TRIUMPH TRUMPETER

OFFICIAL NEWSLETTER OF
THE DESERT CENTRE – TRIUMPH REGISTER OF AMERICA
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Triumph Register of America

PROMOTING TRIUMPHS AROUND THE WORLD

WITH OUR SISTER CLUB
THE ISLE OF WIGHT TRIUMPH CLUB, U.K.

NOVEMBER 2013
Vol 34, Issue 4
http://www.dctra.org

NEXT CLUB MEETING

Tuesday, November 12, 2013
Meeting starts @ 7:00 p.m.
6:00 p.m. - Come Early to Dine & Socialize with Club Members

DENNY'S RESTAURANT

650 N. Scottsdale Road, Tempe, AZ 85281
580-858-8276

2013 CLUB OFFICERS

President
John Nuss
480-983-3945
jknuss@live.com

VP & Events
Matt Reynolds
480-968-6078
bsatr6@yahoo.com

Secretary
Pete Peterson
480-488-4872
packratpete@gmail.com

Treasurer
John Reynolds
480-968-6078
johntempe8@q.com

2013 Appointees

AAHC Rep
???

Historian
Armand LaCasse
602-904-1037
big.blue.truck@live.com

Tech Advisors
Armand LaCasse
602-904-1037
big.blue.truck@live.com

Roy Stoney
602-231-0706
royston469@msn.com

Membership
George Montgomery
480-290-1310
georgemonty32@gmail.com

Webmaster
Dave Riddle
480-610-8234
dave@microworks.net

Newsletter
Pete Peterson
480-488-4872
packratpete@gmail.com **OR**
bev@carefree.org

ADVERTISING

ONE YEAR placement in the newsletter **AND** a link on the www.dctra.org **website:**

AD SIZE – COST

FULL PAGE….$100 **½ PAGE:……..$60**
¼ PAGE…….. $ 35 **BUSINESS CARD:….$25**

On the Cover: John & Kathy Nuss, Ken Schmidt & Deborah Cooke, Marie Thompson: awards in recognition of attending all fifteen British Vintage Voyages.

Prez Sez – November 2013

John Nuss

We enjoyed Triumphest - how about you? We took time to visit with family in San Francisco. Driving back across the Golden Gate for a second time was just as nerve-wracking as the first time. The natives running extra-legal on one side and the tourists gawking and driving, in some cases, sub-legal. After driving by the orchards of I-5 and listening to the street musicians in San Francisco, I think in my next life, I want to be a street musician and after that an orchard-man.

We had about a week to prepare for the British Vintage Voyage - replaced washers in the rear wheel cylinders and the master cylinder - thanks to Delta Motorsports and Ron. On both trips, the car ran strong - thanks Ken.

On Sunday driving home from the British Vintage Voyage, Kathy and I talked about the places we've visited, the people we've met and the "experiences" we've had since we joined the British car community. Personally, I never would have believed that I could repair, paint, restore, and drive, sort-of competitively, a vintage car. We have met people that are willing to talk, at length, about their cars and their experiences. Many times I called Ken and others with questions about "how to" and "what if." And, it is not just the "car experiences" but life stuff - traveling, work, school, family - we are more than car people. If not for the Spitfires, we never would have visited Kartchner Caverns - twice! Nor would we have traveled to Kitt Peak, Sonoita, Bisbee, Benson, Bioshpere 2, Sedona and Flagstaff almost yearly. For a car that we bought to go the drive-in on an occasional Friday evening, trips to San Diego (two times), Ventura, Riverside were exciting. Then there are the "experiences." The parties on the roadside while effecting repairs - electrical, over-heating. There is walking with Dave to the Santa Barbara small boat harbor searching for his motel room key (Or was it the car keys?) using the cell phone. Another was riding with Marie to Wickenburg and thinking how powerful the MGA was tackling the hills on SR74 without having to down shift. Then I learned that the clutch master cylinder was leaking and she couldn't shift. While trying to bleed the clutch, we met all kinds of kibitzers - one telling us about the Siata he had and the miseries of the SU carburetors on his British cars.

So when someone asks , "Why join the club?" I've got answers.

Coming up: Christmas party – Petersons are willing to host?
Elections: Is it time for you to serve?

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EDITOR'S DESK

PETE PETERSON

THREE DOWN - ONE TO GO! I agreed to finish off this year as newsletter editor. Thanks for all your contributions.

Minutes

DCTRA Meeting Minutes – OCTOBER 8, 2013

Vice President Matt Reynolds opened the meeting at 7:05 p.m. on Tuesday, October 8, 2013 at **DENNY'S RESTAURANT** at 670 N. Scottsdale Road in Tempe.

27 people signed the roster:

Ned Bailey - drove a TR
Jim Bauder - drove a TR
Pete Bowen
George Durkin - drove a TR
Dave Fore - drove a TR
Gene Glenn
Ron Gurnee - drove a TR
Paul Jordan
Betsy Kavash
Jody & Jensen Kerr - drove a TR
Chuck Kerzan - drove a TR
Stu Lasswell - drove a TR
Bob Mazer
George Montgomery
Dave & Denine Muré - drove a TR
Gary Nelson
Jacob O'Neil - drove a TR
Pete & Bev Peterson - drove a TR
John & Matt Reynolds - drove a TR
Dave Smith
David Stephens
Roy Stoney
John Truttman

12 - TRIUMPHS WERE DRIVEN TO THE MEETING!

VISITORS: ***Jacob O'Neil*** has a 1977 TR7.

MINUTES: The minutes of the September 10, 2013 meeting were approved as written.

AAHC: Nothing was reported.

TREASURER: ***John Reynolds*** reported on the club's financial status. He has opened a separate Triumphest account. It was discussed and agreed that the club president should be the second name on club accounts.

MEMBERSHIP: ***George Montgomery*** reported on membership. There was discussion about how members would like to get a current roster from the website.

NEWSLETTER: ***Pete Peterson*** thanked those who contributed to the newsletter and asked everyone to consider taking on this position.

EVENTS: ***Matt Reynolds*** reported on upcoming events:
11/03 - Brighton Motorsports Rally
11/09 - Cannonball Tucson Challenge
11/12 - **DCTRA** Meeting
11/17 - **DCTRA** Sponsored British Breakfast Run
12/21 - British Car Christmas lights tour

Stu Lasswell reported on autocross events on the west side and vintage auto races at the former Firebird Raceway.

TECHNICAL: ***Armand LaCasse*** was not present. There was no technical information discussed.

OWNERSHIP UPDATES: There was nothing to report.

OLD BUSINESS: Triumphest was the major topic of old business.
Stu Lasswell was awarded BEST TIME OF DAY in autocross.

Ron Gurnee reported on the recommended vendor list and updated information on license plate frames.

NEW BUSINESS: ***Bev Peterson*** asked about the Christmas party and charitable donations for the holidays. The Petersons will host the Christmas party on December 14th. Charities will be decided on at the November meeting.

Jim Bauder requested that a meeting agenda be published the week prior to the meeting.

Pete Peterson moved to have the club pay for new name badges for current members who don't have one. Seconded by ***Dave Muré*** and motion passed. ***Stu Lasswell*** explained how another club has a "Sergeant at Arms" who checks to see if members are wearing their nametags and fines those who don't. This money goes into a pot for ???

Gene Glenn said the quality of the new shirts he ordered was excellent.

With no other business, the meeting adjourned at 7:50 p.m.

Submitted by: ***Pete Peterson, Secretary***

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Calendar of Events

Matt Reynolds

11/03 - Brighton Motorsports Rally
11/09 - Cannonball Tucson Challenge
11/10 – Prescott – Charity Car Show - Special Olympics/Northern Arizona: www.sc4sa.org
11/12 - **DCTRA** Meeting
11/17 - **DCTRA** Sponsored British Breakfast Run
11/23 – "Boys in Blue" car show – Mesa: Barbara.McReynolds@mesaaz.gov
11/30 - **DCTRA** Meet at Scottsdale Pavilions Car Show
12/14 – **DCTRA** Christmas Party
12/21 - British Car Christmas lights tour

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CHRISTMAS PARTY

This year the Christmas party will be at Pete & Bev Peterson's house on Saturday, December 14th starting at 6:00 p.m. Bring a side dish of your choice and BYOB. Main course and soft drinks will be provided by the club. The usual GOOFY GIFT exchange will happen again. Make it a $15.00 limit. RSVP no later than December 9th to: packratpete@gmail.com or call 480-488-4872/
We will email back directions & a map..

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Bo Shaw's Restoration Journal

This is the second of a series of 16 articles written by DCTRA member Bo Shaw about his experiences restoring his 1958 TR3A. Each month we will publish another article so you can see what it's like to spend a year or more recording your progress on a major project's ups and down's and the final TRIUMPHant result.

ENTRY #2 – June 2011
Since my last report a couple of months ago when the engine and transmission had just been installed on the chassis, there has been progress on the TR3. Just not as much progress as I would have liked. (Always the case, I guess.) The drive shaft has been installed as well as rebuilt lever arm shocks. Most of the engine accessories have also been installed, including the water pump, high torque starter, alternator, fuel pump and fuel line plumbing, oil filter head and the exhaust system including headers. The exhaust headers were the source of some delay as they originally did not fit within the frame rails when mounted to the engine and a method for bending them to fit had to be worked out. Once the headers were installed, there was a clearance issue with the brake lines and the headers, which ran closer to the passenger side frame rail than the stock set up, and so interfered with the line going to the left front brake. After looking at various options, I decided to modify the brake line set-up to that of the TR4A. The TR3A uses a five-way connector for the brake lines mounted on the right front frame rail and the pressure switch for the brake lights is installed in it. The TR4A has a four way connector installed on the left side frame rail, and the brake light switch is installed on the fire wall in front of the brake master cylinder. By taking the TR4A connector and rotating it by 180 degrees, I think that it will work with some rebending of the brake lines. The requisite parts arrived from Moss yesterday.

I've also changed the carburetor set up to (hopefully) take better advantage of the reworked head (a 511695 head from the TR4A that is supposed to have better flow characteristics) and cam shaft, both from APT in Riverside, as well as the headers. I'm using the intake manifold from the TR4A (longer intake runners) and SU HS6 carburetors in place of the original H6's. This, of course, requires a modified linkage set up, and we're (West, Roy and I) still looking for the linkage bracket for twin HS6's used on the later TR4As.

Once the new brake lines are plumbed in, the chassis should be ready to be reunited with the body. Hopefully, that is what the pictures will show next month. Thanks to West Katzenstein and Roy Nichols for all their help. We're all restoring Triumphs together.

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My Recent Trip to the S.F Bay Area
by Jim Bauder

A couple of months ago, I received an invitation to enter the July 21st Hillsborough Concours d'Elegance. I had entered my British Racing Green '58 TR3 in the 2002 Hillsborough event just before moving to Scottsdale and was lucky enough to take a first in class. So I knew what this kind of event was about. They used trained and accredited Judges from the Sports Car Club of America judging corps, as well as 12 special honorary judges for many of the specialty classes (Bentleys, Corvettes, Porches, etc.) I knew my TR250, being considerably modified, was not going to do well in the actual judging, but I was going to put up a good show and would be as prepared as anyone. I sent in the application with some photos (all by email) and was officially accepted in Class I2, which was 'Imported Sports Cars, 1963 – 1987.'

Hillsborough is a small town located on the San Francisco peninsula between San Mateo and the San Francisco Airport. It kind of reminds me of Paradise Valley, with a business section and commuter trains. See Zillow for average property values if you are curious!

I left our home in Scottsdale at 3:30 AM on Thursday, the 18th of July. It wasn't too hot across I-10 to the 210 in the Los Angeles area and on to the I-5. The Grapevine was no problem at all, very little traffic and the TR250 temp gauge never went above normal, (but more on this later). I stopped at a Motel 6 in Bakersfield, CA a little after noon. Had a shower, took a nap, had some lunch, took a nap, and had some dinner and a little TV. Left for the Bay Area at 6:30 AM on Friday and arrived at my daughter's house in Palo Alto at around 10:30! Not too bad at all. Unpacked and began to detail the car as it was pretty dirty and had lots of bugs on the front of the car. The Griot's Garage detailer worked really well to get the car looking better than I expected.

I had entered the two optional events scheduled for Saturday, so had to leave for the first one, the 'Tour d'Elegance' at 6:30 AM! It was to be a nearly 100-mile tour covering the coast mountain range between Hillsborough and south to Mountain View, (which is only about 25 miles south of Hillsborough as the crow flies) and then back to Hillsborough! It included a catered stand-up breakfast before the start, with excellent pastries (no greasy donuts here!), hot fresh coffee, orange juice, assorted fruit, and yogurt. There were over 100 cars entered in the Tour - and what a collection it was! They filled both sides of the street for a full block in front of the restaurant handling the breakfast, plus a parking lot to the side. As we checked in, they handed out 'goody' bags and large static-cling door decals for identification during the tour. They had the local Hillsborough and Burlingame police controlling traffic signals and stop signs until after all the Tour entrants cleared the towns.

Before the signal to leave, one of the members of the committee asked if I was by myself and, if so, would I mind if he rode along. I, of course, could use a navigator and am always ready for company, so we rode off together. It turned out that he lived in Hillsborough and was familiar with all of the roads, so it was good to have him along.

The ‘starting grid’ of the Tour d’Elegance

The coast mountain roads are always really wonderful to drive (unless they are clogged with traffic!), but with 100 other sports cars they are really a treat! We had our first stop at the relatively new Mozart Auto Museum in Mountain View. This privately owned and ‘closed to the public’ museum is incredible! It is owned by the Mozart Museum Foundation, founded by one of the first, if not THE first, VW/Porsche dealers in northern California. In the museum, they display 50 - 60 cars and have a second storage/restoration venue with 120 + cars in various stages of restoration, some of which are cycled through the main venue from time to time, all this according to our guide. Our guide also informed us upon entry that there would be NO photography of any kind! This elicited many moans and groans from the crowd! But rules are rules and I don’t believe anyone took any photos of the cars.

The Static-Cling Decal on my car

After listening to the docent/guide for an hour and a half or so, we were ushered out of the museum and back on the road, back the way we came. We arrived in Hillsborough for our catered sit-down lunch, after first parking on the street in a very, very ‘nice’ part of town. The house was a large private residence with about 10 - 15 round banquet tables, each seating 8 - 10 Tour participants, arranged in a huge back yard. They had two large charcoal BBQ grills about 4’ X 6’, one for beef and one for chicken, tables of salad, fruit, pastries, bread,

etc. It was quite a party and the food was great! After lunch, I said good bye to my navigator and headed for my daughter's home in Palo Alto, with some more detailing of the car needed before the event that evening and, of course, the Concours the next morning.

The Tour Lunch Venue

I had signed up for the Honorary Judges Reception to be held Saturday evening, which was to be held in Burlingame, a town located just south of Hillsborough, at a place called 'The Candy Store.' The Candy Store turned out to be a private club that had taken over an old Packard dealership's building on the edge of Burlingame's Auto Row. At one time, this building must have been quite beautiful, but now was just a seemingly closed two-story brick building with Venetian blinds covering all of the windows and very stout doors with heavy locks. They had a key-pad entry, but of course I had no idea what the passkey was. A knock brought a smiling welcome from a hostess, and, after securing my Name Badge, I was ushered into what was at one time the display floor of the dealership. There were three very nicely restored and very exotic sports cars on display with oriental rugs placed between each car! The old repair and maintenance section of the dealership was directly behind the display area. The reception was held here and there were about 25 - 30 more exotic cars arranged around the old service area, from old Jag's to a F-1 car, and everything in between! Again, the catering was superb with great hors d'oeuvres, excellent wine, good conversation, and good company!

The next morning, I left Palo Alto for the Concours d'Elegance at 6:30 AM and arrived at the concours field, which turned out to be the practice greens of the Hillsborough Golf Club. It was quite a beautiful venue! I was the second car in my class to arrive; the first car belonged to the 'Class Steward'. The Class Steward was in charge of placing all of the cars in his class on the field in the order they arrived, distributing the entrants' envelopes with all of the pertinent class information, and installing the entrants' plaque on a post placed in front of the car. The plaque had the class number, entrant's name, and a brief bio of the car (which was very clever) and then after the event you got to take the plaque home. This was much fancier than the usual hand-lettered windshield placard.

I emptied the trunk, and proceeded to do a final detailing of the car, cleaned the tires, the under hood, and set up my trunk display, etc. The car next to mine was a '79 MG Midget

1500. The owner had brought along a battery-powered impact wrench, a jack, and a piece of plywood to support the jack. He then jacked up all four wheels and rotated the wheels so that the MG Octagon was 'right-side-up'! And I thought I was compulsive!! However, as it turned out he took first in our class, so maybe it was worth it!

There were three judges for our class, all dressed in pretty much matching pressed khakis, white shirts and tie, a blue blazer, and a Panama hat! They looked sharp and they spent maybe 6 - 8 minutes on my car, about the same on all of the cars in our class. The SCCA use a 100-point system but, unfortunately, as far as I know there is no way to see the judge's sheets or even to get a number!

A large group of spectators crowded the area during most of the day to see the approximately 200 + cars on display. I ran into a couple of TTSCC folk at the concours including Fred Pappalardo and Dave Zigal, who had purchased my '58 BRG TR3 that I mentioned earlier! Dave had one of his Corvettes on display.

It was a really fun weekend; no hardware to take home, but I met a lot of interesting people. I was made to feel very welcome by everyone and I renewed contact with a couple of old friends, so all in all it was great fun and very worthwhile. Plus, I got to see my daughter, son-in-law and the two grandkids!! What could be better than that?

Monday I left Palo Alto at 10:30 AM and drove all the way to Barstow, CA on Highway 58. I stayed in a nicer motel than the Motel 6 on the way west, but not all that much nicer! On the way into Barstow, it rained enough so that I had to use my wipers for about 30 minutes. Of course, it was still probably 100 degrees out, but the rain did cool the air off noticeably.

As I left Barstow the next morning at about 4:30 AM for Needles, there was not a single restaurant that I could find that was open! It was fairly cool out on the road as it had rained during the night. All along the almost empty highway on the way to Needles, there were signs of the rain the previous night, lots of flooded areas along the side of the road with dark heavy clouds hiding the rising sun. It was a very beautiful drive. I stopped for breakfast in Needles, CA.

Out of Needles, I took Calif. Highway 95 south to the Parker, AZ turn-off. It is a really nice drive; with no traffic, plus I have never seen a CHP on this stretch of road. About an hour later, I turned off 95 and headed for Parker. A little later, I noticed the engine was running a little rough, plus the temp was a little higher than it had been earlier on the trip. Not really hot but just a little higher on the gauge. In Parker, I stopped for gas and checked my oil. As I started to release the hood prop to close the hood, I happened to notice a little bit of coolant on the cylinder head around the stand-off for the heater valve. I checked more closely and discovered that, indeed, I had a coolant leak!

I was in a 'convenience store' gas station so they weren't going to be able to help me. However, across the street was an auto/boat repair garage. I drove across the street and parked in the shade next to their garage. I went inside and asked if it was all right to park there while I opened the cooling system and tried to repair the leak. They assured me that the car would be fine and went on about their work. I opened the hood, removed my tool box from the trunk and commenced to see if I could somehow stop the leak. I released the radiator pressure and then closed the system to minimize any further coolant loss. Then I

removed the heater hose from the valve, and, with a pair of large slip joint pliers, tightened the heater valve stand-off. I was able to turn it about one and a half full turns! But when I finished tightening it, the heater hose would no longer reach the heater valve connection! I needed to lengthen the heater hose.

I went into the garage to see if they had anything that I might use to solve my problem. They were not very helpful and said that they had nothing that would help me. They did say that there was an auto parts store up the street 'a couple of blocks' that would probably have what I needed. Of course, I headed off in the wrong direction and, after stopping twice for additional directions and buying a bottle of cold water, I finally found the parts store. It was two blocks west, not 6 or 8 blocks north! So what if it was 105 degrees out! But they did have the ½ inch heater hose and coolant I needed. So I headed back to the garage and the TR. I was able to use a nut-driver handle to 'couple' the new and the old ½ inch hoses together. I used two pieces of soft iron wire that I carry in the tool box to substitute for the two hose clamps I should have bought at the parts store and twisted them tight so as to 'clamp' the hoses to the nut-driver handle. I filled the radiator and the overflow bottle. It didn't take a lot as it had apparently lost only a pint or so. But with the ambient temperature considerably over 100^0 the engine needed all the coolant available! Surprisingly, my emergency repair took me all the way home with no further problems!

A day or so after I returned home, I called Delta Motor Sports to inquire on the availability of a new heater valve and a stand-off. As they had both in stock, I drove over and picked up the new parts, installed them, pressure tested the cooling system and closed it up! To be forewarned is to be fore-armed, so now I carry the one-foot piece of heater hose along with two new clamps and a ½ inch OD piece of tubing in my tool box! Another lesson learned!

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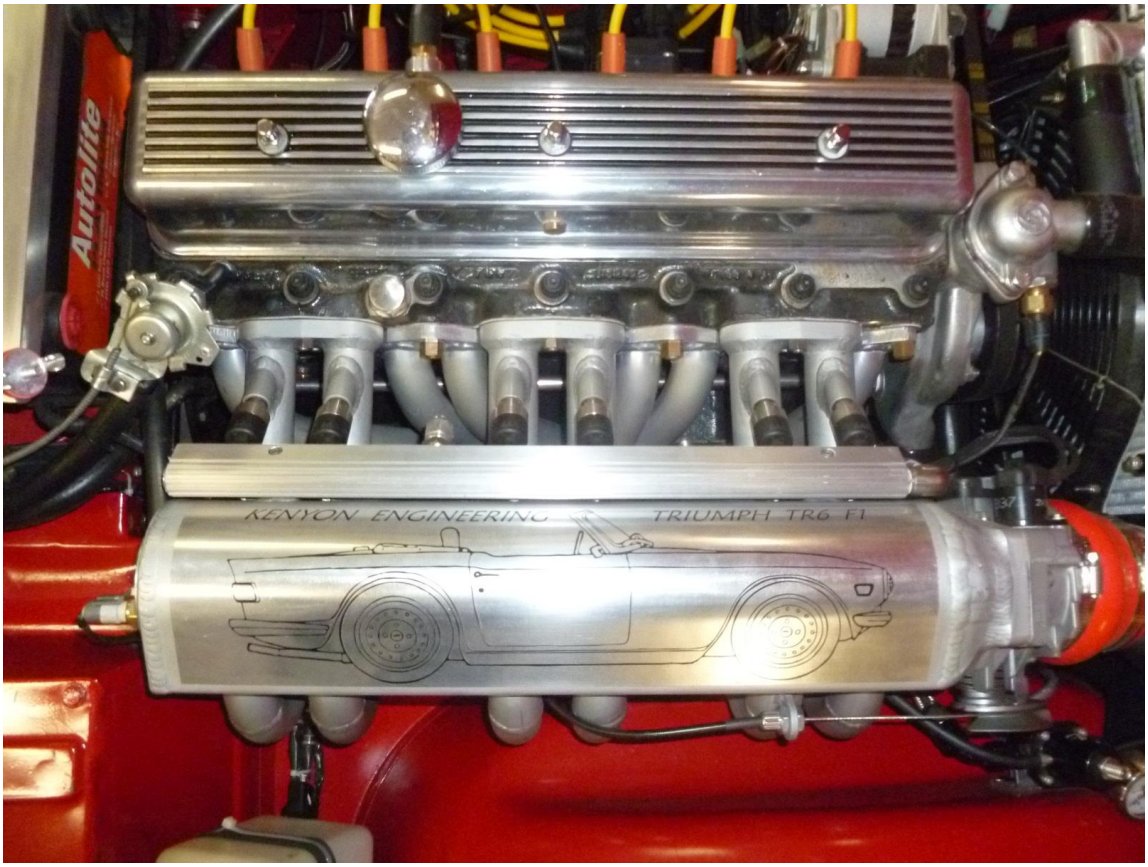
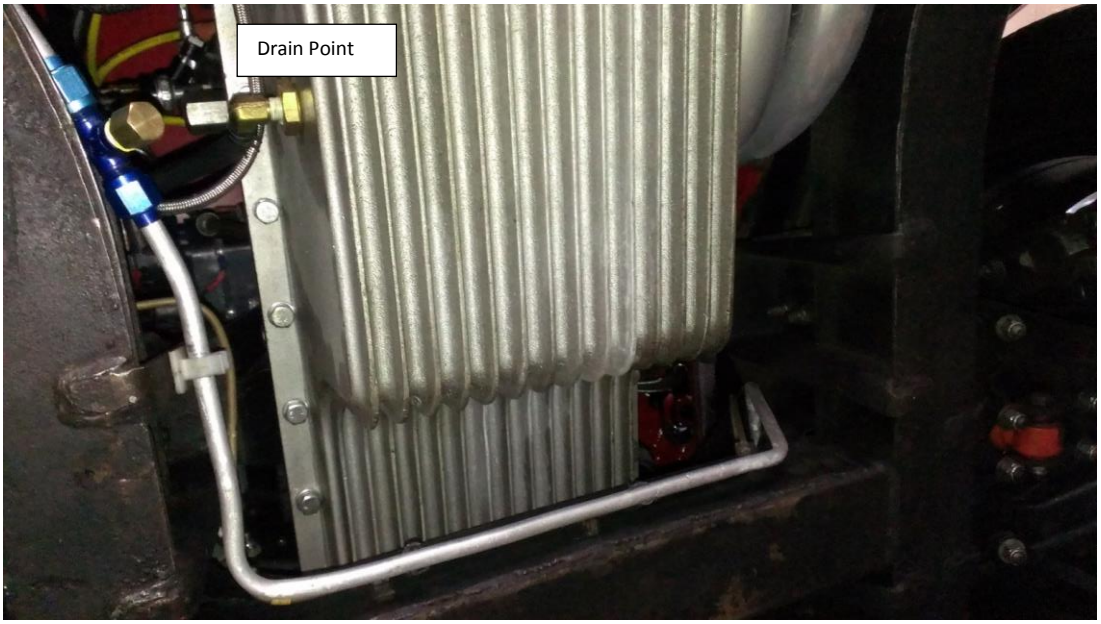
Fuel Injecting a TR6
by Craig Kenyon

This is a series of articles covering my 10 years plus saga of fuel injecting my TR6. It was a bone stock 1976 TR6 in 1982 with just 24K miles on it when I bought the car. In the best state of tune, it could be best described as performance challenged. It also had a few drive-ability issues; it wouldn't start shortly after shut down when hot, it ran on when hot, and it cut out in left hand corners. As it aged, it became more and more difficult to pass Maricopa county emissions tests. Solving all of these issues in one swoop got me motivated to pursue fuel injection. After careful research, I realized that I also needed to control ignition to affect the most improvement. That is when I pursued the Ford EDIS – MegaJolt ignition solution that a few of the DCTRA members now have (see previous article). Since getting the ignition to work, I have slowly solved the technical issues for fuel injecting a TR6. In the following article, I will described what I did and why, offering suggestions for improvement

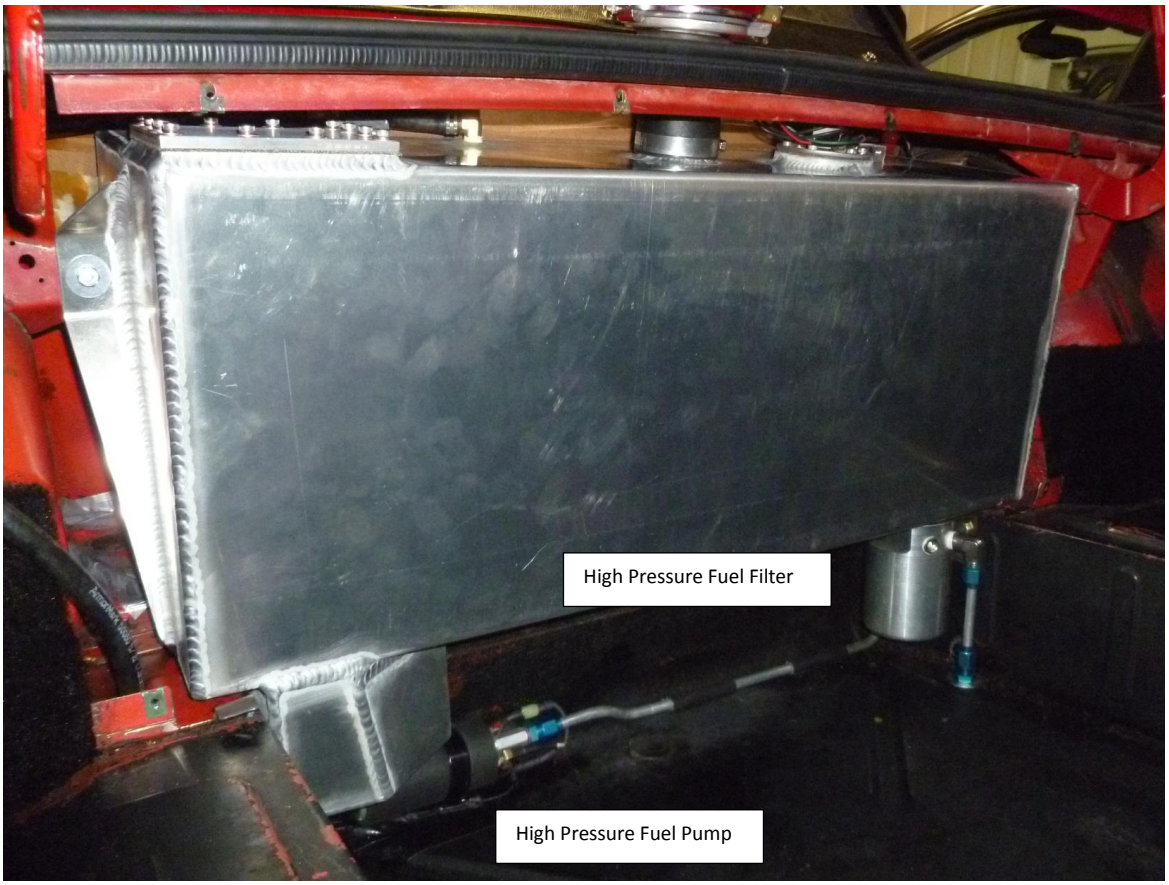

Autolite
KENYON ENGINEERING
TRIUMPH TR6 F1

I will start at the end of the car where I think the thought process should start for this project, the back. Fuel injection requires copious amounts of high pressure fuel. It does not tolerate fuel interruptions. Therefore, a baffled tank to prevent fuel sloshing, a fuel sump to supply the pump, and a way to prevent debris entering the pump are required. Originally, I tried a gravity feed from the stock tank through a filter to a swirl pot tank. It didn't work the best. I had both cavitation of the pump and fuel starvation in corners. Now, I have a bespoke aluminum tank that is baffled to prevent fuel sloshing, it has my swirl pot tank grafted onto it, and a fuel strainer sock for the pump inlet. It uses the stock mounts, fuel sending unit, and even the original fuel feed outlet location. A few important details, there is an access panel that permits me to service the fuel strainer which fits over a pipe extension on the pump inlet, the pump can be replaced without pulling the tank, and the hot aerated return fuel from the engine compartment is diverted across the tank to the opposite side from the sump. This permits that fuel to return into fuel, cooling it and de-aerating it before it makes it back to the pump. I have this diversion because the fuel is returned via the stock outlet location on the left side of the tank (sump side). I had used that fuel line for fuel supply while running my carburetors (I had a tee fitting that went to the stock fuel pump). It is capped off now and I used it as a fuel circuit drain point.

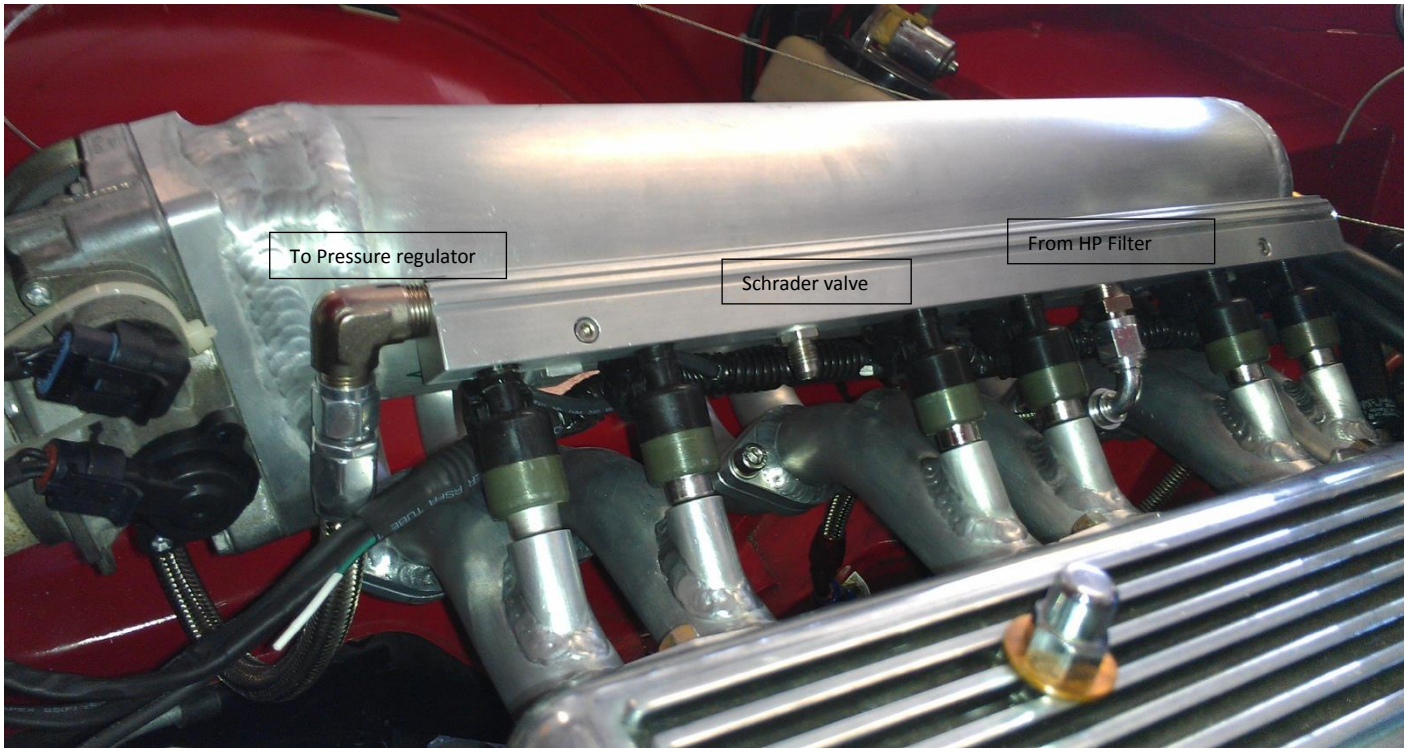


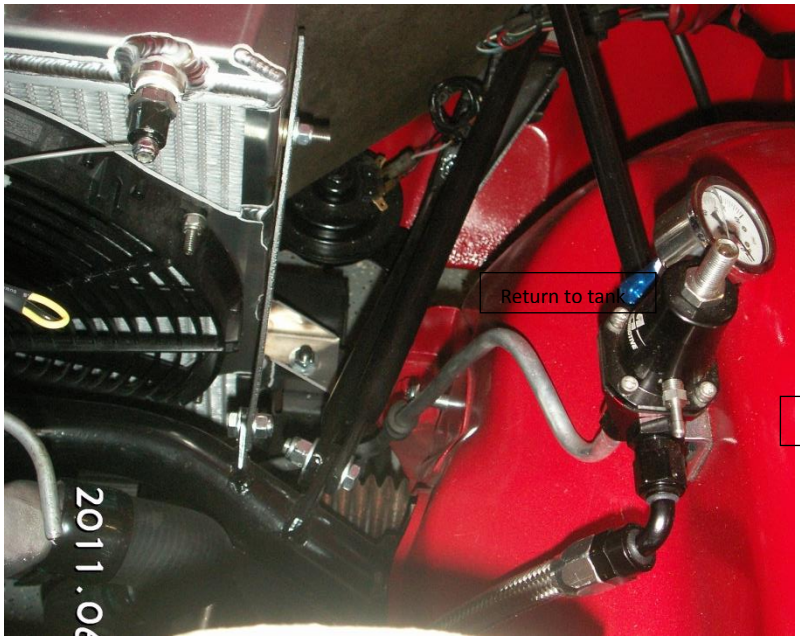
Once the fuel gets to the high pressure pump it needs to be filtered before going to the injectors. I ran hard aluminum lines over to a high pressure filter then lines to the front of the car. The fuel lines go up to the fuel rail, over to the pressure regulator, then around the engine compartment to make a full circuit back to the tank. I used 3/8" AN-6 lines and hardware. This would be about the minimum size for supply and plenty big for the return lines. The one thing to note about aluminum is that it work hardens, you need to keep your bending and flaring of the tubing to a minimum. Also, it needs to be securely fastened to hard mounts so it does not vibrate and work harden that way. Work hardening can eventually lead to fatigue cracking of the tubing. As you can see from the photos, the pump, filter and some lines are in the trunk. I did this to protect the pump and filter as there are very few places to mount these things that are protected from road debris. I designed the placing so I can still have a spare tire in the well. The lines follow the frame rails forward

through the “T-shirt” area of the frame. This is less than then ideal as the lines are in a small area with the exhaust pipes and probably pick up significant heat.



The fuel flows from the supply line into through braided lines to the fuel rail. I used braided lines to have give for engine movement and they integrated well with the various AN fittings. The fuel rail is a piece of extruded aluminum stock with injector holes, mounting holes, pipe thread inlet/outlets and a Schrader valve. The injector holes need to be prepared properly as the only seal for the high pressure fuel is the O rings on the injector. The mounting of the fuel rail should be solid as the rail holds the injectors in place. The bottom of the injectors have O rings to seal for air leaks in the intake manifold bungs. You don’t want to have air leaks nor have the injectors and the fuel spray move about as that would adversely affect the fuel air ratio. The Schrader valve permits purging of air from the system and depressurization of the high pressure fuel circuit for maintenance. The fuel then flows to my adjustable fuel pressure regulator. The regulator makes sure that the fuel pressure for the injector stays at the set pressure above the changing manifold pressure. There is a manifold pressure line from my intake plenum to the regulator for this reference pressure. The typical pressure differential is 3 bar (approx.. 45 psi). I did adjust my pressure up to 60 psi for a while to help compensate for my too small injectors. I now have 22#/hr injectors and only need the 3 bar. The fuel regulator dumps the unneeded fuel back to the tank via my return circuit of fuel lines.



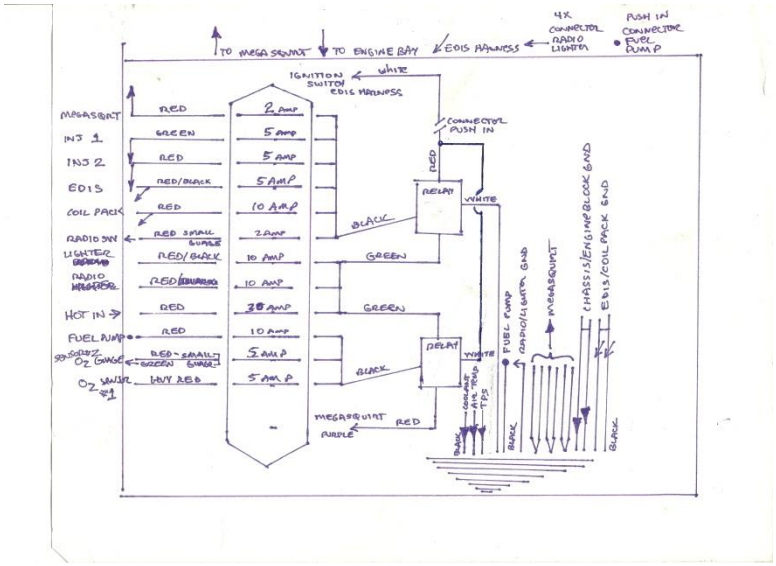


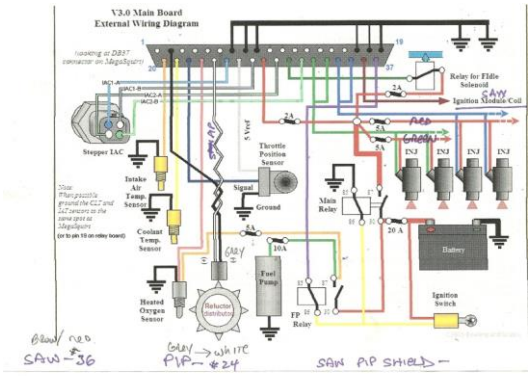
There are a few things I would consider doing differently. First, there is a good argument to placing the fuel pump in the tank. It keeps it cool. However, pulling the tank out isn't easy, so perhaps an access panel for the pump and connections on the rear face of the tank is the answer. It would require a different trim panel. Second, rather than running a big fuel circuit of lines up to the front and back again like I did, run the fuel from the pump to the HP filter then to the pressure regulator located in the trunk or on the tank. The unused fuel returns immediately to the tank and you only have one fuel line (supply) going forward to the fuel rail. This would require a manifold pressure line (vacuum line) from the intake manifold back

to the pressure regulator. This line doesn't have fuel in it and could be run through the cockpit safely and be much, much, easier than my dual lines to the front.

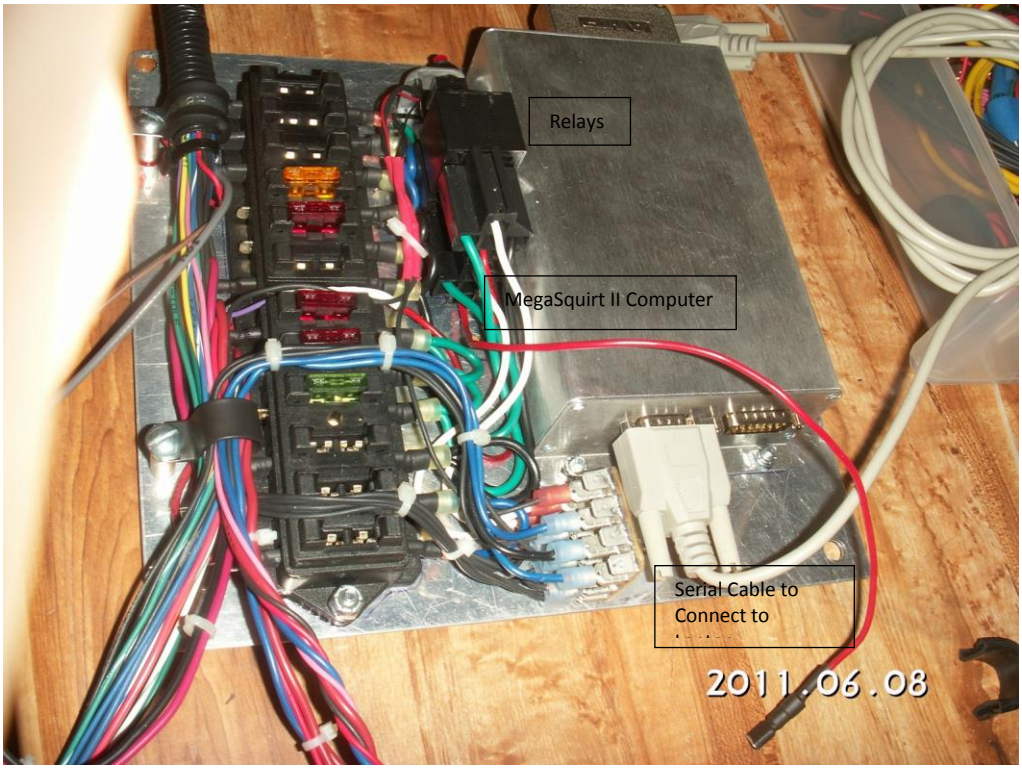
Part II Fuel Injecting a TR6

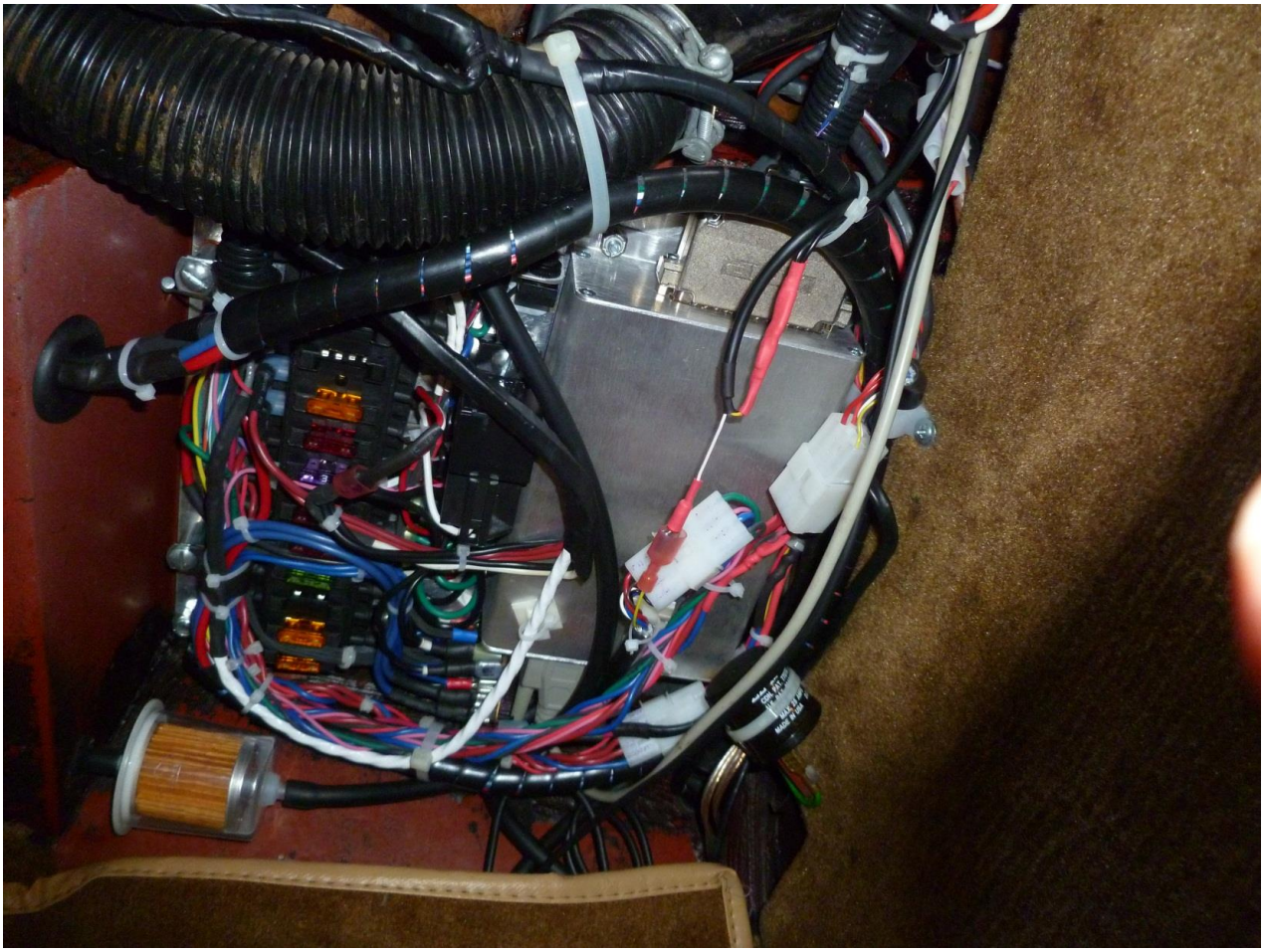
The second subject is everyone's least favorite, electricity. In aircraft and British cars, electricity is the flow of queertrons. Unless well planned, queertrons do very odd things and you can chase your tail for hours trying to fix things. If you don't want all of the Lucas Smoke™ to leak out of your Triumph wiring harness, a separate harness is the answer for your fuel injection system. A fuel injection system with ignition draws significant amperage. For example, fuel pump 10A, injector banks 5-10A, wide band Oxygen sensors 5-10A, electronic ignition system with coil pack 5-10A and fuel computer 2A. I installed a bolt-in plug-in 95A alternator from BNR. They make ones to fit both early and late mounts with no alterations. The best part is that there was an extra output lug. I ran a heavy gauge wire from that lug directly to the connector block on my battery positive lead. From the connector block, I ran another heavy gauge wire to my auxiliary fuse block. This input is fused then goes to the main power relay. The main power relay is controlled on/off by the original ignition switch controlled coil lead. This way the system turns on and off with the ignition switch and the ignition switch sees little current load.





From the relay, I have distributed the power to all of my various fuel injection components, a power jack and my stereo. I have mounted all this mounted on a removable ground plate mounted on the underside of the firewall in the passenger foot well. The ground plate has two heavy ground leads, one connecting to the chassis at the same location as the battery negative cable and the other connecting to the engine at the battery negative cable connection. All of the various components ground to a common ground connector block on this plate. Effective, redundant grounding is the easiest way to prevent queertron behavior. For safety, I have two switches. The first is a manual switch that I can reach while driving that cuts the ground lead from the main power relay, shutting the whole system down. The second is a collision fuel pump shut off switch located in the trunk that cuts the ground lead for the fuel pump in the event of an accident.


Relays
MegaSquirt II Computer
Serial Cable to
Connect to
2011.06.08

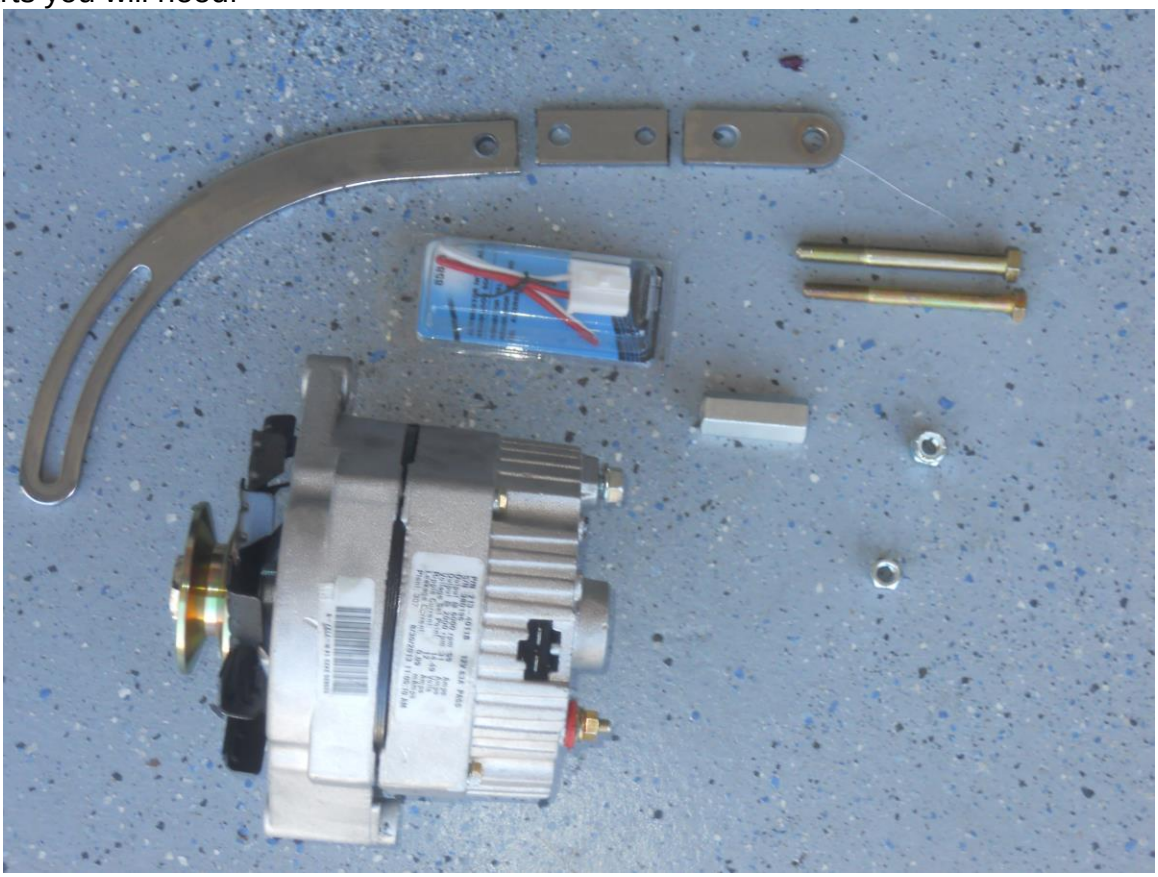


The fuel injector computer itself is a low amperage control device with quite a few sensor inputs and several outputs. I purchased a partial harness from DIY Autotune to help expedite the process. For outputs, there is a relay control for the fuel pump, I used this for both the fuel pump and the Oxygen sensors/computers. Yes, each of the O2 sensors have a small computer box, this box controls the sensor and processes the signal. The box can output 2 signals, I use one to drive the fuel injection computer and the other to drive a analog gauge. The signals are completely programmable to match whatever you need. Additionally, the O2 computers permit logging of the air/fuel ratio independent of the fuel injection computer. Why have two O2 sensors? In my case, I have an exhaust header that collects the front three cylinders and the back three cylinders independent of each other. Therefore, to see the air fuel ratio for all of the engine, I needed a sensor for the front and the back. The other outputs from the fuel injector computer are the Idle Air Control Valve wiring, the injector banks, and the EDIS SAW signal. The SAW signal was covered in my earlier article about the EDIS ignition system. Essentially, it is the ignition advance control signal.

As you can see, packaging all of this into a TR6 can be a challenge. My goal was to make all of this wiring, computers, etc as unobtrusive as possible with the minimum of holes in the body. Additionally, I planned for future maintenance. To achieve this, the ground plane mounting plate is removable with enough wire length to lay it down in the passenger foot well. Also, all of the O2 sensor wiring and gauges are set up with connector blocks to permit ease of removal and diagnosis. Keeping track while everything is wired up is a challenge and requires prior planning of where all the wires and associated connectors will go. Most everything has dedicated connectors that are all different from each other to prevent wrong connections. Again, like the fuel lines, you want to keep the wires secured from movement/vibration. I am pretty happy with my wiring as it achieved my goal of being least obtrusive, allowed the addition of a charger outlet, and powers up my awesome stereo while having safety and reliability. No queertrons have appeared. ….Yet.

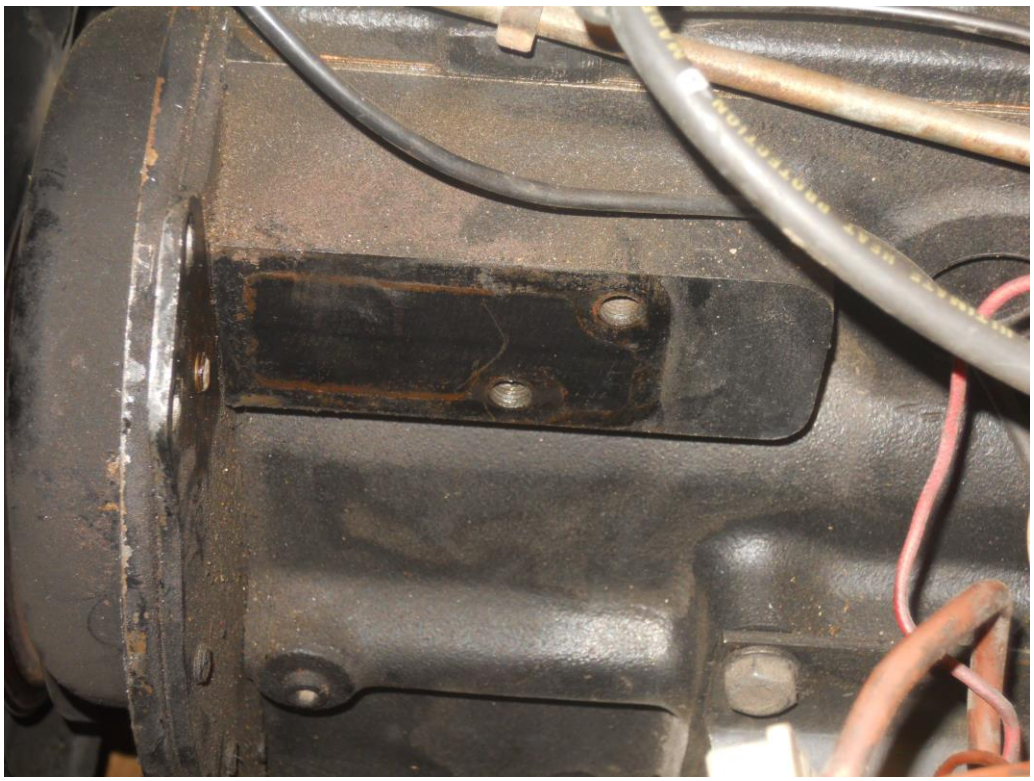
Fitting A Delco Remy GM alternator To A TR6
by George Durkin

1. Parts you will need:



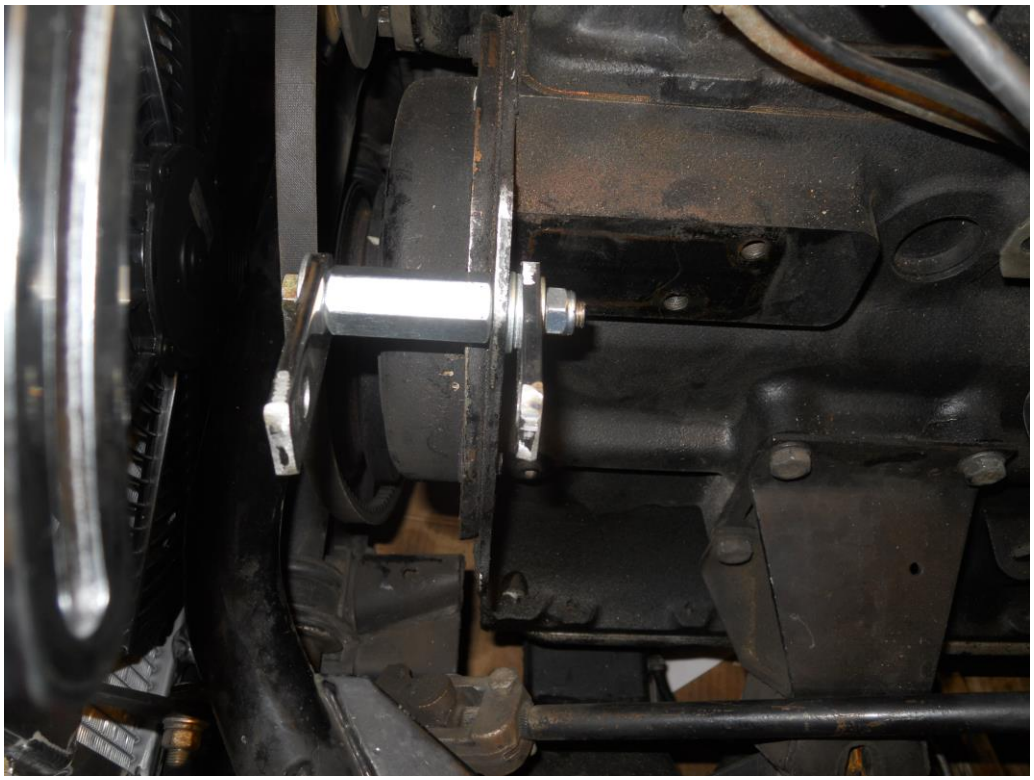
a) Delco Remy 10SI Alternator part no 7127-9 (The Dash Number denotes the clocking of the electrical connection . In This case 9 0'clock.)
b) The pulley requires changing to a 1/2ins pulley to match the TR6 belt. The alternator comes standard with a 3/8 ins pulley .Phx Generator exchange will do this for about $10 including new pulley.
c) Standard J type mounting bracket ,which is cut to size to fit the distance from the water pump stud to the alternator adjusting bolt.
d) The piece cut off can be cut in half as shown to make the mounting brackets . Note one will already have the two mounting holes and the remaining bracket can be drilled with 2 holes on 1.5 ins centers.
e) Standard wiring connector.
f) 1- 5/16 x 3.0 ins bolt, 1-3/8x3.0 ins bolt
g) 1 – 1.75 ins spacer.

Next step is to remove the existing Lucas Alternator and place it in the darkest spot of the garage –Lucas equipment likes that environment. Then remove the existing mounting block from the engine :

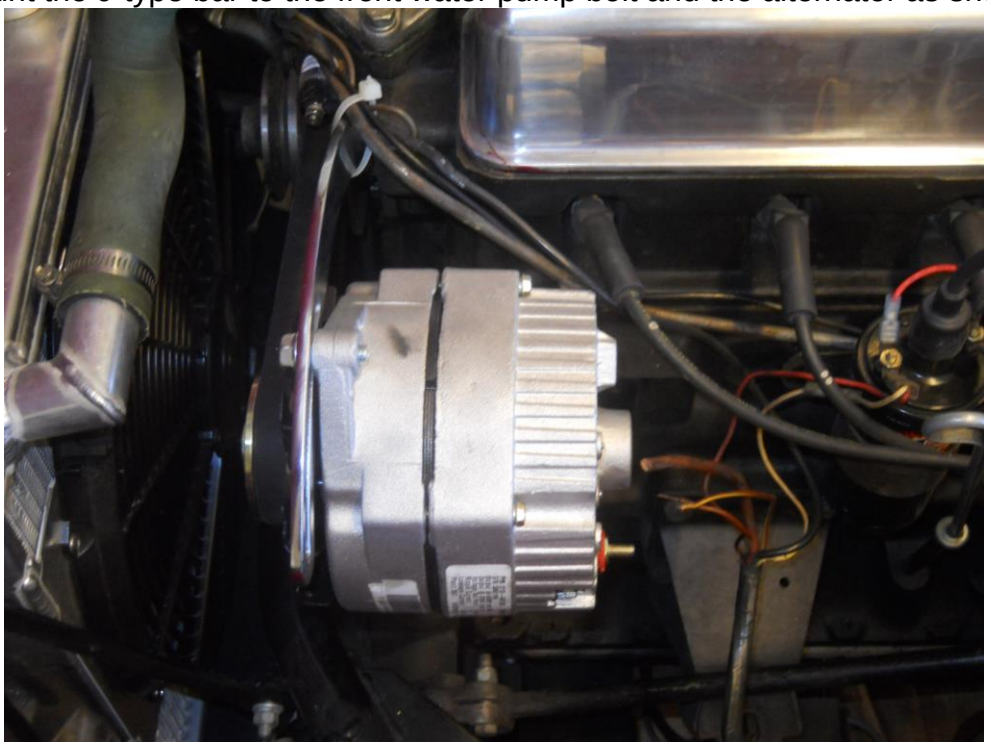


You will notice there are tw0 5/16 ins holes on the engine face plate. You will use the lower hole to mount the new Alternator mounting brackets and Spacer.
The spacer aligns the Alternator pulley with the existing engine pulleys.

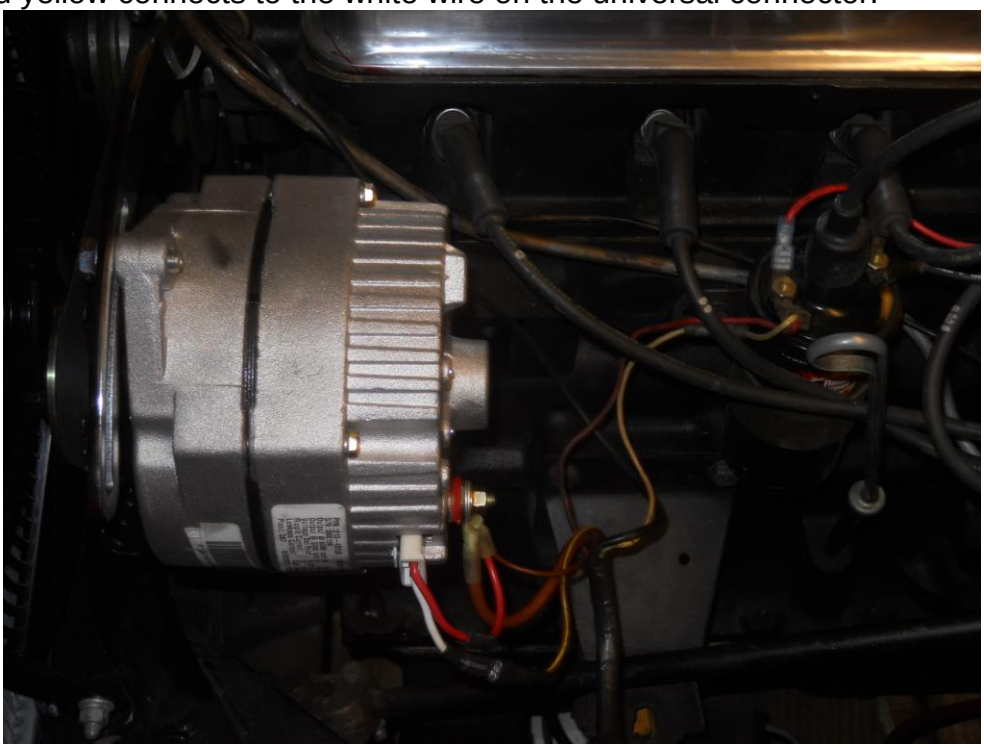
Mount the brackets as shown:



Then mount the Alternator to the brackets using the existing fan belt.
Then mount the J-type bar to the front water pump bolt and the alternator as shown:



Finally insert the universal connector into the Alternator ,clip off the existing Lucas connector and connect the brown wires to the main connector on the generator. The brown and yellow connects to the white wire on the universal connector:



You now have a alternator with double the capacity of the Lucas, more reliability , cheaper and more readily available !

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Looking for working speedometer gauge for a 1974 TR6.

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1975 TR-6 project car. All matching parts (engine, gearbox, diff). All original body steel. Boot, bonnet, quarter panels still in good shape. Was re-painted once in the original color British Racing Green. Car does not run and has not run for a long time. I have the original seats but there is no other interior. Car is missing the center dash support. I am cleaning it up now and taking note of the condition of everything. There is some rust but it isn't "bad". I have a number of factory new spare parts including a brand-new wood dash that was never installed.

Years ago, I re-bushed all of the suspension components and installed new shocks. I replaced the speedo and the new one shows around 40k on it. The old one failed at around 60k. Gauges glass are clean with no fogging but they do have a little corrosion that can be taken care of with some elbow grease.

I plan to list the car on eBay by next weekend. My 1971 TR-6 is my daily driver and takes all the spare time I have for car work. My 16 year old is eyeing the ‘75 but realistically we don't have time to bring it back. The ’75 car was my daily driver for a long time in the ‘80's &’90's until the gear box failed. I got another car and this one just sat covered up. I want to sell the whole car - not parts off of it. Looking for best realistic offer. I have not yet taken any photos.

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Websites

Desert Centre-Triumph Register of America
www.dctra.org

Triumph Sports Car Club of San Diego	http://clubs.hemmings.com/sandiegotriumph
Portland Triumph Owners Association	www.portlandtriumph.org
Tyee Triumph Club(Seattle)	www.tyee.triumph.org
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Triumph Travelers Sports Car Club	www.triumphtravelers.org
Southern California Triumph Owners Assn	www.sctoa.org
British Motor Heritage Group	www.heritage-motor-centre.co.uk
6-Pack –USA Club for TR6/TR250 Owners	www.6-pack.org
Okanagan British Car Club (B.C.)	www.obcc.ca
Vintage Sports Car Club of Calgary (Alberta)	www.vsccc.ca
Moss Motors	www.mossmotors.com
Small auction and forum	www.britishcarauction.com
Classic Autosport Magazine	www.classicautosport.net
International Spitfire Database	www.members.cox.net/spitlist
British Motor Club of Utah	www.britishmotorclub.org
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