★ SHOW ISSUE ★

ERA EXCHANGE

YOUR GUIDE TO ELECTRICAL REBUILDING

May 2017 $12.95

A WORD FROM THE VICE PRESIDENT

"STUFF" HAPPENS
True Quality Takes Time

THE IMPORTANCE OF BRUSH TIMING
Use Caution With Delco's 28MT

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PLAIN TALK | THE SCRAP CAN KEEP You In The Black

A WORD FROM THE VICE PRESIDENT
A Dearborn Show Recap



As the late Ed Sullivan announced at the beginning of each show, "We have a really, really great show for you tonight." Those words came in from attendees of the ERA Expo in Dearborn throughout the event.

The weekend kicked off on Thursday this year with an unofficial group tour of The Henry Ford Museum. Over 30 members participated. The Friday morning Rouge River Plant tour of the Ford F-150 assembly line was attended by 115 participants. That tour was followed by a luncheon that provided opportunity for rebuilders and suppliers to socialize, share ideas and network. The Saturday luncheon was such a success last year, two were scheduled for the Dearborn event, with a second one on Saturday.

Attendance at the seminars and roundtable overflowed the conference room. The Supplier-Sponsored Reception was special this year as the ERA honored and paid tribute to the late Richard Vensel by dedicating the 2017 ERA Expo in his memory. Barbara Vensel attended the event and was overwhelmed by all who offered condolences and kind words. I thank everyone for that! And I thank Barbara for allowing Richard to be our friend and mentor.

I would like to thank those ERA supplier members who generously supported the show raffle by donating an impressive list of prizes. On Sunday morning 65 members attended the ERA's Annual Meeting and Breakfast. We will have more on that in the next issue. But I would like to especially thank Ronnie Charnes of ACC Rebuilders in Memphis for his 10+ years of service on the Board of Directors.

My take from what I witnessed was ENTHUSIASM. For the most part, our group of rebuilders and suppliers seems to have adjusted to our smaller market place. We are making things work out with what we have and seem to realize that there is a future that presents some new opportunities.

I hope that everyone who attended this year's show got some type of benefit from it. I know that I did. This month's edition has photos and additional information of our weekend. If you are curious as to why I am writing this column, it was not my idea.

Nominating Committee member Art Glass of Willard Generator persuaded or bribed President Mike Dietrich to volunteer for another term. In the process Art guaranteed him that other Executive Board Members would take turns writing this monthly column. Thanks Art. I won't forget that!

Ken Plourde

"Coming together is a beginning; keeping together is progress; working together is success."
– Henry Ford



NEW ERA MEMBERS

Hans Auto Electric LLC
Wixom, Michigan

AA Dales Transmission/Diesel Electric
Chico, California

D&V Electronics Ltd
Woodbridge, Ontario, Canada

DC Electrical Systems
Mooresville, Indiana

ABOUT THE COVER

What do you see wrong with this photo?
See page 4 for hints.

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Electrical Rebuilder's ERA FOUNDED 2001 ASSOCIATION

Rebuilding is Recycling!

PLAIN TALK — THE SCRAP CAN KEEP YOU IN THE BLACK



BY ROB BUKSAR

Let me begin by expressing my heartfelt gratitude for those at the show who were either curious and /or concerned regarding my whereabouts. Good or bad, it's nice to be thought of and thank you.

By the way, the jury is still out on this, if you returned from the show with the conclusion that it was the same stuff, different day, you blew it! We reap what we sow. "Put a bunch in and you'll get a bunch out." If you were drifting around waiting for someone to take you by the hand and show you the Promised Land, I dare say that you were disappointed! That's all I have to say about that.

Frustration and a sense of doom is at an all-time high for many rebuilders. Working harder, longer and for a lot less money is a common theme. Consider this; there may be hope. Keep in mind, your business has little market value to anyone. You might as well make a go of it and make some money while you're able.

Ma and Pa stores were on every corner of America even through the rise of the great department stores. They were the bedrock of the American economy. Since there were no credit cards, the stores extended credit by allowing you to purchase, signing the "book" and settling at least part of your bill on payday. The big stores had no credit book to sign but they all offered "lay away". They would put your purchase aside and you would pay a little on it until it was paid for. Then you would take it home. Again, no credit cards existed. I haven't the time or space to take this economic evolution step by step. Besides, you lived through it just like me. Let's jump to the here and now.

Remember the "Yellow Pages" ad? "Let you fingers do the walking?" Credit/Debit cards and the Internet have taken this concept to a place a lot of us still don't understand!

This past year, Amazon accounted for 43% of online retail sales. This marketing monster is changing the face of American retailing. It is actually changing the face of suburban America as one shopping mall after another vacates and leaves a bunch of empty stores and a massive parking lot. These malls and stores depended on huge traffic flows of potential customers. Of course, if a gigantic contingent of customers had their buying needs resolved either by phone or Internet, there really wasn't a need to venture out to the mall. Guess what? The malls business has been cut into so deeply that they're closing up in droves. Big and small alike! If you're looking for real cheap store frontage, I can assure you that you won't have to go far or look hard. There are empty strip malls everywhere begging for a renter.

Growing up in Hammond, IN, we had a few department stores which were the commercial hubs of our area. Minas, Goldblatt's and an up-scale clothing store called Carson Pirie & Scott. Minas & Goldblatt's were victims of economic evolution and were pounded into pumice. Most of the Carson stores folded but a few surprisingly survived. By the way, Minas and Goldblatt's were very traditional in their approach to business. They opened their doors at 9 in the morning and just waited for customers to file in just like they had for the last 80 years. This approach always worked in the past, why change? It wasn't in their mindset that their business model was no longer functional. Well, to make a long story short, both of these long-established businesses ended up choking on their inventory, suffocating and dying. Now, they're part of the "Remember when's."

Now, the little Carson's store in my area has survived and prospered through all sorts of commercial change and assaults. Are they selling different product lines? Nope. This little store has just taken a different approach to its market and customers.

The little Carson's crew is as proactive and aggressive as anyone can be. Now, it's fair to assume that they don't know the name and address of 100% of who's walked into that store but this I can tell you. They certainly know the lion's share. They will offer gifts, discounts and promotions of all sorts just to get your name, address and phone number. Why? This store wants to stay in contact with you someway, somehow. They have made it personal. Face it folks, it's all about customers and Carson's is really serious about it. How else can one survive the pressure from Amazon and the likes? Carson's didn't do this overnight. As their sales recouped, they dedicated a percentage towards advertising, promotions and personal customer contact. They're out to net in a big way also but that goes without saying.

Through credit card sales and computer tracking, they know who is buying what. They continually send out discount cards and promotions to *their customers* to get them back in the store. Whether it be garter belts, a clothing line, special hand soap or perfume, they know you bought it and when and they will offer you a good deal to buy more from them rather than someone else! Further, they will offer *their customer* gourmet coffee, tea and homemade sweet rolls to come in and preview a new merchandise line.

Bottom-line is simply this and you've heard me bloviate about this over and over. You can survive and prosper through this incredible economic change. Although, like a surfer, you have to ride the crest of the wave and not get caught in the swells. It's pretty simple; open and wait for folks to either call or show and you're probably going to die. Make a big effort to get customers in your store or calling you, and you will live and prosper.

Gigantic stores, the Internet and Amazon are not going away. You can't beat them at their own game. They're too big with tons of cash behind them. The trick is to take advantage of their momentum and use it to your advantage.

Here are the keys: customer-customer-customer. You cannot do what that gigantic parts chain do, but they can't do what you do either. Think about that and capitalize on it. Go with what you got and not with what you don't.

Gigantic Stores needs billions to stay afloat. You need just a little. I think of it in these terms; I don't need it all, I just need a scrap. That scrap will keep me in the black and that's a good thing.

God Bless America and our little industry!

Rob can be reached at IWI 1-800-323-7521

"STUFF" HAPPENS
True Quality Takes Time



BY BOB THOMAS

Nobody is perfect. No matter how hard you, your employees or I myself try, mistakes will be made. That is a fact that every business owner must accept and be prepare for. Our best hope is to make them as few and far between as humanly possible and handle them properly when they do happen.

That said, I had two different alternators delivered to me recently that were verified OK but claimed by end users to not work properly on their vehicles. The fact that both happened to have been factory remanufactured by large production rebuilders under respected name brands should not make any of us feel any better. I present these cases here not to condemn or embarrass anyone, but to emphasize that this can happen to any of us, whenever we cut corners to save time.

CASE 1 – 7706JA Leece Neville

This alternator was purchased by a local shop from a trusted supplier and sold to a friend of mine who operates a Snap-On dealership. He is nearing retirement and using an older truck, which should be obvious by the alternator. Having worked on this particular truck personally since it was new and more than a few times, I know that he needs around 100 amps at high idle to operate three AC condenser cooling fans, two AC blower fans and the inside product display lighting. This alternator, conservatively rated at 165 amps was designed do that, but the regulator is nearly full fielding when it does.

Once installed, it appeared to be charging normally but was never tested at idle under load. On the job, it failed to keep up when parked for long periods at high idle. He returned it to the seller who bench tested the alternator, said it was working OK and handed it back to him. This happened twice, before he called me for help.

When I bench tested the alternator, it did put out 165 amps at high speed, but only managed about 50 amps at a high idle. I noticed that the scope pattern looked a little strange too, unlike any pattern I'd ever seen before. Output noise sounded normal. I knew immediately that the low end output was not normal and frankly suspected too much air gap or the wrong rotor, dismissing the scope pattern as an anomaly. I pressured my friend to return for it a third time, offering to intervene on his behalf with the shop's owner and his supplier. I was familiar with both of them. But he begged me to fix it for him . He said that he no longer trusted the shop that he bought it from and vowed he would never go back there. I could see his point and agreed to look inside.

What I found is what you saw on the front cover of this issue. Did you notice what was wrong with the picture? I am not referring to the bare spot on the rectifier lead wire. That was not the main problem. Look again at the cover. I will give you a few hints. I have no idea how this alternator ever put out 165 amps on the top end. And the scope pattern looked strange even though the diodes were brand new and good. If you still do not see it, drop me an email or give me a call. Do not be ashamed. It took me longer than I would like to admit to see it myself.

This mistake could have been made by anyone of us. But what bothers me most is that it was tested at least three times, once by the remanufacturer and twice by the local shop. It was passed as being OK three times. Here is one more hint for you (*see Figure 1*). That photo was taken after the repair was made.

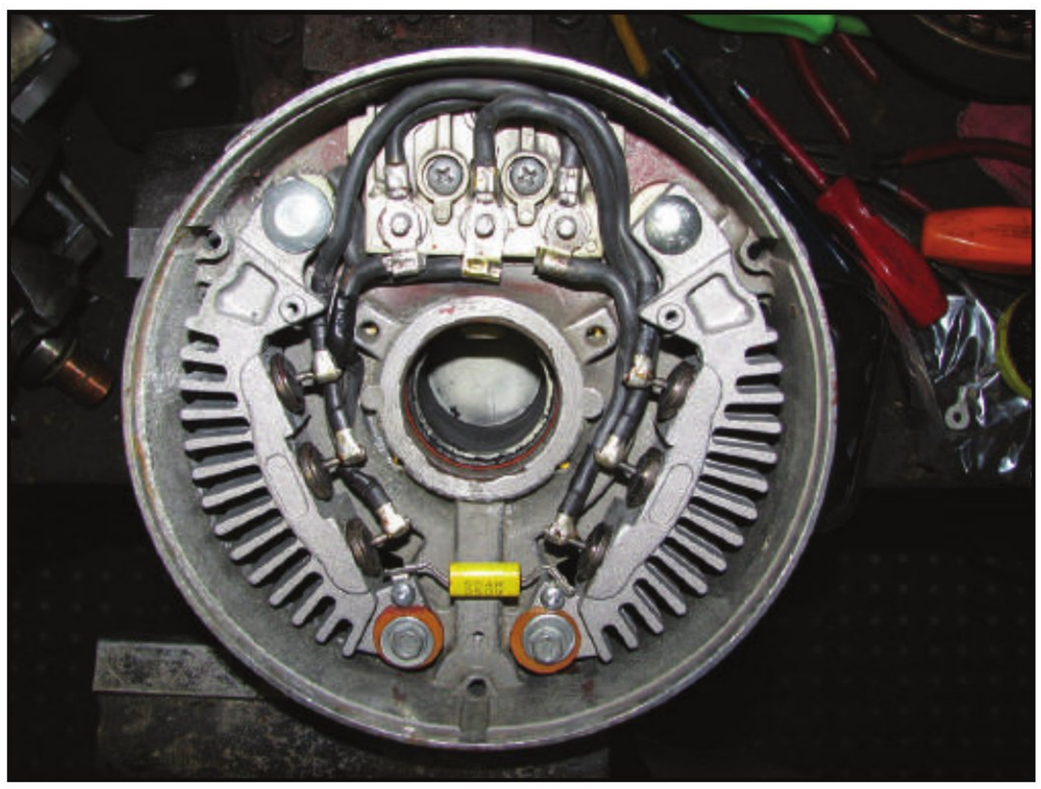

Figure 1 – This photo shows the Leece Neville slip ring end housing assembly once the repairs were made.

CASE 2 – Ford Focus 6G

A few months ago, a friend of a friend shipped me an alternator that was causing voltage fluctuations on the Ford Focus in which it had been installed. The technician who sent it to me wanted confirmation that the issue was within the alternator and not something else on the vehicle. He suspected a bad regulator. It had tested fine for the parts store from which he bought it.

Upon bench testing this 6G Ford, I confirmed that the problem was indeed inside the alternator. At first, it performed perfectly at various speeds and loads. I was able to adjust voltage both high and low using Regitar's PWM (pulse width modulated) signal test box. Then I let it run at low speed and a 14.5 volt setting under a moderate load of 50 amps, forcing the regulator to carry a high field load. After about 10 minutes of operation, I noticed the voltage reading began to fluctuate between 15.0 and 15.6 volts.

Having seen pulsing voltage like this before, I knew that it would be visible in the instrument lighting at night, which was the Focus owner's exact complaint. That single extra volt may seem minimal but it can be obvious under the right conditions to a driver.

The question was now coming down down to finding the cause. Unlike the tech, I never suspected the regulator although I knew that anything was indeed possible. As you know, Ford's 6G regulator is attached to the rectifier with three 4mm torx-head screws (*see Figure 2*). One of them is regulator ground. Another is regulator B+ and the third is the phase (stator output) connection. The topic of these screws becoming loose has been covered previously in print publications, the ERA Website Forums and several seminars. But evidently it is still a problem. The ground screw in particular can become

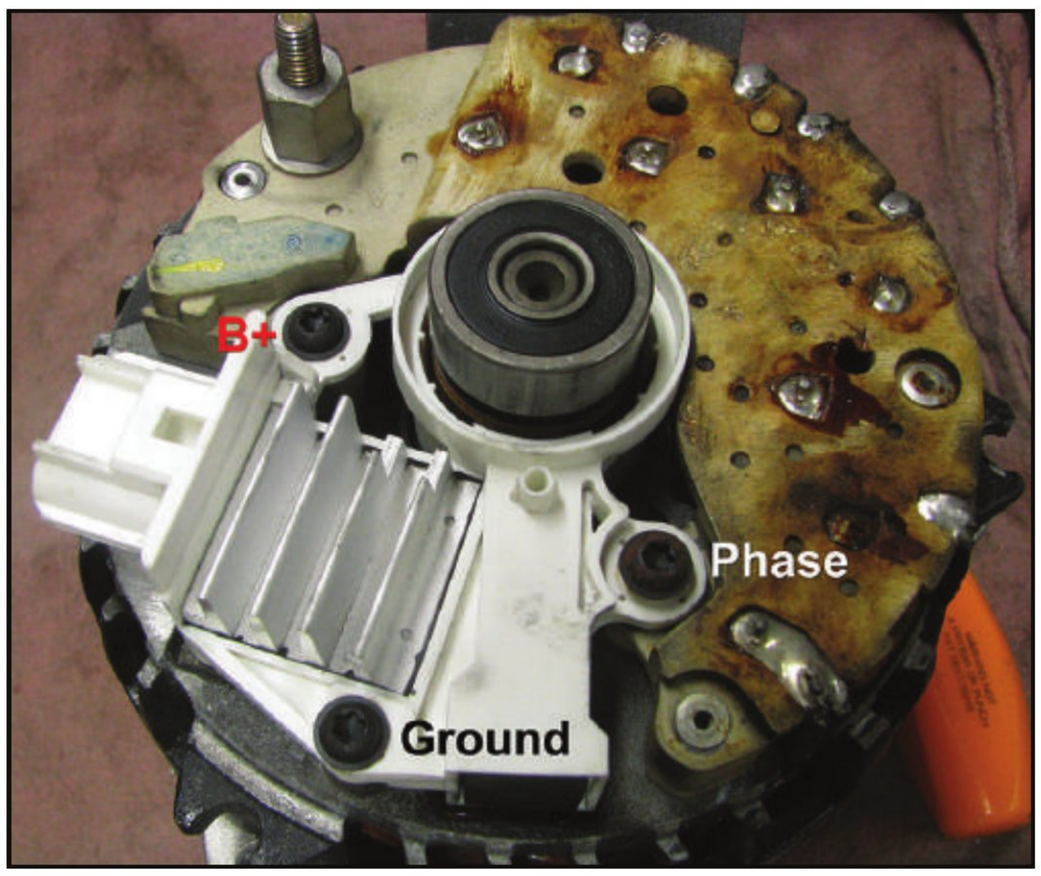

Figure 2 – This is the remanufactured Ford 6G with the rear housing removed. It was on the Focus one week.

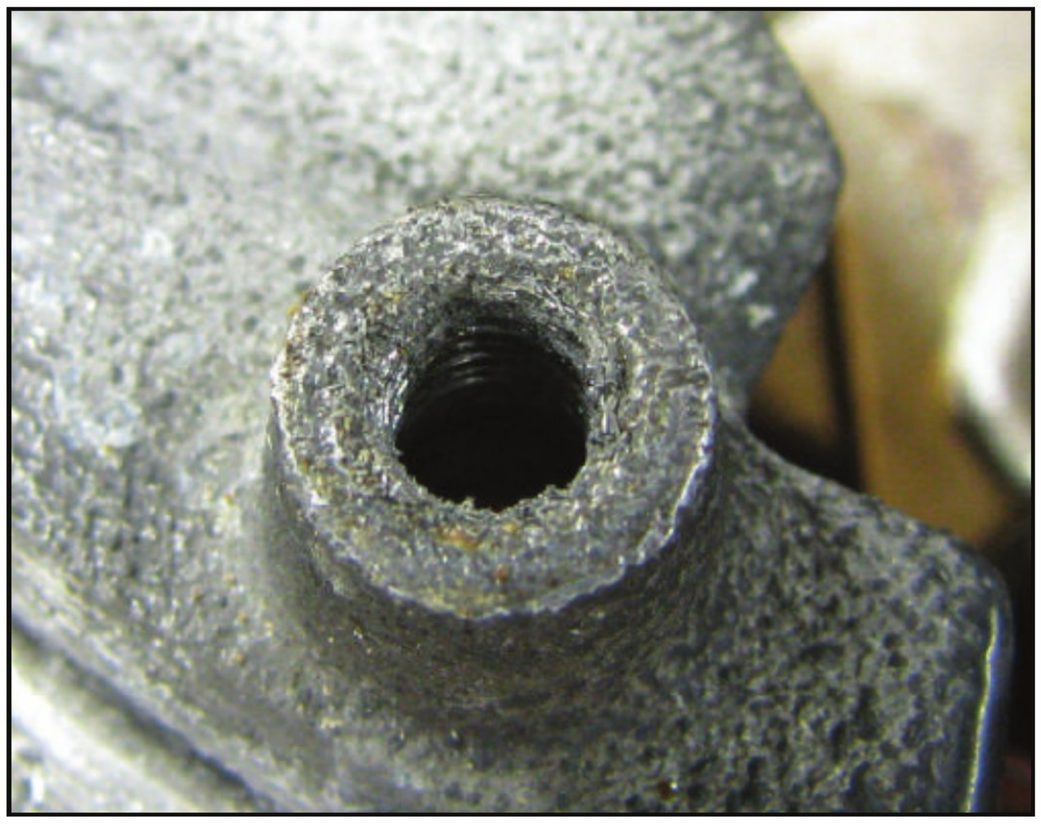

Figure 3 – This is a close up photo of the pitting on the surface of the regulator's ground side mounting post.



Figure 4 – Here you can clearly see arcing on the regulator's ground tab, caused by a loose mounting screw.

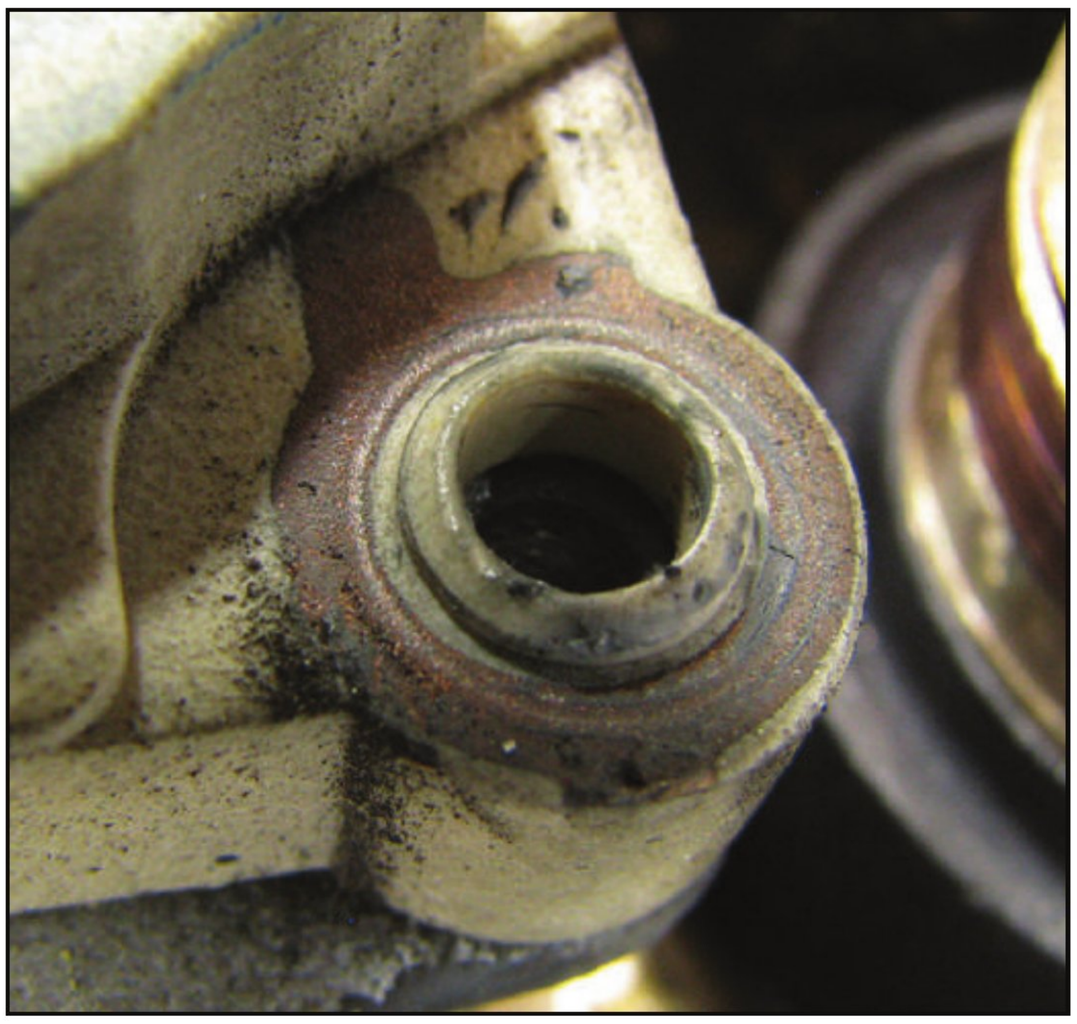

Figure 5 – The corrosion on the regulator's B+ contact on the rectifier indicates that it was never cleaned properly.

loose or the plastic regulator housing may relax enough under high heat to allow it to become loose. Since this is an A-circuit regulator, that ground connection must carry the full load of the rotor. So under full electrical load at low speed in particular, you are talking about passing 6 to 8 amps through a loose ground.

This regulator also depends upon that ground to sense output voltage directly from the rectifier. So resistance on that ground connection under load will fool the regulator into sensing voltage that is lower than the rectifier's actual output voltage. When that happens, the regulator will compensate, which results in momentary overcharging. Once the regulator eventually senses the target voltage it cuts back, which cause voltage to drop and the cycle starts all over again. What led me to suspect that? It was overcharging once the pulsing started, even at the low point of the cycle.

Since this was a name brand factory remanufactured alternator, I did not want to violate the warranty policy. Before going forward, I asked the technician for his permission to investigate further to confirm what I suspected. In this case he was eager to know the facts not my theory. He gave me the go ahead to remove the rear housing to get to the regulator.

Once inside, I found several problems that included a loose ground. For the record, this alternator was on the car for just one week before being brought back by the owner.

The first thing that I noticed was that the reclaimed rectifier was dirty and pitted. Though not the cause of the pulsing voltage, this short cut did reflect back on the quality control of the remanufacturer. When removing the regulator hold-down screws I noticed that the ground was loose and B+ was not as tight as it should have been either. Once the regulator was out of the way, I took a close look at the regulator's ground pad on the rectifier (*see Figure 3*). Obviously, this level of pitting took a lot longer than a week to develop. A close look at the regulator's

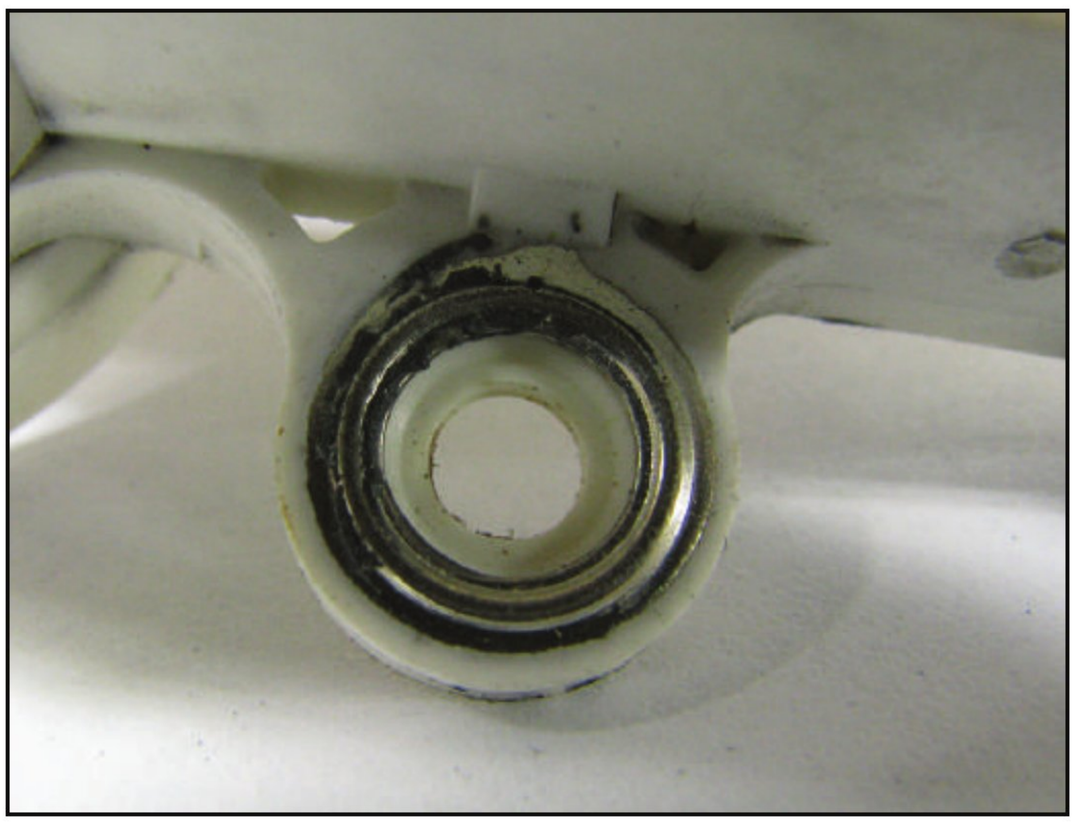

Figure 6 – Here you can see residue from the rectifier contact on the regulator's B+ tab. Note that there are no signs of arcing.

ground tab revealed some arcing had been taking place at that connection (*see Figure 4*). While the loose ground screw was the primary cause of the customer's complaint, the pitted ground pad on the rectifier invited further corrosion that would have occurred eventually, even if the screws had been tightened properly.

Upon checking the B+ pad on the rectifier (*see Figure 5*), I noticed that it too was corroded, so much so that it was likely never cleaned at all. There was dirt and corrosion debris on the new regulator's B+ tab (*see Figure 6*), although there were no signs of arcing there. This B+ connection on a 6G is the source of field current, so it too must also be capable of carrying that 6 to 8 amps of potential rotor current.

The sad fact here is that this rectifier was fully functional and could have been reclaimed successfully with a proper cleaning and resurfacing of the regulator's ground pad. While I can excuse the parts store for not operating this alternator under load long enough to get the problem to arise, I would be embarrassed if this alternator had been a product of my business.

A few simple lessons can be learned from all of this. Do not take shortcuts when reclaiming good used parts. Clean and tighten all electrical connections using dielectric grease to block out air and moisture. And when bench testing an alternator that is being returned, allow enough time. Test it long and hard enough to insure that no connection points are breaking down under loads. Keep in mind that good regulators can be tricked into doing bad things and most important of all - we all make mistakes.

Special thanks to the friends who shared these two examples of poor workmanship so that others might learn from them. Their names shall remain anonymous to protect the innocent.



THE IMPORTANCE OF BRUSH TIMING
Use Caution With Delco's 28MT



BY BOB THOMAS

Brush timing refers to the precise location of a DC motor's brushes. A DC motor being any electrical device that uses direct current to rotate a shaft. Starters are one example.

Every different starter is engineered to perform a single specific task. Its job is to rotate one or a group of internal combustion engines at a speeds that are sufficient to achieve success and reliable starting. Each manufacturer positions their brushes for maximum performance and efficiency to get that job done. Moving or changing any motor's brush position by even a few degrees will affect that performance and efficiency.

All magnetized objects possess polarity, commonly referred to as north and south poles. In close proximity, like or same poles repel one another, while poles that are opposite attract. It is the electromagnetic repelling and attracting forces between an armature and its field poles that drive a starter motor.

The electrically magnetized pole shoes or permanent magnets in a cranking motor's field case are nearly always permanently attached and immovable. As the armature turns inside that field case, its own magnetism distorts the magnetic lines of the field magnets, shifting them in the direction of rotation. That shift is dependent upon the armature's speed and the level of its own magnet force. Therefore, amperage draw and cranking speed must be considered when a DC starter is engineered, at which time optimal brush timing is determined. It is the design of an armature's winding combined with brush position that ultimately establishes a starter's direction of rotation and power curve. For that reason, alteration of brush position will result in performance loss. Brush timing is therefore predetermined and non-adjustable in all cranking motors, or at least it should be. In most instances, there is no way to accidentally alter or change it, even if you wanted to. However, it can happen in some cases, unintentionally.

The majority of starters are designed to be assembled quickly without the possibility of getting the timing wrong. Many cranking motors have field cases, brush holders and end frames that fit together like puzzle pieces, basically guaranteeing correct timing. A good example is the Italian-made Denso that was used on some BMW cars (*see Figures 1 & 2*). As you can see in the photos, it has protrusions on the field case that match indentations on the drive end and commutator end frames. In the case of most of Delco's MT series starters (*see Figure 3*), the brush holders are riveted in place to the field case – which is about as "fixed" as you can get. But the 28MT (*see Figure 4*) is one exception and that starter that can get you into trouble if you are not paying close attention.

Delco utilized a small pin in the drive end of their 28MT field case to both insure proper alignment of the thru bolts to the intermediate and drive end (DE) housing and prevent the case from twisting out of place under the forces required for cranking a diesel engine. The field case also has an alignment mark on the field case near the field lead on the brush side (*see Figure 5*).

The brush holder is attached to the commutator end (CE)

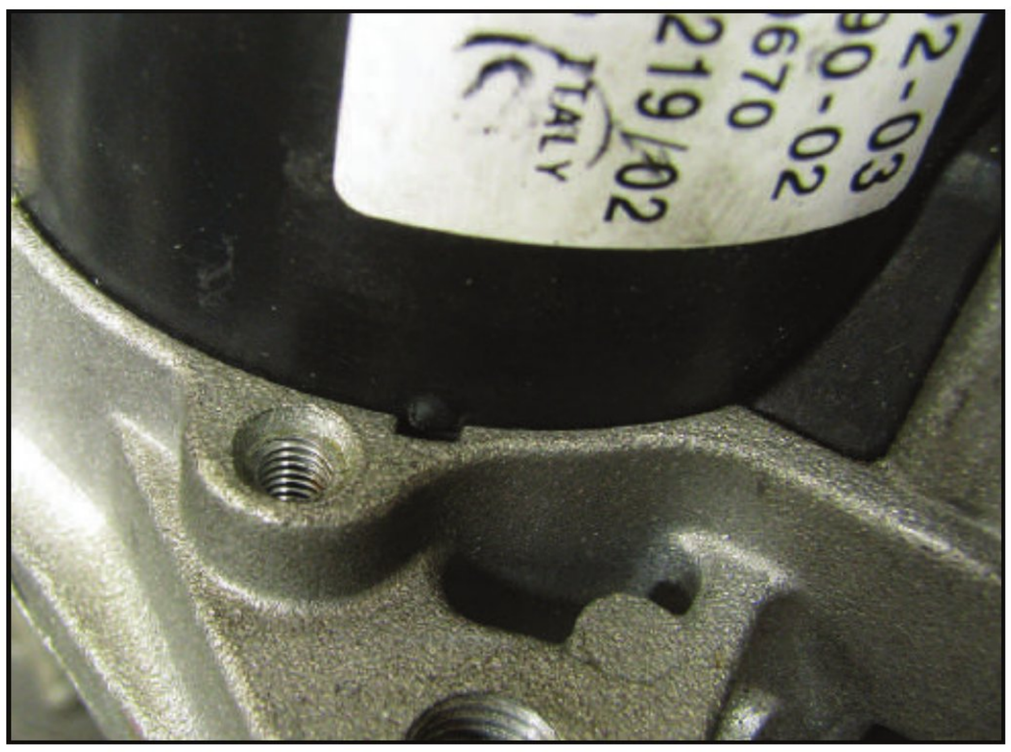

Figure 1 – This Denso starter has protrusions on the field case, here fitting tightly into the drive end housing's indentation.

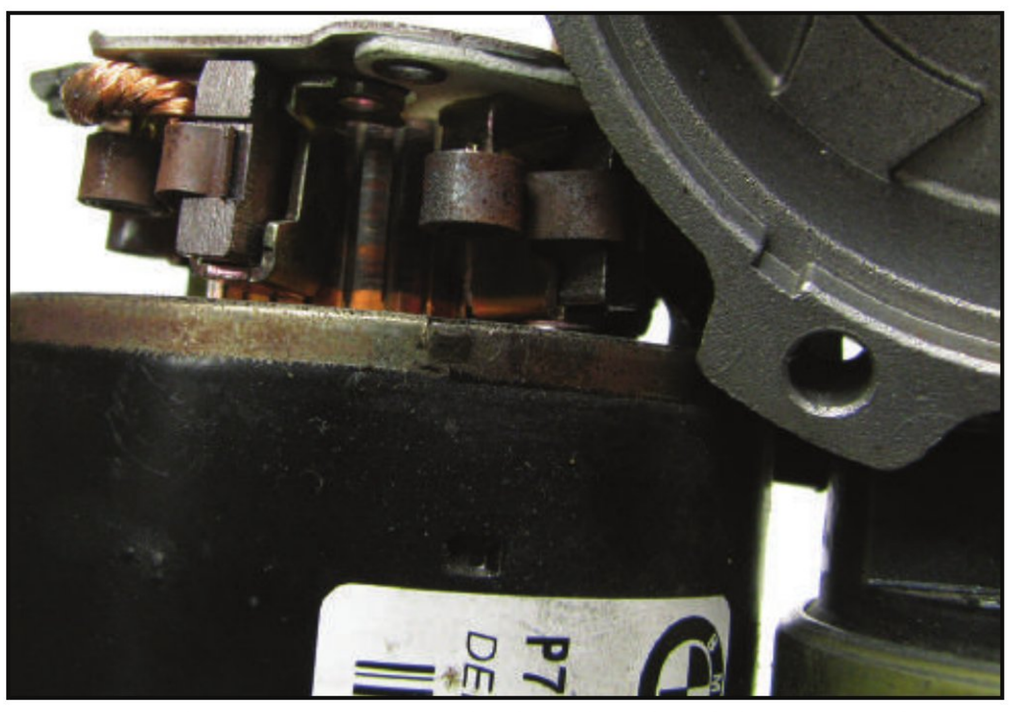

Figure 2 – The protrusion on the brush side of the Denso field case will align with the indentation on the commutator end housing.

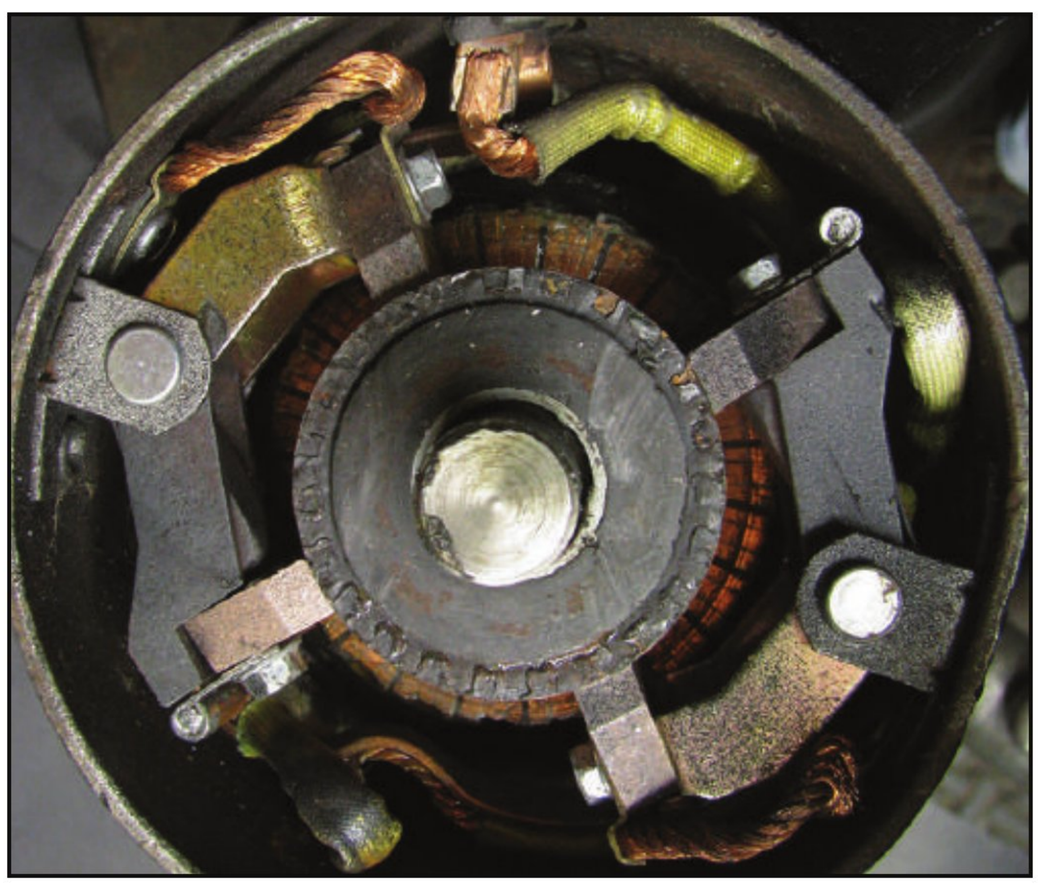

Figure 3 – Delco riveted the brush holders of their 10MT starters directly onto the field case, insuring perfect brush timing.

THE IMPORTANCE OF BRUSH TIMING

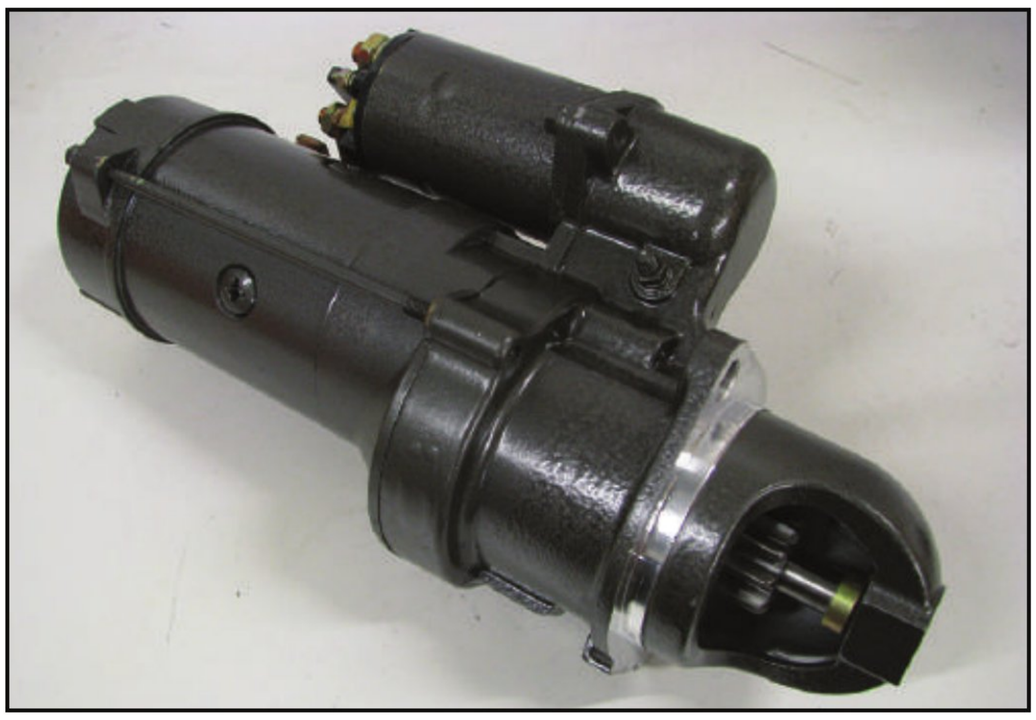

Figure 4 – Some aftermarket 28MT starters present a unique challenge whether inspecting, repairing or rebuilding them.

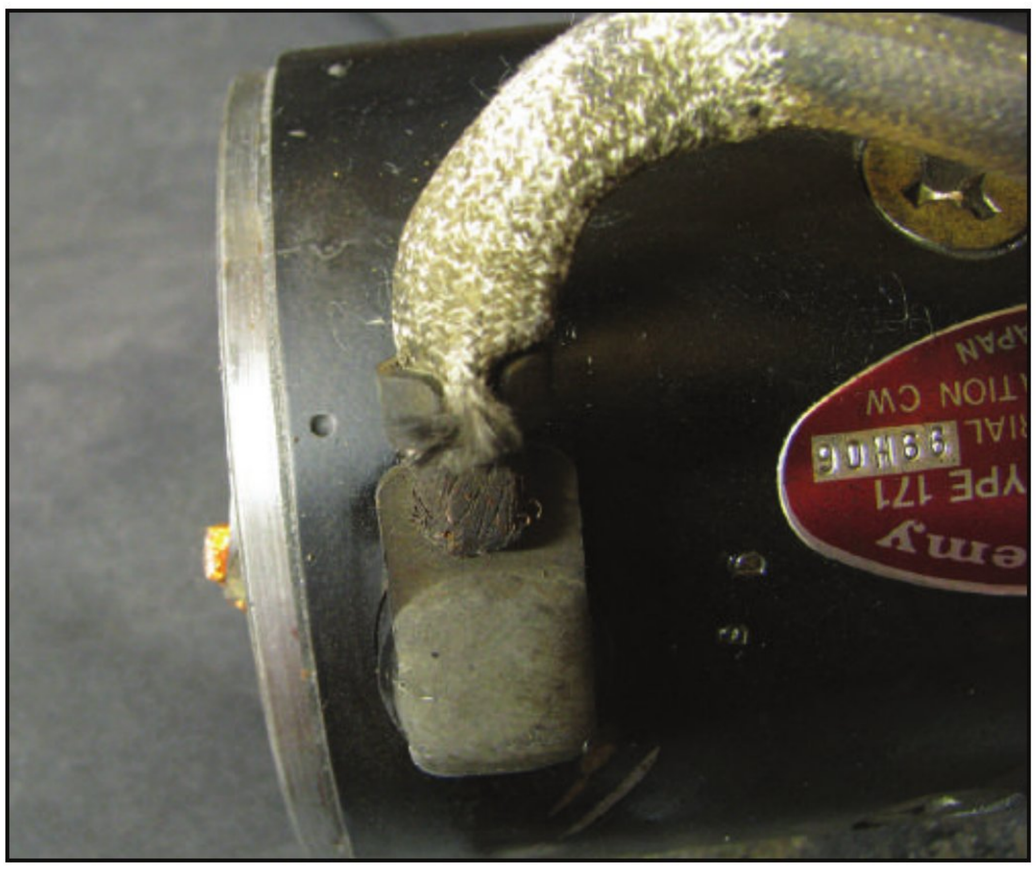

Figure 5 – Original Delco 28MT starters have locator marks on their field cases to achieve perfect brush timing.



Figure 6 – A raised line cast on the open end of the commutator end housing must be aligned with the case's mark.

housing. The CE housing has a line cast on it at the open end (*see Figure 6*) which must be aligned with the mark on the field case as shown. This insures perfect brush timing. Together with the pin, they insure the alignment of the thru bolts. Rebuilding an original Delco 28MT rarely causes problems so long as you line up the marks.

However, when rebuilding an aftermarket replacement, all bets are off the table. Some units have pins while many do not. Some have alignment marks at different locations (*see Figure 7*) while others have no marks at all (*see Figure 8*). In that case, the thru bolts provide the only clue to get it right. But attempting to achieve perfect brush timing using just the thru bolts will only get you close.

Whenever inspecting or dissembling a 28MT, it would be prudent to look for the alignment marks before you take it apart. In their absence, it might be wise to create some markings of your own, assuming that nobody had it apart before and that it was perfect when it left a factory where perfect brush timing was not considered important. Incidentally, the majority of aftermarket 28MT starters that I inspected while working on this article had no timing marks or alignment pins.

Special thanks to Art Glass for suggesting this pertinent topic.

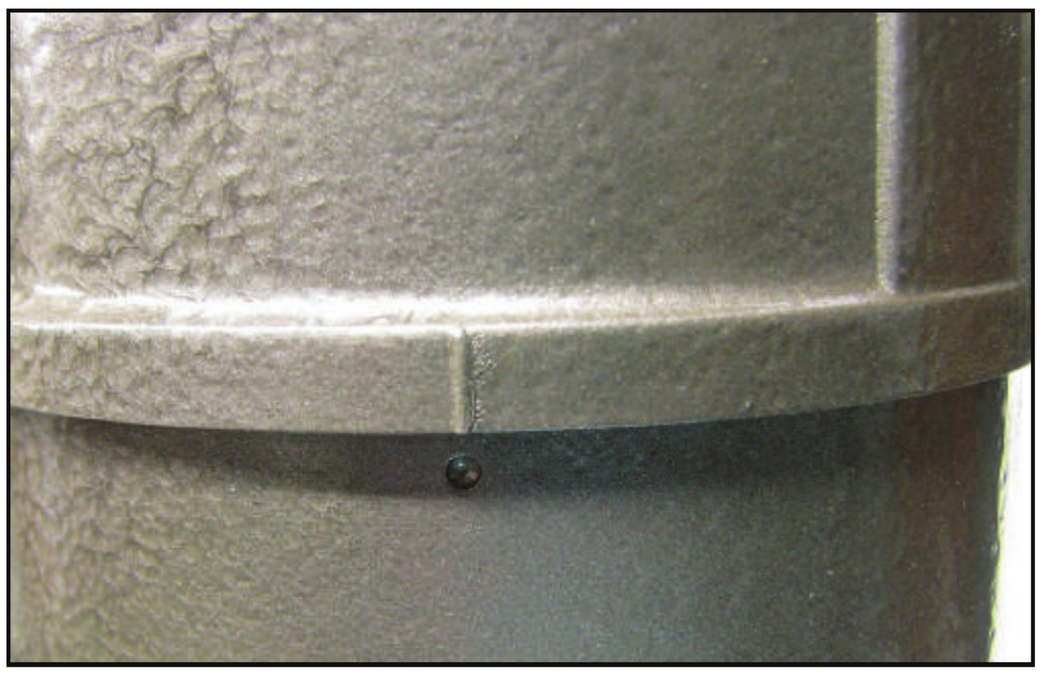

Figure 7 – Some aftermarket 28MT starters employ similar or identical timing marks.



Figure 8 – Many other 28MT replacement starters have no timing marks at all.

EXPLORE THE ERA WEBSITE

Using the Forums Part 3: Searching for Answers



BY JESSICA MYERS
& BOB THOMAS



While the ERA Website has an excellent search engine for finding information in the site's immense database, it cannot search through the tens of thousands of posts on the ERA Forums. That requires a Forum search. This month, we will explain how to use the Forums search options to conduct a successful Forum search.

But first let us explain a few terms that will help you better understand how the Forums are organized. A **post** is a single entry on one of the Forums. An initial post starts a new **thread**. Any reply to that initial post, whether it is an answer, a question or a comment, is considered a new post that becomes part of that thread. Some threads that generate a lot of interest may contain a dozen or more related posts. Very few new threads go unanswered.

With that out of the way, go to the Forum homepage and click on Search on the menu bar (*see Figure 1*). That opens up the search box as shown. As you can see, it lets you search threads or posts. Typically, your best bet is to search threads first to find someone asking the same question that you have. The Forum search engine looks at all words within every thread, so choose your keywords carefully.

For example, let us assume that you a working on the 160A Mitsubishi alternator that fits a 2010 Dodge Journey and you are unsure about the capacitor in the alternator's terminal block. So you use the Mitsubishi alternator's part number and the

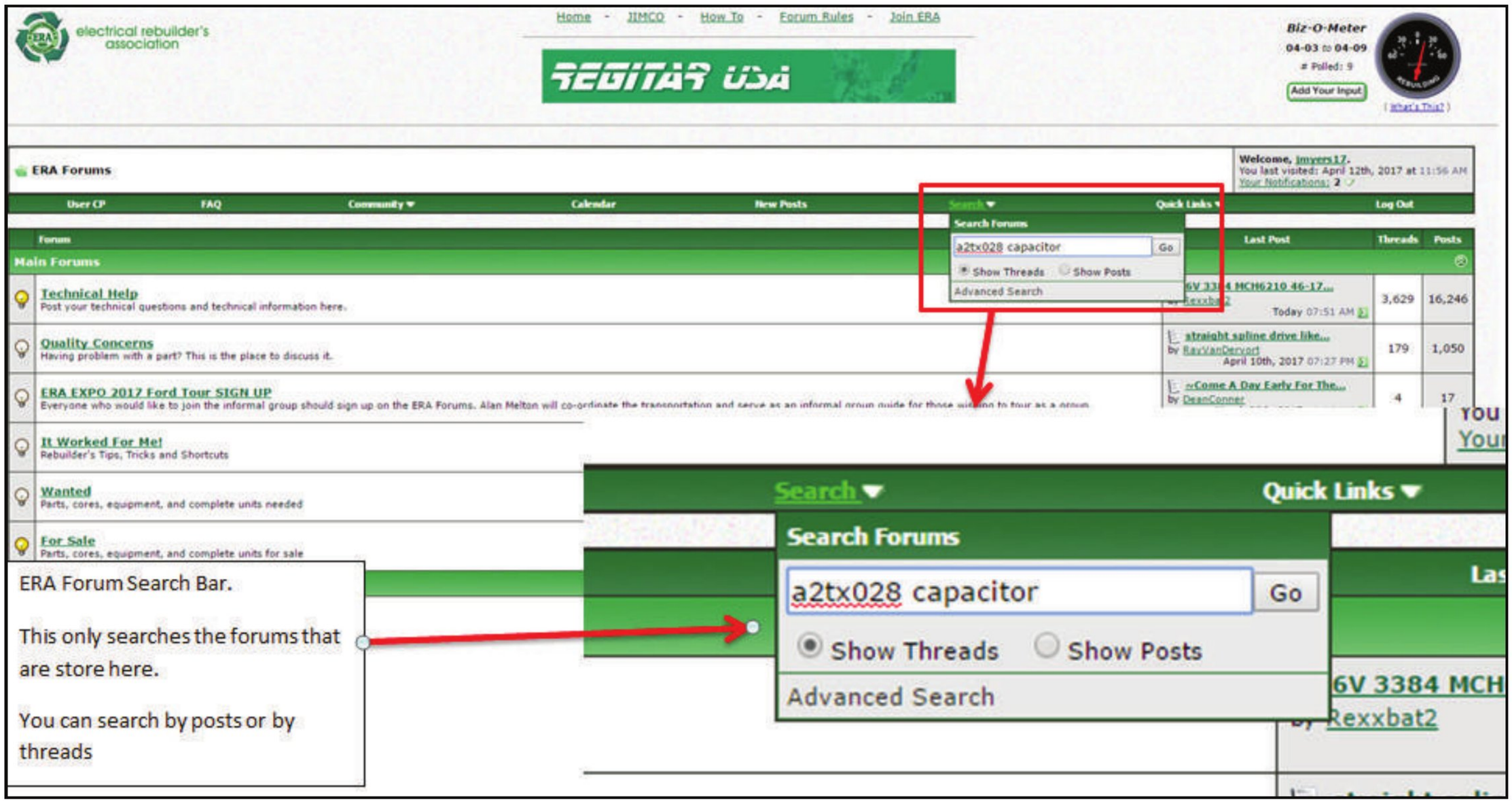

Figure 1 – Highlight Search with box open from main Forums webpage.

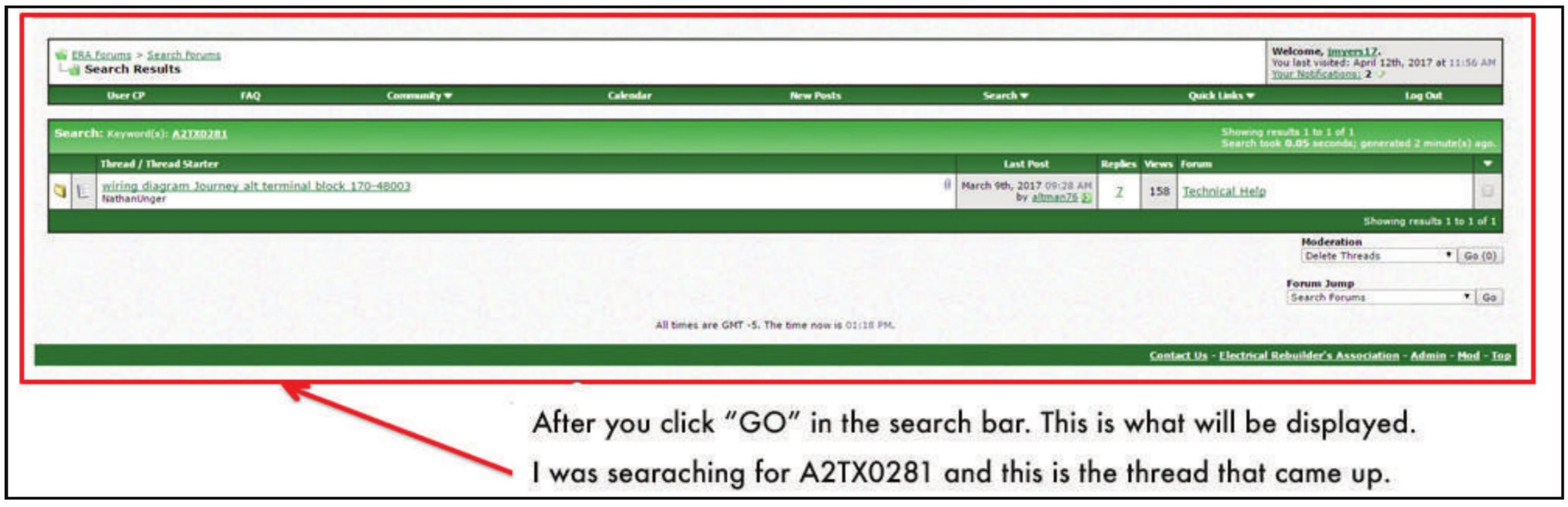

Figure 2 – Display search results using - A2TX0281 capacitor.

word capacitor (A2TX0281 capacitor) as your key words and hit the go button.

As you can see, a single thread comes up (*see Figure 2*). When you click on it, the entire thread appears. Among the seven replies is a response (*see Figure 3*) provided by Mohammad Samii of Sammy's Auto Electric in Champagne, IL. He is but one of the many members that regularly shares his knowledge and experience to help others.

Sometimes, a keyword that has dual meanings will result in too many threads. For example, searching "Focus alternator" brought up 21 threads, including many where "focus" was the word meaning "to concentrate on" and not the Ford Focus car. If you refine the search using a specific alternator part number it will limit the results to one alternator.

Not all searches come up with perfect answers. But do not give up trying. Often a second or third search using different keywords will quickly provide what you need. If you fail to find an answer to a question using the search option, you can always start your own thread by choosing the Forum that best fits your topic and selecting the New Threat button on the top right corner, under the menu bar (*see Figure 4*).

Many members read the Forums daily, much like you might read a local newspaper – to stay informed and discover what problems others are experiencing. It is an easy way to prepare yourself should you ever encounter the same problem yourself.

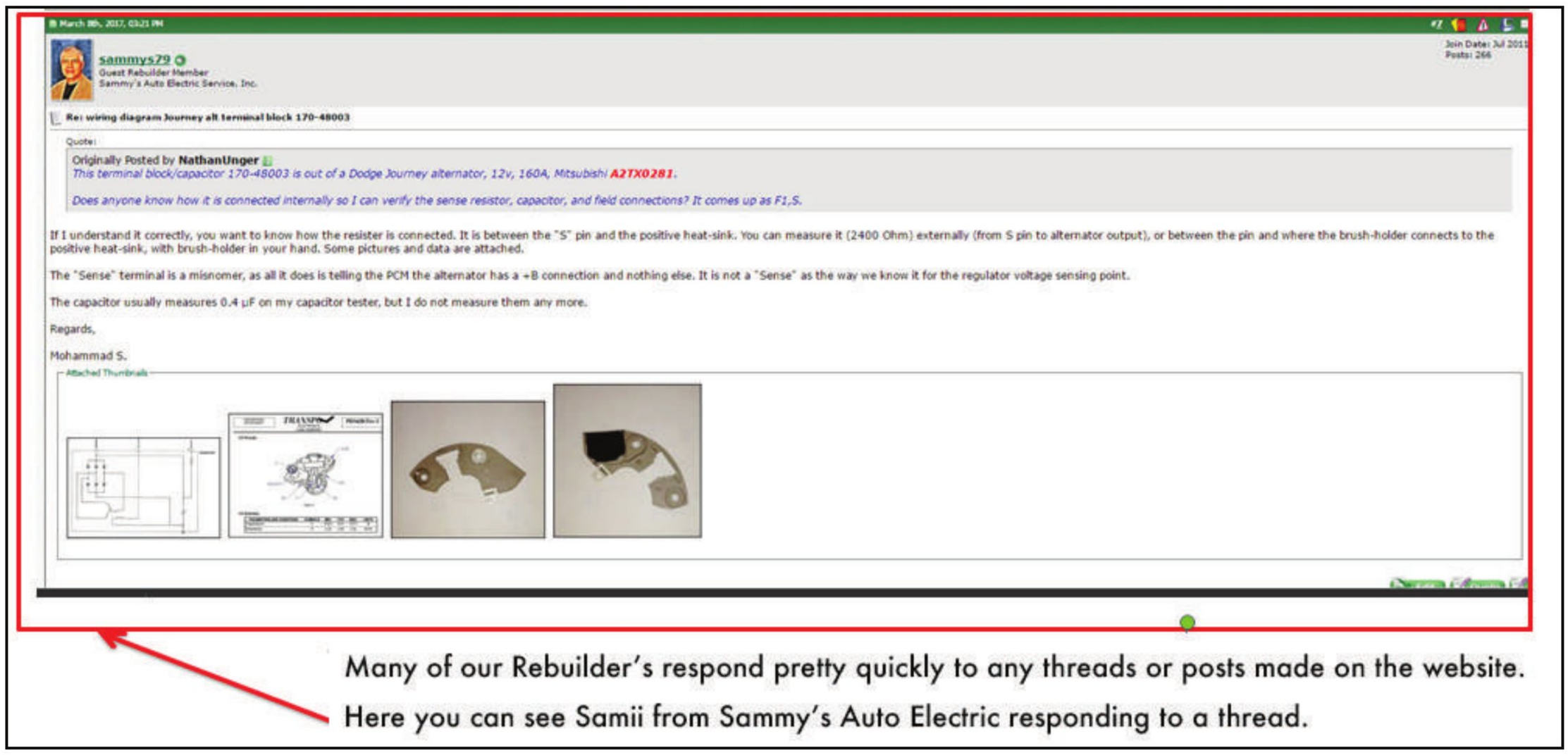

Figure 3 – Display Mohammad Samii's response to that thread.

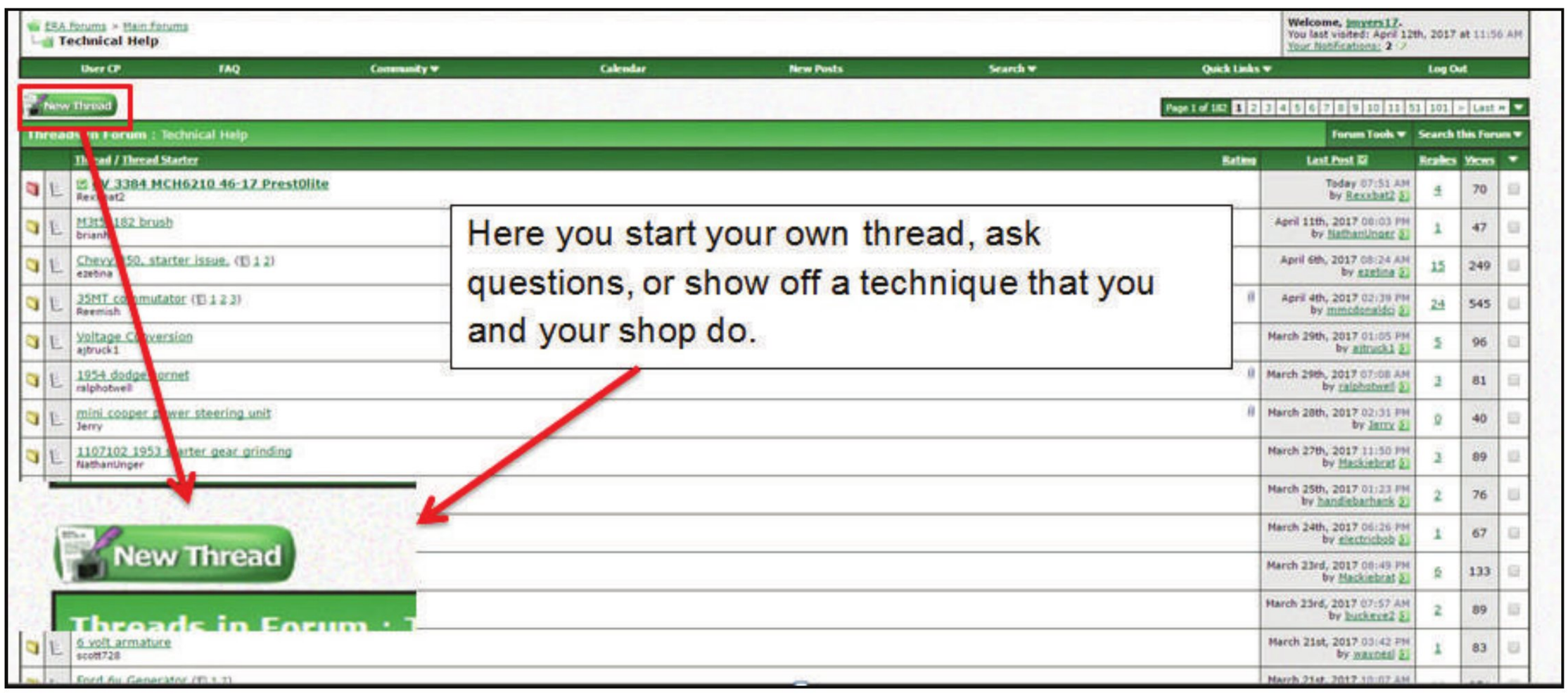

Figure 4 – Display top of main Forum page highlighting New Thread button.

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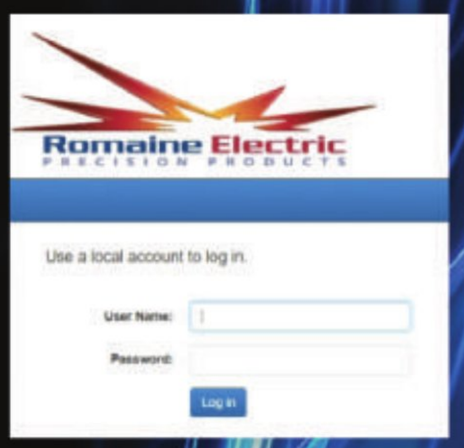

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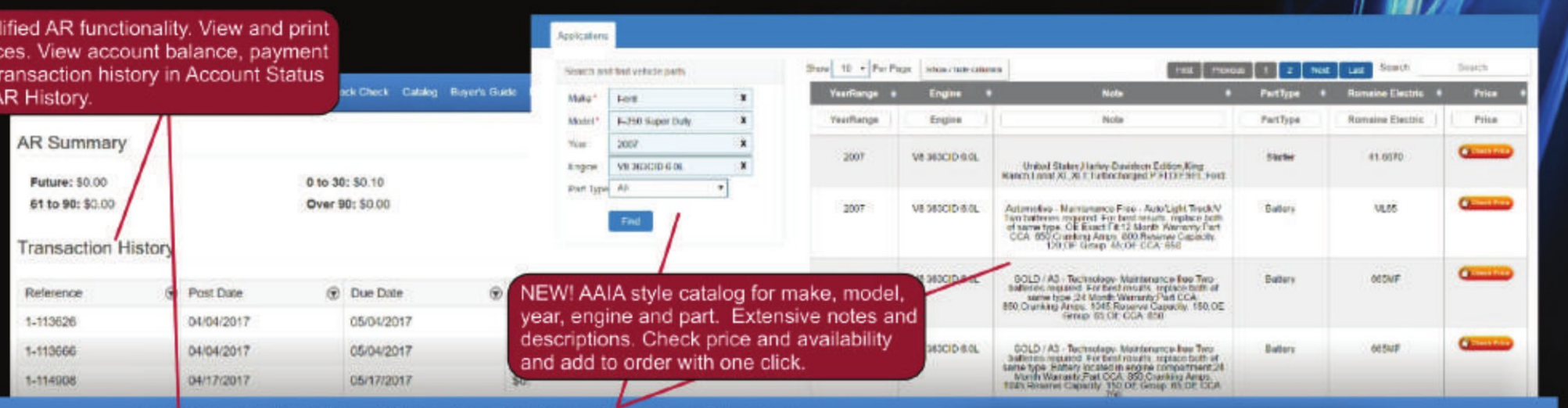

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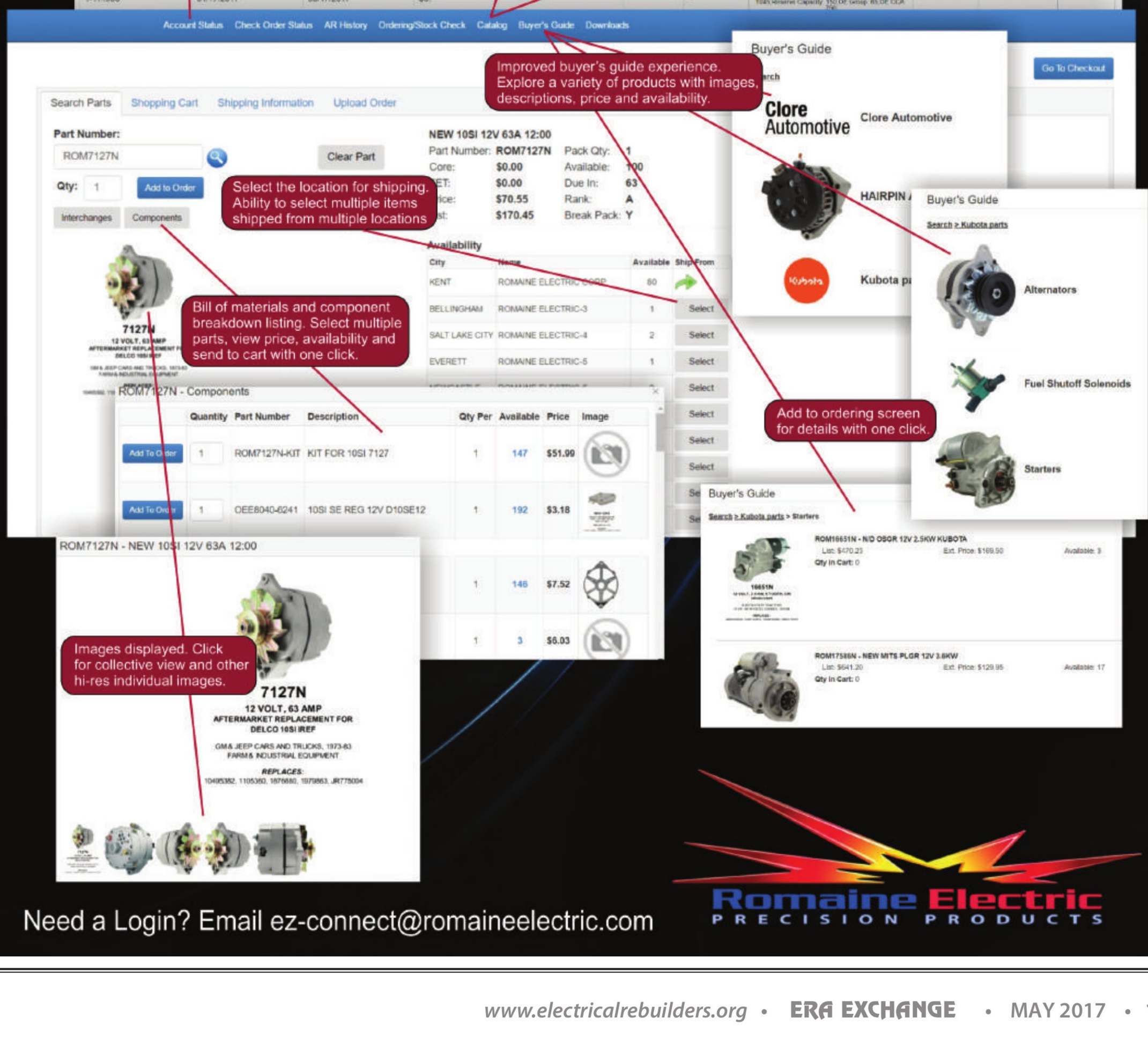

Images displayed. Click for collective view and other hi-res individual images.

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Glen McLaughlin from Alternator-Starter Service won Wagner Alternator's $100.00 HC Cargo product giftcard



Larry Peluso from George's Automotive Service won Wagner Alternator's $100.00 Valeo product giftcard



Michele Schroeder from Central Automotive Electric won Apptrak's one-year subscription ($395.00 value)



Glen McLaughlin from Alternator-Starter Service won WAI Global's $50.00 Home Depot giftcard



Daren Roggentien from Roggentien Electric won WAI Global's $50.00 Home Depot giftcard



Michael Schmitt from Litens Aftermarket won WAI Global's $50.00 Home Depot giftcard



Angela Schomover from Metro Heavy Duty won WAI Global's $50.00 Home Depot giftcard



Rich Davis from Sagle Auto Electric won WAI Global's 2016 Automotive PIC Book



Larry Hagemeister from Hagemeister Enterprises won WAI Global's 2016 Automotive PIC Book



Daren Roggentien from Roggentien Electric won WAI Global's 2016 Automotive PIC Book



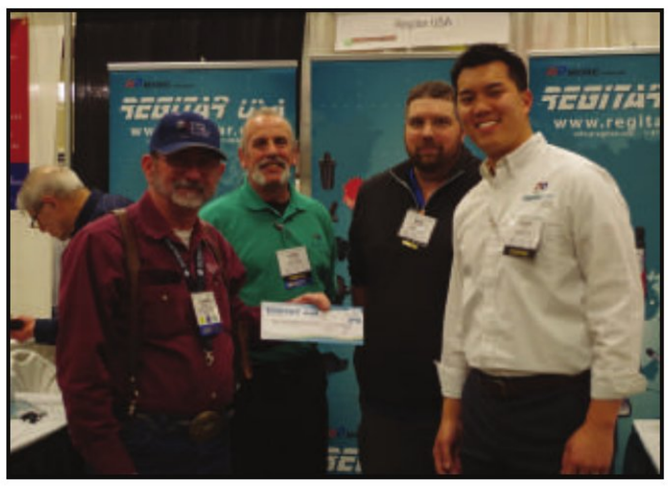
Glen McLaughlin from Alternator-Starter Service won WAI Global's 2016 Automotive PIC Book



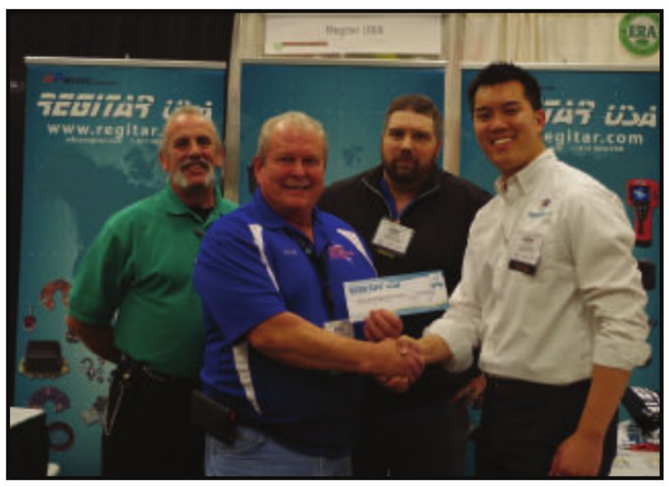
Alan Melton from AmFor Electronics won IMI's GM 6.5L 12v Starter #IMI-2500S



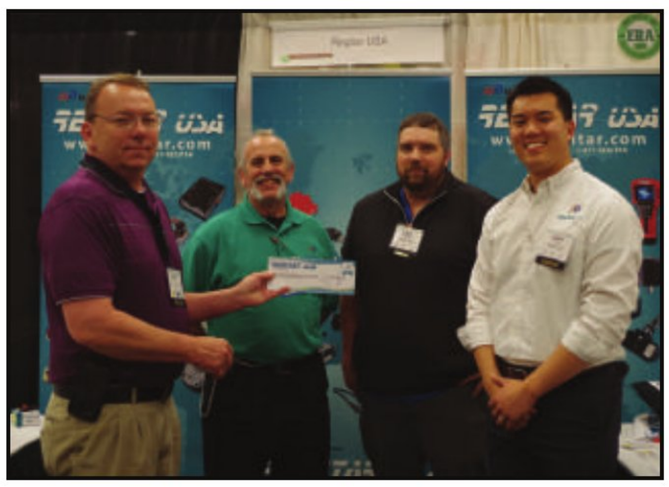
Lynn Gross from Churubusco Auto Electric won PartRef's Samsung Galaxy E. Tablet ($250.00 value)



Tom Barrett from Dakota Battery won Regitar USA's $200.00 merchandise credit



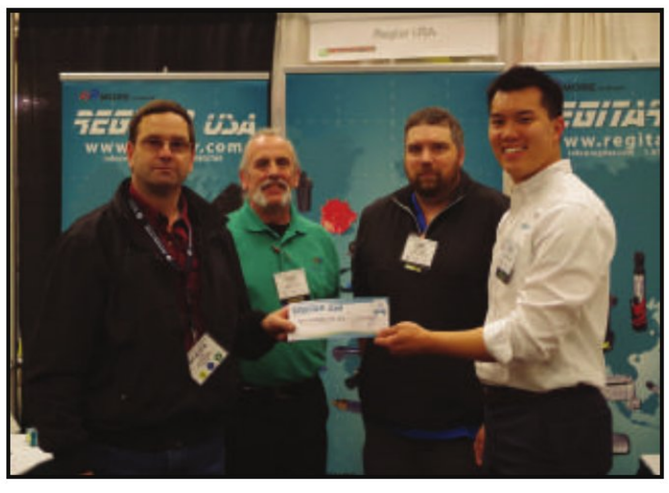
Mike Schroeder from Central Automotive Electric won Regitar USA's $200.00 merchandise credit



Mike Dietrich from Action Alternator won Regitar USA's $200.00 merchandise credit



Lamar Miller from Starter-Nator Services won Regitar USA's $200.00 merchandise credit



Weaver Leid from Sunrise Repair won Regitar USA's $200.00 merchandise credit



Sharon McLaughlin from Alternator-Starter Service won Dixie Electric's golf umbrella



Art Glass from Willard Generator won a free night's stay and breakfast for 2 from the DoubleTree by Hilton Hotel



Lynn Gross from Churubusco Auto Electric won the ERA's 40" Sceptre television



Early Bird Registration Winners

Donnie Weber from BBB Industries (*middle*)
(1st place, 4 days & 3 nights & show registration)

Art Glass from Willard Generator (*left*)
(2nd place, 4 days & 3 nights plus 1 breakfast)

Tim Nummerdor from Fremont Generator (*right*)
(3rd place, show registration)

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Members Helping Members

Honoring Dick Vensel

The 2017 ERA Trade Show was dedicated to the memory of Richard "Dick" Vensel.

The ERA honored Dick at the reception by presenting his wife, Barbara, with flowers and a plaque for all of Dick's dedication to the industry.

Barbara had a chance to pose with the memorial poster of Dick on the show floor.







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The guys at Litens had a chance to chat with members on the show floor

"We had a great variety of seminars which covered from batteries to starters and alternators. A great show. Thanks to all who put it on."
– Tom & Casey Barrett, Dakota Battery



Having a good time at the show

"Location and facility was awesome. Nice to have everything under one roof. Size of space was perfect. Good flow of customers both days."
– Bill Ernst, WAI Global



Mohammad Samii's seminar

"Great job ERA. Well organized, great location, fun tour, and passionate rebuilders. Always an event we look forward to. Thanks for what you do."
– Nick Staub, Romaine Electric



Checking out what Dixie Electric has to offer

"The location of the show was excellent! The large amount of raffle prizes make it fair for all. The hotel was very nice and clean with a good restaurant. Everyone treats you like their best friend and they're willing to share money tips and tricks. The show staff does a very good job!"
– Jeffrey Sensenig, Jeff's Starter Shop



Dan answered questions about Apptrak software, with the help of his new teammate, Richard



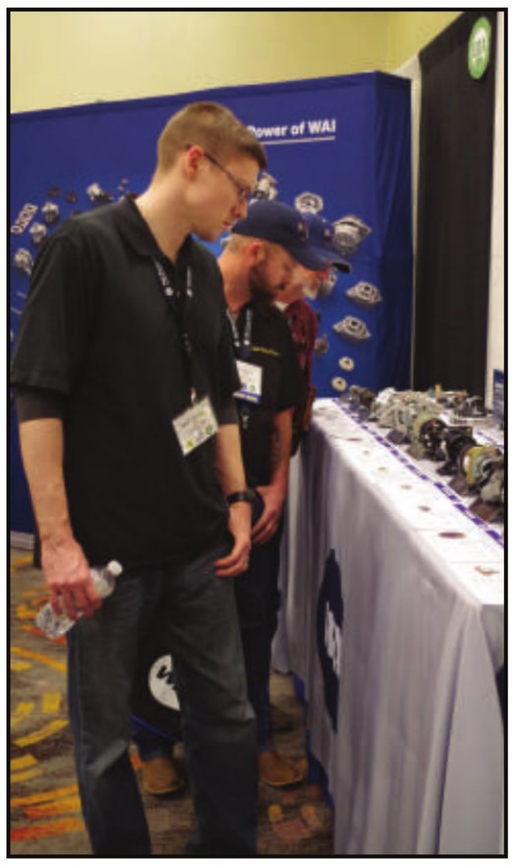
Chatting with members at the Mahle Aftermarket booth

"Good turn out! Many new faces! Some contacts made. People are upbeat and receptive to what we had to say."
– Kristine Dailey, R&R Regulators

The ERA would like to extend a thank you to Sharon McLaughlin for sharing some of her own photos with us for this issue.



Dan Marinucci's seminar



WAI Global had many products on display

"Awesome tight little show of dedicated, fun, knowledgeable folks willing to give their time. Helping others is fun and it shows on the faces of everyone. The best prizes are the lasting friendships."
– Glen McLaughlin, Alternator-Starter Service



Looking at what products are on display



Good times and great friends are key in this organization!

"I really enjoyed the show. The people were authentic and friendly at the same time. I was so impressed that I volunteered to write for the ERA magazine and go onto the forum. Thanks for a great show!"
– Bill Bowman, Problemetrics

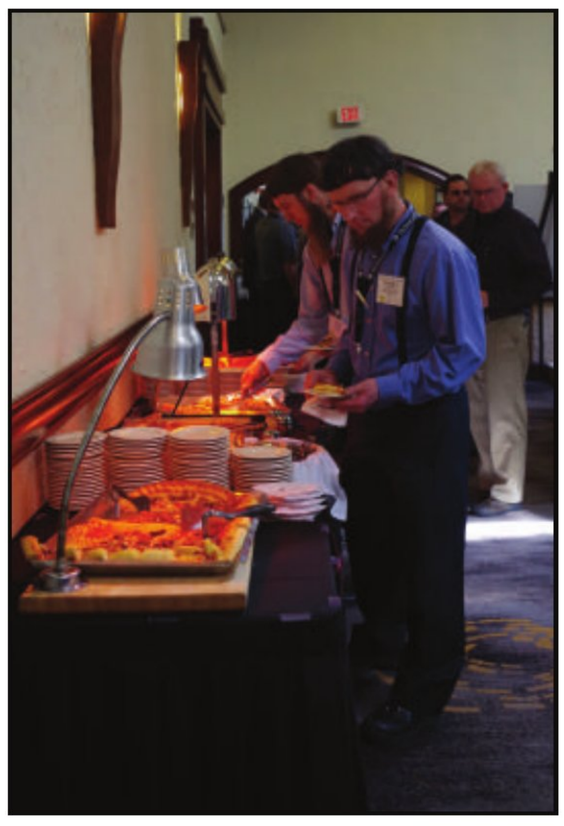
"I want to thank the ERA for the wonderful tribute to Richard. Really enjoyed seeing all the friends and family – like a reunion. Richard loved what he did and has so many friends in the industry. Will have fond memories each time I look at the beautiful plaque. Thank you for all the support over these last years."
– Barbara Vensel



Hanging out at the registration booth



Smile for the camera!



Delicious pizza for the reception on Friday night

"The ERA expo once again provided us with the opportunities to network with industry peers, both current customers and prospects, and allowed us to exchange products, services, and ideas to better the rebuilding profession. Regitar USA looks forward to continuing and enhancing the ERA experience in Montgomery, Alabama in 2018!"
– Gary Tsai, Regitar USA Inc

"Great turn out, organized, and well worth exhibiting!"
– Robbie Sullivan, Superior Engine Parts



Gene chats with members at the Regitar booth



Allegiant Power's seminar



There was a full house for Roundtable discussion, as usual.



Matt Wight at IMI chatted about new products with members

"As usual it was great to get together with friends and acquaintances, as well as keeping in touch with suppliers that we talk to on the phone all year long. There was also plenty to learn at the seminars. The number of raffle prizes kept things very interesting all afternoon."
– Alan Reynolds, A&J Transport



Glen McLaughlin participated in the discussion



J&N had many products on display for members to view

"Overall a fantastic time! Very organized from the tour of Ford plant to the showroom floor. Food was outstanding! Rick Wagner went to the seminars and said they were informative and helpful. Great show you guys!"
– Erik Wagner, Wagner Alternators



Paul Sailon offered up his ideas during discussion



Gary from Regitar spoke with members about products

"As this is my first ERA trade show and not having any knowledge of the events, I will say that the people in the group are 1st class. Very organized and professional. I see this as the best opportunity to gain knowledge within the industry. I also see making a lot of improvement with my business from networking with the vast experience within the group. I appreciate the opportunity to be a part of the ERA. Thank you for the support!"
– Richard Beardsley, Battery Specialists of Alaska/Whatcom Electric





"The ERA team never disappoints. The venue chosen was perfect for the event. The ERA team are always friendly and helpful to your needs. Because of this, there always seems to be new attendees every year.The schedule is always engaging with the guest speakers and seminars. The extracurricular events always exhibit the hosting town's highlights. The show continues to grow and we look forward to each year's event."
– Phillip Falk, D&V Electronics/Straucon

The ERA would like to welcome these seven men to our organization. The 2017 trade show in Dearborn was their first trade show with us.



Tim Weyandt & Sam Fox chatting with members during their first appearance at the ERA show.



Nothing but smiles at the Wagner booth!

"It continues to amaze me at the value of attending the ERA show every year. The show is excellent and very affordable. The ERA staff should be commended for their choice of hotel, location, and overall execution of the show. There are many small details of this show that are great and do not go unnoticed. I am thankful to be able to attend every year to visit with old friends and create many new ones. See you all next year in Montgomery, Alabama!"
– Al Steadman, Litens Aftermarket



Bill Bowman's seminar

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At the 2017 ERA Trade Show in Dearborn, Michigan, it was unveiled that the 2018 show will be held in Montgomery, Alabama, to coincide with Regitar USA's 30th anniversary celebration. Gary Tsai shared his excitement about the upcoming show and Regitar USA's anniversary.













Ford Rouge Factory Tour

This year, the ERA took a tour of the Ford Rouge Factory in Dearborn, Michigan. Inside the plant, visitors get to see a two part cinema show, one of which is featured inside the Manufacturing Innovation Theater. It's equiped with robots, lasers, and a 3D mold of the new F-150. This show alone will knock your socks off. The technology in front of you is so advanced that you won't believe what you're seeing. To see what I'm talking about, visit: **https://www.youtube.com/watch?v=ugaf3GkyLjc**

After the cinema shows, guests are ushered into the Legacy Gallery, which features some of the most famous Ford vehicles made at the Rouge; 1929 Model A, 1932 Ford V8, 1949 Coupe, 1955 Ford Thunderbird, and the 1965 Ford Mustang. A Ford F-150 Raptor SVT chassis is also on display for viewers to take a gander at.

The final stage of the tour is the assembly plant, where photos were forbidden. But if you'd like to take a look inside the assembly plant, photos are available on the website, **thehenryford.org**, or you can simply Google "Ford Rouge Factory Tour" and take a peek inside.

For those of you that attended the Ford Rouge Factory tour with us, you know what I mean when I say this place is phenominal. For those of you who didn't go, I highly suggest taking the time to go and visit this astonishing assembly plant. Trust me when I say it's nothing like you've ever seen before.

Did you know?

- One F-150 is built every 60 SECONDS.
- 600 F-150's are built every work shift.
- There are two shifts Monday-Friday, and one shift on Saturday and Sunday.
- 7200 F-150's are produced every week.
- One F-150 is sold every 45 SECONDS.
- In 2015, Ford was behind production by 40,000 F-150's, so they retooled their Kansas City location to increase production speed. With the help of the new location, they began producing two F-150's every 60 seconds.

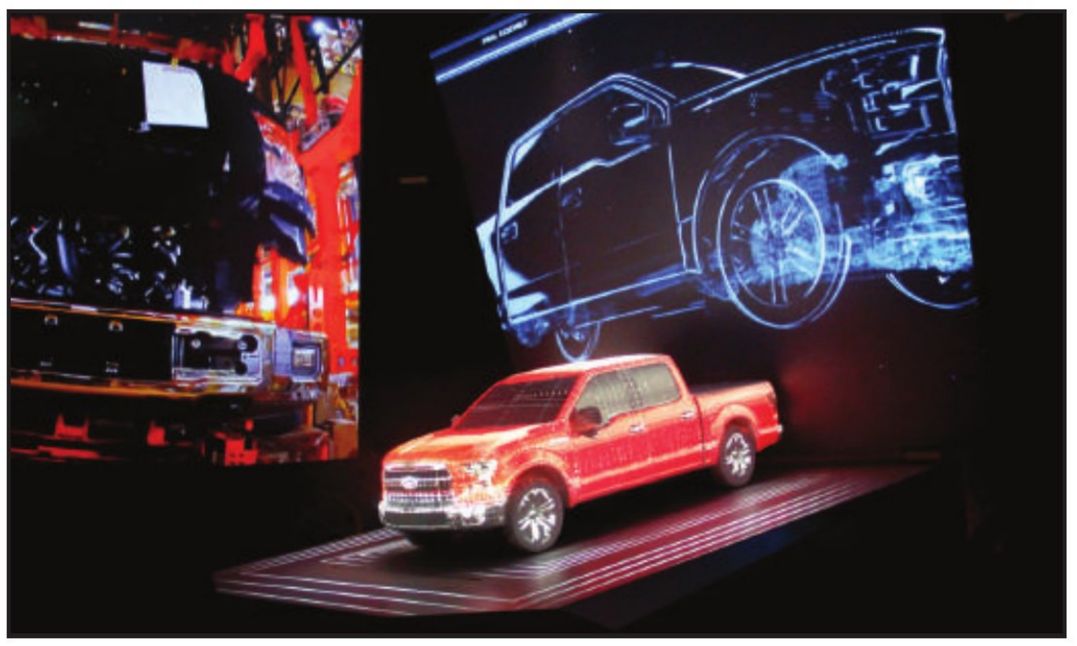
The Legacy Gallery



Taking a closer look at the F-150 Raptor SVT chassis.



Inside the Manufacturing Innovation Theater





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