NO Meeting in April ...... Please dig in and hopefully our lives will soon return to normal.

### Chevrolet Trivia

What was the first year Chevrolet cars & trucks came with hydraulic brakes?

# **Fuel Gauge Testing**

By Stephen Kassis

The fuel gauge is one of the most important gauges in the instrument panel. It is simple in both function and operation. When it is not operating properly, it seems to be a big mystery - but it's not. Test the basic parts of the circuit and you can easily identify the problem. One caution: prior to 1955, most GM cars & trucks used 6 volt systems. If your vehicle has been changed to 12 volts from 6 volts, you must not hook up the fuel gauge directly to 12 volt power. It is a very sensitive gauge and the windings will be damaged by 12 volts. Use a special fuel gauge resistor to protect the original 6 volt fuel gauge that will be running in a 12 volt system.

All GM fuel gauges from the early 1930's to the 1960's operate on a 30 ohm scale. At zero ohms from the sending unit, the dash gauge should read Empty; at 30 ohms it should read Full. It is vital that the sending unit is matched to the dash gauge. If you are using an aftermarket fuel gauge in the dash, you must have a sending unit that has a matched ohm rating or it will not

function properly. The sending unit is merely completing the circuit for the dash gauge by grounding it to the chassis. Just like a light bulb must have a ground to operate, the fuel gauge must also be grounded to operate. As the float arm is raised, the resistance is increased, until (at the top) the resistance should be 30 ohms (Full). At the bottom, resistance is zero (or completely grounded) and should indicate Empty on the dash gauge.

#### **TESTING**

#### If your gauge reads FULL AT ALL TIMES:

#### A. Probable Causes

- Wire from dash gauge to sending unit is broken and/or the connection is corroded (not making a good electrical connection).
- 2. Resistance wire inside sending unit is broken
- 3. Sending unit is not properly grounded to tank or tank is not properly grounded to chassis

#### B. Testing

- Remove the wire from the contact stud on the sending unit and ground it to the chassis. If the gauge now reads Empty, the trouble is either poor grounding of the sender or a bad sending unit.
- If the gauge still reads Full, touch a grounded test wire to the sending unit terminal on the back of the dash gauge. This terminal is often marked with a red tag. If the gauge now reads Empty, the wire from the dash to the sending unit is

- broken or the connection to the dash gauge is corroded.
- 3. With the sender removed from the tank, connect an ohm meter to the sending unit (one lead to the contact stud and one to the housing) and check the resistance of the sender as you manually raise and lower the arm. This reading should be 0 to 30 ohms (or very close).
- 4. If none of these tests finds the problem, the dash gauge is the problem and should be rebuilt or replaced.

#### C. Repairs

- 1. Make sure that a good ground is present at the dash gauge and also at the sending unit. Run a separate ground wire to the chassis if necessary.
- Sliding contact arm may not make good contact to the resistance wire windings in sender. If you are experienced with electrical repairs you may be able to clean the wiper and resistance wire coil or replace the wire. Otherwise send the unit to a specialist or replace the unit.
- 3. Check for good ground at sender body and gas tank.

#### If gauge reads EMPTY AT ALL TIMES:

#### A. Probable Causes

- 1. Wire from sender to dash gauge is shorted to ground.
- 2. Sending unit is shorted internally
- 3. Float in sender is defective
- 4. Testing
- 5. Disconnect wire from sending unit at tank. If gauge now reads Full, the trouble is in the sending unit.

- 6. Disconnect sender terminal wire at dash gauge. If gauge now reads Full, the wire to the sending unit is shorted to ground. Replace wire.
- 7. Repairs
- 8. Look for broken or loose wire in the fuel gauge circuit and within the sending unit.

Note that many GM dash gauges are interchangeable by exchanging the face of the gauge to retain the original appearance. Also, many GM sending units will interchange by modifying the float arm. Original sending units can often be repaired. Check to make sure that the proper 6 or 12 volt power is present at the ignition side of the dash gauge. If changing from 6 volt to 12 volt, be sure to install a special fuel gauge resistor inline before hooking up to 12 volts. Make sure to have a good ground at the sending unit, fuel tank and also the dash gauge.



This '55 was the high school car of Barry Goldsmith ..... his story

Attached is a picture of my 55' Chevy that I had from 1961 through 1965. It started life as a two tone 210 sport coupe. I had it customized to replace a very faded original paint job when purchased. A guy opening a new body shop owed my dad a lot of money for tools. So to settle the claim, my father told the guy to do whatever I wanted on the car. I had it completely decromed and painted 60 Chrysler jade green. The car got new custom matching seat covers and 56' Buick wheel covers with center mounted bullets. The power plant was

left as a stick 6. It was bullet proof through H.S., College and first professional job after graduation. Wish I had it now. Ed. Note .... How many of us have said that same thing?

# A link to an article in Hagerty Magazine 5 steps to bring your car out of storage

https://www.hagerty.com/articlesvideos/articles/2020/03/26/5-steps-to-bringyour-car-out-of-

storage?utm\_source=SFMC&utm\_medium= email&utm\_content=20\_March\_30\_Newslett er\_NewDD

It does talk about cold weather but still useful for our long time storage cars.

A picture from Hershey 1966. The bottom one looks like a car I know.

#### **April Birthdays**

Anthony Palazzo	4 <sup>th</sup>
Ron Mauer	6 <sup>th</sup>
John Potter	8 <sup>th</sup>
Joyce Noble	14 <sup>th</sup>
Brent Davis	15 <sup>th</sup>
Dave Sparks	17 <sup>th</sup>
Lisa Lewinson	18 <sup>th</sup>
Larry Lewinson	21 <sup>st</sup>

Sue Palazzo 28<sup>th</sup> (Anthony's mom)

#### **Anniversaries**

Carrie & Dave Valentine	8 <sup>th</sup>
Alba & Rich Wisman	12 <sup>th</sup>
Carolyn & Bob Regan	18 <sup>th</sup>
Janet & Fred Bell	19 <sup>th</sup>
Karen & Carl Jappe	21th
Sabrina & Jim Karras	22 <sup>nd</sup>

#### A wonderful day to you all.







Thank you, Andy, for these

## Chevrolet Trivia Answer

The first year Chevrolet had hydraulic brakes was 1936. Chevrolet beat out Ford by three years on this safety feature. However, it was way behind Chrysler & Duesenberg, who offered hydraulic brakes in the early 1920's!

## Next Meeting @ park

# Too be determined when all is normal again Balboa Park

17015 Burbank Blvd., Encino, CA 91316 7:30 – 9:00 PM