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1966-67 Chevelle

Gauge Cluster Kit Installation Instructions (510028)

Important facts about this kit.

1. The dash panel used in this picture is used by permission of Covan's Classic.
2. This kit requires some modification to your original under dash wiring harness. It is not intended to be a complete plug and play interface. We strive to make the integration of this product as easy as possible. However, in many cases there are no mating connectors due to obsolescence of original factory connectors. This requires substitution of components that will require modifications on the part of the installer.
3. As mentioned throughout the documentation included here, it is important to read the instructions that come with the gauges. This is important to identify the type of gauge used and any special requirements the manufacturer may have for installation.
4. This harness is designed to be used for Autometer Series I and Series II short sweep gauges. The harness is not compatible with Autometer full sweep gauges as they include their own sender harness assemblies. This harness assembly addresses connection of the water temperature, oil pressure, fuel, voltmeter, speedometer, and tachometer gauges, as well as indicator lights for turn signals, high beam lights, and emergency brake (if originally equipped).
5. Vehicle grounding and specifically instrument panel grounding are extremely important to the operation of you gauges. Check your grounds as this is the most common problem concerning proper operation of your gauges.



STEP 1:

Install the blade terminals to the back of each of the 4 small gauges. Secure the terminal with a lock washer and nut. There are specific left, center, and right hand terminals. Install as shown in the photo.

NOTE: Voltmeters use the 'GND' and 'I' terminals only.

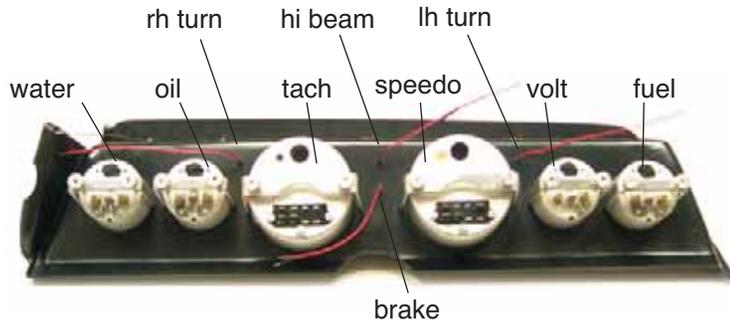


STEP 2:

Plug the appropriate lamp socket pigtailed into the 4 smaller gauges. This picture shows the lamp socket on a Series I gauge. Series II gauges have an integral blade terminal for the lamp power and ground connection.

STEP 3:

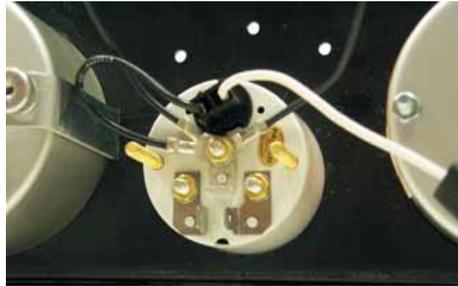
Insert gauges into housing in locations shown.
Install retention brackets on all gauges



STEP 4:

Drill mounting holes for LED's, using a 5/32" drill bit, at the desired locations. Insert LED's in the hole from the front of the panel.

NOTE: The LED housings are a taper fit into the hole. Press the LED housing all the way in to tighten against the instrument panel.



STEP 5:

Connect the black ground wires from the lamp pigtailed to the center ground studs of the smaller gauges as shown.

NOTE 1: This picture shows connection of individual light sockets as would appear on Series I gauges. The speedometer and tachometer have separate twist-in light sockets.

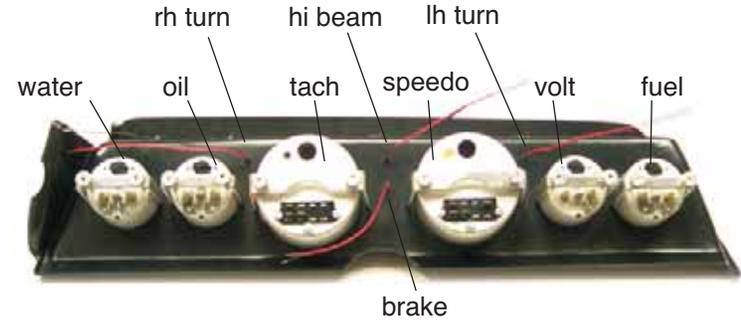


NOTE 2: This picture shows connection of lighting as would appear on Series II gauges. A separate blade terminal for power and ground exists for the internal lighting. The speedometer and tachometer have a specific lamp terminal within the 8 cavity plug.



STEP 6:

Install the mounting brackets on all the 6 gauges. The completed assembly is now ready for the connection of the wiring harness. Note that this assembly shows Series I gauges.



STEP 7:

Plug in gauge connections using the supplied connectors. Plug in the connectors in the order shown below. A typical plug-in is shown in this picture.

- | | |
|-----------|---------------------------|
| 1. FUEL | pink / black / tan |
| 2. TACH | pink / black / white |
| 3. TEMP | pink / black / dark green |
| 4. OIL | pink / black / dark blue |
| 5. VOLT | pink / black |
| 6. SPEEDO | pink / black / purple |



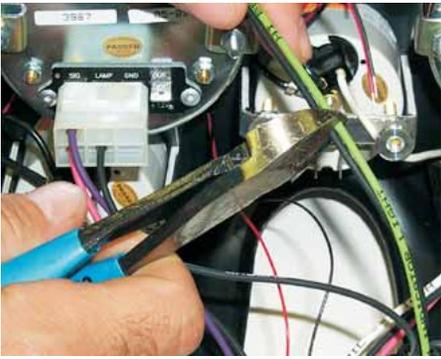
STEP 8:

Plug each lamp power wire (white) into the mating connectors on each gray wire (DASH LIGHTS) on the new harness.

NOTE:

The supplied wiring harness comes with plug-in female terminals for the power and ground terminals of the Series II type 2 1/16 inch and 2 5/8 inch gauges. This is a direct plug into the terminals on the gauge. If you are using Series I gauges, you will have to remove these terminals and connectors and install the male and female disconnect terminals supplied in the kit to connect the individual light sockets. This picture shows this connection type. Please refer to the instruction sheet in the 500928 Gauge Side Wiring sub-kit for a more detailed explanation of the differences in the gauges.

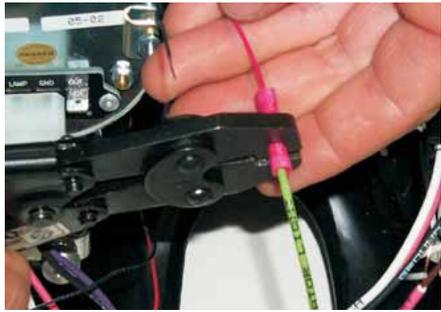




STEP 9:

Select an LED lamp from the panel, and attach the appropriate signal lead wire from the harness, as noted below. Each signal wire will attach to the red LED lead wire from the panel. Trim the wires from the harness to the desired length before crimping.

LED color	function	power wire color
blue	high beam	light green
green	left hand turn	light blue
green	right hand turn	dark blue
red	brake	pink



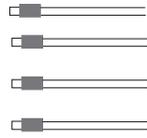
STEP 10:

Install butt connectors, as shown, matching the wire functions noted above with the proper LED. Trim wires from the harness to the desired length before crimping.

Match the black wire from each LED panel lamp with a black ground wire from the harness for all LED lamps except the red brake warning LED.

If you are using the red brake warning LED lamp, remove the factory lamp socket and attach the black lead wire from this LED lamp to the factory brown wire. As noted above, the red will connect to the factory pink wire.

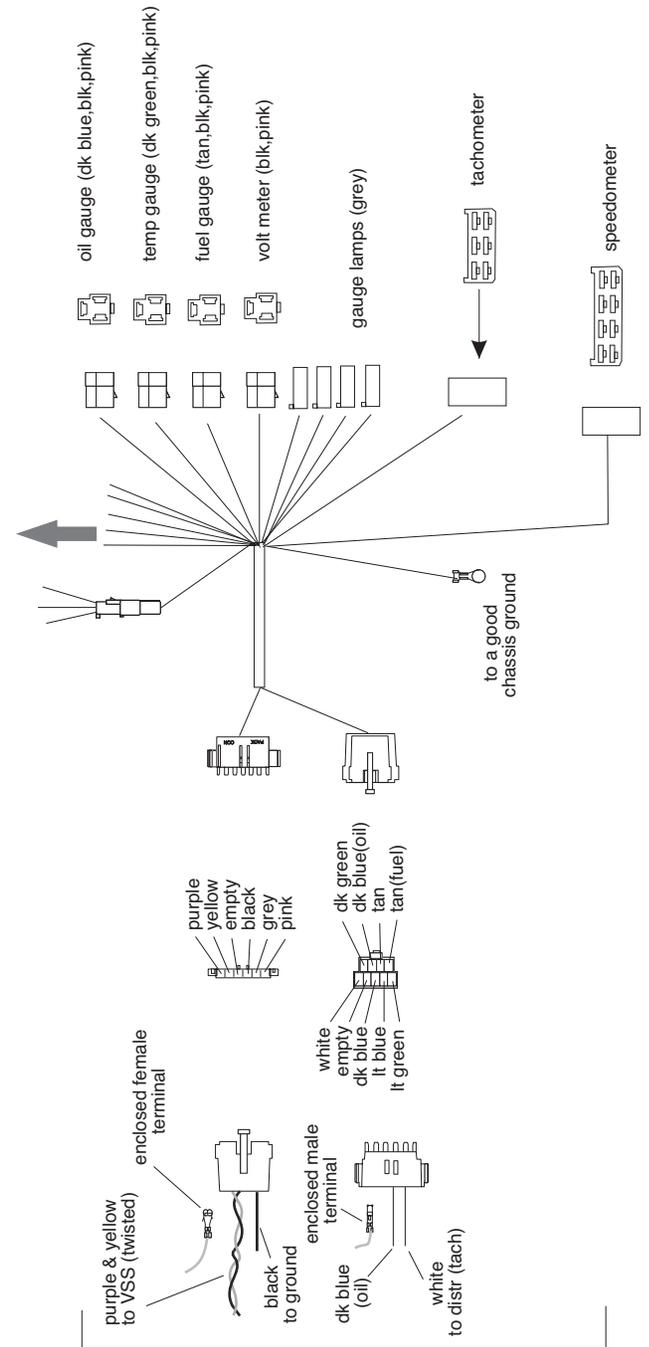
LED color	function	signal ground wire color
red	brake	tan



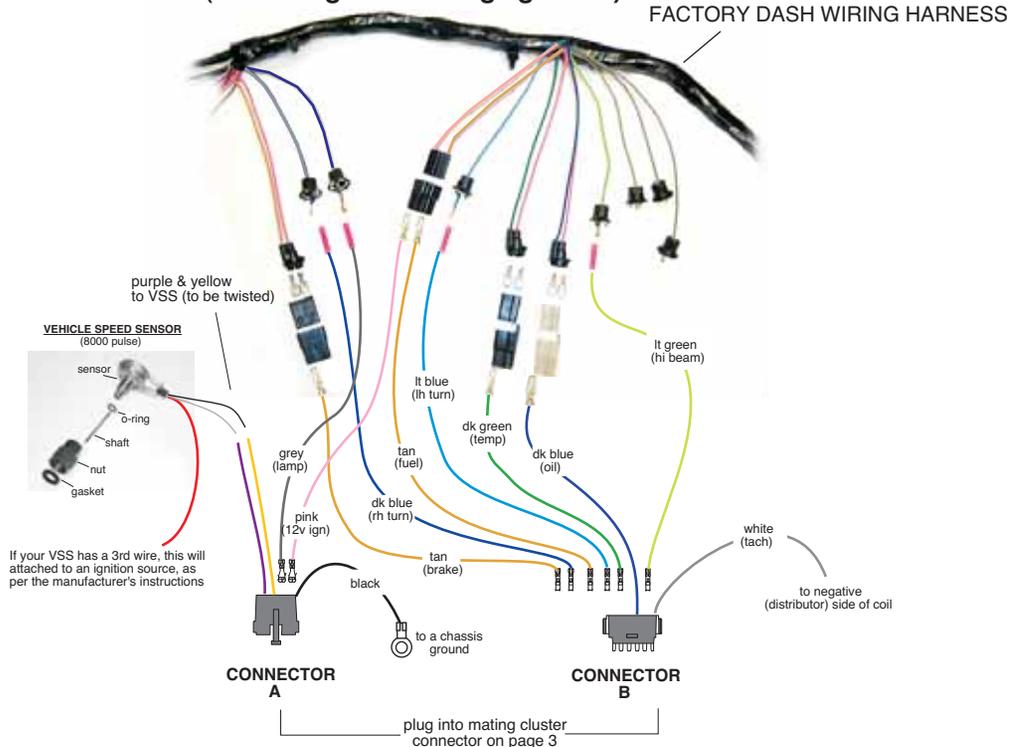
LONG BARE LEADS
 it green: connect to hi beam LED red lead
 black: connect to hi beam LED black lead
 it blue: connect to LH turn LED red lead
 black: connect to LH turn LED black lead
 dk blue: connect to RH turn LED red lead
 black: connect to RH turn LED black lead
 tan: connect to the brake LED black lead
 pink: connect to the brake LED red lead

STEP 11:
 Connect your existing instrument cluster wires to the new wiring kit using the supplied connectors and terminals. Wires are provided to connect directly to factory gauge or warning light applications. Be sure to maintain color continuity with the gauge side wiring when plugging the wires into our connectors. There are empty cavities. Note: Empty cavities can be used for remaining wires from the original cluster connectors which are not used in this application. This will protect the wires.

Route the long purple & yellow wires to the transmission Vehicle Speed Sensor (VSS). Be sure to twist the wires as shown! This is necessary to prevent signal interference.



DASH HARNESS CONNECTION (on an original warning light car)



WIRE IDENTIFICATIONS

CONNECTOR A

BLACK (ground). Connect to a good chassis ground

PURPLE (speedometer sender). Route to the speedometer sender (VSS). This is the VSS signal lead.

YELLOW (speedometer sender). Route to the vehicle speed sensor (VSS). This is the VSS ground lead. Twist this wire with the purple wire above all the way to the transmission. This will properly shield the signal wire from interference.

PINK ((12 volt ignition) See the tan 'fuel' wire below.

GRAY (instr lamp). connect this wire to an existing grey lamp feed wire using the supplied butt splice terminal.

NOTE: The remaining original cluster lights will not be used. Remove original bulbs and tape back leads being sure to insulate wires from any shorting. All other unused wires **MUST** be taped back and protected, or installed into remaining cavities of the new cluster connectors.

CONNECTOR B

LT BLUE (left turn ind). Connect to original left hand turn signal wire (lt blue) using supplied butt splice terminal.

DK BLUE (rt dash ind). Connect to original right hand turn signal wire (dk blue) using supplied butt splice terminal.

LT GREEN (hi beam ind). Connect to the original hi beam indicator lamp (lt green) using supplied butt splice terminal.

WHITE (tach). Connect to the negative (distributor) side of coil.

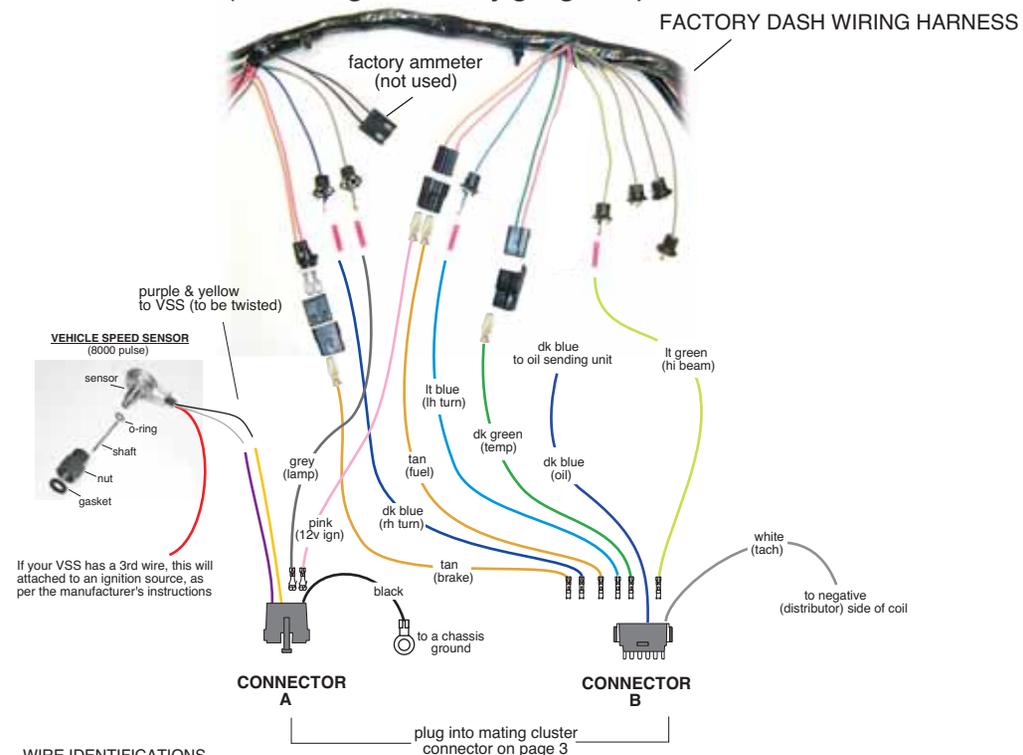
DK BLUE (oil pressure). Connect this wire to your original oil pressure light lead using the supplied mating terminals and connectors. Both the dark blue and the pink wires from the original warning light will be terminated and plugged into the mating connector. Only the dark blue wire will continue into the gauge disconnect. Be sure to maintain color continuity with the existing connector on new gauge harness.

DK GREEN (temperature gauge). Connect this wire to your original temperature light lead using the supplied mating terminals and connectors. Both the dk green and the pink wires from the original warning light will be terminated and plugged into the mating connector. Only the dark green wire will continue into the gauge disconnect. Be sure to maintain color continuity with the existing connector on new gauge harness.

TAN (fuel gauge)(and PINK (12v ignition) from CONNECTOR A)
Install the terminals and connector provided and plug into the original fuel gauge connector.

TAN (no printing on wire)(Brake warning light). 1967 Chevelle only. Connect this wire to the brake lamp wires using the terminals and connectors supplied. The pink wire will not continue on past this connector.

DASH HARNESS CONNECTION (on an original factory gauge car)



WIRE IDENTIFICATIONS

CONNECTOR A

BLACK (ground). Connect to a good chassis ground

PURPLE (speedometer sender). Route to the speedometer sender (VSS). This is the VSS signal lead.

YELLOW (speedometer sender). Route to the vehicle speed sensor (VSS). This is the VSS ground lead. Twist this wire with the purple wire above all the way to the transmission. This will properly shield the signal wire from interference.

PINK (12 volt ignition) See the tan 'fuel' wire below.

GRAY (instr lamp). Connect this wire to an existing grey lamp feed wire using the supplied butt splice terminal.

NOTE: The remaining original cluster lights will not be used. Remove original bulbs and tape back leads being sure to insulate wires from any shorting. All other unused wires **MUST** be taped back and protected, or installed into remaining cavities of the new cluster connectors.

CONNECTOR B

LT BLUE (left turn ind). Connect to original left hand turn signal wire (lt blue) using supplied butt splice terminal.

DK BLUE (rt dash ind). Connect to original right hand turn signal wire (dk blue) using supplied butt splice terminal.

LT GREEN (hi beam ind). Connect to the original hi beam indicator lamp (lt green) using supplied butt splice terminal.

WHITE (tach). Connect to the negative (distributor) side of coil.

DK BLUE (oil pressure). Connect this wire to the oil pressure sending unit.

DK GREEN (temperature gauge). Install the male terminal provided and plug into the connector shown above. Plug this connector into your original temperature gauge connector, as shown. The original dk green wire will pass through this connection, and the pink wire will not continue on past this connector.

TAN (fuel gauge)(and PINK (12v ignition) from CONNECTOR A)
Install the terminals and connector provided and plug into the original fuel gauge connector.

TAN (no printing on wire)(Brake warning light). 1967 Chevelle only. Connect this wire to the brake lamp wires using the terminals and connectors supplied. The pink wire will not continue on past this connector.

NOTE: The factory ammeter connection is not used with this gauge kit and must be protected with tape and secured to dash harness.