The Pontiac Fiero is finally becoming a collector car ... after a decade or more of level value. 2025 valuations for the GT models (class 1 and 2 restored collector cars) have approximately doubled from 2015 to 2025 (depending on the model and condition class). These data were taken from the HAGERTY VALUATION TOOL website; an authority on classic car values.

The Fiero is also a very good candidate for the Restomod crowd due to its plastic body, very stiff chassis, low stance, and mid engine layout. The best examples of this type of car normally have a supercharged V6 or a normally aspirated V8; Corvette brakes; improved cooling and fuel flow; and performance oriented suspensions, wheels and tires. These cars can typically do mid 13s in the quarter mile with either manual or automatic transmissions.

Historically, <u>Restomods of all makes have appreciated in lock step with their restored original classic cousins</u>. Additionally, they are a lot more fun to drive due to their newer technology; improved handling and braking; and last but not least, much increased power to weight ratios (i.e. better acceleration).

Let's look at the general Restomod market: The market is very diverse in terms of equipment, quality, and the intent of the conversions. These cars have modern running gear, performance components, and up to date mechanical and electrical systems. It is a 40 year old car with almost everything under the original body work from much newer cars and parts sources. Manual rather than automatic transmissions seem to dominate.

Now let's focus on the Fiero Restomod market. There are several factory like organizations that are doing or have done complete Fiero Restomods in their shops. These "factory" built Restomods are generally better investments and are less prone to development problems than home built cars. Most of these same shops generally sell kits with specific parts that allow home builders to attempt their own Restomods. Some of these home built cars are excellent; others are less so ... let the buyer beware.

When buying a Fiero Restomod you need to understand what has happened to the donor car Fiero GT that was originally designed for a top speed of 112 mph and a Quarter mile time of about 15.7 seconds. With the 3800 supercharged V6s and most of the V8s, these new numbers are a top speed capability of 150 mph and Quarter mile times in the 13 second range.

Virtually every part of the original design package is massively exceeded. Axles, brakes, suspension, tires, wheels, cooling, aerodynamics, fuel systems, transmissions, frames, chassis, and clutches are suddenly way outside of their design envelope. Any High Power Restomod that did not address all of these issues is not destined to perform well ... or for very long without problems.

There are many <u>Pseudo Fiero Restomods</u> out there where the engine has been swapped and the rest of the car left virtually stock. These cars are a problem waiting to happen if horsepower and torque have been very substantially increased! Look carefully at what you buy and understand what has been done to each of the aforementioned systems. On the Restomod that I bought, every one of these areas was addressed properly. The result is a viable Sports GT Car that performs beyond most expectations and should last for a long time. Again beware of <u>Pseudo Fiero Restomods</u>!

The following is a partial collection of Fiero Restomod engines:



4.6 NorthStar V8 in the Fiero

3.8 turbocharged V6 in the Fiero



3.4 DOHC V6 in the Fiero

3.8 supercharged V6 in the Fiero



350 cu in V8 in the Fiero by V8 Archie

Corvette V8 in the Fiero

Most Restomods seem to use the Fiero 5 speed manual transmission. The five speed stick transmissions often need to be rebuilt to handle the added horse power and torque; heavy duty clutches are also a good idea. Some NorthStar Restomods employ the beefy Cadillac automatic transmission that was designed to go with the engine; this is a good option.

With most Fiero Restomods, torque and horse power are about doubled from the original output of the factory Fiero V6. Stock drive trains struggle to handle this much of a power increase. With all this new power comes the need for stronger axles and heavy duty suspensions. Also good ideas are larger wheels, wider tires, and bigger brakes. In essence the car needs to be redesigned and remade to enhance reliability, handling, and safety.

So now that these cars have basically been rebuilt from the ground up, what are they worth? As you can imagine, not all Restomods are created equally. If any of the aforementioned items are poorly executed or not addressed, the value of the Restomod suffers. Do your home work ... speed costs and reliability/safety costs even more.

This article will limit it's discussions to top of the line Fiero Restomods with particular attention focused on the NorthStar Fiero. This NorthStar platform can be one of the more expensive, reliable and safest Fiero Restomods that have come to this market. Since my own Restomod is a "factory built" version of this car, I can discuss details, strengths, and weaknesses from experience. Much of this discussion will apply equally to other fully prepared and properly modified Fiero Restomods.

The current market for low mileage, high quality, used Fiero Restomods ranges from about \$15,000 to \$20,000 (these data were taken from multiple internet Classic Car "For Sale" listings and discounted to account for actual or final sale price). This range is dictated by the quality of the build, the components employed, the engine used (supercharged V6, 350 V8, Corvette V8, NorthStar V8 etc.), and the mileage since full restoration; all of these market prices are well below the actual cost to build one of these desirable cars.

Some examples of quality Fiero Restomods are pictured below:





Except for the wheels, tires and exhaust systems, most Fiero Restomods travel under the radar. The sound of the engine may also give away the fact that this is not a stock Fiero you are seeing / hearing. Think C5 Corvette and you are in the right ballpark in terms of potential performance capability. Compare these cars to many foreign sports cars from the last 20 years and you will see the finished Fiero Restomod as one of the best performance bargains you could imagine.

You cannot buy a modern or well preserved classic sports car in good condition (and with similar performance) anywhere close to the price of a Fiero Restomod. A newer sports car (especially foreign built) would also come with hefty annual depreciation, maintenance, and insurance costs that you would avoid with an American based Fiero Restomod Classic Car.

So let's talk about the process of buying, building and / or restoring a Fiero Restomod ... various combinations of the three basic approaches presented below can be pursued.

Your choice of engine, transmission, and performance equipment will materially affect the total build price of the car. The prices referenced below are for one of the more expensive Restomod combinations; namely a **Cadillac NorthStar V8 with matching automatic transmission**, and the best of everything in terms of performance, handling, and appearance. A built supercharged 3800 V6 with a rebuilt Fiero manual Trans, heavy duty clutch, new suspension, larger wheels, wider tires, and bigger brakes would be less expensive to build and still makes a great Restomod.

The first and easiest approach would be to have the NorthStar Restomod built for you. It is not unusual today, to pay a professional builder upwards of \$30,000 in parts and labor for a completed mechanical conversion using a rebuilt NorthStar engine & transmission, new suspension, new wheels, new brakes etc. Upgrading the paint, bodywork, refurbishing the interior, leather seats etc. and the cost of the donor car are over and above the \$30,000 just discussed. This approach to building a Fiero Restomod could reach \$40,000 in total costs. The good news is that this is almost a turnkey purchase ... little personal labor will be required.

A second approach is to do almost all the work yourself and buy a NorthStar engine conversion kit including a reprogrammed engine management computer, your investment would be in the \$25,000 range plus a thousand or more hours of personal labor. This assumes you find a lightly used engine and Trans, a solid donor car that needs little interior or body work and you get a good deal on everything. This also assumes you have the talent to install and possibly modify the engine, transmission, suspension etc. in your donor car without too much outside help. Bodywork, paint, and interior upgrades, are also part of this estimated cost.

<u>A third approach</u> is to buy a Fiero NorthStar Restomod that is already built and needs relative minor restoration to become the car of your dreams. This is a tricky proposition in that many completed homebuilt Restomods have hidden flaws that can be expensive to fix.

One way to lessen the risk of this **third approach** is to find a professionally built Fiero NorthStar Restomod with low mileage since the conversion. Hopefully, the parts of the restoration that still need attention are largely within your skill levels. This alternative will require a lot of time and research to find the right vehicle at a reasonable price and likely <u>several hundred hours of your personal time</u> to complete the project. Figure about \$15,000 to \$20,000 as your total investment target for a class one Fiero Restomod.

My chosen path became this **third approach:** buy a mildly used, professionally built Fiero Restomod and restore / modify it to my tastes. It took me a year to find my ideal project car!

But before you start any approach, a plan is needed! You need to answer questions like: (1) What will this car be used for: occasional competition; high speed touring in the European tradition; just to take to shows etc.? Also, (2) Do you want stick or automatic; will the car be geared tall enough for extended expressway driving; will gas mileage produce an acceptable driving range given the tank size; will there be enough luggage space for its intended use etc.?

The automatic transmission was a high priority for me as I wanted this Restomod to be capable of touring in relative comfort on the highway and in stop and go traffic. The matching Cadillac GM 4T80 automatic transmission is an extremely well built unit and will easily handle almost anything you throw at it in a Restomod application. This touring orientation also implies: good air conditioning, a reasonable stereo system, comfortable seats, a practical exhaust note, and decent gas mileage (the Fiero has a small gas tank). Also necessary was nearly the full original trunk capacity; many Fiero Restomods take away valuable trunk space to allow for the installation of a performance muffler system.

After a lot of research, I selected a Design One Systems (D1S) Fiero GT with a NorthStar V8 engine and matching Cadillac Automatic Transmission as my primary target. I was also willing to consider other Restomods if they were equally well built. D1S cars had a great reliability reputation and were always built with automatics. Their Fiero GT touring model was my perfect target car. The flaw in this plan was that very few of these vehicles came up for sale.

My best guess is that maybe 50 D1S Fieros were partial or total D1S Factory builds; private attempts with D1S kits could further add to this number. These cars were generally built between 1999 and 2007 ... D1S Factory builds struggled with pricing due to their exceptional focus on design, engineering, quality and build detail. For example: early D1S NorthStar Fieros employed the original Cadillac engine mounting system using a uniquely redesigned solid mount engine cradle and the two standard Cadillac upper "dog bone" support mounts that are attached to an elaborate in car bracing system. This high quality engine mount arrangement was not cheap to design, test, fabricate, or build in limited quantities.

Kevin Leslie, the owner of D1S, also figured out how to modify the pre 1996 Cadillac electronics computers (engine management system) including a quick shift performance mode for the transmission. There are many horror stories on this subject from other non D1S NorthStar conversions. The Cadillac chip has over 50,000 lines of code that need to be substantially modified to fool the engine management system into thinking it is still in a Cadillac. The Fiero does not have traction control, ABS, stability control, and several other sensory inputs the Cadillac chip is relying on for information.

As I stated earlier, this was a long search. I finally found a D1S Fiero GT Touring candidate in Columbus, Ohio at a dealer called "Crusin Classics;" these people were excellent to deal with! The car only had 29,000 miles since the initial factory based restoration in approximately 2000 or 2001, a solid no rust frame, decent body & paint, nice wheels, a clean no accident title and was in excellent mechanical condition (engine, transmission, suspension, brakes, steering etc.).

The down side was: the AC did not work, the tires were old, the interior needed a lots of attention, the stereo and speakers needed to be replaced, the exhaust system needed to be at least partially rebuilt and many of the standard Fiero systems needed significant attention.

The dealer had just dropped the price to \$11,000 (the original asking price had been \$12,000 for the previous 45 days) ... I pointed out all the work that needed to be done and finally ended up at \$9,500 plus tax, title transfer, tempory plates etc. This transaction took place in October of 2015.

Over the next eleven months, I have spent another \$4,485 on parts & labor and approximately 200 hours of my time in the garage. This initial effort produced a 90% complete restoration that was drivable, good looking and very satisfying. By the way, I heated the garage to allow the winter months to be more productive. Those costs don't count this as a part of the car expense since they are categorized as home improvement expenditures. Using business accounting principles to justify home projects is fun! Convincing your wife ... not so much.

My research time, to decide what to do and what to buy for the car probably took another <u>80</u> <u>hours</u>. There is always something your project car needs. I still have to detail the car and fix some odds and ends but the basic project was close to complete. The car was very useable for short or long trips and a lot of fun to drive.

Future expenditures included: additional improvements to the interior; some additional lighting improvements; and other things I discovered as the journey went on ... like I said, the project was maybe 90% complete.

Here are some pictures of the "almost" finished product:



This is an excellent example of a Fiero Restomod by almost any standard of measurement!



Note the custom tunable SuperTrapp exhaust system.



1985 Fiero GT North Star ... 85FGTNS.



The 32 Valve aluminum block double overhead cam Cadillac NorthStar V8 (300HP)



The restored interior, including leather seats, new floor mats, new visors, and new stereo system.



The switch on the consul is for sport mode on the transmission.

So let's begin the restoration journey and talk about the surprises both good and bad, the remedies, and detail a breakdown of the **\$4,448** and 200 plus hours I spent on the car by the end of 2016.

**Step 1:** One of the first things I did was replace the tires and get the front and rear realigned. The Fiero can be adjusted at both ends and incorrect settings severely affect tire life and handling. This Restomod uses 225 50 R 16s in the front and 245 50 R 16s in the rear; both on American Racing chrome 16 by 7.5 inch rims. After much shopping I chose Cooper 168 mph ultra-high performance all-season radial tires and a tire dealer / mechanic shop that was known for high performance work. This shop was Darrell's Firestone / M&M Center in Farmington Michigan. The guy that worked on my car, Justin, had previously owned a Restomod Fiero he built himself; Darrell (the owner) has built and owned a long list of high performance cars.

The cost out the door was \$640 less a \$60 dollar rebate from Cooper Tires for a net cost of **\$580**. The quality of the installation and the alignment was my prime focus; I had quotes \$30 cheaper but was not comfortable with the level of that shop's expertise. These tires are excellent in both wet and dry conditions and are very well rated by consumers report.

A little note on tires: the tires I took off the car had substantial tread left but were over 10 years old. I was not comfortable with these tires from a safety standpoint.

**Step 2:** The second thing I did was to replace the radio and two front speakers. Original equipment Fiero stereo components are 30 years old and technology has improved greatly since that time. I also bought 4 head rest speakers to complete the system but waited to install these until I rebuilt the seats. Total cost for a rebuilt Pontiac Firebird stereo disk radio and the 6 speakers was **\$346**; I chose this radio because it matched the Fiero décor including the radio front plate size, face color, gray knobs, Pontiac logo and the red interior dash lighting.

The radio came from ReplacementRadios.com and the front speakers from Kenwood (I used KFC-415C 160 Watt 4-inch by 10-inch two-way speakers). I found these speakers on Amazon for less than half the price quoted else ware. The seat speakers were a whole story in themselves; I wrote a separate headrest speaker article that is on the Michigan Fiero Club website. Please read this article before you replace the original Fiero seat speakers; long story short you need 8 ohm headrest speakers that when wired in parallel will produce 4 ohms to match the original Fiero wiring. Failure to adhere to this spec will eventually destroy most factory spec radios. The average 3.5 inch by 1.75 inch round speakers found in stores are 4 ohm (20hms net in parallel) and will overload the built-in amps on all but the very high end aftermarket radios.

**Step 3:** The "Fiero Store" supplied new visors, new floor mats, dew wipes and a bunch of other miscellaneous parts for a total cost of \$341. That price included the 5% discount you get for being a Michigan Fiero Club member. The dew wipe (outer door glass seals) project was a very labor intensive effort. You have to take off the inner door panels on both sides to get to the dew wipes and a special tool from Rodney Dickmans Auto Acc's is almost a necessity. This tool was \$19 dollars including shipping and not included in the above listed price. There are two screws on each side that are access blocked by the window. Without this tool or something similar, you will have to remove and reinstall the window glass ... adding a lot of additional labor.

Check out our Michigan Fiero Club Tech Section (on our web site) for a very detailed description of the dew wipes replacement process. This article will make the job much easier!

While I had the doors apart, I cleaned and re-lubricated the electric door locks, the electric window mechanisms and the remote mirror mechanism. The damaged outer door seals (dew wipes) really messed up these systems by allowing rain water and dirt to be poured over these mechanical and electrical system components.

**Step 4:** The next project was the exhaust system. D1S used a tunable custom SuperTrapp exhaust system with both a glass pack and a diffuser package placed back to back on each side. This system was fabricated from SuperTrapp parts and requires some real effort to remove and replace. I talked with two different guys at Pegasus Auto Racing Supplies in Wisconsin (the only U.S. distributer of Super Trapp replacement parts). Bob and John were very valuable resources for the disassembly, modification and reassembly of this unique exhaust system. I spent several hours with a die grinder and other tools to remove the old glass packs and the rusted diffuser cones.

I then measured several times and cut once, the new replacement core glass pack assemblies to get them to fit into the existing Stainless Steel (S.S.) muffler cones. I also had to unwrap and trim the Fiberglass blankets on the replacement cores. The 24 diffuser disks (12 on each side) and the 2 end caps are S.S. so they could be cleaned up and reused. The twelve S.S. mounting screws (6 each side) were toast and had to be cut, removed and replaced. After several days of effort and a parts bill of \$556, I had a new much quieter exhaust system. I also repainted the whole system with silver high temperature header paint from the local auto parts store.

The system still has a V8 growl, but most of the sound goes behind the car and is not intrusive in the passenger compartment. Normal cabin conversation is comfortable and the stereo is pleasant and functional. The head rest stereo speakers are almost a must in this arrangement.

**Step 5:** The next major project was the leather seats from Mr. Mikes in Florida. I had no experience rebuilding seat foam or re upholstering leather seats. I took my time, followed the instructions with a few modifications for additional comfort and finished this project in about 6 casual days in my basement during the winter. I had the TV on and the coffee mug full; the results were very positive in terms of both looks and comfort. This step also included replacement of the 4 existing 10 ohm Fiero headrest speakers with new 8 ohm high quality headrest speakers ... again read the tech article on our web site.

One of our Fiero Club members had done this same re-upholstery project on his car and added additional seat cushion depth and lumbar support. I followed his lead and was very pleased with the result. In a stiffly sprung sports car, the seat becomes part of the rider / passenger comfort system as does the tire sidewalls and the spring rates. Attention to detail is a must in a project like this if you want to tour comfortably in the finished result. The cost of this part of the restoration was \$784 and a lot of personal labor.

These pictures show the results of the interior remake:



Step 6: Ah yes, the AC system ... D1S uses a Cadillac compressor, a unique crossover pipe, and Fiero / GM components for the rest of the system. They also converted to the new D134 refrigerant used in all modern systems. When I bought the car I was hoping some seals were bad and I could get away with maybe a new dryer, new seals and some new refrigerant. This was not to be. I had to have an outside expert replace literally every active component and switch in the system except for the seals (they were just fine). The total cost of this effort was \$1,208 including a two year warranty and was done by an excellent mechanic: Eric Hamilton at Hal's Auto Clinic, Inc. in Northville, MI. This guy is very skilled and is highly recommended!

I'm now driving with a very functional air conditioning system which is a must in this car. In order to improve engine compartment cooling D1S removed all the engine compartment insulation and opened up the air flow around the engine. The secondary effect is a warmer passenger compartment ... nice in the winter but not a blessing in the summer.

**Step 7:** As was mentioned earlier, many of the existing Fiero systems needed attention. I spent about \$235 in parts to repair the mechanics of the hidden lights and the trim lighting, refurbish the interior, get the windshield washer to work, replacing the windshield wipers, get the bell warning system to work, adding new plugs for the Garmin GPS and cell phone recharging, adding a fan switch for non AC use, adding a headlights up option switch, replacing seat trim and hardware, and a host of other detail items that go in to a project car of this type.

**Step 8:** Involved improving the front lighting. I began by replacing the two existing Halogen sealed beam headlights with United Pacific LED Conversion Headlights model number 31297. These headlights have a polycarbonate lens and draw approximately 75% less power than the original style lights. Low beam is much brighter and has a better sight pattern. High beam uses 4 very bright LEDs. No modifications are necessary, these lights are a direct replacement, use the existing wiring, are DOT approved, and make a big difference! The downside is the price: they cost \$199 dollars each or **\$398** for two; shipping was free from Summit Racing Equipment in Ohio. Installation took about two hours including initial headlight alignment.

I also spent another \$37 at O'Reilly Auto Parts on Sylvania ZEVO 1157 LED front driving / turn signal lights and a new EL12 Novita Technologies Heavy Duty Flasher. The new flasher accommodated the lower current draw of the 1157 LEDs. Total front lighting costs were \$435.

Step 8 is the last step in the initial restoration; further steps were in the works, but the car was approximately 90% complete.

Many of our Fiero club members contributed valuable advice and in some cases parts from their collections. I compensated them for the parts at the price they asked; all at a fraction of what the new parts would have cost (many of these parts are no longer in production). Some just asked that I make a donation to the club treasury.

I read a number of articles from our tech section and wrote several of my own to keep the tech process ongoing. Without this help this project would have taken much longer and cost more.

Here are some additional pictures taken in late June of 2016:





The Fiero design still looks reasonably new after 30 years.



This rear view shows off the custom exhaust system and the lines of the car.



Less than 32,000 miles since the original Restomod restoration.



A clean front compartment that still needs a little detailing.



A final view of a very nice Restomod.

#### So let's summarize the \$4,485 investment:

1.	Tires and alignment	\$580
2.	Radio and speakers	346
3.	Fiero Store	341
4.	Exhaust (Pegasus)	556
5.	Mr. Mikes Seats	784
6.	AC Rebuild (Hal's)	1208
7.	Misc Parts	235
8.	LED Headlights and turn signals	435
	Sub Total	\$4,485

This brings my initial investment to \$13,985 (\$9,500 plus \$4,485). This cost is well below the two other alternatives we discussed earlier in this article ... and I have a custom sports / GT touring car that is very fast, reliable, reasonably comfortable, and a blast to drive.

Improvements, further developments, and maintenance costs from 2016 to 2025 are detailed in the following descriptions. The odometer was reset to zero at the time of initial conversion (probably sometime in calendar year 2000) and showed 29,077 miles at my time of purchase in the fall of 2015. The odometer reading at the end of the initial restoration in the fall of 2016 was 30,279; and the current mileage in the spring of 2025 is 40,705.

The following is a list of further improvements and maintenance items that this car has had done to it over the last 9 years:

φ 🗥

#### 9. 1987 center consul gauge cluster and wiring harness

\$ 60
\$161
\$35
\$239
\$141
\$420
\$224
\$297
\$93

18. Replace front ball joint and refresh front suspension	\$570
19. New high performance tires (03/29/2024); original	
tires were 8 years old and needed to be replaced	
for safety reasons due to age.	\$856
<b>20. Front and rear alignment</b> (03/29/2024)	\$150
21. Wheel spacers and wheel offsets (04/02/2024): see	
separate article on our web site.	\$27
Total additional expenditures since initial restore:	\$3,049

**Total 10 year ownership costs (\$13,985 + \$3049):** 

per year, and should be able to be sold for my out-of-pocket investment costs.

Owning a unique ride is part of the car experience. A lot of people have <u>a late model sports car</u> that depreciates substantially each year, costs a fortune to insure and is expensive to maintain. The Fiero Restomod classic car that I put together is rare, can be fully insured for less than \$900

\$17,034

Maintenance costs have been light on this G.M. based car with only 40,705 current miles on the crate engine and matching transmission; most of the basic mechanicals were also new at the time of the rebuild /conversion. If the classic car market for the Fiero continues to grow, I might even turn a small profit on this car sometime in the future.

I have also enjoyed showing off the car at local shows and Cruse-Ins; it always draws a crowd, a host of questions and many positive comments. Did G.M. really build a mid-engine sports car with this kind of power? How fast is it, really? Does it handle? What a sleeper! What a very unique car! This car has won several best in show awards.

If you already own or think a Fiero Restomod (or Fiero Classic Car) is in your future, consider being part of the Michigan Fiero Club ... the experience will be worth it.

The Michigan Fiero club can help you with information (we have an extensive technical library) and advice on the development, maintenance and enjoyment of your Restomod or classic Fiero.

These resources were invaluable to my restoration efforts on this car and my Traditional Classic Red 1985 GT 4 speed manual that I previously restored.

We have many members that are skilled automotive engineers, development people, and build technicians ... some of our members are even GM engineers that worked on the original development of the Fiero. These guys were very helpful in both my restoration efforts.

We also have a rich event schedule that will put you in touch with a great group of fellow Fiero enthusiasts. Our club is both car enthusiast and socially oriented. We enjoy each other's company and have a lot of fun at our Club events, road trips, breakfast gatherings, and once a month general dinner meetings!

Check out the rest of our Michigan Fiero Club web site and join us ... If you don't have a Fiero we will help you find one; Restomod or Traditional Classic.

The Pontiac Fiero is currently one of the best values in the Classic Car Market ... begin the journey!

All the Best / Roger Fagnani