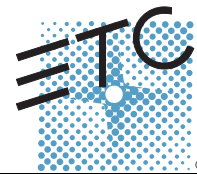


# ETC® Service Note

## CEM+ DMX Driver Chip Replacement



### Overview:

In this section we will cover changing the DMX chip on a CEM+ Control Module. This chip is responsible for receiving the DMX signal that is sent by the lighting desk to control the dimmers.

Reasons for this chip to fail might include too much voltage running through the chip. This can be caused by power events such as lightning.

Symptoms of a faulty DMX chip would be:

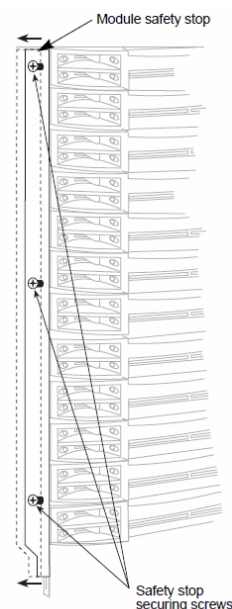
- Not receiving DMX even from a known good DMX source.
- Burnt or damaged looking chip.
- Flickering levels.

### Tools Needed:

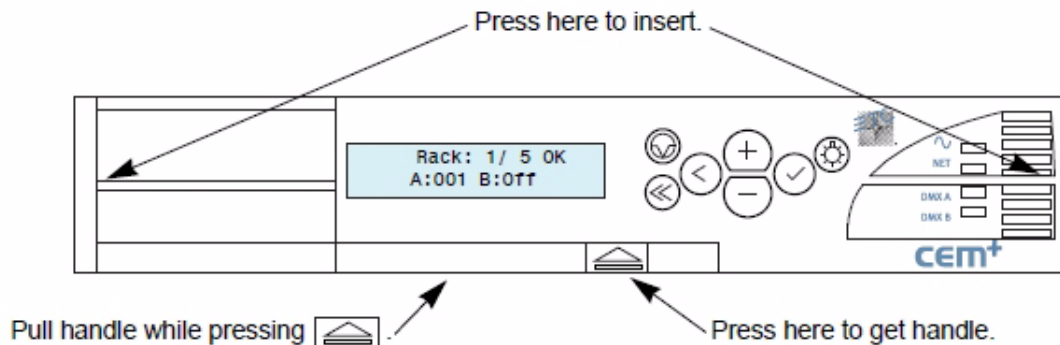
Needle Nose Pliers or Chip Puller

### Procedure:

- Step 1: Turn off rack power at the main breaker.
- Step 2: Open the rack door. If this is an ESR rack you may need to remove the Securing Module Safety Stops.
- Step 3: Press the “eject” symbol on the right end of the spring-loaded handle and grab the other end of the handle, pulling it until it is perpendicular to the face of the CEM+. The CEM+ will be gently pushed out of the rack as you move the handle.
- Step 4: Pull the CEM+ straight out.



(Illustrations from 7150M1400-2.0.0)

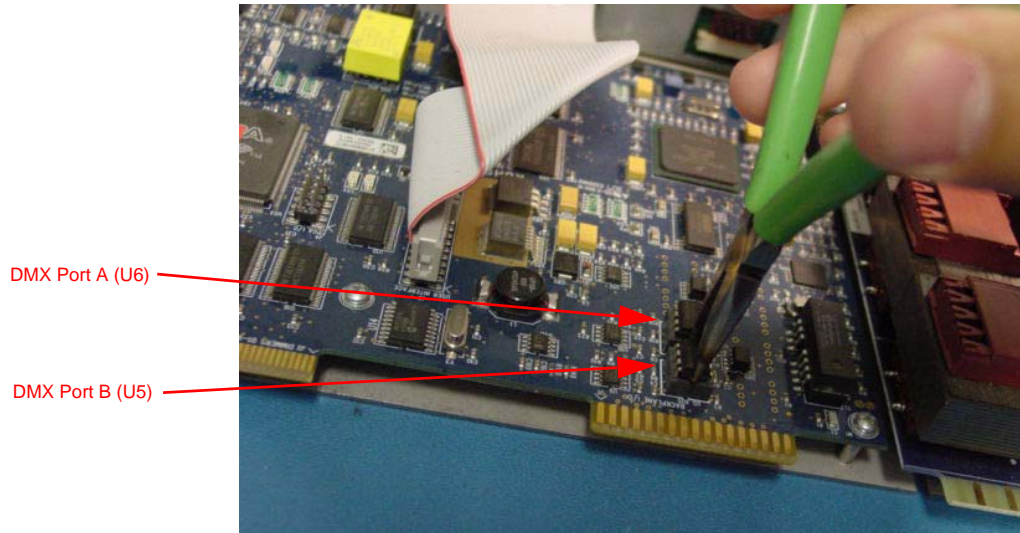


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Web: [www.etconnect.com](http://www.etconnect.com) ■ QSF 4.1.9.1 ■ Copyright © 2009 ETC. All Rights Reserved. ■ Product information and specifications subject to change.  
Technical Services ■ Rev A ■ Released 2009-09

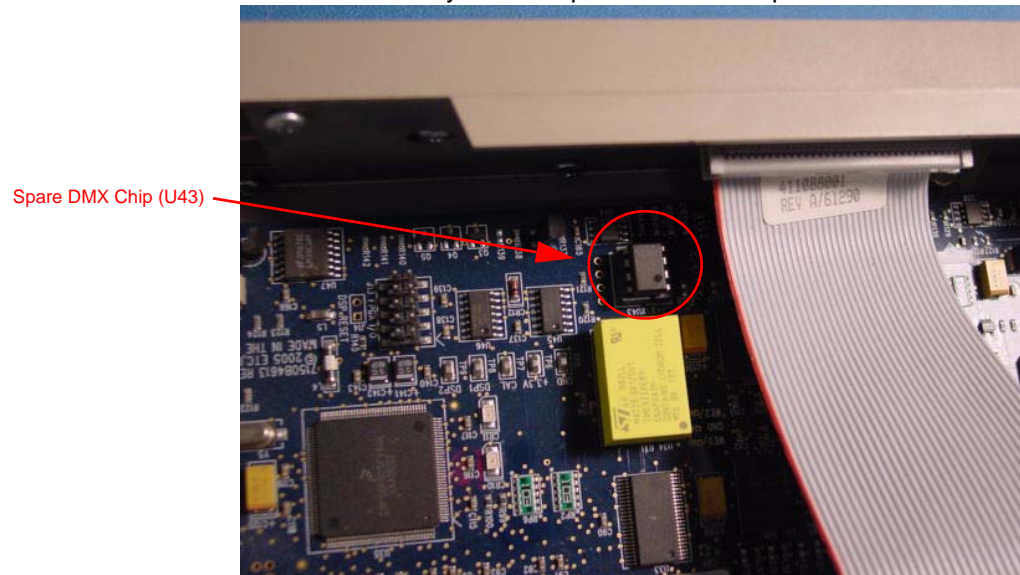
# ETC Service Note:

## CEM+ DMX Driver Replacement

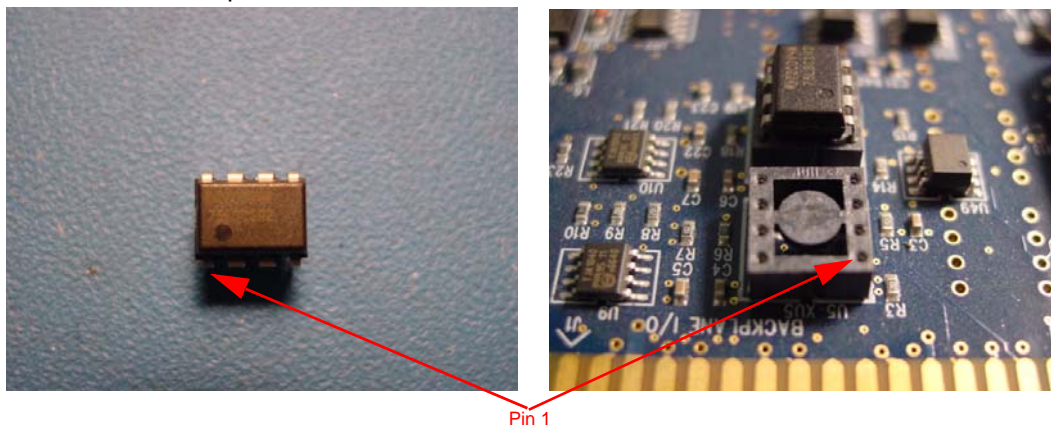
Step 5: With your needle nose pliers or chip puller, gently pull out the DMX chip that needs changing.



Step 6: Locate the spare DMX chip. You can find this chip just to the left side of the ribbon cable going to the face plate. After finding this chip remove it the same way as before so that you can replace the bad chip.



Step 7: Note that pin one is marked with a circle on the chip. Insert the chip into place so that pin one is seated as shown.



Pin 1

# ETC Service Note:

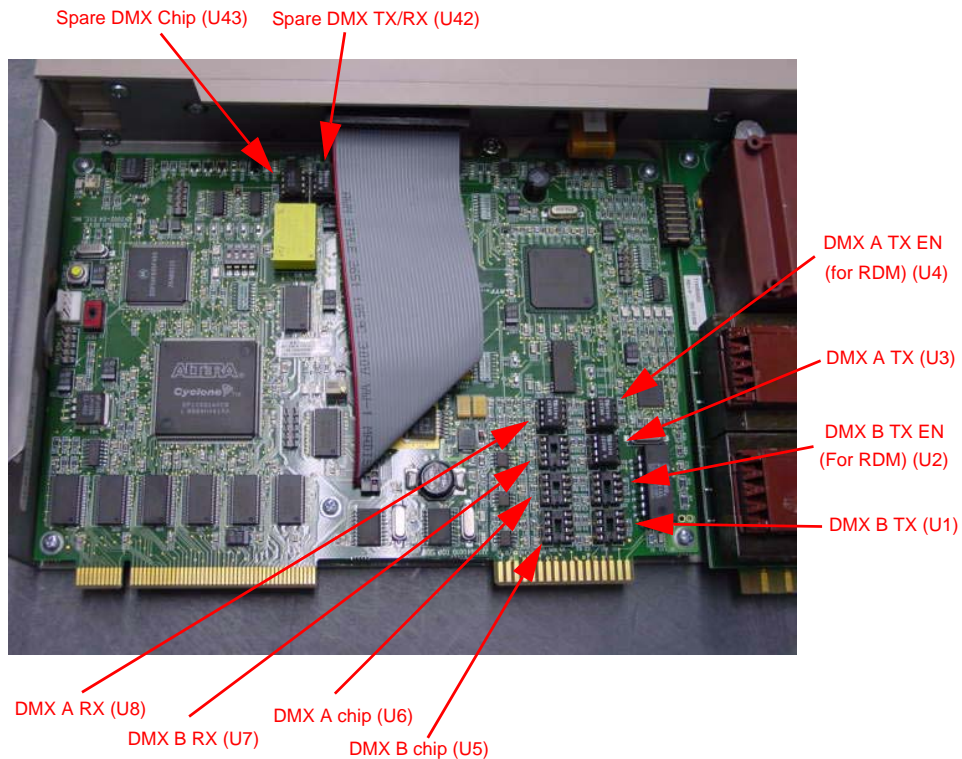
## CEM+ DMX Driver Replacement

Step 8: Replace CEM+. Firmly press the new CEM+ module into the correct slot by pressing on the outside edges until you feel the connections seat. Note that the module face will be flush with the other modules. Make sure the CEM+ is fully seated. Sometimes this is easier if you remove the dimmer module above and below the CEM+ control module.

Step 9: Close and lock the sensor+ rack door before applying power.

### Additional Information

Earlier CEM+ have a different chip layout. Note the location of the DMX chips.



### Part Numbers for DMX driver chips

<u>Part Number</u>	<u>Description</u>
Z216-F	DMX Driver Chip (Green PCB)
Z1458-F	DMX Driver Chip (Blue PCB)