

Unscheduled Maintenance

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We're all familiar with our car's maintenance schedule... right? We know that scheduled maintenance, according to Mazda's recommendation, helps keep our little cars in tip-top shape. But what about stuff that's not on the list? What about all those other fluids and parts at the auto parts store?

It's been said that the Miata is a car that thrives on periodic maintenance. I've found that to be true so far, as it gives me lots of miles and smiles in exchange for a little TLC now and then. So here are a few ideas, thoughts, suggestions and miscellaneous ramblings on some maintenance items you won't find in your Owner's Manual.

Wiper Blades/Refills – OK, we'll start with an easy one. Between the Summer sun oxidizing the rubber, and the unscraped ice and frost abrading it in the winter, your wipers take a beating. For a daily driven car, I suggest the wipers be changed once every year or two, preferably in the Spring. That way, you get to enjoy top wiper performance in the Spring and Summer, before the wipers are exposed to the harsh conditions of winter. You can replace the refills (*the rubber part*), or the whole blade, it's up to you. In either case, you won't be spending more than \$10-\$20 dollars. On the first generation cars, don't forget to transfer over the little wing on driver's side blade. If your wiper arms are faded, now is a good time to pull them off and shoot them with a little Krylon Semi-Flat Black paint.

Power Steering (PS) fluid – You'll see this in the maintenance schedule of some cars, but not all. While power steering fluid is long-lasting, it will still oxidize and collect contaminants over time. Whether you have a high-mileage car, or autocross, I recommend you consider a simple drain and replace of the PS fluid every 30K miles or so. It will remove the old fluid and replenish the additives to keep the seals pliable. The '90-'05 Miata uses Dexron III Automatic Transmission Fluid for the power steering unit. One quart is all you'll need. A great option here is to use Mobil 1 Synthetic ATF, since it's Dexron III compatible and only costs \$6. You can use a simple suction gun, or a small plastic turkey baster (*every garage should have one*) to suck out the old fluid from the reservoir. Refill with fresh fluid and you're good to go. After a few drives, the new fluid will mix with the old that was left in the PS pump and steering rack. Simply do the procedure again to up the percentage of new fluid. Three times is enough to have practically changed all the fluid, and you'll still have some of that quart left over. You may find that your steering becomes a bit smoother along the way...

Brake Fluid – This is another one of those items you see in the scheduled maintenance of high-end cars like Mercedes and BMW. Most brake fluid does not last forever because, over time, it absorbs moisture from the atmosphere. Replacing your brake fluid nets you fresh, dry fluid and a well-bled braking system. Both will help maintain your stopping power in all conditions. Because I autocross, I flush and bleed my brakes at least once a year. For others, every few years is probably sufficient. Remember, the fluid in the master cylinder is supposed to be clear... unless you're using one of the fancy fluids for racing. Yellowish, amber or orange fluid should be changed because the color change means the fluid has absorbed water or other contaminants. You'll need a DOT4 compatible fluid, read the label and you'll be fine. A street or autocross car will do very well with Valvoline Synpower fluid. The procedure to flush and bleed your brakes is a simple DIY procedure, but too long to describe here. If you want to know how, shoot me an email and I'll write it up for you, or I'll be glad to show you.

Plug Wires – The '90-'05 cars are notorious for eating plug wires every 30K miles, so that's definitely recommended maintenance. It's mainly because those Miatas fire their spark plugs twice during each combustion cycle, once at the top of the power stroke and again during the exhaust stroke. Fresh plug wires every 30K miles is cheap insurance against a number of odd,

hard to trace problems. Of course, changing the spark plugs is part of the regular maintenance schedule at those intervals.

Fuel System Cleaner – Using a fuel system cleaner once or twice a year is cheap insurance against long-term fuel issues. It's hard to find a truly bad fuel system cleaner out there these days, but in my opinion, you can't go wrong with Techron or Lucas UCL. BG44K is also an excellent product, but is very hard to find.

Throttle Body (TB) – The Miata tends to get a lot of gunk built up on the throttle body due to the way the PCV and valve cover vent are plumbed into the intake system. A 30K service should include a cleaning of the TB. Use only cleaners that specifically state they are safe for throttle bodies and sensors. Simply remove the intake tube at the TB, spray the cleaner and wipe away the crud. Be careful to not get cleaner into the squarish opening in the bottom of TB, that leads to the Idle Control Valve and you don't want to get that gummed up! You may get a high-idle condition after the cleaning, but it WILL go away after a short while. Alternately, you can reset the idle using the write-up available in the Garage Section of Miata.net

Vacuum Hoses – If you have a car more than 10 years old, or with more than 100K miles, I recommend you consider replacing the many vacuum hoses around the engine compartment, especially those connected to the intake and emissions control systems. The small rubber hoses are exposed to high temperatures and eventually harden, oxidize and generally lose their elasticity. This can cause small vacuum leaks, not enough to cause a glaring problem on their own, but added together, can cause odd problems, rough idle or a loss in power and mileage. You can replace all the little hoses for about \$10 in vacuum hose. Just take one off and carry it into the parts store and tell them you want 8 feet of "this". Afterward, remove one hose at a time, cut a new piece to length and put it on the car. Be aware that a few hoses have small check-valves that need to be transferred to the new hoses.

Disclaimer: the recommendations and opinions above are just that. Feel free to use them or ridicule them as you see fit. Your mileage may vary and I'm not responsible accidents. Ask for help if you need it, or get someone to do it for you. Always consult your Owner's Manual for information on compatible fluids.