

475 BARELL AVENUE, CARLSTADT, NJ 07072 800/230/9497 201/549/1160 201/549/1161 FAX www.citytheatrical.com

## TECH BULLETIN #1004

## **Products Affected:**

The following products shipped prior to February 21st, 2006 are affected:

CTI# 5520 WDS 15A Dimmer

CTI# 5522 WDS 30A Dimmer

CTI# 5515 WDS Personal Dimmer

## Overview:

In some cases it has been observed that quickly bumping a large dimmer load can cause some batteries to momentarily drop voltage below the threshold of the low voltage detection on the dimmer. This would result in disabling the dimmer until the power was cycled. A change has been made to the internal circuit board to reduce the sensitivity of the low voltage detection circuit.

## **Details:**

Two resistor values have been changed to reduce the sensitivity of the low voltage detection circuit. On the 5520 and 5522, the resistors affected are located at reference designator R9 and R10. On the 5515 the resistors are located at R17 and R20. The original value of R9 and R17 was  $500 \mathrm{K}\Omega$  and the original value of R10 and R20 was  $100 \mathrm{K}\Omega$ . These values have been changed to  $392 \mathrm{K}\Omega$  and  $205 \mathrm{K}\Omega$  respectively. This change will reduce the low voltage threshold from  $10 \mathrm{VDC}$  to  $7 \mathrm{VDC}$ .

While this modification will reduce the threshold at which the dimmer goes into the low voltage error, it will not eliminate this function altogether. For optimum performance, it is recommended that properly sized and maintained batteries change load. In addition, if a quick bump on a large load is required, it is recommend to first "preheat" the load at a very low level. This will reduce the inrush current when the load is bumped to full, and keep the battery at a higher voltage.

Please contact your local City Theatrical dealer if you require assistance with modifying your dimmer. A list of dealers can be found on our website.



