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**1967-68  
Camaro**

**Gauge Cluster Kit  
Installation instructions  
(500840)**



**1973-87  
Chevy / GMC Truck  
5" Tach & Speedometer  
2 5/8 " Oil, Water, Volt & Fuel**

## 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 your gauges. Check your grounds as this is the most common problem concerning proper operation of your gauges.



STEP 1: There are 4 small gauges. This is a photo of the bare gauge. Wires will be attached to the sender (S), power (I), and ground (GND) studs of the gauges.

NOTE: Voltmeter uses the 'GRD' & 'I' terminal locations only.



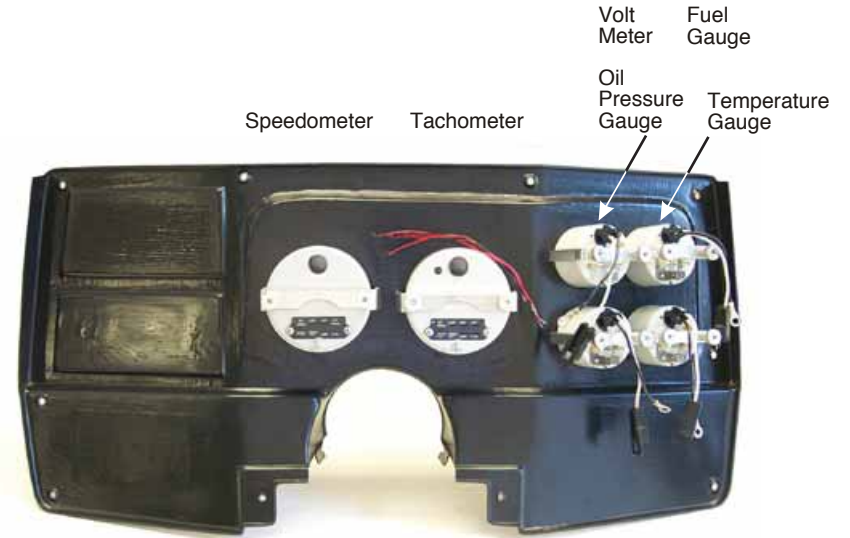
STEP 3: Plug in appropriate lamp socket pigtail into the 4 smaller gauges.

STEP 4: Plug in lamp socket pigtails into the Speedometer and Tachometer if applicable.

STEP 5: Insert gauges into housing in locations shown. Install retention brackets on all gauges

STEP 6: Drill 4 mounting holes for LED's, using 5/32" drill bit, at desired locations. Insert LED's in hole from front of panel.

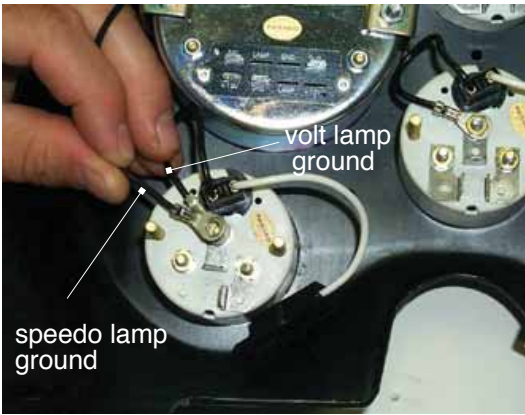
NOTE: The LED housings are a taper fit into the hole. Press the LED housing all the way in to tighten against the instrument panel.



Complete gauge cluster assembly for 1973-87 Chevy/GMC truck ready for wiring.



Complete gauge cluster assembly for 1976-78 Camaro ready for wiring.

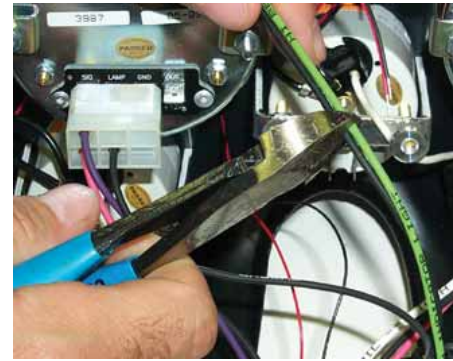


STEP 7: Connect the black ground wires from the lamp pigtails to the center ground studs of the smaller gauges as shown.

NOTE: The speedometer lamp ground will connect on the volt meter ground stud (as shown), and the tachometer lamp ground will connect to the fuel ground stud (not shown).

STEP 10: 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	hi-beam	light green
green	lh turn	lt blue
green	rh turn	dk blue
red	brake	pink



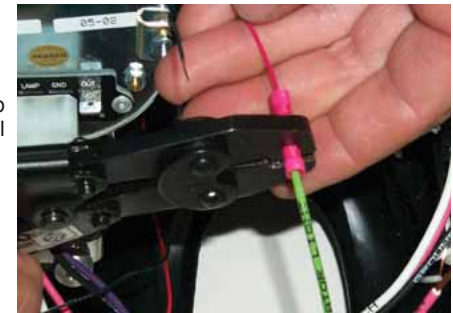
STEP 8: Connect the gauge sender wires in the order shown below.

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

STEP 11: Install butt connectors, as shown, matching the wire functions noted above with the proper LED. Trim the wires from the harness to the desired length before crimping.

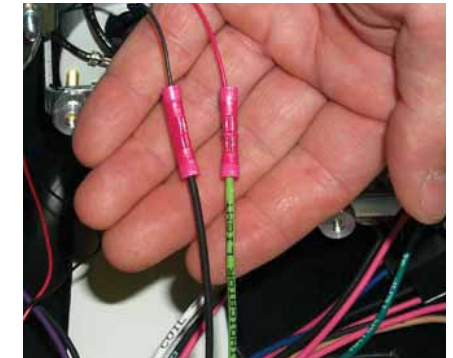
Match the black wire from each LED panel lamp with a black ground wire from the harness for all LED lamps except the red brake warning LED.

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 tan wire. (as noted above, the red will connect to the factory pink wire).



LED color	function	signal ground wire color
red	brake	tan

This is a completed LED splice.



STEP 9: Plug each lamp power wire (white) into the mating connectors on each grey wire (DASH LIGHTS) on the new harness with the supplied male and female disconnects. Light sockets for the gauges are provided separately. This kit includes separate male and female disconnects and ring terminals that are used to connect the light sockets to the harness assembly. The picture below shows the correct way to terminate the light sockets with the enclosed terminals. For those gauges having two light sockets per gauge, two light power leads can be inserted into one male connector to make one light connection per gauge



**STEP 12:**

Connect your existing instrument cluster wires to the new wiring kit using the supplied connectors and terminals and pin location chart. Be sure to maintain color continuity with the gauge side wiring when plugging the wires into our connectors.

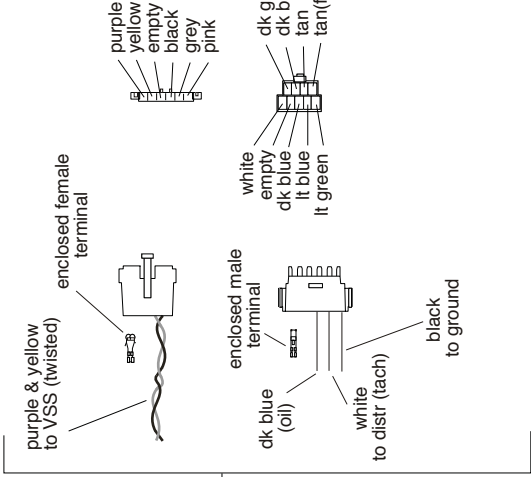
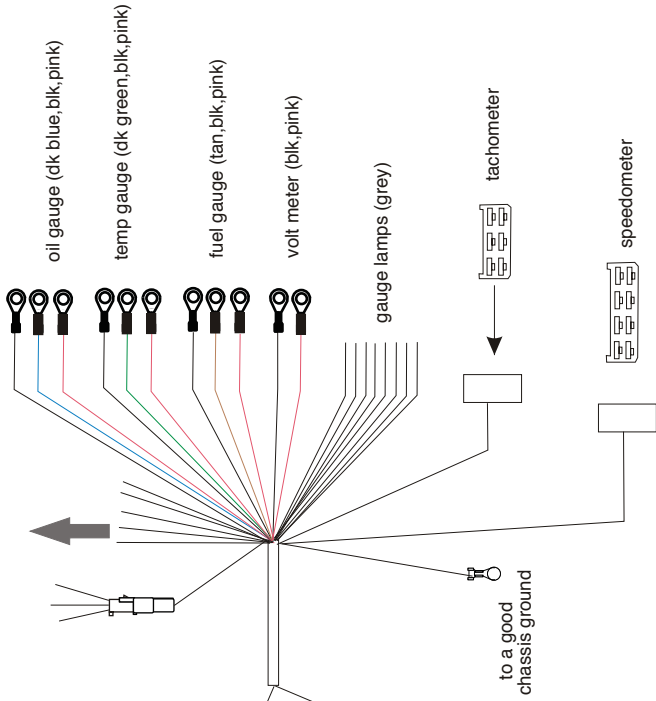
Using the enclosed PIN LOCATION chart, apply the appropriate terminal to your existing wires and plug into the supplied connector. There are empty cavities. Note: Empty cavities can be used for remaining wires from the original cluster connectors which are not used in this application. This will protect 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.

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 92967340 (500840) instruction sheet rev. 2.0 12/15/2005

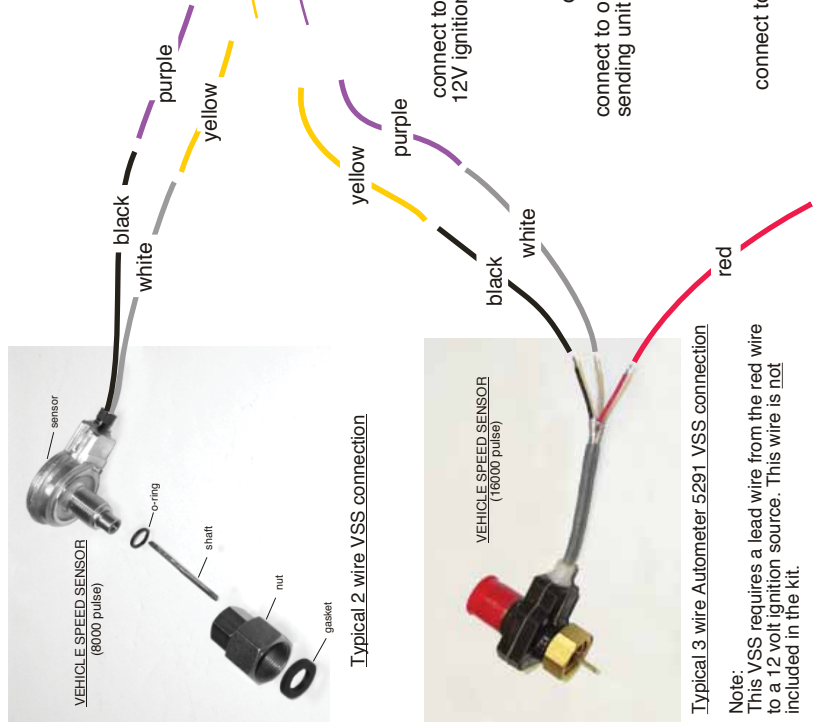


- LONG BARE LEADS**  
 lt green: connect to hi beam LED red lead  
 black: connect to hi beam LED black lead  
 lt blue: connect to LH turn LED red lead  
 black: connect to LH turn LED black lead  
 dk blue: connect to RH turn LED red lead  
 black: connect to RH turn LED black lead  
 tan: connect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



**DASH SIDE CONNECTIONS**

Use the included PIN LOCATION CHART on the following page to identify the wires which will be used for this connection process. Be sure to maintain color continuity (and wire function) with the mating connectors from the previous page. Using the information below, connect the necessary wires to the connectors shown. If you are using the wires from your existing instrument cluster connect with the existing terminals and terminate using the new terminals supplied in the kit. Plug these wires into the new cluster connector maintaining color continuity with the mating connectors from the previous page. Extra wires are provided in the kit if it is necessary to complete the cluster connections. 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.

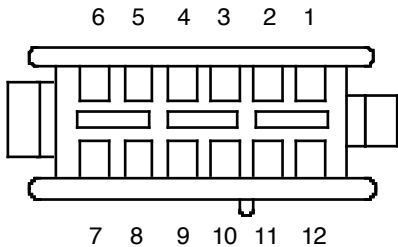


Typical 2 wire VSS connection

Typical 3 wire Autometer 5291 VSS connection

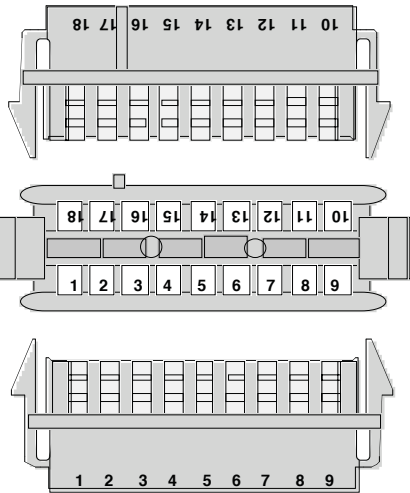
Note: This VSS requires a lead wire from the red wire to a 12 volt ignition source. This wire is not included in the kit.

**Printed Circuit  
Cluster Connector  
Pin Locations**



1967-68 CAMARO DASH PRINTED CIRCUIT CONNECTOR PIN LOCATIONS						
Circuit NO.	Function	Wire Color	1967 factory gauges Pin Loc	1967 warning lightsc Pin Loc	1968 factory gauges Pin Loc	1968 warning lightsc Pin Loc
30	Fuel tank sender	tan	see note 1	1	see note 1	1
39	12 Volt fused power	pink	7	7	7	7
25	Alternator light	brown	see note 2	11	see note 2	11
33	Brake Warning	tan	10	10	10	10
14	Left Turn Indicator	light blue	9	9	9	9
31	Oil pressure sender	dark blue	see note 1	8	see note 1	8
15	Right Turn Indicator	dark blue	12	12	12	12
8	Instrument Lights	gray	3	3	3	3
35	Coolant temperature sender	dark green	see note 1	2	see note 1	2
121	Tachometer	brown	1		2	
952	Low Fuel Indicator (not used)	yellow			8	see note 4
11	High Beam Indicator	light green	see note 3	see note 3	see note 3	see note 3
Notes:						
1	1967-68 factory gauges cars were equipped with the console gauge package consisting of fuel, temperature, ammeter electrical gauges and a mechanical oil pressure gauge.					
2	Factory gauges cars were not equipped with an alternator charge light					
3	The high beam indicator light is a separate socket mounted top center in the original cluster. It does not have a circuit board connection.					
4	1967 low fuel indicator lead wire was a 12 volt lead from the original low fuel indicator module to a separate light socket mounted underneath the circuit board and grounded through the cluster housing. 1968 low fuel indicator lead wire was a ground lead from the original low fuel indicator module. The new gauges have no provision for the original low fuel indicator module or light and cannot be used.					

### Printed Circuit Cluster Connector Pin Locations



### 1973-87 CHEVROLET/GMC TRUCK DASH PRINTED CIRCUIT CONNECTOR PIN LOCATIONS

Circuit NO.	Function	Wire Color	1973-75 factory gauges Pin Loc	1973-75 warning lights Pin Loc	1976 factory gauges Pin Loc	1976 warning lights Pin Loc	1977 factory gauges Pin Loc	1977 warning lights Pin Loc	1978-87 factory gauges Pin Loc	1978-87 warning lights Pin Loc
30	Fuel tank sender	tan	18	18	7, 18	18	7, 18	18	7, 18	18
39	12 Volt fused power	pink	5, 12	5, 12	4, 5, 12	5, 12	4, 5, 12	5, 12	4, 6, 16	5, 12
25	Alternator light	brown	note 1	7	note 1	7	note 1	7	note 1	7
33	Brake Warning ground	tan / black	6, 13	8	6, 13	8	6, 17	8	17	8
14	Left Turn Indicator	light blue	10	10	10	10	10	10	11	10
31	Oil pressure sender	dark blue	note 2	3	note 2	3	note 2	3	5	3
15	Right Turn Indicator	dark blue	11	11	11	11	11	11	12	11
11	High Beam Indicator	light green	1	1	1	1	1	1	1	1
8	Instrument Lights	gray	2	2	2	2	2	2	2	2
35	Coolant temp sender	dark green	8	4	8	4	8	4	9	4
150	Ground wire	black	9	9	3, 9, 15	9, 15	3, 9, 15	9, 15	3, 8, 10	9, 15
105	Ammeter	see note 5	3	see note 3						
106	Ammeter	see note 5	4	see note 3						
237	Seat belt warning light	Pink / white			16	16	16	16	13	16
939	1973-80	Orange		6		6		6		6
50	1981-85	Brown								6
931	1977-86	Dark Blue					14		15	
419	1987 only								15	14
Notes:										
1	Factory gauges trucks were not equipped with an alternator charge light									
2	Factory gauge trucks 1973-77 used a mechanical oil pressure line. Electric oil pressure gauges first appeared in 1978.									
3	New gauge clusters use a voltmeter. Factory gauge clusters used voltmeters starting in 1976.									
	The original ammeter circuits (105 and 106) for original 1973-75 gauge trucks will not be used.									
	These wires must be isolated and protected from any possible short to ground before completing installation.									
4	Tachometer wiring for factory gauge trucks was handled by a separate tachometer harness									