

CENTRAL NJ NCRS NEWSLETTER

Contributors: Joe Bardon, Joe Klitsch, Pete Loscalzo, Michael Mytro, John Osterman, Lou Romero, Joe Tripoli, Howard Welch. **Edited by:** Monte S. Willis

Message from the Chairman

The holidays are just around the corner and our NCRS season has come to a close for 2024. We have had a busy year with a number of chapter events. Joe Tripoli started up our calendar of events with his well prepared and educational Technical/Judging session at BGT Automotive in April. Vito, Marvin Burock and Pat Fullam all followed up during the year with a number of additional well researched Technical/Judging presentations at various events and chapter business meetings.

The chapter hosted area Corvette Clubs and individual owners at our annual Corvettes and Coffee at the Woodbridge Community Center. This is a non-judged meet and greet with local Corvette owners to introduce them to the NCRS and to possibly attract new members.

This summer, Vito added a mini judging meet for the chapter, giving

Contents

New Members	Page 3	
Tech Session	Page 3	
Corvettes & Coffee	Page 5	
Chapter Picnic/Judging Session	Page 9	
Mini-Judging Meet	Page 13	
Woodbridge Car Show	Page 15	
Annual Chapter Judging Meet	Page 15	
Holiday Brunch	Page 21	
For Sale	Page 24	
Technical Articles		
Rally Wheel Refresh	Page 25	
69-77 Door Panel Exchange	Page 32	
Replacing Intake Manifold Gaskets Page 37		
Resurrecting Exhaust Manifolds	Page 42	
63 Power Glide Neutral Safety	Page 44	
Corvette Winter Storage	Page 47	
73-82 Corvette EGF Valves	Page 49	

2 chapter members an introduction to the NCR S judging system while giving a number of our chapter judges a low stress morning to sharpen their judging skills.

(continued on next page)

Message from the Chairman (Continued from page 1)

Another Chapter Judging Meet was held in October at BGT Automotive in Rahway, as Chapter member Butchie Mazza opened his doors to the chapter for flight judging 8 Corvettes, ranging from a 1958 to a 1998. This was our annual meet and attracted Corvettes and judges from other chapters to our meet.

Our social calendar was also full with our annual Chapter Picnic held at the Cimillucas' home in Colonia on a beautiful September Sunday. We had a great member turnout with a delicious Bar BQ and plenty of Corvettes on the property.

The annual Chapter Holiday Brunch was again held at KC Prime in Lawrenceville and we were joined by the Delaware Valley Chapter members and guests. We had a great buffet with plenty of conversation and a generous contribution of Toys for Tots from all.

The chapter continues to grow with a number of new and enthusiastic members jumping in to join our various events and activities. We appreciate their interest and participation in the chapter.

The Board will be meeting early in the new year to plan our calendar of events for 2025. Please feel free to bring forward ideas for events, vendor visits, technical presentations, and judging sessions to a board member or me to be able to plan another strong calendar.

Many thanks for the energy and effort of our Chapter Board Members – Lou Romero, Pete Loscalzo, Joe Klitsch, Vito Cimilluca, and Ed Dinapoli, our Webmaster. Congratulations to Vito Cimilluca for his appointment to the Board of Directors of the National Corvette Museum. We welcome new member Monte Willis to the chapter who has agreed to become our Chapter Newsletter Editor, this being his first edition. We look forward to future editions and Monte's continuing contributions to the chapter.

Finally, I want to thank the membership for all of your support and involvement in our chapter again this year. Engaged members who attend activities make them more fun and worthwhile for all. Have a wonderful holiday season and a happy and prosperous New Year.

Joe Bardon

Central NJ NCRS New Members 2024

We like to welcome the new members and new friends to the CNJ NCRS Chapter. We hope they find the chapter fun, interesting and educational.

Robin Berhang
David Macfie
Joseph Amorim
Monte Willis
Eric Dallendorfer
Matt Bohr
David Mojica

26758
72278
72193
72193
72193
72193
68234
71596
71596
68208

April 2024 Technical Session

Twenty-eight chapter members attended a well-researched and educational presentation by Joe Tripoli to kick off our 2024 Calendar of events. Joe's topics included '52 - '82 choke assemblies, '53 - '82 driveshaft and half shaft u-joints, and '63 - '82 pop-up headlights. Good discussion and many questions followed.







April 2024 Technical Session (continued)













July 2024 Corvettes and Coffee

The chapter hosted more than 70 Corvette club members and individual owners at the Woodbridge Community Center on Sunday July 21st. There was lots of coffee and Corvette conversation on a beautiful summer morning. Nine chapter members brought Corvettes and hosted the event. This was an opportunity to share information on NCRS and to add new chapter members.













July 2024 Corvettes and Coffee (continued)

















July 2024 Corvettes and Coffee (continued)













September 2024 Chapter Judging Session and Annual Picnic

The Cimilluca's hosted 32 chapter members and guests at their beautiful home in Colonia for the annual Chapter Picnic on Sunday September 8th. The morning began with coffee and bagels followed by a judging session in Vito's backyard among many parked member Corvettes. Natalie and Vito served a delicious Bar BQ with a surprise ice cream dessert provided by chapter member Peter Freund, owner of Cliff's Homemade Ice Cream. It was a perfect September day for a picnic. Needless to say, everyone had a great time!!











September 2024 Chapter Judging Session and Annual Picnic (continued)









Winter 2024 10

September 2024 Chapter Judging Session and Annual Picnic (continued)















September 2024 Chapter Judging Session and Annual Picnic (continued)









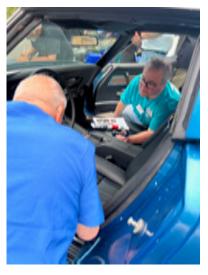


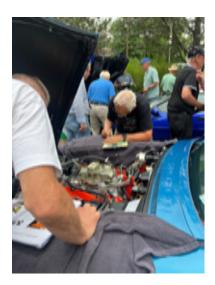


Summer 2024 Mini Judging Meet

Vito held a chapter Mini Meet at his home and garage in Colonia on June 30th with an interesting judging session led by Pat Fullam using Vito's '96 Grand Sport to begin the session. Twenty-two chapter members judged Peter Freund's '71 LS6 and Ray Morgan's '98 convertible.













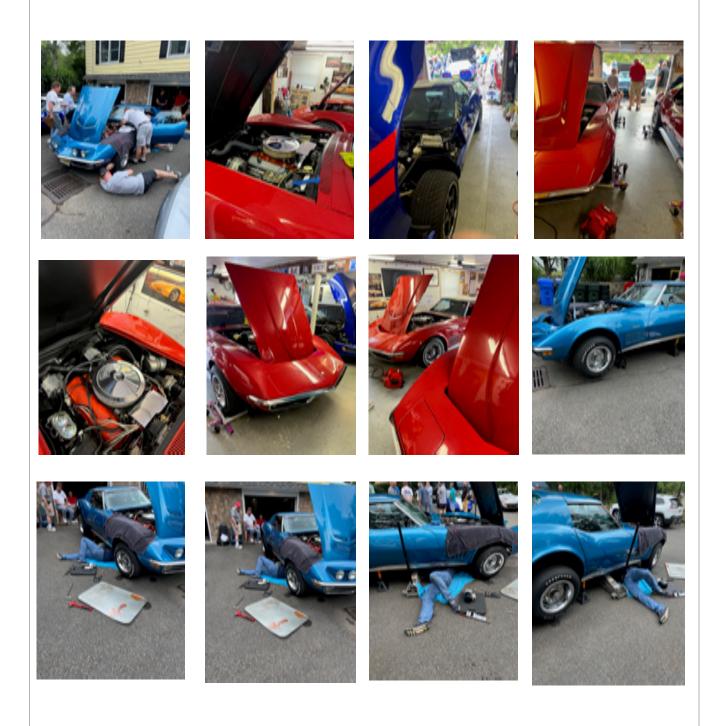








Summer 2024 Mini Judging Meet (continued)



Oct 2024 Woodbridge Car Show

Six chapter members joined the annual Woodbridge Car show at the Woodbridge Community Center on Sunday, October 13th. Big turnout of many different classic cars with a DJ playing oldies, many vendors, and food provided by the Community Center snack bar.







Oct 2024 Annual CNJ Chapter Judging Meet

The chapter held its annual Chapter Judging Meet on Sunday October 27th at BGT Automotive in Rahway. 8 Corvettes were put through the NCRS judging process and all achieved a Topflight award. The field included a '58, '61, a pair of '63's, '78, '80, '93, and a '98. Many thanks to Butchie Mazza, owner of BGT, for hosting and providing lunches, Vito for organizing, and to the judges and car owners for making a special event.





Oct 2024 Annual CNJ Chapter Judging Meet (continued)















Oct 2024 Annual CNJ Chapter Judging Meet (continued)















October 27, 2024 CNJ Chapter Judging Meet

BGT Automotive, Rahway, NJ

Sportsman Award





Derek Platt, Sportsman Award

Flight Judging Award Owners and Corvettes

1.	Tim Hannen	1958 convertible Snowcrest White/red
2.	Vincent Bassani	1961 convertible Honduras Maroon/ fawn beige vinyl
3.	Frank Chicherchia	1963 coupe – Sebring Silver/red vinyl
4.	Glenn Dunlap	1963 convertible – Ermine White/red vinyl
5.	Joe Amorim	1978 coupe – Black/Silver / silver smoke
		leather
6.	Lou Notaro	1980 coupe – Black/red leather
7.	Dave Macfie	1993 coupe - Ruby Red/red leather
8.	Ray Morgan	1998 convertible – Nassau Blue/light gray
		vinyl

Oct 2024 Flight Judging Awards









Oct 2024 Flight Judging Awards











We like to thank BGT owner and CNJ NCRS chapter member Butchie Mazza for hosting this event again this year.

December 2024 Annual Holiday Brunch

Thirty-nine chapter members and guests met for brunch at KC Prime in Lawrenceville on Sunday December 8th to celebrate the Christmas holidays. We were joined by 27 members and guests from the Delaware Valley Chapter. The membership contributed generously to our annual Toys for Tots drive with a large tableful of toys, books and games. The addition of the DelVal Chapter NCRS members made for a larger group with more conversation and a fun and festive holiday brunch. This is our last activity of 2024.











December 2024 Annual Holiday Brunch (continued)













December 2024 Annual Holiday Brunch (continued)









For Sale

Corvette Rally Wheels all have been restored and ready to be installed

- Four (4) 1967 "B" wheels 15x6 JK Dated 8/66 The were installed on very early cars Sept- Oct \$800
- Five (5) 1967 "DG" wheels 15x6 \$1000
- Two (2) YS wheels 15x6 El Camino/ Camaro wheels fit Corvette (good for non- judged cars) \$250
- Corvette Center caps 1967 (1 set of 4): \$100

Contact: Howard Welch NCRS #31454 at HKWelch@comcast.net or by phone (609-432-0705).

For Sale

Four Kelsey-Hayes 15 x 5 1/2" steel wheels for a 1966 Corvette.

They are a matched set because they came off the same car. Three are date stamped KH 3 66 and one is dated KH 11 65. They are in good condition without any rust. I would like to get \$150 each, but I am open to offers.

Contact: Mike Mytro NCRS #22211 at michaelandkathryn@yahoo.com

Future business meetings & tech sessions:

See our Calendar of Events at www.cnjncrs.org

Central New Jersey NCRS Chapter

Chair: Joe Bardon (jdbardon@hotmail.com)

Vice-Chair: Lou Romero (Iromero529@gmail.com)

Judging Chair: Vito Cimilluca (vitoc@comcast.net)
Treasurer: Joe Klitsch (NJCRSTreasurer@gmail.com)

Secretary: Pete Loscalzo (pappypete@comcast.net)

Newsletter Editor: Monte Willis (monte_willis@outlook.com)

Rally Wheel Refresh

John Osterman, NCRS Member #69027

There always comes a time after months of spirited driving, that road tar, dirt, grease, paint pitting, and minor rust is deposited on your Rally wheels. Not everyone has the means to remove tires from wheels, sand blast, and perform a full restoration. Often what is required is minor restoration to maintain a wheel's cosmetic integrity during the driving season.

This article is meant to provide tips on cleaning and repainting Corvette Rally wheels without incumbering the removal of the tire itself and yet provide acceptable driver/car show wheel cosmetics. This article is not meant to support techniques for major restoration for severely rusted and or damaged Rally wheels.

Tools Required: Power washer (not necessary but very helpful), angled small scrub brush (firm bristle), regular scrub brush, degreaser, detergent, plastic scraper tools (straight edge and curved), hairdryer (speed up drying times), compressed air source, 180 -220 grit sand paper, 0000 and 00000 steel wool, lint free rags or micro cloth, acetone, index cards, masking tape, razor knife, semi-flat black paint pen, ¼" flat fine paint brush, metal primer, black semi-matt paint, and argent silver spray paint. The 1969 and 1970 Rally Wheels require argent silver with a slight green tint. All Rally wheels have a fine metallic flake component to the paint. There are many professional paint companies that support this paint coloration.



Sample of Supplies



Un-refinished wheel outside



Un-refinished wheel back

Rally Wheel Refresh (continued)

Steps: All work should be performed with eye and hand protection!

- LOCATION: Find a location that has ample air circulation, can handle water spray, and is large enough to allow drying time and easy movement of wheel and tire assembly around. Most times a tarp on the ground is very use fuel but tire assembly can be elevated on work horses if bending or kneeling needs to be avoided.
- 2. **INSPECTION:** If major damage, dents, or deep gouges are present, the wheel will require removal from the tire and higher restoration involvement would be warranted. If scuffed, light rust, paint peeling or discoloration, and grease present, then continue with process.
- 3. CLEAN: Clean wheel with degreaser and mild detergent. This will remove the tar deposits and loose dirt and grit. A power washer is a good tool assisting this task. Soak degreaser according to instructions but usually at least 10 minutes prior to scrubbing and power washing. Plastic scrapers of various designs will help remove tar and stubborn dirt from broad surfaces and nooks and crannies. This is the most important process and will require repeated efforts on some surfaces. Finished prep surfaces inside and outside of wheel should be free of grease, debris, and loose paint at this point.
- 4. **SURFACE PREP:** Prepare wheel surfaces front and back by removing pits, roughness, and minor scratches by sanding with 220 to 1500 grit paper to level off old paint. Blow off dust with air source and check for smoothness. Once smooth, rub all surfaces with 0000 steel wool. Blow off all dust with compressed air, wipe down with moist lint free cloth.
- 5. **PAINT PREP:** Now having fully cleaned wheels, you might already be impressed with how good things look. Remove any remaining dust and chemical residue with lint free cloths lightly moistened with acetone. The inside and outside of wheel should be done at least twice until dull sheen is noticed on old paint surface. DO NOT TOUCH THESE SURFACES NOW WITH BARE HANDS, as skin oils can inhibit good paint adhesion.
- 6. PAINTING: Depending on the amount of area you have for drying, it is best to paint one wheel at a time. Since Rally wheels were all delivered black and the Argent silver was applied to the outside surface later, painting should commence with the inside of the wheel first. Use fine brass brush and clean up surfaces of any weights on the wheel. Then mask the weight with masking tape and cut off excess with a razor blade knife. Masking the tire is simplified with the use of index cards placed in an overlapping pattern under the wheel rim, lip circumferentially around the complete wheel.

Rally Wheel Refresh (continued)



Inside clean and tire

The application of a good penetrating primer should be sprayed lightly so as not to cause runs. It may not be necessary to prime the outside of the wheel since trim rings and covers protect the wheel and the outer surface usually does not receive the same amount of dirt, rust, and grease, as the inside of the wheel.

Apply primer and allow full drying prior to each additional coat if needed. Minor runs in paint were accepted based on factory production.

If too much paint is used in an area and blobs, it can be adjusted after drying via light sanding and steel wool. Blow off any sanding and steel wool dust, wipe with lint free rag and apply Black semi-flat paint. Once the inside of the wheel is fully dry, the outside of the wheel is ready to be painted.

When painting the outside of the wheel, mask the inside of the wheel over the oval Rally holes to prevent too much overspray onto the inner surface. The outside of the wheel requires masking over weights and valve stem covers and trimmed appropriately.





Outer aspect cleaned and masked

Since the factory used Argent silver spray over original black wheels, some inside overspray is acceptable. After each application of silver, check for heavy runs, sand and steel wool accordingly. Any overspray that has been deposited on tires can be removed with acetone. Remove all masking from wheel and inspect for overspray and clean with small amounts of acetone and rags. Clear coat for driving wheels is of consideration but since minor chips occur during the driving season, it is easier to touch up wheels without clear coat application.

At the end of this stage, wheels should look next to new, inside and out without any overspray present on the tires, weights, or valve stems.





Finished wheel shown below without overspray deposited on weights or tires.

Restoring Rally caps and Beauty Rings

- 1. Inspect Rally caps and beauty rings. It is common to see chipped paint, light scuffs, and dirt present. Heavily pitted, large de-chromed areas, and rusted items may require a higher degree of restoration and new chrome plating.
- Clean with mild detergent, water, and scrub brush to remove rust, grime, and loose paint. Dry thoroughly.
- 3. Use 0000 steel wool to polish away minor scuffs and scratches. The internal aspect of the Rally cap can be brushed with an ultra-fine brass bristle brush then work over with 0000 steel wool.
- 4. Rinse and dry thoroughly.
- Satin clear paint can be sprayed to the inner surface to seal off future contamination but is not necessary.





Road Rashed and dirty beauty rings and center caps

- 6. Using semi-flat black paint pen and ¼" flat brush, carefully repaint any missing paint between the ribbing on the cap and allow to thoroughly dry.
- 7. For lettering, dab the paint pen into letters one at a time until complete, then allow to dry thoroughly. Acetone used with rags and Q- tips can remove excess paint.

- 8. Once dried, use 0000 steel wool to remove any remaining excess paint from ribs and center of cap which will leave only the black paint in the correct areas. Repeat with 00000 steel wool to bring bright luster to the metal.
- 9. Clean beauty rings in the same manner and then lightly rubbed down with 0000 then 00000 steel wool to recapture their luster.



Matt black paint applied to cap

10. Once all components have been restored, you have completed the process to restore a factory Rally Wheel to an acceptable driver and show condition. Replace beauty rings back on

wheels and install on vehicle. Remember to torque lug nuts to required force for C3 Corvettes, which is 80 ft lbs. Replace the center caps and you are finished!

Paint removed with steel wool polish



Rally Wheel Refresh (continued)





Re-assembled Rally cap outside finished

Re-assembled Rally cap inside finished



Completed and re-assembled Rally Wheel

1969-1977 Door Panel Exchange

Howard Welch, NCRS Member #31454

These instructions are a guide to assist in the removal, replacement and exchange old door panel hardware and trim for standard and deluxe door panels.

Removal of old door panel:

- 1. Remove the screws at the top of the door panel, (front and rear).
- 2. Remove door panel clips at bottom of the door panel (front and rear).
- 3. Remove door pulls.
- 4. Remove door handle (one screw in handle).
- 5. Remove door lock. To do this you need a clip removal tool.
- 6. If equipped, remove window crank handles, also requires use of clip removal tool. If you have power windows obviously ignore this step.
- 7. Unfasten remote control mirror mechanism if so equipped.
- 8. Remove door panel from the door by pulling out and up on the door panel.

Remove hardware and trim from old door panel (this assumes you are going to use the old door panel trim and hardware)

- 1. From the rear of the door panel remove the staples that hold the u-trim to the door panel and straighten the tabs. (Be careful not to break these tabs).
- 2. Pull the trim away from the panel and set aside.
- 3. Remove the lock knob insert by removing the 5 retaining washers on the backside of the door panel. You will need a flat screwdriver to lift them off. Remove the plate by pushing the mounting posts from the rear of the panel.

If you have Deluxe Door Panels:

- 1. Remove the deluxe insert plate above the armrest (wood grained trim) There are 5 washers and Philip's head screws on the backside of the door panel.
- 2. Remove the deluxe lower trim (above the carpet). To do this, remove the six washers and screw on the rear of the door panel. The very end screw may be hidden behind the vinyl.
- 3. Remove the staples from the backside and possibly bottom of the door panel to remove the old carpet and vinyl. Save the cardboard under the carpet. You will need this later as a template for the holes to be drilled.

This should be all that is necessary to remove all the hardware and trim from the old door panel.

Installation of the hardware and trim to the new door panels

- 1. Install lock knob insert plate. Place lock knob insert plate into position on the door panel, push hard enough to leave indentations where the 5 mounting posts will go through the door panel. With an awl put holes in the door panel where the indentations are, these will be pilot holes for drilling larger holes for the posts.
- 2. Drill ¼" holes into the door panel using the pilot holes as your guide. Make sure you drill completely through the door panel and move the drill up and down a few times to clear the holes.
- 3. Turn the door panel over and use a utility knife to trim away the foam and plastic for the locking post. This should be pre-cut in the plastic to identify the size of the hole. This will allow the post to protrude through the hole to attach the locking knob later.
- 4. Turn the door panel over and insert the doorknob locking plate to the front of the door panel. Push all 5 posts through the holes that you have drilled.
- 5. Use a marking pen to trace the outline of the door handle opening. This will be a rectangular piece that will need to be removed to allow enough space for the door handle to operate efficiently.
- 6. Remove the door locking plate and cut the opening that you have just marked with a utility knife.
- 7. Put the lock knob lock plate back on the door panel. When assembled the lock knob will hold the plate in place, however, you may want to apply some epoxy to the backside of the mounting posts.
- 8. Align the u-trim on the new door panel. Again, push in the u-trim to leave indentations where the tabs will pass through the door panel. (Use care here to get the u-trim aligned correctly).
- 9. Remove the trim and mark the indentations with an awl. **Note:** the holes must be in the track for the u-trim for correct fit.
- 10.Drill 1/4" holes where you have made the marks with the awl. There should be 7 holes.

- 11.Insert the u-trim tabs through the holes you just drilled and turn the door panel over. Make sure that the trim is in tightly.
- 12.Use long nose pliers to help pull the tabs tight and then bend the tabs over to be flush with the underside of the door panel. Staple the tabs with ¼" staples in such a way as to straddle to tabs. This will prevent the tabs from slipping out of the hole and causing the trim to be loose.
- 13.Cut a hole in the door panel for remote mirror, if so equipped; check each door to be sure before cutting. It may be very useful to create a template to locate the large hole where the adjusting mechanism will protrude through the door panel and the two screws that attach the mirror trim plate to the door panel. On standard door panels these holes will be located forward on the door panel in the area above the armrest. For deluxe doors they will be in the wood grain insert. Transfer the template to the door panel and mark the location and size of the holes. Cut the hole for the mechanism 1 1/8", I would use a holecutting saw to make this cut. Use an awl to poke a hole in the vinyl for standard.

Deluxe Door Panel Trim

- 1. Align the upper door panel insert plate (wood grain) with the outline of the door panel. Again, push hard enough so the mounting posts on the insert leaves indentations on the door panel. There should be 5 of these posts.
- 2. Remove the insert plate and drill ¼" holes where the indentations are, move the drill up and down several times to clear the holes.
- 3. Install the insert plate posts through the holes and attach the washers and screws. The screws should be countersunk into the washers when fully tightened.
- 4. Install the lower trim and carpeting. If the lower carpeting has cardboard backing, you will use this a template to align the holes for the trim.
- 5. The cardboard should have v shaped cutouts where the mounting posts from the trim will enter the door panel.

- 6. Place the lower trim on the door panel aligning the posts with the old cardboard. Only the front and rear posts will touch the door panel at this time.
- 7. Press on the trim to leave an indentation for these two posts, remove the trim and drill ¼" holes in the door panel where the indentations are.
- 8. Replace the trim with the two mounting posts entering the holes you have just drilled. The remaining post will now come in contact with the door panel. Push hard enough on the trim to leave indentations for the remaining posts. Remove the trim and drill the 4 holes where the indentations are.
- 9. Place the carpet/vinyl strip on the door panel with the top edge just touching the holes that you have drilled and such that the trim will cover the top edge of the carpet.
- 10.Staple the carpet to the door panel along the top edge of the carpet. Use care to ensure the staples will be under the trim when installed. Install the chrome trim by pushing the 6 mounting posts through the holes install the washers and screws on the backside of the door panel.
- 11. Pull the vinyl skirt of the carpet/vinyl strip around the edge of the door panel and staple along the back edge to secure the vinyl to the door panel.

Install the door panel to the door

- 1. Trim the door skin material and foam covering the mounting holes for the door pulls. Test to ensure that the door pulls will fit flush to the door panel.
- 2. Hook the door panel over the door and position in place.
- 3. Locate the two screw holes in the top of the door one in front and the other in the rear. With an awl poke holes in the door panel at the location where the holes will line up with the holes in the door.
- 4. Push the door panel toward the door hard enough to leave an indentation for the window cranks, if so equipped. If power windows, ignore this step.

- 5. Remove the door panels and cut out holes for the window regulator posts. Cut from the back of the panel. Be careful not to make the holes larger than the window crank handle.
- 6. Put the two-door panel retaining clips on the bottom of the door panel, one in front and one in the rear corners.
- 7. Hook the door panel back on the door and position in place.
- 8. Install the top screws and bottom retainer clips.
- 9. Replace door opening handle (use an awl to locate the holes for the door handle to attach it to the door opening mechanism.
- 10.Replace the door pulls, two screws one at the top and one at the bottom of the door pull.
- 11. Replace the lock knob and clip.
- 12. Replace window cranks and clips if so equipped.
- 13. Connect the mirror adjusting mechanism to the trim plate; there should be a small Allen key screw to tighten.

This completes the removal, exchange and installation of your door panel. Sit back and enjoy.



Replacing Intake Manifold Gaskets on A 1967 427/390 (L36) Corvette

Howard Welch, NCRS Member #31454

Step by step process to remove old gaskets and install new gaskets (*see accompanying photos, pages 40-41*). Now would be a good time to check for correct configured bolts gaskets, hoses, etc. and replace as desired:

- Intake bolts s/b M or FP or flathead bolts with an "A" headmark and three radial lines.
- Fitting s/b zinc or dad plated at the rear of the manifold.
- Original gaskets conform to the intake mating configuration with a small tab protruding outward between the #3 and the #5 cylinders (driver side).
- Big block engines use a small rounded tab on the front and rear seals with a raised GM logo.

Removal (note we are leaving the carburetors on the intake manifold, no need to remove them)

- Raise the hood and install fender covers or towels or blankets to protect the fenders.
- · Disconnect the battery.
- Raise the car either on a car lift or on jack stands.
- Ensure car is stable and not off balance.
- Open the radiator petcock and drain the coolant from the radiator.
- Remove the air cleaner cover and base then cover the carburetors with a cloth, plastic covers or stuff paper towels in the air horns to prevent debris, hardware or tools from getting in.
- · Remove the top and vertical ignition shielding.
- Disconnect the coil lead wires and coil to distributor wire.

- Remove the distributor cap and label the spark plug wires for position to ensure they are attached to the correct post when reinstalling the distributor cap, remove ground wires, rubber boots and wire grommets from the shielding.
- Remove the distributor shield by removing the wing nuts.
- Remove the power brake vacuum hose from the intake and brake booster (if equipped) for clearance.
- Remove vacuum advance hose from the vacuum advance.
- Remove the throttle linkage from the carburetors.
- Remove the PVC valve hose from the intake manifold.
- Remove the tach cable from the distributor.
- · Index the distributor and manifold (mark with color marker or tape).
- Remove the temperature sensor wire from the sensor.
- Remove the distributor and plug the hole with a rag or paper towel.
- Remove the upper radiator hose from the thermostat housing.
- Remove the by-pass hose from the intake manifold and water pump.
- · Remove the upper heater hose from the intake manifold.
- Remove the fuel line from the carburetor linkage (seal/pinch the line to prevent leaking).
- Remove the intake bolts and intake manifold use a large flat head screw driver or pry bar to loosen the intake (you may need to tap the intake with a mallet to help get loose).
- Place paper, plastic or towel in the oil valley and ports to prevent debris from getting in Remove the old gasket and clean the surface of the cylinder heads (use a scrapper, razor blade or some other sharp flat tool) clean with carb clean or brake cleaner.

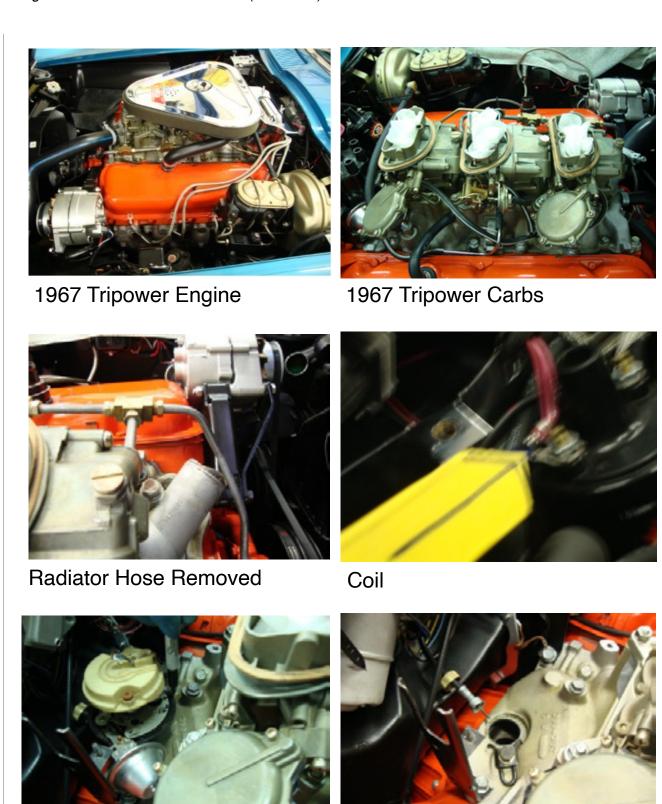
Installation

- Inspect the edges of the cylinder heads and clean and paint as required (to touch up).
- Paint the edges of the new intake manifold gaskets (silver or orange) to replicate the factory overspray.
- Remove the protecting material in the ports and oil valley and clean to ensure there is not contamination.
- Install the gaskets on the cylinder heads (you may need a little Indian Head Gasket Solvent to help hold the gaskets in place).
- Set the intake in place on the cylinder heads, line it up with the intake bolt holes (ensure all wires and cables are clearly out of the way).
- Insert the intake bolts (put a little thread seal on the bolts prior to installing) torque the bolts according to the manual (usually 30#) sequence, do not forget to install the spark plug wire support brackets and ground strap wire to the rear bolts.
- Now begin to install the components that you took off in reverse order starting with the fuel line from the carburetor linkage.
- Once you have assembled all the components, close the petcock on the radiator.
- Fill the radiator with coolant.
- Connect the battery.
- Remove the fender covers.
- Start the car.
- Check for leaks.
- GO FOR A NICE RIDE

Continued on next page



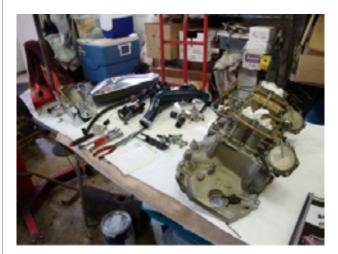
Distributor



40

Distributor and Coil removed

Replacing the Intake Manifold Gaskets.... (continued)



Components removed



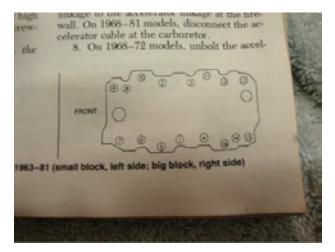
Old gaskets to be removed



Cleaning of old gaskets



New gaskets installed



Intake bolts tightening sequence



Complete and reassembled

Resurrecting Exhaust Manifolds

Howard Welch, NCRS Member #31454

If you plan on restoring or resurrecting you exhaust manifolds the following is a good method of prepping.

If you are going to powder coat or ceramic coat then do nothing the vendor will clean and prepare the manifolds.

If you are going to paint or leave as raw casting then the following will be helpful.

Before beginning you will need to assemble the necessary equipment and materials.

- Wire brush
- 2 five gallon pails or equivalent containers large enough to submerge the manifolds
- 2 gallons of muriatic acid (Home depot, hardware stores, paint supply house)
- Box of baking soda (used to neutralize the acid)
- Fresh water from hose or bucket
- · Rubber gloves large enough to go up to you elbows or higher
- Safety glasses
- Work station outside or in a WELL vented garage

Begin process

- Set up you work station.
- Put on you rubber gloves and safety glasses.
- Use the wire brush to rid the manifolds of excess rust and dirt.

- Put a couple gallons water in one of the 5 gallon pails or containers you are using.
- Slowly add muriatic acid to one of the containers.
- Put s couple gallons of water in the other 5 gallon pail or container you are using.
- Put the baking soda in the container and mix thoroughly.
- Set the baking soda/water aside it will be used later to neutralize the acid mix.
- Slowly submerge the manifolds into the water/acid mix, if the manifold do not fit completely do not be concerned you can reverse them later.
- Depending on the amount of rust remaining on the manifolds keep them submerged for a couple of hours or more (check periodically until you are satisfied with the finish.
- Once you are comfortable with the finish turn the manifolds over and complete to process with the area that were not covered initially.
- When the rust removal process in the water/acid is complete submerge the manifolds in the water/baking soda mix and slosh or mix the water/baking soda around to fully neutralize the acid.
- Remove the manifolds and rinse with fresh water from the hose or another bucket of clear water.
- The next steps in Prep are very important to work quickly to avoid surface rust from accumulating on the manifolds.
- If you are going to leave the manifolds in the raw casting state then
 you will need to coat the manifolds as soon as with some preservative
 such as Prelube, WD-40 or some other petroleum coating. Repeat the
 coating process two or three times over the next hour or two.
- If you are going to paint (Cast Blast) or coat with a paint like material.
 Then then dry them and use compressed air to dry them completely both inside and out and paint as soon as possible.

Important things to remember

- The fumes of muriatic acid are very caustic, be sure to protect yourself and do not let the fumes settle on any unfinished metal, as rust will form quickly.
- If you were to get the acid on any exposed area of yourself, wash the area immediately with the baking soda/ water mixture.

63 Corvette Power Glide Neutral Safety Switch

By Lou Romero, NCRS Member #58190

This technical article addresses repairing the Neutral Safety Switch used on 63 Corvettes with Power Glide transmissions.

The primary purpose of the switch is to disable the ignition system or current to the starter when the car is in any position other than Park or Neutral. If the switch is faulty, it may not let the car start at all or it may let the car start when engaged with the transmission in Reverse, Drive, 2, or 1.

Location of the switch – the switch is a multi-contact switch located on the driver side of the transmission. See the red arrow on Fig. 1.

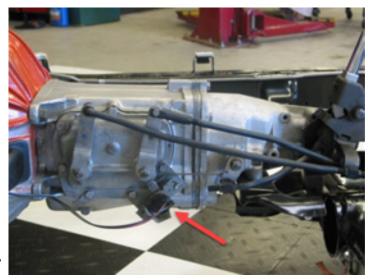


Figure 1.

Note: This is a 4-speed transmission w/ the switch below the linkage (arrow). On the Power glide it is in the same area mounted to the driver's side of the transmission case.

63 Corvette Power Glide Neutral Safety Switch (continued)

The switch is a multi-contact switch with spring loaded contacts. Over time and use, the contacts become dirty which can cause an intermittent or non-operational switch.

The switch has a rubber coating to protect the connecting wires from dirt and grease. After removing the black or cream color rubber coating, you can pry the tabs and split the switch apart.



Figure 2.

See Fig. 3 red arrows pointing to the tabs. Be careful when bending the tabs as they can break.





Figure 3.

1st – Remove the two brass contact bars and clean them with solvent to remove any dirt or grease residue.

2nd – The two brass contact bars are spring loaded and provide pressure contact against the 5-contact point with two springs. Remove the springs and stretch them. This will ensure better contact and better detent when the transmission is shifted.

3rd – The female contact (part with the 5 contacts) may have pit marks from current arching across the contacts.

See Fig. 3

63 Corvette Power Glide Neutral Safety Switch (continued)

To clean and remove any uneven contacts, I use 120 grit sandpaper on a smooth and strait surface to sand down and remove worn points.



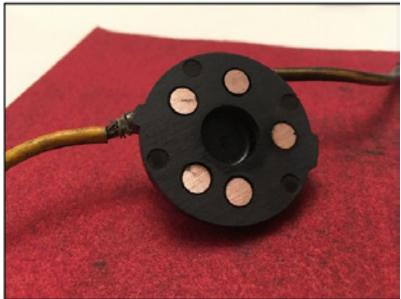


Figure 4.

After cleaning all the parts, I reassembled the switch and used liquid electrical tape to seal the outer contacts.

See Fig. 5

Figure 5.

SAFETY NOTE:

Once assembled, test the switch with a multi-meter to ensure the contacts are working correctly.

After installing the switch back on the transmission, test the switch again with a multimeter by moving the shifter to various positions.

If the switch tested good before installation on the transmission but not after installation, check the linkage from the switch to the transmission. The linkage adjustment can be sensitive and finicky.

Time For Corvette Winter Storage!

John Osterman, NCRS Member #69027

For many of us, there is an end to the driving season. This of course becomes, for many, the last maintenance job of the year, storage. Some of us do not have the luxury of a heated or a perfect garage for such storage. Regardless, there are several steps that are required to protect and ensure our corvettes are protected so that in the coming springtime we can unleash our driving zeal from our harbored winter blues. With the use of AI, some secondary notes of my own, and ideas gained from conversations with members, here are some simple guidelines for winter storage.

Fuel: Fill the tank with premium fuel (pure unleaded without Ethanol) and add a fuel stabilizer. Running the car helps move the stabilizer into the system.

Oil: Change the oil and filter before storing the car. Clean oil reduces the risk of engine damage. Run engine after.

Fluids: Check any other fluids you may feel need attention. (i.e., antifreeze, etc.)

Tires: Add air to the tires. Prevent flat spotting (especially bias ply tires) by using wood planks or rubber tire savers under tires. Some people use jack stands, but I never feel comfortable hanging the front end of a big block in the air for a few months because I am not sure of the strain it may impose on the chassis. Clean tires. Avoid the use of petroleum-based tire cleaning products as they can exhaust the tire's oxidation and weathering agents within the rubber compounds, resulting in cracking. Use only non-petroleum-based products or plain soap and water for tire cleaning.

Battery: Disconnect or charge the battery: Disconnect the battery to prevent it from losing power. You can also use a trickle charger. Make sure battery posts are free of any corrosion.

Clean: Clean all surfaces as best as possible. Exterior wash and wax. Interior vacuum, window wash, wiper down all surfaces with mild detergent products. Use specified cleaners for vinyl and leather components.

Time For Corvette Winter Storage! (continued)

Inspection: Check components. Screws and Bolts loosen! Check for leaks. Be vigilant to check hose clamps, screws, bolts, and trim pieces that may have unknowingly gotten jostled during the season and tighten and refit as necessary.

Car cover: Use a breathable car cover to protect against dust and scratches. Keep the car away from UV rays: Prolonged exposure to UV rays can cause rubber to crack and discolor paint.

Storage: Store in a dry, dark place: Store the car in a dry, dark place with limited access. Concrete floors are best for keeping away moisture.

Dehumidifier: Depending on where your Corvette is stored, the use of a dehumidifier can help maintain humidity levels and prevent rust and mold.

Ventilation: Ensure the storage space has proper ventilation, especially if you plan on painting, starting the engine, or draining the gas or oil.

Critter Prevention: Use mouse traps outside the vehicle to prevent critters from getting in. Mothballs or steel wool in exhaust pipes are helpful. Spray entrance ways to garage and around car on the floor with product like "Tom Cat" which will deter critters from finding a home in garage space.

I'm sure there are a few items that are left out so please feel free to email to members with any extra storage pearls you may have. Happy Holidays!

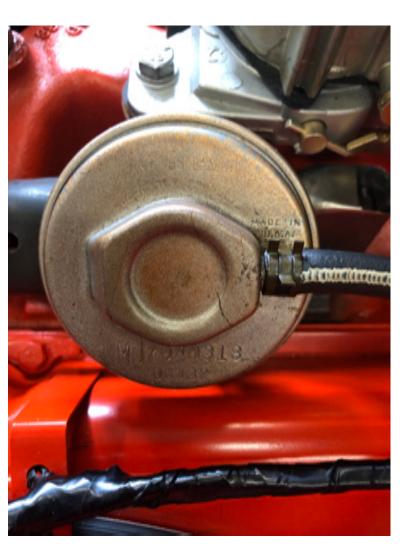


73-82 Corvette EGF Valves (*Revised 1-19-2024*)

Joe Tripoli, NCRS Member #1641

In checking my 78 for flight judging, I found that the 78-79 NCRS Judging Manual, 3rd Edition, did not have any specific information on the EGR valve on the engine. This starting me thinking about the other NCRS manuals. It turns out that the 73-74 and the 75-77 manuals list the specific part numbers stamped on the valves, but the 78-79 and 80-82 manuals did not.

As background information, EGR stands for Exhaust Gas Recirculation. It was designed to reduce the NO2 in the engine exhaust.



I have included **Table 1** (below) showing the EGR part number, date stamp, and VIN. As I say in all my articles, do your research FIRST. The NCRS Judging Manuals are an excellent source of information.

As I say in all my articles, do your research FIRST. The NCRS Judging Manuals are an excellent source of information. I have included the EGR tables from the 73-74 and 75-77 NCRS Judging Manuals for your information (see page 51, next page).

Exhaust Gas Recirculation (EGR) Valve

73-82 Corvette EGF Valves (continued)

YEAR	EGR NUMBER	EGR STAMP DATE	ACTUAL STAMP DATE	SHIFT	ENGINE/TRANS	VIN & DATE FROM BIRTH BOOK
1973	MU 7040318 (correct 73 L48 4 speed)	06431	3/5/73	1	L48 4 SPEED	1Z67J3S421490 (4/25/73)
1975	7043139 (correct 75 L48 auto)	15052	5/30/75	2	L48 AUTO	1Z67J5S432936 (6/26/75
1975	TF 7043139 (correct 75 L48 auto)	04352	2/4/75	2	L48 AUTO	1Z37J5S421104 (4/2/75)
1976	TB 7043133 (correct L82 auto)	33752	12/3/75	2	L82 AUTO	1Z37X6S436457 (5/27/76)
1977	JD 17053034 (correct 77 L48 auto)	17362	6/22/76	2	L48 AUTO	1Z37L7S406340 (10/1/76)
1977	JD 17053034 (correct 77 L48 auto)	17362	6/22/76	2	L48 AUTO	1Z37L7S404489 (9/17/76)
1978	ZX 7030806 (correct 78 L48 auto)	06681	3/7/78	1	L48 AUTO	1Z87L8S906362 (5/17/78)
1978	OJ 17056496 (correct 78 L48 Calif auto)	29172	10/18/77	2	L48 CALIF AUTO	1Z87L8S411318 (12/1/77)
1978	OM 17056494 (correct 78 L82 auto)	09782	4/7/78	2	L82 AUTO	1Z8748\$429830 (6/8/78)
1982	BTO 17082807 (correct 82 coll L48 auto)	25911	9/16/81	1	L48 AUTO	1G1AY0786C5101777 (12/14/81)

Table 1. 1973-1982 EGR Valves. Revised 01/19/2024 by Joe Tripoli.



Continued on next page

73-82 Corvette FGF Valves (continued)

Table 7 - EGR Valve GM Part Number Table

Year	Engine	Application	Part Number	Broadcast Code
1973	L48	Four-speed	7040318	MU
		Automatic	7035172	NX.
	L82	Four-speed	7040299	MT
		Automatic	7047065	NP
	LS4	Four-speed	7047066	NR.
		Automatic	7047066	NR.
-	L48	Four-speed	7041409	KJ
		Four-speed & NB2	7040599	
		Automatic	7041409	KJ
		Automatic & NB2	7040437	
	L82	Four-speed	7040299	MT
1974		Four-speed & NB2	7040299	
1314		Automatic	7047065	TD
		Automatic & NB2	7040437	
	LS4	Four-speed	7041426	PH
		Four-speed & NB2	7041425	
		Automatic	7049867	RR
		Automatic & NB2	7041425	PD

¹³ After reviewing a number EGR valves with four-digit date codes installed on 1973 cars, the revision team concluded that GM/Corvette apparently used up an existing Rochester inventory of EGR valves assembled in 1972. New valves produced in 1973, incorporated the five-digit date code format.

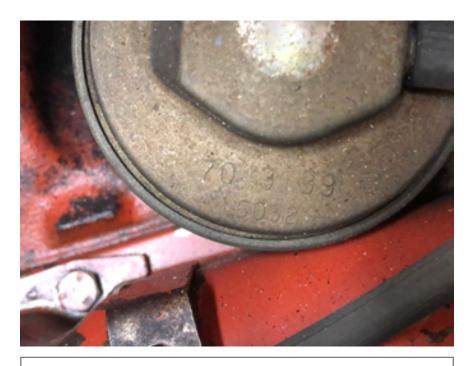
Table 7 – EGR Valve: Engine/Transmission Application by GM Part Number¹¹

Year	Engine	Application	Part Number	Broadcast Code	
1975	L48	Fare annual	7040318	ТВ	
		Four-speed	7043133		
		Automatic	7035172	NX.	
			7043139	TF	
	L82	Four-speed	7040299	MT	
			7043137	TD	
		Automatic	7047065	NP	
	L48	Four-speed	7041409	KJ	
		Automatic	1041403		
		Four-speed & NB2	7040599		
		Automatic & NB2	7040437		
4070		Automatic & NA6 (High Altitude)	7056225	HX	
1976	L82	Four-speed	7043137	TD	
			7040299	MT	
		Four-speed & NB2	7040299	MI	
		Automatic	7047065	TD	
		Automatic & NB2	7040437		
1977		Four-speed	7043133	TB	
	L48	Automatic	7053034	JD	
	L82	Four-speed	7044307	BL	
		Automatic	7044303	BE	

EGR Valve: Engine/Transmission Appreciation by GM Part Number. Table excerpted from 3rd Edition, 2018 NCRS 1975-77 Corvette Technical Manual and Judging guide, pages 196-197.

73-82 Corvette EGF Valves (continued)

The EGR valve was manufactured by Rochester Products. and this information is stamped on the face of the valve. Also stamped on the valve is the part number and the date code. The date code is the Julian date, the last digit of the year, and the shift, 1st, 2nd, or 3rd. See photo (right).



Exhaust Gas Recirculation (EGR) Valve



Exhaust Gas Recirculation (EGR) Valve replacement gaskets

The EGR valve is attached to the intake manifold with 2 recessed hex head bolts, marked TR or NL, ¼-20 X ¾" lg, with a reduced head bolt utilizing a 3/8" wrench. All the major Corvette suppliers sell replacement gaskets. See photo (above).

73-82 Corvette EGF Valves (continued)

All the major Corvette parts suppliers sell replacement EGR valves. Unfortunately, the replacements will not have the correct date stamp.

I have included photos of the gaskets, bolts, and samples of original valves.

I would like to thank my wife Liz for help with the spread sheet and Tommy Burke (73) and Ray Morgan (75) for the use of their original EGR valves.

I hope this helps you find the correct EGR valve for your Corvette.



Editor's note: Please forward your Technical articles, chapter events, stories about your Corvette adventures, and any items for sale. Please include pictures with all submissions when possible. We're aiming to have more frequent Newsletters throughout the year and appreciate the content. Direct submissions and questions regarding the Newsletter to monte_willis@outlook.com or (862) 395-4771 (cell/text).