



# *the fifth wheel*

JANUARY 2019

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## **Next Meeting! Wednesday, January 23, 2019**

LVCC Meeting Information: Time 7:30 PM. Place: Lehigh and Northampton Transportation Authority Headquarters (LANta), 2nd Floor Meeting Room, 1060 Lehigh Street, Allentown , PA 18103. Latitude : 40.587607 | Longitude : - 75.474405. Bring a guest!

Don't get locked out. If you arrive late, the main door of the LANta office building may be locked. But the facility is open around the clock, so ask one of the garage employees to direct you to the second floor.



*The Fifth Wheel* is published monthly by Lehigh Valley Corvair Club Inc. (LVCC), a chartered chapter for the Corvair Society of America. We accept articles of interest to Corvair owners for publication. Classified advertising of interest to Corvair owners is available free of charge to all persons. Commercial advertising is also available on a fee basis. For details, email our newsletter editor, Allan Lacki, [redbat01@verizon.net](mailto:redbat01@verizon.net).

# Corvair Direct Air Heater Edition!

In keeping with the winter season, we bring you this special Corvair Direct Air Heater edition of the Fifth Wheel!

## Corvair Heater Blower Motor Replacement

*If you hear the fan making a lot of noise, then either debris is in the housing or the motor is worn out. The original motors are not available and have been replaced by a permanent magnet electric motor that moves more air. The new fan is a PM102 and DOES NOT come with a fan attached, you must use your old fan.*

*The following article is from the Westwinds newsletter published by the Corvair West chapter of the Corvair Society of America and it tells you all about it!*

The Corvair 1961 – 69 heater (not the optional gasoline heater) blower motor replacement is a modern permanent magnet motor designed to replace a number of heater and A/C blower fans used in GM cars since the 1960's. The new blower motor is model PM102 sold by Siemens/VDO and under the Murray brand. The PM102 rotates in the same direction as the original Corvair fan motor. The PM102 replaces many older versions and it is, not surprisingly, a "one size fits all" that involves a few compromises as follows:

□ Most obvious is the round hole in the side of the PM102 blower motor case to provide ventilation. Some of the OEM blower motors that the PM 102 replaces require using the hole. On the Corvair the hole must be sealed by a plug included for installation in the motor case to keep dirt and water out of the motor (make sure the plug is included with the new PM102 motor).

□ The PM102 blower motor does NOT come with a blower fan; you must use the metal fan off the old original motor. It may be difficult to remove and require the skills of someone who knows how to apply heat and penetrating oil properly. If the fan must be replaced, DO NOT use a plastic fan. A metal fan is required to withstand the hot air from the engine. Make sure the replacement fan is designed for the rotation direction of the PM102, clockwise when observed from the fan side of the motor. See illustration on the following page for fan blade orientation.

□ The PM 102 blower motor shaft is slightly longer compared to the original Corvair blower motor and may require installing a spacer on the original Cor-

vair fan under the nut on the motor shaft (note GM used different fan suppliers and there will be variations). Installing a washer(s) (you may need one with a hole big enough to fit over the shaft and one with a hole small enough for the nut and star washer to mate to) ensures the nut will not come loose and that the fan is down firmly on the shaft and the proper distance from the motor housing flange as illustrated on the next page. Check the new motor to make sure the nut, which may have METRIC threads, is on the shaft and don't use the nut from the original fan motor since it's SAE threaded.

□ The new PM102 will drive more air and the power consumption is slightly

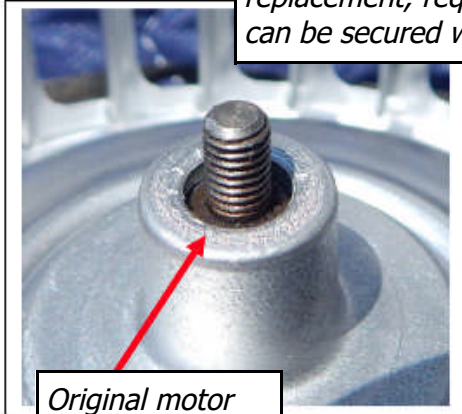
*(Continued on page 4)*



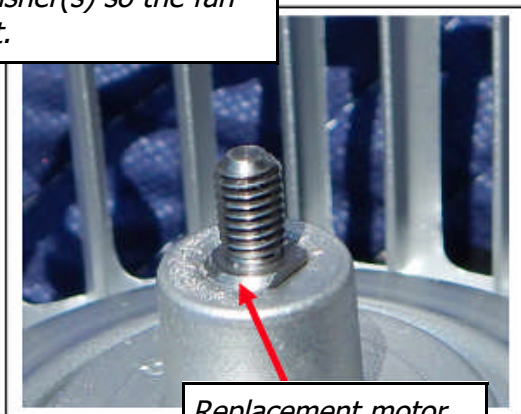
**PM102 Heater Blower Motor**

# Installing a PM102 Heater Blower Motor

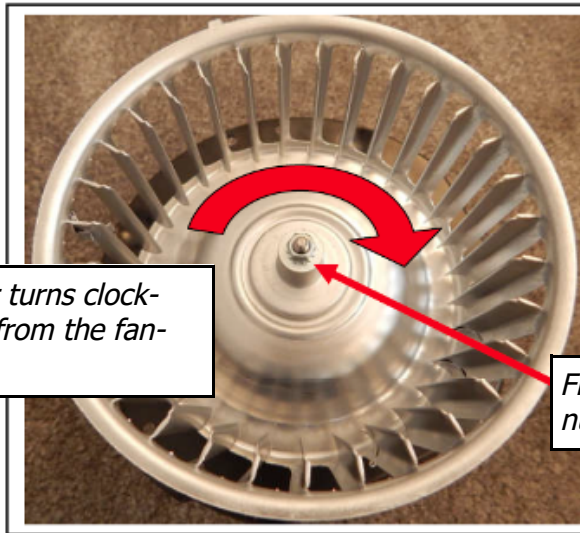
The original fan motor shaft is shorter than the replacement, requiring a washer(s) so the fan can be secured with the nut.



Original motor shaft flange is below fan collar



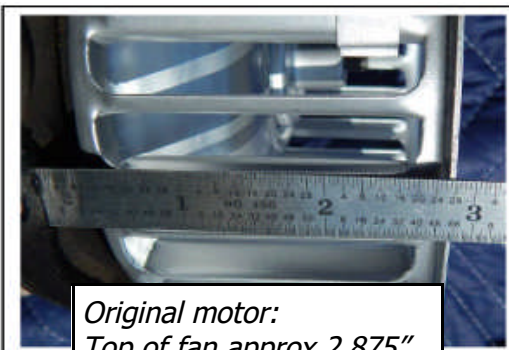
Replacement motor shaft flange might be above fan collar



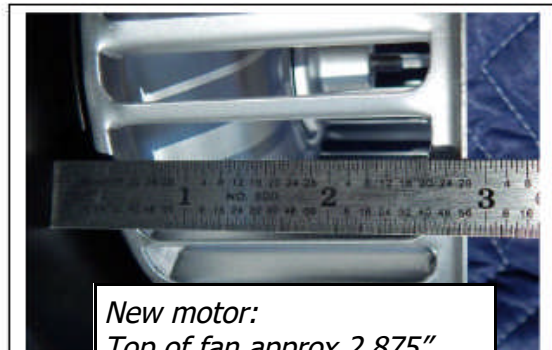
NOTE: Fan motor turns clockwise as observed from the fan-side of the motor

It's very unlikely that your squirrel cage fan wheel will be nice and shiny like this one! Replacements are available from Clark's Corvair Parts.

Flat washer(s) added under nut/captive star lock washer



Original motor: Top of fan approx 2.875" above motor flange



New motor: Top of fan approx 2.875" above motor flange. (Same)

greater. Specifications are not available, but those that have installed the PM102 report that it does NOT cause the Corvair heater fuse to fail. This has not been verified as of the writing of this article. Experience has shown the Corvair heater blower had a couple of problems that should be corrected when you install a new blower motor as follows:

□ Like most electrical items in a car the blower motor grounds to the battery through the body. Unfortunately the fan motor connects to ground through two housings and a bracket that often result in a poor ground which causes an electrical power reduction at the blower motor. This is corrected by connecting a ground wire from the car body to the fan motor housing (use a star washer under the ground wire terminal to cut into the metal). It should be noted that connecting a ground wire to the motor flange is a common practice on GM cars with plastic fan housings.

□ The Corvair heater blower switch life span is reported to be reduced on "HI" and the new PM102's slightly higher amperage only aggravates the problem. Installing a relay connected to ONLY the "HI" switch terminal will increase the switch life and ensure the blower motor gets maximum voltage. Due to the restricted amperage in the "LOW" and "MED" switch positions you do NOT need relays for these switch positions, only for "HI". The alternative is to not use the "HI" switch position, or use it sparingly.

The prior page depicts the differences in old versus new motor shafts; the same height of the fan above the original motor flange and replacement motor flange; and the fan clockwise rotation. Note: Some other model fan motors turn counter clockwise when observed from the fan side and are not recommended.

## What's a "PM102"?

PM102's are automotive electric blower motors manufactured by VDO and sold

by Murray Climate Control Systems. According to the manufacturer, they are made in ISO/TS certified facilities and manufactured to the same quality standards as motors provided to global OE automakers worldwide.

They offer quiet operation, dependable performance, and competitive pricing. VDO exclusive Dual Bearing design technology provides quieter, efficient motor operation. All VDO / Murray blower motors and cooling fan assemblies are precision assembled, and balanced, with all new components for vibration free operation.

## Blower Fan Rotation,

by Steve Kirkton

Cage fans for the heater blower and air conditioner turn in opposite directions, so be sure to install the correct fan in each.

Viewing the fan from the end of the motor shaft looking toward the motor, the heater blower turns clockwise and the A/C blower turns counter-clockwise. The sharp edges of the fan blades should point in the direction of rotation.

*The commonly-available Murray PM102 blower motor is the one recommended for the direct air heater. Ed.)*

## Relay for High Volume Heater,

by Larry Claypool

One of the more popular additions to the Corvair has been the so-called "high volume" heater blower motor. The motors are actually stock for other '63-76 GM cars with air conditioning. They turn faster, thus providing a higher air flow rate.

The only real disadvantage of these motors is their appetite for greater current. In the short run, this leaves marginal charging reserve, especially on

generator cars. In the long run, however, deterioration of various electrical connectors and switches has been observed.

The problem is especially noticed on early model ignition switches and main harness connectors. The deterioration is caused by the high current flow required to operate the blower, lights, ignition, and other accessories. The single feed wire becomes hot, melting the connector.

A look at any of the cars on which the high volume blower was supplied shows that all of them used a relay to feed the blower on high speed. This provides power directly from battery to blower, removing the extra load from the fan switch, ignition switch, and all the various power connectors. A further advantage is increased blower speed (and thus volume) since the voltage drop through the system is reduced to a minimum.

It is a relatively easy task to install and wire a power relay into the Corvair. You will need the following:

- Relay, continuous duty, 12 volt coil, 25 amp contacts; I used NAPA #AR107 because it is simple and inexpensive, but any of numerous factory or after market relays will do.
- In-line fuse holder with fuse, 30 amp.
- Wire, #18 gauge, approx. 15 feet.
- Wire, #10 gauge, approx. 6 feet.
- Electrical terminals, assorted.

Begin with the heater fan speed switch. You will find four terminals: power in, low, medium, and high speed.

The wire from the high speed terminal goes directly to the blower motor. On early models, output from the resistor (low or medium) is also joined to the high speed terminal at the connector.

Remove the high speed wire terminal from the fan switch connector. (On early models, leave the two wires joined).

*(Continued on page 5)*

## Two Super Simple Super Bowl Dips

*These recipes are so simple, even a car guy can make 'em! They were originally published by the Queen City Corvair Club's Silver Anniversary Fall Affair, way back in October 2001.*

### Nacho Dip!

#### INGREDIENTS:

- 1 (8 ounce) cream cheese
- 1 (16 ounce) can chili with beans
- 12 or 14 ounces Monterey Jack Cheese, grated

#### DIRECTIONS:

Soften cream cheese. Spread on the bottom of cake pan. Pour chili beans on top of cream cheese. Put grated Monterey Jack cheese on top of chili beans. Heat before serving.



### Horseradish Dip!

#### INGREDIENTS:

- 1 cup mayonnaise
- 1/2 cup sour cream
- 1/4 cup creamed style horseradish
- 2 tbsp sugar
- 1/2 tsp salt
- 1/2 tsp dry mustard
- 1/2 tsp Worcestershire sauce
- 1/4 tsp paprika
- dash of cayenne pepper
- dash of hot pepper sauce



#### DIRECTIONS:

Mix all of the ingredients together. Delicious as a dip for raw vegetables.

Tape the wire(s) to the harness so the terminal is insulated.

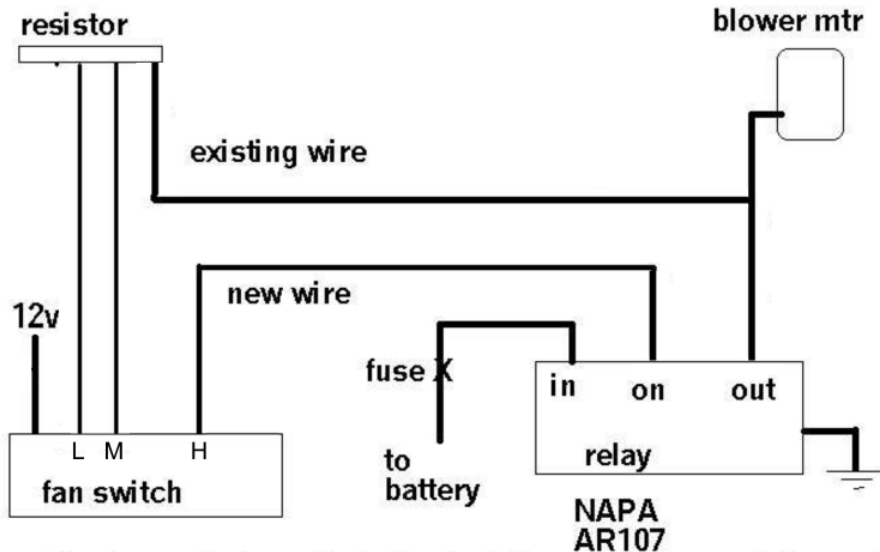
Now use the length of #18 gauge wire with a female spade terminal; connect it to the high speed output blade of the fan switch. Run this wire back through the car to the heater motor. (Do it right! Pull all the tunnel covers and run it next to the main wiring harness!)

For simplicity, I mounted the relay to the blower by one of the screws that hold the motor to the heater mixing box. The power feed wire for the relay can be tapped in at the starter solenoid (to the battery cable), the plastic junction block near the battery on late models, or the battery terminal of the voltage regulator on early models and FCs. Be sure to install the in-line fuse some-

where in the wire between the power source and the relay,

Connect the fused battery feed wire to relay power "in" (terminal 1 of the AR107). Connect the newly run wire from the fan "high" terminal to relay "on" (terminal 3 of AR107).

*(Continued on page 6)*



Use a short piece of #10 gauge wire to go from relay "out" (terminal 4 of 4R107) to the blower motor. Also connect the original heater blower motor wire to the relay "out." This now completes the modification.

In operation, the fan motor gets its power in low and medium speeds through the ignition fused fan circuit just like stock. When switched to high speed, the relay is activated and power for the blower comes directly from the main junction block. The only current used by the heater switch in "high" is the small amount to power the relay coil.

The addition of such a system makes a noticeable improvement in air flow, and in the interest of longevity should be considered on any Corvair where the heater is used more than occasionally.

I excluded late models with air conditioning from this conversion. The reason is that the two separate blowers are controlled by one switch. If the relay was hooked up as described, the heater fan relay would energize on heat or A/C modes. If you hooked up the relay to the output of the heat-A/C selector switch, you'd lose low and medium speed function. While installation of a high speed relay on a late A/C car isn't impossible, it would certainly be more complex. I'll leave that one to someone with more time than me.

### Heater Hose Clamp Removal,

by Craig Nichol

Is there an easy way to remove the large heater duct clamps? The one above the differential is very difficult to reach and the corrosion makes it difficult to turn the clamp screw.

Of course, you will want to lubricate the clamp's threads to improve the odds that the screw will turn. Use a 1/4 inch drive socket wrench if the clamp screws have hex heads. A socket wrench will provide much more torque than a screwdriver blade.

If the ducts have "tower" clamps, tip the tower from side-to-side after you have lubricated and loosened the clamp screw. If all else fails, what I do is to bend the old heater hose until it rips apart revealing the inner wire. Grab the inner wire and pull it straight out. It will pull out from under the clamp about one or one and a half turns. Once the spring wire is pulled out, the clamp won't have any more tension and should slip right off. Obviously the heater hose gets ruined, but you were replacing it anyway, right?

### Heater Hose Removal,

by Clay Wispell of the North Texas Corvair Association

Are your heater hoses or A/C hoses welded to the sheet metal and plastic outlets? Don't want to tear them up getting them off? I've had excellent luck getting fabric hoses off simply by saturating them with Armor All in the area which was stuck. After about an hour's wait, the hose should slip right off with no problem.

### Heater Hose Installation,

by Lew Rishel of the San Diego Corvair Club

When installing new heater hoses, "don't cuss, use us", good old Armor-All. Apply a little lubricant such as Armor All on the fitting and inside of the hose. The hose will slip right on, slick as slick.

*(Liquid laundry detergent works well, too, and your heater hose will smell refreshingly clean! Ed.)*

### Burst-O-Fuzz Feature

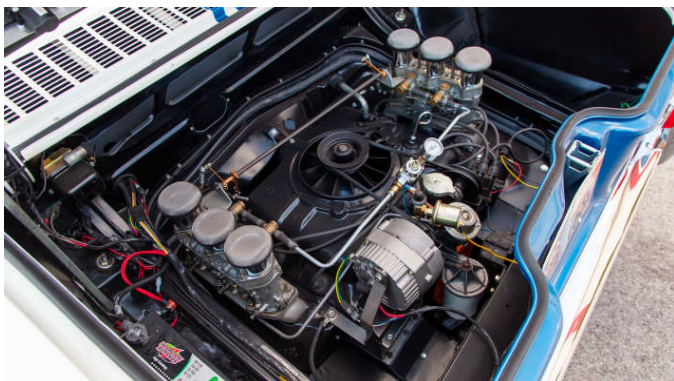
On early Corvairs, the resistor for the blower motor speed control is located inside the defroster duct, right below the windshield. The "Burst-O-Fuzz" feature makes itself known when mouse fuzz gets blown from the heater box into the defroster duct where it gets lit by the hot resistor. Smells nice! (Not!)

### Yenko Stinger Trades for \$200,000!

On January 11, 2019, a highly-restored 1966 Corvair Yenko Stinger was sold at the Mecum Kissimmee auction for \$200,000, plus fees! Amazing!

*(Continued on page 8)*

# *Photos of the \$200,000 Yenko Stinger*



Naturally, this attracted much attention from people on the internet discussion boards including at least one former-owner of this very special car. Detractors complained that, although it's beautiful, it's not all-original.

Among other things, it's equipped with accessories that Yenko did not install, including Minilite mag wheels, 3-barrel Weber carburetors, bumper guards and wire-mesh headlight guards. Of course, it's been repainted and almost everything has been replaced or rebuilt.

Although Yenko Stingers were competitive in SCCA racing for a season or two, I've never understood why they command so much more money than a well-equipped Corvair Corsa. Apparently, it's the little Yenko serial number badge that makes all the difference.

Nevertheless, the fact that a Stinger sold for \$200,000 is an indicator of the respect Corvairs are attaining in certain quarters.

From the Mecum Auction Website. When Carroll Shelby's Mustangs and Cobras began trailering the competition in the mid-1960s, Don Yenko followed Shelby's example and marshaled his factory connections to produce the Chevrolet Corvair-based Yenko Stinger.

Like Shelby's racers, the Stinger bore no identification related to the original manufacturer; indeed, it was Yenko and not Chevrolet that received homologation approval, first from the SCCA and then the FIA.

Based on the performance-oriented Corvair Corsa, every Stinger was equipped with the quadruple-carbureted 164 CI flat-6 engine, heavy-duty suspension, 4-speed transmission, quick-ratio steering, a 3.89 Positraction differential and a Cadillac dual-circuit brake master cylinder.

Yenko removed all Chevrolet badging and the rear seat, and tuned the engines to produce four levels of power from 160 to 240 HP to qualify the Stinger for SCCA D Production racing. The already excellent Corsa suspension was improved and the steel rear deck was replaced with a fiberglass piece with an integrated spoiler.

After failing by one second to win its first race in January 1966, Yenko Stingers won SCCA Central and Northeast Division Championships driven by Dick Thompson and Jim Spencer respectively, and several others racked up impressive seasons.

Description of the \$200,000 Corvair. This 1966 Yenko Stinger, Serial No. YS-074, is No. 74 of the first 100 produced in the frantic month before the SCCA's January 1, 1966, homologation deadline. Listed in the Yenko Registry, it wears the Yenko racing livery of Ermine White with blue stripes, and it rides on National XT Renegade tires on 13x7-

inch Minilite wheels.

Restored in 2013 and awarded MCACN Concours Gold with a score of 987/1,000, it boasts serious power in the Stage III engine, which combines high-compression cylinder heads, 10.5:1 forged pistons running in cylinder heads honed to racing clearances, tuned exhaust headers and rare Weber downdraft carburetors to produce 220 HP.

According to Charlie Doerge's Yenko Stinger book from 2011, car was then owned by Bob Joyce from Wisconsin. He paid US\$12k for it in 2001. The restoration took place afterward.

## **CORVAIR SLOT CARS!** **1966 Corvair and Yenko Stinger** **Builds**

*by David Reinecke*

*This article was posted by its author on [www.slotforum.com/](http://www.slotforum.com/) on September 11, 2015. The original post has additional photos.*

These are my latest builds based on the 1966 Corvair. I started with a 3D model, had it SLS printed through a service and then did a ton of finishing work.



The first one I completed - Don Eichstaedt's Corvair as raced in the 1966 Trans-Am Series. All paints were Dupli-color automotive spray with a bunch of decals from my parts box. The stripes are decals as well. A few topcoats of clear and after decals were applied I gave it 3 coats of Future with a brush. It has a PCS32 chassis, CBB aluminum wheels, slot gears, H&R 18k motor and Paul Gage urethane tires:

I then decided to tackle the Yenko Stinger driven by Mac-Grotty/Riley/Myers in the 1966 Sebring 12 hour race held the weekend of the initial 1966 Trans-Am race. For this car



## ***Local Car Shows and Other Events***

### ***September 29 2018 to March 23 2019 :::: Fabulous Fins of the 50's and 60's***

Location: America on Wheels Museum, 5 N Front St, Allentown, PA 18102. Winter Hours: Wednesday through Saturday 10 AM to 4 PM. General admission is \$10 with discounts for seniors and students. America On Wheels is proud to showcase our new exhibit, "Fabulous Fins of the 50's and 60's: The Jet Age of Automobile Design". Visitors will see an assortment of vintage automobiles and tailfins on display. (610) 432-4200 <http://americaonwheels.org/>

### ***Friday to Sunday, January 18 to 20, 2019 :::: Auto Mania***

Location: Allentown PA Fairgrounds, 302 N 17th Street, Allentown, PA 18104. Time: Jan 18 - Noon to 9 PM. Jan 19 - 9 AM to 6 PM. Jan 20 - 9 AM to 3 PM. Admission: Adults: \$10.00, Kids 12 and Under: Free. Auto Mania has been Pennsylvania's biggest indoor heated automotive flea market. The 59,000 square foot facility that is Agri-Plex at the Allentown PA Fairgrounds plays host to a wide array of vendors and attendees annually. This event takes place no matter the weather and won't cancel, be postponed or rescheduled under any circumstance. Phone: (717) 243-7855. Email: [info@carlisleevents.com](mailto:info@carlisleevents.com)

### ***Friday to Sunday, January 18 to 20, 2019 :::: Motorsports Race Car & Trade Show***

Location: Greater Philadelphia Expo Center, 1601 Egypt Road, Phoenixville, PA 19450. Time: Jan 18 - 2 PM to 9 PM. Jan 19 - 11 AM to 9 PM. Jan 20 - 11 AM to 4 PM. Admission: Adults \$15, Kids 12 and under: Free. Over 240,000 Square Feet of Nothing but Racing! The Pioneer Pole Buildings Motorsports Race Car and Trade Show combines industry, media, and consumer audiences exploring the newest equipment and most-innovative technology in the motorsports industry. All forms of motorsports are represented - circle track, drag racing, road racing, dirt and asphalt - for three action-packed days. Phone: (609) - 888 - 3618. Email: [motorsports@aarn.com](mailto:motorsports@aarn.com)

### ***Saturday to Sunday, February 2 to 10, 2019 The Official Philadelphia Auto Show***

Location: 1101 Arch Street, Philadelphia, Pennsylvania 19107. Time: Weekdays, Noon to 10 PM. Weekends, 9 AM to 8 PM. Price: General Admission (age 13+): \$14.00, Child (age 7-12): \$7.00, Discounted Senior tickets (age 62+) are available for \$7.00 at the PCC box office on weekdays. On display: the automotive industry's latest and greatest collection of new vehicles and innovative designs. The Philadelphia Auto Show features manufacturers from around the world with a combination of pre-production, classic and exotic automobiles on display. <https://www.phillyautoshow.com/>

### ***Saturday February 16, 2019 :::: AACA Historical Films - Saturday Matinee***

Location: AACA Library & Research Center, 501 W. Governor Rd, Hershey, PA. Time: February 16, 2019 from 1 PM to 2 PM. Our 4th Saturday Matinee event will take a look at historical films in the AACA Library collection with special focus on our first "meets" in the early 1940s, tours in the 1950s and a few films about "Hershey Week" ranging from the 1960s - 1980s. Snacks will be provided and the event is free and open to anyone interested in attending. Phone: 717-534-2082. Website: <http://aacalibrary.org>

### ***Saturday February 16, 2019 :::: Annual NJACE Parts Auction***

Location: Ashley's Auto Body, 274 Hillside Avenue, Flanders, NJ 07836. Time: 9:00 AM to 2:30 PM. Free admission. Hosted by the New Jersey Association of Corvair Enthusiasts. The NJACE Annual Parts Auction is all set for Saturday, February 16 2019, indoors at Ashley's Auto Body on Hillside Avenue in Flanders. At the auction our shameless auctioneers offer Corvair parts and Corvair-related items to the highest bidder, with a 10% commission of the sale price going to the club treasury. You may bring parts to sell, you may buy, or you may do both, or you may just come to enjoy the fun. Admission is free! We will invoke a snow date only if the weather makes traveling difficult or if accumulated snow has rendered the Ashley's parking lot inaccessible. Generally speaking, you can assume that the event is "on," but if it is necessary to postpone we will get the word out via email.

### ***Sunday March 3, 2019 :::: Hamburg Swap Meet & Car Corral***

Location: 127 South 4th St. (rear), Hamburg, PA 19526. Time: 7 AM to 2 PM. Admission: Adults \$2, Children under 12 Free. Automotive Swap Meet and Car Corral with over 100 indoor spaces and unlimited outdoor spaces. Handicap friendly, refreshments available. Held rain or shine. For vendor spaces or information call 610-823-4656. Email: [Lhedgehog1@aol.com](mailto:Lhedgehog1@aol.com)

*Also, be sure to visit the Corvair Society of America website to see events being conducted by our neighboring CORSA chapters! Go to [www.corvair.org](http://www.corvair.org) and click on "Events".*

(Continued from page 8)

I built my first ever brass chassis. CBB aluminum wheels, slot gears, H&R 18k motor and Paul Gage urethane tires when done. The rear Yenko spoiler is in the kit, but I made the sail panels and rear vents for this build out of styrene:



## Clark's Corvair Parts®

Our catalog lists over 15,000 parts for your Corvair. We carry engine parts, body panels, upholstery and much more! There are 1,000's of reproduced items available, pages of technical information and lots of other helpful hints.



Clark's Corvair Parts® 400 Mohawk Trail, Shelburne Falls, MA 01370  
(413)625-9776 www.corvair.com email: clarks@corvair.com

Clark's supports LVCC by donating gifts every year for our door prizes at Das Awkscht Fescht.

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**Next LVCC Meeting: Wednesday 01/23/2019**