

SERVICE BULLETIN

Subject: LCD Console & LCD Power Supply Rework

Date: 2/16/07

Distribution: Vector Scoring Customers

Bulletin No. SB07-1

It has come to our attention that the second lamp on the LCD console will need to be connected to reduce failure, increase the life of the product. When the second lamp has been connected, the electrical current consumption of the LCD console is higher. Because of this, the circuit breaker on the power supply will need to be changed from a 2-amp circuit breaker to the new 3-amp circuit breaker, part number 11-696643-000.

The purpose of this document is to detail rework of the power supply for the LCD touch screen console and the LCD console backlights connection. This rework instruction is only for the power supply, part numbers 57-500518-000 and 57-500242-000, which provides power to the LCD consoles, part numbers 57-500413-4xx, and 57-500476-4xx, with new inverter board and the Sharp LCD panel with two backlight lamps. The new inverter board, part number 57-500408-000, must have both backlight lamps connected. The rework will include two new 3-amp circuit breakers, part number 11-696643-000 (manufacturer Tyco, part number W28-XQ1A-3). Also included are an electrical shock-warning label, part number 12-460052-000, and a "3 AMPS" label, part number 12-460100-000.

Power Supply Rework Description

The power supply provides 25VAC, 3-amp power to the LCD consoles. One power supply provides power to two LCD consoles. When the second backlight on the LCD console is connected, both 2-amp circuit breakers on the power supply will need to be changed from 2-amp to 3-amp. If the 2-amp circuit breakers are not replaced the circuit breakers could randomly trip. The old configuration LCD panel had only one backlight on the LCD touch screen connected.

Power Supply Rework Procedure

The location of the circuit breakers is shown in *Figure 1*. Before replacing the circuit breakers, all the cables to the power supply must be disconnected. The circuit breakers need to be replaced one at a time.



Figure 1



WARNING:

Make sure the input and output power cables are disconnected from power supply before beginning the rework of the power supply.

1. Remove the four screws from power supply and remove the power supply cover.
2. Disconnect the Fast-On connectors from existing 2-amp circuit breaker. *Refer to Figure 2.*

3. While pressing the circuit breaker plastic mounting clips, remove the existing 2-amp circuit breaker from the enclosure. Refer to Figure 2.

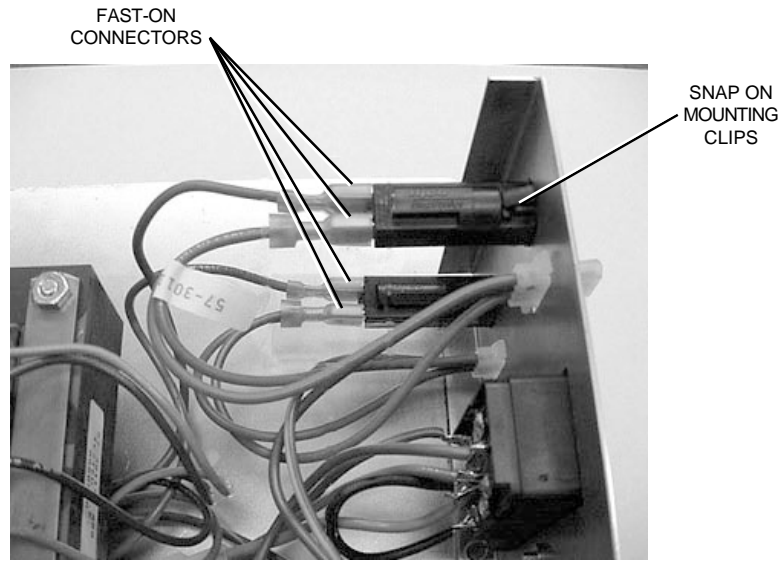


Figure 2

4. Install the new 3-amp circuit breaker and reconnect the Fast-On connectors. Keep the rotation of the circuit breaker correct. Refer to Figure 3.
5. Repeat the procedure for the second circuit breaker.
6. Reinstall the power supply cover.
7. Place the new “3 AMPS” label over the existing “2 AMPS” silk screened on the enclosure. Refer to Figure 3.

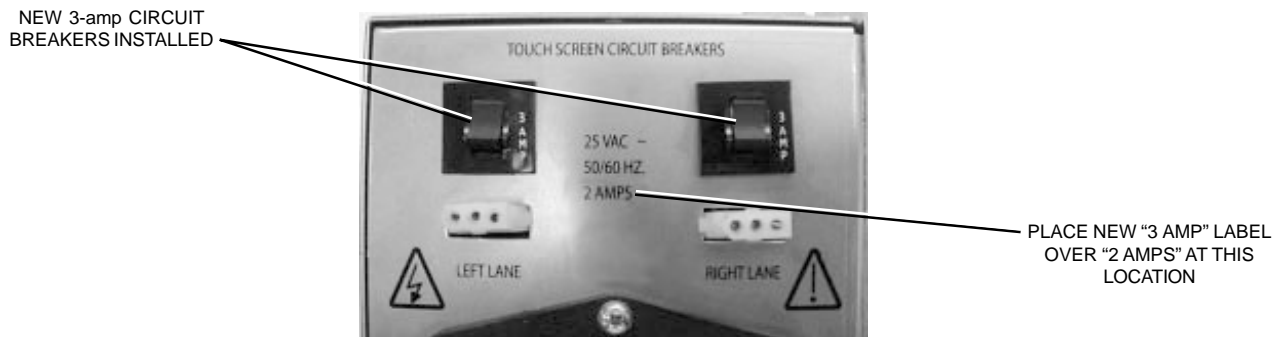


Figure 3

8. Reconnect the input and output power cables.
9. Check to make sure the LCD consoles function properly.

LCD Console Rework Description

The current version LCD, part number 57-500413-401, has clear cellophane covering the Inverter PC Board. The clear cellophane material is not thick enough to prevent a sharp solder point from puncturing the surface. If a solder point punctures the surface of the cellophane an electrical shock could occur. *Refer to Figure 4.*



Figure 4

LCD Console Rework Procedure

The connection of the second lamp and installation of the electrical shock hazard sticker can be completed at the bowling center. To accomplish this, use the following instructions.

1. Remove the four screws which secure the back cover and remove the cover to gain access to the second lamp plug. *Refer to Figure 5.*

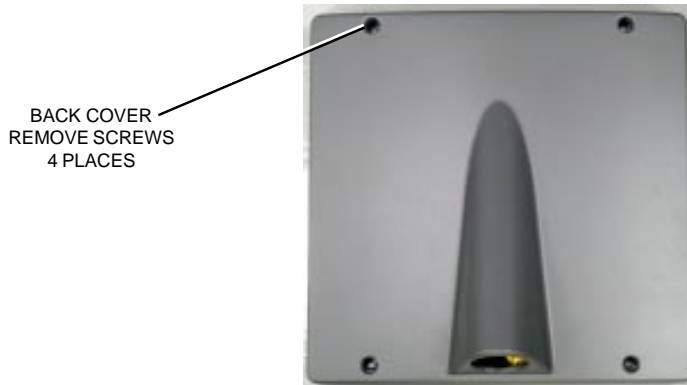


Figure 5

2. Remove the power from the LCD scorer by removing the black connector with three wires, (black, green, and white), from the PC Board. *Refer to Figure 6.*

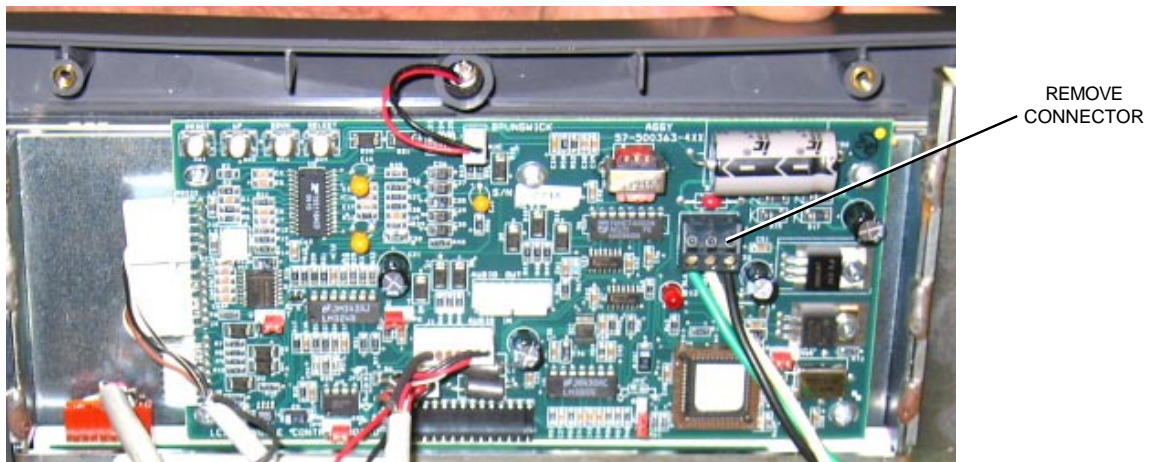


Figure 6

3. Remove the tape from the clear plastic cellophane and retain for reassembly. Refer to Figure 7.
4. Remove the two plastic screws and retain them for reassembly. Refer to Figure 7.

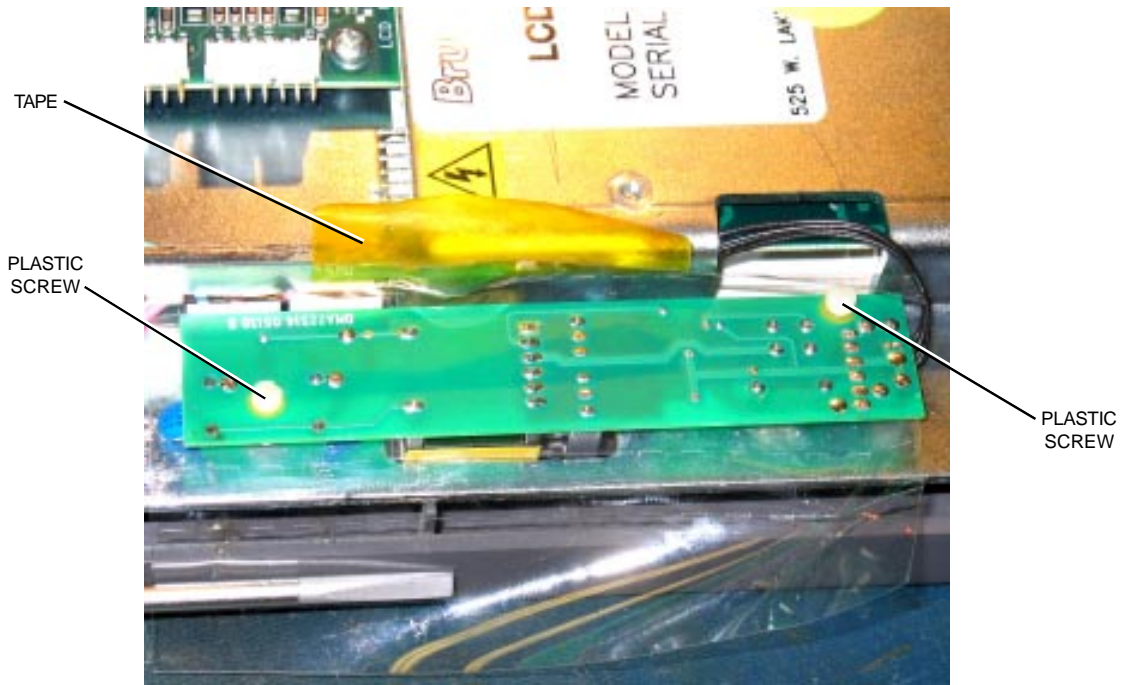


Figure 7

i NOTE: Do not lose the plastic spacers under each screw. Refer to Figure 8.

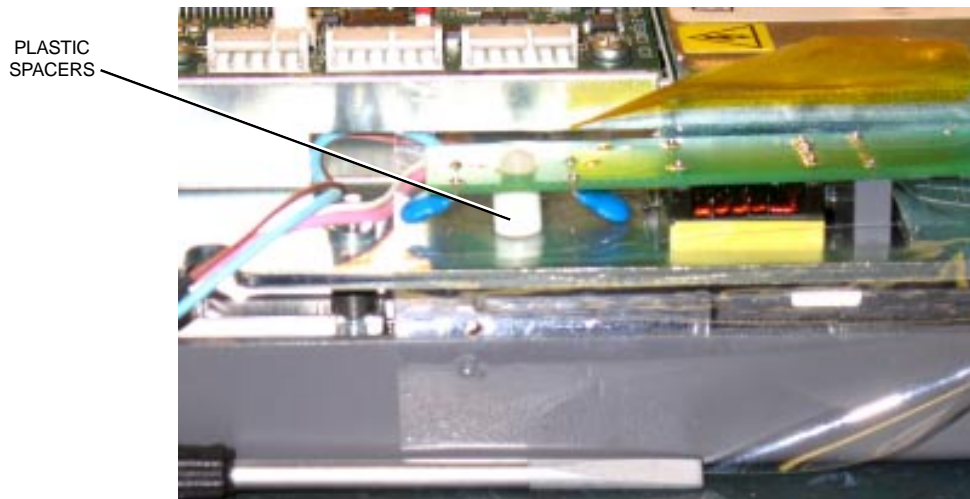


Figure 8

5. Identify the previously unused second lamp connector, the white plastic connector with white and pink wires attached. Refer to Figure 9.

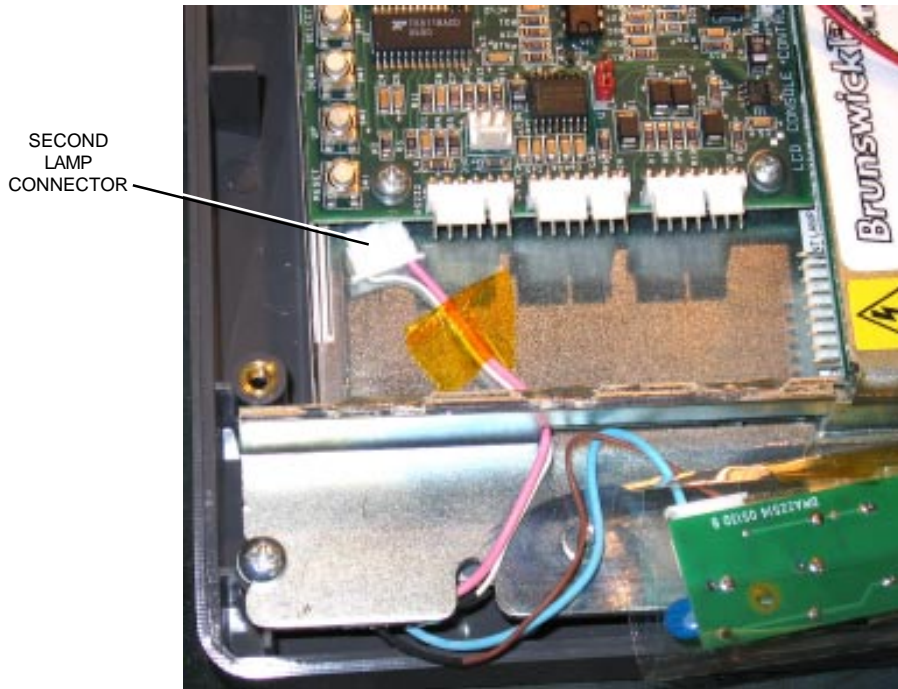


Figure 9

6. Connect the second lamp connector to the Inverter PCB. The lamp connector must go through the metal slot and plug into the inverter PCB. Refer to Figure 10.

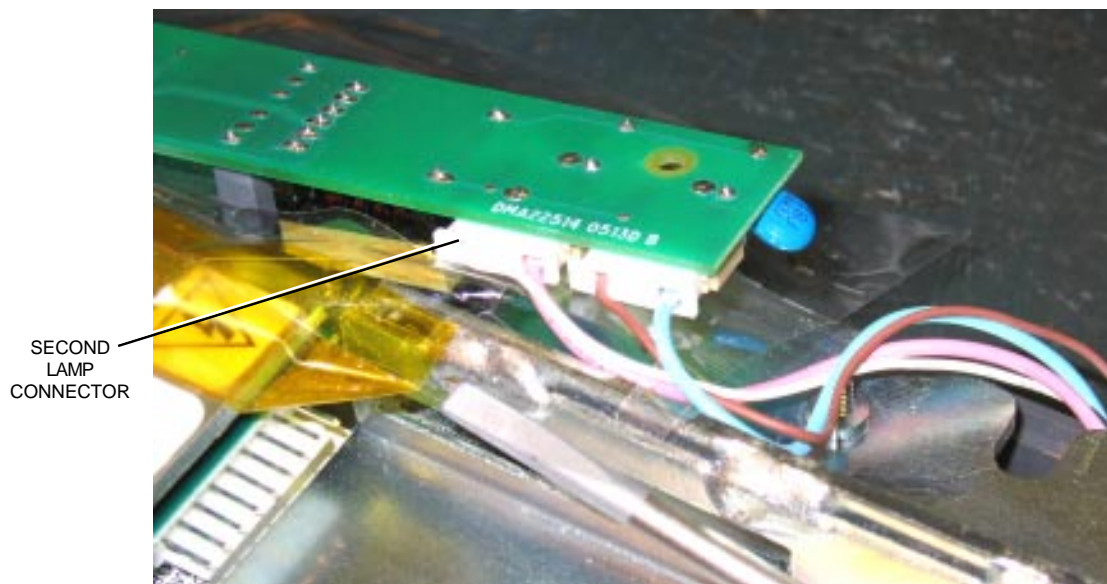


Figure 10

7. Reinstall the Inverter PCB, reusing the two plastic screws and spacers. *Refer to Figures 7 & 8.*
8. Reapply the cellophane with tape retained in step 3. *Refer to Figure 11.*

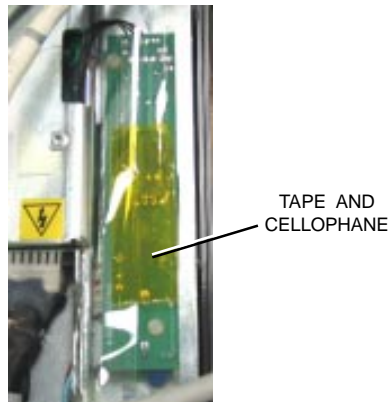


Figure 11

9. To prevent and indicate an electrical shock hazard, the electrical shock hazard sticker, part number 11-681156-000, included with this Bulletin, must be placed on the cellophane in the appropriate area as shown in *Figures 12 and 13.*

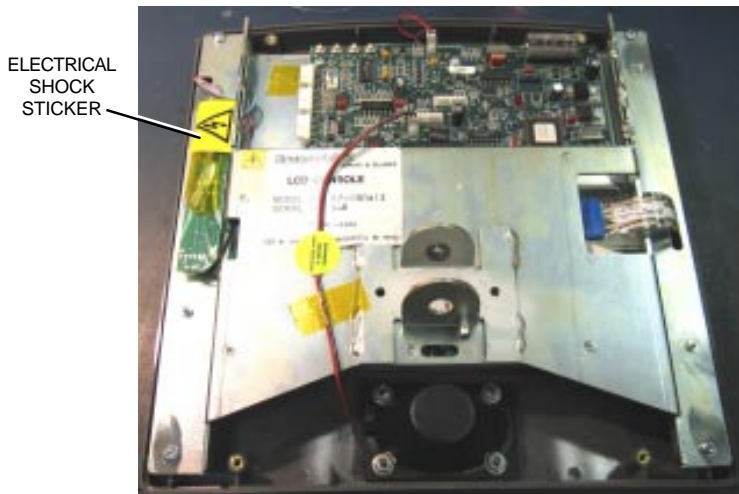


Figure 12

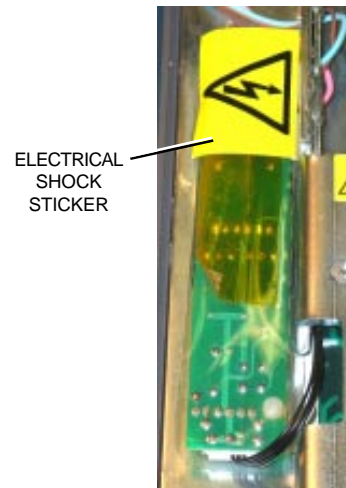


Figure 13

If you have questions regarding this or any other Service Bulletin, please contact the Brunswick Customer Response Center at 1-800-937-2695 or 231-725-4966, FAX 231-725-4667, or E-mail http://www.brunswickbowling.com/contact_us

Kord L. Daniels
 Kord L. Daniels
 Service Product Engineer

David E. Rice
 David E. Rice
 Director of Worldwide Service