





BRING OUT YOUR BEST

The Tricks, Techniques, and Tools of Professional Detailers

The famous hot rod shops building cars that win the top-level awards know that a car isn't ready to show until it's been perfected. They know that show judges at the Grand National Roadster Show, the Detroit Autorama, or Pebble Beach are going to be fanatically scrutinizing their work, looking for the slightest flaw as closely as a crime scene detective looks for a fingerprint or a strand of hair. Professional builders rely on professional detailers to eliminate any hint of imperfection in the paint, interior, engine compartment, and tires and wheels of the cars they submit for judging.

Claude Harris Jr. is one of the people builders call to make sure those judges don't find any flaws. He began his career almost 30 years ago as a mobile detailer—essentially a traveling car washer—with a trunk full of wash buckets and brushes, a car vacuum, and a homemade T-shirt with his logo on it. Today, he is the owner of Final Appearance Auto Detailing in Santa Fe Springs, California, a member of the International Detailers' Association, and the 2020 Detailer of the Year.

  **TIM BERNSAU**

He has participated on the *Competition Ready* TV show on Velocity (now MotorTrend TV), and he works with elite-level shops and personal collectors, taking cars to their ultimate level.

HOT ROD visited Claude at his shop where he showed us some of the tools, told us some of the techniques, and described some of the terms that pro detailers use. Your car might not be competing at the highest levels, but much of the information that Claude shared in this basic overview can be adopted by hot rodders at any level.

"Show judges are looking for how flawless the finish is," Claude noted. Flaws include the clarity of the paint and any imperfections such as swirl marks. "It's a two-stage process," Claude explained. Paint correction is the term that detailers use for removing scratches, and jewelling is the term for enhancing the shine. Removing dirt and eliminating scratches is the first stage, but that alone won't increase shine. Polishing and finessing the paint is the second stage, which results in the amazing mirror finishes we see at shows.

Cleaning

Before attacking scratches or polishing, contaminants need to be removed from the surface with traditional washing. For many people, the idea of washing a car conjures up images of a vehicle covered in suds. "It shouldn't," Claude says. "Gone are the days of foam," he told us. Lubricity, the soap's ability to reduce friction and loosen up the dirt, is more important. Modern high-end products like Double Black Renny Doyle Collection Auto Shampoo from P&S, was developed by a professional detailer, and "It won't foam up when I put on a mitt and start cleaning. Then, it rinses away clear without leaving residue."

Brand new show cars are not likely to pick up tougher contaminants, but street cars are. These often can't be removed by a basic wash and require stronger cleaners and degreasers. In addition, dust, dirt, and many other airborne particles can harm the surface of a car. Brake dust is a very common contaminant that settles on the surface and discolors the paint if not washed off. The industry has products designed specifically for this situation, such as Iron Decon from Meguiar's.



■ Chamois like the one on the lower left in the photo above have always been popular for drying cars, but microfiber towels are softer and better for the finish. "They are the best thing to happen in detailing," Claude said. They are available in a wide variety of piles and shapes. GSM (grams per square meter) is a weight and pile rating for microfiber towels, generally ranging from 200 to 1,200 GSM. Many general-purpose car towels are in the 300 GSM range. Higher GSM towels are heavier with a more plush pile. They are more absorbent and less aggressive than the lower GSM towels. Lower GSM towels are better at preventing surface streaks.

■ For many car enthusiasts, microfiber mitts are an easier-to-use alternative to standard microfiber towels. These three products show the variety of piles and designs (and colors) available. The best product is ultimately a matter of personal preference.



■ Even wash buckets have been improved. The Grit Guard and similar dirt trap inserts are available from many retailers or packaged with a professional bucket, such as this 3 1/2-gallon bucket from Meguiar's. The dirt trap prevents the wash towel or mitt from picking up dirt when submerged into the water. Some detailers use the two-bucket washing method with one bucket of soapy water and one bucket of clean water.

What Is Clay?

The use of clay bars and pads for cleaning paint surfaces is familiar and popular among enthusiasts and the public in general. Detailers frequently get requests for "claying" from customers who may have a misunderstanding about what it can accomplish. It is not for the purpose of removing scratches and swirls or to enhance the shine.



Clay bars and pads, used with lubricants, provide a stronger method of removing tough contaminants before paint correction and polishing. "Products like Iron Decon is the chemical decontamination and clay is mechanical," Claude explained. "Sometimes it takes both."

Understanding Shine

Polishing enhances shine. Scratches inhibit shine. "It all has to do with light," Claude explained. "Shine is when light is reflected off the surface. Scratches break up the light, so you don't have that reflection. Making the surface smooth brings back reflection and restores the shine."

The idea behind the two-stage approach to detailing is that polishing the paint won't result in the best shine if the scratches aren't eliminated. "You're putting scratches in to take scratches out—moving down those scratches to make the surface as level as possible." This stage in the process has specific and varied tools, chemical and mechanical, for doing the job.

■ Pro-level compounds and polishes are made in varying levels of abrasion. Note the scales and arrows on the Meguiar's labels pictured above. This is a small sample of the various degrees of compounds and polishes that Claude and detailers like him regularly use: (left to right) Aero Revolution Brilliance finishing compound, Rupes D-A Fine polishing compound, Meguiar's Mirror Glaze polish, Meguiar's Mirror Glaze compound, TLD The Last Cut compound, and Sonax Profiline Cutmax compound. "The Last Cut is another product developed by a detailer and happens to be one that I use a lot," Claude told us. Some modern compounds contain softer micro abrasives that break down, becoming smoother and less aggressive with use.

Compounds

Rubbing compounds are the chemical products used to eliminate heavy defects in the paint and are available in different levels of abrasion. The same is true of pads, which have different levels of density. "We learn to start with the least aggressive compounds and pads first," Claude says

Polishes

After the scratches that prevent shine have been eliminated, the painted surfaces still won't be shiny. That's where the second stage, polishing, comes in: to eliminate the finer scratches and enhance the light reflection that produces shine. This is the fine-tuning step that Claude calls "finishing the paint" or "jeweling." As

with compounds, pro-level polishes come in different abrasion levels, indicated on the packaging. And as with compounds, Claude recommends starting with the lowest abrasion level for the protection of the finish. It's easy to move to more aggressive levels if needed, but not so easy to move in the other direction if you've started too high.

Any procedure for removing scratches and swirls involves removing a portion of the finish. The goal is to not remove any more than is necessary. Different paints have different characteristics, and pro detailers need to know what they are. The hardness or softness of paints, as well as the thickness, are all factors detailers need to know when planning paint

correction to prevent damage caused by removing too much material. For example, OEM paint is generally cheaper and thinner, using less material than multi-coat custom paint jobs. Claude cautions, "Degrading the paint can hurt the finish and reduce its value. Cutting down the scratches removes the paint, only microns at a time, but over time it adds up."

That's the reason pro detailers like Claude recommend using the least aggressive chemicals and pads first. "My job is to make the car look as good as possible with taking as little paint as possible," he explained. He also suggests selecting an out-of-sight test spot to see how a procedure will affect the finish. "Before you put a machine on the car, you should know how much



paint is on it," Claude emphasized. Pro detailers use coating thickness gauges to determine the precise thickness, in millimeters, of the finish on the sheetmetal.

Application Tools

Rotary polishers were once the standard in the detailing industry just as rotary sanders were in the body-work business. In both cases, these have been replaced by dual action (DA) polishers, which offer a lot of advantages over the previous tools. "The rotary polishers, which spin one way, were harder to learn and, if not used carefully, could burn the paint of the car," Claude said. "Over the years, technology has changed. High performance DA polishers spin and oscillate. With a combination of machine pads and liquids, they are safer and easier to use for removing scratches."

■ Claude used this Nicety coating thickness gauge to measure the finish on the '40 Ford coupe in his shop. The gauge registered a reading of 49.2mm.



■ Left: The DeWalt is a high-speed rotary polisher. The dual action Griot next to it has an 8mm throw for fine tuning: better for feathering in smaller areas. Claude uses the Rupes (center) with 3-inch pads for curves and small spots. The two Flex models (center right) are cord and cordless models. Finally, the small Rupes (far right) is the ideal choice for reaching nooks and crannies.

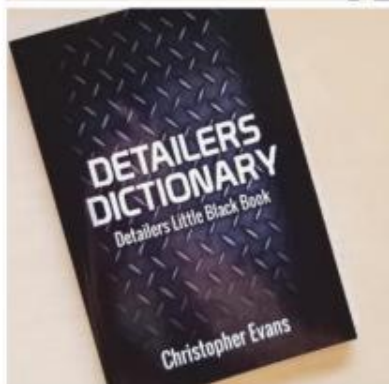
■ Below: ScanGrip and other manufacturers offer lights in various sizes and configurations, starting with pocket-sized lights (shown), which feature bright and warm settings, as well as a magnet for hands-free use.

Pro Lighting

Shop or garage lighting is not very good for seeing surface defects, so detailers rely on professional-level LED lights to spot swirls and scratches. "Color matching lights came out of the paint industry," Claude told us. "They are useful to detailers when looking at paint finishes. This is like matching sunlight. We can see scratches that might not be visible by just looking." He uses a variety of ScanGrip Colour Match lights in his shop, as well as to larger lights on stands. In addition to revealing surface defects, these lights are useful when determining paint color under less-than-ideal indoor lighting.



■ The Husky and Utilitech Pro are two larger, professional LED lights also used by Final Appearance Auto Detailing. Lights like these provide the closest thing to sunlight inside the shop.



■ Even slight paint imperfections that can't be seen by the naked eye are visible under the lights, just like they would be outdoors or under a show judge's light



■ Detailer's Little Black Book

Claude introduced us to *Detailers Dictionary* by Christopher Evans. This 92-page guide provides definitions of the terms and explanations of the procedures used by pro detailers, including the ones referred to here. The book is available online, and the information inside valuable to anyone: professional automotive detailers, car owners who rely on pro detailers, or do-it-yourself hot rodders who want to understand how to care for the finish of their car and improve their own skills.

Detailing goes beyond finessing the paint. Wheels and tires, glass, interior surfaces, and upholstery are a few of the other areas where the right detailing procedures will perfect the appearance—and where common mistakes can hurt it. We'll be exploring some of those areas in upcoming issues.

