



2010 43QGP Allegro Bus

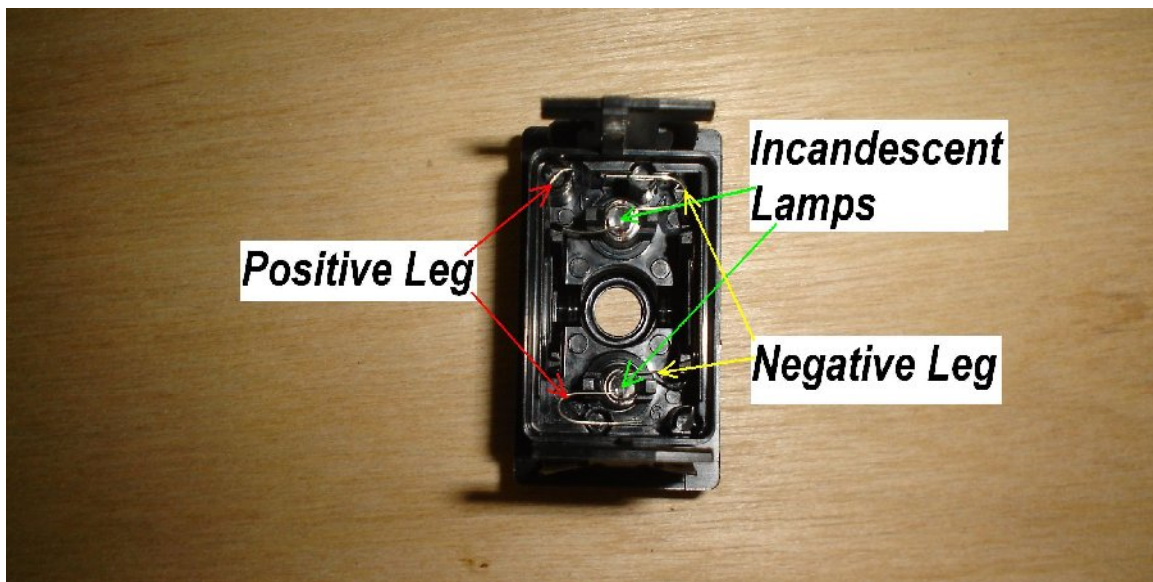
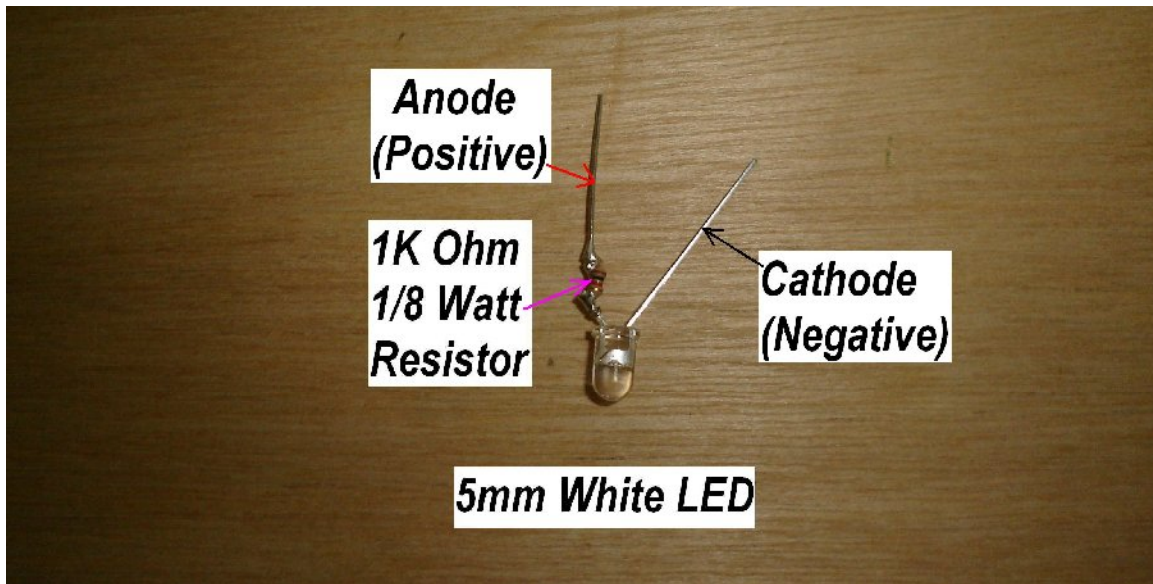
6/22/2011

TWENTY-SEVENTH - coach modification - ENTRY DOOR SWITCH PANEL MODIFICATION. Tiffin installs switches which use incandescent lamps to illuminate the different switch descriptions. The lamps are rated for 12 volts DC however they are used in a vehicle which normally generates 14 to 15 volts. The higher voltage reduces the life span of the filament because the higher voltage causes the lamps filament to become brittle. When the filament becomes brittle any small bump will cause the filament to open, as a result the switch is no long illuminated.

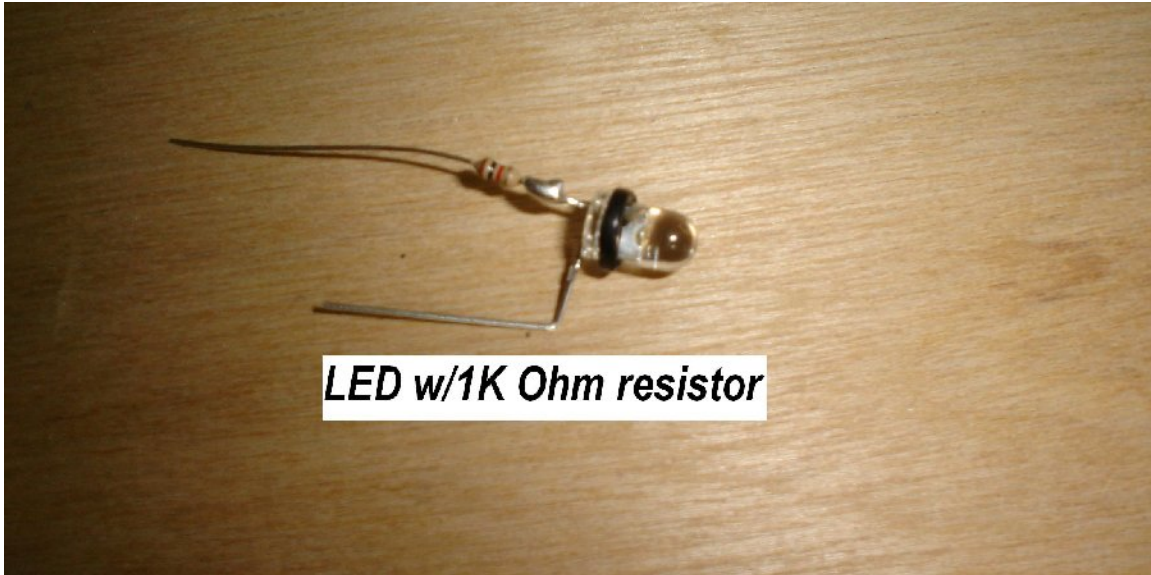


During a warranty trip to Red Bay a dropping resistor was installed in the lamp circuit in order to reduce the voltage to the lamps in hopes of a longer lamp filament life. The resistor drops the house battery float voltage by 3.2 volts from 13.1 volts to 9.9 volts. While this lower voltage is better for the lamps filament the resistor becomes super hot dissipating the 3.2 volts in the form of HEAT. I measured the heat of the resistor with a thermometer the

display read 180 degrees (F). The temperature at the face of the switches ranged from 117 to 134 degrees (F) with the incandescent lamps installed. I decided to remove the incandescent lamps installed in each switch and replace them with a 1,000 Ohm 1/8 watt resistor and a 5mm white LED after soldering them together. Other dimmer/brighter LEDs and different size and value resistors may be used in place of the components used by me.



The upper lamp (switch lamp) is removed along with two plastic posts used to hold the lamp in place. The lower lamp is illuminated when the switch is turned ON. After the lamp has been removed the LED and resistor package are installed in the same location vacated by the incandescent lamp filament.



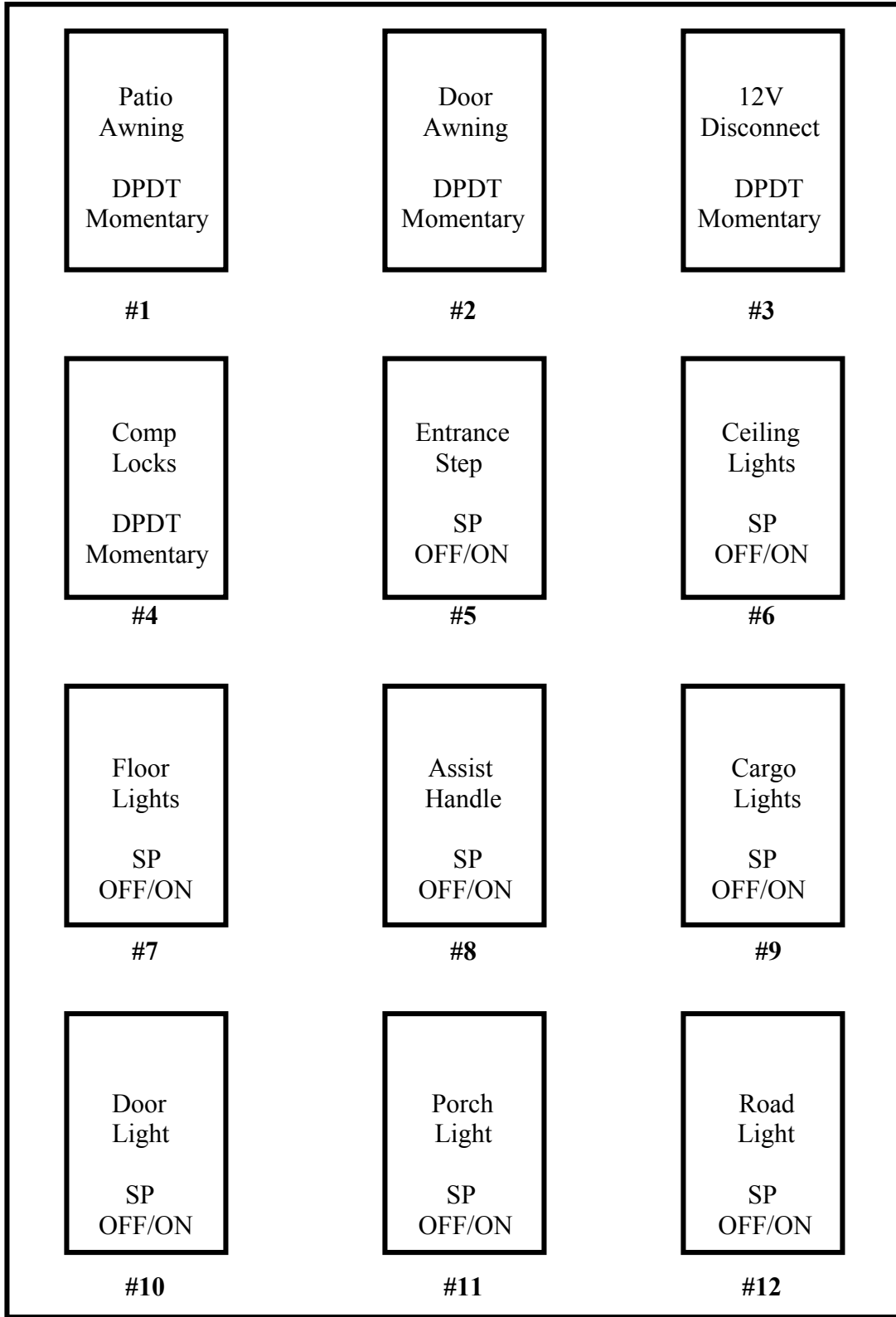
The above LED package uses the "O" ring installed on the OEM switch to again seal the switch from elements.



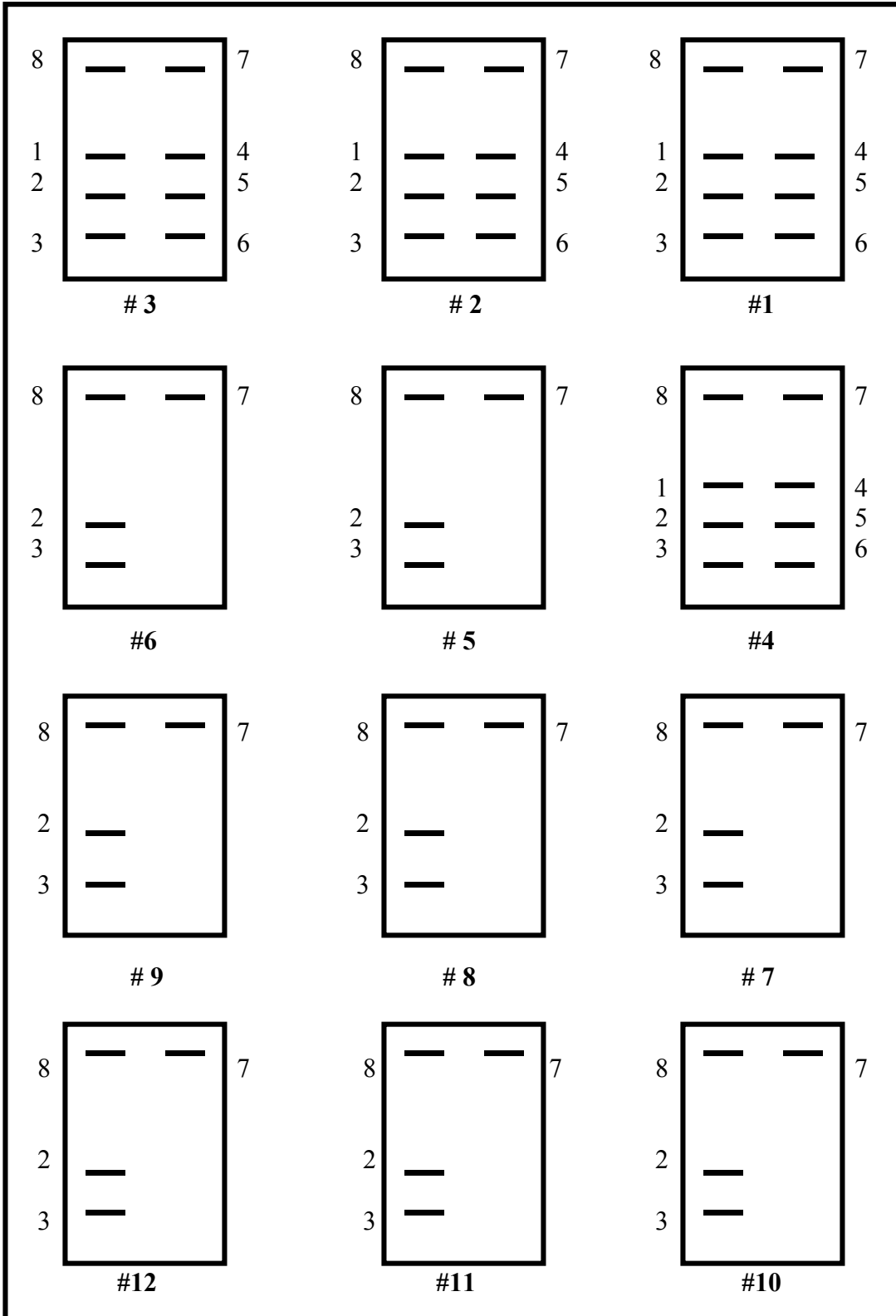
For less than \$ 20.00, 12 - 5mm White LEDs (Radio Shack # 276-0017) along with 12 - 1,000 ohm 1/8 watt resistors (Radio Shack # 271-004) were installed in the entry door switch panel.

The heat given off by the LEDs is averaging 3 degrees (F) above the ambient room temperature. The dropping resistor installed by Tiffin in the lamp circuit was left in place. The operating temperature of the resistor now is barely warm where before the measured temperature was 180 degrees (F).

2010 Allegro Bus Door Switch Panel (Front View)



2010 Allegro Bus Door Switch Panel (Rear View)



<p>Sw. 1 = Patio Awning</p> <p>Pin 1 - GREEN</p> <p>Pin 2 - BROWN</p> <p>Pin 3 - YELLOW</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>	<p>Sw. 2 = Door Awning</p> <p>Pin 1 - YELLOW</p> <p>Pin 2 - BROWN</p> <p>Pin 3 - GREEN</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>	<p>Sw. 3 = 12V Disconnect</p> <p>Pin 1 - WHITE</p> <p>Pin 2 - WHITE, Ground</p> <p>Pin 3 - BLACK</p> <p>Pin 4 - BLACK</p> <p>Pin 5 - RED</p> <p>Pin 6 - WHITE</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>
<p>Sw. 4 = Comp Locks</p> <p>Pin 1 - WHITE (Unlk)</p> <p>Pin 2 - BLACK</p> <p>Pin 3 - RED (Lock)</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>	<p>Sw. 5 = ENT Step</p> <p>Pin 1 - NC</p> <p>Pin 2 - WHITE</p> <p>Pin 3 - WHITE</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>	<p>Sw. 6 = Ceiling Lights</p> <p>Pin 1 - NC</p> <p>Pin 2 - BLACK</p> <p>Pin 3 - YELLOW</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>
<p>Sw. 7 = Floor Lights</p> <p>Pin 1 - NC</p> <p>Pin 2 - BLACK</p> <p>Pin 3 - BLACK</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>	<p>Sw. 8 = Assist Handle</p> <p>Pin 1 - NC</p> <p>Pin 2 - BLACK</p> <p>Pin 3 - BLUE</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>	<p>Sw. 9 = Cargo Lights</p> <p>Pin 1 - NC</p> <p>Pin 2 - BLACK/WHITE</p> <p>Pin 3 - BLACK</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>
<p>Sw. 10 = Door Light</p> <p>Pin 1 - NC</p> <p>Pin 2 - BLACK</p> <p>Pin 3 - YELLOW</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>	<p>Sw. 11 = Porch Light</p> <p>Pin 1 - NC</p> <p>Pin 2 - BLACK</p> <p>Pin 3 - BLUE</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>	<p>Sw. 12 = Road Light</p> <p>Pin 1 - NC</p> <p>Pin 2 - BLACK</p> <p>Pin 3 - BLUE</p> <p>Pin 4 - NC</p> <p>Pin 5 - NC</p> <p>Pin 6 - NC</p> <p>Pin 7 - Ground</p> <p>Pin 8 - 12 V (Lights)</p>