

Your Ignition System (and not just a bunch of separate parts)

by Bob Helt

What is a system? What is an ignition system? It is a combination of parts designed to work together to accomplish a single purpose. In this case, the purpose is to develop and deliver a sufficient spark to each sparkplug to fully ignite the combustible mixture within each cylinder at the precise moment, on a repetitive basis. But why worry about the individual component parts making up an ignition system? It is because, to work correctly under all conditions, all of the parts must be properly matched. Otherwise, there can be a failure or breakdown when the system has to operate under extreme conditions.

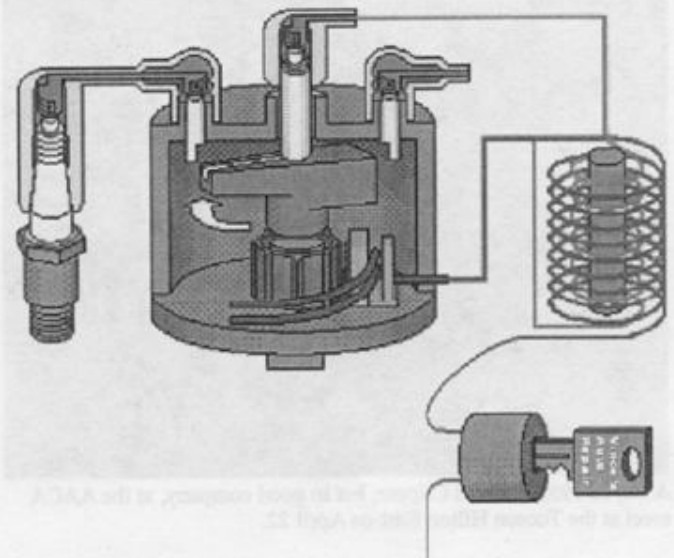
The stock Corvair ignition system was state of the art back in the late 1950s, but many desirable upgrade features are now available which will enhance the performance and reliability of the stock system. Getting rid of the points by using an electronic conversion kit (like a Pertronix Ignitor) should be the first step, with a higher voltage coil of the proper primary resistance an option. A truly electronic ignition such as a High Energy Ignition (HEI) or capacitive discharge (CD) unit is a further possibility, with an upgraded HEI or Safeguard knock eliminator as further options, especially for turbos. But whatever you do, please consider the following recommendations.

The Corvair's ignition system consists of the following components: First, there is the battery that supplies the energy or current for operation. Next, there is the engine and chassis wiring, including the ballast resistor, wires and ignition switch. Then there is the distributor with either points or electrical substitute, the method of activating these at the correct moment, and both mechanical and vacuum advance mechanisms. In addition, the distributor contains the rotor and cap for distributing the spark to the appropriate high voltage plug wire. Then there is the coil and high-voltage wires from the coil to the distributor and from the distributor to each of the spark plugs. Lastly, there are the spark plugs. So you can see that there are many individual parts in the ignition system, all of which must be properly matched and work correctly under all conditions demanded of the system.

One of the problems with having the correct operation under all conditions is often caused by use of mismatched and/or low quality components. For example, there are some inexpensive and substandard spark plug wires that are not up to these demanding tasks. Low quality plug

wires may not deliver the necessary voltage to the plugs when needed. In addition, these wires may deteriorate rapidly over time and use, to a point where they are marginal, working sometimes and not others. The factory original, and most replacement, high-voltage plug wires are seven millimeters in diameter. These provide enough insulation for stock voltages, but any voltage upgrade will probably exceed the insulation capabilities of cheapie wires, causing misfiring and cross firing of the plugs. Corvair specialty suppliers, such as The Source and Silicone Wire Systems, utilize eight-millimeter spark plug wires that offer better insulation and conductors than the stock original equipment types.

Similarly, with a stock-type system, upgrading only one component may not be of any benefit to the system, and may actually cause problems. How can that be, you might ask? Well consider the problem of changing the stock coil to a 40,000-volt upgrade. It doesn't sound like a problem does it? But what if the high-voltage terminals in the distributor cap aren't insulated well enough to handle this increased voltage or insure that the spark goes only to the correct terminal? That is, what if there is a breakdown and arcing within the distributor cap (or elsewhere) because of this higher voltage? If that happens, there will be some misfiring plugs then. Another example might be the breakdown of the insulation on spark plug wires as a result of a CD or HEI unit being installed.



See Ignition on page 3

Tucson Corvair Association Established 1975

Corvairsation is a monthly publication of the Tucson Corvair Association, which is dedicated to the preservation of the Corvair model of the Chevrolet Motor Division of General Motors. The Tucson Corvair Association is a chartered member of the Corvair Society of America (CORSA) chapter 857.

Monthly Meetings are held on the fourth Wednesday of each month, except November and December. One technical/social event is planned for each month, except July and August.

Membership Dues are \$15 for individuals and \$18 for families. Initial dues are \$19 for individuals and \$22 for families (includes name tags). Make checks payable to Tucson Corvair Association.

Change of Address: Report any changes of address or phone number to the Membership Chairperson. Do not report such changes to the Corvairsation Editor.

CORSA Membership Dues are \$35 per year (\$70 for 26 months) and include subscription to the CORSA Communique, a monthly publication. CORSA membership is not required for membership in the TCA, but is highly recommended. See any TCA officer for more information.

Classified Ads are free to members and \$3 per 4-line ad to non-members. Deadline for materials submitted for publication in the Corvairsation is the 10th of the month.

Business Mail Address: 1026 South 7th Avenue, Tucson, AZ, 85701-3010.

Web Site Address: www.corvairs.org



A frayed 1955 Packard Clipper, but in good company, at the AACA meet at the Tucson Hilton East on April 22.

Board of Directors

President: Bill Maynard

3605 N. Vine, Tucson, AZ 85719, 520-325-8497
EMAIL: billfromtucson@webtv.net

Vice President: Dave Lynch

1228 N. Roberts Way Tucson, AZ 85712
520-325-0750
EMAIL: lynchmob@theriver.com

Treasurer: Allen Elvick

4210 S. Preston, Tucson, AZ 85735, 520-883-4337
wk: 792-1450 x 1-6966,
EMAIL: allen-elvick@med.va.gov

Secretary: Lynn Marrs

14020 N. Gecko Canyon Tr., Tucson, AZ 85742,
520-297-8969
EMAIL: lmnightengale@juno.com

Board Member at Large: Barry Cunningham

362 Bull Run Drive, Tucson, AZ 85748, 520-733-7387
cel:520-312-4514, wk: 520-887-1011
EMAIL: cunningvairbair@juno.com

Membership Chairperson: Allen Elvick

Corvairsation Editor: Chris Cunningham

1026 South 7th Ave, Tucson, AZ 85701, 520-670-9676
EMAIL: arizaim@hotmail.com

Immediate Past President: Bill Maynard

Assistant Editor: Van Pershing

Librarian: Lance Gillingham

8741 Saddleback Dr. Tucson, AZ 85749, 520-749-4951

Webmaster: Van Pershing

4842 West Paseo de las Colinas, Tucson, AZ 85745,
520-743-9185,
EMAIL: vpersh@yahoo.com

Merchandise Chairperson: Don Robinson

2044 Shalimar Way, Tucson, AZ 85704, 520-297-1356
EMAIL: fourcorvairs@hotmail.com

corrsa

There are many other potential system failures due to components that do not work well together, or correctly all the time, within either the primary or secondary portions of the ignition system. As they say about a chain being as strong as its weakest link, so is the ignition fully functional only if all of its parts are working correctly under all conditions. And while we are speaking of ignition system conditions, let's remember that the engine is continuously varying its requirements on the ignition system. That is because the voltage and energy required to produce a fat spark is not a constant, but varies with engine conditions such as speed and load. An engine being operated under a heavy load requires more of the ignition system, and high engine speeds mean less time for the ignition system to develop a full-intensity spark. In addition, as already mentioned, time and use tend to degrade all ignition components. So you want to start with the best high-quality components available for overall performance, long life and reliability.

It is with this understanding, that any upgrading to your ignition system should be done on an overall system basis, so that all components can be properly matched for performance and reliability. If you install a high voltage coil or electronic ignition, then you should consider upgrading the other key components of the system. That means an upgraded distributor cap with brass (not just aluminum) terminals and a brass-reinforced center carbon terminal, manufactured from modern materials that will not carbon track (i.e., arc), along with a matching rotor. You also need high quality eight mm spark plug wires, and correct heat range spark plugs with appropriately set gaps. (Note that many Corvair vendors supply different types of Corvair spark plugs to allow you to get those that exactly meet your requirements.) Don't forget about using the correct spark plug boots to prevent cooling air loss. High quality plug wires will also contain boots made from upgraded materials for longer service life (meaning that the boots don't harden prematurely).

Most original equipment type Corvair spark plugs have a definite limitation on how large the gap can be set, typically 0.038" max. This is because of their construction preventing the outside electrode from being set to open the gap more than this, and still maintain a parallel configuration to the flat portion of the center electrode (that is, where the outside electrode is perpendicular to the axis of the center electrode). This is not so much a problem with platinum plugs, but on the other, standard plugs, when there is a large gap with the outside electrode not being perpendicular to the axis of the center electrode, the spark will jump at the shortest distance, which will be the edge of the center electrode. This will cause the edge of the center electrode to erode and recede, opening the gap still further. So if you intend to increase plug gaps beyond stock settings, locate plugs having the correct heat range that are capable of handling these larger gaps, while still maintaining the above stated electrode configuration. The Source is one vendor who can advise you, and supply your needs.

To simplify your life, there are some Corvair specialty parts suppliers who have done the engineering and testing work for you in developing a total system. The Source is one of these vendors. They have analyzed which components it will be necessary to replace for specific ignition system applications and upgrades, and have made kits of matched and compatible parts available for each application at reasonable prices.

Keep Museum in Tucson

Tucked away in an old-fashioned dusty neighborhood in the middle of Tucson lies one of Tucson's best kept secrets: **The Hubbard/Franklin Museum.**

Seen by fewer than 5000 visitors a year, the museum contains a very impressive collection of rare air-cooled Franklin automobiles, the Alice H. Carpenter Collection of Native American artifacts, southwestern art, paintings and furniture.

Tom Hubbard called the house "a treasure of Pueblo architecture" and "of a good passive solar design." Architectural historians regard the environmentally constructed house as "an excellent example of modern architecture of the time...reminiscent of Spanish Colonial domestic design" and an historic asset in its own right. Built in 1936 by Harvard educated architect William Y. Peters, the house was acquired by the Hubbard family in 1946.

Before Tom Hubbard died in 1993, he set up an endowment, known as the **Thomas Hill Hubbard/H.H. Franklin Foundation**, to protect and maintain the house, the Alice H. Carpenter Collection, the grounds, and the automobiles, for a very long time into the future.

The museum today is facing a court challenge to prevent its relocation to New York, and to remove the trustees that have violated the Trust. Those trustees (6 of 7) had a court ordered Temporary Restraining Order issued against them to prevent their secret attempt to auction off the entire Alice H. Carpenter Collection, a vital part of Tom Hubbard's Foundation.

On March 24th 2006, the one trustee objecting to the move, and the original trustee picked by Tom Hubbard, was also granted an injunction to temporarily stop the rest of the Board from going ahead with plans to relocate in New York.

The fate of the museum, however, rests with the court's interpretation of the instrument Hubbard created to pilot the museum into the future. Your help is needed.

Mr. Hubbard's legacy belongs in Tucson, not in New York.

Hubbard Trust Preservation Fund

An account has been opened at JP Morgan/Chase Bank for donations for the preservation of Tom Hubbard's Museum and collection of air-cooled Franklin's. The Tucson Corvair Association was the first local car club to make a donation to the fund. It is hoped that other car clubs will follow with similar donations.

Individuals are encouraged to make a donation too. In the public interest of the community, and in honor of what Tom Hubbard started in Tucson, please make your donation payable to the Eric L. Hager Client Trust Account. Donations can be sent to Chris Cunningham, 1026 S. 7th Avenue, Tucson, AZ 85701, or Evie Lorenson, at 5529 W. Crimson Bluff, Tucson, AZ 85653.

This museum belongs in Tucson, not in New York. Contrary to what the new executive director Dick Borges thinks, Tucson does care a lot about the Hubbard/Franklin Museum and what it represents (*Tucson Losing Special Museum, Tucson Citizen, 2/2/06*).

His trust should be served by a board that clearly recognizes his bequest to the public, the limits of it, and be willing to work to realize them. Trustees are to serve the trust; they are not directors of an incorporated nonprofit that can make major policy decisions at any time to suit their needs.

For more information, please call 520-670-9676.



The Few, the Brave, and the Proud !

by Van Pershing

On Saturday April 22 we enjoyed our annual outing with the Cactus Corvair Club of Phoenix. We traveled to the Boyce Thompson Arboretum State Park near Superior, Arizona and had a delightful time with the folks from the Valley.

There were about 15 people in all, along with five Corvairs. Attending from Tucson were Barry Cunningham and his daughter Cassidy, Dave Martin and his wife Connie, President Bill Maynard, Lynn Marrs, and Van Pershing.

We met at Oracle and McGee and caravanned to the Arboretum. The caravan consisted of Dave Martin's '63 convertible and Van Pershing's '66 Stinger. The few, the brave and the proud! The Florence to Florence Junction route was uneventfully taken and both Corvairs purred like kittens. President Bill's Corvair was out of service, so he came up right behind the caravan in his little non-Corvair station wagon with Lynn and all the food.

Barry Cunningham's yellow '66 arrived a few minutes after we arrived.

The Valley folks had two Corvairs at the event, both early convertibles. So, if there was a competition for most Corvairs in attendance, Tucson won by a nose. Barry noted that this was the first time in many years of TCA activities that the late model cars outnumbered the early models. We had two late models to only one early.

An interesting fact about the Cactus Club is that back in the late '60s when it was formed, it was known as the Cactus Corvair Corvette Club. Sometime in the early '70s (no one at the picnic could remember exactly when) the Corvettes left and formed their own group.

Speaking of Corvettes, a group wandered through our picnic site from the Unofficial Corvette Club and we had a nice chat. The UOCC is a group of Corvette enthusiasts that grew tired of the politics

associated with the other Corvette clubs and formed their own group. They have no meetings, no dues, no requirements involving Corvette ownership, racing or speeding. Just fun and adventure.

Visit their website at www.uocc.org.



Lunch was enjoyed in the well-shaded picnic area of the park.



One of two early models driven to the event by a member of the Cactus Corvair Club.



One stock, one not. Frank Nickerson's early model with continental kit. Dave Martin's early model. Both are for sale.

TCA 2006 Events at a Glance

MAY

10 WED **TCA Board Mtg.** Home Plate Sports Pub, 4880 E. 22nd St. 745-8265.

21 SUN **Corvair Tune Up Clinic at Maynard's Chicken Ranch** If you missed the April Clinic, now's your chance to get on the ball. 10am-4pm, 3605 N. Vine, 325-8497.

24 WED **Regular Monthly Meeting** Micha's North, 1220 East Prince Road, 6pm. Optional dinner at 6:20, meeting starts at 7pm

JUNE

14 WED **TCA Board Mtg.** Pescado Feliz, 840 E. Ft. Lowell Rd., 624-0459, 6:30pm.

17-18 SAT-SUN **Two Day Autocross • Flagstaff AZ Cactus Corvair Club.** At NAU Skydome parking lot, run either day or both. Saturday practice/test session for Corvairs and Flagstaff residents only. Sunday SCCA classes open to all cars. In conjunction with California Arizona Racing. Contact Tom Schrum, 3833 W. Townley, Phoenix AZ 85051, 602/841-1580, or Greg LaCosse at greglacosse@sprintmail.com

18 SUN **Mid-Month Activity TBA**

28 WED **Regular Monthly Meeting** Micha's North, 1220 East Prince Road, 6pm. Optional dinner at 6:20, meeting starts at 7pm

JULY

12 WED **TCA Board Mtg.** Location TBA 6:30pm.

25-29 TUES-SAT **CORSA International Convention •** Buffalo NY, The Four Clubs, Information: www.shuffleofftobuffaloniagara.com

26 WED **Regular Monthly Meeting** Micha's North, 1220 East Prince Road, 6pm. Optional dinner at 6:20, meeting starts at 7pm.



1957 Mercedes Benz 300SL



1942 Oldsmobile



1940 Lincoln Zephyr



1967 Honda CT70

April 2006 General Membership Minutes

April 20, 2006

Members Present: Bill Maynard, Lynn Marrs, Dave Lynch, Chris Cunningham, Barry Cunningham, Don Robinson, Bruce Porter, Ryan Green, and new member Oliver Stokes.

President Bill Maynard called the meeting to order at 7:20pm.

Approval of the Minutes for March 2006: Don Robinson made a motion to approve the minutes as written and Chris Cunningham, seconded this, the motion passed.

President's Report: Bill Maynard reported on the great picnic we had with the Cactus Corvair Club at the Boyce Thompson Arboretum. Barry Cunningham and daughter Cassidy, Van Pershing, Dave and Connie Martin, Bill Maynard and Lynn Marrs attended the picnic. Barry cooked some great hamburgers and hot dogs. We got a 7 layer chocolate torte cake for Barry's 29th birthday! Of course, didn't he tell us he was 29 last year, I wonder?????????

The Cactus Club asked if we would like to meet them next year at the Casa Grande ruins.

Vice-President's Report: Dave Lynch reported on the Renaissance Festival and what a great time Bill Maynard, Lynn Marrs, Dave Lynch and his son Patrick had. We hope that next year more people will come and enjoy the festivities.

The mid-month activity will be an Tune Up Clinic at the Maynard Chicken Ranch at 3605 N. Vine off Prince Rd. 325-8497 May 21, 2006 at 9:30 A.M. Bring a dish to share with others.

2006 Dues: Some of our members have paid and some have not, so if you have not, please remember to pay.

Treasurer's Report: None at this time

Editor's Corner: Chris Cunningham expounded on the Hubbard/Franklin Museum and the action that the court is taking. He is hopeful that the Hubbard/Franklin Museum will be prevented from moving to New York and the alleged Trust violators will be removed from the Board.

Merchandise Report: Don Robinson will order Corvair t-shirts of all kinds, cups and hats also. He announced that his daughter-in-law, Tanya, had a baby girl in April. Congratulations!

Library: No Report

Raffle Tonight: Raffle winners tonight were, Oliver Stokes, Don Robinson, Ryan Green, Bruce Porter, Chris Cunningham. There are 3 Corvairs at the meeting tonight, Don, Bill, and Dave Lynch.

Corvair Talk: Bruce Porter spoke about a Corvair Book on Trivia. Bruce asked the club a group of Trivia questions. Don

Robinson got the highest number of questions right.

Acetone and unleaded gas work well in your car.
1 oz. per 5 gallons of gas.

Adjourn: A Motion to adjourn was made at 8:35 by Don Robinson and seconded by Bruce Porter. Motion passed.

Respectfully submitted,

Lynn Marrs

Recording Secretary

Dues Are Due

If you have paid your dues this year (they were due in January in case you forgot), please disregard this friendly reminder.

Allen Elvick, our current and faithful Treasurer, and Membership Chairperson, has indicated that there are a few members that have not sent in their annual membership dues. Are you one?

Allen can be reached during the weekdays at 792-1450 x1-6966, or 883-4337 at home. His email address is: allen-elvick@med.va.gov

The annual cost to be a member of the Club is \$15 for an individual membership, and \$18 for a family membership. Members receive a monthly newsletter called the *Corvairsation*, a name tag, and the privilege of fraternizing with a cool bunch of automobile enthusiasts. Members are not required to have a Corvair. A lust for a Corvair would suffice.



This interesting find was recently spotted on a Corvair outing. Can you identify it and name the year of production?

Spares and Vairs



- FOR SALE:** 1960 Corvair 4-dr parts car. O'Reilly Chevrolet/Tucson car. Rough but complete. Call Allen 883-4337 or Chris at 670-9676.
- FOR SALE:** 1963 Conv. Same Tucson owner last 25 years. Rebuilt everything, including recent tires, brakes, clutch, elec. fuel pump, rear window. Ask Bill Maynard about this car. Needs radio and minor cosmetics. \$3900. 326-2701 Dave Martin.
- FOR SALE:** LM shrouds - powder coated black, complete upper and lower, was \$400, now \$350, Al Crispin: 722-9445.

CORVAIR PARTS!

Since 1974 Corvair Underground has been selling parts and services to the Corvair community!

We offer new, used, rebuilt, NOS and reproduced parts as well as toy cars and collectibles.

Corvair Underground sells to every state in the Union plus all over Canada and the rest of the world. We accept all major credit cards and you can call, fax, mail or e mail your order.

Our giant 300 page mail order catalog, The Corvair Book, is just \$6.00 postpaid (USA). You can also get a subscription to our newsletter, The Corvair News, free. All we need is your name and address. Also, don't forget our online website www.corvairunderground.com. There you'll find our newsletter online, our GoVair performance and custom site and a whole lot more!



CORVAIR UNDERGROUND Inc.
 PO Box 339 Dundee, OR 97115
 503-434-1648 800-825-8247 Fax 503-434-1626
Your Corvair Parts Supplier for the 21st Century!

Corvairsation ads are free to members. For non-members, ads cost \$3 for up to four lines of text. Pictures cost \$1.50 for non-members.

Clark's Corvair Parts, Inc.



- Customer Service beyond expectation
- Giant, easy to use catalog in print or online
- Four tech support people
- E-mail answers to your questions, usually in 24 hours
- E-mail confirmation of your order the day it is shipped, if we have your e-mail address
- Interactive web site with up-to-date prices that are easy to get! Just enter any part number or click on any catalog item for prices, full information, and lists of related NOS, used, or performance parts
- Correct, quality parts and the leader in repro parts
- The only Corvair vendor licensed with General Motors

Clark's Corvair Parts, Inc.

400 Mohawk Trail, Shelburne Falls, MA 01370

Phone: (413) 625 9776

Fax: (888) 625-8498

www.corvair.com

Email: clarks@corvair.com



Mark Drumheller
Paul Dunn

The Car Guys

22 Hwy 92 - Bisbee, AZ 85603
 (520) 432-5134 paul@corvairs.org