

ETC® Service Note

Express DMX Driver Chip Replacement Instructions



Overview

This document contains instructions for removing and replacing the DMX driver chip within your Express console.

DMX driver chips may fail when subjected to excessively high voltage. This can be caused by a power event such as a lightning strike.

You may need to replace the DMX driver chip if the console is not outputting DMX, lights flicker, or if the chip appears burnt or damaged.

If there has been damage, it is best practice to replace both DMX chips (U1 and U2) on the Express I/O board.

Difficulty of Repair

Easy

Estimated time to complete

5-10 minutes

Before you begin

Setup a clean, well-lit work area and take appropriate ESD (Electro-Static Discharge) precautions.

Tools Needed

- #2 Phillips Screwdriver
- Flathead Screwdriver
- Dual In-Line (DIL) Chip puller
- DMX Driver Chip, IC 75176 – ETC Part Number Z216-F



Note: *DMX Driver Chip, IC 75BC182 – ETC Part Number Z1458-F - is an acceptable replacement for the Z216-F.*

Procedure

- Step 1: **Disconnect power and other connections from the console before performing any service work.**
- Step 2: Place the console on a clean, stable surface with the "brick" facing you.
- Step 3: Remove the circled (6) black screws.



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Technical Services ■ Rev B ■ Released 2011-11

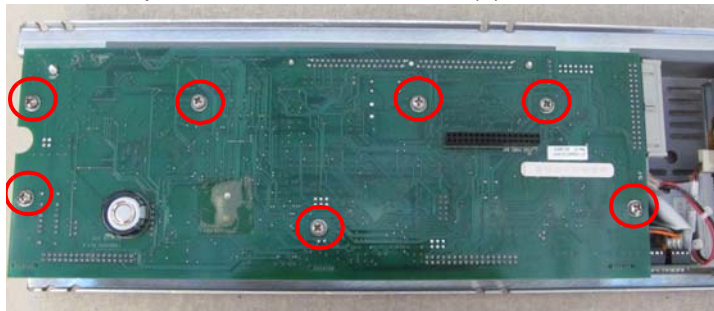
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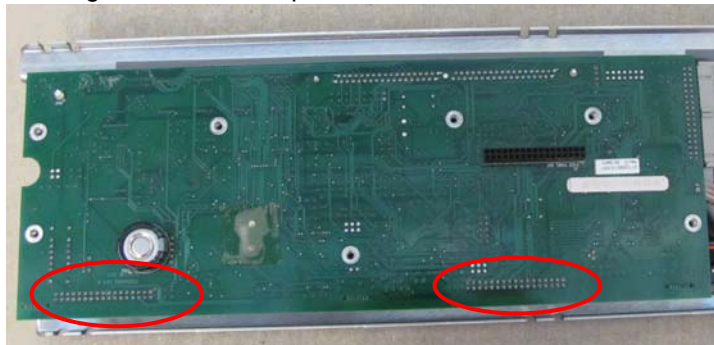
Step 4: Remove the CPU assembly.



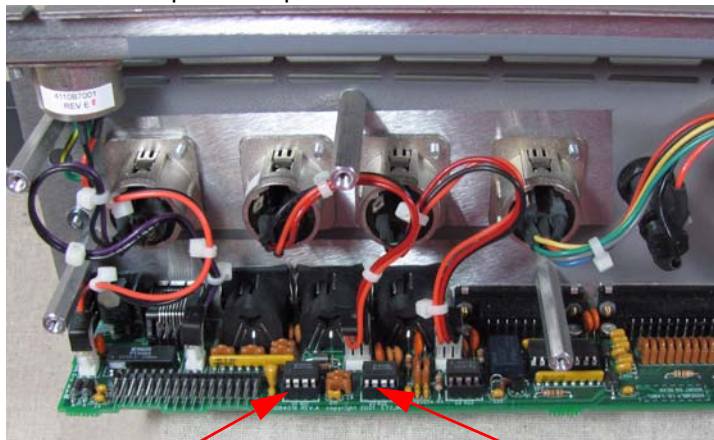
Step 5: With a Phillips screwdriver, remove the (7) circled silver screws.



Step 6: Remove upper PCB by gently applying a lifting force in the circled areas to avoid bending the two header pin connectors on the rear of the board.



Step 7: Locate the chip to be replaced.



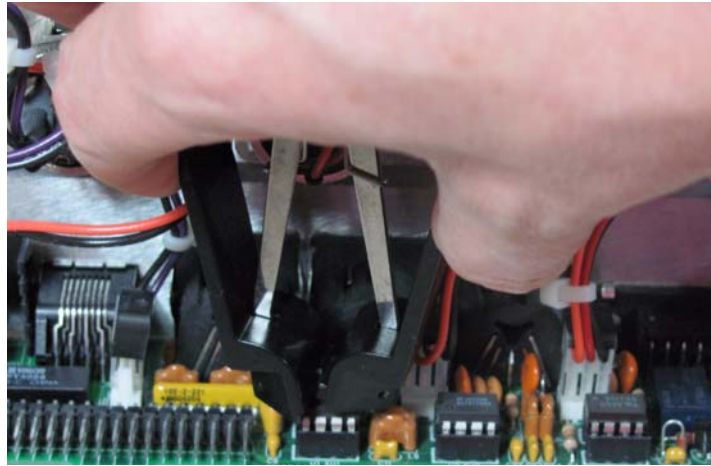
(U1) DMX Port 2

(U2) DMX Port 1

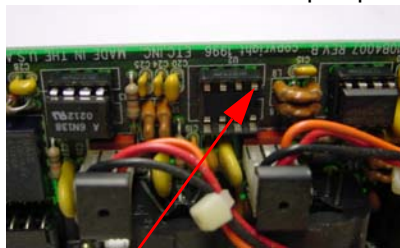
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Step 8: Using a chip puller, gently remove the DMX chip.



Step 9: Insert the new DMX chip in place as noted.

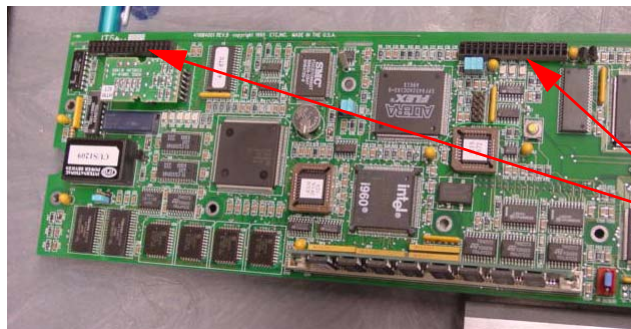


Pin 1 Identifier
on I/O Board



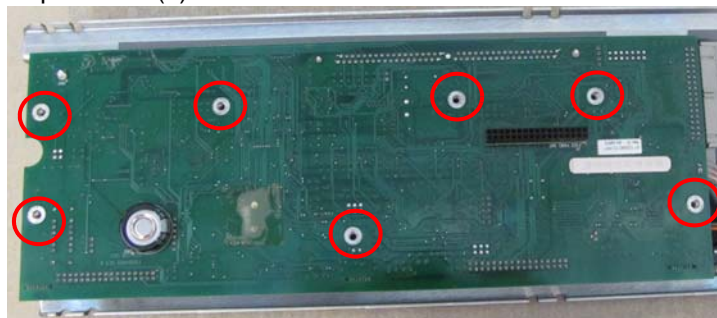
Pin 1 Identifier

Step 10: Replace top PCB being sure to line up the header pins. Press down gently until it is seated on the headers.



Header Pins

Step 11: Replace the (7) silver screws to the circled locations.



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Step 12: Place the CPU assembly into the front metal bracket.



Step 13: Replace the circled (6) black screws.



Step 14: Reconnect power and other connections.

Step 15: Boot console.

Step 16: Test console for desired functionality.

Additional Information

If you have any questions regarding this procedure, please contact ETC Technical Services.