

A Guide  
to the  
Restoration  
Process



*What to expect*  
**During Your  
Restoration  
Project**

by  
**Precision  
Restorations**



*Where memories come alive*

# Table of Contents

## **Our Restoration Process**

---

What we do

How we do it

## **How Much Will My Restoration Cost?**

---

Precision Restorations' Estimating Process

Why Restoration Charges Vary Vehicle-To-

Vehicle 180-Item Check List

Keeping Your Cost Estimate on Track

So, What Should My Restoration Cost?

Chart of Services & Prices

## **Stock or Modified: Which is Better?**

---

Benefits of Modifying

Restomod

Pro Touring

Pure Stock Drag

Spotting a Good Candidate

The Next Step



## Our Restoration Process

### What we do:

We market, sell, evaluate and provide an estimate for the restoration process to restore classic cars and trucks.

### The process:

We market our services primarily through the website. However, attending car shows and related events improves our marketing exposure.

From our marketing efforts we receive inquiries from car enthusiasts such as you that are interested in learning more about getting their vehicle restored.

We address your questions and provide as much information as possible yet in most cases you are looking for an estimate based on your car's current condition. This is the most common question and the most difficult to answer without a physical examination of the vehicle.

The first step is to address your general questions, earn your trust based on our history and testimonials, and explain the importance of a physical estimate. It is also important to point out that we believe we *may* be the only classic car restorer in the industry that provides a detailed estimate upfront, in an industry primarily based on the 'time and material' approach. We believe this is an open checkbook for the client and typically leads to a runaway train! By providing an upfront estimate it will identify the general scope of the project that we are accountable to you, the client, to complete.

By the end of the conversation and if you are satisfied your questions have been answered, we can assist you in coordinating transportation of your vehicle to our facility.

When your vehicle arrives to our facility, we notify you that your project vehicle has arrived, follow a check-in sheet and record with check-in photos.

Your vehicle is then estimated with a team approach that includes management and the technician's involvement. The estimate is based on the estimate work sheet that was developed through the conversation of learning your objectives/goals for your finished project. Our goal is to estimate your vehicle within 5 days of receiving at Precision Restorations.



Once the estimate is complete with initial labor, parts requirements, materials and associated tax it is presented to you. We'll review the estimate with you and confirm that we have developed the estimate that matches with your vision or make the adjustments to meet your vision.

When you authorize the estimate, we develop a production and deposit schedule. The production schedule is determined by the scope of the job and the availability as it relates to the production departments. The deposit schedule is based on 25% down at the time of authorization and by-weekly or monthly payments through the anticipated completion of the restoration with the last payment being due on delivery. For small projects under \$5,000 the payment is 50% down and the balance upon completion and delivery.

As the project progresses through the restoration process supplemental labor and parts will be identified and presented for your authorization. Supplements are due and collected at the end of each month.

You are kept up to date on the progress of your vehicle. We consistently provide updates to include photos and narratives as your vehicle progresses through the restoration process.

The final process of our restoration is quality control/quality assurance that includes a comprehensive review of the restoration and functionality of every aspect of the restoration including a series of test drives. Quite honestly, the final quality control aspect of the project can be the most challenging.

Once we are completely confident your vehicle is ready for delivery we can assist you in arranging transportation.

We believe that our relationship does not end at delivery but continues lifelong. We have two objectives; you are another completely satisfied client and you would recommend us given the opportunity.



## How Much Will My Restoration Cost?

### Precision Restorations' Estimating Process

Many car enthusiasts let their emotional attachment with their vehicle and vision for what it could be cloud their judgment when it comes to selecting a shop to do the work. Choosing the right restoration shop is the most important aspect of any restoration. Hemmings Motor News published a great column "Dealing with Shops" that is a must read. There are many restoration shops that are desperate for work these days and will do anything to get you in the door with a low-ball bid, only to pile on the charges during the restoration process. Precision Restorations' proprietary estimating system helps identify these unforeseen charges, and provides a clear path to the restoration you desire at a price you can afford.

### Why Restoration Charges Vary Vehicle-To-Vehicle

A vehicle's history has a lot to do with how much the restoration will cost. A car that has been driven and well maintained for the past 40 years will cost less to restore than one abandoned in a field with the windows knocked out for the past 40 years. A vehicle with a substantial amount of chrome trim like '60s Cadillacs will cost more to restore due to the high prices for re-chroming. Vehicles with heavily pitted, chrome plated pot metal trim can expect a serious investment to bring these parts back to concourse quality. A rusted hulk versus solid sheet metal can account for a \$20,000 difference in restoration costs for the same vehicle. Cars that don't have a readily available selection of reproduction parts will cost more in sheer labor costs to bring them back to showroom condition.

### 180-Item CheckList

Accurately estimating restoration costs is not an easy process. Precision Restorations performs a four-hour on-site evaluation when a vehicle is delivered to its 24,000 square-foot facility. They have a 180-item check list ([link](#)) that spends 2 hours evaluating mechanical requirements, 1 hour on paint and body issues and 1 hour on interior needs. Regardless of this thorough evaluation there are still be some unknowns and Precision spells those out clearly. First, if the vehicle is not running it is difficult to evaluate things like transmission function, so those components require disassembly to determine their restoration requirements.



However, a low-mileage vehicle can usually get by with a thorough cleaning and new seals and gaskets while a high-mileage vehicle should be budgeted for a complete rebuild. Another unknown is the true body condition. Until the paint has been blasted away, some bodywork and previous damage is not readily apparent.

## Keeping Your Cost Estimate on Track

A restoration shop's estimate is only as good as the shop that did it. With many shops, the estimate is the last communication you will have with them, except for the monthly bill. A restoration estimate is useless without a production schedule attached to it. You need to know two things: how much and when. Precision Restorations provides a realistic production schedule with each on-site restoration estimate. If you decide to proceed, your vehicle is disassembled and the parts are labeled, cataloged and stored in a secure warehouse area. Detailed photos are taken during the disassembly process, so there is no confusion about the condition or completeness of individual components.

As the restoration process takes place the client receives updates with photos and descriptions of what has been accomplished. Every Tuesday morning the Precision Restorations' staff meets to review individual projects and to discuss progress and issues relating to each vehicle. Precision goes a step further with a quality assurance process where each technician signs off on his portion of the restoration when it is complete. Once the restoration is complete, management typically spends 2-4 days driving and evaluating the vehicle prior to delivery.

## So, What Should My Restoration Cost?

It is impossible to give someone an accurate restoration estimate without having the vehicle in our facility for our intensive four-hour inspection. However, it is possible to provide price ranges on what our various services cost. Again, if you are trying to ballpark the restoration costs for your vehicle, be honest with yourself about the real condition of each aspect of your vehicle. Does your vehicle need a cosmetic restoration, or a full frame-off rebuild. A cosmetic "facelift" can cost anywhere from \$15,000 – \$30,000. A full frame-off can cost \$100,000 – \$100,000+ depending upon the complexity of the vehicle. A Model A is a simple car with very few (and readily available) parts are going to cost much less than a Hemi Super bird with date-coded extremely rare parts.

The following is a chart of prices for Precision Restorations' services. Use this as a rough planning guide only. Please call our service representatives to set up an appointment for an on-site estimate, or to answer any questions you may have.



## Chart of Services & Prices

### Preparation - Range of Repairs Required

<b>Remove all trim, glass, bumpers, grill, headlights, taillights, etc.</b>	\$2,000	to	\$3,000
<b>Remove Interior</b>	\$1,500	to	\$2,000
<b>Body in Good Condition</b> No major rust or damage. Body may have minimal waves, dings or scratches. (strip & spot blast to bare metal)	\$5,000	to	\$10,000
<b>Body in Fair Condition</b> Shows typical wear and tear of a vehicle of that age. Evidence of minor surface rust in truck floor, door jams and wheel wells	\$15,000	to	\$20,000
<b>Body in Poor Condition</b> Considerable amount of rust, no floor boards or rusted out floor boards, trunk wheel well and doors rusted	\$25,000	to	\$35,000

### Body / Chassis Options

<b>Replace glass</b>	\$450	to	\$1,200
<b>Replace floorpans</b> (assumes interior is removed)	\$2,300	to	\$3,300



**Re-chrome bumpers** \$1,500 to \$2,500

**Replace exterior trim and lights** \$350 to \$2,000

**New Weatherstrips** \$1,300 to \$2,500

**Chassis reconditioning**  
(clean and paint w/POR 15) \$1,000 to \$3,000

**5 coats of clear coat paint Job** \$15,000 to \$20,000+

**Show Quality Paint Job** \$25,000 to \$35,000+

**Engine Compartment Paint** \$320 to \$480

**Basic Interior** \$3,000 to \$6,000  
Recover front buckets/rear  
Stock Interior-complete interior kit and  
installation

**Custom Interior** \$10,000 to \$20,000+

**Paint Dash** \$800 to \$1,200

**Headliner** \$1,400 to \$2,000

**Carpet Replacement** \$1,400 to \$2,000





<p><b>Basic Mechanical</b>          Compression check, new plugs, wires, carburetor rebuilt, new brakes, starter, alternator, battery, exhaust repair, replacement of rubber brake and/or fuel lines, shocks, springs, tie rods, suspension bushings.</p>	<p>\$3,000</p>	<p>to</p>	<p>\$5,000</p>
<p><b>Expanded Mechanical</b>          All the above plus engine and transmission reseat, ball joints, steering box rebuild, exhaust system rebuild, steel brake and fuel lines, wiper motor, power steering pump.</p>	<p>\$5,000</p>	<p>to</p>	<p>\$12,000</p>
<p><b>Expanded plus Mechanical</b>          All the above plus engine and transmission rebuild, thorough repair of the vehicle wiring harness.</p>	<p>\$12,000</p>	<p>to</p>	<p>\$25,000</p>
<p><b>Complete Mechanical</b>          All the above plus replacement of the vehicle wiring harness, all steering and suspension components, replacement of all the fuel and cooling system components</p>	<p>\$25,000</p>	<p>to</p>	<p>\$55,000</p>

### Mechanical Options

<p><b>Engine Rebuild</b></p>	<p>\$5,000</p>	<p>to</p>	<p>\$15,000</p>
<p><b>Transmission Rebuild</b></p>	<p>\$1,500</p>	<p>to</p>	<p>\$3,000</p>
<p><b>Upgraded Wheels and Tires</b></p>	<p>\$2,500</p>	<p>to</p>	<p>\$4,000</p>
<p><b>Front disc brake conversion</b></p>	<p>\$3,000</p>	<p>to</p>	<p>\$7,500</p>



## Additional Options

Rear disc brake conversion	\$3,000	to	\$7,500
Install A/C	\$4,000	to	\$6,000
Upgraded exhaust with headers	\$2,000	to	\$3,500
Install interior, glass, all trim, emblems, bumpers, grill, deck lid, doors, and hood	\$2,500	to	\$3,500

**NOTE:** There needs to be one item selected from each of these categories to be accurate:

- \* Disassembly
- \* Body
- \* Paint
- \* Reassembly



## Stock or Modified: Which is Better?

### Exploring the Most Common Restoration Options



A survivor car, like this '69 Road Runner that still has its original 383 cubic inch big-block and factory four-speed transmission, are becoming rarer by the day. Not surprisingly, this customer elected to keep it stock, and Precision Restorations was happy to oblige. Even so, a car like this can still be enjoyed in Pure Stock drag racing classes without adversely affecting its value.

### Benefits of Modifying

Finding the perfect project car is a conquest in and of itself. It's a grueling yet gratifying process that can take months or even years, but once that new project is sitting in your garage, how should you go about restoring it? Options abound, and just a few short decades ago restoring a classic car involved freshening it back up to factory showroom condition, and not much else. Although many enthusiasts still opt for stock restorations, the ever-increasing availability of aftermarket engine, driveline, suspension and brake hardware has made it both affordable and practical to integrate modern technology into a classic car. The result is an old-school machine that accelerates, turns, stops, and rides like a late-model vehicle but with the character and flair of a classic car. The question is, how much does it cost and how does it affect the value of the car?

When the subject at hand is an ultra-rare '71 Hemi 'Cuda convertible, the car's value is in its originality.



Considering that there were less than a dozen of these cars built, warranting price tags of over \$2 million, modifying them in any way poses a serious money-losing proposition. Furthermore, these types of cars are destined to sit in the climate-controlled garages of well-heeled collectors, so how well they drive down the road is largely irrelevant. On the other hand, the vast majority of hot rodders start with project cars that aren't nearly as rare, and dream of someday enjoying them on the open road or at the race track. Consequently, how well they drive is extremely important in terms of performance, comfort, and safety. There are a multitude of ways to improve drivability while retaining the essence and value of a classic car, so let's take a closer look at three of the most popular approaches of modifying a classic vehicle: Restomod, Pro Touring, and Pure Stock Drag cars.

## Restomod

Just as the name implies, a restomod is any car or truck that has been both restored and modified. Iconic musclecars like the '63 split-window Corvette and '68 Mustang fastback may look absolutely spectacular, but the truth is that they drive terribly compared to lowly modern commuter cars like a Honda Civic. Lethargic steering boxes, lots of body roll, poor ride quality, and ancient drum brakes can make driving a classic car in traffic a nerve-racking affair. To address these issues, as aftermarket performance parts started becoming more readily available in the early '90s, many car builders quickly recognized the benefits of tastefully integrating modern quick-ratio steering boxes, anti-roll bars, coilover shocks, and disc brakes onto yesterday's classics. Many enthusiasts take things one step further with internal engine modifications and overdrive transmissions that improve both acceleration and fuel mileage.

While it's only natural to assume that this level of modern sophistication costs a fortune, that's not necessarily the case. Let's say you're building a mainstream musclecar like a '70 Chevelle. Classic Performance Parts ([www.classicperform.com](http://www.classicperform.com)) offers a turnkey suspension package that includes front and rear tubular control arms, lowering springs, gas shocks, and front and rear anti-roll bars for \$1,699. With project cars that are already 40-plus years old, these are typically parts that would need to be replaced anyways. Considering that shop labor rates often run \$90 per hour or more, it can sometimes be more cost effective to install high-performance aftermarket parts instead of rebuilding the suspension with stock replacement hardware.

At Precision Restorations, parts and labor for rebuilding the suspension in a typical '60s-era musclecar—which involves swapping out the bushings, balljoints, springs and shocks with stock replacement parts—would run between \$1,600 to \$2,400.



Likewise, rebuilding a four-wheel drum brake system runs between \$2,300 to \$3,200, whereas a four-wheel disc brake conversion costs roughly the same amount of money. It truly is a case of having your performance cake and eating it too, which explains why resto-mods have become so popular in recent years.

One of the biggest perks of building a restomod is that a car's originality isn't permanently lost in the modification process. Whether the parts in question are a set of exhaust headers, aluminum cylinder heads or an overdrive transmission, most of the modifications are easily reversible. Returning a car back to stock form is as easy as unbolting the aftermarket parts, and reinstalling the factory hardware. Even so, returning a car back to stock form may rarely be necessary. Watching televised coverage of car auctions like Barrett-Jackson and Mecum quickly reveals that most driver-quality restorations have been modified in some way or another. With the exception of extremely rare cars like Plymouth Superbirds and Boss 429 Mustangs, these restomod often command more money than their all-original counterparts.



Performance suspension kits can dramatically improve the handling and ride quality of any musclecar for a price that's not much more than rebuilding the stock suspension hardware. This Classic Performance Parts kit for '64-'72 Chevelles costs a very reasonable \$1,699.

## Pro Touring

Think of Pro Touring as a more extreme version of a restomod. The typical Pro Touring build starts with a '64-'72 musclecar that has been highly modified with road course performance as a top priority.



Common modifications for a Pro Touring machine include modern fuel-injected engines, six-speed transmissions, big billet wheels, custom interiors, roll cages, racing seats, after-market fuel cells, massive six-piston brakes, custom sheetmetal modifications, and even independent rear suspension system. Intended to be do-it-all machines, there is also a luxury element to the Pro Touring creed. Consequently, features like air conditioning, after-market stereos, GPS navigation systems and power windows, seats, and door locks are common features as well.

The benefits of such extensive performance modifications are blistering acceleration, braking, and cornering ability on par with modern supercars like Corvette ZR1s and Dodge Vipers. While that may be difficult to believe for some, it's not uncommon for high-end Pro Touring musclecars to outrun modern sports cars at autocross and open track day events on any given weekend. Conversely, the downside to all this performance is that it often requires a substantial monetary investment. While entry-level Pro Touring cars can be built for as little as \$30,000, builds that cost over \$100,000 are becoming the norm these days. In fact, some of the most extreme Pro Touring builds can exceed \$500,000.

Since Pro Touring builds place a much greater emphasis in ultimate track performance with less regard for retaining originality, it's difficult to generalize how this affects a car's overall value. Permanent modifications such as custom sheetmetal and enlarged wheel-tubs can't be reversed without incurring substantial costs, so those seeking a car restored to factory showroom condition will likely be put off by a Pro Touring musclecar. On the other hand, Pro Touring has become so popular in the last 20 years that it's created a new sub-segment of its own in the musclecar market. With countless magazines and online forums dedicated to the Pro Touring movement, there are many hot rodders with deep pockets willing to pay a premium for a turnkey Pro Touring musclecar. While it's definitely the exception to the rule, with the right car, well-executed performance enhancements and quality craftsmanship, some people can sometimes sell their finished Pro Touring project cars for a profit.



By packing this client's '69 Camaro convertible with an all-aluminum 5.7L LS1 small-block, an overdrive transmission, a four-link rear suspension and disc brakes, Precision Restorations transformed an ordinary musclecar into a modern Pro Touring machine. Thanks to modern technology, it can knock down 20 miles per gallon on the street and clip apexes on a road course.

## Pure Stock Drag

For hot rodders that yearn to recapture the thrill of drag racing in the '60s, building a Pure Stock drag car is as close as you can get. Sanctioning bodies such as the Pure Stock Drags ([www.purestockdrags.com](http://www.purestockdrags.com)) and FAST (Factory Appearing Stock Tire) have created racing series that enforce strict limitations on engine, driveline, suspension, body, and tire modifications for '55-'74 American musclecars. The engine used must be period-correct for the make, model and year of the car, and the only major internal modification allowed are overbores up to .070 inches. The rest of the car must remain stock. As no surprise, the fastest cars usually boast the largest engines, with big-block Chevys and Chrysler Hemis reigning supreme. Given the strict limitations on modifications, most competitors run quarter-mile elapsed times in the 13- to 14-second range, but the fastest cars run as quick as mid-11s. Since Pure Stock drag cars are essentially stock, this form of car building makes it's possible to enjoy a rare musclecar at the track without compromising its value.

Similar to Pure Stock Drag racing, but even more entertaining, is the Factory Appearing Stock Tire ([www.fastraces.org](http://www.fastraces.org)) racing series. While the rules mandate factory-appearing bodies, engines and transmissions, the allowed internal modifications are nearly unlimited.



That means stroking an engine for additional displacement, porting the cylinder heads and intake manifold, and installing a high-stall torque converter are all fair game. Although drag slicks are prohibited, programmable aftermarket ignition boxes can be used to limit power off the line to enhance traction. The results are cars that look stock, but can run 9-second e.t.'s at the dragstrip. Granted that it can be difficult to recover the costs of expensive engine modifications unless a factory appearing drag car is sold to another racer, the engine itself can be easily swapped out for a stock-replacement motor to return the car closer to factory original form.

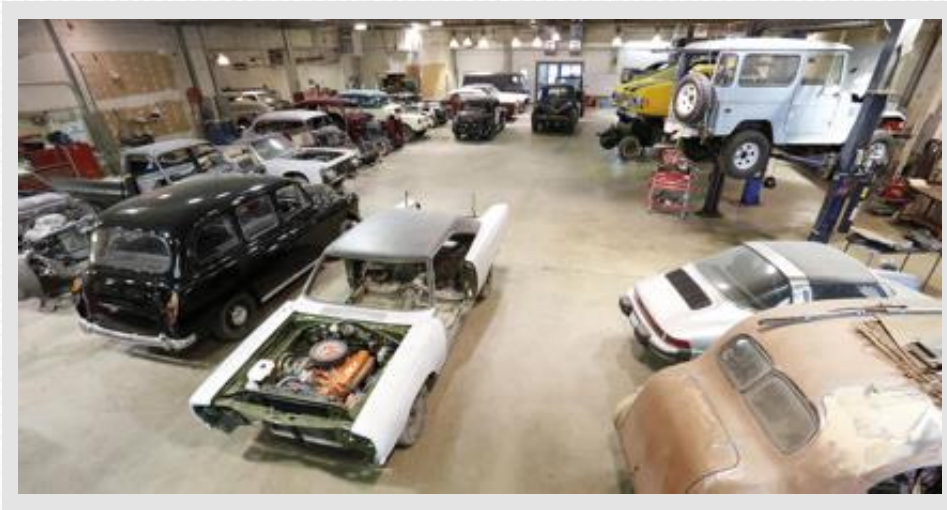
### **Spotting a Good Candidate**

When building your dream car, future resale value often takes a back seat to building it how you want it. While modifying a car doesn't adversely affect its value as much as some traditionalists would lead you to believe, certain types of cars are definitely better suited to certain types of builds. Given the non-intrusive and easily reversible nature of building a restomod or Pure Stock drag car, even a relatively rare machine like a SS 396 '69 Camaro is a good project car candidate. On the other hand, since Pro Touring builds require more extensive modifications, they are best suited for more common models—such as six-cylinder musclecars—that were produced in much larger production numbers. The lower demand for these cars means that they wouldn't command large price tags even if restored to pristine factory fresh condition, so there's far less incentive to retain their originality.

### **The Next Step**

Ultimately, Restomod, Pro Touring, and Pure Stock represent just a few of the most popular ways that musclecar enthusiasts chose to build their cars. As ultra-rare musclecars continue to get snatched up by collectors with deep pockets, the benefits of integrating modern engine, driveline, and suspension technology into classic cars will only continue to grow in popularity. Regardless of the direction you decide to take with your project car, Precision Restorations ([www.precisioncarrestoration.com](http://www.precisioncarrestoration.com)) has the expertise and experience necessary to turn your vision into a reality. On any given day, our shop floor is full of Restomod, Pro Touring and stock restoration projects, so please feel free to give us a call to discuss the details of your car.





From stock restorations to restomods to Pro Touring musclecars, Precision Restorations can do it all. Our expert staff is always on call to help take your restoration project to the next level.