

July 2019

the *Fanbelt*   
new jersey association of CORVAIR enthusiasts



*The Fanbelt* is published monthly by the New Jersey Association of Corvair Enthusiasts (NJACE), Inc. P.O. Box 631, Ridgewood, NJ 07451. Deadline for contribution is the 20th of each month. Classified-style advertising of interest to Corvair owners is available, free of charge, to all persons. A commercial ad can be placed in an issue of the *Fanbelt* for \$50 per full page, \$30 per half page, \$20 per quarter page, and \$10.00 per business-card. (Generally, classified advertisers are those offering individual cars and/or a limited number of parts, while commercial advertisers are those offering services and/or parts from stock. NJACE reserves the right to make this determination). All advertising must be PC-compatible or type-able copy.

NJACE is a chapter of the Corvair Society of America (CORSA), Inc., P.O. Box 607, Lemont, IL 60439. Meetings of NJACE are held periodically at locations and times as announced in this newsletter. All interested persons are welcome. Additional events and activities are held throughout the year. Membership in NJACE is open to individuals and families. Information and applications are available at any meeting or by writing to NJACE, P.O. Box 631, Ridgewood, NJ 07451, or by visiting [www.corvair.org/chapters/njace](http://www.corvair.org/chapters/njace).

## NJACE Summer Calendar of Events

### Saturday, July 6

Monthly breakfast at the Empire Diner,  
Rt. 46, Parsippany, 9:00 AM.

*Our July breakfasts are often among our best-attended of the year!*

### Tuesday - Sunday, July 23 - 27

CORSA Convention in St. Charles, Illinois.

*The annual gathering of the faithful, with a concours d'elegance, an autocross, a road rally, and much more!*

### Saturday, August 3

NO Monthly breakfast at the Empire Diner,  
see the picnic entry, below.

### Saturday, August 10

Our 49th annual Summer Picnic, in the spacious back yard of Donna and Larry Ashley  
in Succasunna. Pool - Sun - Shade - Food - Fun!

*Plus, we'll conduct one of our classically-brief business meetings at the picnic.*

### Saturday, September 7

Monthly breakfast at the Empire Diner,  
Rt. 46, Parsippany, 9:00 AM.

*Yes, September is still summer!*

### Saturday, September 14

Fall Classic at Clark's, the big biennial all-Corvair show  
at Clark's Corvair Parts in Shelburne Falls, Massachusetts

*"Fall Classic?" Autumn doesn't begin until September 23rd!*

→ Mark your calendars! ←

## The CORSA Convention

Several NJACE members are making the trek to St. Charles, Illinois, for the annual CORSA Convention as listed above.

If you are a CORSA member you already know all about the convention from the CORSA Communique. If you're not a CORSA member you can learn more at

<http://ccecovair.com/convention/>

Note, one needs to be a CORSA member to register for the convention activities, but membership can be obtained on the spot.

The End was the Beginning

1969

The Last Corvair  
and the Founding of CORSA

2019 CORSA International Convention  
St. Charles, IL - July 23-27, 2019

chicagoand  
corvair  
enthusiasts

CORSA  
CORSA INTERNATIONAL  
www.CORSA.org

## Objects in the Mirror...

### Part Two of a Continuing Series

by David Malcolm  
aka "Scotty"



While I love driving my 1969 Corvair, going 70 mph on Route 80, surrounded by SUVs whose drivers are busy playing with their phones, can make for a very white knuckle ride.

While a Corvair is never going to match the safety features we take for granted these days, there are some things that can be easily done to make you safer and feel more comfortable.

Having a 1969 I've got headrests, a supposedly safer dash board design, shoulder belts a dual master cylinder, side marker lights and 4-way flashers. But in addition to these factory items I've added features to my car that improve both safety and my comfort level while driving.

These upgrades are added easily to many of our Corvairs. None of them involve modifications to the car that cannot be undone easily if you wish to go back to stock.

#### *This Month:* **Intermittent Wipers**

Revolution Electronics makes a variety of add-on modules that can add modern features to muscle cars. While looking at their electric fuel pump controller I found a module to add intermittent wipers.

Don't know about you but I'm bothered by the wipers moving continuously on low when it's just misty out. A computer controlled module is available for 1963-1969 Corvairs with two speed wipers.

With no modifications to the stock wiper switch or motor you can have your normal two speeds as well as 8, 5 and 3 second intermittent speeds. (They say you could add it to the one-speed wipers by changing the switch in the dash to a two-speed switch.)

Revolution believes you should be able to install their products without having to cut any of your existing wires, a great feature that lets you uninstall a module leaving no trace.

You just unplug the connector on the back of your wiper switch and plug the leads on their module onto the switch and into the connector fastening the small module up under the dash with a couple of zip ties.

When you turn your wipers on low you get the 8-second interval. Selecting other speeds involves briefly turning the switch left or right.

You'll need PN 13023 for GM standard wipers, about \$70.



<http://www.revolutionelectronics.com>

*Next Month: DRLs and Turnback Bulbs*

#### **NJACE Officers for 2019**

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## NJACE Marketplace

July, 2019

### For Sale:

- ✓ 24 foot House Trailer - Sleeps 5 - Perfect for Hershey or other Flea Market use. Gas / 120v refrigerator, gas water heater, furnace, 4 burner stove with oven. 12v water system, toilet, sink, shower. Excellent tires, electric brakes, stabilizing jacks. 12 x 20 vendors tent. Includes Reese Straight Line weight equalizing hitch with sway control. \$800 Total price.
  - ✓ Generac 1200W Inverter - Near silent operation, gasoline driven - New in box \$500.
  - ✓ Generac GP Portable Generator - 389 cc OHV, 8000 surge watts, 6500 rated watts, pull start, Model 5940 - Very little use \$650.
- Contact Dave Cavagnaro, email [djcav@ptd.net](mailto:djcav@ptd.net) or phone 908-362-5775.

### For Sale: Various Corvair items.

- ✓ Headers and mufflers, \$375.
  - ✓ Chrome fan shroud, \$25.
- Plus shipping, or pickup in Toms River.  
Contact Moe Roselli, 732-597-2825.



Take advantage of the NJACE Marketplace! Classified-style ads are FREE to all non-commercial sellers. (Commercial ad rates are shown on Page 1.) Publication deadline is the 20th of each month. Submit your ad to the editor via email, [rwmarlow@optimum.net](mailto:rwmarlow@optimum.net).



## Playing with your Steering

by David Wolcuff

with additional detail by Jim Becker  
from the Corvair Center Forum

**Q:** I want to check the adjustment of the steering box on my '64 Spyder. Other than the shop manuals & CORSA Tech Guide, does anyone have any suggestions?

**A:** Though you can adjust play from the steering box independently, you should eliminate other possible points of play in the steering system as well. If nothing else, you should make yourself aware of any developing issues while you are crawling around under the car. First, the box itself:

1. There is an internal worm shaft in the box. This is a short ball-screw. The moving contact is between the bearing balls and the shaft. The balls follow the indented "worm" on the shaft. Though there are other bearing points in the system this is likely the main wear point.
2. On the outside case of the box is the adjusting screw and its lock nut. To make adjustments, you will need to loosen the nut and turn the screw which will increase pressure between the balls and the screw. More on this later.

Next, determining if the box needs to be adjusted:

1. Park the car with the tires facing directly forward. Stand outside and reach in through the window and gently turn the steering wheel back and forth. You are outside the car to watch the tire and make sure you are not significantly turning the wheels.
2. If the steering wheel moves back and forth excessively without the tires turning to one side or the other, you have too much play in the steering components and something should be done. There are several components which could cause this but we will concentrate on the box first. Keep in mind that even in a perfectly adjusted system, there will be some level of play.
3. Assuming you have too much play, you will need an assistant for this next task. Get under the car where you can see the steering shaft at the input into the box as well as the Pitman arm (output) hooked to the rest of your steering system. While your assistant turns the steering wheel back and

forth as in point 1 above, watch the input shaft and the Pittman arm. If the input shaft turns without the arm moving, there is play in the box. Ideally, when the input shaft turns even slightly, there should be some movement to the arm.

4. If the steering wheel can be rocked back and forth significantly but there is no observed play between the input shaft and arm, you need to look for play elsewhere but more on that later.

Assuming the box needs adjustment:

1. Loosen the locking nut on the adjustment screw. You will probably observe that the screw will turn outward with the nut. That's not a big deal but I prefer to start out with the screw where it started. You accomplish this by holding the screw where it starts with a screwdriver while turning the nut. The connection may have become quite stiff over the decades. Back the nut away a couple of turns before taking the screwdriver from the screw's slot. You may want to clean and lubricate the thread contact between the nut and adjusting screw because this could be an issue when tightening things later.

2. Have your assistant rock the steering wheel back and forth like before. Keep in mind that this should be done gently. You are not trying to move the wheels against the road. Adjust the screw inward as the input shafts move back and forth. You will observe that there will be less play between the input shaft and output arm as you continue adjustment.

3. You do not want to adjust all of the play out of the system. If the adjustment is too tight, it will cause stress between the bearing balls and the worm screw. Tightness will be magnified when turning the steering to the far right or left. Here's why... The vast, vast amount of your driving is done with the steering facing directly forward more or less. Hard turns are limited to turning corners, parking, etc. which are done much less often than driving in a straight line. This means that the worm shaft will wear mostly in the center position while the extreme positions see very little wear. If you adjust the box tight in the center position, it will be too tight when making significant turns. You may want to adjust the play fairly tight at full left or right and then see what play you have in the center position but I don't want to overcomplicate things. If you can't adjust the play out in the center position without being too tight on the right or left extremes you will need

a new box or just live with the sloppy steering until it gets too bad.

4. Once the adjusting screw is where you want it, you must re-tighten the lock nut. This may seem straightforward but it deserves some explanation. If you try to just tighten the nut, the screw will probably move in with it. This will over-tighten the box. Insert your screwdriver into the screw's slot and hold it in place while tightening the lock nut. Use the largest screwdriver that will fit in the slot to get leverage.

Note, whatever you do, do not try to adjust out the play at anything other than straight ahead! You'll kill the box on short order because the worm has a high spot in the center position. When new, the steering box is tightest in the center. However, wear is greatest in the center. They are built tight in the center so you can adjust to compensate for the wear.

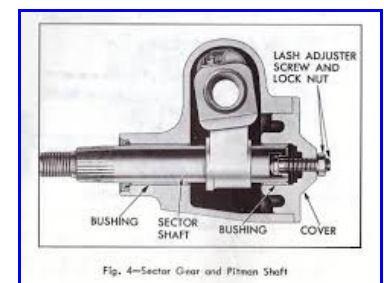
Now for other areas where there may be play:

Every moving joint in the linkage has a potential for introducing play into your steering system. These are the tie rod ends and idler arm joints. You can check these at the same time you initially check the play in the steering box. While your assistant rocks the steering back and forth, look at each joint in turn to see if there is play in any of them. Replace as necessary. Keep in mind that a moderate amount of play in a joint will get worse. There is a hammer/impact effect in a loose joint that a tight joint won't experience. Loose ball joints will also introduce steering issues but that is a tale for another day.



*Circled in red, the access plug for the steering box adjuster in the Corvair trunk.*

*Cutaway illustration of the Corvair steering box, from the Shop Manual.*



# Radio Flyer

*submitted by Ron Zielensky*

It may seem like cars have always had radios, but they didn't. Here's the story:

One evening, in 1929, two young men named William Lear and Elmer Wavering drove their girlfriends to a lookout point high above the Mississippi River town of Quincy, Illinois, to watch the sunset. It was a romantic night to be sure, but one of the women observed that it would be even nicer if they could listen to music in the car.

Lear and Wavering liked the idea. Both men had tinkered with radios (Lear served as a radio operator in the U.S. Navy during World War I) and it wasn't long before they were taking apart a home radio and trying to get it to work in a car.

But it wasn't easy: Automobiles have ignition switches, generators, spark plugs, and other electrical equipment that generate noisy static interference, making it nearly impossible to listen to the radio when the engine was running.

One by one, Lear and Wavering identified and eliminated each source of electrical interference. When they finally got their radio to work, they took it to a radio convention in Chicago.

There they met Paul Galvin, owner of Galvin Manufacturing Corporation. He made a product called a "battery eliminator," a device that allowed battery-powered radios to run on household AC current. But as more homes were wired for electricity, more radio manufacturers made AC-powered radios. Galvin needed a new product to manufacture. When he met Lear and Wavering at the radio convention, he found it. He believed that mass-produced, affordable car radios had the potential to become a huge business.

Lear and Wavering set up shop in Galvin's factory, and when they perfected their first radio, they installed it in his Studebaker. Then Galvin went to a local banker to apply for a loan. Thinking it might sweeten the deal, he had his men install a radio in the banker's Packard. Good idea, but it didn't work –half an hour after

the installation, the banker's Packard caught on fire. They didn't get the loan.

Galvin didn't give up. He drove his Studebaker nearly 800 miles to Atlantic City to show off the radio at the 1930 Radio Manufacturers Association convention. Too broke to afford a booth, he parked the car outside the convention hall and cranked up the radio so that passing conventioners could hear it. That idea worked – he got enough orders to put the radio into production.

*What's in a Name?*

That first production model was called the 5T71. Galvin decided he needed to come up with something a little catchier. In those days many companies in the phonograph and radio businesses used the suffix "ola" for their names – Radiola, Columbiola, and Victrola were three of the biggest. Galvin decided to do the same thing, and since his radio was intended for use in a motor vehicle, he decided to call it the Motorola.

But even with the name change, the radio still had problems: When Motorola went on sale in 1930, it cost about \$110 uninstalled, at a time when you could buy a brand-new car for \$650, and the country was sliding into the Great Depression. (By that measure, a radio for a new car would cost about \$3,000 today.) In 1930, it took two men several days to put in a car radio -- The dashboard had to be taken apart so that the receiver and a single speaker could be installed, and the ceiling had to be cut open to install the antenna. These early radios ran on their own batteries, not on the car battery, so holes had to be cut into the floorboard to accommodate them. The installation manual had eight complete diagrams and 28 pages of instructions.

Selling complicated car radios that cost 20 percent of the price of a brand-new car wouldn't have been easy in the best of times, let alone during the Great Depression – Galvin lost money in 1930 and struggled for a couple of years after that.

But things picked up in 1933 when Ford began offering Motorola's pre-installed at the factory. In 1934 they got another boost when Galvin

struck a deal with B.F. Goodrich tire company to sell and install them in its chain of tire stores.

By then the price of the radio, with installation included, had dropped to \$55. The Motorola car radio was off and running. The name of the company would be officially changed from Galvin Manufacturing to "Motorola" in 1947.

**The best part of your ride**

Take NEWS—MUSIC and LAUGHTER wherever you drive!

Riding is more relaxing when you have a Motorola radio in your car. No matter how far the miles may take you, it's easy to stay in touch with things . . . and enjoy your ride. Motorola's natural, brilliant tone is the finest you've ever heard. Powerful, too, you'll get stations sharp and clear when you're speeding along highways across the continent.

**ALL-IN-ONE ECONOMY UNIT**  
Compact, fits into instrument panel. Powerful self-contained speaker. Model 301, \$49.95\*

**FAMOUS "GOLDEN VOICE" PUSHBUTTON SET**  
Distinct music, powerful separate speaker, 2 1/2" radio tube and extra-long-range reception. Model 302, \$59.95\*

In the meantime, Galvin continued to develop new uses for car radios. In 1936, the same year that it introduced push-button tuning, it also introduced the Motorola Police Cruiser, a standard car radio that was factory preset to a single frequency to pick up police broadcasts. In 1940 he developed the first handheld two-way radio – the Handy-Talkie – for the U. S. Army.

A lot of the communications technologies that we take for granted today were born in Motorola labs in the years that followed World War II.

- ☛ In 1947 they came out with the first television for under \$200.
- ☛ In 1956 the company introduced the world's first pager.
- ☛ In 1969 came the radio and television equipment that was used to televise Neil Armstrong's first steps on the Moon.
- ☛ In 1973 it invented the world's first handheld cellular phone.

Meanwhile, carmakers developed their own

radio-manufacturing divisions, gradually squeezing Motorola out of the market it had built. The company stopped making car radios in 1984. Today, it's best known for making cellular phones and is one of the largest cell phone manufacturers in the world. And it all started with the car radio.

Whatever happened to the two men who installed the first radio in Paul Galvin's car?

Elmer Wavering and William Lear ended up taking very different paths in life.

Wavering stayed with Motorola. In the 1950's he helped change the automobile experience again when he developed the first automotive alternator, replacing inefficient and unreliable generators. The invention led to such luxuries as power windows, power seats, and, eventually, air-conditioning.

Lear also continued inventing. He holds more than 150 patents. Remember eight-track tape players? Lear invented that. But what he's really famous for are his contributions to the field of aviation. He invented radio direction finders for planes, aided in the invention of the autopilot, designed the first fully automatic aircraft landing system, and in 1963 introduced his most famous invention of all, the Lear Jet, the world's first mass-produced, affordable business jet.

Not bad for a guy who dropped out of school after the eighth grade.

Sometimes it is fun to find out how some of the many things that we take for granted actually came into being! AND It all started with a woman's suggestion!

