

Removal and Installation of the 1958-62 Corvette Instrument Cluster



Dave Zuberer



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The materials presented here were collected from the NCRS Technical Discussion Board and from my personal experiences with removing the instrument cluster of our '60 Corvette to replace the tachometer.

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Re: 1960 instrument cluster removal

I wish I could give credit to the person from whom I copied this. They're smarter than I.

Instrument Panel Unit removal/installation tips:

- A) Remove the vent operator. If you mark the adjustable vent operator connection before removing the two bolts, reassembly of the operator is much easier. Removal of the vent operator is **necessary to get at one of the hold down bolts for the instrument panel unit (but see Ed Jennings note below about that bolt)**. If you leave this panel bolt out on installation, you shouldn't have to remove the vent operator the next time. I don't think that the instrument panel needs as many bolts as there are. Two out of the five would probably be more than adequate.
- B) Remove from the lower housing, the ignition switch, wiper switch and headlight switch. You don't need to take the wiring off of the switches, just push them back to free them from the housing. This frees the wiring harness from the housing.
- C) Take off the steering column attachment pieces.
- D) Disconnect the oil gauge line at the back of the gauge.
- E) Be sure that the speedometer cable is free enough out in the engine compartment to be pulled about 6 inches through the firewall. If it can't be pulled through as the instrument panel is pulled out, it has to be disconnected now at the back of the speedometer, before decent access space is created in the following steps.
- F) Have an 18 to 20 inch long piece of 3/4" PVC pipe or wood rod or equivalent ready.
- G) Pad the painted steering column and turn signal hub behind the steering wheel. Do a good job and make this well cushioned to protect the paint.
- H) If you didn't take out the hold down bolts for the panel yet, do it now.
- I) Lift the panel unit out of the dash toward the steering wheel. This might be hard if it is stuck in place. Be patient. Take your time and **don't pull too hard on the lower panel housing or you can break/damage it**.
- J) When the panel is free, pull it out towards you, and set the front tips (below tach), on the padded hub almost touching the back of the steering wheel.
- K) Put the pipe/rod across the dash opening and set the rear of the housing down on it. The panel is now supported.
- L) There now is relatively easy access to remove the light sockets and wiring from the back of the gauges as well as the speedometer cable. **I labeled each of the wires as I went and left the labels on when I reinstalled which makes repeat jobs go easier**. You won't have to spend so much time with the wiring diagram.
- M) The instrument panel unit can now be lifted out of the car.
- N) Installation is the reverse of this process.
- O) I put a little Loctite PST anaerobic pipe thread sealant on the oil line nut threads and around the outside of the tube near the end where the nut swages to ensure that there wouldn't be any leakage.

Re: 1960 instrument cluster removal

If your cluster has been previously removed, there is a **good chance that the 5th bolt under the vent mechanism isn't there**. Look before you remove the vent linkage. I find that removing the steering wheel, which only takes me about 3 minutes, helps with access room under the dash. It is not essential that you do this step. If you do elect to remove the wheel, **do NOT attempt to do so without a steering wheel puller**. You will almost certainly break something. A harmonic balancer puller will also work, but if you have to buy a puller, the steering wheel model is pretty cheap, about 10 bucks.

Bob SimardJanuary 17th, 2005 06:31 PM

One Caution

When reinstalling the instrument cluster, **DO NOT push on the small gauge housings to move the cluster into position**. The large pot metal cluster pieces are very weak and can be easily bent out of alignment. Do not ask me how I know this. I would not recommend thread sealant on the oil line fittings, and do not tighten them more than just snug. If weeping is noticed, tighten a little more. Have fun. And be sure to disconnect the battery. Again, don't ask.

From the NCRS TDB 2008**Richard Mozzetta (13499)**January 6th, **2008** 06:13 AM

Hi Steve,

It's quite a big job, but pretty straightforward. Plan on several hours. You have to remove the entire instrument cluster to get at the tachometer. Basically you have to do this.....

To prevent sore muscles the next morning, go to the gym and work out for a few hours to loosen up your body.:-) Then....

Disconnect neg. battery cable. Get pillows, a good light, the tools needed and put them near you. It stinks if you forget something and need to get in & out from under there. **Remove the seat bottom to give you more room too.**

Remove

- ◆ remove the steering wheel using a puller
- ◆ cover the upper column area near the bottom edge of cover to keep from scratching it. I use duct tape wrapped backwards.
- ◆ all wires from behind the gauges, lighter, etc. (**label each with tape**) Pay extra attention to fuel gauge for safety. **Note ammeter wiring as AIM diagram is wrong (it is reversed)**. There are 2 pinks (different gauges) at the ign. switch. Write down where each goes.
- ◆ all inst. Bulbs (mark each with tape, mark back of gauge panel too!)
- ◆ oil pipe at oil press gauge
- ◆ speedo and tach cables(long pliers help here if tight)
- ◆ remove 5 cap screws holding cluster to dash. Some may be tough to get at. A flex socket helps here.

- ◆ double-check everything is disconnected
- ◆ carefully remove the cluster by lifting up and towards you at the same time
- ◆ on the bench you can now get at the tach. Can't recall if the speedo needs to come out to get at it. (**DZ Note:** yes it does see Figure below).
- ◆ the tach comes apart pretty easily if I recall, a few screws/nuts any you're in.

Now that the cluster is out, you may want to change a few other items.....speedo bezel chrome, lenses, etc???? I may have forgotten a few items but that's basically it.

Then you have the fun of putting it all back in!!!!

Good Luck,
Rich

Re: C1 - Instrument Panel Re-assembly

Mike Ernst--

Thursday, 14 April 2005, at 8:46 a.m.

Put the upper and lower halves together after you have assembled the cigarette lighter housing to the lower half.

Then add the tach (**has to be in before the speedo can go on**) then the two gauge clusters. Leave the one lower speedo screw loose, because the ground wire needs to go to that after it's up in place. **Don't tighten the upper speedo nut too tight--that's why you see the indents in the tops of the clusters on many cars.**

Have your wiring under/over the steering column as appropriate--along with the hood pull cables in the right locations/clips, etc.

As you set the cluster into the hole, no matter what you have done, it will fit very tightly and the holes on the underside will not line up. Don't force it by yourself--and as you or your assistant pushes, be careful. There are many housings at swap meets and on eBay with the tabs from the upper broken off--this is how it happened!

As you push it back, make sure that the one cable isn't caught behind the one leg of the upper cluster--it wants to do that, but will cause major problems.

I've used a tapered drift to help pull it in on the bottom while someone pushes from above--and then start the bolt in the hole next to the one in which I have the drift.

Once those are in place, then then connect the wiring, the ignition switch and headlight switch and wiring, attach the oil line to the back of the gauge, then put the cowl vent mechanism back in, and attach the speedo and tach cables.

Regarding the bell that houses the turn signal--I've tried installing the cluster with that already on the column and have scratched the bell. I've also tried it with putting the bell on later and then scratching the column while trying to get tight that infernal screw that goes into the tapered block inside the cup.

Narrow but long hands, a flexible shaft nut driver for attaching the wiring nuts to the backs of the gauges, a willing helper, and an extensive vocabulary of 4-letter words are prerequisites for getting the job done. Have fun!!

Mike

To go along with Mike's excellent post I made some notes for the wires.

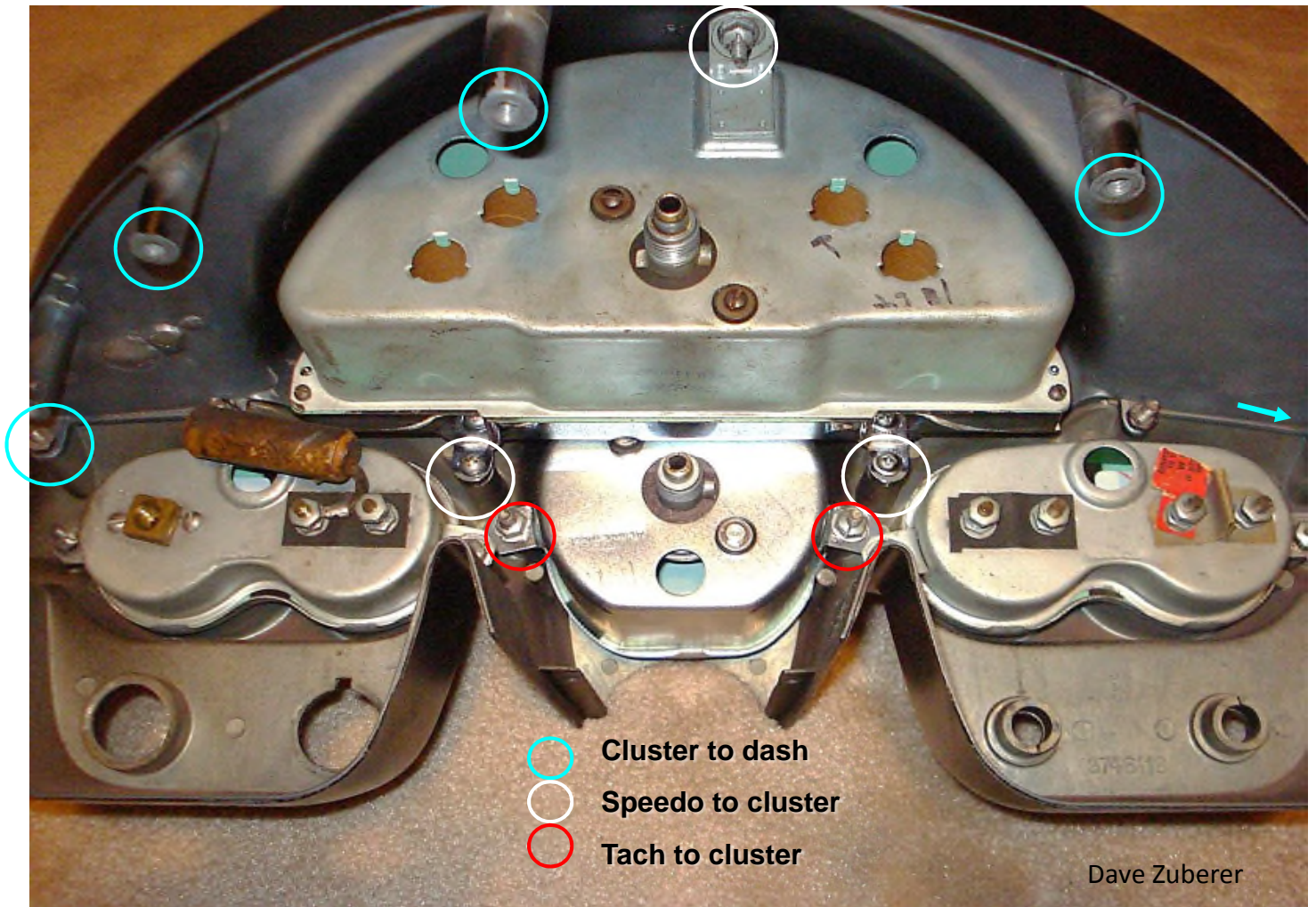
- ◆ With all the wires in the area of the cluster the ORDER of installation is important..
- ◆ Looking at the back of the gauges from the firewall side,
- ◆ Don't install the light switch yet or remove it.
- ◆ Install wiper switch or leave it in.
- ◆ Black ground gauge cluster.
- ◆ Amp gauge Red on the left, black on the right (from engine harness)
- ◆ Red pig tail goes to lighter
- ◆ Plug connector into ignition switch (from engine harness)
- ◆ Plug pink wires into ignition switch (from engine harness)
- ◆ Temp gauge Dark blue on the left, pink on the right (from engine harness)
- ◆ Fuel gauge Brown on the left, pink on the right
- ◆ Long gray wire bulb to top hole in right side of speedometer case (left blinker side)
- ◆ Long gray wire bulb to top hole in left side of speedometer case (right blinker side)
- ◆ Light green wire bulb to middle hole on left side of speedometer case (right blinker side)
- ◆ Dark blue wire bulb to bottom hole on left side of speedometer case (right blinker)
- ◆ Tan wire bulb, a separate wire to middle hole on right side of speedometer case
- ◆ Light blue wire bulb to bottom hole of right side of speedometer case (left blinker)
- ◆ Plug the light harness in and install the light switch

The order of installation isn't critical on the balance of the wires.

LP

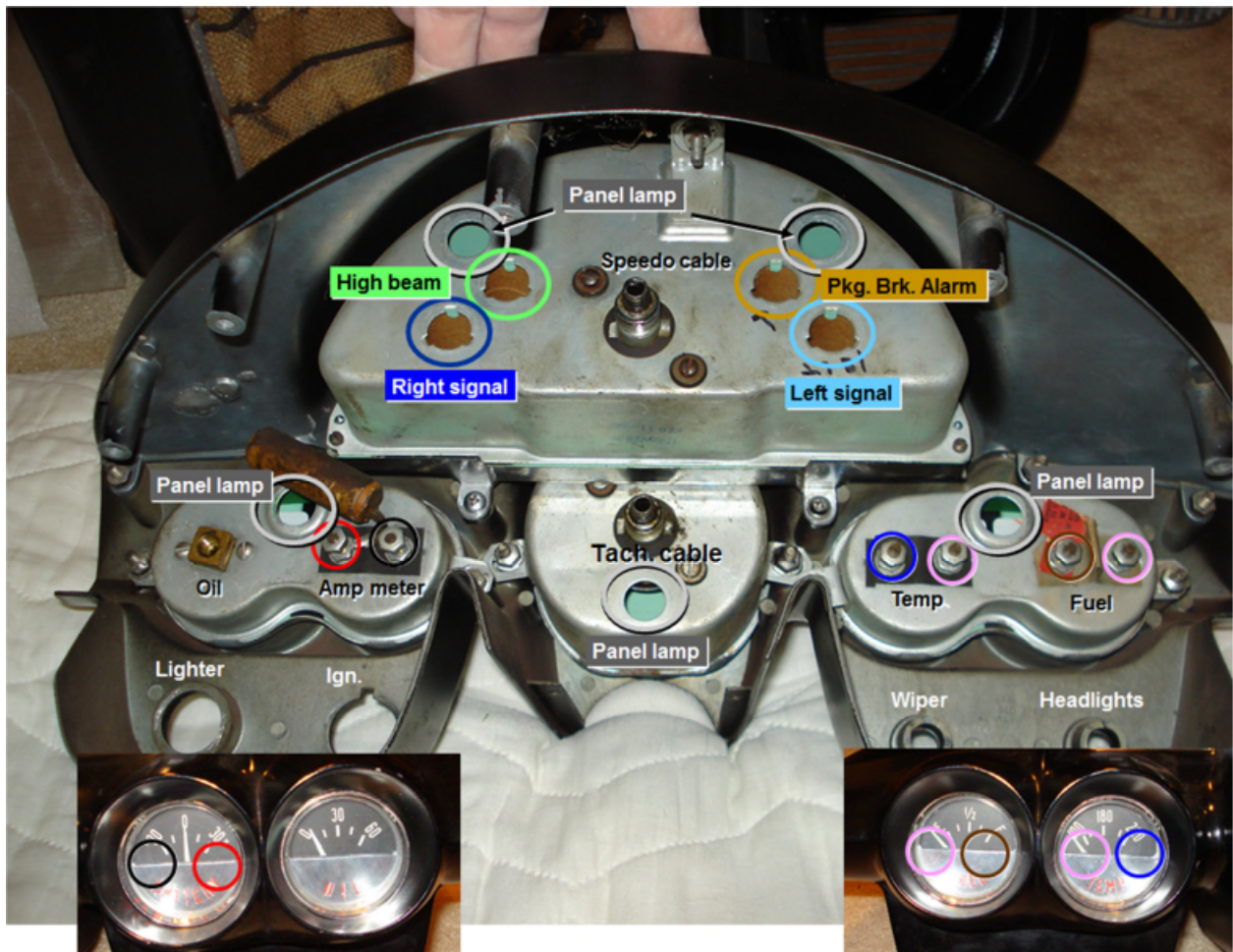
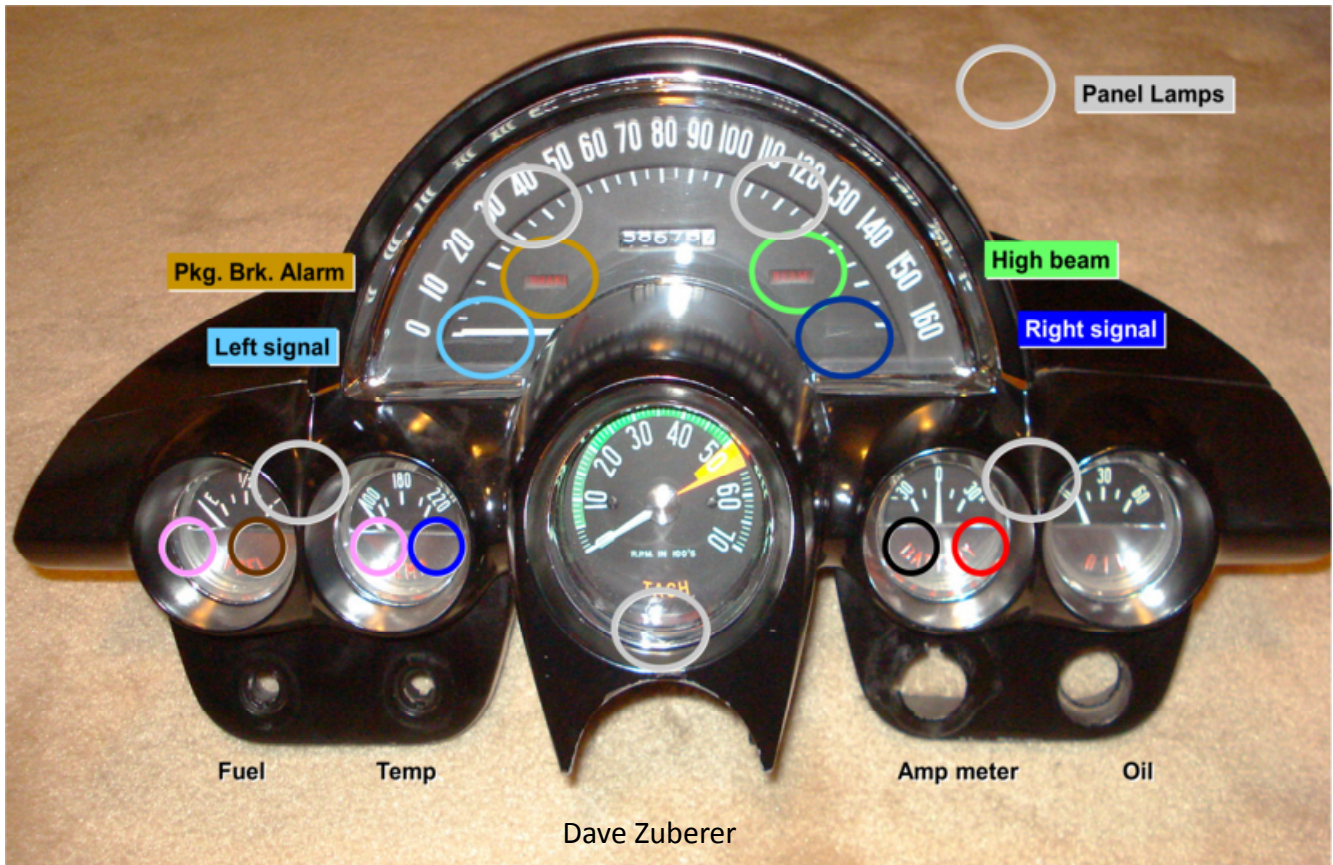
Locations of "cluster attachment" points:

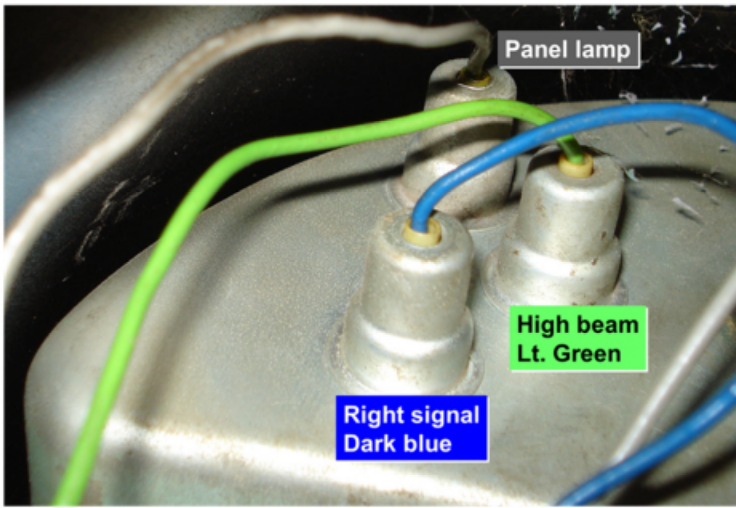
The photo below shows the locations of the screws that attach the cluster to the dash, the speedometer to the upper cluster housing and the tachometer to the lower cluster housing.



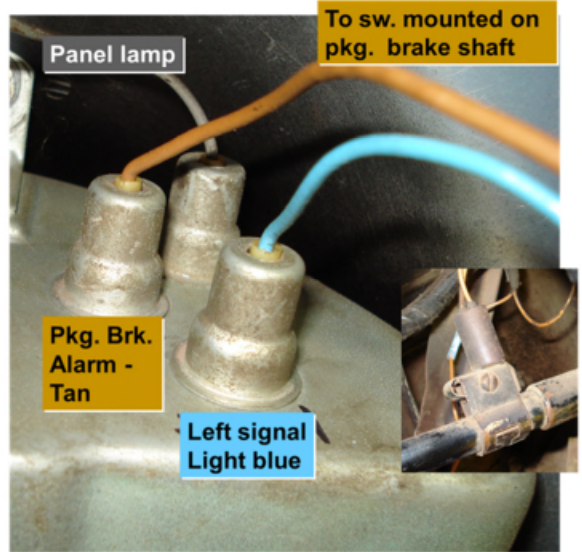
Note that the tach sits behind the speedometer so the speedo must be removed to get the tach out.

Wiring connections of the cluster:





Passenger side



Driver side

