

Tech Article
By Jim Jones
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Here is a good weekend project that will improve the looks of any Miata. This would also be a good opportunity to paint the calipers or install a set of caliper covers (available from Moss Motors among other places) to complete the look. Thanks to "SPOOLIN" on Mazda-Speed.com for this article

Note that the rotors and calipers get extremely hot so a High Temperature paint **MUST** be used or it will blister and flake off fairly quickly. I used a High Temperature spray paint on my '03 Silver Miata and it still started to burn off after about three years. There is a two part Caliper paint available in several colors (from Moss Motors among other places) that may hold up much better but I do not know that first hand. Have Fun.



Tools Needed: 3/8 Drive Ratchet. (because it's more convenient than a wrench), 12mm and 14mm sockets (12mm is for the 10mm bolt that I had, and the 14mm is for the brake calipers), 14mm box-end wrench (the 2 top bolts on the rear brake calipers require this because there is not enough room for a ratchet), one 10mm bolt (not bolt head size, this is to remove the brake rotors), 2 to 3 cans of brake cleaner (use it liberally), 1 can of brake caliper paint in your preferred color (it's for the rotors), Steel wire brush, or a drill and wire wheel attachment (for removing heavy rust from rotors)

Optional Tools: A hammer (to tap the Ratchet if the bolts are too tight), A bottle or can of Anti-Seize Lubricant, (for use on the caliper bolts, the 10mm bolt for the rotors, and wheel studs)



See Picture Above. Ok after removing the wheel, use a lot of brake cleaner to remove any brake dust or other crud from your rotors. CAUTION: Brake Cleaner can remove your paint so be careful.



See Pictures Above. UGHH, Ugly rusty rotor.

No Picture. Go ahead and use the 14mm socket to remove the front brake calipers, there are two bolts that hold each caliper to the spindle.



See Picture Above. For the rear brakes, this is where you will need to put down the ratchet for a second and use the 14mm wrench.



See Picture Above. Once all the calipers are removed you may notice the brake rotors are seized the hub, you will need to use that 10mm bolt to free up the rotor, just keep tightening, it will break free.



See Picture Above. Once the rotors are all removed from the car, you can start removing a lot of the heavy rust deposits on the rotors.



See Picture Above. You can see the difference between the heavy rust deposits and the brushed areas of the rotor in this picture. Also if you plan on painting the outside area of the rotor, be sure to take down any heavy rust there as well.



See Picture Above. You will now need to clean all the excess rust from the rotors and calipers using brake cleaner.



See Picture Above. Go ahead and get brake caliper paint ready. Shake Well.



See Picture Above. And spray, it does not need to be masked off, though if you really want to, you can.



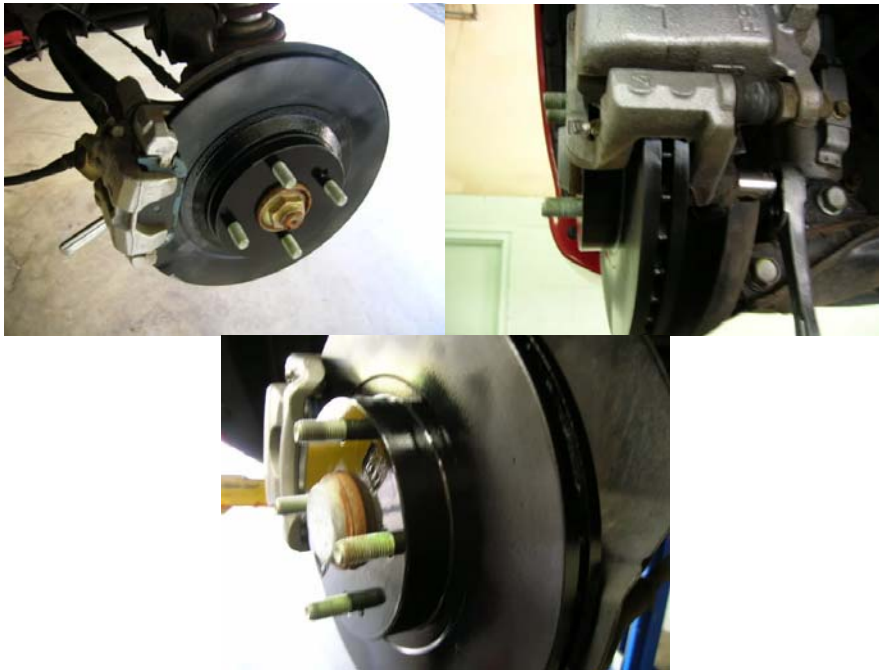
See Picture Above. We really don't want to leave the vented portion of the rotors out.



See Pictures Above. You'll want to apply more than just one or two coats just for added protection.



See Picture Above. While the rotors are drying, this would be a good time to add some anti-seize to the caliper bolts.



See Pictures Above. Time to re-assemble in reverse order.



See Picture Above. Go ahead and add some anti-seize to the wheel studs once the calipers are back on.. This will prevent rust from forming around the wheel studs, and make the lug nuts easier to remove later.



See Picture Above. The Finished Product.

NOTE: If you have overspray like I had on my rotors it will get scraped/burnt off by the brake pads, it takes a little bit of driving and hitting the brakes and yanking the e-brake to get rid of it. Mine was gone in a few hours, but I feel it was well worth it.