## CARMAGIC, LLC

## Installation of new LED B8.4 Instrument Lights for Porsche 964/993.

Caution: It is always recommended to disconnect the battery when working on any electrical parts.

Remove the gauges by careful pulling at the ring. If the gauges are tight, it may be necessary to use a screwdriver, or similar tool and careful pry around the edge of the instrument. Try to find the gauge which comes out easy, and reach into the hole and help pushing the other gauges, or follow instructions in the workshop manual.

The bulbs for the illumination of the gauges are marked in the pictures below.



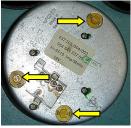




Oil Temp/Press Gauge



**Tachometer** 



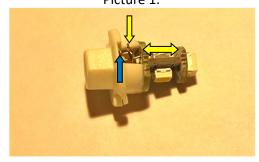




Careful remove the old bulbs by twisting counter clockwise. A ¼" socket works best. Install the new LED. Don't force it. If it won't turn, take it out and look at the contact, Picture 1. Take a small screwdriver and slightly bend the contact up, to adjust the gap, yellow arrow. Look at the removed bulb and adjust the contacts, so they are in the same position as on the original bulb. Not all the circuit cards are the same thickness, and these contacts need to be adjusted. Also some of the gauges have the contact on the outside and some of them have it on the inside. For those which have it on the outside, and the LED will not light up, it may need to take a small needle and bend the small contact up a bit, see blue arrow in Picture 1.

Once the new LED's are installed with the gauges connected, turn on the parking light. The LED should light up. If the not on, they need to be removed and installed back a half turn rotated, since they are diodes and work only one way. After all are installed and work, install the gauges, and enjoy the light.

Picture 1.



Included in this LED set: 11 LED B8.4 + 1 spare and Installation Instruction



## Warranty:

The LED lights are warranted for 2 years from the date of purchase. Warranty is void when these 12 volt LED's are used with different voltage. Please email to notify us prior to returning items for warranty exchange. Return shipping costs are the sole responsibility of the customer.

The correct installation of the LED lights is your responsibility. I cannot take any responsibility for any damage to your vehicle or equipment.

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