SOUTHERN OREGON CORVETTE ASSOCIATION, LLC
WWW.SOVETTE.COM
P.O. Box 865 • Medford, Oregon 97501
501(c) (7) Non-Profit Organization • Federal Tax I.D. #91-1819589

Newsletter
April 2019

Elected Officers

President:	Ron Howard
Vice-President:	David Allen
Secretary:	Paul Mitchell
Treasurer:	Carol Misner
Sergeant-at-Arms:	Patrick Smith
Membership:	Robin Miranda
Past President (2018):	Ron Howard

Appointed Positions

Sunshine:	Sandee Anderson
Activities:	David Allen
Event Reminder:	Pat Dobson
Internet Site:	Sharon Hook-Martino, Cathy York
Parade Coordinator:	Sheron Leigh, Dora Surbrook-Moore
Natl Corvette Museum:	Len Atlas
Historian:	Group Effort
Photographer:	Group Effort

May Birthdays

3	Lynne O'Leary	24	Blanca Hill
6	Dan Calvert	25	Cathy Cardoza
8	Diana Roarty	27	Paul Mitchell
12	Dee Yellin	27	Dale Morgan
19	Jo Ann Lloyd	30	Julie Allen

May Anniversaries

1978 Terry & Debbie Miller

SOCA Logo Apparel

Contact: Ron Howard

Next Club Social

April 27: The Point Pub & Grill (upstairs),
311 E. Pine St., Central Point

Please RSVP to Pat Dobson at:

pdobson0503@icloud.com **or (541) 664-4506**

Why Join SOCA?

- **Promote *esprit de corps* among Corvette enthusiasts.**
- **Create interest in the Corvette as a true dual-purpose sports car.**
- **Provide a means of technical information and service to members.**
- **Encourage dealer and manufacturer cooperation.**
- **Organize and promote events of a social nature and provide social gatherings for enthusiasts with common interest.**
- **Sponsor or participate in activities to benefit the community through recognized charities as selected by the members of the Association.**

Upcoming Meetings

General Membership Meeting, May 1, 2019, 7:00 p.m.
Rogue River Community Center, 132 Broadway St., Rogue River

Visitors are always welcome!

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2019 Southern Oregon Corvette Association (SOCA) Events

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Club meeting (Wed.)	1	5	3	7	4	2	6	4

APRIL

Parade	13 – Pear Blossom Parade, Medford *(no candy throw)*
After Parade	13 – Lunch after parade at Roadhouse Grill, 2699 W. Main St., Medford, ~12:30 p.m.
Social*	27* – The Point Pub & Grill (upstairs), 311 E. Pine St., Central Point, 6:00 p.m., bring pool cues * 4th Saturday of April

MAY

Parade	4 – Merlin Parade, details to be announced (TBA) *(yes candy throw)*
Social	18 – Bella Union Restaurant (upstairs), 170 W. California St., Jacksonville, 6:00 p.m.
Parade	25 – Boatnik Parade, details TBA *(no candy throw)*

JUNE

Social	15 – Wolf Creek Inn & Tavern (upstairs), 100 Front St., Wolf Creek, time TBA
~~Parade~~	~~22 – Rooster Crow Parade~~ *(SOCA members voted to not attend this parade in 2019)*

JULY

Parade	4 – Eagle Point Parade, details TBA
Corvette Weekend	12 to 14 – SOCA 2019 **Corvette Weekend**, fundraiser for "Candlelighters For Children With Cancer" (and the July Social)

AUGUST

Social	17 – Potluck gathering at the Peterson's home, details TBA.
PNW & NCM Caravan	*21 – Depart Grants Pass for the Pacific Northwest Caravan to the 25th National Corvette Museum Caravan in Bowling Green, Kentucky*

SEPTEMBER

NCM Caravan	*8 – National Corvette Museum Caravan drivers return (approximate date)*
Sigel Show & Shine	14 – Jim Sigel Show & Shine, details TBA
September Social	21 – The Point Pub & Grill (upstairs), 311 E. Pine St., Central Point, 6:00 p.m., bring pool cues

OCTOBER

October Social	19 – Si Casa Flores restaurant, 202 NE Beacon Dr., Grants Pass

NOVEMBER

Daylight Savings	*3 – DST ends*
November Social	16 – location and details TBA
Thanksgiving	28 – Thanksgiving holiday

DECEMBER

Parade	7 – Grants Pass Christmas Parade, details TBA
Social	15 – SOCA Christmas Party, Grants Pass Golf Club, 230 Espey Rd., Grants Pass, details TBA

For additional events, information and links … see the SOCA website "Events Page:" https://www.sovette.com/events

The Anti-Lock Brake System (ABS)

The theory behind anti-lock brakes is simple. A **skidding wheel** (where the tire contact patch is sliding relative to the road) has less **traction** than a non-skidding wheel. If you have been stuck on ice, you know that if your wheels are spinning you have no traction. This is because the contact patch is sliding relative to the ice. Keeping the wheels from skidding while you slow down, anti-lock brakes benefit you in two ways: you will stop faster, and you will be able to steer while you stop.

There are four main components to an ABS system:

- Speed sensors
- Pump
- Valves
- Controller

Speed Sensors - The anti-lock braking system needs some method of sensing when a wheel is about to lock up. The speed sensors, which are located at each wheel or in the differential, provide this information.

Valves - There is a valve in the brake line of each brake controlled by the ABS. On some systems, the valve has three positions:

- In position one, the valve is **open**; pressure from the master cylinder is passed right through to the brake.
- In position two, the valve **blocks** the line, isolating that brake from the master cylinder. This prevents the pressure from rising further should the driver push the brake pedal harder.
- In position three, the valve **releases** some of the pressure from the brake.

Pump - Because the valve is able to release pressure from the brakes, there has to be some method to put pressure back into the brake system. The pump does just that; when a valve reduces the pressure in a line, the pump is there to increase the pressure back up.

Controller - The controller is a computer in the car. It monitors the speed sensors and controls the valves.

ABS at Work

There are many different variations and control algorithms for ABS systems. We will discuss how one of the simpler systems works.

The controller monitors the speed sensors at all times - it is detecting unusual **decelerations** (decreases in speed) in the wheels. Immediately before a wheel locks up, the wheel will rapidly decelerate. If left unchecked, the wheel would stop much more quickly than any car could. It might take a car five seconds to stop from 60 MPH (96.6 km/h) under ideal conditions, but a wheel that locks up could stop spinning in less than a second.

The ABS controller is programmed that such a rapid deceleration is impossible, so the controller reduces the **pressure** to that brake until the controller detects acceleration, then it increases the pressure until it detects deceleration again. The controller can do this very quickly, before the wheel and tire can actually significantly change speed. The result is that the wheel and tire system slows down at the same rate as the car, with the brakes keeping the wheels very near the point at which they will start to lock up and prevent the tires from skidding. This gives the brake system maximum braking power.

When the ABS system is in operation you will feel a **pulsing** in the brake pedal; this comes from the rapid opening and closing of the valves. Some ABS systems can cycle up to 15 times per second.

Anti-Lock Brake Types

Anti-lock braking systems use different schemes depending on the type of brakes in use. We will refer to them by the number of channels -- that is, how many valves that are individually controlled -- and the number of speed sensors.

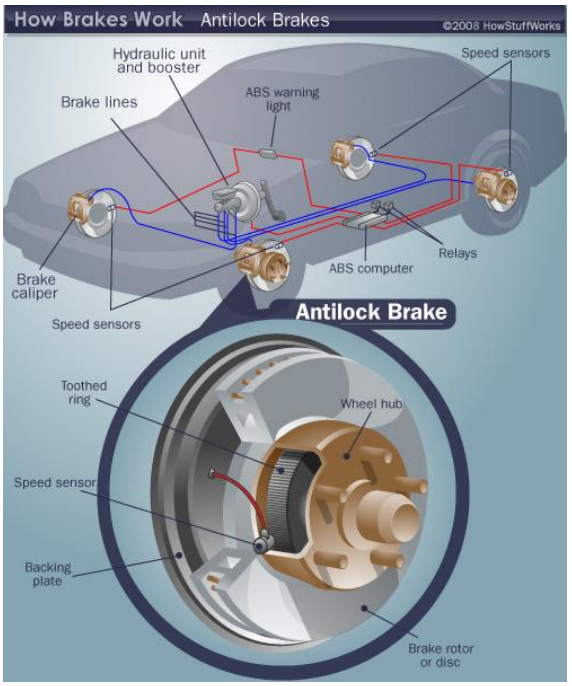
Four-channel, four-sensor ABS - This is the best scheme. There is a speed sensor on all four wheels and a separate valve for all four wheels. The controller individually monitors each wheel to be certain each wheel is achieving maximum braking force.

Three-channel, three-sensor ABS - Commonly found on pickup trucks with four-wheel ABS, this scheme has a speed sensor and a valve for each of the front wheels, and one valve and one sensor for both rear wheels. The speed sensor for the rear wheels is located in the rear axle.

This three-channel, three-sensor scheme provides individual control of the front wheels, so they can both achieve maximum braking force. The rear wheels, however, are monitored together; they both must start to lock up before the ABS will activate on the rear. With this system, it is possible that one of the rear wheels will lock during a stop, reducing brake effectiveness.

One-channel, one-sensor ABS - This scheme is commonly found on pickup trucks with rear-wheel ABS. It has one valve, which controls both rear wheels, and one speed sensor, located in the rear axle.

This one-channel, one-sensor scheme operates the same as the rear end of a three-channel system. The rear wheels are monitored together and they both must start to lock up before the ABS kicks in. It is also possible one of the rear wheels will lock, reducing brake effectiveness.



A one-channel, one-sensor scheme is easy to identify. Usually there will be one brake line going through a T-fitting to both rear wheels. The speed sensor can be located by looking for an electrical connection near the differential on the rear-axle housing.

ABS Questions

Do anti-lock brakes really work?

Anti-lock brakes really do help you stop better. They prevent wheels from locking up and provide the shortest stopping distance on slippery surfaces.

Should I pump the brake pedal when stopping in slippery conditions?

You absolutely should NOT pump the brake pedal in a car with ABS. Pumping the brakes is a technique that is sometimes used in slippery conditions to allow the wheels to unlock so that the vehicle stays somewhat straight during a stop. In a car with ABS the wheels should never lock in the first place, so pumping the brakes will increase the time and distance required to stop.

During an emergency stop in a car with ABS, you should firmly apply foot pressure to thehe brake pedal firmly and hold it while the ABS does all the work. You will feel a pulsing in the pedal that may be quite violent, but this is normal so do NOT reduce foot pressure on the brake pedal.
