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Troy's Guide to Car Care Nirvana	TroyH	2003

This short guide is written for all my friends who, like me, take pride in driving a gorgeous car. Not sometimes, or only for special occasions, but every day. While this can be difficult, especially here in the rainy northwest, it's all made worthwhile when you walk to your car at the end of the day, and get that "just brought her home yesterday" feeling all over again. As such, this will seem a little over the top to Joe Average Driver, who may get around to washing his car (usually at the gas station drive-through) twice a year. This is definitely for the enthusiast, so be forewarned.

Herein we will discuss the five fundamental steps of car care, they are as follows: 1) Wash & Dry, 2) Clean, 3) Polish, 4) Wax, and 5) Maintain. Each of these steps is unique in its purpose and execution. We'll also take a look at details and interior care, but before we start, NO jewelry! No rings, watches, bracelets or belts.

1. Wash & Dry - This is the single most important thing you can do for your car's finish. You should try to wash your car once a week if at all possible. It really doesn't take much time and the rewards are many. First, it keeps the car looking nice, second it prevents contaminants from sitting too long and becoming bonded to the surface, and lastly because it's a lot easier to take off a week's worth of crap than a month's. This step alone is 80% of total finish care. There may be rare times in the summer when the car can manage two weeks at a stretch, but more often it'll need a mid-week touch-up.

Wash your car in the shade, preferably in the morning or evening. The surface must be cool, so don't simply drive home after a day in the sun, park in the shade and start washing. Use cool water and be generous with the soap. You should have two car washing mitts, one for wheels / lower body and one for the upper body. My favorite mitt in the world is a REAL sheepskin mitt available for \$5 from Wal-Mart. Whenever I replace my wash mitt, the old one becomes the new wheels / lower body mitt. I recommend against washing with cloths or sponges, as they have no pile, so you're just moving dirt around on your paint. I also don't like washing with brushes, not even \$60 Boar's Hair brushes. You should also have a dedicated car-wash bucket. Don't use the same one you mop or garden with. If the car is only dusty, with no really dirty parts, you can wash without soap. The main advantage here is that it won't strip the wax. All soaps strip wax, even the ones that claim they don't. Usually though, soap is a necessity. I prefer Meguiar's Gold Class soap. Don't wash with dish detergent or laundry soap, as these will immediately and completely strip every bit of wax off the car. On the other hand, if you're planning a full detail, this stripping can be handy.

Begin by rinsing the car thoroughly, as this will clean without touching. The wheels should be cleaned first so that any brake dust or other slag that splashes off them will be washed off the paint later. There are many wheel cleaners on the market, however, if the car is washed regularly, and the wheels are kept waxed, they should clean up with water alone. Jet off the disc and other parts behind the wheel too, lots of brake dust hides back there waiting to get on your clean wheels.

The car should be washed in straight lines, never in circles. Front to back with the airflow is preferred. This will keep swirl marks straight and visible from only one angle, as opposed to circular swirl marks, which are visible from any angle. Use plenty of soap and keep the mitt clean!! Look at it often. Start on the roof and work your way down, rinsing often. Try to keep the car wet to prevent spotting.

To begin drying the car, wet it down once more. Sound strange? It's really not. The technique here is to take the nozzle off the hose and let the water run out at medium flow at a low angle to the surface. This will create a sheeting action and the amount of water left on the car will be greatly reduced. I use the California Water Blade to get the bulk of the remaining water off, then finish with the chamois. I personally use the Absorber synthetic chamois. Supposedly the cod oil in natural chamois will strip wax. I balanced this against the fact that synthetics streak a little worse and decided to go with synthetic. I figured I'd rather take a little longer to dry than attack my wax with every drying. The Water Blade is a great tool and highly recommended as it greatly reduces the time & trouble of drying the car. You can also use a blower or vac-n-blow to dry the car and blow out hidden water. Learn where water hides on your particular car and get it ALL out before waxing. If it starts running down the paint once the waxing has begun, it's a huge PITA. Common hiding places are the fuel-filler door, side-marker lights, underneath outside mirrors and where they attach to the car, under door handles, bottoms of window seals, beneath any moldings or trim, bottoms of light housings and any horizontal panel gaps. It's truly preferable to wash and dry the car in the evening, let it finish drying overnight in the garage, then detail it the next morning, but this is usually not practical.

After you're done drying the outside, get a terry towel and wipe down all the door jams and sills, and the leading edge of the rear door that backs the space between it and the front door. Use an old towel as it will get dirty, not wash well, and probably live out its days doing this duty and none other.

It bears mentioning here a few pointers concerning steps 2-4. I use and LOVE my 6" Porter-Cable random-orbital buffer. I use it for cleaning, polishing and waxing the car. It's considerably faster and easier than doing it by hand. Done carefully, it's just as nice to the finish as hand work too. Buy multiple pads, both polishing (white) and finishing (gray) though, because it only comes with one crappy white flat pad. Coastaltool.com has the best price on the buffer while properautocare.com is the place for pads. I use hand application in tight spots and for spot jobs that I don't want to get the machine for, so a few terry applicator pads are in order. Also, NEVER mix products on a pad, or on the car for that matter. The results are unpredictable and may vary from harmless and ineffective to really unsavory and damaging.

2. Clean - Washing the car will remove non-bonded contaminants like dirt and grime. Once the car is dry, dry your hands thoroughly and run your fingers lightly over the surface. Feel those little specks? Those are bonded contaminants (BCs). They are things like sap, tar, bugs, bird etchings, diesel and exhaust particles, rail dust, etc. Look at the paint under good light and from different angles, a shop light is handy here. Is it hazy or dull? Haze and BCs are the reasons for cleaning. A cleaner will remove them with either chemicals or abrasives. There are many levels of abrasive available from none to heavy. A new car shouldn't require any abrasive, unless you get something really nasty on the car and neglect washing it off for weeks. An older car may, but work your way up the scale, trying to use the mildest product that will do the job. Cleaners will also begin to reduce the appearance of swirl marks that will disappear in the next step. Cleaners prepare the surface for polish and wax. If the BCs are not removed by chemical cleaning, mechanical

cleaning may be called for. For this, a clay bar is in order. Read and follow the directions VERY carefully, and work even MORE carefully on the car. While clay can be a savior for really tough cleaning jobs, it can also ruin your finish in a heartbeat. If you drop the clay bar, don't even think about trying to salvage it, just throw it away. Trust me.

3. Polish - Polishing is what I call the money step. This is where the oops and ahhs are created. Polish will restore vital oils and nutrients to your car's finish that are lost to the environment, either from evaporation, off-gassing, or UV degradation. It will also fill swirl marks making them disappear (or nearly). Most polishes will say to work them until almost dry, and this stage is pretty easy to achieve. If the polish seems to go from wet to completely dry very quickly, it means your paint is thirsty, polish more! The paint can only be polished so much though, kind of like leather shoes, so don't over do it. Again, you should be able to tell by working the product when the polishing is sufficient. Some polishes also contain micro-abrasives. They work wonders at removing swirl marks and other minor surface imperfections. I use S100 Shine-Enhancing Cleanser followed by 3M Imperial Hand Glaze. If your finish is swirl-free, skip the IHG. For bad swirls or scratches that aren't coming out with SEC or IHG, 3M Swirl Mark Remover is what you need. Use it first and then proceed with the routine above. I normally "de-swirl" and polish my car twice a year, and do an additional two polishes alone, for a total of four polishes annually. Any glaze or polish will strip wax, so always wax after polishing. I've recently picked up the Menzerna auto polishes and so far I'm very impressed.

*The terms Glaze and Polish are used interchangeably and in different ways by different companies, so don't use the name to judge the abrasiveness of a given product.

4. Wax - Now that your paint is clean, healthy and beautifully deep, it's time to protect it and all the work you've put into it. Wax may add a little depth or shine, but its main purpose is to armor your paint from its surroundings. A good wax will protect against UV degradation and other environmental hazards (remember the tar and bird bombs?). A good wax will be easier to remove the longer it stays on the car. This is because it's bonding to the paint and the carrier is evaporating. I've personally waxed a car, gone out to dinner and a movie (in a different car J) and then removed the wax. I recommend waxing by hand with a foam applicator pad, as it's both easier and faster than using a buffer. Wax removal should be done in these three steps: 1) Breaking the Surface - Use a terry or microfiber towel and go over the entire car. The goal isn't to remove very much wax, but to break the surface so that the wax is ready for step two. 2) Bulk Removal - Just what it sounds like, the removal of all visible wax. This step will take the most towels and the most time. 3) Final Polish - This step is best accomplished with a microfiber or flannel towel. Go over the entire car one last time and buff to a shine!

Some words on wax: Once upon a time, liquid waxes were crap marketed to the lazy consumer. Today though, they can be just as good as their paste counterparts. However, remember that liquid wax has extra stuff in it to make it liquid, so 16oz of liquid isn't as much wax as 16oz of paste, though it's likely the same price. Paste will also not splatter while using the buffer (if you choose to do this). Try to wax 4 times a year. A non-buildup wax like Blitz can be layered to create stronger protection, which I recommend just before winter weather sets in.

5. Maintenance - This step is everything you do for your paint between detailings. It mostly includes getting the really nasty stuff off your finish ASAP. This means carrying a bottle of Meguiar's Quik Detailer or One Grand Show-Off spray in your trunk with a couple of terry or microfiber towels. If you walk out to your car and

there's a huge bird bomb on it, take the time to get it off right now. If you drive home through some road construction and get tar behind the tires, take it off at your next stop. I know this seems anal, and it is. Just keep in mind that bird droppings and certain other environmental hazards contain acid, which will etch your paint in a hurry. The longer they stay on your paint, the deeper and more permanent the blemish will become. Be especially careful removing bird debris, as it will usually contain gravel. Saturate, blot, then wipe carefully. A note: When Quik Detailer becomes difficult to wipe off, the car needs wax. If you use cleaners or polishes on spot jobs, don't forget to re-wax those areas too!

6. Details - This section is about all the other stuff necessary to make your car beautiful. It's choppy and in no particular order, but it's here.

Windows - I like Eagle 20/20. It's alcohol-based, not ammonia-based, so it doesn't smell as strong, but it still cleans really well. I'm currently using Eimann-Fabrik Clear Vision, which I like better, but it's more expensive and only available online. Either way, use a microfiber towel to do the windows. The advantages of microfiber for windows cannot be overstated. If your windshield is badly spotted or won't clean with glass cleaner, try your clay bar on it. It will get glass so clean that it beads like it's been waxed. I like to wash the windows while the wax is curing. This way, no overspray will bugger up your detailing work.

Plastic & Vinyl - For the interior: Vinylex, 303 Aerospace or Harly Poly-Guard. These are cleaners as well as protectants, so don't be afraid to use them as such. I wouldn't use my regular detailing pad for cleaning though, get a terry towel. If you can't find these, (they're difficult to find retail, but easy online) Meguiar's #40 Vinyl and Rubber is pretty good. For the outside of the car, I use and highly recommend, One Grand ERV. I use a terry pad to apply ERV to all exterior plastic and vinyl.

Tires - I used to use Meguiar's Endurance Tire Gel, but they changed their formula and added silicone, so I had to switch. Silicone is the ingredient that makes Armor-All so bad for your tires and plastics, as it contributes to UV breakdown. Armor-All also contains a bleach byproduct, so it will actually make plastic gray faster than with no protectant at all. So I've switched and now use One Grand ERV on the tires as well. Of course I have a separate applicator just for this, an EagleOne tire swipe from Wal-Mart, cut in half for my low-profile sidewalls.

Wheels - There are three main wheel finishes out there: Clear-coat, Polished and Chrome. The chrome and polished wheels need to be polished with chrome or metal polish respectively. Most of us though have clear-coated wheels. This means that the aluminum has been painted and therefore can be cared for just like the body of the car. Wash your wheels every time you wash the car. Wax them every time you wax the car. It's that simple. If you think it's silly to wax wheels, remember this: They'll be easier to keep clean and they'll be protected. Brake dust is extremely corrosive, especially to aluminum (ironic huh?) so wax those puppies!

Chrome and other Metal - First, ensure that it's not coated. Then use Eagle One Nev'r-Dull or Mother's All Metal Polish.

Leather - Leather is easy to care for if you remember it needs two simple things: Cleaning and Moisture. Your leather's biggest enemy is you. The leather absorbs sweat and when it dries it leaves the salt behind. As the salt sits in the pores, it acts as both a desiccant and an abrasive, simultaneously drying and eroding your leather. Other dirt and grime will also attack leather along the way. All of this nastiness can be cleaned with one wonderful product: Lexol Leather Cleaner.

Normally, I use a terry pad for both the cleaning and conditioning of leather, but a 100% horsehair brush, normally used for buffing leather shoes, can be used with Lexol for more stubborn stains. After cleaning, condition the leather with Lexol Leather Conditioner to replace the natural emollients removed by cleaning and time. You should clean your leather about twice a year, more often if you sweat a lot or are otherwise harder-than-average on your leather. Condition quarterly and/or after every cleaning. Don't forget the other leather bits like armrests, door panels, shift knob and steering wheel. I personally clean and condition my wheel and shift knob more often than the rest of my leather since my grubby paws are on them every day. Leather will stay supple and beautiful for decades if cared for properly, but will fade and crack before the note's paid off if it's not.

Fabric - This includes seats, headliners, and any other cloth covered surfaces in the car; one word: Scotch-Guard. OK, maybe that's technically two words, but it's the only way to truly protect your seats and other cloth items from staining. Once they get dirty, try to clean them more sooner than later, as stains tend to set with time, and will sometimes reappear if left untreated. Any good household fabric cleaner will do. A little steam cleaner is also great for interior detailing.

Carpets - Again, Scotch-Guard. Buy the blue can specifically for rugs and carpets. For cleaning, Meguiar's makes a good carpet cleaner, but any good household product will do. Once a year, take advantage of a sunny day by washing your carpets with the hose and scrub brush and laying them out on the driveway to dry. Many stubborn stains can only be removed this way. Be sure ALL the soap is rinsed out, or it will harm the carpet, reduce its pile and make carpet dandruff when it dries. You can also use a steam cleaner if you own or want to rent one. I highly recommend a set of winter mats. These are the rubber floor mats that most auto-makers are offering these days. After-market ones are available, but the OEM ones seem to fit better and usually have a nice logo and pattern to make them look less out of place. They tend to run about \$50 for a front set, or \$90 for four. They are worth their weight in gold, especially if you live anywhere that's wet, muddy, or snowy.

Instrument Cluster - If you're like me, you hate scratches and dust on the plastic covering your instruments. Prevent them by dusting often and dusting carefully. I learned the hard way not to vacuum this piece, as the nylon bristles on the brush attachment will scratch badly. Instead, keep a microfiber cloth in the glove box. Use it to keep the dash and consoles dust free. It also works wonders at cleaning the haze off the inside of the front windshield. It's even awesome at cleaning eyeglasses. As for cleaning and polishing the instrument plastic, Plexus is THE stuff to use. On the instrument panel, be extra careful not to crack or cave it in. Plexus will also polish wood to a better-than-new finish. I've found that Plexus works best if it's allowed to dry and then buffed out, vice buffing right away.

Miscellany - For removing sticky stuff like old stickers, air-bag sticker residue from sun visors, and adhesive from debadgings, use Goo-Gone (yes this is a real product); WD-40 works well too, but it makes a bigger mess and it's petroleum based. Buy your detailing towels in bulk; I recommend yosteve.com or microfibertech.com for all your detailing towel needs. If you want to go old school and use terry towels, be sure they're all cotton, as polyester will scratch. Test the edge finishing for poly threads by holding a lighter to them. If they char, they're cotton; polyester will curl and melt. Don't forget to completely remove any tags!!

Items to Own

Herein follows a list of what's in my own collection of car care products:

1. A nice big bucket, different from any others in the garage, so she knows it's mine!
2. Meguiar's Gold Class Car Wash
3. Sheepskin wash mitt
4. Old mitt, for wheels and lower body
5. Good hose nozzle with jet, spray, and shower settings
6. Absorber synthetic chamois
7. California Water Blade
8. 6" Porter-Cable Dual Action Polisher
9. White polishing pads
10. Gray finishing pads
11. Flannel polishing towels
12. Microfiber polishing towels
13. Old, ratty bath towel for door jams and sills
14. Terry and foam applicator pads. These are cheap, so it's usually best to use them once and discard.
15. 3M Swirl Mark Remover (for dark cars). Just the stuff if you need a little more cutting power than SEC or IHG.
16. 3M Imperial Hand Glaze. IHG does a good job at removing/ hiding swirl marks and adding clarity. DO NOT use in humid environment or it'll be hell to buff out. If you're having this problem, use detailing spray to buff out the streaks. I've heard that One Grand Omega Glaze is easier to work with, but I'm waiting to use up my IHG before trying it out.
17. Menzerna Intensive Polish
18. Menzerna Final Polish
19. S100 Shine-Enhancing Cleanser. A pure polish that is very easy to use. Extremely impressive depth and gloss added.
20. Meguiar's #6 Cleaner Wax. This is an good 3-in-1 product that combines steps 2-4. It's a good way to keep a little shine and a little wax on the car between full detailings.
21. Meguiar's Gold Class Paste Wax. Formerly my favorite wax, it's easy to put on, easy to take off, lasts long and protects well. However, everything it does well Blitz does better. It's now my wheel wax.
22. One Grand Blitz Wax. This stuff ROCKS!! This has to be the best car wax in the world, or at least the best "regular" wax in the world, I mean how many of us really need a \$500 can of Zymol Concours Wax? It also won't turn your trim white or chalky. Dust upon removal is all but nonexistent.
23. S100 Motorcycle Wax. Also marketed as P21S Auto Wax, but at only 60% of the cost. Great wax, with perhaps a little more gloss than Blitz, but doesn't last nearly as long and costs almost 2x as much. Stick with Blitz!!!
24. Clay Magic clay bar
25. Lexol Leather Cleaner
26. Lexol Leather Conditioner
27. Vinylex by Lexol
28. One Grand Exterior Rubber & Vinyl
29. 303 Aerospace Protectant
30. Eimann-Fabrik Glass Cleaner
31. Eagle One Nevrr-Dull all-metal polish
32. Goo-Gone
33. Meguiar's Quik-Detailer
34. Touch-Up Paint from the auto manufacturer. DON'T buy the color-copy stuff at Wal-Mart or the parts store. It's usually a poor color match and it's cheap paint to

boot. A bottle of correct paint will cost more, but it's worth it. You can also ask your salesman to toss you some touch-up paint as a thank you for buying your car from him.

Most of this stuff can be had at either Wal-Mart or a decent auto-parts store. Some however will have to be ordered online.

HAVE A GREAT SATURDAY!



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