

Detailing Tech Session

Exterior

About Me

- I am a husband, father to a 3 year old daughter, and step-father to a 16 and 12 year old sons.
- I classify myself as a professional hobbyist.
 - Meaning I do this for money, but I also have a day job working for a local construction company.
- I have always enjoyed having a well maintained car. Inside and out.
- Enjoy taking cars paint to a better, shinier condition
- A lot of the products mentioned in this presentation are the ones I use or am familiar with.

Etchings

- What is it:
 - When some element has sat and baked into the paint. The components have eaten into to the surface.
- Simplest Kinds
 - Bird Droppings
 - Full of whatever the bird ate. Typically acidic.
 - Water Spots
- How to Remove
 - A Microfiber with detail spray. Lift off, not scrub.



Water Spots

- Define:
 - A beaded-up water drop with environmental elements that dry on paint.
- How to remove: Use a mineral remover or water spot remover.
 - *Read instructions...as the product may not be used on all surfaces like windows.*



Foam Gun



- Used as a pre-wash step prior to mitt washing.
- Helps lift dirt off paint better than water alone
- Used as a semi-touchless wash
- Follow directions on individual soap products
- Comes in a pressure washer and garden hose attachments.

Basic Car Wash – Tools / Supplies

- Three Buckets (soap, rinse, wheel) with grit guards
- Foam Gun (optional)
- pH balanced car shampoo
- Quality wash mitt
- Drying aid
- Wheel tools (brushes / fingers) and cleaners
- Leaf blower
- Drying towels



Car Washing – Do's

- Make sure the paint is cool to the touch
- Use a pH balanced car soap
- Use enough soap to keep paint lubricated
- Use a quality wash mitt
- Stay above belt line then move to bottom and finally the back of the vehicle.



Order of Washing



Waterless Washes

- Does not mean water is not involved
 - Water is mixed with a wash solution, high in lubricants.
 - The water hose or power washer is not used to rinse the vehicle.
- Great for washing in cold weather or foul weather conditions in a garage or carport.

Car Washing – Don'ts



- Wash vehicle in direct sun or when paint is hot
- Use Dawn soap as a standard wash. It can / will remove natural oils within the paint. It also leaves behind residue.
- Use a sponge or bristle brush to wash paint
- Use too much pressure
- Letting soap dwell too long
- Take your car to an auto car wash.

Wheel Cleaning

Do's

- Wheels and brakes cool to touch
- Use a dedicated cleaning solution for your type of wheel
- Wash wheels first before paint, keep your tools in your dedicated wheel bucket
- Wash/brush tires in with bristle brush while cleaning wheels.

Don'ts

- Use an acid wheel cleaner
 - Can eat away clear coat / tinted wheel (like hyper-chrome)
- Use your car wash mitt on wheels

White Walls

- Products:
 - Simple Green, Bleche-Wite, & All Purpose Cleaners
- Application:
 - Spray on tires, let dwell, scrub with stiff bristle brush or scrub pad, and wash off.
- Cautions:
 - Be careful if the product touches the rim.
 - Too much scrubbing can also pull the white wall off



Paint Correction, Tools, & Products

The process of removing scratches, love marks, swirls, etc. from paint surfaces. This process often use a machine with a variety of compounds, polishes, and pads.

Tire Shine

- Types:
 - Water based
 - Silicone/Solvent based
 - Sprays
- Best Application
 - Spray on and use applicator to spread evenly
 - Wipe off with terry cloth or old microfiber to wipe even. Helps to minimize sling.
- Shines:
 - Glossy to satin
- Water based is great because you can dilute to the desired gloss you prefer.
 - Also minimizes "browning" of tires

Clay Bar



- Purpose:
 - To remove surface contaminants before buffing or application of protections.
- Two kinds: auto clay & synthetic
 - Comes in different strengths (Mild to aggressive)
- **Caution:** Can micromarr paint as bar is being rubbed across paint.

Paint Meter

- Define:
 - Used to measure total paint depth to metal.
- Use:
 - To check paint thickness before and during compound/polishing
 - To check if vehicle has been repainted/body work
- Anything less than 4 mils of paint is danger zone for paint correction



Rotary / High-Speed Buffer

Benefits

- Quickly cuts heavy scratched or oxidized paint
- Use a variety of buffing pads

Disadvantages

- Leaves behind holograms, trail marks, swirls
- Difficult to control
- Easy to burn paint

Buffer Types

- Types:
 - Rotary
 - Spins in one direction
 - Forced Rotation
 - Spins in a fixed oscillation pattern
 - Dual Action
 - Spins then oscillates in a non fixed pattern
 - Other
 - Specialty
- Purpose / Use:
 - A mechanical tool to sand, compound, polish, & apply protection



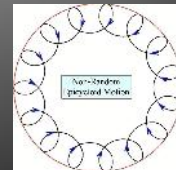
Forced Dual Action

Benefits

- Safer on paint than a rotary
- Gear Driven: spins and has a fixed oscillation pattern
- This machine can be used for cutting, polishing, or wax application
- Does not stop on edges / contours
- Use a variety of buffing pads

Disadvantages

- Can be difficult to control
- Does not stop on edges / contours
- Does not cut as fast a rotary



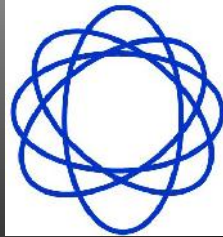
Dual Action

Benefits

- Safest for paint as it stops on edges / contours
- Comes in a variety of throws (MM)
- Free spinning. Counter weight creates the oscillation.
- This machine can be used for cutting, polishing, or wax application
- Use a variety of buffing pads

Disadvantages

- Stops on edges / contours
- Does not cut as fast a rotary



Buffing Pads for Machines

- Often a Hook & Loop to a backing plate
- Types
 - Foam
 - Comes in a variety of stiffness. Soft to Firm.
 - Wool
 - Microfiber

Specialty / Other

- Rupes iBrid Nano
 - Rotary, 3MM, 12 MM.
 - 1" pads or 2" pads
 - Used to polish tight areas bigger buffers will not
- 3" Buffers
 - Used to buff smaller spots your 5" or 6" pads will not get to
- SPTA Polisher
 - Has a hand wand to reach spots like under door handles or around emblems



Wet Sanding

- **Purpose:** the flatten paint, remove severe scratches, or to restore faded good paint.
- Comes in various degrees of grit
- Can be done by hand or machine.
- Stay a finger away from edges / body lines
- Will require stages of compounding/polish to restore shine



Compound

- Purpose:
 - To level paint to make the larger scratches small and uniform for polishing.
 - Remove dead layer of skin (oxidation)



A collage of various paint protection products. It includes a box for '3-STEP PAINT PROTECTION', a box for 'QUICK 3.0', a bottle of 'QUICK 3.0', a bottle of '3-IN-1 Wax', a bottle of 'GARDOL 3-IN-1 Wax', and a bottle of 'GARDOL 3-IN-1 Wax'. There are also images of application tools like a yellow sponge and a red applicator.

Paint Protection

One-Step Sealants/Waxes, Waxes, Ceramic Coatings, Spray Waxes / sealants, and other

Polish

- Purpose:
 - To remove uniform scratches left behind compound
 - Remove minor scratches, love marks, etc.
 - To refine paint's surface for higher gloss



Waxes

- Warm glow
- Durability: short
 - Days to few months
 - Limited protection to environment
- Comes in both liquid and paste form
- Wipe on, let haze, and wipe off
- Can be hand or machine applied



Paint Sealant



- Can create a warm glow like wax. Often has a glassier look
- Durability: Medium
 - 3 months to 1 year +
 - More resistant to environment conditions
- Different products have different application processes
- Can be hand or machine applied.

Coatings (Ceramic or Graphene)

Benefits

- Great protection to your paint short of wrapping your vehicle
- Creates a very reflective shine (individual style/opinion)
- Resists etching by bird droppings, water spots, and chemicals (sacrificial layer)
- Years of protection with proper maintenance

Disadvantages

- Paint needs to be paint corrected before application
- A prep agent is used to remove polishing oils before application
- If coating is not 100% wiped off, it will haze and create a dull spot.
- Still will etch, water spot, and scratch

Coatings (Ceramic or Graphene)

- Creates a glass / high gloss look
- Durability: Long
 - 1 year +
 - Resists environmental conditions
- Products range from consumer application to certified professional application.



Spray Waxes / Spray Sealants

- Spray Wax
 - Used in-between detail session or after vehicle washes every so often
 - Used to boost protection or longevity of base protection
- Spray Sealants
 - Used as a stand along protection (3-6 months)
 - Use as a topper on ceramics



Glaze

- Used after polish, but before a wax (wax only)
- Contains fillers to fill imperfections before wax
- Wears quickly and scratches reappear
- Not used with paint sealants or coatings



Detailers

- To remove dust, finger prints, bird droppings, etc.
- Some can be used as a drying aid.
- Certain brands have properties of their paint protection products
 - Griot's Ceramic Detailer
 - Meguiar's Bead Booster (water downed)
- Some can be used in direct sunlight, others not...read instructions.



One-Step Products

- Both wax & sealant based
- Has a small percent of polish / cutting agent and protectant in product.
 - To remove very light surface defects
- Lasts as long as the wax or sealant base



Please
welcome
Bob Richmon

Nickel Plating
&
Brass Cleaning



Bright Work

- Chrome:
 - Can use 0000 steel wool using light pressure
 - Use a chrome cleaner and chrome polish Mothers Chrome Polish.
- Tools:
 - Microfibers, Super-Fine 0000 Steel Wool, buffing wheels
- Protection:
 - Wax
 - Dr. Beasleys Metal Coat

Tops and Windows

Convertible Top Window Cleaning

- To clean:
 - Meguiar's PlastX
 - Water based compound/polish
- Purpose
 - To remove yellowing, scratched from plastics
- Methods
 - Hand: Small circles with a stiff applicator
 - Machine: Use a small machine and apply to area



Convertible Top Cleaning

- Canvas / Cloth
 - **Cleaning Products:** Raggtopp, Griot's Convertible Top Cleaner, or various pH balanced interior/carpet cleaners.
 - **Protectants:** Raggtopp or Griot's Fabric Protectant
- Vinyl
 - **Cleaning Products:** 303, Raggtopp, or Griot's Interior Cleaner
 - **Protectants:**
 - Raggtopp, Griot's Interior Detailer, 303

The idea is to make water bead up and environmental elements sit on top of surface

Windows

- Use two towels minimum
 - One to move around window solution, one to dry
- Don't be afraid of using product.
- Use one direction for inside, one direction for outside. So if there is streaking, you know where it is.
- Avoid ammonia window cleaners on aftermarket tinted windows

Related Topics

Car Cover

This is strictly my opinion to why or why not

- Benefits:
 - Keeps dirt or other environmental elements off vehicle
 - Great to use if your garage is used for things while car is parked inside
- Disadvantages
 - Can rub dirt around while removing / installing
 - Can trap forced debris
 - Can trap moisture
- Alternative:
 - Wipe off car with a microfiber and some detail spray using once side per wipe or hose off with water.

California Duster



- Removes surface dirt/dust easy.
- Great way to scratch paint by moving dirt around
- Alternatives:
 - Use a microfiber with detail spray. Use one quadrant per wipe
 - Hose off vehicle with water or use a spray cannon for a semi-touchless wash.

Types of Microfiber Towels

- Various kinds of microfibers. Microfibers dedicated only for glass to microfibers for soft paint.
- Nothing wrong with Costco yellow microfiber towels
- Microfiber towels are rated in GSM (grams per meter).
- Don't think a higher GSM is always better.
- Don't use your wheel rags on paint.
- Color coating or dirty coding is a great way to separate
- To clean:
 - Wash in cold water and dry on tumble dry.
 - Don't use powder soap...only use liquid soap
 - They do make microfiber cleaner. They do work better than laundry soap alone.

Types of Microfiber

- Visit THE RAG COMPANY
 - <https://theragcompany.com>
 - Have a huge selection for various purposes

Interior Detailing

Do's

- Use a dedicated interior cleaner for your surface
- Use a brush or rag to agitate area to clean.
 - I use Griot's Interior Cleaner. It's pH balanced and safe on leather, cloth, plastics, and vinyl.
- Use a surface specific protectant

Don'ts

- Use an All Purpose Cleaner (AP) and attack your interior.
 - If mixed wrong (ratio), it can stain or remove dye.
 - It can reactivate when it gets wet
 - However, it can be very useful to remove stubborn stains if necessary.
- Classic ArmorAll

Interior Detailing

Interior Protection

- Leather Conditioners
 - Wipe on whole interior, then wipe off
 - Use a spray leather conditioner on perforated seats. A gel/cream will get into the pores.
- Vinyl / Plastics
 - You can use a leather conditioner if you want.
 - I like to use Griot's Interior Detailer. This has UV inhibitors, non-glossy, and does not attract dust quickly.
- Cloth
 - Use a Scotchguard or Griot's Fabric Protetant

Leather Restoration

- Purpose:
 - The attempt to restore oils and softness back into leather.
- Products:
 - Griot's Leather Rejuvenator
 - There are other products. This is the one I have used.
- Application:
 - Apply thick. You will see it absorb. Keep applying.



Interior Tools

Shop Vac

- Used to suck up trash / debris
- Can be used to suck up moisture left behind in cleaning chemicals



Extractor

- Has a spray nozzle with a small suction port to remove stains and surface dirt.



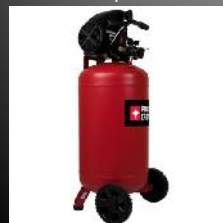
Interior Tools

- Shop Vac
- Extractor
- Air Compressor
- Steam Cleaner
- Microfibers Towels
- Drill Brush
- Brushes

Interior Tools

Air Compressor

- Used to blow debris from cracks or under items
- Used to power tools



Steam Cleaner

- Constant steam
- Used to tackle stains on fabric, plastics, etc.,
- Cautions: Heat can also do damage if left too long in ones spot.



Interior Tools

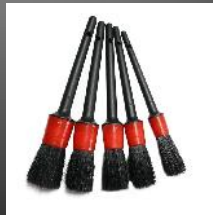
Drill Brush

- Attached to drill.
- Used to spin dirt out of carpets
- Can be used cleaners to work stains out



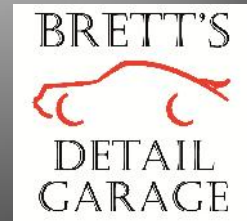
Brushes

- Used to hand agitate cleaners
- Get into cracks and crevices



Contact Info

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Engine, Chassis, & Suspension

- Purpose:
 - To clean, degrease, & protect plastics, chrome, aluminum.
- Cautions:
 - Electrical items and air intake system
- Products: *Test your product before use in a non-visible area.*
 - Example: Griot's Engine Cleaner
 - It may take several applications, but safe is always better.
 - Aluminum: Mothers Mag Cleaner