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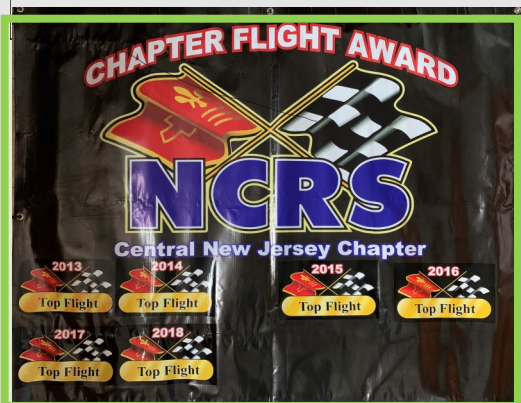
Chairman's Column

Chairman's Message August 2020



I hope that all chapter members and families are healthy, safe, and enjoying summer. Just as tropical storm Isaias has blown through New Jersey, I look forward to the time when COVID-19 is brought under control and normalcy returns. We have been forced to cancel our chapter schedule so far, including our annual Chapter Judging Meet and our annual Chapter Picnic. We will only schedule activities later in the year if we can be safe in doing so. Keep an eye on the website for updates as we move through summer in the fall season.

In the meantime, I hope that everyone is enjoying working on and driving their cars in this great outdoor weather. I am looking forward to seeing everyone when we can get back together to enjoy our Corvettes.



Editors Note- Joe Simon - Sorry for the delay in issuing our Third Quarter Newsletter. Due to circumstances beyond my control I had to reconstruct the Newsletter. After it was 98% complete as I was performing some final editing the file became corrupted and I was unable to reopen it and complete it.

During the time reconstructing the Newsletter I spoke to another Newsletter Editor on how he set up his publication schedule. He Publishes four editions a year, as we do, however he releases them in the last month of each quarter between the 15th and the 30th of the month. The majority of his content, with the exception of stories and articles, are scheduled events and information for the next quarter.

When I assumed responsibility for Publishing our Newsletter there was no particular schedule for release. So I strived to complete it for submission around the middle of the Quarter. After deriving the benefits realized by Publishing in the last Quarter we will follow suit with that schedule. Beginning with this Newsletter, Q3, all Publications will be released in the last month of the quarter between the 15th and 30th of the month. All stories, tech articles and for sale items need to be submitted no later than the last week of the previous month for each quarter, sooner would be better. This will provide ample time to format and Publish our Newsletter on time. Feel free to contact me with your thoughts.

In Memory of Guy Vander Vliet

It is with a heavy heart that I write this, as Guy was a best friend, and mentor with great values . Guy was successful at whatever he did, having a remarkably diverse career and interests. Many of which I had the pleasure to share our learnings from each other's experiences. Guy's career, and life, included Shop Teacher, School Assistant Superintendent, Sales Engineer, humanitarian, and a great friend. Guy got involved with Corvettes over 50 years ago when he purchased a used 1962 Corvette, which he drove daily. He had many, many cars through his life, but always returned to owning Corvettes. In addition to the 62, he owned a 71, which he sold to NY Jets wide receiver Wayne Chrebet, a 1977, and a 2000.



Guy was a loyal member of the Chapter, helping us revive the Chapter in 1997 after the board of directors walked out without notice. Guy volunteered to be Vice Chairman from 1997, to 2000, serving with Secretary Elizabeth Meyer and Treasurer Erick Meyer, and Judging Chair Vito Cimilluca helping to recruit members, develop new programs and reorganize the Chapter. The active membership had dwindled to just a handful of members. Guy and his wife Nancy enjoyed planning and attending chapter social events, almost never missing one.

I tried to get Guy involved in the judging process, but I never could get him totally interested, as he was more interested in people and driving the Corvettes. He enjoyed talking to anyone and showed a genuine concern and interest for everyone. Later in life after retiring, Guy took over the "Meet the Member" part of our Newsletter from Jack Brown. This transition was a natural for Guy as his love and interest for people made this an easy assignment. One of Guy's last activities was mentoring a handy cap child at his church in Colts Neck. As you can imagine, Guy was extremely dedicated to his family, who my sincere condolences go out to. Guy was a great friend and I will miss his friendship of almost 50 years, leaving a major void in my life. For those of us who knew Guy, had the enormous privilege to enjoy him. Those of you who did not know him, I know my words only gave you a small sample of what you missed. Guy came to the Chapter for the cars but stayed for the love of the people.



Rest in peace my friend.
Ed DiNapoli

Following is an event that occurred 53 years ago. The story was first Published in the Mid Atlantic Chapter Newsletter. Tom Vollrath, the author graciously permitted me to Publish it in our Newsletter. I found it enlightening and enjoyable, considering all that we have been bombarded with lately.

One-Hundred Fifty 1968 Corvettes in a Single Purchase

by Tom Vollrath

During the first two weeks of March of their senior year, the West Point 1968 Class took delivery of 150 brand new Corvettes from A & C Chevrolet. At the time, these soon to be 2nd Lieutenants were focused on their new Corvettes and not necessarily the uniqueness of the process that they were a part of. The perspective of time has shown a purchase of this magnitude to be an extremely unique and exciting event.

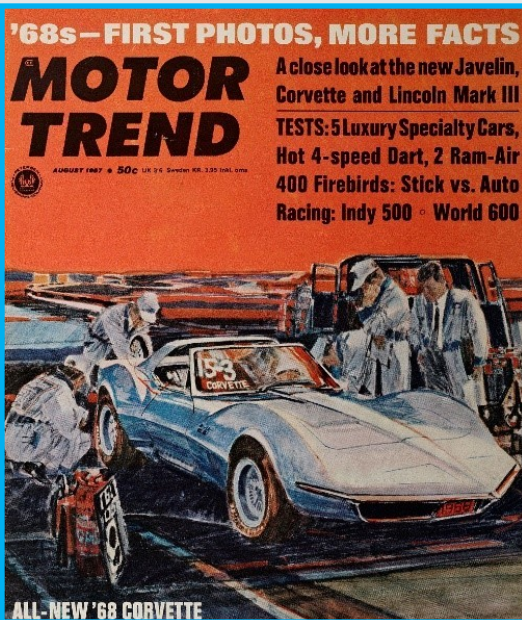
During the 1960's, cadets were restricted from owning a vehicle until March of their First Class (Senior) year. Even then they were not allowed to drive their cars off-post (campus) until Spring Leave (vacation) in late March.



Each

year a New Car Committee comprised of members of the graduating class evaluated various dealerships, selecting a preferred dealer to represent each vehicle make.

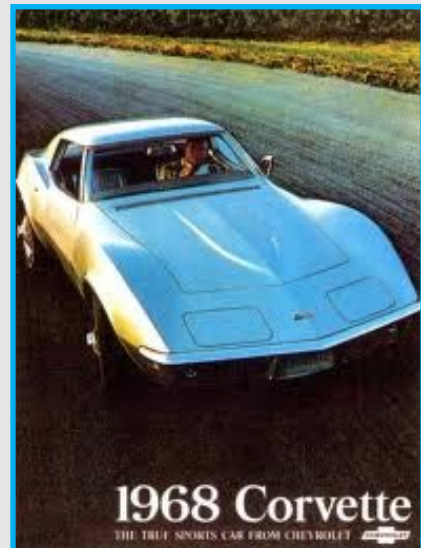
For many years A & C Chevrolet of Fort Montgomery, N.Y., located several miles south of the West Point main gate, was the preferred Chevrolet dealer. Both Mr. Allard and Mr. Chiarella (A & C Chevrolet) were well versed in this yearly tradition and took great pride in providing the Academy's young men with the Corvettes that they had dreamed of.



For almost three years the members of the Class of 1968

had tracked rumors of a 'new' Corvette with hints ranging from a rear engine to new 'coke bottle' design. This new generation Corvette failed to materialize in 1967 but then during that summer renderings and pictures of the 1968 model started to appear.

Simply breathtaking! A & C didn't have a single new Corvette to display but the sales brochure captured the hearts of 150 cadets.



The factory price (+ shipping to A & C) for a base convertible was \$4,426 and a coupe \$4,769. A & C gave the cadets a 20% discount on the factory costs which along with the fact that a cadet could obtain a car loan with only a signature made the dream purchase even more irresistible. The majority of these Cadets completed a sales



The annual West Point car show was held on October 27–28, 1967 in the garrison motor pool.

contract that weekend, no deposit required.

By November A & C had received several of the new Corvettes and would bring one on-post for test drives. Monday – Friday there was a two-hour window in the late afternoon when a prospective purchaser could get in line and await his turn for a short on-post test drive with the A & C salesman. In late January, A & C started to receive the newly built Corvettes and parked them at their dealership. They would inform the cadet that his car had arrived and that it was available for inspection but not to drive.

Car Show Order Form, Oct 27,

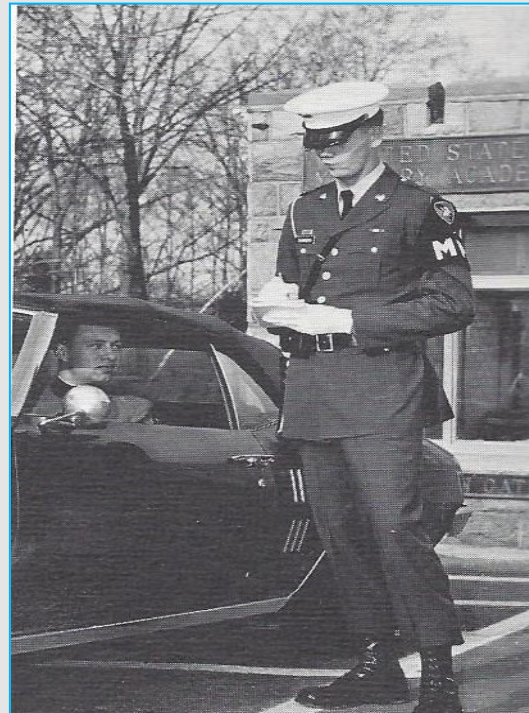
Finally, starting the first week of March, A & C began delivering 20 Corvettes a day to an on-post parking lot. This lot was just above the football stadium and approximately a mile uphill climb from the barracks.

A & C had already obtained a New York state registration for each vehicle and the sale was completed outside in the lot.



The required military post registration was also completed on the spot with the Provost Marshall. A & C kept a mechanic available for any punch list items that could be taken care of in the stadium lot. For the next several weeks the new Corvettes could only be driven on-post under the close supervision of the MPs and of course at night they were all parked unattended in the stadium lot.

Finally, on the afternoon of March 21st Spring Leave arrived, the diving limits were lifted, and 150 brand new Corvettes headed out into the 'real' world. During the months of April and May, scenes of multiple Corvettes were a common sight in and around West Point as were weekend trips to NYC. The Class of 1968 graduated on June 5th and their 150 Corvettes were scattered to the four corners of the U.S., some even being shipped overseas.



MOTOR VEHICLE REGISTER														MISB #	
LOT NO	DATE	PURCHASED FROM	Name and Address	YEAR	MAKE	TYPE	MOTOR NO	SERIAL NO	CL	WEIGHT	Ownership Cert. No.	DATE SOLD	SOLD TO	Name and Address	CERTIFICATE NO
274	3/21/68	Corvettes-Tarrytown	1. Tarrytown, N.Y. Bldg 10	1968	Corvette	Corvette	1946770	412200	8	3166	TS06976	3/29/68 2216043	John T. Dolan	6733 N. Westlisp Ave Chicago Ill	490220
275	3/1	Corvette-Tarrytown	Bldg 10	1968	Cor.	Cor.	1385286	116736	8	3813	TG15315	3/1/68 2216013	Richard McClelland	A-2	462238
276	3/14	Corvette-Tarrytown	Bldg 10	1968	Cor.	Cor.	1644781	101441	8	3684	7024478	4/1/68 2216014	Merrill G. Korman	PO Box 412 Cold Spring, N.Y.	492209 10884
277	3/14	Corvette-Tarrytown	Missed	1968	Cor.	Corvette	1946786	412728	8	3080	TS07007	3/1/68 2215968	Joseph R. Henry	E-3	163749
278	3/14	Corvette-Tarrytown	Missed	1968	Cor.	Corvette	1946786	412720	8	3080	TS07018	3/1/68 2215973	David W. Heriack	H-2	462229
279	3/14	Corvette-Tarrytown	yellow	1968	Cor.	Corvette	1946786	412888	8	2820	7602059	3/8/68 2215957	Franklin P. Robinson	G-4	163741
300	3/14	Corvette-Tarrytown	yellow	1968	Cor.	Corvette	1946786	412619	8	3080	TS07000	3/11/68 2216014	Alan B. Grossman	D-3	462239
301	3/14	Corvette-Tarrytown	Missed	1968	Cor.	Corvette	1946786	412005	8	3080	TS07001	3/15/68 2215917	William F. Paine	C-4	163706

A&C Motor Vehicle Registration Log (March 1968, page 24)

A & C Chevrolet continued to support the Corps of Cadets until 1982 when the dealership was sold. For many years, they had maintained annual books of all their vehicle sales invoices and other records such as the registration logs. Unfortunately, these records were lost with the passage of time, two changes of ownership and a building remodeling.

The world has turned over many times since that long-ago Spring on the Hudson River, but the 150 Corvettes are still an indelible part of the shared history of the 1968 West Point Class.

The safari yellow convertible on the left is still with its original cadet, Joe Henry now in Colorado. I took my '68 coupe (2nd from left in photo) to Panama with me on my first assignment and ended up selling it to a local. Joe and I were in the same Company at West Point and he supplied me with the sales documents that are pictured above.



A & C invoice book, Sep 1965 – Aug 1966



SAFETY ALERT

Important Safety Message About Jack Stands

HARBOR FREIGHT

QUALITY TOOLS LOWEST PRICES

To the Harbor Freight Community:

I'm writing to apologize. I often reach out to tell you about Harbor Freight's commitment to quality and all the investments we've made to deliver quality tools at the lowest prices. Your trust matters deeply to me and I'm proud of how far we've come. So when we have a product recall, it hurts.

A few months ago, we recalled our Pittsburgh 3 ton and 6 ton steel jack stands (SKUs 56371, 61196 and 61197) due to a manufacturer's defect. We asked customers to return them and receive a gift card that could be used to purchase replacement jack stands. I felt terrible about that recall because you should never have a concern about the safety of any of our products.

Today, I feel even worse. I'm disappointed and embarrassed because we've identified a welding defect in a small number of the Pittsburgh 3 ton steel jack stands (SKU 56373) that replaced the recalled jack stands. We're now adding these jack stands to our recall. Unfortunately, this defect wasn't discovered during the initial recall investigation. If you own these jack stands or any of the jack stands in our original recall, whether or not you have had an issue with them, please stop using them immediately and bring them back to your local Harbor Freight Store for a full cash refund or store credit ([see details here](#)).

We have investigated all of our other Pittsburgh 3 ton steel jack stands (SKUs 56371, 56372 and 57308) as well as the Pittsburgh 6 ton steel jack stands (SKUs 56368, 56369 and 56370) and Pittsburgh 12 ton steel jack stands (SKUs 56374 and 56375) and did not find the defect. Although none of these other jack stands are being recalled, if you own any of them and have any concern whatsoever, please bring them back and we'll give you a full cash refund or store credit for those as well.

I want to apologize to all of our customers. While we've dramatically grown our team of engineers and inspectors, and intensified our tests and inspections, I assure you that the lessons learned from this will drive further improvement.

As the owner and founder of Harbor Freight, I want you to know that we stand behind every product we sell and that safety will always be our top priority.

Sincerely,



Eric Smidt

Owner and Founder

Harbor Freight Tools



SAFETY ALERT

9/1/2020

js-details



The Harbor Freight Credit Card is Here.

[Learn More](#)

Store Hours: Mon-Sat 8am-7pm Sun 9am-6pm

| Our Commitment to You [→](#)

[Home](#) >

Jack Stand Refund Information

Please Note:

- Receipt is not required
- Applicable sales tax will also be refunded
- All items indicated in **RED** are recalled in cooperation with the National Highway Traffic Safety Administration (NHTSA)
- All other items can be returned at the customer's discretion

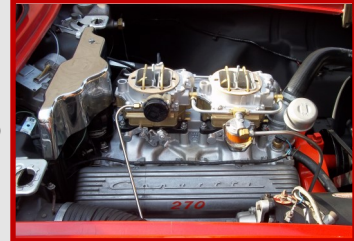
Item	Item Number	UPC Number	Cash Refund	Store Credit
3 Ton Jack Stand	56371	7 92363 56371 0	\$24.99	\$29.99
	56373	7 92363 56373 4		
	61196	7 92363 61196 1		
	56372	7 92363 56372 7		
	57308	7 92363 57308 5		
	62392	7 92363 62392 6		
	69597	7 92363 69597 8		
	38846	7 92363 38846 7		
6 Ton Jack Stand	61197	7 92363 61197 8	\$49.99	\$59.99
	56368	7 92363 56368 0		
	56369	7 92363 56369 7		
	56370	7 92363 56370 3		
	62393	7 92363 62393 3		
	69596	7 92363 69596 1		
	38847	7 92363 38847 4		
	12 Ton Jack Stand	56374		
56375		7 92363 56375 8		
61599		7 92363 61599 0		
34924		7 92363 34924 6		

RETURNING CNJ MEMBER

Welcome back Arthur Greening and his wife Michelle. Arthur is returning to CNJ after a long absence due to personal problems. Arthur owns a 1960 Corvette since he was 17 years old that was originally purchased by his parents. He took on the task of



restoring the car learning as he went along. Upon completion in 2000 he brought the C1 to a CNJ Chapter meet and achieved a 3rd flight Award. Since then Arthur has done additional improvements on his 1960 Corvette. His goal is to increase upon the award he received in 2000 at an upcoming CNJ Judging meet. We look forward to meeting Arthur at future events.



How to Get Published

You don't have to create a novel. An article for the CNJ Newsletter is all it takes.

Few subjects are taboo. A short paragraph for "Tech Tips" or a "Did you know?" blurb works great.

Have you found a great road to ride or have you discovered what not to do when working on your restoration? Feel free to send a small article about a small project or a large article about a large project or even a large article about a small project!

Pictures are always welcome with stories. If you haven't got the time or desire to write an article, send an outline. I'll write the story and send it to you for your review & blessing and you get the byline and the credit.

Remember, another CNJ member is facing an issue like you did and your help will be appreciated more than you can imagine.

Your CNJ Newsletter Editor Joe Simon www.joesimon1@optonline.net or (973) 222-3789

Issue	Articles Due	Publish Date
Spring 2020	February 29 th	March 15 th
Summer 2020	May 31 st	June 15 th
Fall 2020	August 31 st	September 15 th
Winter 2020	November 30 th	December 15 th

Don't forget that all issues of the *Signal Seeker* are available on our website:

CENTRAL NEW JERSEY CHAPTER CONTACTS

Role	Assigned Person	Phone	
Chairman:	Joe Bardon	973-635-1711	
Vice-Chairman:	Lou Romero	732-690-4057	
Judging Chairman:	Vito Cimilluca	732-491-5907	
Judging Administrator:	Vito Cimilluca	732-491-5907	
Secretary:	Peter Loscalzo	908-236-9129	
Membership Manager:	Joseph Klitsch	732-921-8571	
Membership Administrator:	Joseph Klitsch	732-921-8571	
Newsletter Editor:	Joe Simon	973-998-7862	
Treasurer:	Joseph Klitsch	732-921-8571	
Contact Person:	Joe Bardon	973-635-1711	
Webmaster:	Edward DiNapoli	732-297-4280	
Flight Program Administrator:	Joe Bardon	973-635-1711	
Activities Chairman:	Lou Romero	732-690-4057	
Historian:	Edward DiNapoli	732-297-4280	
Merchandise Manager:	Pasquale Addonizio	908-884-8338	

2020 CALENDAR OF EVENTS

JANUARY No Activity

FEBRUARY No Activity

MARCH No Activity

APRIL 4/28/2020 - Chapter Judging Meet 7AM B&G Automotive 146 Regina Ave. Rahway, NJ Registration Form Next Page, In Driveline Or on CNJ Website. Coffee-Donuts and Lunch Provided. **POSTPONED UNTIL 10/4/2020**

MAY Technical Presentation **CANCELED**

5/17/2020 - Wheels for Wheels at Red Mill Road **CANCELED**

JUNE 6/7/2020 25th Anniversary Brunch **CANCELED**

6/28/2020 Corvettes and Coffee **CANCELED**

JULY

NCRS Nationals French Lick Indiana **CANCELED**

AUGUST

8/25/2020 - Chapter Picnic & 25th Anniversary Celebration at the Cimilluca's 51 Guernsey La. Colonia, NJ 07067 **CANCELED**

8/27-30/2020 - Corvettes At Carlisle. Carlisle Fairgrounds Harrisburg, PA

SEPTEMBER

9/12/2020- Tech Session Transmissions. 10AM FATSCO/Fisher Transmissions 337 Change Bridge Rd. Pine Brook, NJ 07058 **POSTPONED**
Larry Fisher will review Standard and Automatic transmissions in Corvettes.

9/21/2020- Chapter Meeting 8PM Elks Lodge 110 Hickory Corner Rd. Hightstown, NJ

OCTOBER

10/4/2020- Chapter Judging Meet 7AM B&G Automotive 146 Regina Ave. Rahway, NJ Registration Form Next Page, In Driveline Or on CNJ Website. Coffee-Donuts and Lunch Provided.

10/10/2020- Chapter Meeting 8PM Elks Lodge 110 Hickory Corner Rd. Hightstown, NJ

NOVEMBER

11/10/2020 -Chapter Meeting 8PM Elks Lodge 110 Hickory Corner Rd. Hightstown, NJ

DECEMBER

12/6/2020 Annual Holiday Party 10 AM to 12PM. Annual Toys For Tots Collection. KC Prime Restaurant 4100 Quakerbridge Rd. Lawrenceville, NJ 08648



Judging Resources

To support the NCRS' purpose of educating individuals on the restoration and preservation of Corvettes, the chapter has established judging teams. The teams are responsible for coordinating two or more sessions a year where a member's Corvette is judged under the current NCRS guide lines. These judging sessions are intended to provide a hands-on small group format to learn more about the cars



Judging Chairman

Vito Cimilluca

732-396-7182

Colonia , N J

Judging Team Leaders

Year Leader Phone Location

53 to 62	Joe Tripoli	484-456-3761	Mount Bethel PA
63 to 67	Howard Welch	609-494-7618	Barnegat Light, NJ
68 to 82	TBD		
84 to 96	Nick Kasnowski	732 762 1088	Colonia. NJ
97 to 99	Joe Klitsch	732-921-8571	Bridgewater NJ

Chapter Member Profile

Our Chapter Member Profile this edition is on Joe "Duke" Casaleiz, just call me DUKE who became a member of CNJ in 2016. Duke and his wife Chris have been married for forty one



years and Chris is the love of his life. Chris likes their Corvette, however cherishes her 1969 Plymouth Valiant she bought new as soon as she graduated College and still has it.



Duke worked for thirty eight years as a BMW parts manager. He retired in 2009, although Duke was always interested in special interest autos he became more involved at the time of his retirement in 2009. Having worked for a BMW Dealer Duke always drove a company car. So, over the years he drove many special BMW's.

Duke started his passion for Corvette's at a very young age. In 1958 he bought his first Corvette for a very competitive price of \$95. A brand new Dark Green Schwinn Corvette Bicycle. Accessories were Coaster Foot Brake, front and rear Luggage Racks, single Headlight, two tone Seat and White Wall tires. After years of touring with his first Corvette, the Schwinn, he stored in the basement and in 1965 bought a 1963 Corvette L76 Split Window Coupe. Now the real fun begins. However, Duke did keep his first Corvette, the Schwinn and recently did a ground up restoration.



Duke was so enamored with his first Corvette, the Schwinn, the 63 Split Window 340HP four speed was also Green with a Black Interior. At this point, owning a real Corvette truly inspired Duke to get involved with special interest cars. In 1968 Duke traded in the 63 Split Window for a 1968 Roadster, also Green. The 68 was a four speed car with power brakes. Sadly the 68 Roadster was stolen in 1969 leaving Duke depressed and without a Corvette. He started his career at the BMW dealership shortly thereafter.



Soon after his retirement in 2009 Duke moved to the dark side and purchased a 2008 Bullitt Replica Mustang. Again Dark Green and fully optioned. In 2012 Duke came to his senses and bought a numbers matching 1965 Corvette Coupe L76 from a collector in Connecticut. It was not Green but Goldwood Yellow with a black interior. This was a highly optioned vehicle, Air Conditioning (rare with the 365HP motor) Power steering and Brakes, Electric Windows, and Telescoping Column. Duke brought the Corvette to Glen



Atamanchuk of Hillside Corvettes. In 2018 Duke entered his Corvette in the CNJ Chapter Judging meet at BGT Automotive and scored a Top Flight award. Later that year he entered his Corvette into the Hershey, PA AACA judging event and received a second place Junior award. Well done Duke, we look forward to being with you at future CNJ events. Say hello to Duke when you see him.



SOUND FAMILIAR?

The 2006 Corvette Brake Job

by Joe Klitsch

I hesitated to present this as a Newsletter worthy story and realize that restoration, repairs, & tuning of the older cars are the key topic to report to the membership.

My 1999 FRC needs nothing at this time; but, the 2006 coupe needed brakes. It was still rolling on the originals @ 44,000 miles. Time for a brake upgrade, so a nice Wilwood four piston caliper kit w/ drilled & slotted rotors fit the bill perfectly. Of course, red calipers to match the Victory Red exterior and new SS brake lines. Wilwood noted that the four-piston caliper set-up provides more positive braking force than the clamping style two piston front & one piston rear stock brakes. So, the online order was placed.

This was indicated as a full bolt on replacement kit. Everything fits as the stock components. The SS brake lines were a separate purchase. Car jacked-up. All wheels off. Old caliper & rotors off w/o issue.

All new Wilwood components installed w/o issue. The brake lines, well that where the trouble started. The fittings of the lines were very difficult to tread on the frame rigid lines. It appears the SS line fittings were poorly machined. I did check YouTube for tips on the line replacement which did provide a few pointers; but, none of the postings addressed cars w/ the F55 Magnetic-Ride Control suspension system like mine. The control component is located adjacent to the brake line fitting requiring it to also be removed to access the fitting. Front was OK; rear impossible. Completed the RF. Went to the RR. Got the line off but could not get the new SS line threaded on. Went to the LF, following the same procedure for the RF and that SS line could not thread it on. I quit! Left the rubber lines on the rear and called the supplier of the SS brake lines. Nice guy answered the phone, gave him my name & order #. He read the order and **told me** that the line on the right rear & the left front would not thread on. I said, where you in my garage watching me? He explained the he has received this call many times and the problem is not the new lines, but the fitting on the rigid frame line. All that needed to be done was to get a M10 thread die & chase the line. I did that and finish the SS line on the LF. No, I did not go back and do the rear because of the F55 suspension sensor. Maybe someday in the future. Brakes Done.

But wait, there is one more chapter to this story. The beautiful chrome stock wheels do not fit! Front or Rear. The wheel offset is too high to clear the red Wilwood four piston calipers. Now what?

Well I investigated spacers & wheel adapters. Tried a set of adapters which pushed the wheels out 1". That was too much & rear tires hit the fenders. Drove the car less than 50 miles like that and decided on new wheels. Shopped for C6 Grand Sport or Z06 wheels because of the larges brake calipers on those models and the 19" rears wouldn't fit my tires. Finally found a set of equal size American Racing Graphite Gray wheels for Corvettes. Done. The car looks great & stops great too. A very interesting & expensive brake job!



TECH CORNER

MID YEAR & SHARK WINDSHIELD WASHER PUMP PISTON SEALS AND PERFORMANCE

By Erich Meyer

The purpose of this article is to describe my investigation into determining why my windshield washer pump suddenly stopped squirting windshield washer fluid. It covers what I believe includes '63-'74 windshield washer pump piston/cylinder designs. My specific experience is with my '72 of which I am the original owner. This is the original pump that came with the car but the rubber check valves were replaced in 1995 and the piston seals were also replaced with O-rings at that time since the original piston seal is not available. Several Restorer articles have been written on how to do this.

The windshield washers worked fairly well after the above repair except that sometimes they would stop spraying after the car sat for a month or more. I was able to fix this by replacing the rubber tubing going into the windshield washer reservoir from the bottom of the cap and using cable ties around the vacuum hose end connections. The cable ties minimized vacuum leaks at the tubing end connections. I wanted to keep the original vacuum hose between the pump and reservoir top and thought that perhaps the hose had expanded over the years and prevented the proper vacuum seal at the ends. Looking into hose vacuum leaks worked fairly well over the years and I overheard some of my NCRS friends talk about the windshield washer pump needing to be "primed" after sitting for a long time. The bottom line is that in this year of 2020, no matter what I did to the windshield washer suction tubing, I could not get it to squirt liquid. I found that the pump was not "priming". After pushing the "WASHER PUSH" button on the console and letting the pump run through its cycle, I found that there was no windshield washer liquid in the hose running from the windshield washer bottle to the pump. The windshield washer pump was not lifting liquid from the windshield washer reservoir. The questions I had were:

1. How much vacuum does a new windshield washer pump produce?
2. How much vacuum is needed to pull the liquid from the bottle to the pump?
3. How much vacuum is my pump pulling?

Obviously it is the pump vacuum that draws the windshield washer fluid from the bottle. The distance from the bottom of the bottle to the pump suction is approximately 17 inches. In order to pull the liquid from the bottom of the bottle to the pump intake this 17 inch lift computes to a requirement that the pump would have to draw a vacuum of 0.7 in. Hg.

MEASURING NEW PUMP PERFORMANCE

Fortunately I had two brand new, never used, replacement C3 windshield washer pumps. One is a GM replacement pump shown below which I purchased in 1994. The other is a replacement pump from a well-known Corvette replacement parts vendor I shall call "VENDOR X" shown below which was purchased in 2012.

GM REPLACEMENT PUMP

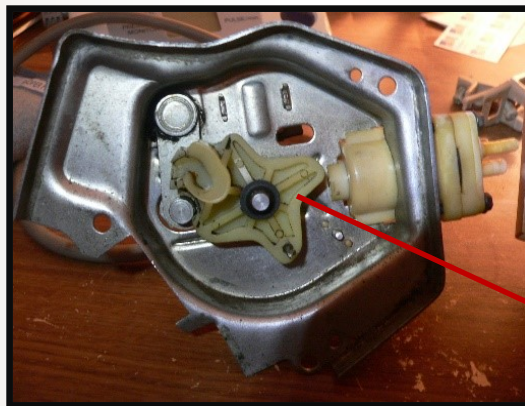


VENDOR X REPLACEMENT PUMP



The windshield washer pump is driven by the white cam shown in Figure 1.

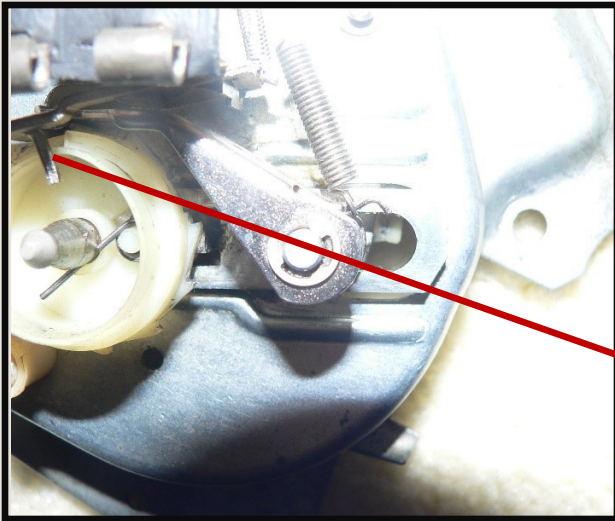
FIGURE 1 WINDSHIELD WASHERWASHER PUMP CAM



CAM

When the "WASHER PUSH" button is pressed the clutch shown in Figure 2 lifts up and the pump piston moves up and down the cylinder twelve times and creates a vacuum on each stroke lifting the windshield washer fluid from the bottle.

FIGURE 2 CLUTCH



CLUTCH

In order to test the performance of each new pump a vacuum gage was connected to the suction of each pump as shown in Figure 3 and the cam was rotated by hand after manually lifting the clutch.

Figure 3 PUMP VACUUM MEASUREMENT



The results of these test measurements were as follows:

PUMP	# OF PISTON STROKES	VACUUM – in Hg
White VENDOR X	12	0
Black GM Replacement	3	11

It was found that the GM replacement pump was so powerful that it was impossible to turn the pump cam by hand more than three piston strokes because the vacuum level was too high. The vacuum level also remained constant after several minutes indicating minimal vacuum leaks in the system. To practically verify the test measurements the suction hose of each test setup was placed into a glass of water and the cam was turned by hand. The GM replacement pump successfully squirted water out of the pump discharge ports after only on one or two piston strokes while the VENDOR X pump was totally nonfunctional. Additionally the suction hose of each pump was placed in the windshield washer bottle on the car while the pump cam was turned by hand. The GM replacement pump lifted the windshield washer fluid from the bottle and squirted it out the discharge while the brand new VENDOR X pump would not lift the windshield washer pump fluid out of the reservoir.

MEASURING ORIGINAL PUMP PERFORMANCE AS REBUILT IN 1995

The pump was removed from the vehicle and the same test procedure was used to measure its suction performance with the following results:

PUMP	# OF PISTON STROKES	VACUUM – in Hg
Original GM Rebuilt in 1995	12	0

COMPARISON OF PUMP SEALS AND PISTONS

In order to determine the cause of the performance differences between these three pumps, each unit was disassembled and careful observations and measurements were made on the piston OD's, cylinder bores, and approximate seal OD's. It was discovered that the rubber check valves on the original pump that was rebuilt in 1995 had deteriorated and so they were replaced. Unfortunately replacement of these valves did not solve the problem when the pump was rebuilt with the existing O-rings. Figures 4, and 5 show the piston/seal assembly for the replacement units. Figure 6 is the original piston with three O-rings used to replace the original seal in 1995.

Figure 7 is a profile of the original seal that came as built from the factory. We make the following visual observations in comparing Figures 4, 5, and 7:

- The V-groove in the original and GM replacement seal is significantly more pronounced than that in the VENDOR X pump seal.
- The V-groove in the VENDDDOR X pump seal is almost flat.

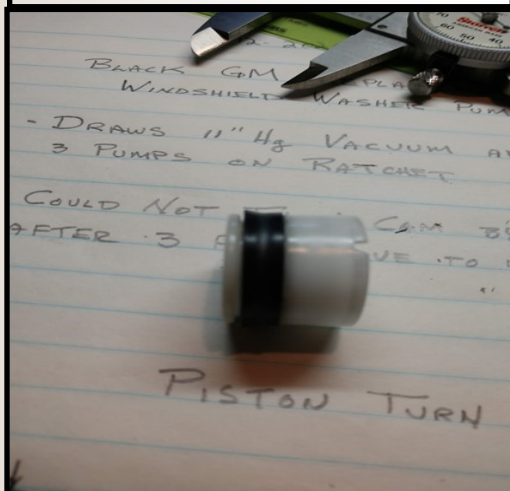
Vernier caliper measurements resulted in the following:

PUMP	APPROX SEAL OD - IN	AVG CYLINDER BORE - IN
GM REPLACEMENT	1.03	0.996
VENDOR X REPLACEMENT	0.99	1.000
1995 ORIGINAL PUMP REBUILD WITH O-RINGS	1.002	0.997

These measurements indicate that the reason for the poor performance of the original and VENDDDOR X pumps is that there is very little or no squeeze of the seal. It should be noted that since the seals are an elastomer, it is impossible to accurately measure the installed OD and therefore the seal OD data is approximate.

A difference in the surface finish bore between the original pump and the replacement pumps was also observed. The cylinder bores in the replacement pumps was very smooth and shiny. The original pump cylinder bore was smooth and exhibited no scratches but showed signs of layer peeling similar to an onion. The layers visually appeared very thin and appeared to be in the vicinity of several thousandths of an inch.

Figure 4 - GM Replacement Pump Piston



**Figure 5
VENDDDOR X PISTON**

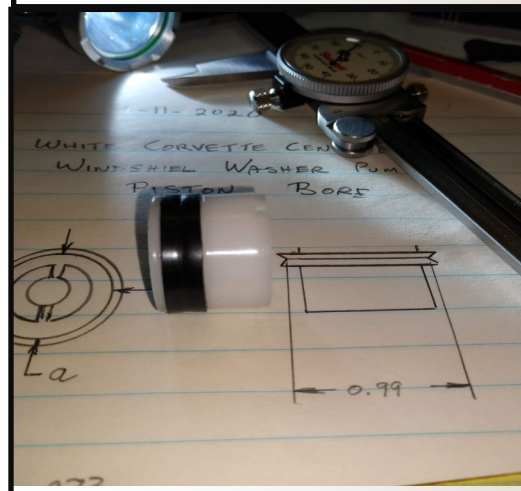


Figure 6 ORIGINAL PISTON W/O-RINGS USED IN 1995



Figure 7 ORIGINAL SEAL & PISTON



ORIGINAL PUMP REPAIR

The inoperative original pump was repaired by installing the GM replacement pump piston and seal into the original cylinder. This was in addition to replacing the damaged rubber check valves. Vacuum performance measurements were as follows:

PUMP	# OF PISTON STROKES	VACUUM – in Hg
Original Rebuilt in 2020	6	11
Original Rebuilt in 2020	8	12

It was possible to complete the entire 12 strokes of the cycle by manually turning the cam but these additional strokes did not increase the vacuum. The repaired pump was also functionally tested before reinstalling it into the car by making sure that the pump successfully squirted water out of a glass when the cam was manually turned. It was noticed however that the cam was much easier to turn by hand than the GM replacement pump and it was also possible to complete the entire 12 strokes manually. The difference in performance between the GM replacement pump and the original pump with the GM replacement pump piston and seal is attributed to the difference in the cylinder surface finish between them.

IN VEHICLE TESTING OF REPAIRED PUMP

The original pump with the GM replacement piston and seal was installed in the vehicle. Cable ties were not used on the hose running between the pump and reservoir. After several tries of the “WASHER PUSH” button the windshield washer finally worked. However after sitting for about one month the “squitter's” did not work when the “WASHER PUSH” button was pressed. Since the original vacuum hose between the pump and reservoir was used it was thought that hose vacuum leaks occurred after sitting for a month so cable ties were again installed at the tubing end connections. However use of the cable ties did not solve the problem.

It was decided to replace the original pump suction hose with clear vacuum hose in order to visually observe the windshield washer fluid in the pump suction line. Figure 8 is the clear suction hose on the pump intake and Figure 9 shows the clear hose attached at the other end at the windshield washer reservoir. The clear hose fit much tighter on both ends and the pump filled the suction line with windshield washer fluid right away. Figures 8 and 9 show the suction line filled with liquid after more than a month since the last time the windshield washer was last used (note there are a small amount of bubbles in the line). The pump suction line remains full of liquid indefinitely if there are no vacuum leaks in the suction tubing. This is because the pump suction port rubber check valve allows flow in only one direction (into the pump) and prevents flow out of the suction line into the windshield washer reservoir. It is analogous to holding your finger over the end of a straw after sucking liquid into the straw.

Based on this investigation we can draw the following conclusions:

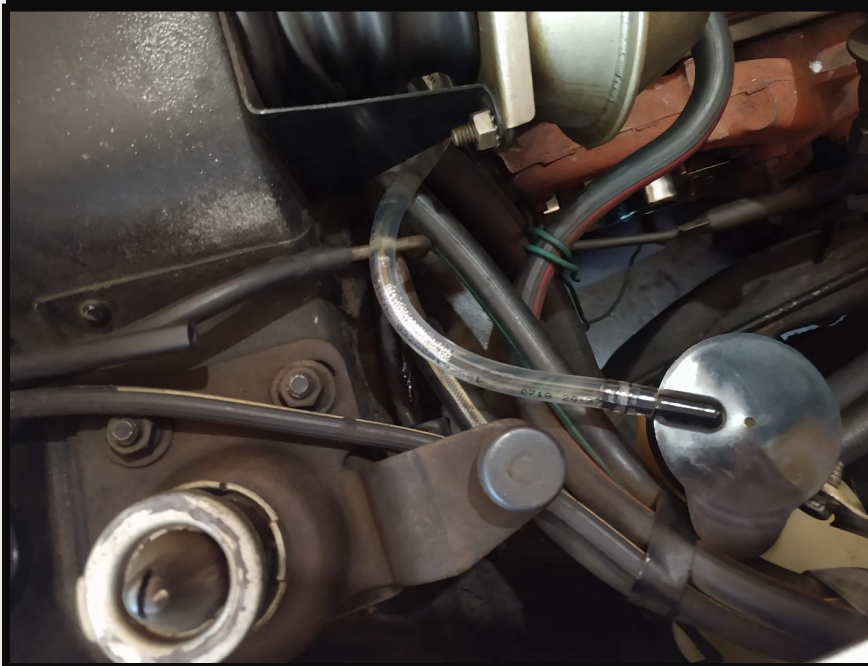
1. In order for the windshield washer pump to operate as per factory design specifications the hose between the pump intake and windshield washer reservoir liquid must make tight connections at all joints in order to prevent vacuum leaks.
2. Pump “PRIMING” is not required if these connections are tight.
3. A properly functioning windshield washer pump creates a significant amount of vacuum and will lift the windshield washer fluid from the reservoir assuming the suction hose vacuum leaks are not too great.

Although the clear suction tubing is not “as delivered from the factory”, it does provide significant information concerning windshield washer pump functioning. Besides making sure that the pump works properly, this investigation demonstrates that it is particularly important when replacing the windshield washer pump suction hose with “correct as factory installed” tubing, that the suction hose connections are tight and minimize any vacuum leaks. This will assure that the windshield washer squirts immediately as soon as the “WASHER PUSH” button is pressed.

Figure 8 CLEAR VACUUM HOSE ON PUMP SUCTION



Figure 9 CLEAR VACUUM HOSE ON WINDSHIELD WASHER PUMP RESERVOIR



TECH CORNER II

1969-1977 Door Panel Exchange

Howard Welch NCRS#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. To do this you need a clip removal tool.
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 back-side 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 Panel

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 ¼” 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 the 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 hole-cutting saw to make this cut. Use an awl to poke a hole in the vinyl for standard door panels and a small bit to make a pilot hole in the wood grain on deluxe panels, using self-tapping screws, attach the trim plate to the door panel.

Deluxe Door Panel Trim

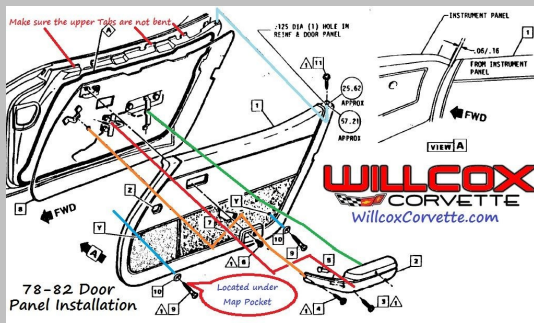
1. Align the upper door panel insert plate (wood grain) with the outline of the door panel. Again push hard enough so the mounting posts on the insert leaves indentations on the door panel. There should be 5 of these posts.
2. Remove the insert plate and drill ¼” holes where the indentations are, move 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.



FOR SALE-NEEDS-&-WANTS

Parts for Sale

1965-66 Al Knoch Deluxe coupe interior door trim panels w/o power windows (black) NOS

GM Parts:

#1959455 (condenser for alternator or ignition) 1962-71

#1970751 (condenser for voltage regulator) 1963-70

#3929052 (resistor for blower motor) 1958-79

#7035142 (needle and seat for Rochester 4 barrel) 1967-69

#7808195 (seal for p/s pump) 1967-70

NOS Delco-Remy Parts:

D-1328 Vacuum - X advance

D-409, D-426R Rotor

D-103P, D-106P, D-106HP, D-106PS Points

D-635 Voltage Regulators (Dates 9H, 3D, 1H)

D-1110 Ballast Resistor w / blue stripe

D-204 condenser

PCV (CV 736c)

Signal-Stat Flashers (#175 silver housing w/green print, #180 gold housing)

Tung-Sol Flashers (both metal and plastic blue in color NON-DOT)

Contact — Michael Mytro

michaelandjathryn@yahoo.com

MEMORY LANE

The First Twenty Five Years

CNU NCRS Newsletter June 2011

4TH GARDENSTATE REGIONAL WILDWOOD, NJ

By: Ed DiNapoli

CONGRATULATIONS CNU NCRS on successfully hosting a terrific regional event that will become the standard for our chapter. This regional was not only held in one of the best facilities on New Jersey for a judging event, with its well lit natural light, but it offered a clean cooperative environment overlooking the Jersey shore. How do you do better than that? The benefits of this venue must have been recognized in our advertising as the response was reflected in our attendance of 120 cars and 575 people. From my records this will have been the largest of the four regional meets this chapter has organized and larger than some of the National events

But, what does it take to put on such an event? I can tell you that all the organization in the world is worthless without the proper people to execute the plan. The orchestration of the unloading of 60 plus trailers in the multiple parking areas prior to the operations check, while the registration was in process, was a work of art. As was the main floor of the convention center with the staging, photographs and ultimate placement of all the Corvettes in their proper positions for flight judging. When you got to the heart of the event on Friday and Saturday, where the judging, tabulation and Advanced Judging school were taking place, it was a beautiful thing to watch.

People doing their assigned duties, solving problems, directing people who needed instruction, and just making everything work properly. Pictures could not do justice to the intensity of what was happening. I would like to list the names of everyone who worked on this regional but the list would be much too long for this article. I will, however, list the members of the Regional Committee; Phil Babaro, Jack Brown, Bruce Crookham, Howard Welch, Bob Zimmerman, Bob Kuhn, John and Evie Mulhern, Mark Rudnick and Rich Vaughan. Everyone did a wonderful job identifying their team members and collectively, all members worked hard to make this a successful regional event. So, once again, I offer my thanks and congratulations on an overwhelming successful regional event.



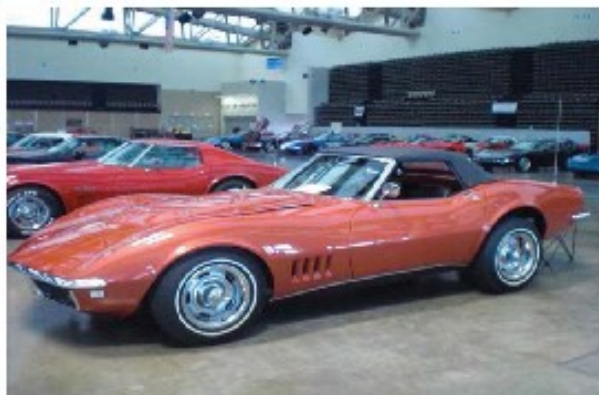
Display Cars with Atlantic Ocean in Background



Excellent Natural Lighting



Welcome Reception



C-3's Were Well Represented

MEMORY LANE

The First Twenty Five Years

Page 3

CNU NCRS Newsletter June 2011

Metro Long Island Spring Chapter Event, May 1, 2011



C-4's were also well represented



As were Grand Sports



NCRS President Vito Cimilluca getting the results of his Mechanical judging from Jim Loughlin



<http://www.cnjncrs.org/>

Central New Jersey NCRS Member Application

NCRS Number: _____

Name: _____ Spouse Name: _____

Address: _____ City: _____

State: _____ Zip: _____ Email: _____

Phone Number: _____ Cell Number: _____

Own a Corvette: YES NO Year: _____ Color: _____ Motor: _____

Judging Interest: YES NO Please indicate
 C1 (1952-1962) C2 (1963-1967)
 C3 (1968-1982) C4 (1984-1996)
 C5 (1997-2002)

I state that I am a member in good standing of the National NCRS Inc and agree to abide by the bylaws of the Chapter and the National.

Signature: _____

Please make annual dues check for \$30 payable to CNJ NCRS and send with application to:

Joe Klitsch
734 St. Georges Road
Bridgewater, NJ 08807

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