unhook the brake lines. Before you unhook them, find yourself four small doth (not paper-towels) rags. Rip up an old T-shirt if you have to, it'll only save you trouble later. You'll also need to locate some electrical tape. In a pinch, you could use another type of tape, but I find that electrical tape works best for what you're about to do.

With your tape and rags in hand, unbolt the brake line bolt from the caliper and remove it. Be sure to grab the two washers that go with the bolt, they are important. Brake fluid is going to start leaking out of the line once the bolt is loose, you need to stop the leak. Take a 4 inch piece of electrical tape and feed it through the bolt loop in the brake line. Center the tape over the feeder hole inside the bolt loop, then fold the tape back so that it sticks to the brake line as if you were trying to tape the brake line shut. This alone will not stop the leak, that's why you need the rag. Take one of your rags and feed a corner through the hole, then start to pull it through. The rag fabric will bunch up inside the bolt loop and create pressure on the tape (which is blocking the hole), resulting in your leak stopping. I use this method every time I work on my brakes, and it never leaks. This is much better than just using a rag, or just letting them drip, no sense wasting brake fluid. Repeat this process on the other three brake lines, and be sure to wash off any brake fluid you may have splashed on your car.

You'll have to remove the E-brake cable from the rear calipers. This may look hard, but it is actually quite easy, so I'm not going to take the time to describe it. Your car is now ready to have the calipers removed. Each caliper has two bolts that hold it in place located at the very top and very bottom of the caliper. Get your wrench or socket and remove these bolts. With the bolts off, the caliper will fall right off.

I'm guessing that you'll also want to paint the bracket that holds the brake pads in place. To remove these, un-snap the brake pads, label them, then use a wrench to remove the brackets. In my experience, the caliper bracket bolts are always very tight and often seized, so use a breaker-bar if you have one. If you still can't get some of these bolts out, spray release fluid on them and wait a while to try again. If you still can't get them out, I suggest using an impact wrench.

At this point you should have all four of your calipers and brackets off the car. Many people will choose to stop here, but if you want to paint the center of the rotors as well, you need to take them off next. Many people think that taking rotors off a car is actually very hard, but in reality, Honda has made it quite easy.

The first step to removing rotors is to remove the two phillips head screws that hold them in place. Don't laugh, this will likely be the hardest part. In my experience, these screws will usually turn out with relative ease. Be sure to use a broad head phillips driver and apply plenty of pressure to it while attempting to loosen these screws. Whatever you do, do not strip the centers. I promise you that of all the screws on a Honda Prelude, these screws would be among the worst ones to have stripped.

If you are unable to turn the screws out with a regular screw driver, don't continue trying, it's not worth wrecking something. In my experience, there are two good ways to deal with this problem. The first option (and the one I would try first) is to try removing the screws using an impact driver. Impact drivers usually don't cost very much, and they are a very useful tool to add to your collection. The extra force provided by the hammer strike on the end of the impact driver will likely loosen the screw. If the screw is still stuck, you can go with option two; the acetylene torch. Sure, acetylene is dangerous, and it will melt your car if you let it, but it is also a godsend for loosening stuck bolts and screws.

Acetylene works well for loosening parts because it causes the metal to expand under the immense heat. You don't have to get things red hot to get the metal to expand, a couple hundred degrees is plenty. Start up your acetylene torch, adjust the flame, then hold the fire on your rotor screw that won't budge. You'll be able to see the screw getting hot, and when it does, it will expand and break free. Remember that acetylene torches have two modes; a cutting mode (by depressing the lever) and a heating mode. Do NOT use the cutting mode, you'll melt your rotor right off the car.

Now that you have the rotor screws out, you can remove the rotor itself. In most cases, a swift tug will be enough to pull the rotor off. If this doesn't work, you can try hitting the edge of the rotor with a rubber mallet. Under no circumstance should you hit the rotor with something metal, they're delicate. If the rotors still won't come off for you, don't fret, Honda made this very easy.

If you look really closely at your rotor, you'll notice that there are two threaded holes near the center. One of the bolts that you just took off of your calipers will thread into these holes. Tighten a bolt into these holes and, bingo, the rotor breaks free. Wasn't that easy? Congratulations, your brakes are entirely in pieces and your ready to start prepping for paint. Grab a cold one, and thank Honda for making your Prelude so easy to disassemble.

Prepping the parts for painting is very easy, but before you start, you'll want to remove the rubber pieces from your caliper brackets so they don't get damaged. These rubbers look permanent, but these can be easily removed by simply pulling on them. You're not going to

paint the rubber parts obviously, so just set them aside for the time being. Also be sure that you plug the brake fluid entry point on the calipers, you don't want anything getting inside the caliper.

I used a die grinder with a flared wire-wheel tip to clean my parts. Wire wheels work absolutely fabulously for removing old dirt and grime from things. If you don't have a die grinder, using a wire brush is just as good. Once you have removed all the grime, I suggest wiping the parts down with a solvent of some sort to remove any traces of oil. I used varsol, and I managed to get most of the oil out of the metal.



Now you're ready to do final preparations for painting. Mask off any areas that you don't want paint on with masking tape, like your rotor braking surface for example. Set up a clean place with some newspaper to do your spraying. Don't spray near your car.

The color of paint that you use is up to you. The important detail here is to make sure that you buy paint that is specifically designed for calipers. Caliper paint is resistant to extreme temperature (normal paint will just flake off under the heat) and won't chip from rock impacts as easily. Caliper paint will come in an aerosol can, so spraying is easy.

Spray your masked parts down with your caliper paint. I found that it worked best to use several (5 or so) light coats of paint, rather than one thick coat. Allow the paint time to cure in between coats, you really want this stuff to stick. Then, after everything is dry, reassemble your brake system, bleed your brakes, put your wheels back on, and go for a drive. My paint suggested getting the brakes hot on the first run out to help cure the paint. I took my car out on the twisties and went for a drive.

Have fun, and be safe out there. Here are some pictures of the finished product.

