19 Aug 2000

PCS OSR-3 PCS Slave Dimmer LED Modification

LED brightness enhancement for 110VAC

DOCUMENT OVERVIEW:

This document is to document the modification required to increase the brightness of the LED on the PCS OSR-3 Slave Switch.

Details are provided below to accomplish this modification with only the use of a small Phillips-head screwdriver, razor blade, soldering iron and a small piece of wire. Names in parenthesis "( )" are references to the schematic "OSR-3 Slave Schematic".

PCS OSR-3 SLAVE SWITCH

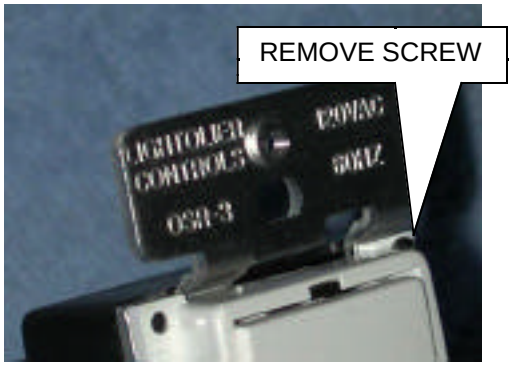
PROBLEM DESCRIPTION:

The LED present on the PCS OSR-3 Slave Switch is wired in series with two 470k 1/2W resistors, setting the nominal input voltage at 220VAC. However this switch is specified to run at 110VAC.

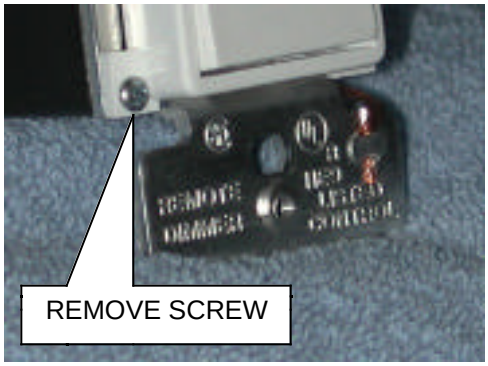
The result is that the LED's intensity glows at less than half the intensity of the LED on a standard PCS SS1L dimmer and PCS SS1F switch. Homeowners using these slave switches along with the master dimmer and switches quickly notice the difference in LED intensity.

MODIFICATION PROCEDURE:

1 - Remove the two small Phillips-head screws from the front plastic faceplate of the switch.

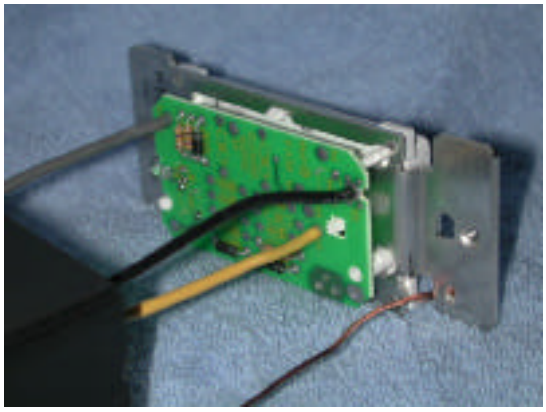


OSR-3 Front Top View



OSR-3 Front Bottom View

2 – Remove the rear plastic cover and set it aside for now.



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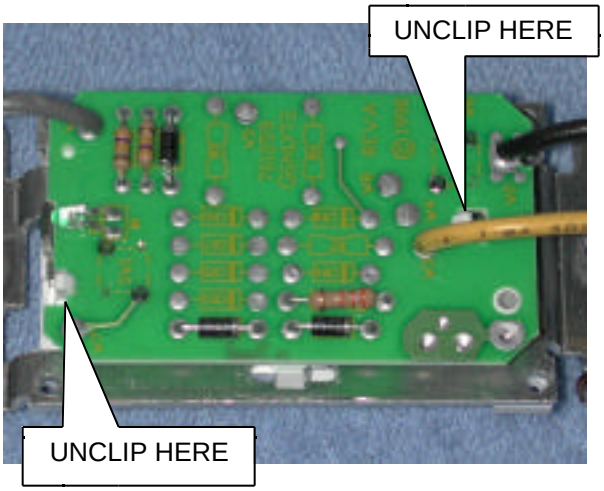
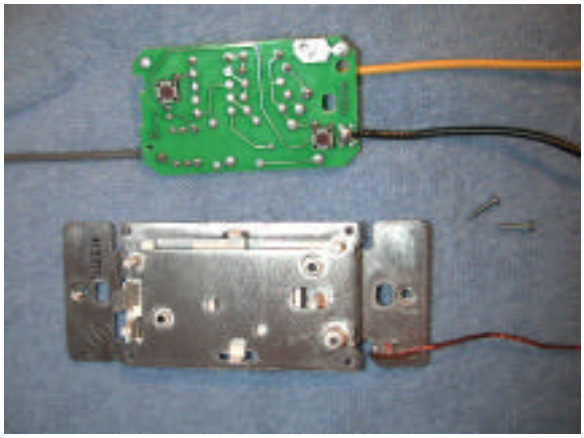
PCS OSR-3 PCS Slave Dimmer LED Modification (continued)

3 – Lay the switch assembly flat on it's face, with the plastic rocker switch pointed down. Gently bend the wires so they are not blocking your access to the PCB.

Unclip the PCB from the plastic faceplate at the locations shown. Remove the PCB from the assembly.

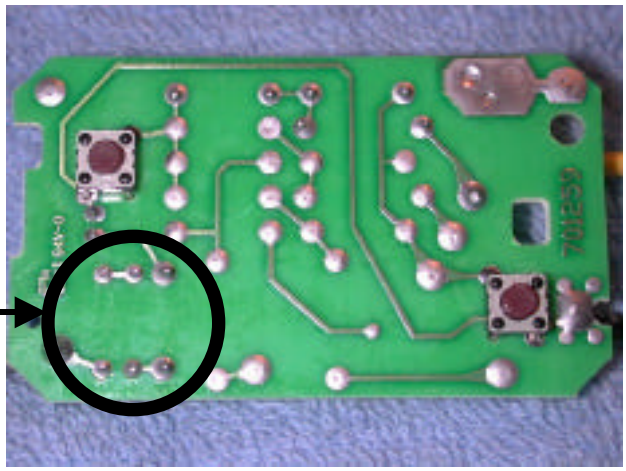


4 – Flip the PCB over to expose the side with the two micro-switches. Be careful not to lose any parts from the faceplate.



5 – Position the PCB as shown. Note that the location of the modification is the lower-left side of the PCB.

Location of modification →



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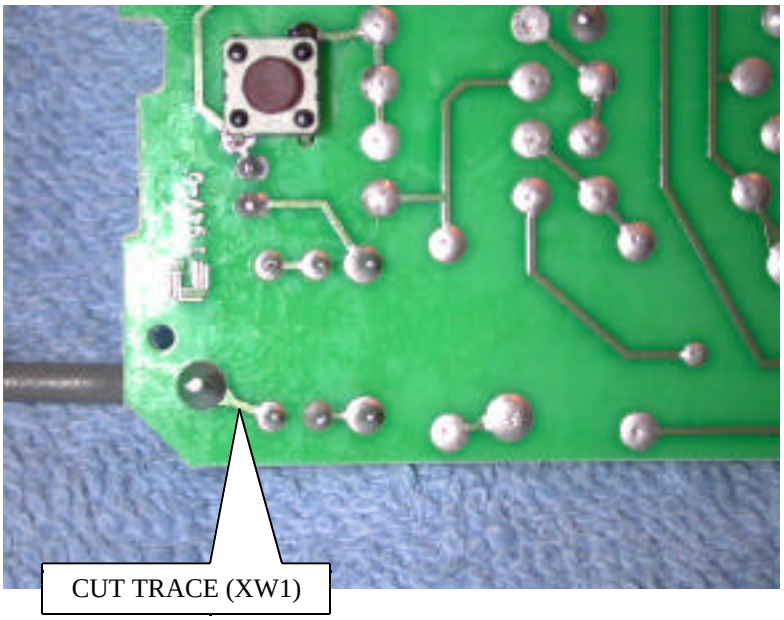
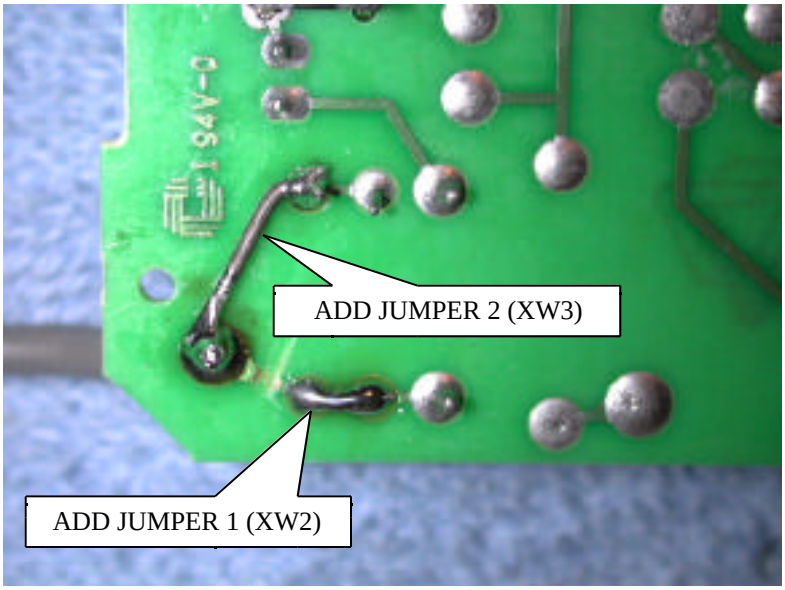
6 – Using a razor or sharp cutting instrument, cut the trace at the location shown.

Be sure to cut the trace completely. Insure that the two cut traces will not come in contact with each other.



7 – Add two jumpers as shown. Jumper 2 requires a small bare wire. Jumper 1 can be accomplished by creating a solder 'blob' between the two pins.



8 - Reassemble the unit in the reverse order of the disassembly instructions. Be careful to carefully reinsert the switch's wires into the holes in the rear plastic cover. Be sure not to over-tighten the screws.

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