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## Pantera Electronics LED Gauge Lamp Installation Manual

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This installation manual is to assist in the installation of Pantera-Electronics LED Gauge Lamp. The LED Gauge Lamp will only operate when installed properly.

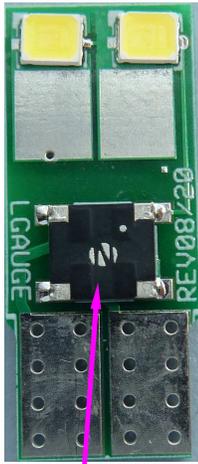
This area of the LED Gauge Lamp may look different from the LED Gauge Lamps included in your order. As LED technology progresses Pantera Electronics follows the technology and upgrades products to provide the best product based on the newest technology available.

— Install the LED Gauge Lamps by following the instructions in this manual regardless of the appearance of the particular LED Gauge Lamp that was in your order.

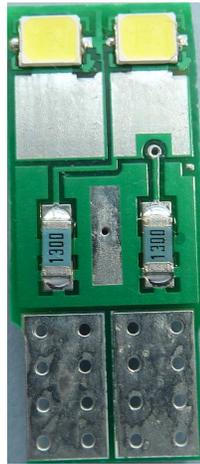
**Note that the brightness will be to specification regardless of the number of LEDs.**

This is typical white LED Gauge Lamp. It can be installed in either orientation.

Front Side



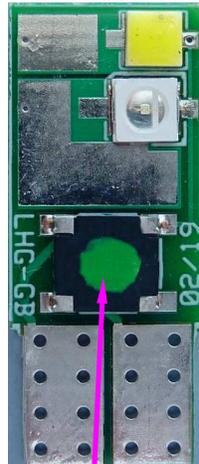
Back Side



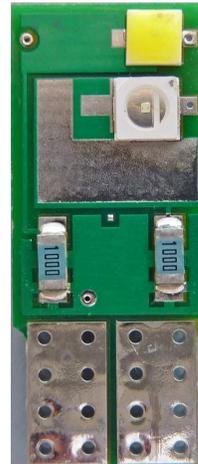
No color dot indicates white LED Gauge Lamp

This is typical Hybrid LED Gauge Lamp. It can be installed in either orientation.

Front Side



Back Side



Color of dot indicates color of LED Gauge Lamp

The WHITE LED Gauge Lamps are intended for all 6 gauges and can be also be used for the indicators in the speedometer and tachometer **WITH THE EXCEPTION OF THE TURN SIGNAL INDICATOR IN THE TACHOMETER.** (See page 7 for the details)

Example of installations of the WHITE LED Gauge Lamp in the tachometer and speedometer



Indicator positions in the speedometer



Indicator positions in the tachometer



See page 7 about using the LED Gauge Lamp in the turn signal position.

Dial illumination position in the tachometer.

### Installing LED Gauge Lamp in 1973 and 1974 Panteras with single pod dash

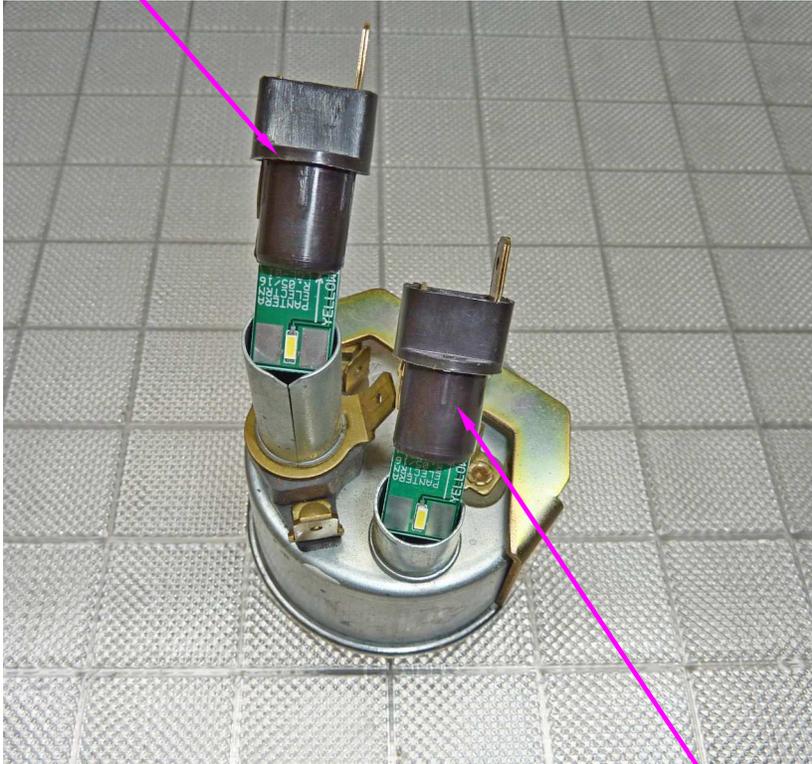
The single pod dash has the speedometer and tachometer closely mounted together. This causes difficulty when installing the LED Gauge Lamp in the socket.

If the mounting thumb screws are loosened enough the speedometer can be rotated by twisting the bezel from the front. **Do NOT remove the thumb screws ONLY loosen them.** This will reposition the light bulb socket lower and less difficult to remove. After the light bulb is replaced with the LED Gauge Lamp the twist the speedometer into the original position and tighten the thumb screws. This technique can be used for the tachometer as well.

If the light bulb is still used as the turn signal indicator then the LED Gauge Lamp can be used in the Low Fuel indicator position.

This is a wise decision since it's important that this indicator is reliable and doesn't have a filament to open. LED technology solves this with a life time in an access of 50,000 hours.

Low fuel indicator position in the fuel gauge.



Dial illumination position in the fuel gauge.

### Compatibility with lamp sockets



(very rare)

Very early (pushbutton)  
1971 de Tomaso (Veglia)  
factory lamp socket.

NOT compatible with  
Pantera Electronics LED  
Gauge Lamp.

1971 through 1974  
de Tomaso (Veglia)  
factory lamp socket.

Compatible with  
Pantera Electronics  
LED Gauge Lamp

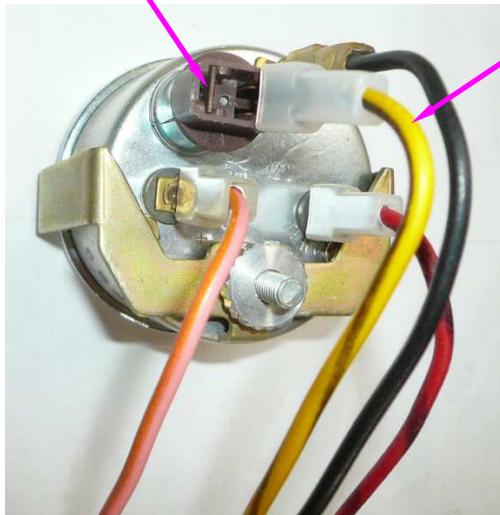


### Removing factory light bulb

Look for the brown lamp socket and remove gauge lamp socket from the back of the gauge. Note the wire that powers the gauge lamp | yellow with a black stripe

Pull the socket straight from the back of the gauge.

Remove the incandescent bulb by pulling straight out from the socket.  
If it is difficult to grip wrap a wide rubber band around the bulb to pull.



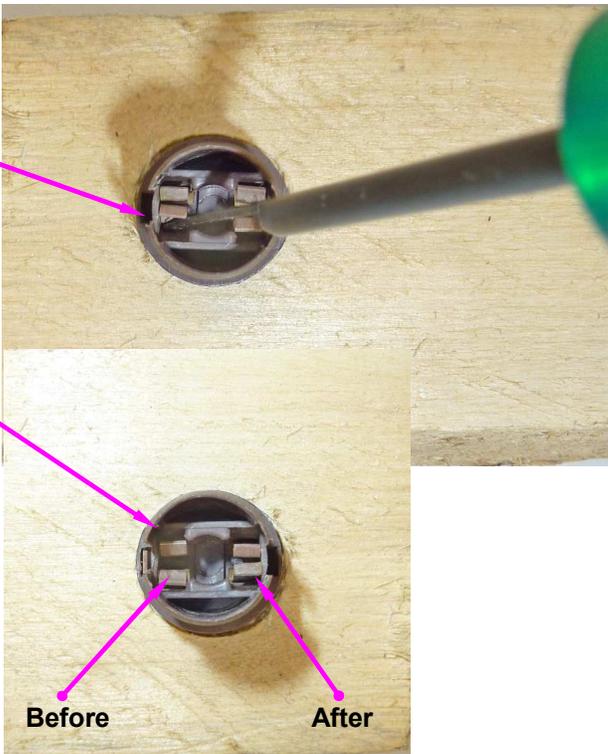
Yellow with black stripe wire

**Insuring the lamp socket has enough spring pressure**

If the LED Gauge Lamp fits loose in the lamp socket use a small screw driver or small nail and push the contacts closer to each other. Push the screw driver far enough into the spring until the spring retains the new position.

This will increase the spring force to hold the LED Gauge Lamp in place.

If the LED Gauge Lamp is installed loose it may fall out into the gauge while driving and the gauge will have to be removed and dump out the LED Gauge Lamp. Then the installation will have to be repeated.



**Properly installing LED Gauge Lamp Into Socket**

Align the LED Gauge Lamp to the socket press firmly until the LED Gauge Lamp seats in the bottom of the socket.



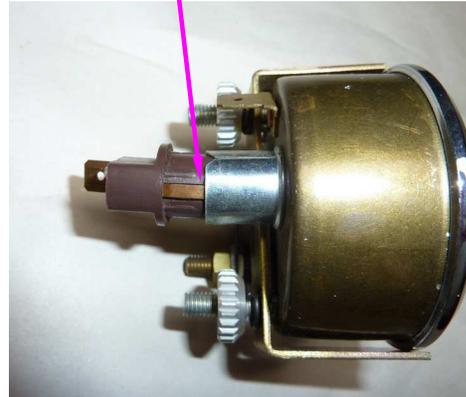
### Replace socket in gauge

It is important to make sure the ground tab is on the INSIDE of the socket tube as the socket is pushed in.

Incorrect position



Correct position



### Adjusting brightness of the gauge dial

While the gauge lights are powered, rotate the socket 90 degrees back and forth while it's in the gauge until the desired brightness is observed.

The brightness will vary from the type of gauge, this is due to the internal construction of the gauges. Brightness will also vary from gauge to gauge of the same type due to manufacturing tolerances of the gauges.



## Installing the LED Gauge Lamp in Turn Signal Position

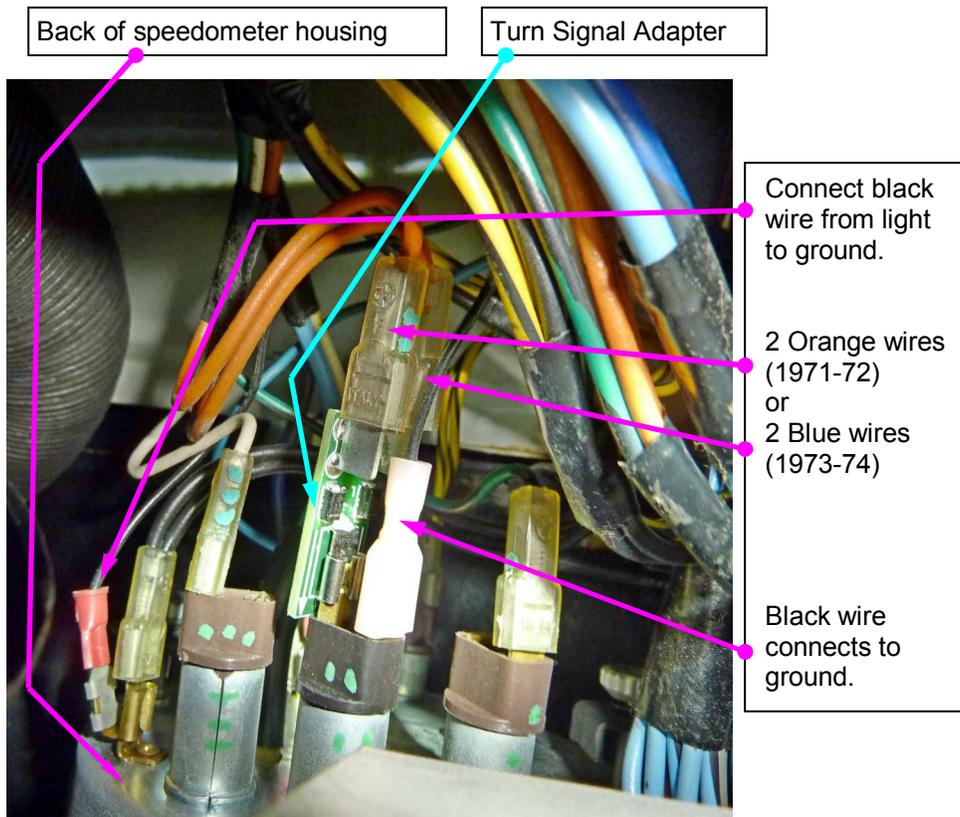
If it is desirable to use a LED Gauge Lamp in the turn signal indicator then Pantera-Electronics Turn Signal Adapter is required.

If the Pantera has Pantera-Electronics LED taillights and /or LED front parking lights then the Turn Signal Adapter most likely has it installed for proper operation.

### Turn Signal Adapter (only needed with 3 terminal flashers)

The turn signal adapter is only required if all incandescent lamps, front and back are replaced with LED arrays. Behind the dash, at the bottom of the tachometer housing is the turn signal indicator, connected with 2 orange wires. Remove the lamp socket by pulling the socket straight back. Unplug the 2 ORANGE wires from the lamp socket and plug the Turn Signal Adapter on the lamp socket. Plug the 2 female ORANGE wires onto the male terminals of the Turn Signal Adapter.

Add a BLACK wire with the quick disconnect terminal to the turn signal indicator and connect to the ground connection on the back of the tachometer where other BLACK wires.



### Disclaimer

The products from Pantera Electronics have been designed and manufactured with the best quality components known to the engineer. The installation instructions have been written to assist the owner in the proper use and installation of the products. Pantera Electronics can not be held responsible or held liable for the interpretation or incorrect implementation of the products.

**NOTE:** It's important to keep this installation manual for future reference since revisions to this product change the contents of the installation manual.