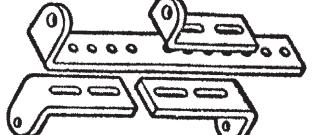




Stock generator pulleys are too large in diameter to be used on alternator applications.

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 is manufactured 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?

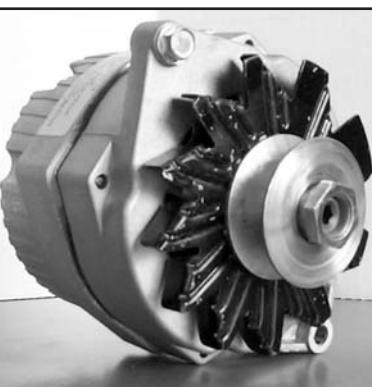
A. When modern alternator charging systems were introduced in the 1960's most automobile engines had idle speeds of 1200 rpms or greater, so this became the "cut-in" speed for "modern" alternators. By contrast, vintage engines typically have idle speeds of 800 rpms or less, and some as low as 450 rpms. **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**

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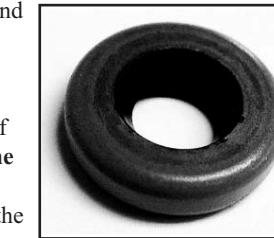
A. Yes. Each alternator is manufactured here in the U.S.A. and is guaranteed for a full 24 months from date of purchase. This guarantee includes parts and labor on the alternator. Each alternator is run tested under working load conditions before shipment to ensure you receive a top quality



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 \$26.00 gallon



Mr. Haney's Specials!



Mr. Haney has been in charge of our more experienced merchandise for the past seven years and has done an excellent job of sorting thru and selling the excess of our 40 year automobilia collection. Now that he has worked his way into the good stuff we are giving him a promotion.

After a three month test drive we have setup an ebay seller account and put Mr. Haney in charge. As Mr. Haney has already found out, things sell pretty quickly on ebay and he is much busier than before. So, if you see something you want, you'd better bid when you see it or it may be gone.

To check out the Mr. Haney Specials look for our seller name "fxolato" on ebay

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

Fifth Avenue "Drive Safely Decals"

Who says you can't buy anything for a buck these days...? Well...a dollar still buys one of our famous Fifth Avenue "Drive Safely" five color decals. They are great for toolboxes and garage walls, but they look best proudly displayed on your antique vehicle.



Part #2011 Safety Decal
\$1.00 each
Shipping is free on all decals

Call 785.632.3450 to place your order!

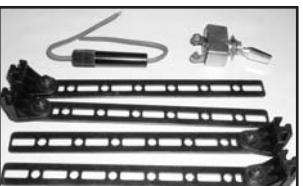


Cooling System

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



Installation 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 \$40.00 Gallon
Part #07415EVC6 \$150.00 Case (4)

Shipped via UPS



Actual shipping costs apply

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 stainless screw on cap. Polished mounting bracket and hardware included.

Part # 12415 CRT \$54.00 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 eleven of the car companies that offered the Borg-Warner overdrive transmission as an option.

Part # 09415ODC \$65.00 each



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 \$126.00 each
Part #08415ODR12 12-volt \$126.00 each

Visit our website
www.fifthaveinternetgarage.com for more
tech tips, new products, and plenty of good
deals from Mr. Haney

Thank You



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 fifthave@oz-online.net.



Tech Tip:

Be sure to pay close attention to the cooling fan on the front of the alternator. The fan on the front of the alternator is designed to draw outside air through the alternator to cool the internal components.

When looking down from the top, a counter-clockwise rotation alternator will have the fan blades on the right side of the cooling fan. A clockwise rotation alternator, will have the fan blades on the left hand side of the cooling fan.

It is common when installing an alternator on an older vehicle to have the alternator rotating in the opposite direction for which it was assembled. When this happens the cooling fan runs backwards and does not properly cool the alternator. The result is an alternator that runs hot and overheats just like a car engine.

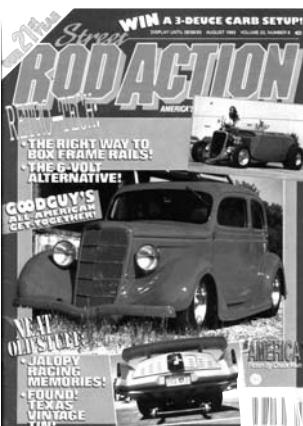
To prevent damage from excessive heat, Fifth Avenue builds all of their alternators using a special "Bi-directional" fan to insure the alternator will be properly cooled regardless of the application.



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. In 1993 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.

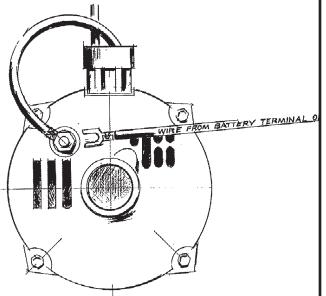
We called Fifth Avenue and talked to Randy and explained our situation, Randy explained our options and the 6-volt alternator seemed like the logical choice. A few days later we received the 6-volt alternator, along with a special mounting bracket, and a wide width belt pulley to match our original fan 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 $\frac{1}{2}$ 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.



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



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 $\frac{1}{2}$ 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.

→ 6 Volt Vs. 12 Volt: What We Learned...

The reason everyone made the upgrade to a (12) volt system in the old days was to get away from dead batteries and dim headlights. These two common complaints were mainly the fault of the way the electrical system was designed. Let's look further...

The original generator doesn't begin to recharge the battery until about 20 mph vehicle speed. Anything less and the battery has to provide all of the electrical energy. When the vehicle does reach 20 mph 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 already used from the battery.

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 energy used for that one start!

To understand this further we need to look at how much electricity a 6-volt vehicle 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.



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.

Replacement 30 Micron Fuel Filter

This is the replacement 30 micron fuel filter for the 92415EFP6/12 fuel pump. It prevents dirt, rust and refinery sediment from getting into the electric fuel pump. Also works well with any low pressure fuel system application. Great Race proven. Designed for $\frac{5}{16}$ inch fuel line installations.



Part #07415RFF \$7.00 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 \$36.00 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

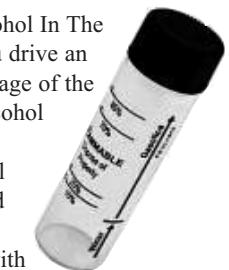
Designed to be used along with our fuel pressure regulator listed above. Great for multiple carburetors and early model vintage car applications. Eliminates the guesswork when setting up your fuel system, and helps identify fuel delivery problems. Highly accurate and proven reliable in Great Race applications.



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



BG Supercharger II

BG Supercharger II prevents rust and corrosion and provides long-term storage stability and protects fuel systems against the harmful corrosive effects of modern alcohol gasoline. Non-injurious to all types of materials used in fuel systems. Guaranteed to protect for a full year. One bottle treats 15 gallons.

Part # 12415BGS
\$12.00 Bottle

Gas Tank Sealer

This is hands down the best gas tank sealer you can buy. Unlike the others, Line-A-Tank has been alcohol resistant since it was first introduced in June of 1961. We have used and sold this product since 1985 and it works! One quart seals up to a 20-gallon tank.



Part #05415GTS \$55.00 Quart



Zinc Replacement Additive

Zinc as part of an oil additive package has been around since the 1930's to provide an extra margin of wear protection in motor oil.. Beginning in 2004 the zinc additive package was quietly removed from all automotive and most diesel truck motor oil (EPA mandate) because it was damaging catalytic converters and exhaust filters.

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). You can tell if the Zinc additive package has been removed from your motor oil by the Service Designation on the label of the oil container. If you see Service SL or lower (SI, SJ, SK is lower) then Zinc additive levels should be 1000 ppm or more. 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



Regulated 12-volt Negative Ground Power Inverter

Allows you to run modern solid-state accessories from your 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 stationary 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 \$75.00 each
12-volt-Part #9541512C \$75.00 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 \$47.00 each



1937-1941 2-screw V8 distributors-
Part #02415LCA \$47.00 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

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.



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 \$185.00



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

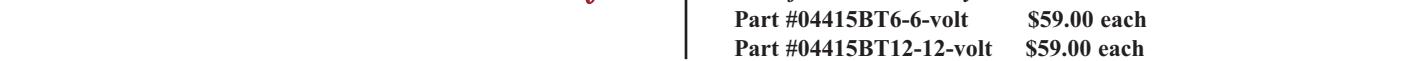
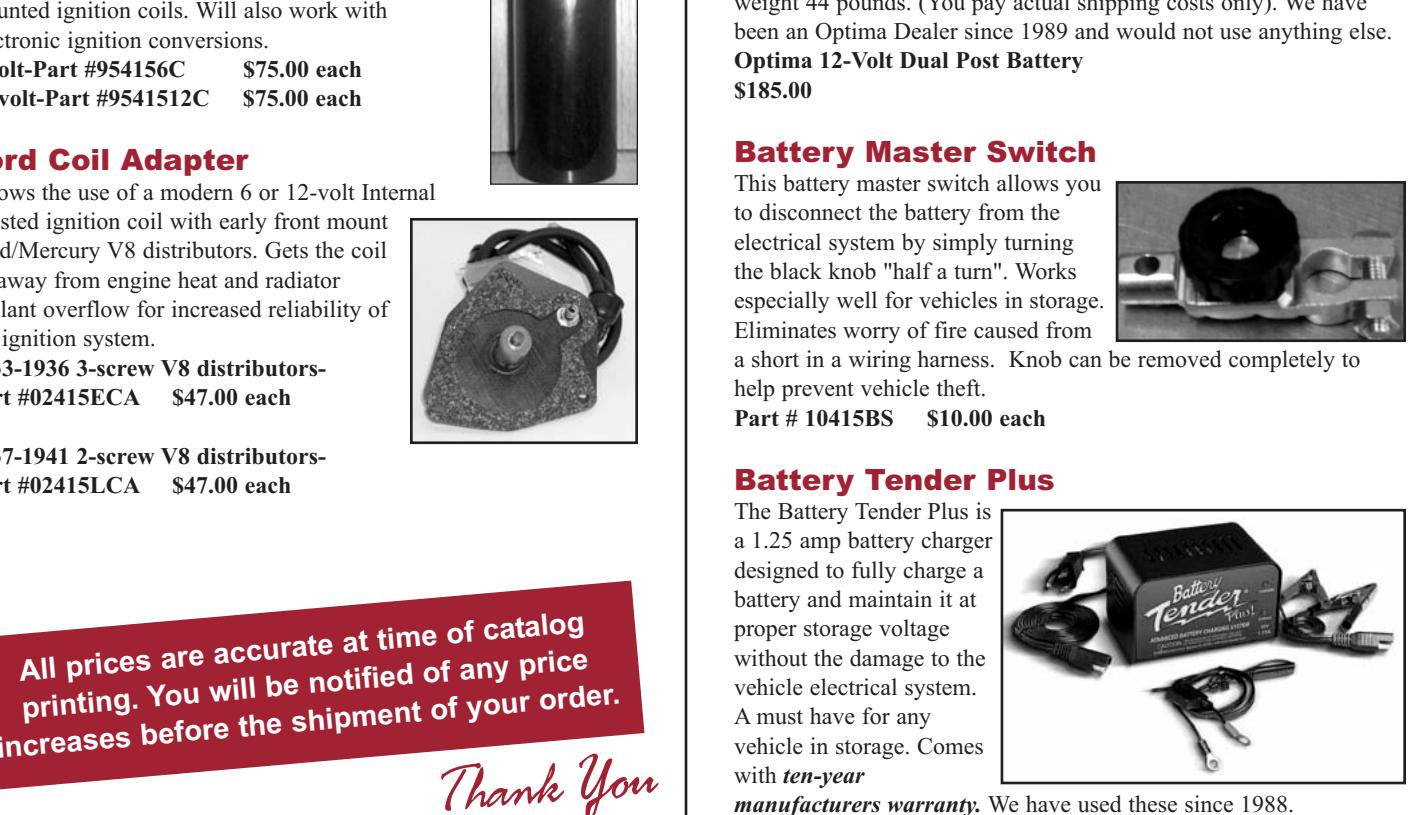
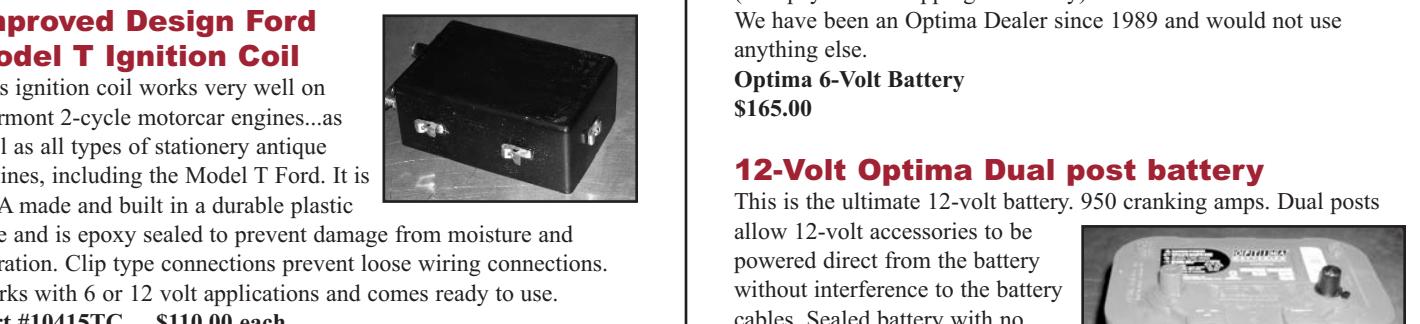


Battery Tender Plus

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



While it is agreed not everything is turned on at any one time, you must also remember that the generator has little or no output at an idle and the (30) amp output rating of the generator is based on the speed the generator is turning at highway speeds.

Proof that this is indeed your problem can be determined by checking the voltage at the battery. **A six volt system should have a minimum of (7) volts at the battery** just as a modern car will have between (13) and (14) volts at the battery. This is to ensure that all of the modern car's accessories will be powered by a full (12) volts.

If you have (5) to (5.5) volts in your 6-volt battery (which is common with a generator charging system) it is easy to see why your head-lights are dim and you always have a dead battery. The actual problem—as we have discovered—is not the 6-volts, but rather the lack of it.

And it is easy to see that an **(8) volt battery will not help**, after all we can't recharge the (6) volt battery we have now, so how would we recharge an 8 volt?

A (12) volt generator works the same way as a (6) volt generator. It does not charge at idle and low rpms either. In the old days, by upgrading to (12) volts the amperage load was reduced. This can be easily understood, if you remember one of the basic rules of automotive electricity that says...

► 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.



In summary, this simply extended the length of time the battery could be used before it became completely discharged.

But the actual problem still remains. We need to provide a minimum of (7) volts to our battery so all of our accessories will be powered by a full (6) volts. Next we need to find a charging system that will recharge the battery at idle and low rpms. This will make our headlights bright and put an end to the dead batteries.

Fifth Avenue has built just such a charging system. Their 6-volt alternator is able to recharge the battery at idle and low rpms, and has an output of (60) amps, (7.5) volts. It also has a solid state regulator built inside of the alternator for bullet-proof reliability. Features include a

simple 2-wire hookup for easy installation.

Let's compare **Fifth Avenue's** alternator to our 1950 Chevrolet car from before. An alternator will produce 60% of its rated capacity at an idle. In this case that would be (34) amps. We needed (35.4) amps for everything. Good enough!

Now...at highway speeds this 6-volt alternator has an output of (60) amps, more than enough for the job! An alternator is designed to run at no more than (80%) of its rated capacity continuously. That would be (45) amps. This alternator has enough power to run everything plus we can add still more accessories and be safe.



Did You Know?

One of the easiest improvements you can make to your vehicle's electrical system is to improve the system ground. To do

this you need to move the battery ground cable so it goes directly from the negative post of the battery (negative ground system) to a starter mounting bolt. It was common practice (even from the factory) to connect the battery ground cable to either the motor or the frame. By doing this, part of your battery cranking power is lost trying to overcome the resistance along this indirect path. High resistance in the starting circuit results in a slow cranking engine, or one that doesn't start at all when its hot.



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.fifthavenueinternetgarage.com

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.

The Flathead Ford motors built between 1932 and 1953 used a unique generator mounting bracket that was a part of the generator housing itself. Fifth Avenue offers a replacement mounting bracket (made of machined steel) for this application. This allows the new alternator to be mounted in the exact same position as the former generator. The fan belt is adjusted using the same procedure as before.

Performance Tech Tip:

Some of the early Flathead Ford motors mounted the radiator cooling fan on the end of the generator pulley. In these applications there was a double row ball bearing installed inside the drive end of the generator, to carry the extra weight. A modern alternator's design does not allow space enough for a double row bearing. If the fan is bolted to the front of the alternator pulley it will ruin the front bearing of the alternator in about 3000 miles.

The Solution: Install an electric radiator cooling fan. Electric radiator cooling fans are much more efficient than the stock engine fan and will cool the engine much more efficiently. Electric radiator cooling fans are available in both (6) and (12) volt applications that mount either on the front side of the radiator (behind the grill) or on the engine side, to replace the original engine fan. More information on cooling fans can be found on the Parts Counter pages.



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



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 \$75.00 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.

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 \$90.00 ea.
1954-62 Ford Car V8-Part #03415YC \$90.00 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 #042415SET \$75.00 each
Left Side-Part #042415LT \$75.00 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 \$75.00 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

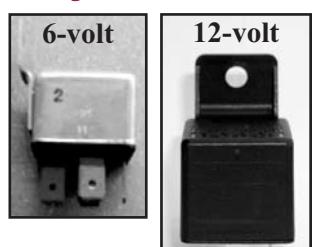


Heavy Duty Headlight Relays

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

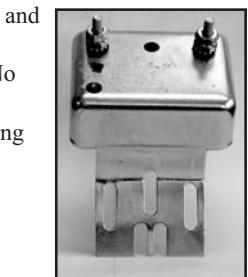
12-volt Relay Kit-Part #03415HL12 \$22.00 each



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



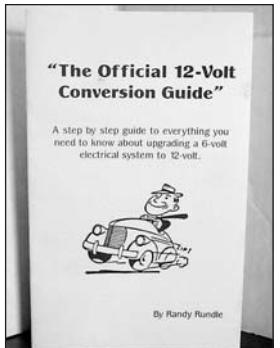


Technical Publications

The Official 12-volt Conversion Guide

After many requests it is finally here, 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. Save time and money by learning why you do not need to change the headlight switch, starter solenoid, heater and ignition switches, or the ignition points and condenser when you upgrade to 12-volts. 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.

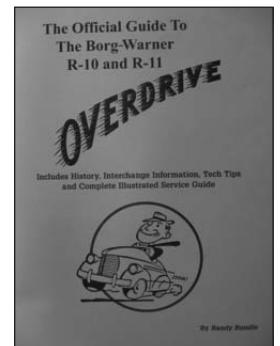
\$10.00 each



Borg-Warner Guide Book

This 8.5 x 11 40 page illustrated guide explains everything you need to know about operating and troubleshooting the Borg-Warner "R" series overdrive transmission. If your car is equipped with a Borg-Warner overdrive transmission this is a must have book. Includes factory service information, interchange guide, and illustrated wiring diagrams.

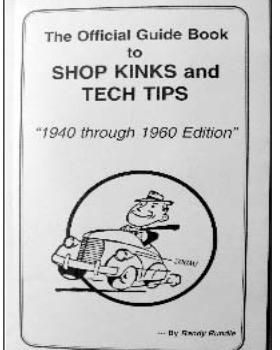
\$15.00 each



"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.

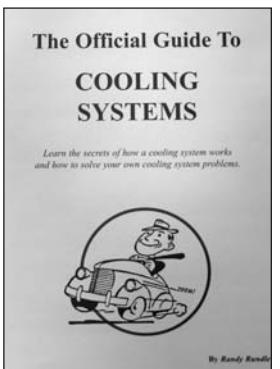
\$10.00 each



The Official Guide To Cooling Systems

With this 8.5 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. Like most anything else, if you know and understand the rules of the game it makes the job much easier. If you own a Flathead Ford this book is a must have.

\$15.00 each

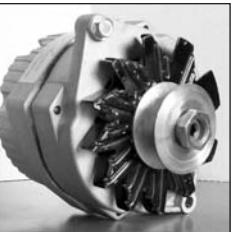


Alternators

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.

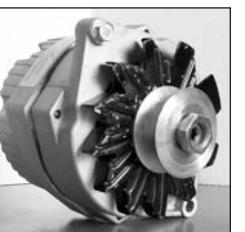
Part #89502S \$210.00 each



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 \$210.00 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



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 \$75.00 each



More tech books coming soon...go to
www.fifthavenueinternetgarage.com for the latest...



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.



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.

Understanding The Changes

Starting in 1992, with the introduction of reformulated gasoline, began the complaints of fuel related problems, vapor lock being the most common. The new RFG fuel 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 RFG fuel evaporates very rapidly, especially in the summertime. You need a fuel pump that will pump alcohol, all fuel additives, and the RFG 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 RFG fuels 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 Marylin 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.

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

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. 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

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!

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,

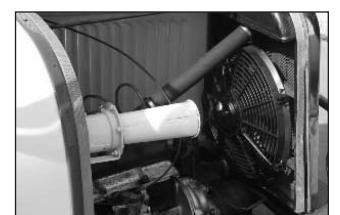
About four years ago I purchased one of your 6 volt alternators. I finally got around to installing it on my 1953 Studebaker Starlight Coupe today (5/28/11). OH MY GOD!!! What an incredible difference it has made!! My headlights don't dim at idle...I can run the defroster, climitzer heater and wipers 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*

