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Hog 1000 Backlight Transformer Mounting

Problem

The large transformer used to supply backlight voltage to the HOG1000 and Echelon 1K character displays has been found to detach from the backlight driver circuit board during rough handling of the console. The loose transformer can damage the circuit boards as it moves around. This tech note describes the recommended method for securing the transformer to the PCB using cable ties. This modification should be performed to consoles as part of a preventative maintenance program.

Affected

HOG1000 and Echelon 1K consoles with serial numbers up to and including E00xxx.

Solution

Remove the console base and backlight PCB from the chassis. The PCB is drilled using the guide provided at the bottom of this document - copy the guide before use.

1. Turn the PCB so that its solder side is upward.
2. Orient the PCB so that edge with the two transformers is closest to you. Note that production version PCBs have only one transformer fitted.
3. Place the template over the PCB, ensuring that the corner marks line up with the PCB corners.
4. Mark the four holes using a scribe or other sharp instrument.
5. Drill the four holes using a M4 or 5/32 drill. Care should be used to ensure the drill doesn't damage the transformer windings when it passes through the PCB.
6. Use two 3.6mm x 200mm cable ties to secure the transformer to the PCB through the holes drilled in step 5. Note that the cable tie should be tight however excessive tightness may warp the PCB, and care should be used.
7. Cut off the excess cable tie.
8. Refit the PCB. Test for correct operation before refitting the console base.

