

Since 1987

THE ALTERNATOR GAZETTE



Published For Antique Vehicle Enthusiasts

www.fifthaveinternetgarage.com

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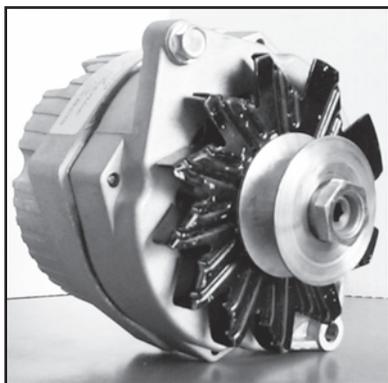
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Number 21

Fifth Avenue's 6-Volt Alternator Has Proven Reliability

Fifth Avenue Antique Auto Parts located in Clay Center, Kansas originally introduced their 6-volt alternator in 1987. Since that time it has proven to be reliable in a number of different applications, including the Great American

Race. Fifth Avenue's 6-volt alternator has an output of (60) amps, (7.5) volts, which is **60% greater** than the original equipment style generator systems. In addition, the alternator has a solid state regulator built inside



of the alternator. Owners of this new 6-Volt Alternator report easier starting, brighter headlights, and the end of dead batteries. We had some questions about this new 6-Volt Alternator so we sent our ace automotive reporter to, "get the facts."

Q. So what's the big advantage of this new 6-Volt Alternator over a generator system?

A. The main advantage is the ability to recharge the battery at idle and low RPMs. In addition, the (60) amp output of this new alternator provides a quick recovery of a low battery as well as being able to create a strong reserve of electrical energy. Since the battery is now being kept fully charged, there is no longer the constant charging/discharging of the battery which greatly increases the life of the battery.

Q. What if my vehicle system is positive ground?

A. Your electrical system is positive ground if the positive (+) battery cable is connected to the

engine block or frame, and the negative (-) cable is connected to the battery terminal of the starter, or solenoid. You will need to reverse the polarity of your electrical system in order to take advantage of a modern alternator charging system. Its simple to reverse the polarity—just two easy steps.

First, reverse the battery cables at the battery. **Second**, reverse the wires on the amp gauge. The one known exception is 1939 and '40 Fords which use a Buss Bar type of amp gauge. This type of gauge will read either polarity with no changes. Your system is now negative ground. If you have any polarity sensitive accessories such as a factory radio or dash clock, it is a good idea to consult a competent radio shop for advice.

Q. What about the width of the drive belt pulleys?

A. Fifth Avenue offers a wide selection of drive pulleys to fit most any application. *The cost of the alternator drive pulley is included in the price of the alternator.* All pulleys are made of top quality machined steel and carry a lifetime warranty against breakage. Some of the pulley sizes available include ($\frac{3}{8}$ " single groove, ($\frac{3}{8}$ " dual groove, ($\frac{1}{2}$ " - $\frac{3}{4}$ " single groove, and ($\frac{1}{2}$ " dual groove.



The diameter of the alternator pulley is very important. In order to insure a strong output from the alternator at idle and low rpms, it is important that the alternator pulley be at or close to (2.5") in diameter.

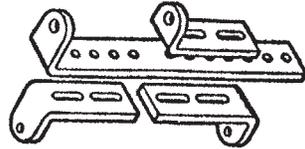


Stock generator pulleys are too large in diameter to be used on alternator applications.

The increased diameter will reduce the output of the alternator by 25% at idle and low engine rpms.

All of Fifth Avenue's alternators come with the correct diameter and width of drive pulley installed based on your application.

Q. What about mounting the alternator?



A. Fifth Avenue offers a wide variety of mounting brackets for their alternators. Some of the more popular mounting bracket kits, include those for 1937 thru 1962 GM cars and trucks. Also, Ford cars and trucks, built between 1932 and 1962. Fifth Avenue also offers alternator pulleys and mounting brackets for commercial and industrial applications such as forklifts, farm tractors, irrigation motors, and vintage firetrucks.

Q. Do any changes have to be made to the wiring harness?

A. No. The alternator requires only a simple two wire hook-up using the "Batt" wire from the old voltage regulator and the yellow wire provided with the new 6-Volt Alternator. A complete instruction guide is provided with each alternator purchase which explains the mounting and wiring procedures.

Q. What about the quality of Fifth Avenue's alternators?

A. Fifth Avenue designs and manufactures their own alternators, here in the USA, using only those parts meeting the current ISO 9001 quality control standards. ISO 9001 quality control standards are the same standards required by the new car manufacturers, and are recognized throughout the world.

Q. Does the new 6-Volt Alternator carry a guarantee?

A. Yes. Each alternator here in the U.S.A. and is guaranteed for a full 24 months from date of purchase. This guarantee includes **parts and labor** on the alternator. Each alternator is run tested under working load conditions before shipment to ensure you receive a **top quality product** that out performs its rating.



Q. How is a Fifth Avenue Alternator different from one I can buy locally?

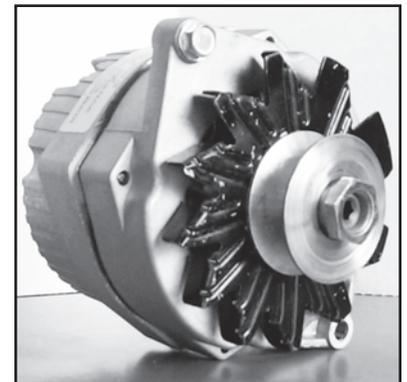
A. When modern alternator charging systems were introduced in the 1960's most automobile engines had idle speeds of 1200 rpms or greater, so this became the "cut-in" speed for "modern" alternators. By contrast, vintage engines typically have idle speeds of 800 rpms or less, and some as low as 450 rpms. **The alternator you install on your vintage vehicle needs to begin charging at engine idle speed**, just as it would for a modern application.

Fifth Avenue's alternators are able to do just that. By using specially designed rotors and stators, Fifth Avenue's alternators are able to develop a strong 30 amp output at idle and low engine rpms, while still providing a strong 60 amp output at highway speeds. The result is an alternator that can provide twice the amperage output when compared to an original generator type charging system.

Also important, Fifth Avenue uses their own design of specially wound "**Delta Type**" stators. In this advanced stator design, **current is allowed to flow in all three stator windings at the same time**. The result is a stronger, more reliable output current, at idle and low engine rpms, with less chance of damage from excessive heat. The less expensive, and more common "**Y-design**" stators allow current flow in **only two of the windings** at any given time and are less resistant to excessive heat.

Q. What about 12-Volt applications?

A. In addition to the (60) amp, 6-volt alternators, Fifth Avenue also manufactures a series of **12 volt alternators** for those applications requiring an upgrade from 6 volts as well as those applications replacing a 12 volt generator system. Known as the **90 Series Alternators**, they



have an output rating of (60) amps, (14) volts. Features include a "solid state" internal regulator and a "DA" plug as standard equipment. **The "DA" plug allows the vehicle to be started and stopped using the original ignition switch, it also eliminates the need of having to "energize" the alternator.**



Like the 6-Volt Alternators, each of the 90 Series Alternators are run tested after assembly, under working load conditions. All 90 Series Alternators are **100% guaranteed** for a full two years including parts and labor to the alternator.

Q. How do I decide...6 volts or 12-volts?

A. Both systems will work equally well with the upgrade to an alternator type charging system. If your goal is to have an original car, that is dependable to drive, that starts good, and will have bright headlights, the 6-volt alternator, is the way to go. If your goal is to add a modern stereo, air conditioning, and related modern conveniences, then an upgrade to a 12-volt electrical system is your best bet.



Q. Can I keep and use my original dash gauges if I upgrade to 12-volts?

A. Yes, to protect your dash gauges from excessive voltage when upgrading to (12) volts, you need a regulated voltage drop. Developed by **Fifth Avenue** in 1995 a "Runtz" transistorized voltage drop accepts a range of between (8) and (20) volts incoming while providing a constant (6) volts output, regardless of the input voltage.

By contrast, a *conventional ceramic type voltage drop* is a simple resistor having a specific "ohms" rating. **The ceramic type of resistor will typically have a 40 percent error rate** meaning the voltage on the output side can vary from (3.6) up to (8.2) volts, depending on the incoming voltage. This will damage your dash gauges and cause inaccurate readings.

To protect your gauges order part number **95415G**. The cost is \$18.00 each. One "Runtz" is required per electrical gauge.

Q. What about some of the accessories shown for the 6-Volt Alternator—will they fit the 90 Series Alternators also?

A. Yes, the drive pulleys and the alternator mounting brackets shown for the 6-Volt Alternator will also fit the 90 Series alternator. A DA Plug is also standard on all of **Fifth Avenue's** Alternators.

Q. What if I already have an alternator for my application— can I purchase a DA plug separately?

A. Yes, you can just specify "DA" Plug on the order form. The cost is \$18.00 each and they will work on both 6-and 12-Volt applications.

Q. What about service and technical support?

A. Fifth Avenue will gladly answer any technical questions you may have about the installation and operation of their products. Just call **785-632-3450** (9:00 a.m. to 6:00 p.m. CST weekdays) or you can e-mail technical questions to "Tech Questions" at fifthaveinternetgarage.com.

Tech Tip!

Generator VS Alternator

You should know that an alternator is able to recharge the battery at idle and low engine rpms, something a generator is not able to do. Having a strong output at idle and low engine rpms results in easier starting and brighter headlights. It also helps the battery to stay fully charged at all times which will greatly extend the life of your battery.

An 89502S 6-volt alternator will provide the same reliable charging benefits for a 6-volt electrical system as the 90 series 12-volt alternator does for a 12-volt electrical system.

A Lesson On 8-Volt Batteries

It was common practice in the old days to install an 8-volt battery in a 6-volt car for better starting. While good in theory it does NOT work in real life. Here is why. First of all an 8-volt battery requires 10 - volts from the generator charging system to keep it properly charged.

How is that going to happen if the generator charging system cannot keep the original 6-volt battery fully charged? Then there is the damage to the 6-volt lights and accessories from the excessive voltage of the 8-volt battery.

The 8-volt battery seems to work initially as it comes fully charged with 8 volts. But in a short time the voltage in the battery will drop down to whatever the charging system can replace back into the battery. Now you have an 8-volt battery that is only 60% charged.

Some have tried adjusting the regulator "up" to increase the output of the generator. That is much like running an engine past redline. Something bad WILL happen just a matter of when. The solution is to not treat the symptom but instead fix the problem, fix the 6-volt charging system so it works as it was designed to.



Understanding Generator Charging Systems...

The original generator type charging system (either 6 or 12 volt) doesn't begin to recharge the battery until about 20 mph vehicle speed or about 1200 rpms engine speed. Anything less and the battery has to provide all of the electrical energy. When the vehicle does reach 20 mph or about 1200 rpms (referred to as the cut-in speed) the generator has two jobs. One is to provide electrical current for what the vehicle is now using, and the other is to replace what was used from the battery previously.

To put this in perspective, every time you start a vehicle with a (6) volt generator charging system...you need to drive 10 miles at highway speeds to allow the generator time enough to replace the battery current used for that one start!

► If you double the voltage or (electrical pressure) the amperage required to do a given job is reduced in half. In other words, if your (6) volt headlights require (14) amps from your (6) volt electrical system, they will require only (7) amps if the system is upgraded to (12) volts.



To better understand this... lets look at how much electrical current a typical 6-volt electrical system actually requires. Using a 1950 Chevrolet car as an example, the ignition requires (1.6) amps, the headlamps together (14.0) amps, taillights (2.3) amps, dash and instrument cluster (2.5) amps, heater blower motor (8) amps, factory tube type radio (7) amps for a total of (35.4) amps. We must also add any modern accessories such as electric fuel pumps or radiator cooling fan.

Fifth Avenue Goes To The Movies...

Fifth Avenue has worked on a number of movie studio car projects over the years including the two 1946 Pontiacs used in Devil In A Blue Dress starring Denzel Washington, the six 50 Ford police cars along with Danny's Devito's Chevy in "LA Confidential", the two 1940 Ford woody station wagons in Lolita and most recently in 2008 the 1950 Dodge sedan, 1951 Dodge Suburban, the 1950 Hudson & 1950 DeSoto used in the Indiana Jones IV movie.



More details can be found by clicking the "Special Projects" link" on our website www.fifthaveinternetgarage.com

Ten Things To Know About Evans Lifetime Coolant

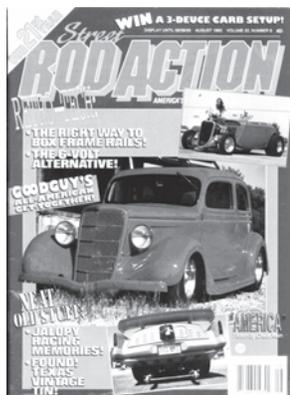
- 1** Evans NPG coolant is a waterless coolant, which means there is no water added to the coolant.
- 2** Evans coolant boils at 370 degrees Fahrenheit and freezes at minus 80 degrees Fahrenheit, with no pressure in the cooling system.
- 3** The water that makes up 50% of conventional coolant is also the source of rust, hard water deposits, and corrosion, all of which build up and will reduce the circulation of the coolant thru the cooling system, causing the engine to eventually overheat and the radiator to loose coolant. By contrast Evans NPG coolant is non-corrosive to the cooling system and because Evans NPG coolant contains no water all of the problems associated with water in the cooling system are eliminated.
- 4** After a fresh engine rebuild is an excellent time to add Evans NPG coolant to the engine and cooling system. You will have a lifetime of engine cooling protection and the inside of the cooling system will stay as clean as when the vehicle was new. It makes good sense to protect your investment and keep the cooling system working at top efficiency.
- 5** When doing an Evans NPG conversion you need to get all of the water out of the engine block and cooling system. Your goal is to have less than 3 percent water left in the cooling system.
- 6** Evans prep fluid is a hydrosopic fluid that attracts and absorbs water. Evans prep fluid will help to remove the water trapped in the engine block and cooling system. The Evans Prep fluid can be saved and used for more than one application.
- 7** Evans NPG coolant is more expensive initially than conventional water and antifreeze coolant mixture but will prove to be cheaper in the long run. You will have less cooling system maintaince and will not have to change coolant every four years.
- 8** You DO NOT have to change the radiator cap when converting to Evans NPG coolant. The pressure in a cooling system comes from the water in the coolant turning to steam. Because the Evans NPG coolant contains no water and has such a high boiling point, minimal pressure builds in the cooling system, even with a pressure cap on the radiator.
- 9** Evans NPG coolant works just as well in a non-pressurized cooling system as it does in a pressurized cooling system. You get the same freeze protection and boil over protection in both a pressurized and a non-pressurized cooling system.
- 10** Evans NPG coolant is a lifetime coolant, which means once it is installed there is no more maintaince to do. It is good for the life of the cooling system. It will provide the same protection throughout its lifetime. It will protect your cooling system from rust scale and corrosion damage while your vehicle is in storage the same as it does while you are driving it.



Real-Life Adventures

➔ We wondered just how difficult it was to install one of Fifth Avenue's alternators on an antique vehicle, so we located an article on doing just that!

Fifth Avenue has been building their 6-volt alternators since 1987. Street Rod Action magazine featured a "how-to" tech article on installing one of Fifth Avenue's 6-volt alternators on a 1949 Ford half-ton pickup powered by the original Flathead V8. On the following pages is a reprint of that article.



THE 6-VOLT

Alternative

➔ Street Rod Action Magazine Installs

A 6-Volt Alternator...

Our application is a 1949 Ford Pickup used as a daily driver/parts chaser. The electrical system left something to be desired with a constant battle between dim headlights and dead batteries. It was definitely time for a change but a low buck improvement was also in order as this pickup is just a daily driver and nothing special.

We called **Fifth Avenue** and talked to Randy and explained our situation, Randy explained our options and the 6-volt alternator seemed like the logical choice. A few days later we received the 6-volt alternator, along with a special

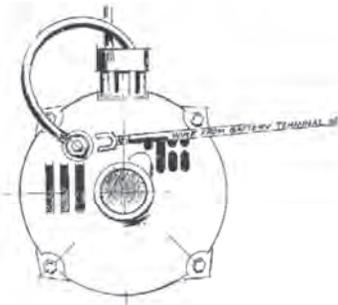


The 6-Volt Alternator ready for installation on our 1949 Ford engine.

mounting bracket, and a wide width belt pulley to match our original fan belt.

As per instructions, our first job was to reverse the polarity. We simply reversed the battery cables at the battery, then we reversed the wire loop on the back of the amp gauge.

The next order of business was to remove the old generator and the wires connected to it. The "BATT" wire from the old voltage regulator will connect to the 10/32 stud on the back of the alternator. The rest of the wires were folded back and taped to the original harness for future generations. That done we installed the new alternator on Fifth Avenue's mounting bracket.



Now we were ready to mount the alternator to the engine. Simple enough as the new alternator mounting bracket uses the very same mounting as the generator bracket we were replacing. With that done it was time to wire the alternator. There are just two wires to connect. The "Batt" wire from the old voltage regulator connects to the 10/32 stud on the back of the alternator (see drawing).

The yellow wire from the alternator connects to the battery side of the ignition coil (this is the side of the coil that receives power from the ignition switch). With these two wires connected we were done! The instructions were simple and straight-forward. Our total installation time was less than one hour. Our dim headlights are gone and the truck starts much easier, especially when the engine is hot.



Did You Know?

One of the biggest complaints of antique vehicle owners is electrical accessories that fail to work or only work part time. Most often this can be traced back to ground or a lack of it. The return path back to the battery known as the ground circuit is just as important as the positive side of the circuit that runs between the positive post of the battery and the electrical accessory.

A Remote Battery Stud is an easy way to insure both a good positive and negative path back to the battery to insure all of your electrical accessories work as they are supposed too. Remote Battery Studs are available in the Parts Section of this catalog.



Technical Highlights



Fifth Avenue Antique Auto Parts has spent the last 25 years solving the electrical, cooling, and fuel related problems associated with antique, classic, and special interest vehicles. You are invited to take advantage of their vast knowledge and "hands-on" experience.

Aside from the electrical related charging problems we solved earlier, two other areas need to be addressed. They are cooling and fuel. Lets look at the common, cooling related problems, and the solutions.

Some of the early Flathead Ford motors (typically the 1932-1940 years) mounted the mechanical radiator cooling fan on the end of the generator pulley. In years past there was not a way to mount the original generator pulley fan on the end of an alternator pulley. Fifth Avenue has solved that problem by offering a specially machined alternator pulley for their 89/90 series alternators that accepts the original Ford pulley mounted engine fan.

(See parts counter link for details)

In addition Fifth Avenue also offers both 6-volt and 12-volt electric radiator cooling fans to further increase the efficiency of the cooling system. The electric radiator cooling fan along with a stainless overflow tank will insure your cooling problems will be solved for good.



Because we are a couple of generations away from when our antique vehicles were sold new, there is some doubt about how reliable they really are and if they can be a dependable daily driver.

Absolutely any antique vehicle can be a daily driver and we have many customers who do just that. Once you address the **charging system** issues and upgrade to a modern alternator type of charging system, your lights will be bright, your car will start with ease, and you will have no more dead batteries.

Upgrading the **cooling system** is also a simple project. Either upgrading to the Evans NPG coolant or adding a little pressure into the cooling system along with an overflow coolant tank will make your system a closed system thus eliminating the loss of coolant while controlling the temperature spikes so the engine temperature will be consistent.

Lastly the **fuel system** needs to be upgraded to accept the modern fuels. That involves upgrading the fuel line and carburetor gaskets to the more modern alcohol resistant gaskets and barrier hoses. Adding an electric fuel pump, will insure you will never be stranded by vapor lock. With a little effort and preparation **you can** drive and enjoy your antique vehicle on a daily basis. **What are you waiting for...?**



Cooling System Tech Tips:

There are two things you can do to benefit most any vintage cooling system. The first is to run straight distilled water in the cooling system during the summer months, (with no antifreeze) and a pint of rust inhibitor/water pump lubricant. Water is the best dispersent of heat there is. This simple trick is good for a twenty degree, drop in engine temperature.

Next up... pressurize your cooling system and add an overflow coolant tank. Five pounds is enough. The five pounds of pressure will raise the boiling point of your engine coolant to 227 degrees. The pressure will also create enough vacuum in the cooling system to draw the overflow coolant back into the radiator, as the engine cools.

The Benefit:

When the overflow tank catches the expanded engine coolant it prevents outside air from entering the cooling system. When outside air is allowed to enter the cooling system, steam pockets can develop in the cylinder head and engine block, which can then build pressure and restrict coolant flow. Steam pockets are a common cause of engine overheating.

Electric Radiator Cooling Fans, can be a big help in solving overheating problems. Electric radiator cooling fans work best at idle and low speeds to increase airflow through the radiator core. It is best to mount the fan in the **upper third of the radiator as close to the top of the radiator as possible**, because that is where the warm coolant enters the radiator. A 14" fan works best for most vertical radiator applications including Flathead Fords.



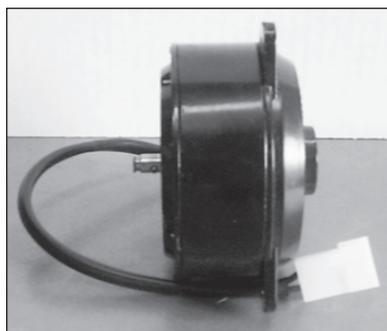
Adjustable metal brackets that mount the fan assembly to the outside framework of the radiator is the best choice for mounting the fan. Nylon ties that use the radiator core for support will damage the radiator core.

Electric Fan Motors may all look the same but they are not. Be sure your fan has a ball-bearing fan motor. They will use less current, are more reliable, and will have a much longer service life when compared to a



less expensive bushing type fan motor.

Also check the number of blades, and the pitch of the blades. A more aggressive pitch on the fan blade will require a bigger motor, but will move more air...which is



your goal in the first place. Also be aware of CFM ratings. Most do not take into consideration the radiator core thickness, and the number of fins per-inch, that make up the radiator core. A better gauge is the size of the motor, the number of blades, and the pitch of the blades.

6-Volt And 12-Volt Cooling Fans Available

Fifth Avenue builds electric radiator cooling fans for both 6-volt and 12-volt applications using the largest ball bearing motors available. This insures that the fan will have a long service life, no matter how severe the application.

Pusher Or Puller?

In addition to the voltage, you will need to decide if you want the fan to be a “pusher” or a “puller” style of fan. A pusher style fan mounts on the front side of the radiator and pushes air through the radiator core. A “puller” style fan mounts on the engine side of the radiator core and pulls air through the radiator.



Cooling Fan Tech Tip:

When in doubt always remember...the curve or pitch of the blade should always face the engine!

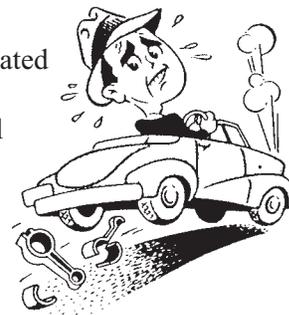
This is true of both pusher and puller style fans.

Fuel Systems

The third area of concern should be the fuel system. As many of you have experienced first hand, the automotive gasoline you are buying at the pump is not the same as it was, even just a few years ago. Lets look at what has changed and then what you can do to make your fuel system more reliable.

Understanding The Changes

Starting in 1992, with the introduction of alcohol gasoline began the complaints of fuel related problems, vapor lock being the most common. The new alcohol gasoline contains what are called oxygenates, which are air molecules added to the gasoline during refining, to result in a cleaner burning fuel.



Most modern cars are fuel-injected and therefore have plenty of fuel system pressure (30-65 pounds). By contrast vintage vehicles have limited fuel system pressure (often between 3 and 8 pounds). That is why vintage fuel systems have begun experiencing vapor lock problems more often in recent years. The modern fuels tend to vaporize more readily often before they reach the mechanical fuel pump. Additives such as alcohol can also affect vintage fuel systems.

So...what is the solution?

Adding an electric fuel pump has almost become a necessity. The new alcohol gasoline evaporates very rapidly, especially in the summertime. You need a fuel pump that will pump alcohol, all fuel additives, and the alcohol gasoline without failure. Also important is to find a fuel pump that **maintains the original fuel pump pressure**, while increasing the **volume** of fuel delivered. Too much fuel pump pressure against the needle and seat in the carburetor will result in the carburetor flooding over.



Fifth Avenue offers a gear driven electric fuel pump that pumps alcohol and “all” types of fuel additive(s), and the alcohol gasoline without failure. This gear driven fuel pump works much like the oil pump inside of the engine and maintains the **stock fuel pump pressure** while increasing the **volume** of fuel delivered.

Gear driven electric fuel pumps are quiet, and a great way to overcome vapor lock, and increase the reliability of your fuel system. Fifth Avenue has them for both 6 volt and 12 volt applications.



Fifth Avenue has received a number of testimonials about the quality and performance of their products and their customer service. We thought it would be fun to share a few of these with you so you can see what current and past customers of Fifth Avenue have to say about their experiences.



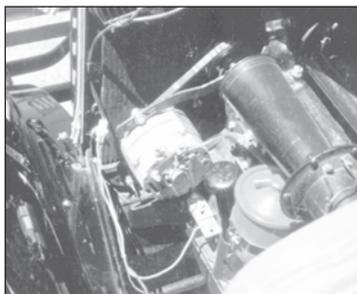
In 1989 **Fifth Avenue** got involved with the participants of the Interstate Batteries Great American Race. Knowing their alternators worked great in non-race applications, it was time to find out how well their alternators were really built.

The first application to use their alternator was a 1936 Cord owned by Bud and Marilyn Melby of Seattle Washington. Cord vehicles are totally electric shift. In addition the overdrive is also run by an electric solenoid.

In preparation for the race an electric radiator cooling fan was also added along with a pair of electric fuel pumps. The race was to be 4,250 miles across the United States in just 14 days. This was to be a good test for the alternator. The Cord did well that year, placing in the top 10. The alternator performed without a hitch. That alternator went on to run in two more Great American Races without failure.

Another Great Racer, Howard Sharp of Fairport New York was keeping an eye on the new 6-volt alternator to see how it performed. Howard's car, a 1929 Dodge Sport Roadster (one of only 1200 made) was also having generator problems. The electrical load was just too great for the original generator, especially with the extra's added.

After watching the alternator in the 1989 and 1990 races, Howard installed one on his 1929 Dodge. "I watched that alternator for two years, and I couldn't believe something that simple to install could be that damn reliable." I put one on my car and couldn't believe the difference!"



Fifth Avenue's 6 Volt Alternator installed on Howard Sharp's 1929 Dodge Roadster.

Randy Rundle, owner of Fifth Avenue Antique Auto Parts and Howard Sharp became good friends and beginning in 1992 Fifth Avenue began sponsoring Howard in the Great Race.

Howard raced his 1929 Dodge in the 1991 and 1992 races and really stress tested the 6-volt alternator.



Howard wins the 1993 Great Race

It survived with flying colors. In 1993 Howard again entered and won the Sportsman's class yielding him \$30,000 and a new 1993 Buick Roadmaster.

That alternator is now on display in **Fifth Avenue's** show room.

After winning the 1993 Great Race Howard advanced to the expert class of the Great Race. Looking to take advantage of the handicap



Howard Sharp wins the 2011 Great Race

factor allowed for older cars entered in the Great Race, Howard located and purchased a 1911 Velie which would prove to be the oldest car entered in the Great Race. Fifth Avenue and Howard worked together to prepare the Velie for the Great Race. Howard would finish in the top ten every year with the Velie but driving a 90 plus year old car in the Great Race proved to be quite a physical challenge for both the car and the driver. Then in 2011 Howard and the Velie won the Great Race, the same year the Velie turned one hundred years old!

**More testimonials can be found at our website:
www.fifthaveinternetgarage.com**



Randy,

"I picked up my 53 Pontiac yesterday. The mechanic who installed your alternator conversion kit told me at the outset that the ONLY improvement would be brighter lights. When I picked my car up he told me that the car was charging at idle with lights on and radio going. He was impressed. I told you the reason I made the change was the car was hard starting; it usually would not start after short and long drives when the engine was warm. Yesterday the car started at every stop. Your alternator exceeded my expectations and those of my mechanic."

-- Donald P. McKitterick
Markham, Ontario, Canada

Dear Randy,

After restoring our '40 Ford to "original" we came up with a best of show beauty. To our surprise, we found that to drive at night was scary because 6-volt generator just does not cut it. I saw an ad in the Early Ford magazine for a 6-volt alternator built by Fifth Avenue Antique Auto Parts. I called them to discuss the benefits of an alternator vs. generator and was told I would not believe the difference because the lighting system would perform so much better. I ordered an alternator well remembering all of the things I've bought in the past that didn't quite live up to the seller's claims. However, I had to make our car safer to drive at night and if the Fifth Avenue alternator worked 1/2 as good as claimed, I would be happy.

I got the alternator installed and last night I went for a test drive. Wow, what a difference. I couldn't believe what I saw and considering what I couldn't see with the original system, I'm absolutely a Fifth Avenue fan. I had a few questions while installing the alternator and the headlight relay so I called Fifth Avenue for help. I've spent most of my life as a customer service manager and after seeing what most companies now pass off, as "good" service Randy at Fifth Avenue was really super. He is polite and patient and when he says he will call back, he does. Great product along with great service makes for happy customers.

Thanks to Randy at Fifth Avenue Antique Auto Parts!
Glenn & Ginny Dunham

Randy,

I just finished installing your 6-volt alternator that I purchased for my 1937 Plymouth. It works great. Easy starting, charges at all rpms and really bright lights. I am sure that I'll get a lot of questions from people at the events about this charging system, and I'll be sure to pass your web site info to them. I also write a Tech Tips article for the Frankfort Car Club newsletter and I'll be sure to write an article about my experience with your product. You gave my Plymouth new life. Thanks a million.

Ron Bernier

Randy,

I want to thank you for your prompt service and technical support. It is a credit to your business and your integrity. While the problem was not with your product as I first suspected, you took the time to help me identify and correct the actual problem. I cannot thank you enough.

D. Dubach

Lloyd Dahman of Chestnut Hill, Mass., entered the 2010 Peking to Paris Race with his 49 Cadillac. Lloyd explains.... "I sought Randy out based on his reputation for



knowing how to prepare antique cars for a rally like this. The word among the antique car rally people is that Randy knows what he is doing and the specialty parts he builds

for these cars will exceed your expectations.

I researched Randy and his company further and found out he was successful in the 2007 Peking to Paris Race...I knew I had found my man."

Randy,

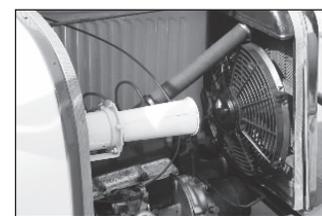
About four years ago I purchased one of your 6 volt alternators. I finally got around to installing it on my 1953 Studebaker Starlight Coupe today (5/28/11). OH MY GOD!!! What an incredible difference it has made!! My headlights don't dim at idle...I can run the defroster, climitizer heater and wipers at the same time? The original Philco S-5323 (AC-2301) radio is clear and loud! Even the BORG electrically wound clock is more accurate? And-maybe-people will see my rear turn signals now, they're so bright! Also, the cigar lighter is now a 3 second Flame Thrower!! As you can tell, I'm more than satisfied and can't THANK YOU ENOUGH

Steve Wilkie

Dear Randy,

As I promised you, please find attached a picture of your 6-volt fan mounted on my car.

I've made quite a few



trips since the installation and the fan did excellent work, no overheating anymore.

Kind regards from Belgium,
Patrick



Technical Publications

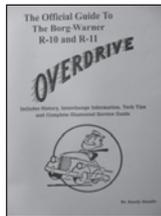
The Official 12-volt Conversion Guide

The complete, step by step guide, to upgrading a 6-volt electrical system to 12-volt. Alternators, mounting brackets, pulleys, overdrives, ignition coils, generators, 6/12 bulb crossover numbers, its all included. This complete 28 page guide explains everything you need to know in simple "common sense" plain english. A complete parts source list is also included. 5 1/2 x 8 1/2 size. **\$10.00 each**



Borg-Warner Guide Book

This 8 1/2 x 11 40 page illustrated guide explains everything you need to know about operating and troubleshooting the Borg-Warner "R" series overdrive transmission. Includes factory service information, interchange guide, and illustrated wiring diagrams. **\$15.00 each**



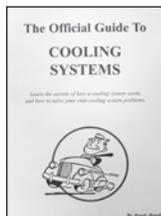
"The Official Guide to Shop Kinks and Tech Tips, 1940-1960 Edition"

Learn over 140 tech tips and mechanical short cuts from those who made their living working on these cars and trucks everyday. A must have for every shop and automotive library. 5 1/2 x 8 1/2 size. **\$10.00 each**



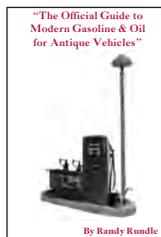
The Official Guide To Cooling Systems

With this 8 1/2 x 11 30 page illustrated guide you can learn the secrets of how a cooling system works so you can solve your own cooling system problems. If you own a Flathead Ford this book is a must have. **\$15.00 each**



The Official Guide To Modern Gasoline & Oil for Antique Vehicles

In this 60 page full color 5 1/2 x 8 1/2 book Randy explains how the changes to modern gasoline and engine oil have affected antique vehicles, and what you need to do to protect your antique vehicle from potential engine and fuel system damage. A must have book for all antique vehicle owners. **\$15.00 each**



HELP! My Car Won't Start When It's Hot!

Each of us has owned, or knows of someone who has owned an antique vehicle, muscle car, or hot rod that refuses to start when the engine is warm. In this book Randy will help you to identify and fix your hot start problem once and for all. 68 pages with color illustrations throughout. **\$15.00 each.**



Alternators

6-volt Alternators

Standard 6-volt alternator. Output is 60 amps, 7.5 volts and features a solid state internal regulator. A "DA" plug and the correct drive pulley for your application is included.

Part #89502S \$215.00 each

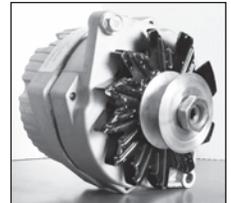


12-volt Alternators

Standard 12-volt alternator.

Output is 60 amps, 14 volts and features a solid state internal regulator. A "DA" plug and the correct drive pulley for your application is included.

Part #90502S \$215.00 each



Drive Pulleys

Your choice of any one drive pulley is included in the cost of your alternator. Please specify your selection. Additional pulleys can be purchased separately for a cost of **\$30.00 each.**

- 3/8" Single Groove
- 1/2" thru 3/4" Single Groove
- 3/8" Dual Groove
- 1/2" Dual Groove
- Combination 1/2" and 3/8" Dual Groove

All pulleys are lifetime guaranteed against breakage.



Early Ford Flathead V8 Fan Mount Pulley

This specially machined alternator pulley is designed to be used with the 89502S 6-volt alternator or the 90502S 12-volt alternators and accepts the standard 1932-40 flathead "B" width fan belt and the stock cooling fan that originally was mounted to the generator pulley. This pulley will allow the stock pulley mounted fan to be used when upgrading to an alternator type of charging system.



Part #14415FP \$65.00 each

(\$35.00 with the purchase of a Fifth Avenue Alternator)

Mounting Brackets

Chevrolet 6 Cylinders

Brackets are available to mount the 89/90 series alternators on Chevrolet six cylinder engines built between 1937 and 1962. With these brackets the 89/90 series alternators will mount in the same position as the original generator with no other modifications.

1937 thru 1953 Part #92415EC \$75.00 each

1954 thru 1962 Part #92415LC \$75.00 each





Early Ford Flathead V8 Alternator Bracket

Fits all 1932-1945 Ford Flathead applications. Mounts the 89/90 series alternator in the same position as the original generator. You use the same belt and adjustment procedure as before. Note 1939 and earlier applications see tech tips on page six.

Part #89502EB \$80.00 each



Machined Steel

Late Ford Flathead V8 Alternator Bracket

Fits all 1946-1953 Ford Flathead applications. Mounts the 89/90 series alternator in the same position as the original generator. You use the same belt and adjustment procedure as before.

Part #89502LB \$80.00 each

Note: The Flathead Ford Brackets will also fit Mercury and most Lincoln applications.

Tech Tip—89502LB brackets are not designed to be used in combination with long shaft truck water pumps.



Machined Steel

Y-Block Ford Alternator Mounting Brackets

We now offer a quality engineered alternator-mounting bracket for the Y-Block Ford V8 Engine. These alternator brackets allow our 89/90 series alternators to be mounted in the same position as the original Ford Y-Block generator, using the original fan belt and the same belt adjustment procedure as before. Mounting hardware is included.



Applications

1954-64 Ford Truck V8-Part #03415YT \$95.00 ea.

1954-62 Ford Car V8-Part #03415YC \$95.00 ea.

1955-57 Ford T-Bird

The 1955 thru 1957 Ford T-Bird V8 applications require a special alternator bracket kit that also includes a special pulley for the 89/90 series alternator. This alternator bracket kit includes everything you need to install our 89/90 series alternators on your 1955 thru 1957 Ford T-Bird application.

Part #03415YTB \$110.00 ea.



2N/9N/8N Ford Tractor Alternator Mounting Brackets

Allows you to install the 89/90 series alternator on your Ford 2N/9N/8N series tractor. Brackets are available for both left and right side alternator mounting. Note: Ford moved the generator to the left side of engine in late 1949 when the distributor was moved from lower front of engine to the upper right side of engine.

Right Side-Part #042415ET \$80.00 each

Left Side-Part #042415LT \$80.00 each



Universal Mounting Bracket

Fits nearly all applications not covered by our custom bracket selection. Mounts to original generator bracket or can be used as a stand alone bracket. hardware package included.

Part #90502UB \$80.00 each



Electrical

“DA” Plugs

For adapting alternator to original wiring harness. Will work with both 6 and 12 volt applications.

\$18.00 each



Runtz Voltage Drops

For dash gauges - one required per electrical gauge.

Part #95415G \$18.00 each



Heavy Duty Wire-Wound Heater Blower Motor Voltage Reducer

Allows the original 6-volt heater blower motor and control switch to be used when electrical system is upgraded to 12-volts. Safer and much more reliable than the less expensive ceramic type voltage reducers.

Part #02415HR \$18.00 each



Heavy Duty Headlight Relays

Available for both 6 and 12-volt applications. Installing a headlight relay will provide up to 30 percent brighter headlights and a 50 percent longer service life for the original headlight switch.

6-volt Relay Kit-Part #03415HL6 \$27.00 each

12-volt Relay Kit-Part #03415HL12 \$22.00 each



Solid State Generator Cutout

Direct replacement for all 6/12-volt 35-amp and smaller generators that originally had a mechanical, cutout type voltage regulator. No mechanical points to adjust or wear out. No more battery drain. Greatly improves charging system reliability.

Part #02415SSC \$45.00 each

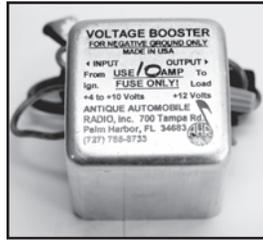




Regulated 12-volt Negative Ground Power Inverter

Allows you to run modern solid-state accessories from you 6-volt alternator charging system. Great for recharging a cell phone, and providing power to modern solid-state accessories. Five-amp constant regulated output. Use with negative ground accessories only.

Part #02415PI \$99.00 each



Improved Design Ford Model T Ignition Coil

This ignition coil works very well on Fairmont 2-cycle motorcar engines...as well as all types of stationery antique engines, including the Model T Ford. It is USA made and built in a durable plastic case and is epoxy sealed to prevent damage from moisture and vibration. Clip type connections prevent loose wiring connections. Works with 6 or 12 volt applications and comes ready to use.

Part #10415TC \$110.00 each



Internal Resisted Coil

Increase the reliability of your ignition system while eliminating the external ballast resistor, a known trouble spot. Will replace all 6/12-volt external mounted ignition coils. Will also work with electronic ignition conversions.

6-volt-Part #954156C \$80.00 each

12-volt-Part #9541512C \$80.00 each

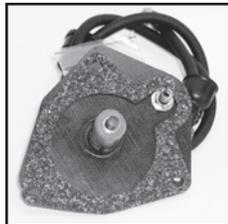


Ford Coil Adapter

Allows the use of a modern 6 or 12-volt Internal resisted ignition coil with early front mount Ford/Mercury V8 distributors. Gets the coil up away from engine heat and radiator coolant overflow for increased reliability of the ignition system.

1933-1936 3-screw V8 distributors- Part #02415ECA \$55.00 each

1937-1941 2-screw V8 distributors- Part #02415LCA \$55.00 each



Optima Batteries

6-Volt Optima Battery

This is the ultimate 6-volt battery. 950 cranking amps. Sealed battery with no posts to clean. Can be used in any position. **Two-year free replacement warranty** five to seven year service life. No Hazmat shipping label required. Shipping weight 22 pounds. (You pay actual shipping costs only).

We have been an Optima Dealer since 1989 and would not use anything else.

Optima 6-Volt Battery \$175.00



12-Volt Optima Dual post battery

This is the ultimate 12-volt battery. 950 cranking amps. Dual posts allow 12-volt accessories to be powered direct from the battery without interference to the battery cables. Sealed battery with no posts to clean. Can be used in any position, **Two-year free replacement warranty** five to seven year service life. No Hazmat shipping label required. Shipping weight 44 pounds. (You pay actual shipping costs only). We have been an Optima Dealer since 1989 and would not use anything else.

Optima 12-Volt Dual Post Battery \$195.00



Battery Master Switch

This battery master switch allows you to disconnect the battery from the electrical system by simply turning the black knob "half a turn". Works especially well for vehicles in storage. Eliminates worry of fire caused from a short in a wiring harness. Knob can be removed completely to help prevent vehicle theft.

Part # 10415BS \$10.00 each



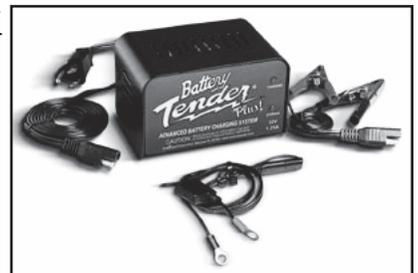
Battery Tender Plus

The Battery Tender Plus is a 1.25 amp battery charger designed to fully charge a battery and maintain it at proper storage voltage without the damage to the vehicle electrical system. A must have for any vehicle in storage. Comes with *ten-year*

manufacturers warranty. We have used these since 1988.

Part #04415BT6-6-volt \$59.00 each

Part #04415BT12-12-volt \$59.00 each



All prices are accurate at time of catalog printing. You will be notified of any price increases before the shipment of your order.

Thank You



Fuel System

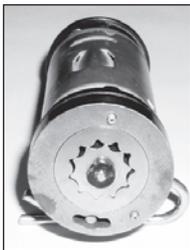
Electric Fuel Pumps

Available for both 6 and 12 volt applications. They are gear driven and will pump alcohol and all fuel additives. These fuel pumps overcome vapor lock by **increasing the volume of fuel** delivered while still maintaining the **stock fuel pressure**. Great Race tested.

Part #92415EFP6 \$95.00 each

Part #92415EFP12 \$95.00 each

6/12 volt electric fuel pumps, comes complete w/30 micron fuel filter, mounting hardware and instructions.



Gates Barrier Fuel Hose

We now offer 25' Rolls of the Gates 5/16" Barrier Fuel Hose as featured in the book "The Official Guide to Modern Gasoline and Oil for Antique Vehicles". Modern alcohol gasoline destroys non-barrier fuel hose (fuel line hose manufactured before 1985) so updating fuel lines is a must. This Gates Barrier fuel hose is a direct replacement suitable for all types of antique vehicles with carburetor type fuel systems. This is the correct size hose you will need to use with the 92415 EFP and all of the fuel system components we offer.

Part #2016415GFL \$49.00 per 25 foot roll



Stainless Fuel Line Clamps

We now offer a quality stainless steel fuel line clamp that is easy to tighten, seals tight and holds its shape. These clamps work well with the Gates 5/16 Barrier fuel hose offered above. **Sold ten clamps to a package.**

Part #2016415FHC \$15.00 Package of 10 Clamps



Replacement 30 Micron Fuel Filter

This is the replacement **30 micron** fuel filter for the 92415EFP6/12 fuel pump. Also works well with any low pressure fuel system application. Designed for ⁵/₁₆ inch fuel line installations.

Part #07415RFF \$9.00 each



30 Micron See Thru Fuel Filter

Developed for the Great Race this "see thru" fuel filter is designed to be installed at the carburetor so any contaminants can be easily seen. Filter can be cleaned and replaced easily without tools. Extra filters and hardware also included.

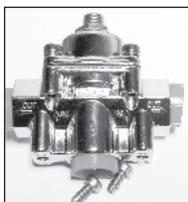
Part #92502STF \$40.00 Kit



Fuel Pressure Regulator

This pressure regulator is set at the factory for 2.7 pounds. It has an infinite adjustment range between 1 and 4 pounds, and is ideal for multiple carburetor(s) and early model vintage car applications. Highly accurate and proven reliable in Great Race applications.

Part #07415FPR \$65.00



Fuel Pressure Gauge

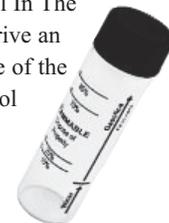
Designed to be used along with the fuel pressure regulator listed above. Great for multiple carburetors and early model vintage car applications. Highly accurate and proven reliable in Great Race applications.

Part #07415FPG \$30.00



Fuel Test Kit

Now You Can Check The Percentage Of Alcohol In The Fuel You Buy In Ten Minutes Or Less! If you drive an antique vehicle you need to know the percentage of the alcohol in the gasoline you buy. The more alcohol present in the gasoline the greater the risk of corrosion damage to the fuel tank and the fuel system. It is common especially from blended gasoline pumps to end up with an alcohol percentage greater than ten percent. Comes with simple easy to read instructions.



Alcohol Fuel Test Kit PT # 12415ATK

\$20.00 each

Fuel Stabilizer

This Advanced Formula Fuel Treatment & Stabilizer fights the harmful effects of water separation and provides a protective barrier on metal parts to prevent rust and corrosion. Concentrated formula. Protects up to three years. One ounce treats five gallons. One 16 oz bottle treats 80 gallons of fuel.

16oz Bottle Fuel Stabilizer - PT # 15415FS

\$21.00 each

Case of 12 16oz bottles

\$216.00 each



Zinc Replacement Additive

All engines that have a flat tappet valve train (most engines built prior to 1980) still need the **Zinc additive package in the motor oil** (to prevent wear between the cam lobes and the bottom of the lifter for example). **If you see Service SM or higher (SN, SO, SP, is higher) or "energy conserving" on the container then the Zinc additive package has been removed to meet current EPA standards.** Order part number 10415ZA to **put the Zinc additive package back** which will allow you to use the modern energy conserving motor oil in your older engine. (See the "tech tips" pages on our website for more details.)

Part # 10415ZA \$16.00 per Bottle (16 oz.) (USA Made)

Case of 12 bottles \$160.00 each





Cooling System

Available for both 6 and 12 volt applications. The 14" "Pusher" style is designed to mount on the front side of the radiator behind the grill and push air thru the radiator. A 14" "Puller" style fan mounts on the engine side of the radiator and pulls air thru the radiator.

Cooling fan kits come complete with wiring, switches, and all mounting hardware. Please specify the style you need for your application.

Part #93415CF6 6-volt \$175.00 Kit

Part #93415CF12 12-volt \$175.00 Kit



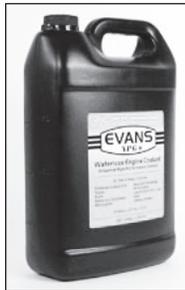
Evans NPG+ Coolant

This is a waterless coolant (no more rust, scale, and corrosion in the cooling system) that has a **boiling point of 370 degrees** and a **freeze point of minus 80 degrees** with **zero pressure in the radiator** so (no more overheating and coolant loss) it works great in all types of cooling system applications including non pressurized radiator cooling systems. It is a lifetime coolant. We have used it in the cars we prepare for the Great Race since 1989. It is expensive but it really works. Call 785-632-3450 if you have further questions.

Part #07415EVC1 \$52.00 Gallon

Part #07415EVC6 \$185.00 Case (4)

Shipped via UPS Actual shipping costs apply

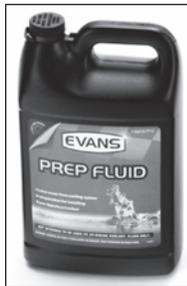


Evans Coolant Prep Fluid

This hygroscopic fluid absorbs any residual water and removes any loose dirt, rust and scale. Fill the system with Evans Prep Fluid and run the engine until normal operating temperature is reached. Allow to cool then drain. Remember for best results you need less than three percent water remaining in the cooling system before you add the Evans High Performance lifetime coolant. Evans Prep Fluid can be reused for multiple applications. While expensive initially, the Evans coolant is a lifetime coolant and the benefits far outweigh the cost over time.

Part #15415EPF \$36.00 Gallon

Want to know the steps involved in an Evans Conversion? Visit the [tech tips link](#) on our website and you can read the actual step-by-step instructions.



Polished Stainless Steel Coolant Recovery Tank



Prevent engine coolant loss and outside air from entering your cooling system. Tank holds 20 oz of coolant. Two inch diameter. Fifteen inches tall with Polished

mounting bracket and hardware included.

Part # 12415 CRT \$60.00 each

Borg-Warner Overdrive Parts

Replacement "Overdrive" Dash Cable

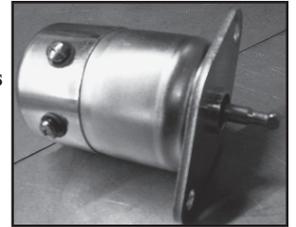
We now have available replacement overdrive cable assemblies complete with the correct chrome handle and hardware. These are an exact reproduction of the overdrive cable assemblies used by all twenty two different car companies that offered the Borg-Warner overdrive transmission as an option.

Part # 09415ODC \$65.00 each



New Reproduction Borg Warner Overdrive Solenoids

We now have available brand new exact reproductions of the original Borg Warner overdrive solenoids. These are available for **both 6-volt and 12-volt applications**. This is the same solenoid used by all twenty two of the car companies that offered the Borg Warner electric overdrive as an option from the late 1930's thru the early 1970's. **No core is required.**



These will fit standard Borg Warner overdrive applications...those with a shaft length of one inch measured from the tip of the shaft to the edge of the alignment flange. (lay your ruler on top of the shaft and measure from the ball end to the edge of the casting.) **All standard overdrive-solenoid shafts** will measure one inch. Station Wagons and convertibles will measure 1.5 inches and a few odd applications will measure 1.25 inches or longer. This solenoid fits the **STANDARD** one inch applications only. Please check you shaft length before ordering.

Part #08415ODSL6 6-volt \$385.00 each

Part #08415ODSL12 12-volt \$385.00 each

Kickdown Switch

This is an exact replacement for the original Borg-Warner overdrive kickdown switch that is located under the gas pedal. This HD kickdown switch will work with both 6-volt and 12-volt applications.

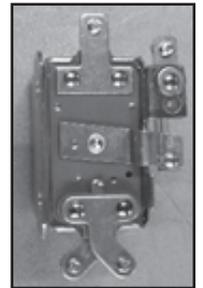
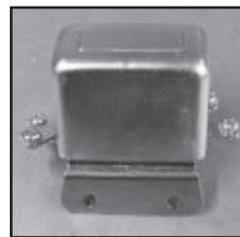
Part #05415KDS

\$48.00 each



New Reproduction Borg Warner Overdrive Relay

Now available an exact reproduction of the original Borg Warner overdrive relay. This is the same relay used by all eleven of the car companies that offered the Borg Warner electric overdrive as an



option from the late 1930 thru the early 1970's...

Complete wiring instructions included.

Part #08415ODR6 6-volt \$130.00 each

Part #08415ODR12 12-volt \$130.00 each

Since 1987 Fifth Avenue Antique Auto Parts has been making all types of antiques more reliable and fun to drive...

Thank You



Overdrive Solenoid Oil Seal

This seal goes into the overdrive transmission housing where the solenoid mounts to the transmission (and the solenoid shaft passes thru the transmission housing) and connects to the shift pawl. If this oil seal becomes damaged from age or rough removal of the solenoid, **transmission oil from the transmission will leak into the overdrive solenoid housing**, causing the solenoid to fail. This seal should be checked for damage every time the solenoid is removed for service and replaced if damaged.



Part #074150S \$7.00 each

Borg-Warner Overdrive Transmission Gear Oil

This is the proper mineral based gear oil for use in all of the Borg-Warner Overdrive Transmissions 1940 and newer. Use only the proper Gear oil in your Borg Warner overdrive. Do not use "Hypoid" gear oil, any oil with an API rating of GL-2 or higher. Also do not use combination hydraulic/transmission tractor oil or any EP rated oils. Do not use any synthetic gear oils. **Use only API rated GL-1 oil.** The sulfur and related additives in modern gear lubricants will destroy the bronze parts inside of the Borg-Warner overdrive. Most all Borg-Warner manual overdrive transmissions require seven pints of lubricant.



Part #09415GL - 1 \$30.00 gallon

Borg-Warner Overdrive Transmission

With twenty-two different car companies offering the B-W overdrive transmission beginning in 1940, the thirty dollar option quickly became very popular with car owners. Over four million had been sold by 1960. It was last offered as an option for the 1972 Ford F-150 pickups. Studebaker was the largest purchaser of the B-W overdrive transmissions. Two models were made, the R-10 being the most common. In later years an R-11 was introduced for the heavier cars (Packard for example) and higher horsepower applications. The R-11 was identical to the R-10 except that it had four gears inside of the planetary sun gear instead of three like the R-10. All overdrive transmissions will have an ID and part number on the transmission housing next to the solenoid. It will be R-10 or R-11 followed by a part number identifying the transmission in front of it.

Remote Battery Stud

A remote battery stud (available in Red for positive, Black for ground) will provide easy identification and allow you to power all of your electrical accessories, such as electric radiator cooling fans, electric fuel pumps, fog lamps, modern stereos and even air conditioning from a single location.



Remote Battery Studs are rated at 200 amps and can be mounted in any location. Providing power to your electrical accessories direct from the battery will eliminate damage from voltage spikes and power surges. It will also eliminate having to scratch off paint, dirt or grease to establish a reliable ground path back to the battery. A Remote Battery Stud will provide the most reliable battery current possible...and the best electrical system ground possible. Remote Battery Studs are as good as it gets!

Part # 03415RBSR – Red, \$22.00 each
Part # 03415RBSB – Black, \$22.00 each
(Be sure to specify color when ordering!)

HD Power Block

A "HD Power Block" is the best way to add multiple accessories to your antique vehicle's electrical system. Each circuit is fused using modern ATO type fuses. Six separate circuits available. The HD Power Block is rated at 60 amps total. 30 amps max rating per circuit. These work great to replace the early style mechanical circuit breakers found in many antique vehicle electrical systems. A HD Power block can be mounted at any location on any surface. Power cable comes preinstalled. Can be used with the Remote Battery Stud to create a reliable, trouble free electrical system.



Part Number 13415FPB, \$46.00 each

Whisk Hand Cleaner And Dispenser

This Whisk waterless hand cleaner dispenser was first introduced in 1940 and is still made in the USA. Also available are the original design 32oz. refills. There is none better at any price!

PT #17415 - PD-2 \$54.00 each (Dispenser)
PT #17415 - HCR \$15.00 each (32oz refill)



Fifth Avenue Tag Topper

Fifth Avenue Tag Toppers are available to fit above the license plate ("uppers") or on the bottom of the license plate ("downers"). They are five color UV protected ink (same as an interstate road sign) and are USA made by a company that has been making tag toppers since 1946. Order yours today!



Fifth Avenue Tag Topper \$20.00 each
Specify "upper" or "downer" design

