



...another wiring system manufactured by



# 1970-78 Camaro 1979-81 Camaro

## Gauge Cluster Kit Installation Instructions (500623)



STEP 1: There are 4 small gauges. This is a photo of the bare gauge. Remove the 3 nuts and lock washers.



STEP 2: Install the blade terminals to the back of each of the 4 small gauges. Secure with lockwasher and nut. There are specific left, center, and right hand terminals. Install as shown in photo.

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

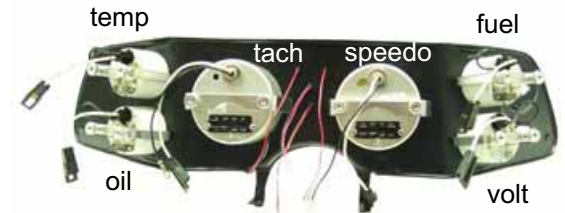


STEP 3: Plug in appropriate lamp socket pigtail into the 4 smaller gauges.



STEP 4: Install appropriate lamp socket pigtails into the speedometer & tachometer.

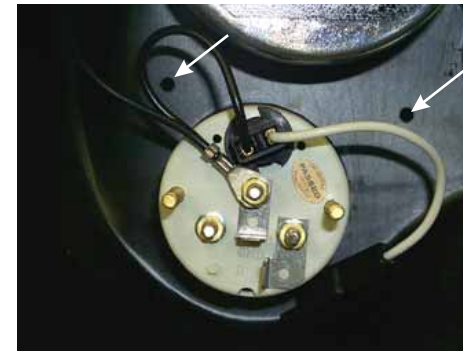
STEP 5: Insert gauges into housing, in locations shown.



STEP 6: Install mounting clips on all gauges and secure in the panel.

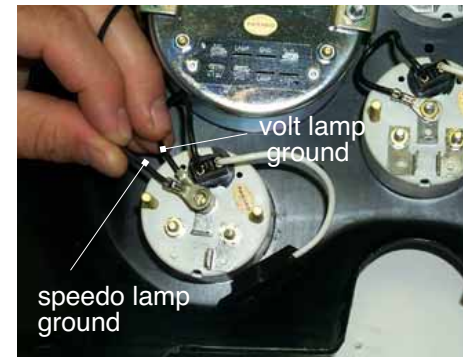
STEP 7: Drill 4 mounting holes for LED's, using 5/32" drill bit, at desired locations. Insert LED's in hole from front of panel.

**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.



STEP 8: 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 9: Plug in gauge connections using supplied connectors. Plug in connectors in the order shown below. Typical plug-in shown in picture.

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

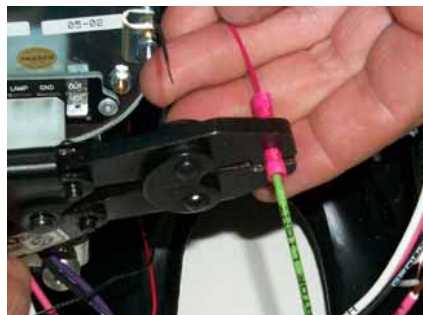


STEP 10: Plug each lamp power wire (white) into the mating connectors on each grey wire (DASH LIGHTS) on the new harness.



STEP 11: 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.

<u>LED color</u>	<u>function</u>	<u>power wire color</u>
blue	hi-beam	light green
green	left turn	light blue
green	right turn	dark blue

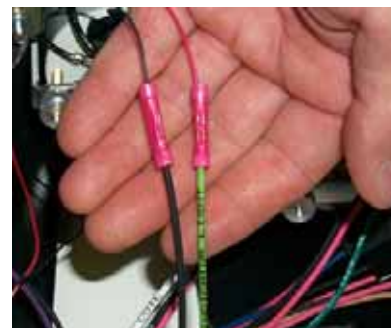


STEP 12: Install butt connectors, as shown, matching the wire functions noted above with the proper LED. Trim the wires from the harness to the desired length before crimping.

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).

<u>LED color</u>	<u>function</u>	<u>signal ground wire color</u>
red	brake	tan



This is a completed LED splice.



STEP 13: A grounding kit is included for your headlight and wiper switch. Connect as shown, routing to a good chassis ground with the supplied ring terminal. As noted in the wiring charts, this is only required for 1970 and 1971 cars.



**STEP 14:**

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.

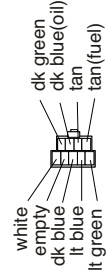
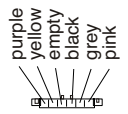
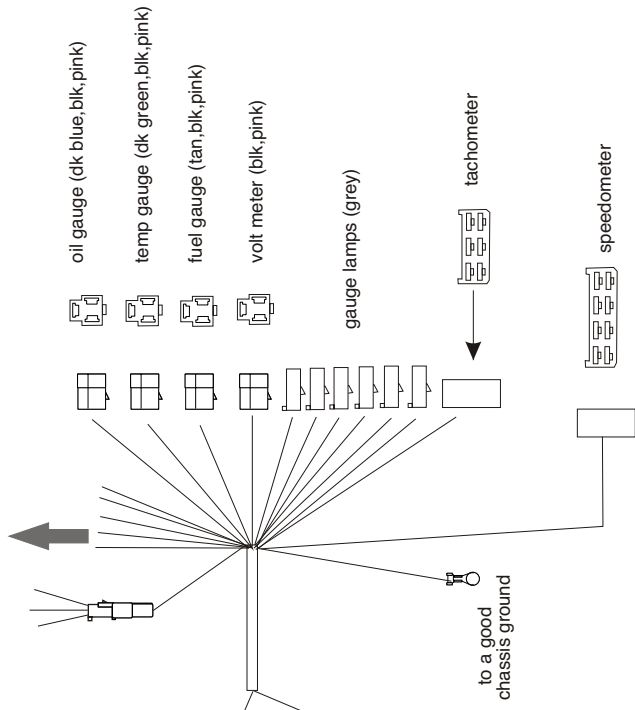
Using the enclosed PIN LOCATION chart, apply the appropriate terminal to your existing wires and plug into the supplied connector. There are empty cavities. Note: Empty cavities can be used for remaining wires from the original cluster connectors which are not used in this application. This will protect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



**LONG BARE LEADS:**

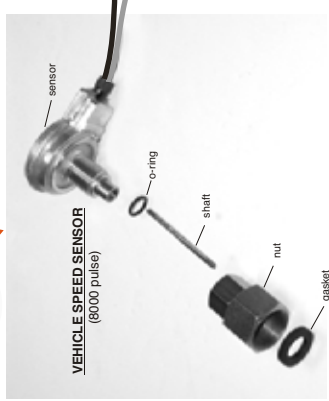
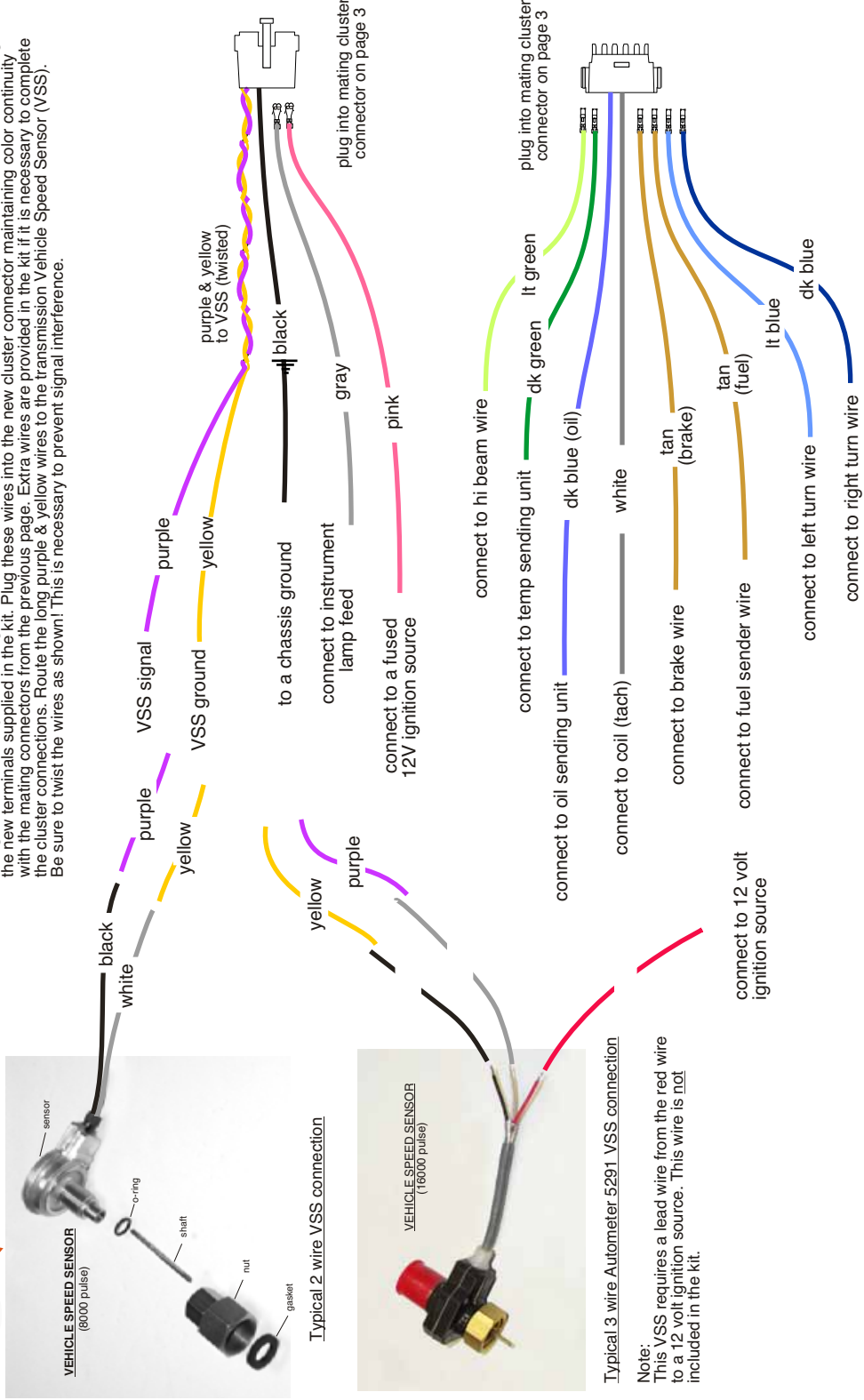
- lt green: connect to hi beam LED red lead
- black: connect to hi beam LED black lead
- lt blue: connect to LH turn LED red lead
- black: connect to LH turn LED black lead
- dk blue: connect to RH turn LED red lead
- black: connect to RH turn LED black lead
- tan: connect to the brake LED black lead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



plug these connectors into the mating connector on the next page

**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 connector, remove 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.



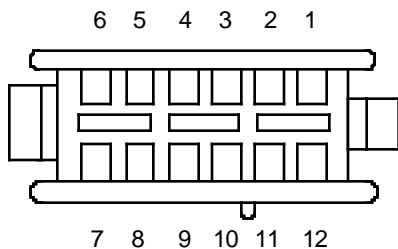
Typical 2 wire VSS connection



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



## 1970-81 CAMARO DASH PRINTED CIRCUIT CONNECTOR PIN LOCATIONS

Circuit No.	Function	Wire Color	1970- 1981		
			factory gauge Pin Location	warning light Pin Location	
8	Instrument Lights	gray	5	5	
11	High Beam Indicator	light green	10	10	
14	Left Turn Indicator	light blue	9	9	
15	Right Turn Indicator	dark blue	11	11	
25	Alternator light	brown		4	see note 1
30	Fuel tank sender	tan, tan/blk stripe, or pink	4	2	
31	Oil pressure sender	dark blue/wht stripe, or tan	12	3	
33	Brake Warning	tan, or tan/wht stripe	7	7	
35	Coolant temp sender	dark green, or dark green/wht stripe	2	12	
39	12 Volt fused power	pink or pink/blk stripe	3, 8	1, 8	
39	voltmeter	pink			see note 3
105	ammeter	black			see note 2
106	ammeter	black/white			see note 2
121	Tachometer	brown or white	1		see note 4
150	ground	black	6	6	

#### Notes:

- 1 Factory gauges cars were not equipped with an alternator charge light
- 2 1970-75 factory gauge cars used an ammeter that used a separate two position connector.
- 3 1976-81 factory gauge cars used a voltmeter that used a separate single position connector.
- 4 1970-71 factory gauge cars wired the tachometer from the cluster connector thru a firewall grommet to the coil.  
1972-75 factory gauge cars wired the tachometer from the cluster connector thru the bulkhead engine harness to the coil.  
1976-81 factory gauge cars wired the tachometer from the cluster connector thru a separate tachometer wire to the coil.
- 5 1970-71 cars require the grounding wires for the headlight and wiper switches.
- 6 1972-81 cars ground both the headlight and wiper switches directly through the switch connector.
- 7 1975-81 cars have a wiper switch light.
- 6 1972-1981 cars have a seat belt warning light mounted directly into the dash unit.



**1970-81 CAMARO DASH PRINTED CIRCUIT BOARD CONNECTOR PIN LOCATIONS FOR ORIGINAL WARNING LIGHT DASH CLUSTERS**

Circuit Number	Wire color	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
8	Gray	5	5	5	5	5	5	5	5	5	5	5	5
11	Light green	10	10	10	10	10	10	10	10	10	10	10	10
14	Light blue	9	9	9	9	9	9	9	9	9	9	9	9
15	Dark blue	11	11	11	11	11	11	11	11	11	11	11	11
25	Brown	4	4	4	4	4	4	4	4	4	4	4	4
30	Pink	-	-	-	-	-	-	-	-	-	-	2	2
30	Tan	-	-	-	2	2	2	2	2	2	2	-	-
30	Tan / Black stripe	2	2	2	-	-	-	-	-	-	-	-	-
31	Dark Blue / White stripe	3	3	3	3	3	3	3	3	3	3	-	-
31	Tan	-	-	-	-	-	-	-	-	-	-	3	3
33	Tan	7	7	7	7	7	7	7	-	-	-	7	7
33	Tan / White stripe	-	-	-	-	-	-	-	7	7	7	-	-
35	Dark Green	12	12	12	12	-	-	-	-	12	12	12	12
35	Dark Green / White stripe	-	-	-	-	12	12	12	12	-	-	-	-
39	Pink	1, 8	1, 8	1, 8	1, 8	1, 8	1, 8	1, 8	1, 8	1, 8	1, 8	-	-
39	Pink / Black stripe	-	-	-	-	-	-	-	-	-	-	1, 8	1, 8
150	Black	6	6	6	6	6	6	6	6	6	6	6	6

**1970-81 CAMARO DASH PRINTED CIRCUIT BOARD CONNECTOR PIN LOCATIONS FOR ORIGINAL GAUGE DASH CLUSTERS**

Circuit Number	Wire color	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
8	Gray	5	5	5	5	5	5	5	5	5	5	5	5
11	Light green	10	10	10	10	10	10	10	10	10	10	10	10
14	Light blue	9	9	9	9	9	9	9	9	9	9	9	9
15	Dark blue	11	11	11	11	11	11	11	11	11	11	11	11
25	Brown	-	-	-	-	-	-	-	-	-	-	-	-
30	Pink	-	-	-	-	-	-	-	-	-	-	4	4
30	Tan	-	-	-	4	4	4	4	4	4	4	-	-
30	Tan / Black stripe	4	4	4	-	-	-	-	-	-	-	-	-
31	Dark Blue / White stripe	12	12	12	12	12	12	12	12	12	12	-	-
31	Tan	-	-	-	-	-	-	-	-	-	-	12	12
33	Tan	7	7	7	7	7	7	7	-	-	-	-	-
33	Tan / White stripe	-	-	-	-	-	-	-	7	7	7	7	7
35	Dark Green	2	-	-	-	-	-	-	-	2	2	2	2
35	Dark Green / White stripe	-	2	2	2	2	2	2	2	-	-	-	-
39	Pink	3, 8	3, 8	3, 8	3, 8	3, 8	3, 8	3, 8	3, 8	3, 8	3, 8	-	-
39	Pink / Black stripe	-	-	-	-	-	-	-	-	-	-	3, 8	3, 8
121	Brown	1	1	1	1	1	1	1	1	1	1	-	-
121	White	-	-	-	-	-	-	-	-	-	-	1	1
150	Black	6	6	6	6	6	6	6	6	6	6	6	6

