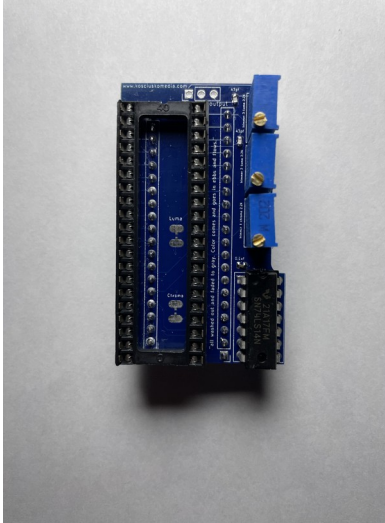


## Kosciusko Media Lumafix Manual



**Attention: After adding this fix, if you have removed your stock heatsink for the VIC-II chip you MUST add some heatsinks to it. It WILL get hot and will overheat and shut down quickly.**

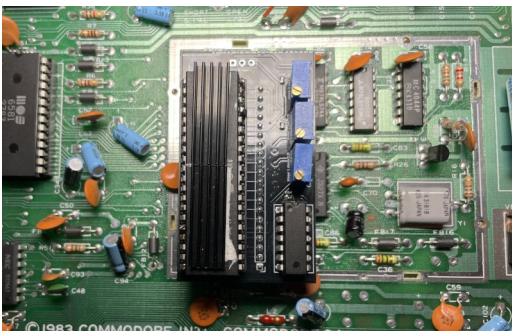
The Lumafix is a well known module for removing the vertical lines created by interference with the VIC-II chip in the Commodore 64. This is a simple, cheap way to reduce them or even remove them completely.

### **Installing:**

To install the Lumafix module you must first carefully remove your VIC-II chip, normally it is in a socket but yours might not be. If it is not you will have to desolder it. Be very careful when desoldering the chip so that you don't remove the pads from the copper traces on the board. If you have a chip puller it is best to use that but if you don't you can gently use a flat screw driver to get underneath the chip and lift up each side a little at a time (if it is in a socket).

If your board has an rf shield around the VIC-II you might have to remove it. It will depend on if the Lumafix fits with your board. Also, there may be capacitors that are close to where the Lumafix will be sitting, if the board is hitting those you might need to use an extra 40 pin dip socket to raise it a little more.

Once, the VIC-II is removed, simply put the VIC-II chip in the socket of the Lumafix and install the Lumafix where the VIC-II was previously. Make absolutely sure that you have the VIC-II facing the proper direction. That is, pin 1 facing the RF Module.



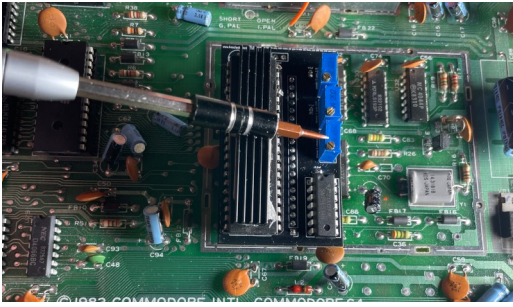
### **With and Without the RF Modulator:**

If you have not replaced your RF Modulator, then you should solder the small pads together underneath the VIC-II socket on the Lumafix board. Each set of pads looks oval with a small rectangle that just barely doesn't connect. Solder a bridge between the rectangles on each of the pads. One is labeled "Luma" and the other is labeled "Chroma".

If you have replaced your RF Modulator with a custom unit you should connect the three pin header to the top of the board and connect the Luma, GND, and Chroma directly to that custom unit IF that is how the custom unit works.

**Adjusting:**

After you have connected everything properly and you are getting video, it might look worse than it did before. Not to worry. Start with all of the trimmer resistors turned all the way counter clockwise (You should hear a faint click when it is as far as it can go). Then, starting with Chroma (the trimmer resistor closest to the 74LS14) start turning it clockwise. It won't get perfect but you should see improvement. When you see improvement but then it starts getting worse, move to the other trimmer resistors, slowly turning them clockwise until you've gotten a better picture. You will likely have to move through all three of them several times before you find a picture that you are happy with.



If you have any problems or you have a defective board, please email us at [admin@kosciuskomedia.com](mailto:admin@kosciuskomedia.com)

Thank You