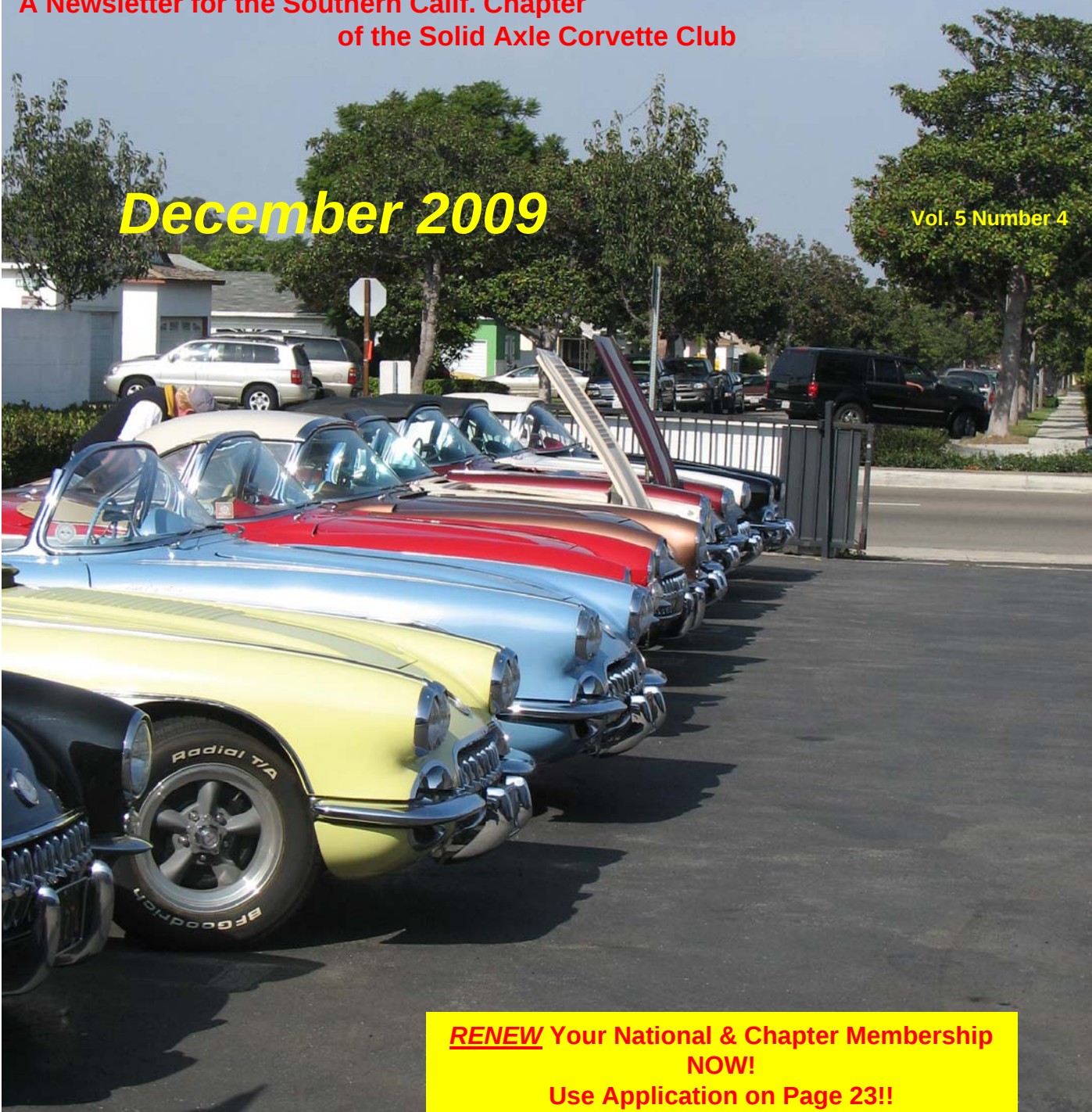


The Solid Scoop

A Newsletter for the Southern Calif. Chapter
of the Solid Axle Corvette Club

December 2009

Vol. 5 Number 4



**RENEW Your National & Chapter Membership
NOW!
Use Application on Page 23!!**

“Look Us Over at” www.socalsacc.com

The Solid Scoop is a quarterly Newsletter published for the Southern California Chapter of the Solid Axle Corvette Club (SoCalSACC). The SoCalSACC Chapter is affiliated with the National Solid Axle Corvette Club (SACC). The SACC organization is a non-profit group with the intended purpose of bringing together owners and those interested in the early C-1 Corvettes (1953–1962) to help in appreciating these vehicles and “keep them on the road”. C-1 Ownership is not a requirement for membership.

MEMBERSHIP: A prerequisite to become a SoCalSACC Chapter member, a person must belong to the National SACC. Applications for membership are available on our Chapter Web Site, www.socalsacc.com. Submitting an application along with the appropriate listed dues, is necessary for membership. The SoCalSACC Chapter will forward your National dues to assure your National membership. Once becoming a National member you will receive *On Solid Ground*, the National quarterly published magazine. **MEMBERSHIP APPLICATIONS AVAILABLE: WWW.SOCALSACC.COM**

The Solid Scoop is published expressly for Chapter members to communicate activities, technical articles, classified ads and past events to maintain in keeping our membership informed. *The Solid Scoop* content is maintained by our Newsletter Editor and only after a review by the Chapter Board is the Newsletter published.

The SoCalSACC membership is encouraged to submit articles, classified ads and commercial ads if pertaining to C-1 parts and services. Free Commercial Ads for members are limited to listings for C-1 commercial products or services. Larger ads can be placed at a cost listed in this newsletter.

2010 SoCalSACC Board Members

L to R: Bruce Fuhrman (past SoCal President, currently National SACC Secretary), Larry Wright (SACC Western Regional Representative), Jenni Werstein (Treasurer), Chip Werstein (Tech Session Coordinator), Phil Roche (2010 SoCal President), Larry Pearson (Secretary), John Costales (Membership Chair), and Jim Lundal (Newsletter Ed. & Webmaster). Note: Mike Gibbons (Vice President) was absent.



Solid Axle Corvette Club Southern California Chapter Board 2010 Club Officers

<u>ELECTED OFFICES</u>		
President	Phil Roche	pdr44@aol.com
Vice President	Mike Gibbons	gibbonsltd@aol.com
Secretary	Larry Pearson	lpears1941@att.net
Treasurer	Jenni Werstein	TBD
Membership	John Costales	costales@west.net
<u>VOLUNTEER OFFICES</u>		
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Newsletter Editor	Jim Lundal	jlundal@verizon.net
Webmaster	Jim Lundal	jlundal@verizon.net
Events Coordinator	Open	
SACC Western Reg. Rep.	Larry Wright	glvette@aol.com

<u>TECH ADVISORS</u>		
1953 – 1955	Bruce Fuhrman	805-482-4396
	Larry Wright	818-705-4884
1956 – 1957	Chip Werstein	818-883-5766
1958 – 1960	Mike McCloskey	661-257-4330
1961 – 1962	Larry Pearson	818-848-2653
Fuel Injection	Doug Prince	818-348-6998
Body & Paint	Dan Dempsey	818-846-2948
Interior	John Englehardt	714-435-9448



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Dick Guldstrand, Local Racing Legend!

President's Message: *The SoCal SACC Chapter originated almost 5 years ago. Dick Guldstrand, and his accommodating manner, has supported several Chapter events in the past and being a 1999 Corvette Hall of Fame Inductee has identified with the cars we love. At a recent SoCal SACC Board Meeting it was decided that periodically our Chapter would award a special individual to be a Chapter "Honorary Life Member" and receive Free Life membership to the SoCal and National SACC. Dick Guldstrand was nominated and unanimously elected to be our initial recipient. ...Phil Roche, SoCal SACC President*



When it comes to driving and developing high-performance vehicles, the international achievements, accolades, and reputation of Dick Guldstrand make it impossible to place him anywhere but at the very top. Well-known for his chassis expertise and success on road racing tracks since the 1960's, Guldstrand has come a long way from the young man who started out in pursuit of a career in law at the persuasions of his parents.

"My parents wanted me to be a lawyer, but somehow I ended up in electronics in college," Guldstrand said. Even though he was working in the financially rewarding aerospace industry, the native Californian knew his heart was "about 500 feet out in the parking lot pinned on a tattered '56 Corvette." Guldstrand, who had begun racing on the famous Southern California dirt tracks in the late 1950's, knew he had to listen to his heart. Racing was calling!

He soon landed a sponsorship from H-E. Baher, a Hermosa Beach, California Chevrolet dealer. His Corvette outfitted with fuel injection and a 4-speed was an immediate winner. Under the Baher banner, Guldstrand won most of the West Coast BAP events in the early 1960's. His sponsor was so pleased, he bought Guldstrand one of the first Stingrays to race in the fall of 1962.

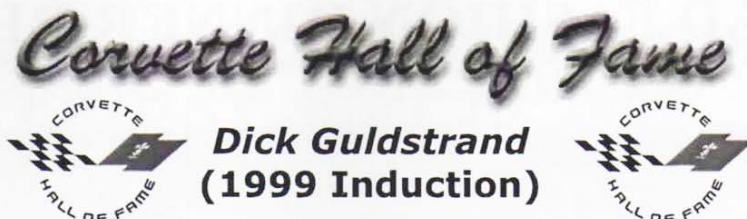
Beginning in 1963, the racing and development exploits of Dick Guldstrand became the stuff of legends. From 1963-1965, he won three consecutive SCCA Pacific Coast Championships, including the Southern Pacific A/P Championship in 1964, the same year he was named the California Sports Car Club Driver of the Year. In 1966, Guldstrand won the GT-class at the Daytona 24-hour race, and finished 9th overall. Later that year, he was named President of the Southern California Drivers Association. The following year, he raced at Le Mans and set a track record in the GT-Class while leading the race for 13 hours. In both 1966 and 1967, Guldstrand drove the legendary Grand Sport Corvette at the 12 hours of Sebring for Roger Penske.

In 1968, Guldstrand opened his own business, Guldstrand Engineering Inc., in Culver City, California. Soon, he was designing and building high performance cars for competition throughout North America, South America, and Western Europe,. The following year he built and campaigned a Z-28 Camaro in South America, winning the South American Championship. In the early 1970's, Guldstrand Engineering Inc. built 70% of all the Chevrolet-powered road racing cars on the West Coast.

Dick Guldstrand played an enormous role in the development and testing of the 1985 Corvette. He set new track records at the Mid-Ohio 24 hours, finishing both 1st and 2nd overall. He also set new track records at the 12 hours at Willow Spring for Enduro cars, once again finishing 1st and 2nd overall. His personal involvement, along with his GSS race team, set the stage for the future racing series, as well as Corvette's domination of Porsche cars for the first time in fifteen years. The following year, he built and set up the Guldstrand 1986 Corvette, which made a clean sweep of all events at the SCCA National Solo Championships. Later that year, Guldstrand developed his high performance dream car, the GS-80. Articles about the GS-80 have appeared in virtually every automotive magazine, and the car has received world acclaim. It was set against such high performance cars in Europe as the Testarossa, Countach, and Porsche Turbo. Then in 1987, Guldstrand, driving a 1956 Corvette in the Vintage Race series, won the 75th Anniversary of Chevrolet at Monterey, California. The legend of Dick Guldstrand only grew more.

Dick Guldstrand continues to be one of the true innovators in the present decade. The 1990s began with the announcement that he was developing the Guldstrand Grand Sport 90. A world-class exotic supercar based on the Corvette AR-1 chassis, the GS-90 sported an entirely new body along with major upgrades to its engine, suspension, wheels, tires, and rear end. The finished product debuted on the Chevrolet stand at the 1994 Los Angeles Auto Show, and is produced today on a build-to-order basis.

He epitomizes the "All American Corvette Enthusiast", a devoted and loyal fan of the Corvette.



Calendar of Coming Events in our Area:

(Listed *SoCalSACC Asterisked Events will have flyers and membership notification prior to the Event, Other events have contact via email and/or phone numbers)

NOTE: All listed *SoCalSACC Events are covered by National SACC 3rd party insurance, Events not listed as SoCalSACC are area events that Chapter members may participate but are not covered by National SACC 3rd party insurance.

The following List are planned Events for the year 2010. Details and Flyers will be forth coming and supplied to the Membership when available.

2010

February 27	*SoCal Chapter 5 th Anniversary Party, Odyssey Restaurant in Granada Hills
April (10 or 17)	*Spring Tech Session at Kent Browning's Museum in Cerritos
May (16 or 17)	*Sierra Highway Tour (Route 14)
June (5 or 6)	*Reagan Ranch Tour, Buellton
July 13-15	SACC National Convention in Bowling Green, KY.
August 7	*Paradise Cove Lunch Tour, Malibu
October	*Driving Tour, Escondido Area, Tour Director Randy Solle
November (6 or 13)	*Fall Tech Session, Toyota Hi-Bay Engineering Center in Torrance, C1 Vehicle Safety Inspection

Scoop Features:

• Chapter Information	p. 2
• Dick Guldstrand, Chapter Life Member	p. 3
• SoCalSACC Schedule of Coming Events	p. 4
• 2009 General Membership Meeting	p. 5
• Larry's Lament	p. 6
• Fall Tech Session	p. 7
• Jim Gessner, #29C, Member Profile	p. 12
• Classified Ads	p. 13
• SoCalSACC Member Vendor List	p. 14
• Marie's '57	p. 15
• Board Meeting Minutes	p. 16
• C1 Signal Lights Operation	p. 18
• SACC & SoCal SACC Renewal Application	p. 23

Welcome New SoCalSACC 2009 Members!

The following people have joined our Chapter since Sept. 2009.

#	<u>NAME</u>	<u>LOCATION</u>	<u>CAR YEAR</u>
173	Mike & Judy Woodings	Castaic	62
174	Greg Davidian	Northridge	60
175	Ed & Candice Daher	Vista	60
176	Tom Johnson	Riverside	62

So. Cal. SACC

General Membership Meeting

Saturday, October 17, 2009

Pomona Valley Mining Co.,



The Pomona Valley Mining Co. is a restaurant which sits on a hill overlooking the Pomona Valley. As the pictures can depict, the view is spectacular. A parking area was set up for our Corvettes and when filled we had approximately 30 in total.

The So Cal SACC General Meeting is held one time each year in order to conduct club business with the membership.



Several items were discussed: liability insurance for our events and those attending, nomination and voting on Board officers positions which are to be filled for the 2010 and meet to enjoy a planned program. This Meeting had Jim Gessner invited to show his topic, "The History of 1956 and 1957 GM Engineering of Nassau, Daytona and Sebring Race Cars. This unique group of cars in the time period has always been one of Jim's favorite subjects.



The last section of Jim's presentation is dedicated to the 1957 SEBRING # 3 production racer VIN #1034 that was found in Texas in May 2009 and how 9 experts met over a three day weekend and inspected the car August 1, 2009 and discovered its history. Neat new history and our chapter was the first to get it.



Center to r: Doug Prince and Chip Werstein.



(above) Jim Gessner narrates his slide show while at the head table.



New members (l) Judy & Mike Woodings join member Chuck Gibney at the luncheon.

Left) Chapter President Phil Roche conducts the business meeting.



The getting down on the ground is easy, it is the getting up "can" be a problem.

During the business meeting the office of Treasurer/Membership would be split into two people. The SoCalSACC membership is approaching 180 members. As a result, John Costales, who held both positions, is now in charge of membership and Jenni Werstein was elected to be treasurer.

Another business decision was to place member Larry Wright into the **SACC Western Regional Representative** position. The move will provide a single person communicating with the National SACC Organization.

An explanation was provided on our joint liability insurance for our members if any occurrence occurs while on a club event. Discussion of this 3rd party insurance is common among various car clubs.

The final business act was to nominate/elect Dick Guldstrand to a Honorary Position in our Chapter.



General Meeting: Parking Lot Tire Kickin'.

It was a 90's type temperature day and about an hour was spent "talking cars" before we all were herded into the air conditioning.



Larry Pearson replaces John Costales's shock nut.



John Costales and Larry Pearson before lunch.



Very nice mix of years and a friendly bunch of folk.



Chip Werstein (sitting) discusses a topic with car owner Joe LeGreca.



LtoR: SoCalSACC president Phil Roche, Jim Gaytan, Tony Siragusa and Chuck Gibney.



Ltor: Dave Friedman, Kent Browning, Jim Nielson and Little John Englehardt.

Larry's Lament!

This story began during the Run at the recent 2009 Convention in Ventura. In order to maximize the number of C1's at the Meet, Larry Pearson allowed Richard Block's son to drive one of Larry's several cars. His '62 Corvette.

The '62 was on the Sunday Run to the Timbers Restaurant in Goleta when it became impossible to shift the gears, or remove it from the existing gear. Solution, turn off the road and turn off the key.

Larry did replace the Clutch Pressure Plate and reported that the broken item did not have that many miles on it.

Bolt retaining one of clutch pressure plate forks broke



Resulting pressure plate tilted at an angle causing great difficulty in removal from lower Bell Housing.



Larry's car being returned to the Ventura Hotel Parking Lot.

Tech Session, Fall 2009

Highlights for this session are New Faces, New Topics and Serious Comedy!

Chip Werstein, SoCal SACC Tech Session Coordinator and his Team pulled off another great session.

The location for this Fall Tech Session was back to the Toyota Museum in Torrance, CA. This location is easily accessed from most freeways and centrally located to many So Cal Chapter members. Another feature is it is large enough to accommodate our crowd, off street parking and two of our members, Rick Dufresne & Stan Kiyan, are Toyota employees and can obtain the facility at no cost. This session did feature a viewing system to assist with a couple of presentations. Tables and chairs are rented and catered food is supplied for a lunch.

SoCal SACC members were asked to donate a can of food which Toyota later supplied to a collection location they sponsor.

This Tech Session featured: Evan Williams, #108, **C1 Brake O/H**; Joe Ryan, #132, **6-Cylinder Corvette issues**; Doug Prince, #47C, **'61 & '62 Headlight Inserts**; and Eric Hershkowitz, #15C, **The Restoration Dentist**. Several of the speakers were first time presenters and covered new subjects.



Food Donations



SoCalSACC Member #99, Patricia Eckert joins her first Tech Session with her '62 she purchased in 1963. Fawn Biege interior, Honduras Maroon and Fuel Injected.



Tech Session Highlights



C1 Brake Overhaul

Evan Williams

Evan Williams, #108, has a '61 Vette which he loves to drive. Since it is a great driver, enhanced stopping was always an issue. As with many members C1's, there is always the question whether our braking is adequately functioning.



Evan is currently in retirement from the Fire Department and decided he would do brake job to his original C1 brakes. Probably many SoCal SACC members have at least one Conventional "Brake Job" in their past on various type cars. Before Disc Brakes became very "conventional" on cars, there was hydraulic brake systems using DOT 3 brake fluid and brake bands which expanded against a turning brake drum to stop our cars. Evan set out to optimize the performance of his Conventional Brakes.

Evan's planning for this job began having conversations with Chip Werstein and deciding on parts purchase and finally, the change over from DOT 3 to DOT 5 silicon brake fluid in the rebuilt system. When installing new brake components it is the best time for a fluid conversion as the two brake fluids are not compatible. Converting to DOT 5 has many positive attributes and one is the resistance to contamination and water absorption which can cause corrosion of brake parts internally. In addition to brakes and associated parts, Evan chose to also replace the original front-wheel ball bearings with new roller bearings.

Evan prepared a sequence list that the job went through and passed this list to the audience.

Items changed or reconditioned during this Brake Job:

- New Shoes/Bands/linings. Rivited linings were used on the job.
- All New Rubber hoses in the brake line connections (3 total). All other rubber seals were also changed.
- All New Wheel Cylinders (USA made). Stainless steel sleeved parts can recondition your original cylinders at additional cost (optional) .
- Cad plate Brake hardware parts if time available, prevent rusting over the years.
- If, more time and money is available, the backing plates on all 4 wheels can be painted or powder coated.
- All New springs/retainers were purchased.
- Rebuild of Original Master Cylinder.
- Brake Drums turned.
- Flushing of Brake lines.
- Installing DOT 5 Brake Fluid.

Evan's cost was \$315 for the Brake System. Chip's suggestions of a parts store saved with this cost.

All-Car Parts on Vanowen in the San Fernando Valley.

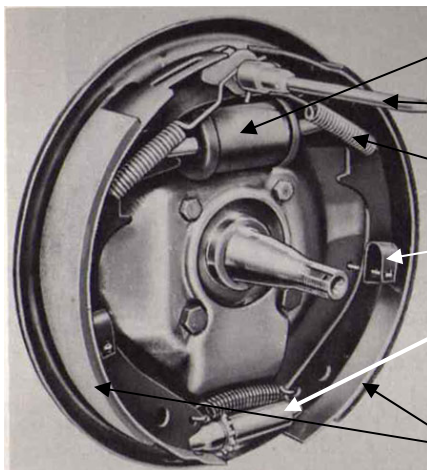
Cautions during Brake Job and changing to DOT 5:

- Replace any internal rubber in contact with brake fluid (Master Cylinder seals, wheel cylinder seals and any rubber hoses). DOT 5 is not compatible with old glycol based systems.
- Flushing of brake lines can be done with compressed air and a suggestion was a small amount of isopropyl alcohol. Be careful when blowing out old brake lines as old brake fluid is a great "paint remover".
- Lubricate mechanical brake shoe areas and adjustment screws with copper or silver anti-seize lubricant.
- Final Summary: Do Not expect ABS Disc Brake Type Performance but a correctly rebuilt system will be very adequate.
- Re-sleeve of Master Cylinder or Wheel Cylinders if panned: Karp's Brake Service, (909) 985-0800 and specify a DOT 5 re-sleeve. Evan purchased new wheel cylinders for his Brake system.
- Front Wheel Roller Bearing source: Allied Bearings Sales, 8963 Ellis Av., L.A., (310) 837-0752 (talk to Ben) SoCal SACC member – B52 Inners, B01 Outers, Seals \$144. Specify USA Parts.

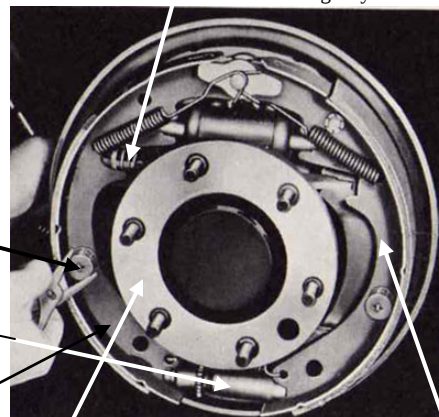


Various Brake Assy Parts, newly cad plated





Conventional Front Wheel Brake Assembly



Conventional Rear Wheel Brake Assembly

Evan's Procedure (Highlights):

- Depending on time schedule for job, order as many of the new parts ahead of time.
- Jack up car at all 4 points. Have a camera available if not familiar with this type of job. Record what the assembly looks like before/during/after disassembly. Disconnect and drain current brake fluid.
- Disassemble brake assemblies at the wheels.
- Turn brake drums and verify you do not exceed max diameter. Max Dia. is printed on Drum. Usually an auto parts store will not turn them if they exceed the max.
- Re-line brake shoes/bands.
- Cad plate any hardware (optional).
- Replace/Re-sleeve/Hone Wheel Cylinders and Master Cylinder. Always use DOT 5 during reassembly, not DOT 3. Obtain new seals on all parts.
- Flush Brake Lines (remember DOT 3 removes paint).
- Install front roller bearing races and seals in front brake drums.
- Fit check (and adjust) brake shoes into all brake drums. See photos. Brakes should fit and contact Drum surface over entire lining length. A vise and hammer technique can be used to change shoe radius as "nobody" arc's brakes anymore.
- Reassembly: Lubricate all contact points, adjusters, clevis pins, etc. with anti-seize compound during reassembly.
- Various manuals contain conventional brake reassembly procedures. Most all of the assemblies for early brakes are the same till maybe a procedure might explain "self-adjusting" brakes, which do contain some different parts.
- Brake Bleeding: At this stage of the reassembly, you must get into a different mode and NOT THINK OF THE OLD DOT 3 Technique.

METHOD OF BLEEDING BRAKES.

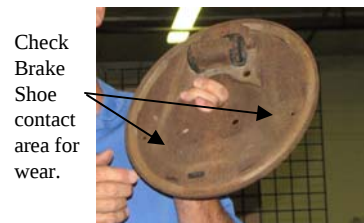
- Larry Pearson did a Tech Session talk on Silicon Brake Bleeding during Tech Session #3. www.socalsacc.com. Go to C1 Technical/Tech Session/Tech Session #3.

Bleeding Highlights with DOT 5:

- Do not "Pump the Pedal" when Bleeding. Go Slow, and the number I have heard is 1 minute per pump.
- Do not let Master Cylinder go dry. DOT 5 is expensive but do keep the cylinder filled. Have lots of DOT 5 available.
- If after bleeding, and no hard pedal is apparent, walk away and come back tomorrow and begin again.



Brake Shoe fit to Brake Drum should be checked and adjusted. Hammer technique shown below works. Secure shoe in vise prior to adjusting.



Brake Backing Plate with rusty wheel cylinder. Check indicated areas (rubbing area for shoes) for smoothness and lube with anti-seize compound prior to reassembly.

Editor comment: Everything either Evan or Larry Pearson mentioned about DOT 5 brake bleeding is **CORRECT**. I don't think you can ruin a brake bleeding job, but when you screw up and finally obtain the proper procedure after you messed up, it will just take much longer to get the bleeding completed. I hadn't heard of Larry's cautions when I did a complete job on my '56 Bel Air "and pumping the brake-pedal more, doesn't help", so don't blame it on your wife while she pumps the brakes for you.

'61 & '62 Headlight Insert....Doug Prince

SoCal SACC Member, Doug Prince #47C, began his Tech Session Talk **'61 & '62 Headlight Insert Fit** with, "This has always been one of my Pet Peeve's". Unless you have one of these 2-years of C1's this may not be understood completely, or you are completely oblivious of this problem altogether. Simply, it is the "fit" of the stainless strip on the C1 front fenders with the chrome piece on the headlight ring. The red '62 adjacent picture indicates this fit, which in this case is considered perfect, most likely because this is an original car fit and has never been disturbed. Other C1 years, '58 thru '60, had completely chromed headlight rings and a center part "curled" up over the fender to fit with the fender stainless trim piece. These earlier cars have their own "fit" issues but that is another talk.

'61 & '62 C1 headlight rings are a cast pot metal which are finished in the car body color. The Inserts in this discussion are separate cast parts, chromed and fastened to the headlight ring. The pictures supplied illustrate these parts. Fastening these inserts to the headlamp ring was a separate manufacturing operation using a "Tool". The inserts have a wider area at the blunt end which provides room for the fender stainless (which has a depression) to slip underneath the insert and above the headlight ring. This "slipping between" fit is the problem when restoring the assemblies. Specifically, the fastening the insert to the headlight ring, without the special tool, that leads to bad fits with the stainless fender trim. To repeat, the stainless trim depression must slip between the headlight ring and insert for proper fit.

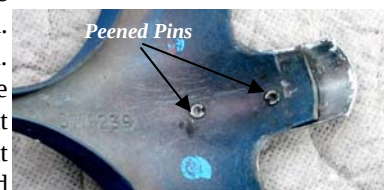
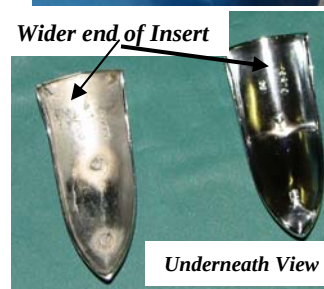
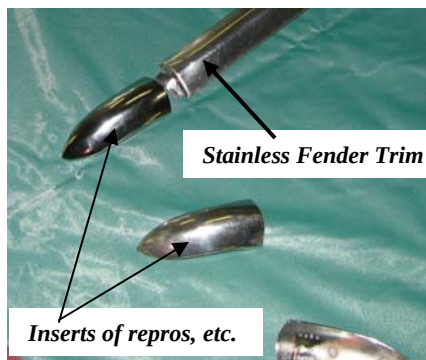
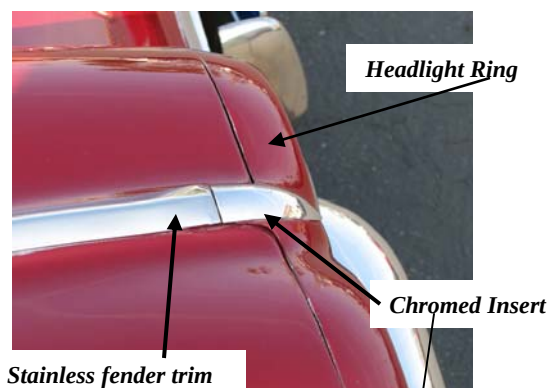
Removing the chromed insert during restoration or painting "usually" destroys the Insert attachment. The underside of the Insert contains two cast stand-off's/bosses which match the two holes on the headlight ring. Attachment of the Insert "method" becomes the problem. The original parts are not available and usually reproduction parts are what is encountered. Also, the original attachment "Tool" and technique have been lost and it is primarily up to the restorer to solve this dilemma. The reproduction items do have a good contour for a proper fit but attaching the insert by "rolling over", "swedging", etc. of the material on the insert that protrudes through the headlight ring holes can be a real task. Two examples were found and are shown. Both of the pictures are from the same car and in one application it appears the metal was successfully reinserted and "maybe" flattened with a hammer/punch tool. In the second picture, obviously epoxy was used to hold the Insert in place. The results were somewhat acceptable and one Insert is seen in an above picture on the blue headlight ring. Since the Insert is now corroded, these parts will have to re-removed and newly chromed or repro parts replaced.

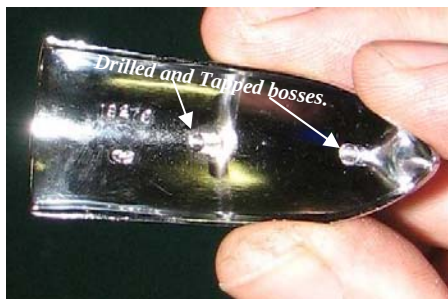
A "Prince" of a Solution (excuse the Pun).

Doug Prince presented a solution to the Insert attachment issue. Doug's solution provides secure attachment while providing the "fender slip fit" desired.

Doug begins by drilling holes and tapping threads into the two repro part bosses on the underside of the Insert. This is small delicate work and items are required to hold/secure the Insert while hole drilling and tapping operation is occurring. A drill press (small in size) mounting the drill bit is needed.

The Insert bosses correspond to the two holes in the headlight ring. A #41 drill bit is used to drill down through the center of each boss. Make sure you have a dept guide for this operation and you don't "pop-out" the top of the Insert. Using a 1-72 bottom thread tap (for blind holes), tap threads into the drilled holes. A "bottom-tap" is necessary to create threads further into the blind hole you drilled. Attaching hardware is 2ea. 1-72 Allen head screws and a couple of flat washers.





Slip fit of fender trim, headlight ring and insert.

Underneath View of Headlight ring and Insert.

The final problem for the restorer is to achieve the proper mounting of the Headlight Ring to the fender and mate with the stainless fender trim on top of the fender. A few extra pictures are posted taken of other member cars in the parking lot at the Tech Session.



Joe Ryan and his "leaky '54"

Joe Ryan, #132, discussed issues on rebuilding and sealing the '54 transmission during restoration. Additionally, Joe presented his method and experiences on adjusting the sometimes bothersome triple carb's on the 1953 & 1954 cars. Joe's Power Point presentation contained pictures and text describing the situation and procedures for correction. I will not present these charts as reprinting all the information would make this Newsletter extremely costly (more than it already is). However, all the pictures and text will be posted (along with other Tech Session subjects) on our Chapter Web Site, www.socalsacc.com, at C1 Technical and then find Tech Session Fall 2009.



Carter YH Carb Synchronization

- Throttle Plates Adjusted To Fully Closed
- Pre-Set All Idle Mix Screws to $\frac{3}{4}$ turns out
- Set Idle With Center Carb Only
- Run Engine Until Fully Warm
- Use Uni-Syn Vacuum gauge To Balance All Carbs. Adjust With Linkage
- Set All Idle Mixtures at 500 RPM W/Low RPM Tach

Most Common Causes of Iron Powerglide Transmission Leaks:

- Suction Pipe Leakage (Aeration)
- Converter O-Ring Seal Leakage
- Pressure Build Up In Case (Aeration)
- Pipe Plug Leaks
- Gasket Leaks

"The Restoration Dentist"



Eric Hershkowitz, and "one of his Instruments"

Always a significant problem at any Tech Session is keeping all these people attentive and awake during the talks after lunch, especially the last talker of the day. I don't know if it was preplanned or just luck but the presentation by The Restoration Dentist, better known as Eric Hershkowitz, was a key decision. Eric provided the most entertaining, humorous and supplied the best handouts of all speakers for years before him.

Eric & Fran Hershkowitz, #15C, reside in Bakersfield where Eric has a booming Dental Practice. Eric received his DD at USC and obviously did some theatre while there. Eric & Fran are always in attendance at our festivities. While Eric was "showing off" Fran was running around delivering packages of dental stuff, instruments, etc. to all members in attendance. It would be impossible to repeat all Eric told the members but each item in the provided packages could be used, and has been used by Eric during the restoration of his '59 Vette and a couple of early T__Birds.

SoCalSACC Member Profile.....

Jim Gessner, #29C

Jim was born in Washington DC in the early 40's. He grew up in the DC, Maryland, Virginia area and in 1949 moved to New Jersey. High school started in 1957, and cars were Jim's passion. College took him to Michigan and Pennsylvania. During these times he worked at many Esso stations and other garage locations. In 1958, he and a good friend started attending road races at Lime Rock, Watkins Glen and other tracks and soon began pit crewing for racing Volvos. He drag raced his 57 Bel Air, 61 SS 348/350hp Impala convert, and the 62 bubble top 300hp 4 speed Bel Air.

In the fall of 1962, Jim even got a job at the timing tower at Island Dragway in Great Meadows, New Jersey. He remembers the day when "Big Daddy" set the 200mph record. They walked the track in the morning and Don said "Today is the day, Jimnew records"

In 1965 Jim moved to California and immediately hooked up with West Coast Racers and gear heads. Jim's first Corvette, a 65 fuel injection Coupe was bought in 1969. His fuel injected cars have been his favorites.

From 1967 thru 1999 Jim owned garage and service businesses, and he has owned and restored over 70 Corvettes and 350 Chevrolet, Chevelle, Camaro, Pontiac, Oldsmobile, Dodge, and Plymouth Muscle Cars from the 50's and 60's.

A couple of Jim's favorite cars was his 64 silver/red B/P fuel injected road race Corvette that he restored and raced in West Coast vintage events, and his 57 that was drag raced in the late 60's, and early 70's by good friend Ray Kimminau with a 427 L-88 Big block. Jim bought it in 1974 with a 327/350hp 66 engine, and ran Cal Club and SIC-SIC Salomne and WSCC drag events. Later he added a 57 injection unit for fun and better drive-ability.

Jim started the Southern California Chapter NCRS in 1981 and has been a National Member since 1976 (#943) and served on the National Board from 1980-84. In 1987 and again in 2002, Jim helped Steve Earle with the Monterey Historic Races find the old race Corvettes to help celebrate Chevrolet's 75th and Corvettes 50th birthdays. Many of the CORVETTES in Randy Leffingwell's book, CORVETTE: 50 YEARS were found by Jim and his network of friends. Jim co-founded the REGISTRY OF CORVETTE RACE CARS. See www.registryofcorvetteracecars.com

Jim is retired now with MS. He is still very active attending Corvette, MuscleCar, and vintage race events across the country where he keeps in touch with his many friends. The car search is never over for "VETTEFINDERJIM" and he continues to find great vintage cars from the 50's and 60's.

Jim's story of participating in the autopsy on a recently discovered '57, Sebring #3, will be published soon in the NCRS Restorer. Jim presented a slide show of this autopsy at the recent SoCal SACC General Membership Meeting and it was fascinating.

"Snapshots of Jim's Activities"



Gessner w/ Dick Guldstrand, Ronnie Kaplan, Bill Locke, Bloomington Gold Special Collection – 50 yrs of 57 Corvettes and 50 years of FI



My '57, vin#288. Solid Black/red two top car when new 245hp, powerglide. Never damaged. It was drag raced for years by my good friend Ray Kimminau with a new 1969 427/L88 engine. I bought the car in 1974 and restored it with a '66 327/350hp, T-10 four speed, and 3:36 posi.



3 1960 Cunningham cars, tech inspection in LeMans, June 1960



The autopsy crew of the #3 Cunningham 1960 LeMans Corvette, at Kevin MacKay's shop in Long Island, October 25, 2000 when Chip Miller had just purchased the car.



My 64 B/P fuel injection road race car at SEARS POINT (Infinion) Raceway, Sonoma, CA June 1990. The car was raced since 1965.



(upper Rt.) The inspection crew autopsied 57 vin 1034, the 57 SEBRING #3 CAR. Left to right, Me and new owner John Justo. 2nd row, Rich Mason, Art Armstrong, Ray DeCesare, Ken Kayser, Bill Connell, John Neas, Ralph Kramer, Kevin MacKay, Joe Trybulec. Event was in Providence, RI Aug 1, 2009

Continued Next Page



My 65 fuel coupe vin #2111, rare black with white interior, teak, tele, pw, pb, full tint, kh k-offs, on our way DRIVING to NCRS National San Mateo, CA August 8, 1980 where we received a TOP FLIGHT



DOUG HOOPER, TONY DELORENZO, JER THOMPSON, "MURIETTA" BOB JOHNSON, RON DEPHART, ALLEN BARKER off to the right.

09 Race Reunion09 race reunion was at CORVETTES AT CARLISLE, AUG 29, 2009. I was introducing the race drivers from the 50's and 60's



Dick Thompson, Zora and Dave MacDonald, Milford Proving Ground, MI, July 1962 testing of '63 Corvette

C-1 Member Classified Ads

WANTED: Looking for wiper arms with TRICO logo on backside. Also looking for wiper blades with "patent #" or "patent pending" underneath. Finally, looking for the gas line 90 degree elbow exiting fuel filter on injected cars, made of steel (not brass). Contact Ralph at rehatcr@aol.com. Put Corvette parts in subject line. Thanks.

TRADE: I would like to trade my Black '61 Stock Steering Wheel for a Red '61 Stock Steering Wheel. My wheel is a Corvette Central Repop in excellent condition. Would like to trade for same. Evan Williams - 818 640-6319.

STILL WANTED: T-10 4-speed aluminum main case and tail housing dated April, May, June, July or August 1961. Will buy complete transmission if necessary. Condition of gears and other internal parts is unimportant. Wanted: 57-60 passenger side horizontal spark plug ignition shield. Thanks Werstein 818-883-5766 or chipsgarage@aol.com

FOR SALE, four '62 hubcaps in excellent condition. \$250, obo. Phil, Member # 2648 (#45C) 818-889-7175

FOR SALE: My membership number is #3254. I just confirmed it with Lucy Badenhoop. I would like to run an ad in the next newsletter. The ad is as follows: 1954 Corvette, Polo white with Sportsman red interior, original matching numbers, Blue Flame six engine and transmission completely rebuilt in 2007. Side curtains and all service records for the last 20 years. Car drives and looks excellent. Car is located in Long Beach, Calif. \$69,500 or best offer. Call Robert at 323-864-9318. Thanks for your help, Robert Lemke

FOR SALE: Reproduction exhaust extensions, both short and long styles. 53-62 windshield post tab repair \$65 ea plus shipping. Call Gary, 530-259-5997 or E-mail, arunner@frontiernet.net for photos and prices of exhaust tips. Member #26

WANTED: I am in need of the correct valve covers for a 245 hp 1960. I have the decals just need the correct valve covers. Greg Davidian, (818) 772-1077, gdavidian@socal.rr.com

WANTED- set of '59-'62 hubcaps in nice condition. Will trade for set of '64's (in average condition, no dents) plus cash. Also need rear bumpers for '61. Mike McCloskey, Member #12C clutchmccloskey@yahoo.com or Ph: 661-257-4330

FOR SALE: set of disc brakes for a C-1 from Jim Meyer racing. I upgraded to Wilwood 11" rotors. These will fit onto 15" wheels--Contact David Payte @ diverdave@san.rr.com, 858-270-6244---

WANTED of '57 Corvette Parts. Original interior mirror. Base not necessary, just mirror and threaded stem. Contact Ralph at rehatcr@aol.com

FOR SALE : Cylinder Head Assembly, P/N 3782471, Matching Pair, Date Coded, B274 & B284 for 1961-1966 Corvette High HP options of 283 & 327 C1 Engines, very good condition, \$350 Pr. Stan Boone #88 (714) 838-8821. stanleydboone@aol.com

FOR SALE: 2-Ton Portable Crane, foldable with dolly wheels. Like new condition, perfect for Engine Removal/Install and other home garage lifting activities. \$130 Stan Boone #88 (714) 838-8821. stanleydboone@aol.com

For Sale: 6.70 x 15 wide white Allstate tires. Some sidewall cracking, tread almost new. Perfect for spares that will fit correctly in your C-1 tire tub. Have three. \$25 ea. Chip Werstein 818-883-5766 or chipsgarage@aol.com.

FOR SALE: Upper Steering Column Bearing with horn wire. New in package GM #5660233 \$30, 17" 4 blade fan \$45 Nice pair 9 fin Valve Covers ... no notches or mods \$360, #553 Aluminum Bell Housing 61-62 and 409 car \$360, 60 T-10 Stamped March 31 1960. All cast #'s match. Recently rebuilt and Known Good! \$2200, Nice "C" shaped inner door roller rail. Fits either side? \$10 John, Member 4F 805-642-3662 costales@west.net

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C-1 Services by SoCalSACC Chapter Members. Support those in our Chapter.

Product or Service	Name & Member #	Contact Information	Details
AM/FM Stereo Radio, 1958-62 Corvette Radio w/Wonderbar New Repro Radios	Len Marino #39	(626) 358-1466	Made in USA 1 year guarantee \$590 + shipping
<u>Car Appraisal Service</u> Per-Purchase Inspections Stated Value Insurance Appraisals Resolve Insurance Disputes Diminished Value Appraisals	Robert Petricca #80	(888) 314-3366, (818) 992-7219, rpetricca@socal.rr.com www.caldreamcars.net	20% discount for all SoCal SACC members. Credit Cards accepted. Recognized by Ins. Co., Lending Co., IRS.
American Motoring Memories C-1 Corvette Repairs	Jeff Reade #33C	11375 Playa St., Culver City, (310) 397-3800 FAX (310) 397-6969	All type repairs, Total & Partial Restoration, Engine Overhaul, Consulting, Sales & Service
Corvette Frame Straightening Corvette Restoration 1953 – 1962 Specialist	Walden Dahl #116	(760) 949-6653 Victorville	Chassis straightening for C1's. We have the attachments to correct any frame problems.
Corvette Mike 	Mike Vietro #60	1133 N. Tustin Av, Anaheim, (714) 630-0700 www/Corvettemike.com	We sell the best..... And service the rest!
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NOTE: Only those active SoCal SACC Chapter members with a C-1 related business/products are eligible to be listed for FREE!



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Marie's "57"

By Randy Solle

(Author: While my wife Diane and I were at a Car Show in San Diego this summer, which was put on by one of the local Corvette Clubs, we came across a very pleasant woman and her 57 Corvette, which I had not seen before. This is her story; I hope that you enjoy it.)

Sometime in the late 40's, a young San Diego Native named Marie, decided to go out on a Blind Date, with a young Graphic Artist who had moved from Oklahoma to sunny southern California with his family. As time went on, and their feelings grew, Marie became the wife of Raymond Taylor in March of 1949. On this special day, I'm sure their thoughts were about each other, their future together and the many happy days to come. But I bet their thoughts had nothing to do with how they would help alter the Corvette Culture in San Diego for the next 50+ years.

As the years rolled by, Ray got an urge to own a Corvette. Not just any Corvette, but a new 1957 with the 283 h.p. Fuel Injected motor. So a trip was planned to go down to Hatch Chevrolet in El Cajon, east of San Diego, and order their new car. The weeks went by, and it was time for their car to be finished. Marie and Ray had decided to go to the factory and pick up their new Aztec Copper with Beige Coves and Interior Corvette, rather than have it delivered to El Cajon. So off they went on a Greyhound Bus heading for St. Louis. Unfortunately, at this time, the bus would travel the side roads and wound up stopping at every little town along the way. After 2 days and a sleepless night, they finally arrived at their destination on Friday Morning, which was a dealership that was across the street from the factory. Of course as it turned out, their car was not ready yet, so they wound up sitting around all day, and walking up and down the street trying to find something to eat. Late in the afternoon, they were finally able to take possession of their car, and hopefully find a place to get some rest. As they started on their journey, they were required to drive the car for so long not over 35 mph, and then at a faster rate for a period of time after that. Well, there was one problem with this theory, and that was that the speedometer in the car did not work. Also, Marie wound up having to hold onto the shifter, to keep the car from jumping out of gear as they drove it. So they turned the car around, and took it back to the factory. They made some adjustments on the shifter linkage to solve that problem, but the speedometer had stripped out the nylon gear, and they wouldn't have one until Monday morning. Since that was not acceptable, they managed to convince them to take a gear out of one of the other cars that were setting there, waiting to be picked up.

After this long day, and a sleepless night the night before, they were finally able to get some dinner and well deserved rest. Saturday morning came and it was time to head off to Memphis to visit some relatives. After coming to a stop, they wound up drifting to the side of the road, after the car quit running. Upon investigation, a bolt had come out of the throttle linkage, and was luckily lying down on the frame. Marie had packed a small packet of tools in her luggage, and they were soon back on the road again. They finally made it to Memphis with no other problems, and were on their way home. Marie was driving, and somewhere north of Amarillo, it was rainy, and the water had broken through a bank on the side of the road, and basically put mud and slop all through the engine compartment. Of course it was Marie's fault (sound familiar anyone). They were finally home from their journey, and after a good bath for the car, everything was back to normal.

Soon afterwards, there was a notice of someone wanting to start up a Corvette Club in San Diego, and after a few gatherings, Ray and Marie were co-founders of the Corvette Owners Club of San Diego, locally known as "COCSD". The club had many events in its early years, parades, car rally's, Christmas Parties, and the yearly run to Las Vegas for a long weekend. Marie remembers one time, that they probably had about 27 cars go over, and they would pretty much fill up half of the Hotel that they would stay in.

This is copied from the club's website www.cocsd.com: "Ray Taylor, a man of many talents, designed the COCSD logo. For colors, Ray focused on Red, White, and Blue – the patriotic colors of our country, to represent America's true sports car. The checkered flag was added to represent the fact that the Corvette was a winner."



The steering wheel of the early Corvettes, many of which were red. The black elliptical, together with the elliptical curve of the flag and the steering wheel, were symbolic of the drawing of an atom, representing the power of the Corvette."

Over the years Marie held various offices and Ray was Activities Coordinator for many years. Time went by, and they continued to enjoy their car, and all of the enjoyment that came with it. But in 1966, there was another urge that they had felt before. This time, a group of them went down to Ed Taylor Chevrolet in San Diego, and ordered a group of 1966 Stingrays, 10 in all. The dealership flew them all out to St. Louis when the time had come to pick up their new cars. Unlike the last time, they were all shuttled to the Assembly Plant, given the grand tour, and then went to the back lot, where their new cars were setting in wait. There sat Ray and Marie's new pride and joy, a Mosport Green Coupe, with a 427, 4 speed, and side exhaust. After fixing some dead Batteries and Flat Tires, most of the group went their own way, but a hand full took in the sights of St. Louis before heading home.

Over the next few years Ray and Marie enjoyed their cars and the fellowship of other Corvette owners. For years they drove the 57 as a daily driver, and one time Marie remembers having to take the 66 through a police highway checkpoint, and then had to prove to the officer, that the car was not too loud, but had come from the factory with this exhaust, even though the one may have had a small hole in it. But, around 1970, their attention went in another direction, and the cars were pretty much parked. Ray was a Graphic Artist, but was very hands on and could do pretty much anything. He enjoyed working on his cars, his house, and volunteered at the Air and Space Museum for many years. Unfortunately, after having dealt for a couple of years with the after effects of a stroke, Ray passed away in 2001.

A few years later, in honor of her late husband, Marie decided to get the 57, with its 79,000 original miles, restored and back on the road again. She sold the 66 to a local enthusiast, who is in the process of restoring it back to its original condition. The 57 is now finished, and Marie enjoys driving it to club functions and shows, just as she and Ray had done many years ago.

COCSD is still going strong, with close to 300 members, and it is said that they are the oldest, continuously running Corvette Club in the Country. This is a current picture of Marie with her pride and joy. She is also dressed in what was the club attire at the time, a red and white striped top and white pants for the women, and a striped shirt and full length pants for the men in the club.



EXECUTIVE BOARD MEETING MINUTES SOUTHERN CALIFORNIA CHAPTER, SACC

THURSDAY, October 1, 2009

This Meeting was held at Weiler's Delicatessen in Canoga Park. The Board Meeting was called to order by President Phil Roche at 6:45pm. The following Board Members were present: Larry Pearson, Mike Gibbons, John Costales, and Chip Werstein. Also present was Bruce Fuhrman, Larry Wright, and Greg Davidian.

Officer Reports:

Copies of the Minutes from the August 20th E-Board Meeting were e-mailed to the Board Members by Secretary Larry Pearson for review by the Board. There were no corrections. John Costales made a Motion that the Minutes be approved. The Motion was seconded by Phil Roche, voted on, and carried unanimously.

The Board welcomed Greg Davidian into the Chapter as our newest Member. Greg, an Insurance Agent with Risk Strategies Insurance Brokers, was present to advise the Board about Club liability insurance matters, including Directors & Officers (D&O) Insurance coverage. Bruce Fuhrman brought the Board up to date on the matter of SACC National's liability insurance coverage for sanctioned events. We discovered, quite by accident, that National had allowed its liability insurance policy to expire, and that our July National Convention had no insurance coverage. Bruce, National Secretary, was attempting to prod National into obtaining insurance in time for our October 17th General Membership Meeting. Bill Herron, National Treasurer is obtaining quotes from several insurance companies and expects to have a new liability policy in effect by October 15th. Copies of the new policy will be forwarded to all Chapters.

John Costales, Chapter Treasurer and Membership Chairman, reported that we are financially sound. John presented the final financial report on the National Convention. We made a net profit of \$1208.70, of which we owe ½ to National, per agreement with them on hosting the National Convention. Chip Werstein made a Motion that we approve John Costales' Financial report and that we forward \$604.35 to National SACC. The Motion was seconded by Mike Gibbons, voted on, and carried unanimously. Chip Werstein reported that we have about 30 shirts left over from the Convention, consisting of tank tops (10), Convention shirts, and "Hard Man" shirts. Chip is storing them.

John brought up a proposal to raise dues, because the cost of the Newsletter has gone up. A discussion followed, and the Board decided that due to the profit from the Convention, we could afford to keep the dues as is for another year. The Board decided to table a dues increase until next year.

John Costales reported that as of tonight, we have 152 active Members, and are up to #176 in Chapter membership numbers. John Costales requested that he needs help at events collecting money and checking off attendees at events. John suggested that his position be split and that a new person take over the Treasurer position, and that he would continue as Membership Chairman. This would expand the Board by one position.

Chip Werstein, Tech. Session Chairman, reported that the Fall Tech Session is scheduled to be at the Toyota Museum in Torrance on Saturday, November 7th. The cost for attendees will be \$20, to be paid at the door. Possible topics and presenters (not all will be used) are: Doug Prince: front fender spears on 58-62; Evan Williams: Converting a C-1 to Silicone brake fluid; Steve Clifford: Topic to be determined by him; Eric Hershkowitz: Special tools and plug wires; Wally Dahl: Fiberglass repair; Joe Ryan: 53-55 – he restored one and has many possible topics. For Fall, 2010, Chip wants to do car “inspections” using the lifts available at the Toyota Tech Center (if we can get it).

Old Business:

Honorary Lifetime Memberships: Chip Werstein proposed that we consider making Dick Guldstrand and Peter Mann our first Chapter Lifetime Members. Chip made a Motion that we make Dick Guldstrand our first Honorary Lifetime Member, #1H. The Motion was seconded by John Costales, voted on, and carried unanimously. The Board decided to hold off on consideration of Peter Mann until we could check out his availability.

2009 General Membership Meeting on Saturday, October 17th: The Meeting will be at the Pomona Valley Mining Co. at 1777 Gillette Rd. in Pomona. John Costales reported that so far 39 people have registered to attend. Jim Gessner will be the guest speaker and is ready to go for a 45-minute presentation.

New Business:

Nominations for Chapter Officers for 2010: President Phil Roche opened Nominations for the Board positions:

President: Phil Roche carries over for his second year.

Vice President: Mike Gibbons carries over for his second year.

Secretary: Larry Pearson accepted the nomination.

Treasurer: New position, need a candidate.

Membership Chairman: John Costales accepted the nomination.

Technical Chairman: Chip Werstein accepted the nomination.

Fifth Anniversary Celebration Party at The Odyssey Restaurant in 2010: Next year, 2010, will be the fifth anniversary of our Chapter, and we propose to celebrate it at the site of our first General Membership Meeting. The proposed date is February 27, 2010.

Regan Ranch Tour: Chip Werstein knows the manager, and we will try to schedule this in for next year.

Phil Roche proposed that the next Board Meeting be held at Weiler's Delicatessen in Canoga Park on Thursday, November 12th at 6:30pm..

There being no further business before the Board, Mike Gibbons made a Motion that the Meeting adjourn. The Motion was seconded by Chip Werstein, voted on, and carried unanimously. The Meeting adjourned at 8:34 pm.

Respectfully submitted,

Larry Pearson

Secretary

Don't Forget, Renew Your SoCal SACC and National SACC Membership NOW!

USE THE APPLICATION ON PAGE 23 TO RENEW BOTH NATIONAL AND CHAPTER MEMBERSHIP.

YOUR CHAPTER MEMBERSHIP CHAIRMAN, JOHN COSTALES, WILL FORWARD YOUR NATIONAL MEMBERSHIP PAYMENT.

RENEWING BOTH MEMBERSHIPS THROUGH THE CHAPTER AVOIDS ANY "MIS-COMMUNICATION" BETWEEN THE CHAPTER AND NATIONAL.

RENEW NOW!!!

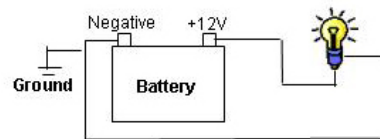
C1 Directional Signals – Operation & Troubleshooting...by Jim Lundal,#19C

Automobile Signal Light systems installed on our early C1's were very similar over the C1 years, and also similar to the Full-Sized cars. Recently, I had the opportunity to troubleshoot a SoCal SACC member's '62 experiencing a total system failure. No signal lights working at all. However, the parking and brake lights were functional. The initial inclination was a Flasher (elaborated on later) failure which proved to be false.

With these symptoms I first realized I needed to breakout the Signal Light circuitry from the wiring diagram printed in ST-12 and develop some troubleshooting techniques. Basically, I needed to get smarter on the Signal System. Since tracking the Signal Light wires is difficult when viewing the entire car wiring circuit, I extracted the information to a different diagram. This is the basis for this article, educate myself and pass information on to others, who might be interested. Since I don't know the readership's understanding of auto electrical systems I will begin very basic.

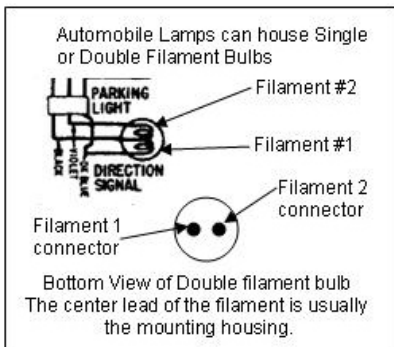
Important Concept – How to Turn a Light Bulb ON -

In order to light an auto lamp (12 volt systems being discussed but 6V is the same) you need a positive (+)12V source (wire from Battery) and a path (wire) for returning to the Battery Negative (Ground) terminal. The +12V is touched to the base "pin" on a lamp and the return wire is touched to the lamp metal housing and returned to the Negative Battery terminal. This is a complete circuit and every electrical system in your car uses this same situation to function (radio, wipers, heater, etc). The sources for +12V sources are in many locations in the car but in order for any electrical device to operate a return "ground" must get back to the Negative Battery terminal.



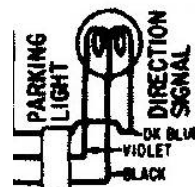
As is very well known in Corvettes, the car body is fabricated from fiberglass (a non-conductive material) and wire ground straps are strategically located to make a continuous ground path back to the Battery. This was the subject of a recent Larry Pearson Tech Session. Full-sized metal cars can rely on their metal bodies to make this ground return to the Battery.

-Automobile Lamps-



Automobile lamps contain a wire known as a filament, enclosed in a vacuum, within a glass enclosure. Some lamps have a single filament, or, additional filaments can also be added. Most auto lamps have single or double filaments. The adjacent diagram indicates a drawing for an auto lamp. The 2 lamp filaments pictured have a common connection in the middle. This connection usually is attached internally to the lamp metal base. On the bottom of the lamp base are 2 metal contacts which are connected to either filament 1 or 2.

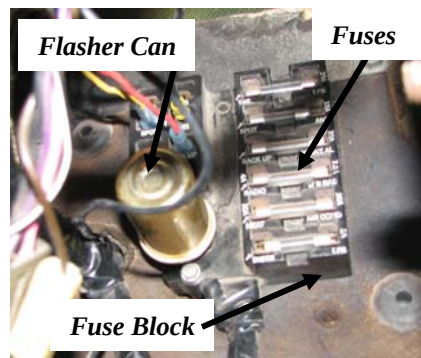
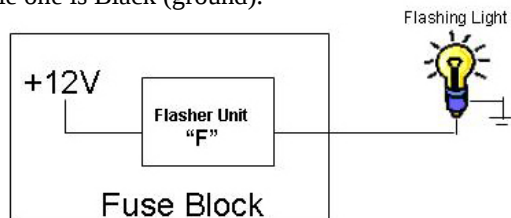
As is evident in the adjacent picture, a double filament will have two contacts on the lamp base. As labeled in the drawing, one filament inside our C1 lamps is a parking light/tail light, and a second filament is a signal/stop light. One filament can operate while the other is OFF, or they can both operate simultaneous.



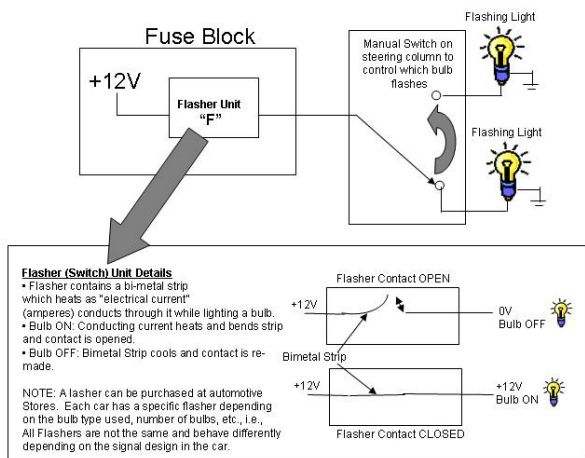
The lamp base is inserted into a socket containing 2 matching contacts and colored wires traveling into the car wiring system. In the diagram used one wire is Violet, one is Dk Blue and the middle one is Black (ground).

OK, That is it for the simple Stuff! Onto the C1 Signals.

A Flasher in the Signal Light system is nothing more than a Switch which connects and disconnects +12V to the auto lamps. This Switch is labeled "F" (Flasher) in the adjacent diagram. The Flasher plugs into most Fuse Blocks on our cars. The Fuse Block is a panel located on the inside of the firewall, lower left drivers side. The panel contains (depending on which C1) several fuses which are installed to protect specific devices in the car electrical system (radio, heater, etc.). It is the small round tin can shaped device and is plugged into the Fuse Block. See adjacent picture. As seen in the diagram, the Flasher is connected to +12V when plugged into the Fuse Block. A wire (yellow in this case) then is inside the car electrical harness which travels to the Steering Column Signal Switch.



"Flasher Units are different", i.e., they may not be interchangeable. Original automotive designers design the Flasher to be compatible with the type and number of lamp bulbs they are required to flash.



As the diagram on the left indicates, a Signal Light Switch is the manual control which connects the Front, Rear, Rt. & Lt. lamps. The Flasher Unit has 2 tabs on one end, one of which is powered by a +12V. A red wire from the ignition switch runs down to the Fuse Block to supply the +12V power. This means that the signals lights only work when the ignition switch is turned ON.

Flasher Unit and Operation

The Flasher Unit, "F" as indicated in the diagram, is basically a switch and contains a bimetallic (two types of metal) strip which when cold shorts (or connects) the two tabs on the bottom of the Flasher Tin Can. "When" the Flasher is connected to a lamp and supplied with +12V, this will make a complete circuit back to the battery. The light is lit, and current (amperes) flow through the Flasher and lamp. When the lamp is glowing it is from the filament heat inside the lamp and the same amperes

traveling through the Flasher will cause the bimetallic strip to heat and "curl", disconnecting the lamp. The lamp goes out, the bimetal strip cools (no amperes flowing) and straightens out reconnecting the lamp and the current flows again, until it heats and disconnects. Hence, a Flasher!

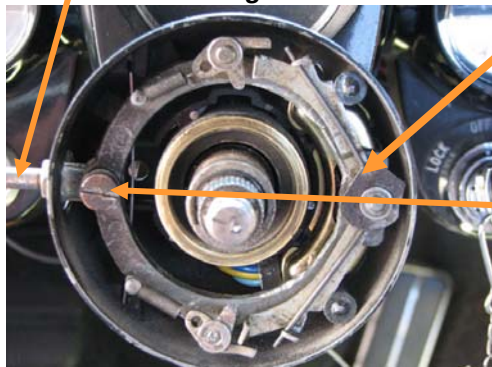
The IMPORTANT Fact to remember with this discussion is, "THAT THE AMPERES (CURRENT) FLOWING THROUGH THE FLASHER CAUSES THE INTERRUPTION OF "TURNING-ON AND TURNING-OFF" OF THE FLASHER +12V. When the Steering Col. Switch is NOT connected to the lamps, there IS NO current flowing through the Flasher and The Flasher DOES NOT OPERATE. ONLY, when the lamps are connected will the flasher operate, i.e., because the signal lamp is a "LOAD" and connected to ground which makes the Flasher operate.

-The Manual Signal Light Switch-

The manual Signal Light Switch is "switched" by the Signal Light arm on the left side of the steering column. Pushing the arm up means you turn Right, and vice versa. Leaving the arm in the center position is a neutral position and the signal are not suppose to be ON. The two pictures below view the components underneath/behind the steering wheel (Steering Wheel Removed).

Turn Signal Arm

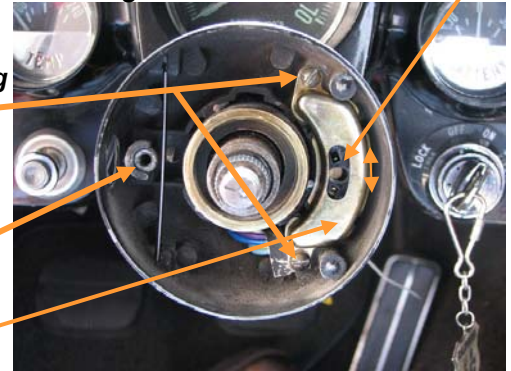
Steering Wheel Removed



Mechanical Canceling Device

Canceling Device Mounting Screw & Post

Canceling Device Removed



Switch Mounting Screws

Signal Light Switch

Engagement location of Canceling Device to make Rt. or Lt. Turn



Soldered Connectors (far-side)

Corvette Central Picture

Removing the Steering Wheel (not usually done unless for a reason) illustrates the mechanical Signal mechanism which operates the Steering Column Switch. This mechanical signal mechanism is a self-canceling device which switches the Column Switch to Rt. Turn, Lt. Turn and back to Neutral when a turn is completed. I am not going to cover the mechanical mechanism.

As indicated, the switch is underneath the canceling device and pictured to the right. The colored wires emanate out one side of the switch and travel down the steering column to the 2 connectors previously discussed. The original C1 steering column switch is a "sealed" enclosure and some replacement switches have exposed soldered connections on the far-side of the view shown. IF the switch is indicated to be a problem after troubleshooting, remove the switch and initially verify that no soldered wires are in contact with the metal steering column mast jacket, either replace or recheck the switch before replacing. By removing the wire at the connectors a continuity check (discussed later) can verify the switches operation.

Done With The Basics – Now to the Meat of the C1 Signal Configuration.

The diagram below indicates the Basic configuration of the C1 Signal Light system. This diagram does not indicate parking lights, backup lights, headlights, etc. This is only the Signal Lights. The wire colors are consistent with my 1960 C1 and several other years.

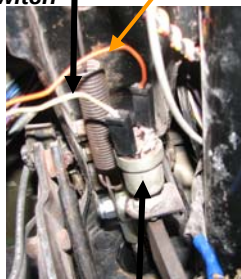
The Fuse Block contains the Flasher Unit and the +12V supply. The output of the flasher unit goes up a yellow wire to the steering column signal switch. Internally, the signal switch contains 6 contact points. One contact is from the Flasher. 2 contacts travel to the front 2 signal lights. The remaining 3 contacts travel to the 2 rear signal lights with the center contact wired to the Stop Light Switch using an Nat White wire (indicated in black below).

Stop Light Switch: This switch is located under the dash (see picture) and has a spring loaded plunger resting on the brake pedal. When you press the brake pedal the switch is closed placing +12V on the steering column switch center contact (Nat. White wire). When no Rt. or Lt. Signal is switched on the steering column, the switch is in a neutral condition indicated in the drawing. In the Neutral condition the stop light switch is connected to the rear signal/brake lights. IF the brake pedal is pressed, the rear signal lights receive +12V and the signal/brake lights are lit up (Brake Lights). The heavy solid bars (in the drawing) inside the switch indicate the switch connections and the arrows indicate the flow direction of the amperes (current) from the +12V through the lamp to ground. Remember each auto lamp is grounded Back to the Battery.

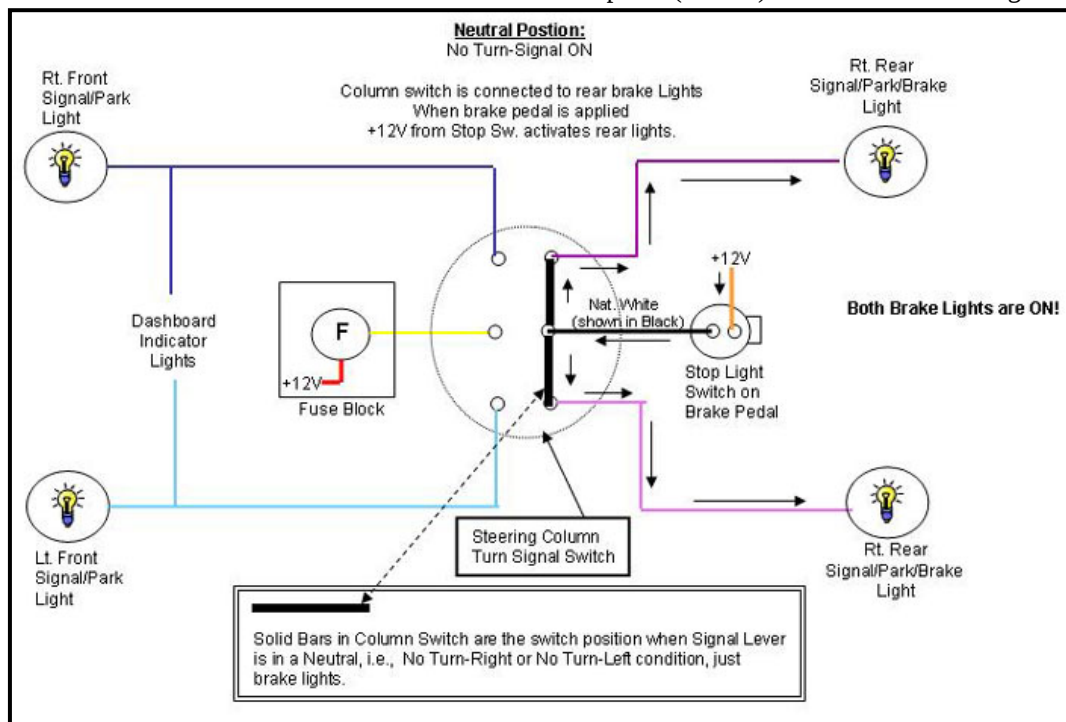
Stop Light Switch Under Dash

Nat. White wire to steering column switch

Orange wire with +12V



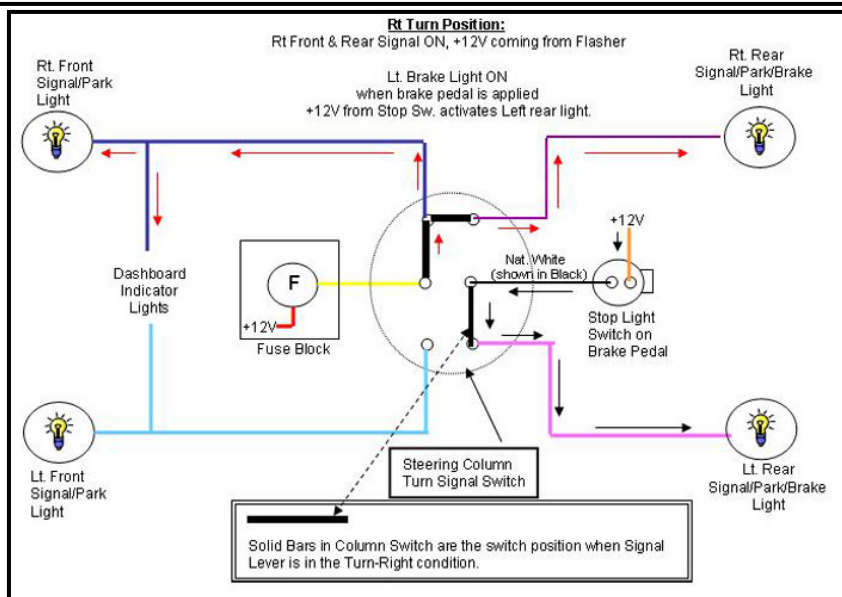
Brake Light Switch



Signaling For a Right Turn

Switch the Turn Signal for a Rt. Turn on the Steering Column. The steering column switch connections are as shown in the diagram on the right. Once the Flasher is connected through the column switch to the Rt. Turn Front and Rear Lamps, the current (amperes) passing through the Flasher makes the Flasher functional switching the +12V On and OFF. The Steering Switch also connects the Stop Light Switch to the Lt. rear light and IF the Brake is applied, the Lt. brake/signal light will light continuously. Remember parking lights and taillights can be working because all bulbs are double filament.

Also the Dark Blue wire travels to the arrows on the Dashboard light, which flashes.





Also the Light Blue wire travels to the arrows on the Dashboard light, which flashes.

- The two Front Signal Light wires in the diagram, Light. Blue & Dark. Blue, have additional wires which go to the Dash Indicator Lamps (Arrows) on your C1. These dash lamps are arrows that will flash correspondingly for whichever direction you are turning. If you view the connector picture you can see the Lt. & Dk. Blue wires along with another Light. & Dark. Blue going to the appropriate front signal lamp.



Light and Dark Blue wires to Dashboard Lights

Wires going to steering column switch

Trouble-Shooting and System Checkout

The trouble-shooting techniques on the Signal Light System depends on the symptoms experienced with any failure. Understanding how the Signal Light System works can lead to diagnosing a problem. As indicated in any Corvette Signal Problem always keep the “grounding” thought in the checkout. Metal cars use body’s of grounding and Corvettes use a ground wire to some metal location. Example: Back Lights are usually grounded to the bumper assembly.

In the car which precipitated this write-up there was a total system failure, no lights, no flasher, nothing. The first logical source for this type of failure is **Bad Flasher, No +12V at Fuse Block**, or, the **Steering Column Switch** is not connecting the Flasher to Signal Lamps. All other car lamp functions worked properly: Parking Lights, Brake Lights and Stop Lights.

Multiple Causes:

Always be aware of multiple problems! But for a total system failure begin by checking for the source +12V (with the ignition key ON) at the Fuse Block and checking the Flasher. **Remember**, the Flasher will only click (blink lights) when the lights are connected, i.e., signal for a Turn. Still no operation?

Next you might want to remove the shield on the lower steering column and disconnect examine the 2 connectors. This will also permit checking the steering column switch or inserting a Test Flasher. The yellow wire at the connectors comes from the Flasher, through the connector, to the steering column switch. Make sure all wires are inserted into the connector solidly.

Further checking can be done from the list below. This may require removing wires from the connectors.

Two Choices:

- You can put a **test light** (automobile lamp) substitution at the end of the yellow wire coming from the flasher. The yellow is touched to the light contact and a ground lead can be touched to the lamp metal base. Test wires with clips are probably most useful for this test. If the light comes on and flashes the Fuse Block equipment is probably working correctly.
- **Another method is Flasher substitution:** obtain another flasher and using test lead from a +12V source (Battery Terminal), clip to the +12V tab on the flasher. Clip another test lead to the remaining Flasher tab and touch the yellow wire going to the steering column switch. If a new flasher makes the Signal work, the problem would be the +12V in the Fuse Block or the Fuse Block Flasher.
- If, still nothing works, multiple problems may exist. To test the **steering column switch** the simplest method is a continuity check through the switch. After disconnecting the two steering column connectors and reviewing the wire colors on the previous layout, use the multimeter resistance scale and touch the meter leads to corresponding wire colors at the connectors. Simply, leave the key OFF, switch the column switch for a TURN and use the diagrams to measure no resistance between the correct colored wires. ALSO, while checking for no resistance touch one of the leads to a ground point (the steering column for example) to verify that the wire isn’t “grounded” due to the bare wire touching some metal. When you touch the lead to ground it should indicate a high resistance.

Test Car Summary and Conclusions

In the Test Car, two problems did exist, **1.** the wire from the ignition to the Fuse Block had several breaks and repairs (not soldered) which intermittently discontinued the +12V supplying to the Fuse Block. **2.** Another item was that the owner prematurely replaced a steering column switch with exposed solder joint terminals, and a terminal was touching the steering column mast jacket. Repairing the +12V supply wire, removing the steering column switch (requiring removing the steering wheel) and placing several layers of electrical tape across the switch terminals to prevent shorting, everything began working correctly. **3. Final Note:** Another problem did occur after driving home. When signaling for a Right turn both signal lights blinked and both dash lights blinked. The trouble was a bad ground connection on the connector near the Right front signal light.

Conclusion: The C1 Signal Light System can have a series of problems but understanding the operation can begin to isolate where you can begin to look initially. When there is a question where to begin, email or call Jim Lundal (jlundal@verizon.net or (714) 335-2963) for a “guess”.

This article is not intended to answer all Signal Light Problems but hopefully relay how this system operates. The C1 Signal System is very close to the Full-Size cars and operation is very similar, if not identical. Again, with old original wiring and C1’s requiring “wire grounding”, working on other items in the car any disturbing of a existing ground can cause some weird problems.

SCOOP COVER CARS:

FRONT COVER: Parking lot scene from the Fall 2009 Tech Session. The location is at the Toyota Museum parking lot in Torrance, CA.

REAR COVER: Bill Zappen’s 1954 Corvette in the Four Season’s Hotel at the 2009 Convention. The hotel is located in Ventura, CA and the tower in the rear was in the corner of the C1 parking area. Bill is SoCal SACC member #8C.

Welcome to the So Cal SACC (Solid Axle Corvette Club)

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Corvettes presently owned and please include VIN #'s for all C-1's: (C1 ownership not required).

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