



**Installation Guide  
For Universal  
Wiring Harness  
With Short Sweep  
Electric Gauges  
(Series 1 & 2)**

For Technical Information Please call us at:

(775) 883-7904

# WIRING HARNESS OVERVIEW

*(gauge-by-gauge details on following pages)*

## **RED WIRE**

Power to High Beam Indicator

## **ORANGE WIRE**

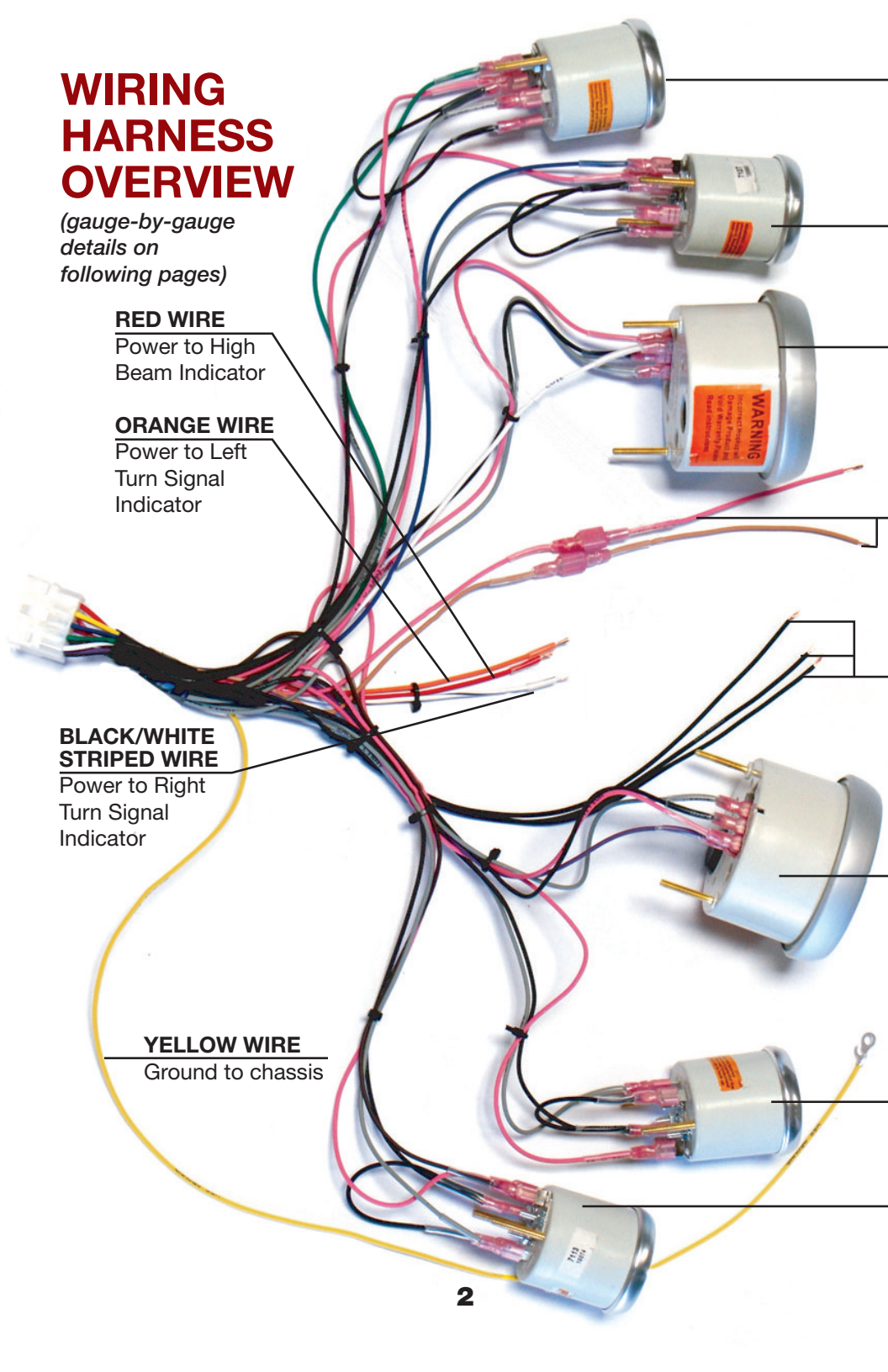
Power to Left Turn Signal Indicator

## **BLACK/WHITE STRIPED WIRE**

Power to Right Turn Signal Indicator

## **YELLOW WIRE**

Ground to chassis



---

### **WATER TEMP GAUGE**

Green = Signal  
Black = Ground  
Pink = Ignition  
Gray = Gauge Light  
*(see page 8 for details)*

---

### **TACHOMETER GAUGE**

White = Signal  
Black = Ground  
Pink = Ignition  
Gray = Gauge Light  
*(see page 5 for details)*

---

### **OIL PRESSURE GAUGE**

Blue = Signal  
Black = Ground  
Pink = Ignition  
Gray = Gauge Light  
*(see page 7 for details)*

---

### **PINK AND TAN WIRES = PARKING BRAKE LIGHT**

If a parking brake light is not necessary, disconnect both wires at the male/female connectors to create a terminated circuit.

---

### **3 BLACK WIRES / NO TERMINALS**

Grounding lights for Left, Right, and High Beam Indicator Lights. Bag 5203 includes all terminals needed for proper hookup.

---

### **SPEEDOMETER GAUGE**

Purple = Signal  
Black = Ground  
Pink = Ignition  
Gray = Gauge Light  
*(see page 4 for details)*

---

### **VOLT GAUGE**

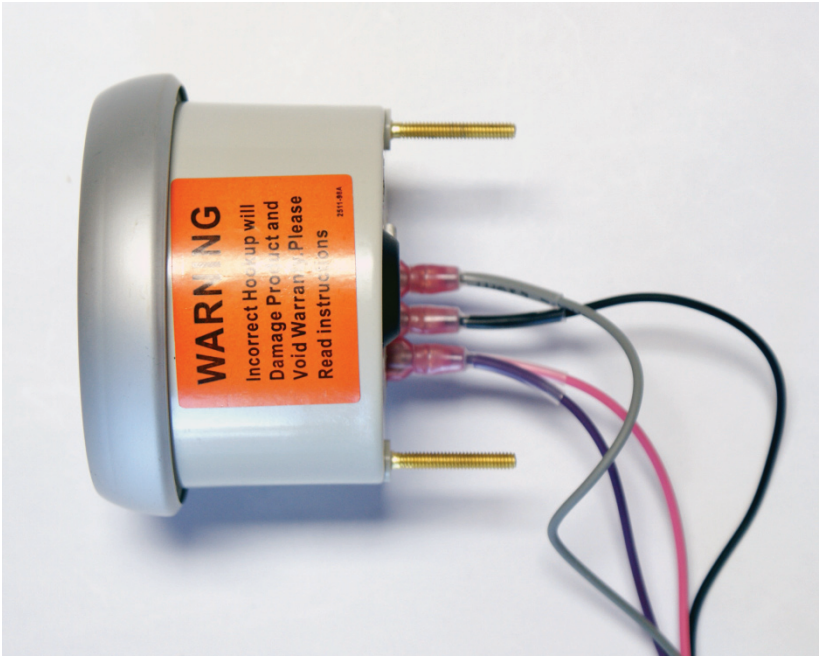
Black = Ground  
Pink = Ignition  
Gray = Gauge Light  
*(see page 9 for details)*

---

### **FUEL LEVEL GAUGE**

Brown = Signal  
Black = Ground  
Pink = Ignition  
Gray = Gauge Light  
*(see page 6 for details)*

## Speedometer



The Speedometer will have 4 Wires going to it, first will be a Purple VSS Wire to the Signal Tab, Second will be a 12 Volt + Pink Wire going to the 12V+ Tab, Third will be a Gray Gauge Light Wire for the gauge Lights going to the Light Tab, fourth will be the Black Wire which is a ground and will attach to the Ground Tab.

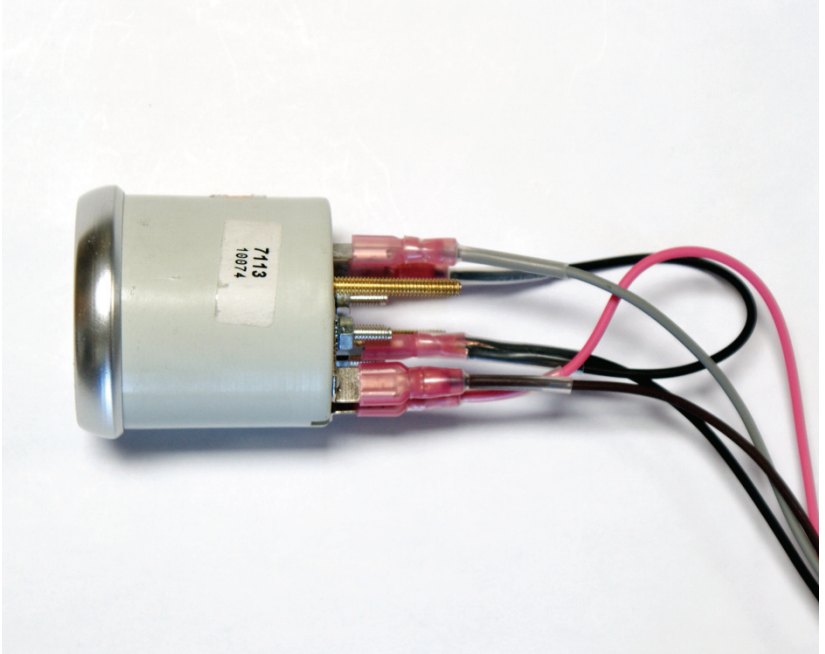
**The yellow wire on the Gauge Side Harness with a ring terminal on it will need to be grounded to a good grounding point otherwise the speedometer will not read correctly.**

## Tachometer



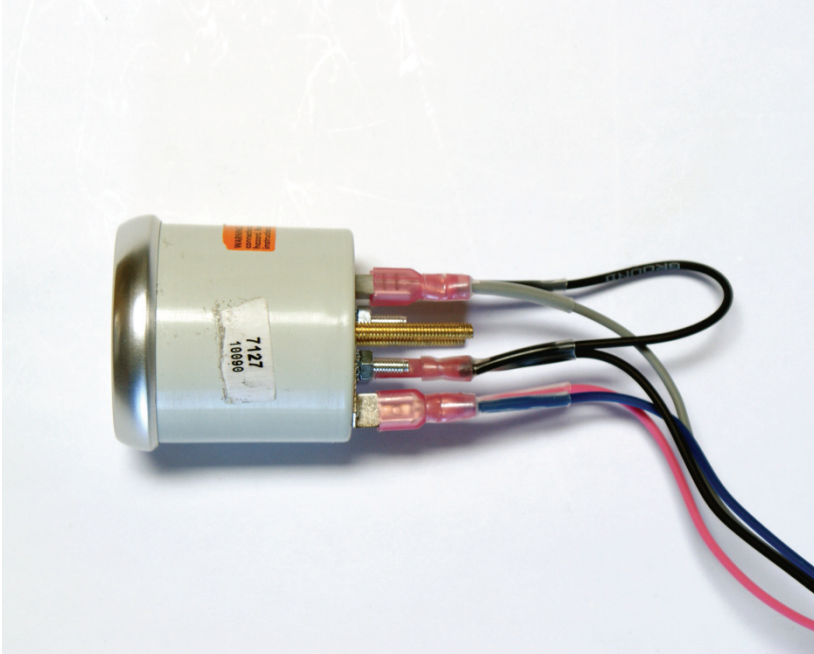
The Tachometer will have 4 Wires going to it, first will be a White Coil Wire to the Signal Tab, Second will be a 12 Volt + Pink Wire going to the 12V+ Tab, Third will be a Gray Gauge Light Wire for the gauge Lights going to the Light Tab, fourth will be the Black Wire which is a ground and will attach to the Ground Tab.

## Fuel Gauge



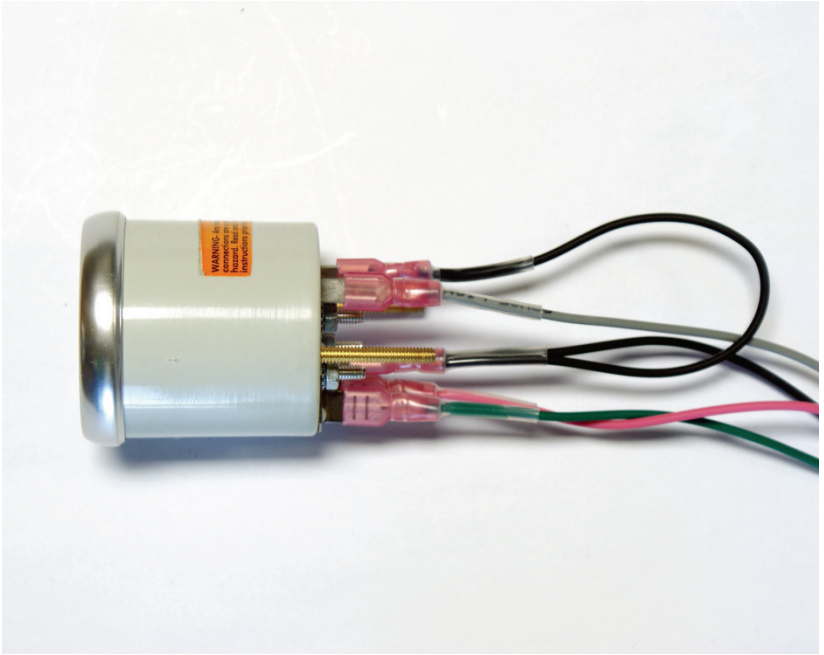
The Fuel Gauge Will have 4 Wires going to it, first will be a Brown Fuel Gauge Wire to the Signal Tab, Second will be a 12 Volt + Pink Wire going to the 12V+ Tab, Third will be a Gray Gauge Light Wire for the gauge Lights going to the Light Tab, fourth will be the Black Wire which is a ground for the gauge. In Bag 5204 You will need to use the jumper wire and connect it to the gauge light ground and connect the black wire to the secondary pin on the jumper wire.

## Oil Pressure Gauge



The Oil Pressure Gauge Will have 4 Wires going to it, first will be a Blue Oil Pressure Wire to the Signal Tab, Second will be a 12 Volt + Pink Wire going to the 12V+ Tab, Third will be a Gray Gauge Light Wire for the gauge Lights going to the Light Tab, fourth will be the Black Wire which is a ground for the gauge. In Bag 5204 You will need to use the jumper wire and connect it to the gauge light ground and connect the black wire to the secondary pin on the jumper wire.

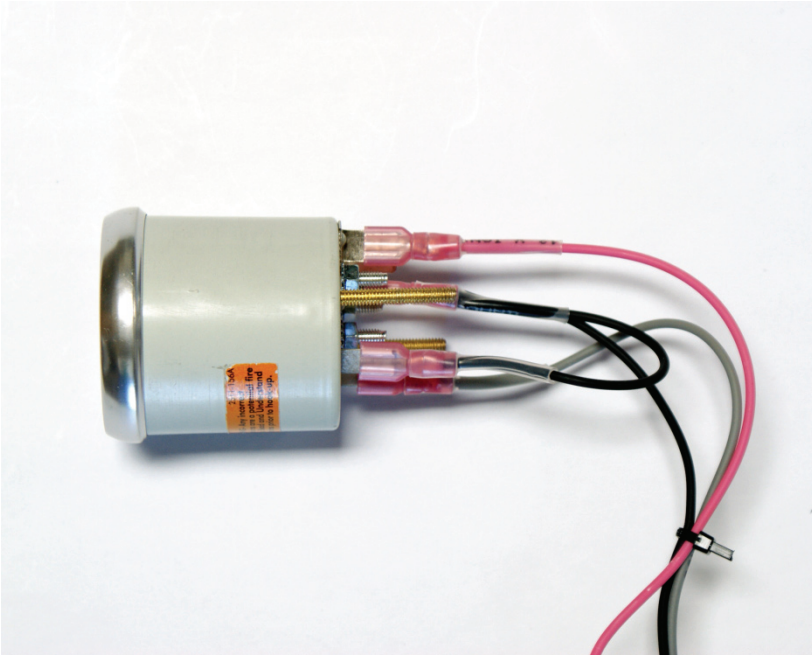
## Water Temperature Gauge



The Water Temperature Gauge Will have 4 Wires going to it, first will be a Green Temperature Wire to the Signal Tab, Second will be a 12 Volt + Pink Wire going to the 12V+ Tab, Third will be a Gray Gauge Light Wire for the gauge Lights going to the Light Tab, fourth will be the Black Wire which is a ground for the gauge. In Bag 5204 You will need to use the jumper wire and connect it to the gauge light ground and connect the black wire to the secondary pin on the jumper wire.



## Voltmeter Gauge



The Volt Gauge Will have 3 Wires going to it, first will be a 12 Volt + Pink Wire going to the 12V+ Tab, Second will be a Gray Gauge Light Wire for the gauge Lights going to the Light Tab, Third will be the Black Wire which is a ground for the gauge. In Bag 5204 You will need to use the jumper wire and connect it to the gauge light ground and connect the black wire to the secondary pin on the jumper wire.

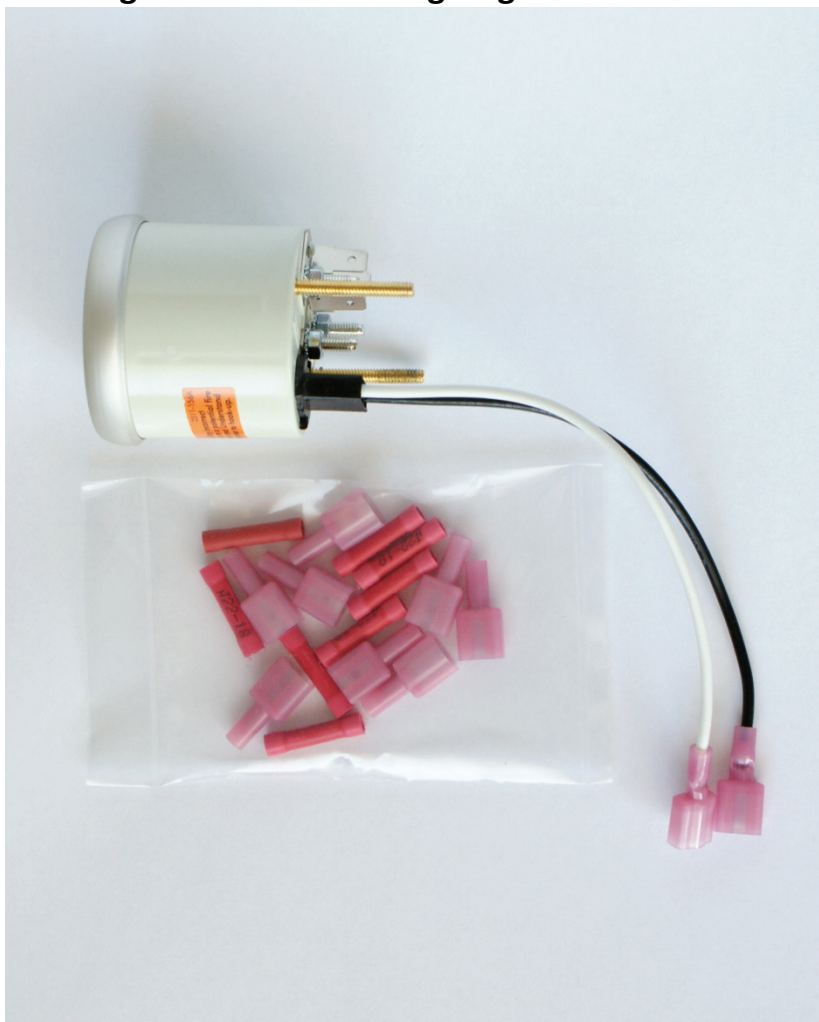
## Part Number 5202 Vehicle Side Harness



This harness will consist of 14 Wires all of which will need to be run to the factory wiring harness, engine compartment, or speedometer sending unit.

1. The Black Wire will be hard wired into the ground wire.
2. The Grey wire will be hard wired into the Gauge Lights Wire
3. The short Pink wire will be hard wired to a 12 Volt Ignition
4. The Long Pink Wire will be run down to the Speedometer Sending Unit for the 12V ignition Required to run it.
5. The White Wire will be run to the negative side of the coil for the tachometer signal.
6. The purple wire will be run down to the Speedometer Sending Unit for the signal.
7. The Brown wire will be hard wired into the Fuel Gauge Wire
8. The Tan Wire will be hooked into the Emergency Brake Light Wire
9. The Orange Wire will be hard wired into the stock Left Turn Signal Wire
10. The Red Wire will be hard wired into the Stock High Beam Wire
11. The White and Black striped wire will be hard wired into the stock Right Turn Signal Wire
12. The Long Green Wire will be run into the engine compartment and hooked to the water temperature sending unit.
13. The Long Blue Wire will be run into the engine compartment and hooked to the oil pressure sending unit.
14. The Long Yellow Wire will be run down to the Speedometer Sending Unit for the ground.

## Bag Number 5203 Gauge Light Terminal Kit



The Contents of this bag are for the connection of the LED Turn signal and indicator kit in bag 500626 and to hook up all series 1 Style gauges with a light that will clip into the back of the gauge. The Red Butt Connectors will be used to the Left, Right and High Beam indicators and their respective ground wires.

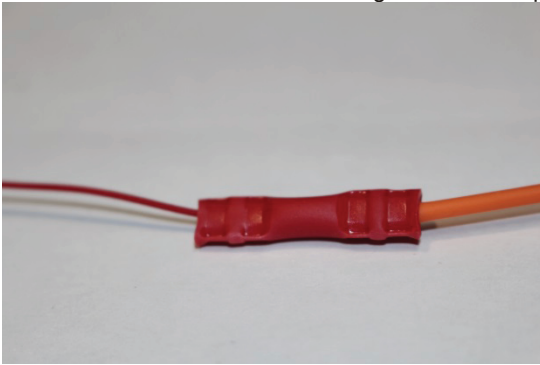
**Step 1:**

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 / Amber	High Beam	Red
Green	Left Turn Signal	Orange
Green	Right Turn Signal	White & Black Striped
Red	Parking Brake	Tan

**Step 2:**

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.

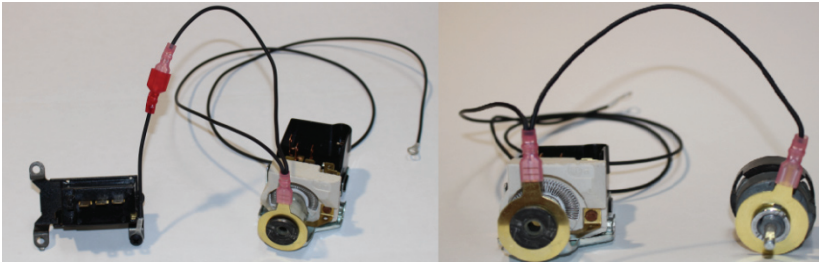


Match the black wire from each LED panel lamp with a black ground wire from the harness for all LED lamps except the red brake warning LED.

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.

## Grounding Kits

A grounding kit is included for your headlight, wiper switch and ignition. Connect as shown, routing to a good chassis ground with the supplied ring terminal. Grounding Kits are supplied in the harness if the vehicle requires it.



## Vehicle Speed Sensors

**Type 1 Speed Sensor:** This is a Classic Thunder Road Speedometer Sending unit without a pass through for cruise control. This will have three wires coming out of it. A Red Wire which will connect to the long Pink Wire which is a 12 Volt Ignition. A White Wire which will connect to the Long Purple Wire for the Speedometer Signal. A Black Wire which will connect to the long Yellow Wire which is a Grounding Wire.

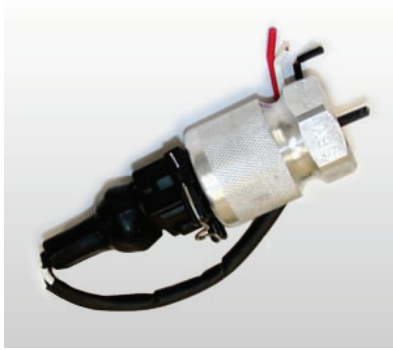
**Type 2 Speed Sensor:** This is a Auto Meter Style Speedometer Sending unit with a pass through for cruise control. This will have three wires coming out of it. A Red Wire which will connect to the long Pink Wire which is a 12 Volt Ignition. A White Wire which will connect to the Long Purple Wire for the Speedometer Signal. A Black Wire which will connect to the long Yellow Wire which is a Grounding Wire.

**Type 3 Speedometer Sending Unit:** This is a Auto Meter GPS Speedometer Sending unit. This will have three wires coming out of it. A Red Wire which will connect to the long Pink Wire which is a 12

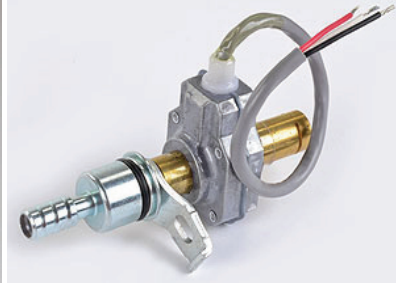
Volt Ignition. A White Wire which will connect to the Long Purple Wire for the Speedometer Signal. A Black Wire which will connect to the long Yellow Wire which is a Grounding Wire.

**The yellow wire on the Gauge Side Harness with a ring terminal on it will need to be grounded to a good grounding point otherwise the speedometer will not read correctly.**

Type 1 Speedometer Sending Unit



Type 2 Speedometer Sending Unit

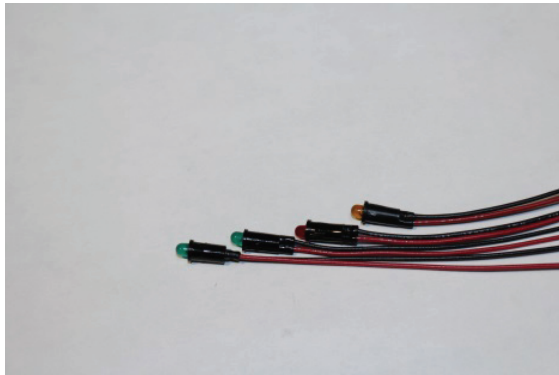


Continued onto next page.

### Type 3 Speedometer Sending Unit



### LED Indicator Kit



LED Light Kit contains 2 Green LED Lights, 1 Amber LED Light, and 1 Red LED Light.

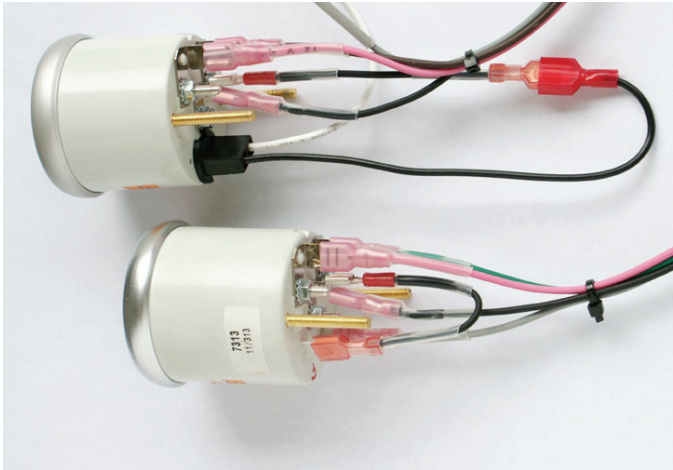
Tools required for installation in a Classic Thunder Road Dash Panel: cordless or corded drill, 1 Drill Bit 5/32", Center punch or ice pick, Wire crimping tools or a soldering iron, crazy glue (optional), and a measuring tool of your choice.



- Step 1: Locate two locations for the 2 Green LED Light signal indicators and proceed to mark the location with either the center punch or ice pick. Do this on the back of the dash panel.
- Step 2: Select a location for the Amber LED Light for the High Beam Indicator and an additional location for the Red LED Light for the Parking Brake Indicator and mark these locations with either the center punch or ice pick. Do this on the back of the dash panel.
- Step 3: Carefully drill the 4 holes you just located with the cordless or corded drill and the 5/32" drill bit.
- Step 4: Insert the 4 LED Lights in the holes drilled in step 3. You will need to insert the LED's from the front side of the dash panel. The LED's are barrel shaped so when you are inserting them make sure you get them fully seated all the way down. If you would like you may add a drop of crazy glue to the back of the LED housing on the back side of the panel after you fully seat the LED itself.
- Step 5: Select the Amber( High Beam) LED and attach it to the High Beam indicator wire in the wiring harness. Connect the Black lead to either a provided ground in the harness or a common ground of your choice.
- Step 6: Select the Left Green LED Light and attach the red lead from the LED to the Orange signal lead in your wiring harness. Connect the Black lead to either a provided ground in the harness or a common ground of your choice.
- Step 7: Select the Right Green LED Light and attach the red lead from the LED to the White and Black Striped signal lead in your wiring harness. Connect the Black lead to either a provided ground in the harness or a common ground of your choice.
- Step 8: Select the Red (brake) LED and attach it to the long pink wire with a male and female spade connector in it. The Black Lead must be attached to a grounding circuit. Traditionally this is a dual connection. One connection is to the Emergency Brake Ground Switch. When the Emergency Brake is applied, the emergency brake switch sets the ground and will illuminate the light completing the electrical circuit. The Second side of the circuit is to the brake system equalization switch located in the brake fluid distribution manifold. If the Brake system equalization manifold senses an unequal pressure situation in the line, it sets a ground and will illuminate the Red Brake Led thus completing the electrical circuit. In the case of GM grounding circuits are through a Tan Wire at the emergency brake switch or the brake warning switch in the brake system distribution manifold.

## Bag Number 5204 Gauge Light Grounding Kit

The contents of this bag are for the 4 Smaller auxiliary gauges lighting grounds. You will plug the end with a double pin connector onto the gauge ground itself and with bag 5203 you will connect the gauge light ground onto the short 4" wire. The black wire in the wiring harness will plug onto the secondary pin from the double pin connector.



## Speedometer Calibration

When using a type 1 or type 2 speedometer sending unit:

1. With the power off, push and hold the calibration button (trip/reset button when equipped). While holding the button, start the vehicle and continue to hold the button until the pointer sweeps to full scale and stays at full scale. You may now release the button.
2. Drive to the beginning of a pre marked two mile stretch of road (ie: a toll road with accurate mile markers) and come to a stop. It doesn't matter how far away the stretch of road is. DO NOT shut off the engine. Push the release button. The pointer will drop to half scale.
3. Drive the 2 mile distance. The pointer will remain at the half scale mark no matter what speed you choose to drive the two mile stretch. If the speedometer has an LCD display odometer, it will be normal to see it counting rapidly as it is receiving a speed signal. If you have to stop during the calibration that is ok. The speedometer is simply counting pulses during this time.
4. At the end of the two mile distance, come to a complete stop, push and release the button. The pointer will drop to 0 and the calibration will be stored.

Using a type 3 Speedometer Sending Unit:

With the Type 3 GPS Style Speedometer Sending unit you generally do not have to calibrate it to a Thunder Road or Auto Meter Electric Speedometer Gauge requiring a 16,000PPM Calibration Rating. If for some reason your speedometer requires a different rating this is how to calibrate it:

1. With the speedometer connected and powered, press and hold the calibration button on the top of the module. The needle will begin to climb. At first, it will move very slowly but will pick up speed the longer the button is held.

2. Continue to hold the button until the speedometer indicates close to (but not over) 80MPH and release the button.
3. Within 5 seconds tap the button repeatedly to advance the reading until the speedometer indicates exactly 80 MPH. When reached, stop pressing the button and wait for the speedometer to return to 0MPH (this should happen in about 5 seconds). Proper calibration and gauge accuracy are dependent on the needle reaching precisely 80MPH.
4. If you go past 80MPH, stop pressing the button and wait for the speedometer to return to zero, this should happen after about 5 seconds. Steps 1-3 should then be repeated.

**This will be your Completed gauge Harness Ready to control your new Classic Thunder Road Dash Panel.**

**If you have any Questions please call us at (775) 883-7904.**

**One of our handy technicians will be able to help you.**

**Limitation of Liability:** To the extent allowable under applicable law, Classic Automotive Specialties liability for consequential and incidental damages is expressly disclaimed. Classic Automotive Specialties liability in all events is limited to and shall not exceed the purchase price paid.



Connect with the  
factory toll-free

**866-882-3525**

[www.ClassicThunderRoad.com](http://www.ClassicThunderRoad.com)

