First Quarter 2025

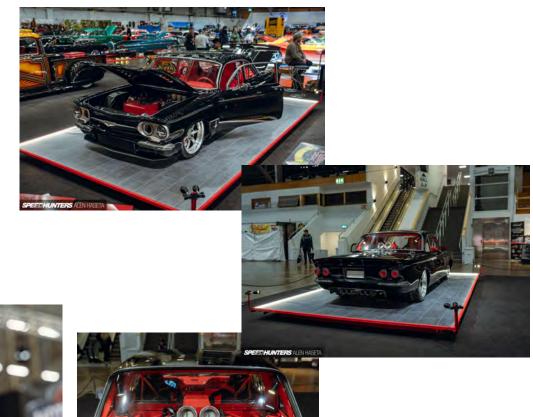
Volume 50 Number 1

Corvair with a Swedish Twist!

David Gunnars picked up this '62 Monza coupe from a Swedish mink farm for the American equivalent of \$750. With a little paint and body work plus a few other "modifications" ended up with a pretty nice head turner.

The 110 Corvair engine gave way to an 2003 Audi 4.2-liter RS6 coupled to an Audi 01E 6-speed transaxle.

Not a bad set up for cruising around Sweden!







TUCSON CORVAIR ASSOCIATION

Established 1975

The Corvairsation is a quarterly 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) as Chapter 357.

Membership dues are \$25 per year for individuals. Make checks payable to the Tucson Corvair Association and mail to the TCA Treasurer.

Change of Address: Report any change of address or phone number by emailing changes to tucsoncorvairs@yahoo.com

CORSA membership dues are \$45 per year (\$90 for 26 months) and include a subscription to the CORSA Communiqué, a monthly publication. Rates are \$37 per year and \$74 for 26 months for a "virtual" membership. CORSA memberships is not required for membership in the Tucson Corvair Association, but is highly recommended. See any TCA officer for more information.

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TCA 2025 Events at a Glance

3rd Sat of each month

Monthly Meetings: 9:00am, Old Times Kafe, 1485 W Prince Rd, Tucson, Arizona

Sat, April 5, 2025

Chevy Showdown, Desert Diamond Casino, Sahuarita, Arizona

May 19-24, 2025

CORSA International Convention: Santa Monica., California





Glove Box/Dash patterns for early models and Greenbriers, Corvans, and Rampsides



Great Idea for towing and EM car and/or an R95 w/o the engine

It's pretty obvious how this would work, when moving an Early or an FC without the powertrain installed.

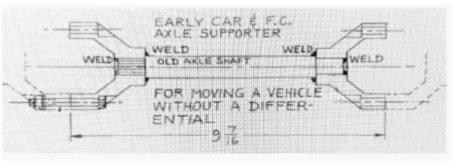
I recently saw this neat idea, reprinted from 30

years ago, in the Corvan Antics, and wondered about going around a corner. Of course, this is only for moving things around the shop, or yard, and a person would just skid the tires and there would be no bother. BUT, I thought, what if that old axle shaft they welded between those yokes were made up of two threaded pipes with a greased coupler between. Let's say you build this and install it with the coupling "un-screwed"

a turn or two. Now, when you move your dead vehicle the axles would thread together, or apart, depending on which rear wheel went ahead of the other. I would think you'd have to do a lot of 'always turning the same way' before you'd have a problem. I checked on a piece of pipe and the threads are an 8 pitch. If you are moving your vehicle with this setup, and the wheels get a full turn out of whack, that only changes the wheel separation by 0.125"!

Here's how it looks, when you build one. Kinda like a dog bone! Regardless of which vehicle is being pushed around, don't forget to... Keep-On-CORVAIRing, Fran

from Corvan Antics, 2022



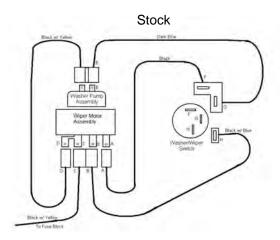


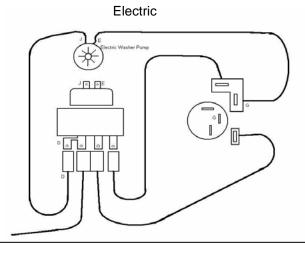
Converting stock windshield washer pump to an electric pump

It's easy to bypass the stock pump with a more dependable, constant flow electric unit. The pumps are commonly available for around \$10. The photo to the right is a typical example of what the pumps look like. The diagrams below show the stock wiring and the wiring set up for the electric pump. The wire colors vary somewhat from year to year and model to model.

Simply unplug the wiring connector from the stock pump and plug the D-J wire to one of the tabs on the electric pump and the E-G wire to the other tab. If the electric pump runs backwards simple reverse the two wires.







A Greenbrier Story

In 1975 we lived in Arvada, Colorado. A cousin lived not far from us and owned a parking lot striping business and he used a Greenbrier with homemade ramps to haul his striping machine from job to job. He loved the size and convenience of the Corvair. His big problem was he couldn't keep a clutch in it. He would have it replaced (more than once) and it would last about three weeks before it would slip so bad it wouldn't go anymore. It sat in the street in front of his house so long that

he got an abandon vehicle ticket and was going to be towed. At dinner one Sunday he told me his sad story and asked if I would take off his hands and haul it away. Who was I to turn down a free Corvair? I drug it home and discovered that the clutch mechanic had been installing early model clutch plates on a late model fly wheel. I had an old clutch plate and threw it in and ended up with a working Greenbrier.

The old 80hp engine had trouble making it over Eisenhower Pass on I-70 so a 110 was installed along with a fresh coat of Van Pershing

paint and some Chevelle SS wheels and we put another 100k miles on it. As our family vehicle to it took back and forth to California and Arizona many times. And even towed a little tent trailer to Rocky Point and Flagstaff a bunch of times. After 15 years of good use, I passed on to a friend who used it some more. In 2016 the friend said he was done with it and asked if I wanted it back. Who am I to turn down a free Corvair?!!

We fixed it up again for a grandson and the beat goes on!



1975

2018

Corvairsation 1Q2025 4

Carburetor Balancing Redux Ken Schifftner

There have been many articles about "balancing" Corvair carburetors. For the Corvair engine to operate at its highest efficiency, the carburetors must be balanced. What is sometimes overlooked is that "balancing" "synchronizing" are not the same thing. For success, the adjustment process is iterative*. Thus, this article.

Balancing:

"Balancing" is typically conducted at idle speed. It is both the first step and the last step in "synchronizing". The Corvair engine is essentially two (2) three (3) cylinder opposed "engines" sharing a common crankshaft. Remove the carburetors and crank the engine with the starter and for one part of the four (4) engine cycles, the engine is an air compressor. Atmospheric air enters, is compressed and is exhausted. Now add the carburetors. That "air" mixture becomes a "fuel/air" mixture. The gas mixture characteristics change. The gas density changes given the resulting "carbureted" fuel vapor and emulsion. The temperature may even change as the fuel evaporates.

To truly balance carburetors, the resulting air/fuel characteristics of each "engine" must be the same. Some balancing techniques measure the intake air flow. Others measure the intake manifold pressure. Yet others measure the head temperature assuming balanced combustion equals balanced temperatures.

These methods assume the engine displacement on the right or left heads are identical and that the

carburetors have the same air flow and fuel characteristics. They also assume that the connecting linkage responds in the same manner to each carburetor.

Balancing using the intake air flow relies on the characteristics of the intake atmospheric air and not the impact of the fuel on the mixture. The intake air is a surrogate to determine balance if both carburetors are identical in flow characteristics. The measurement is obtained by removing the air cleaner and intake plenum and using an air flow measuring device like the "Snail" (Pro-Sync Carburetor Synchronizer Tool, or equal). If the Snail is applied to each carburetor and the same reading is obtained, then the carburetors are considered "balanced".

The Uni-Syn (Uni-Syn Carburetor Synchronizer) operates using a venturi through which the incoming air must pass. The higher the air speed the lower the pressure reading. If the carburetors themselves are identical, each "three-cylinder engine" is therefore balanced.

Using the intake manifold pressure, a reading of the combined air AND fuel flow characteristics are measured. The sensing port is the one used for the choke pull-off, Therefore the port location is after the fuel delivery portion of the carburetor. GM made this measurement using mercury filled manometers. If the height of the mercury column is the same for each cylinder head, the mixture flow is balanced. If one wants to favor the flow to the head using the manifold reading that controls the vacuum advance as suggested by GM, the carburetors can be adjusted to favor the flow to that cylinder

head. The null reading Dwyer (Dwyer Instruments) gauge performs the same task but without the mercury. The Dwyer does have a diaphragm material that is less resistant to gasoline vapors, so the gauge is used for short durations but there is no need to remove the air cleaner, etc.

Using head temperature, a non-contact temperature gauge is used to measure the head temperature at a common point below the carburetor insulator/ gasket pack. This reading assumes that uniform head temperature means combustion is the same thus is balanced. Some Corvair mechanics can sense whether dual exhaust Corvair engines are balanced by "feeling" exhaust temperature at each exhaust pipe. Same temperature, balanced.

Synchronizing:

Being balanced doesn't necessarily mean the carburetors are "synchronized". Synchronized means that the carburetors respond in unison to the accelerator pedal. Thus, "slop" in the control linkage can adversely affect even "balanced" carburetors. Accelerator pump actuation differences can also upset the balance between the right and left "engines".

To synchronize, the linkage is adjusted after balancing at idle. First the linkage slack is removed and then the linkage is adjusted at an engine speed above idle (about 1000 -1200 rpm or so). First, one carburetor is held "fixed" by holding that carburetor open slightly using a wedge (popsicle stick, feeler

gauge, rubber band, or the like) between the idle speed screw and the throttle fulcrum at the carburetor. For adjustment, the adjustable linkage has a retainer clip on one "engine" (this can vary at least from my experience), a threaded swivel and a threaded actuating rod connected to the carburetor cross shaft. That clip is released so that the threaded linkage rod can be disengaged and be turned to adjust the carburetor that is not held a bit open.

The threaded linkage allows one full turn in or out to make an adjustment. Crude but good enough. The carburetors are now "balanced" again at this higher rpm by turning the threaded linkage in or out to achieve a balance. The linkage is pulled upward to reduce the tendency of the throttle to open and to remove slop. The link "hook" is then slid into the carburetor cross shaft using the clip to hold the link in place.

The "wedge" or whatever is then removed. The cross shaft main throttle spring will then bring the carburetors to the idle position...but the carburetors may not now be balanced because the idle speed screws have landed on a point on the carburetor fulcrum that is now modified by the linkage adjustment. Most likely only very fine rebalancing may be needed but should be performed.

*Iterative: repetition of an action in sequence or a cycle of operations to achieve a desired result but that invariably takes longer than just guessing.



Uni-Syn Carburetor Synchonizer



"Snail" type Air flow Measuring Device



Magnehelic Null Reading Gauge



Non-Contact Reading Device