

WOT TECHNOLOGIES

TD1220RDR

A plug-and-play Retrofit display replacement for the Roland TD12 and TD20 Percussion modules

ROLAND TD-20

DISPLAY REPLACEMENT TUTORIAL

By Richard Seaby



CAUTION

DISCLAIMER

The manufacturer recommends that a qualified electronic service technician perform this installation using appropriate anti-static handling protocols

Please examine the installation notes that were included with the display as they will contain any up to date or last minute changes to recommended procedures or related materials

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1. STATIC SENSITIVE DEVICE



To reduce the possibility of electrostatic discharge, observe the following precautions:

- Limit your movement. Movement can cause static electricity to build up around you.
- Handle the device carefully, holding it by its edges or frame.
- Do not touch solder joints, pins, or exposed printed circuitry.
- Do not leave the device where others can handle and possibly damage the device.
- **While the device is still in its antistatic bag, touch it to an unpainted metal part of the system unit for at least 2 seconds. (This action removes static electricity from the package and from your body).**
- Remove the device from its package and install it directly into your system, without putting it down. If it is necessary to put the device down, place it onto its static-protective bag. (If your device is an adapter, place it component-side up.) Do not place the device onto the cover of the system or onto a metal table.
- Take additional care when you handle devices during cold weather. Indoor humidity tends to decrease in cold weather, causing an increase in static electricity.

This document will outline the steps required to replace a faulty factory LCD display in a Roland TD-20 with the new retrofit OLED display. The procedure for a TD-12 is similar, but some screws and component layouts are slightly different. Take extreme care when performing the outlined procedure. Note: Different size and types of screws are used throughout the unit. Inserting the wrong length or thread type screws on reassembly could cause short circuits or physical damage

2. TOOLS

Basic tool kit:

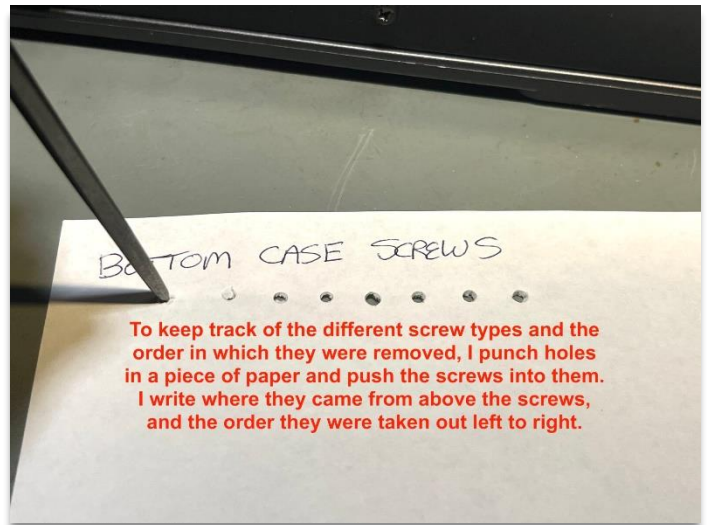
- Phillips Screwdriver.
- Anti-static bracelet. (Optional)
- Surgical gloves. if you do not have Anti-static bracelet.
- Electronic Contact Cleaner.

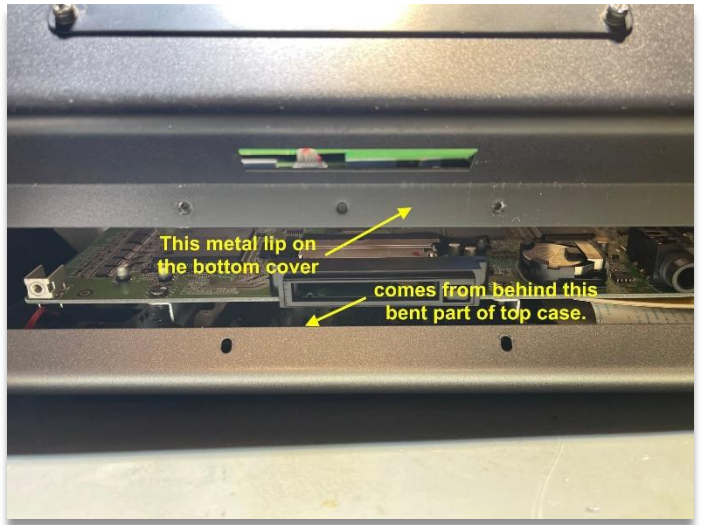
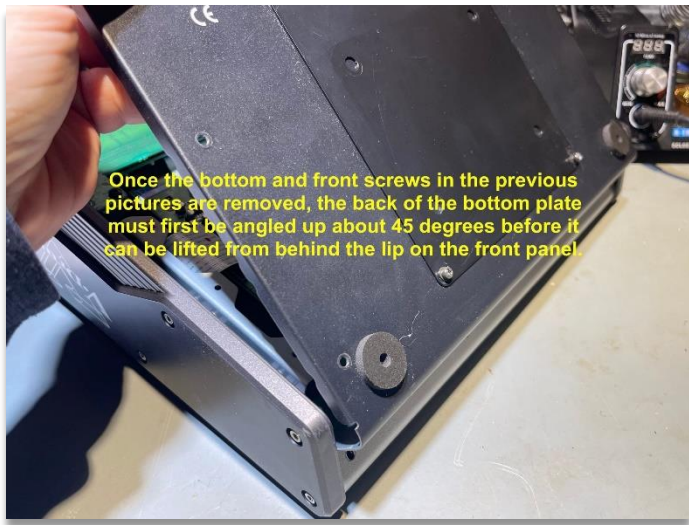
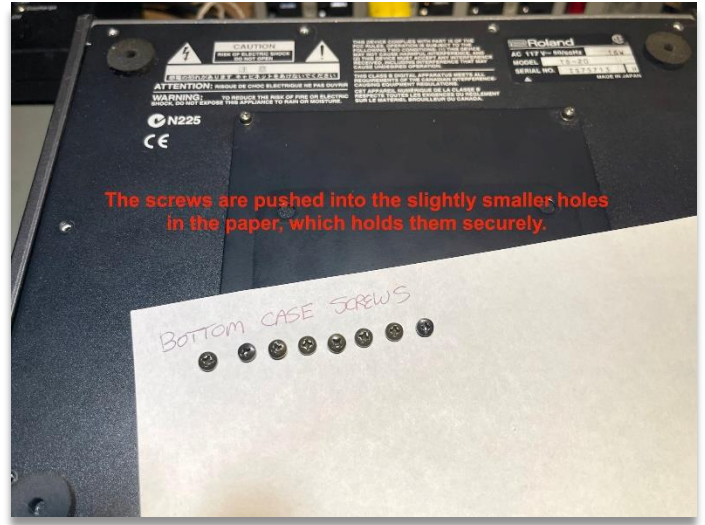
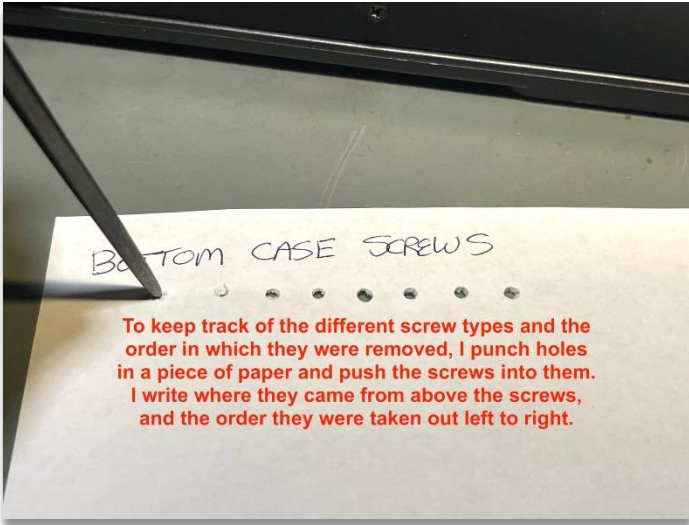


3. ROLAND TD-20 OVERVIEW

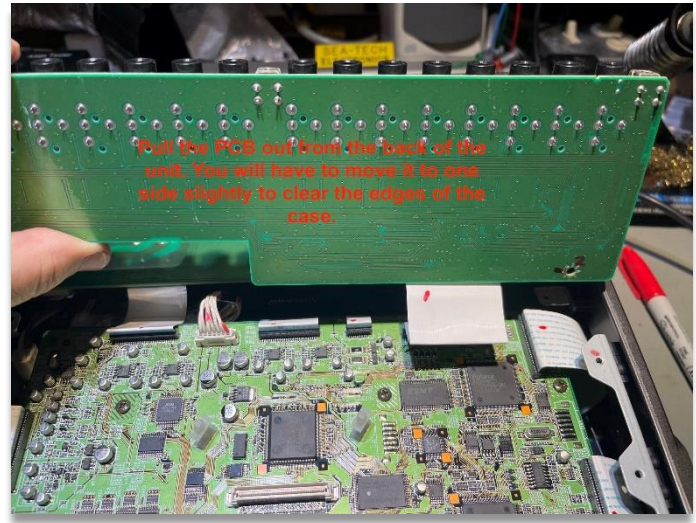
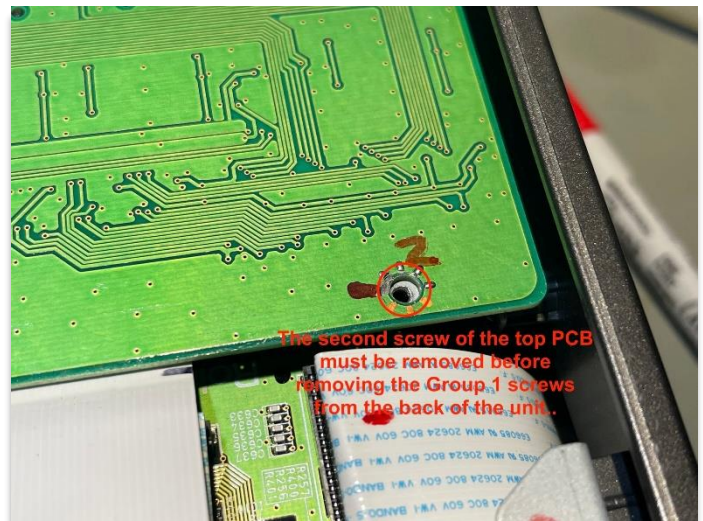
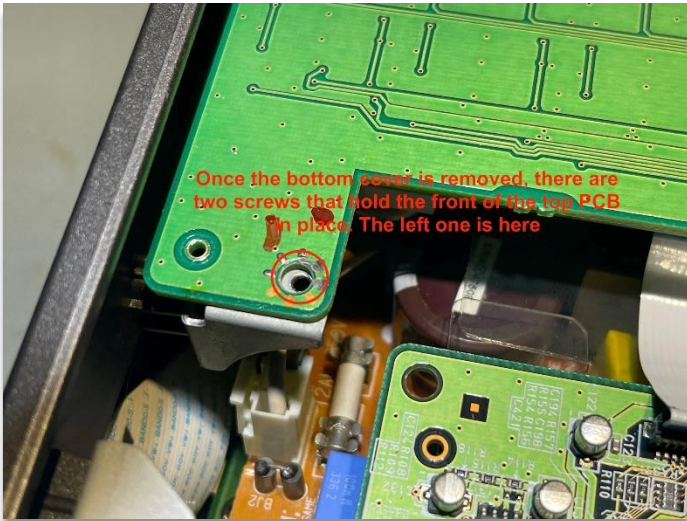


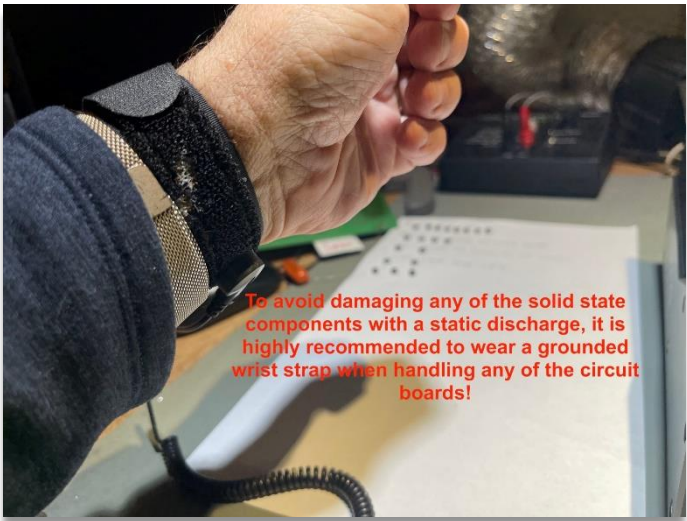
4. REMOVE BACK METAL COVER



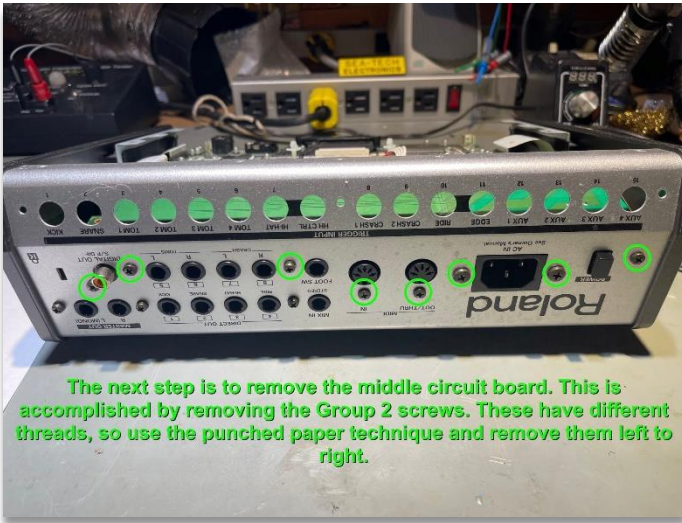


5. TRIGGER INPUT PCB BOARD

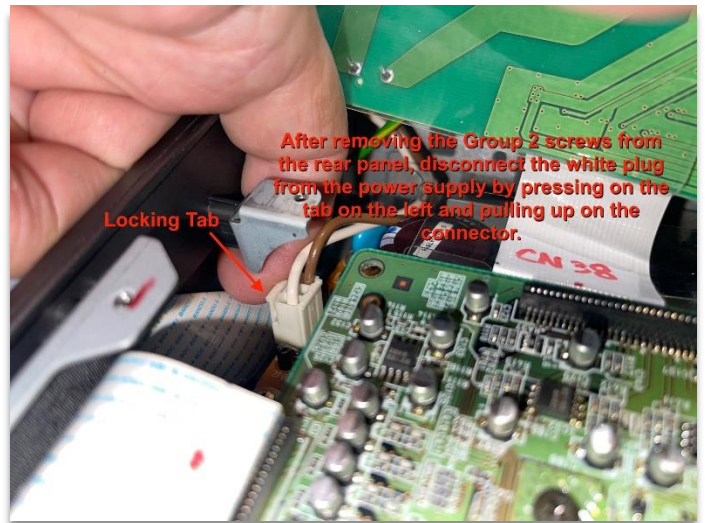




6. MIDI IN/OUT PCB BOARD

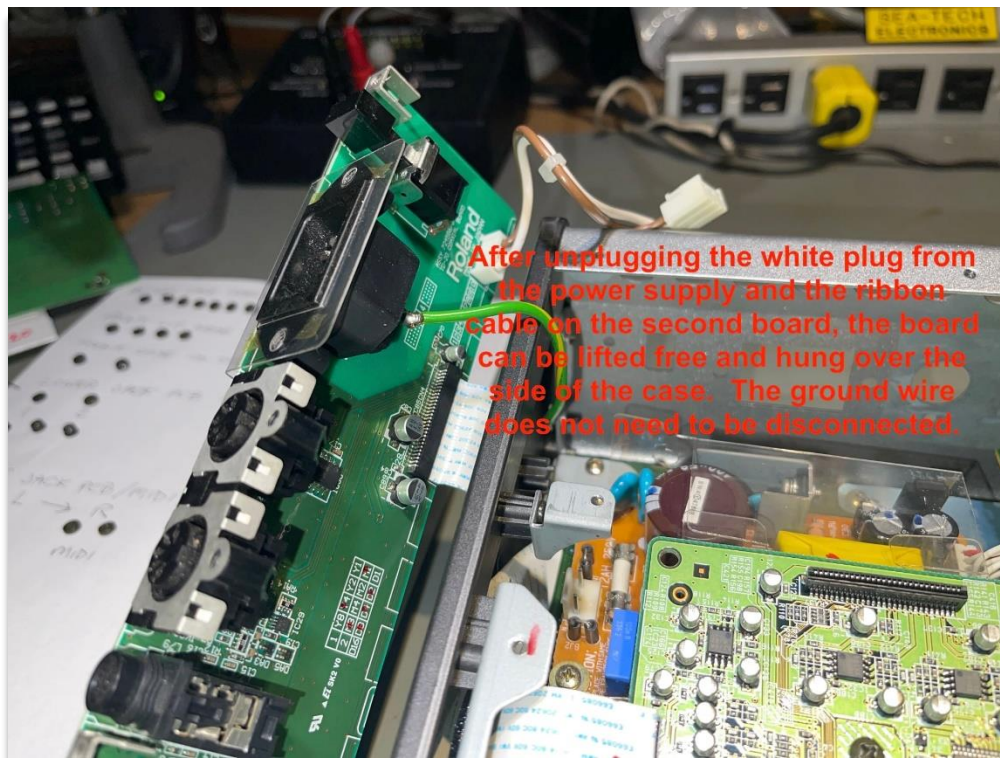


The next step is to remove the middle circuit board. This is accomplished by removing the Group 2 screws. These have different threads, so use the punched paper technique and remove them left to right.



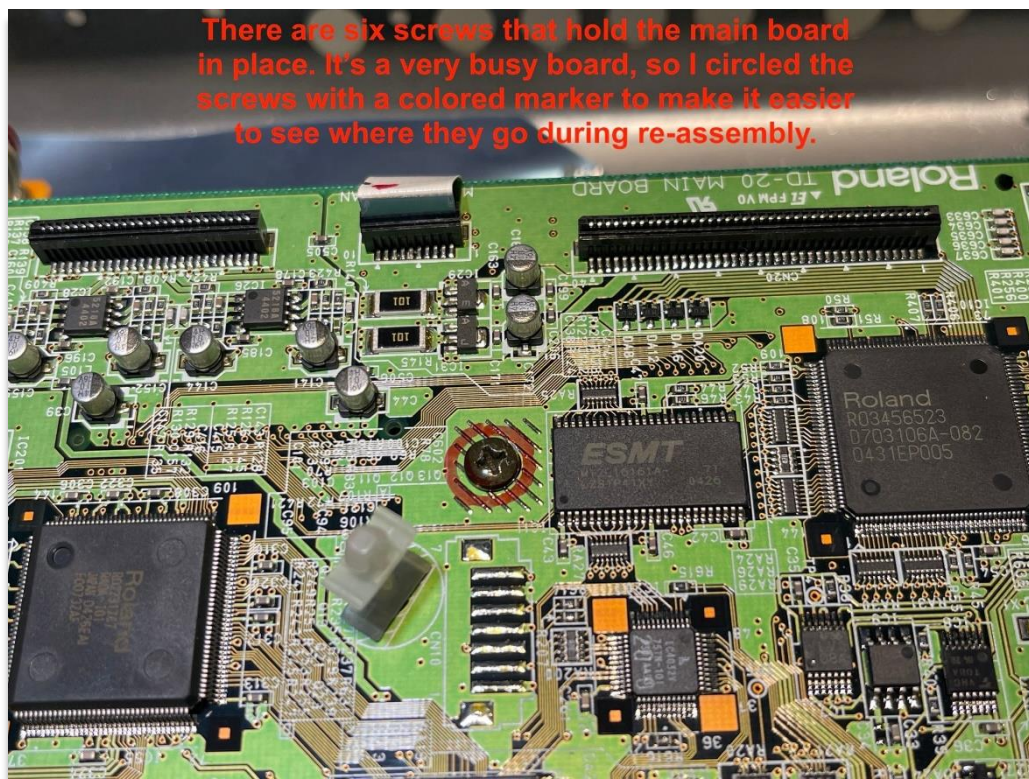
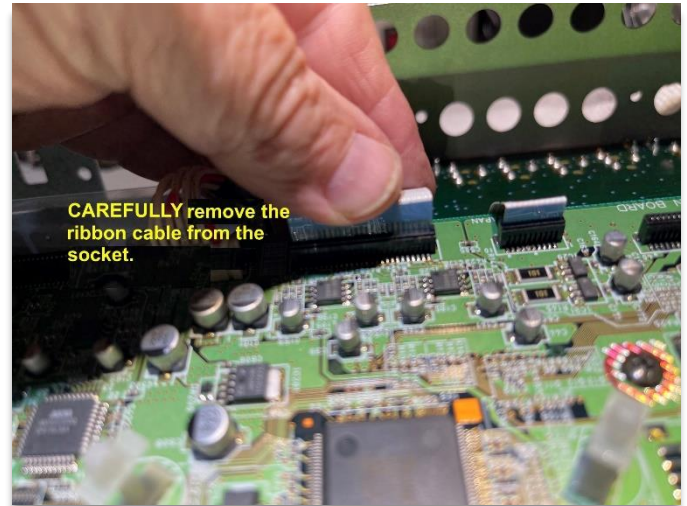
After removing the Group 2 screws from the rear panel, disconnect the white plug from the power supply by pressing on the tab on the left and pulling up on the connector.

Locking Tab



After unplugging the white plug from the power supply and the ribbon cable on the second board, the board can be lifted free and hung over the side of the case. The ground wire does not need to be disconnected.

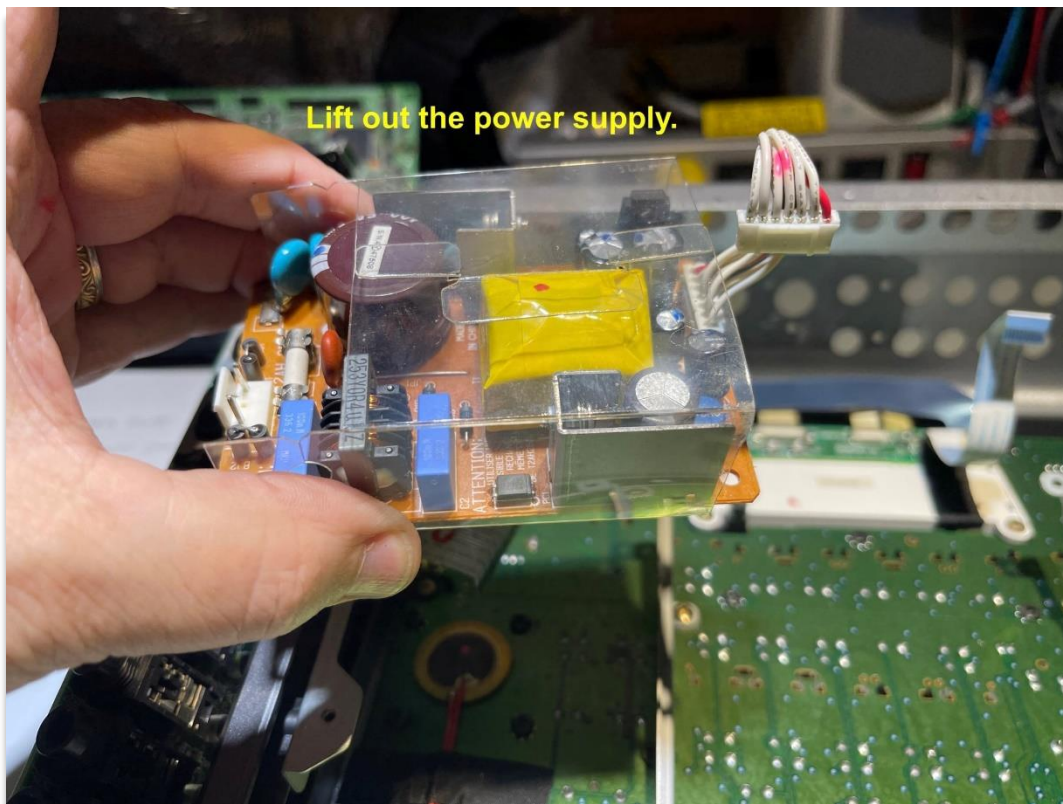
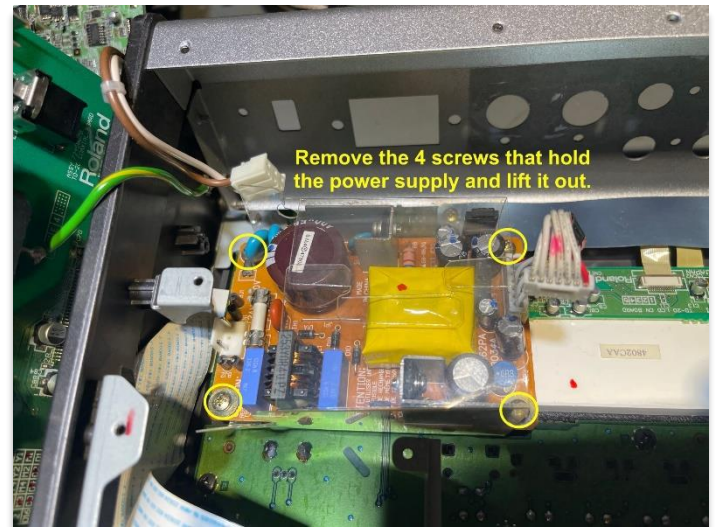
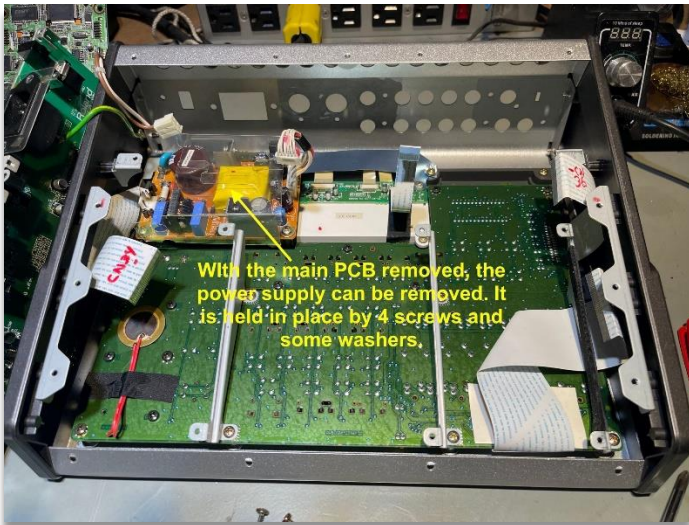
7. REMOVE MASTER/OUT PCB



8. REMOVE MAIN BOARD



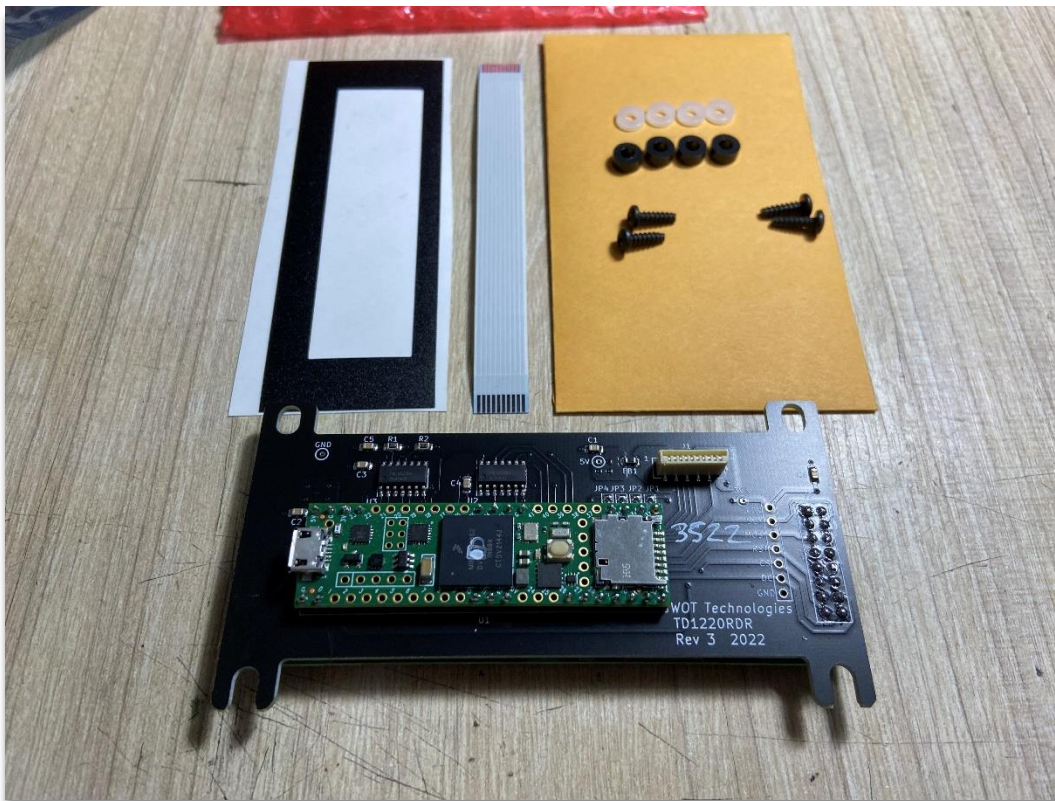
9. REMOVE POWER SUPPLY PCB



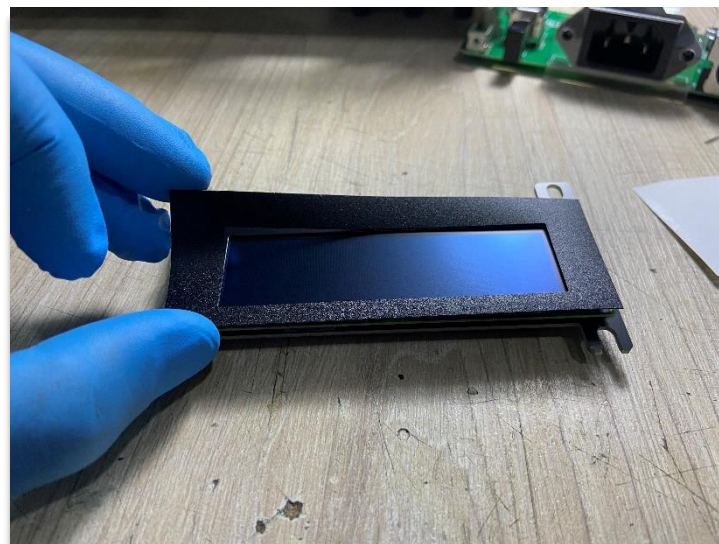
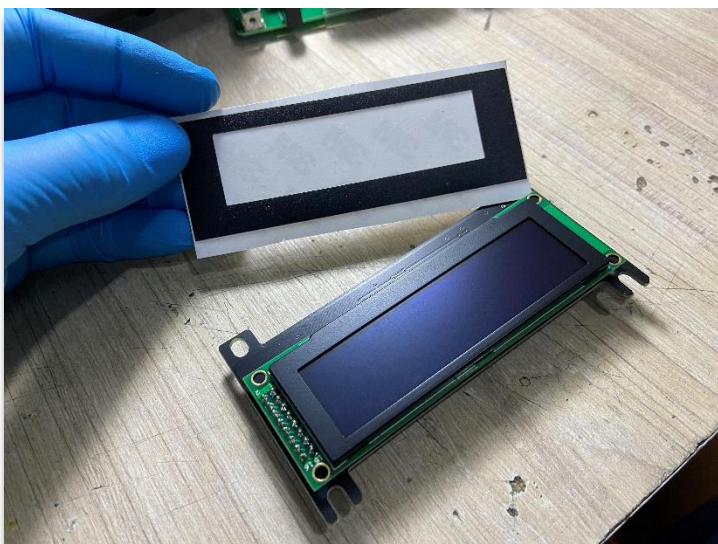
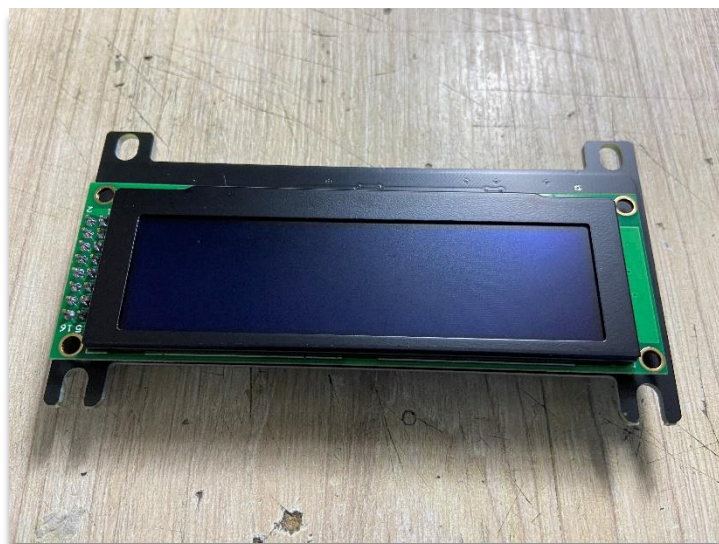
10. REMOVE LCD SCREEN DISPLAY



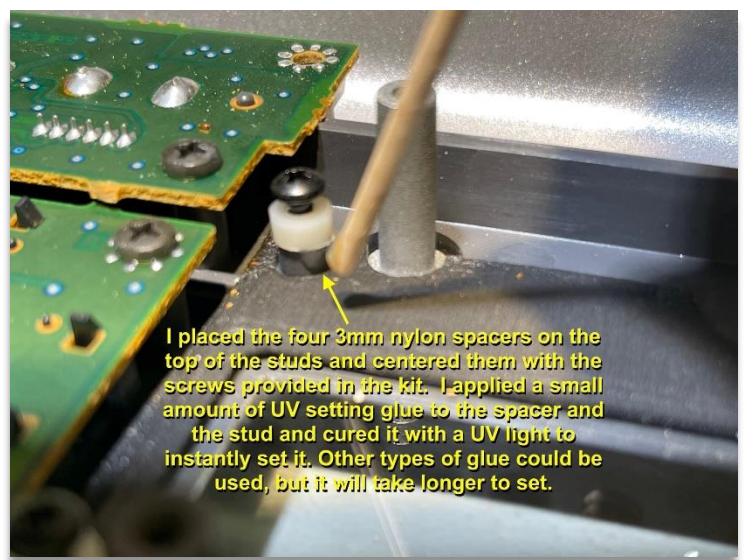
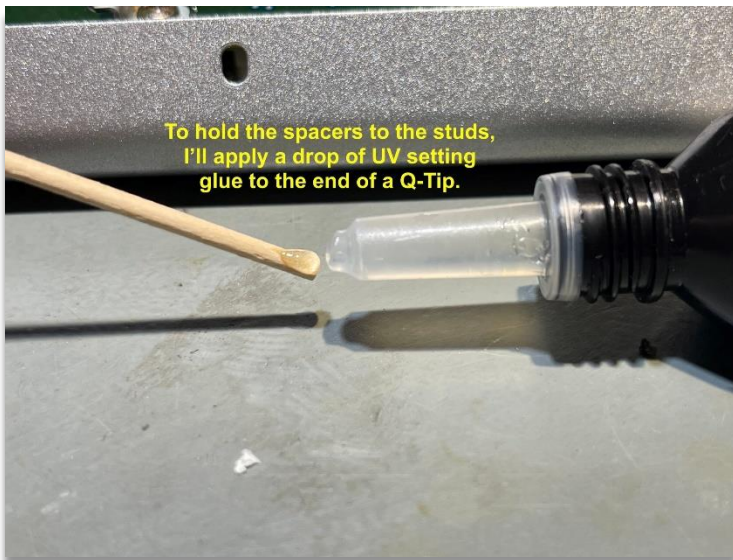
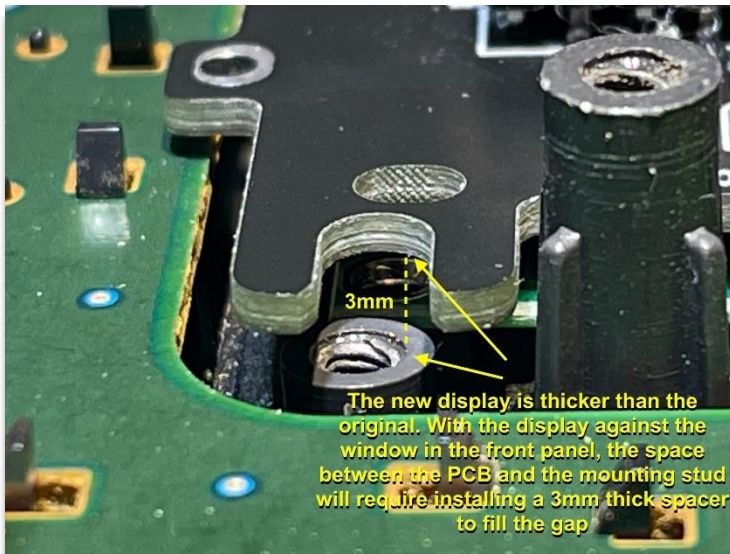
11. UNPACKING NEW DISPLAY



-PEEL AND STICK THE BEZEL ON THE OLED SCREEN AS SHOWN BELOW.

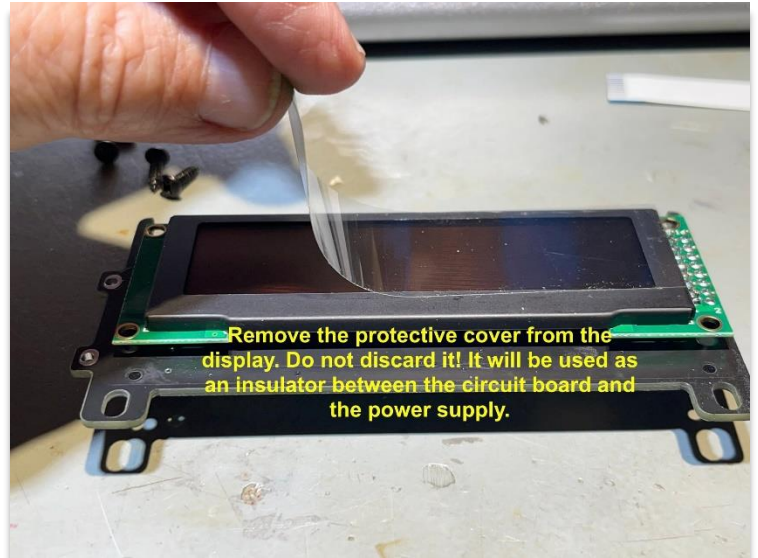


12. INSTALLING NEW DISPLAY

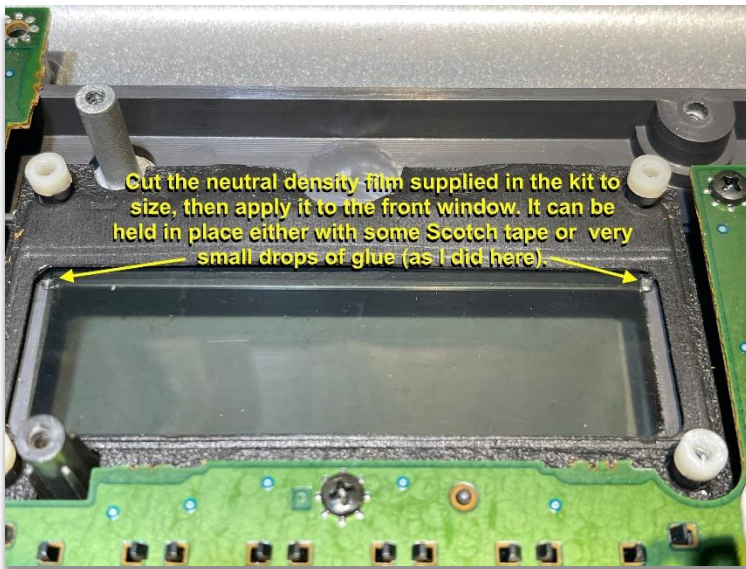




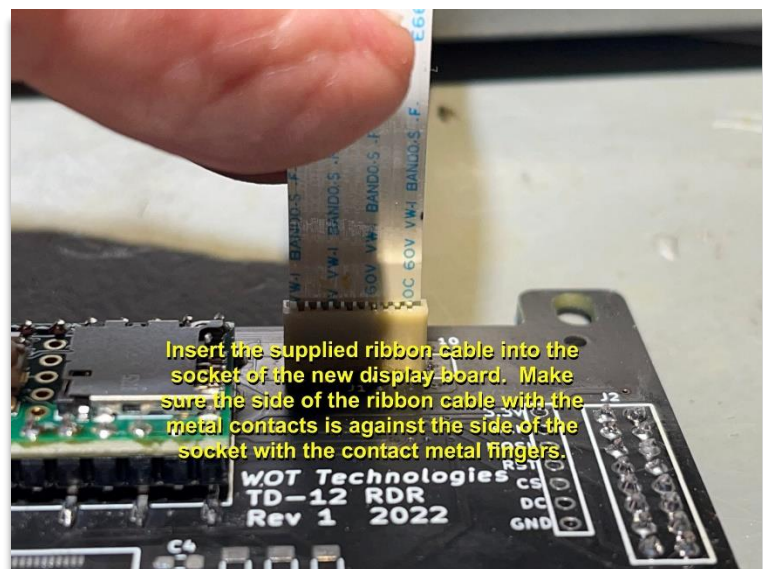
Curing the glue I used with a UV light caused it to set instantly.



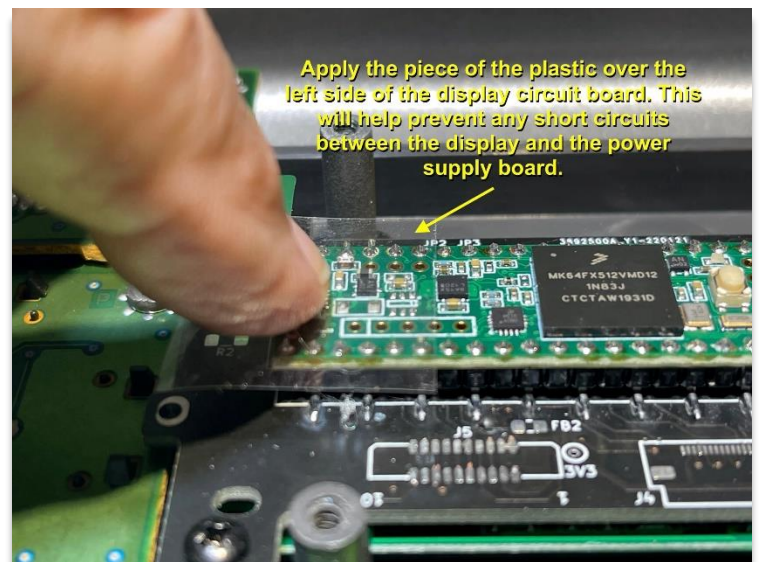
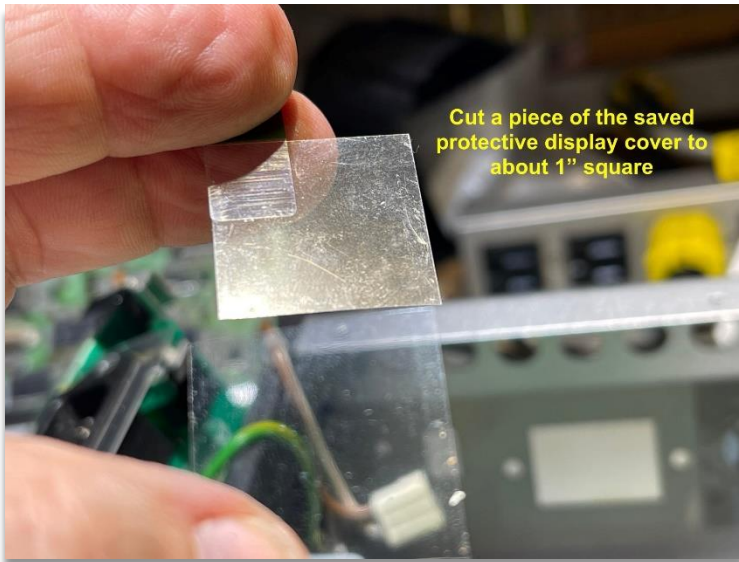
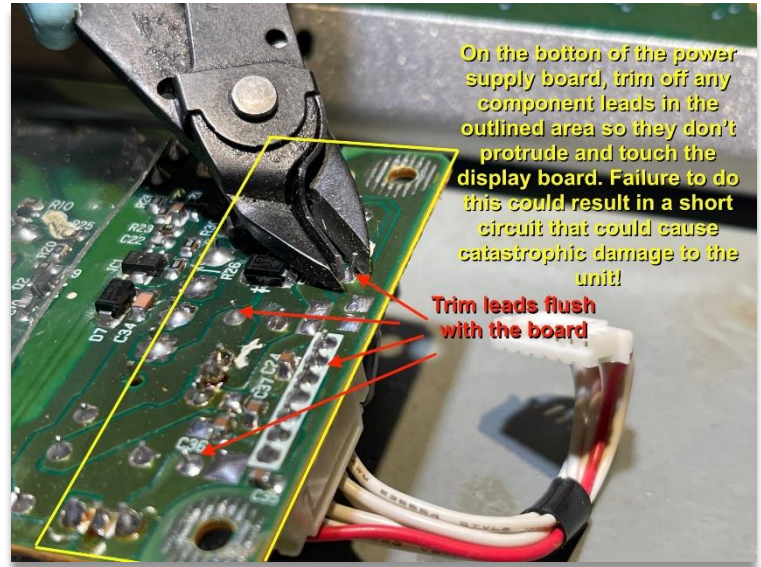
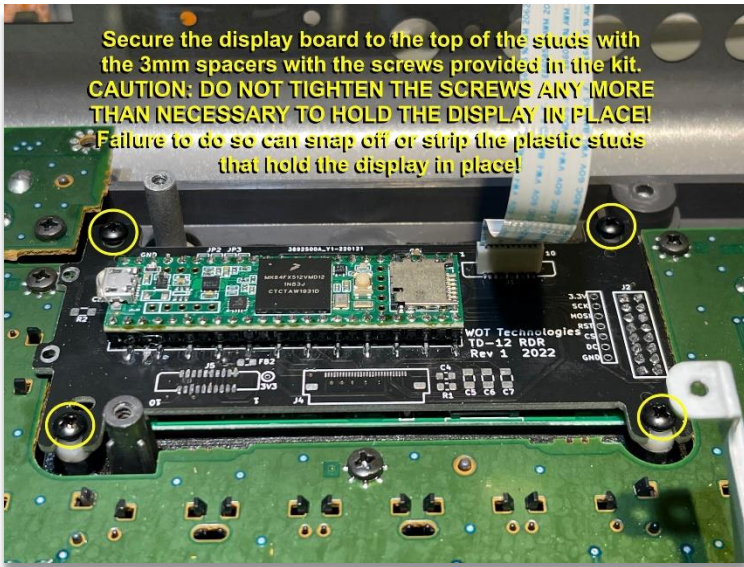
Remove the protective cover from the display. Do not discard it! It will be used as an insulator between the circuit board and the power supply.



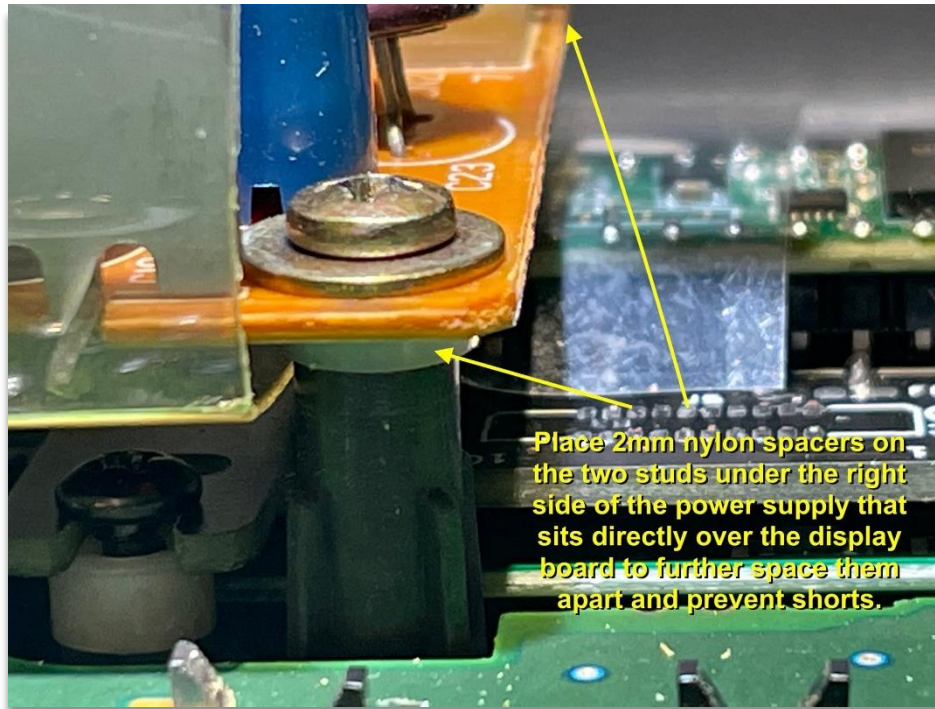
Cut the neutral density film supplied in the kit to size, then apply it to the front window. It can be held in place either with some Scotch tape or very small drops of glue (as I did here).



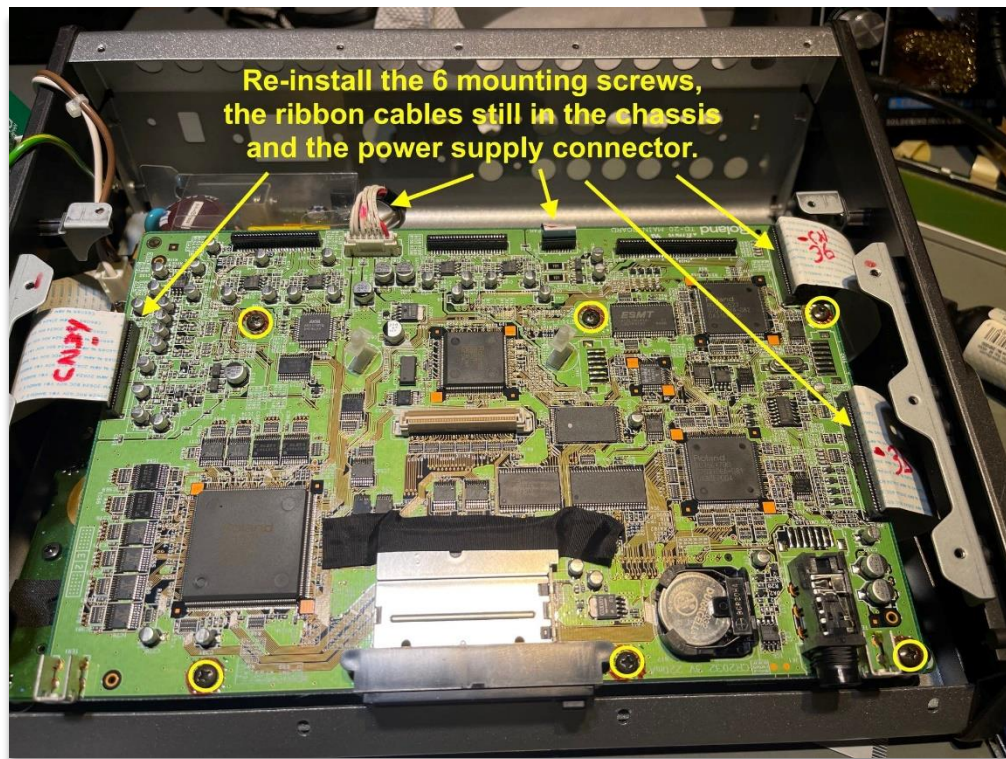
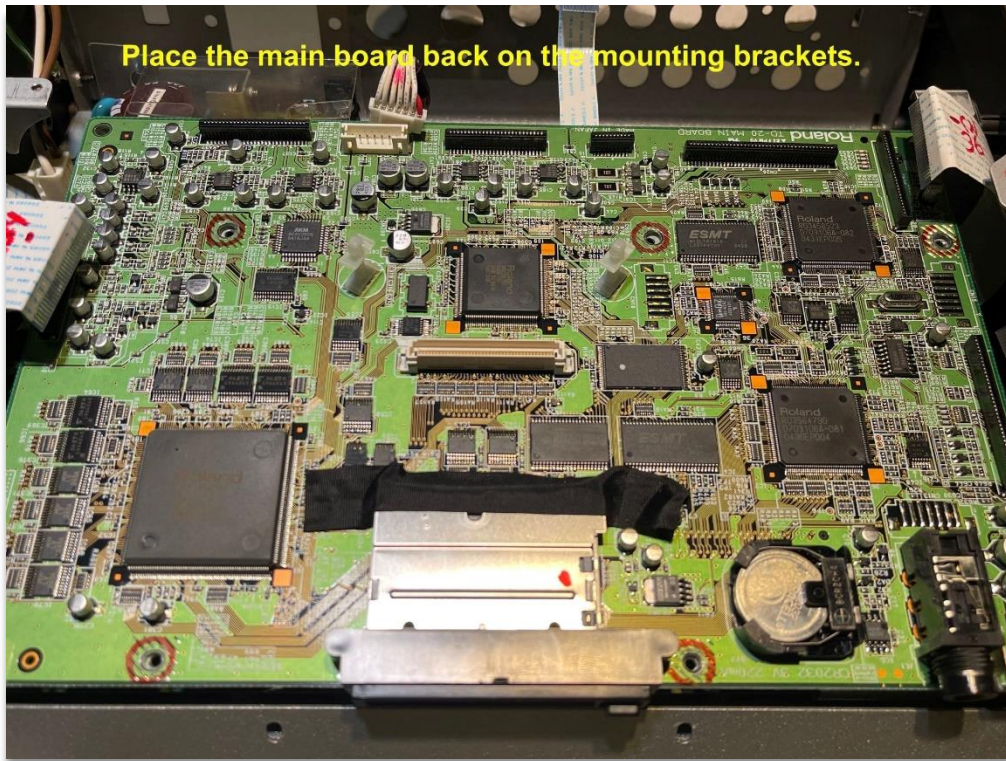
Insert the supplied ribbon cable into the socket of the new display board. Make sure the side of the ribbon cable with the metal contacts is against the side of the socket with the contact metal fingers.



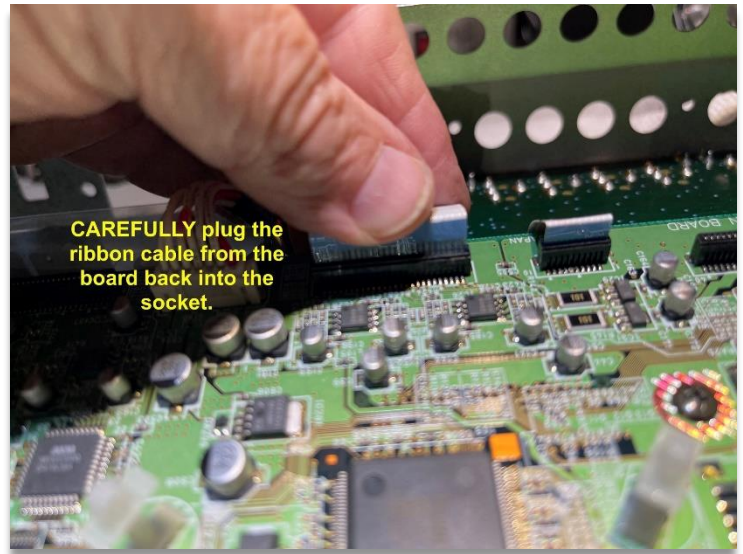
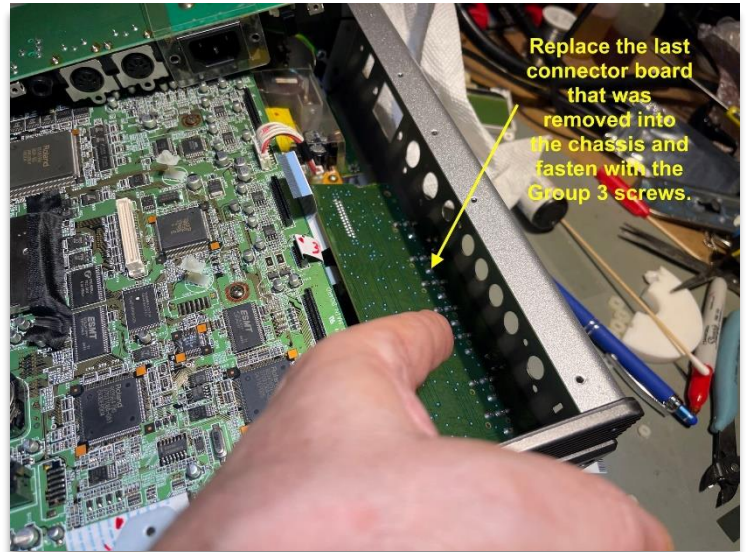
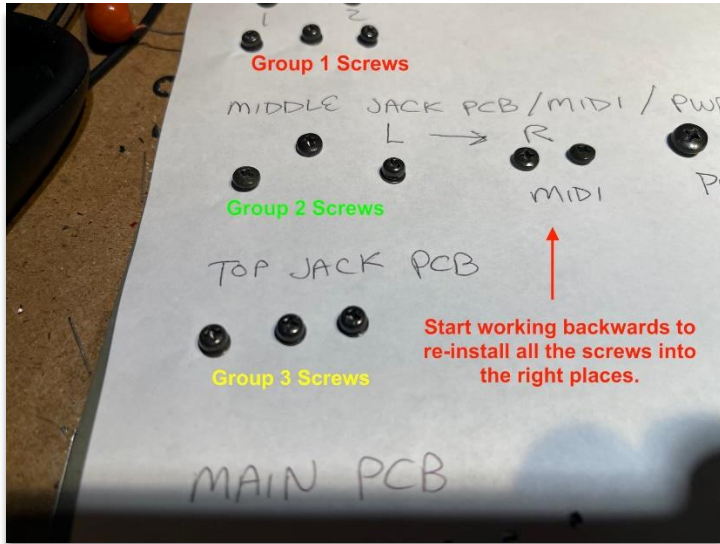
13. INSTALL POWER SUPPLY PCB



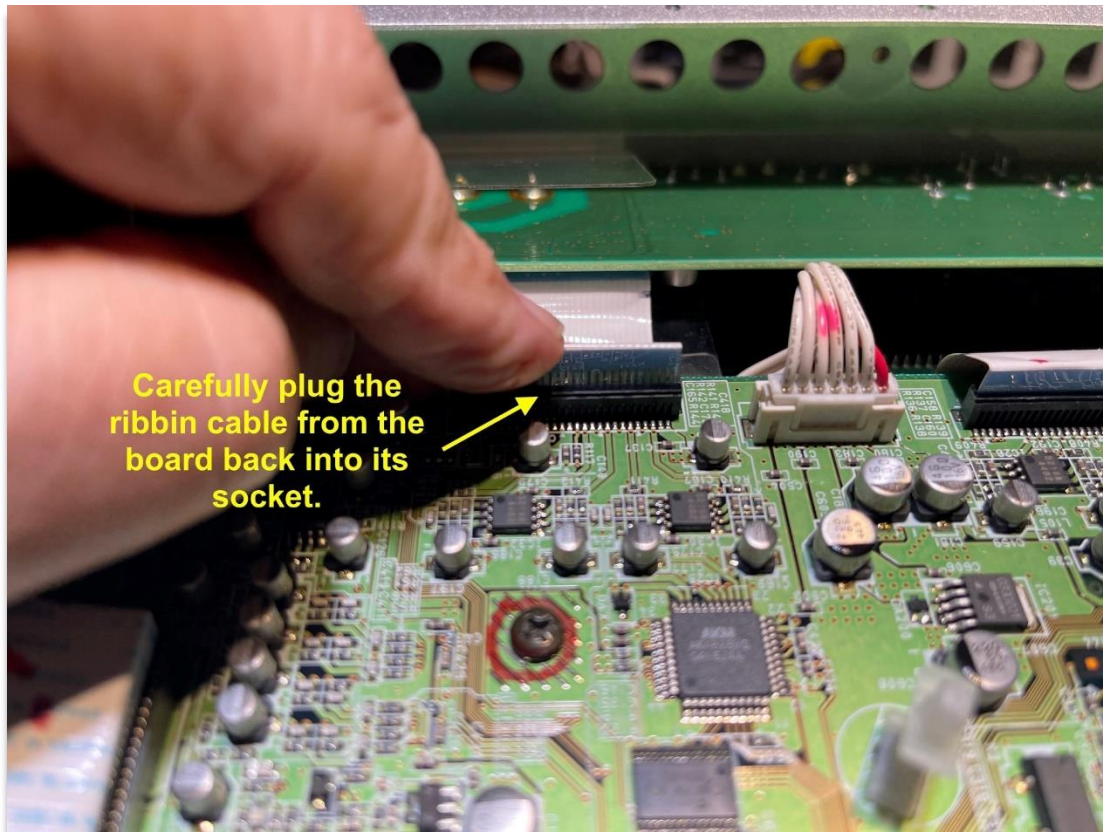
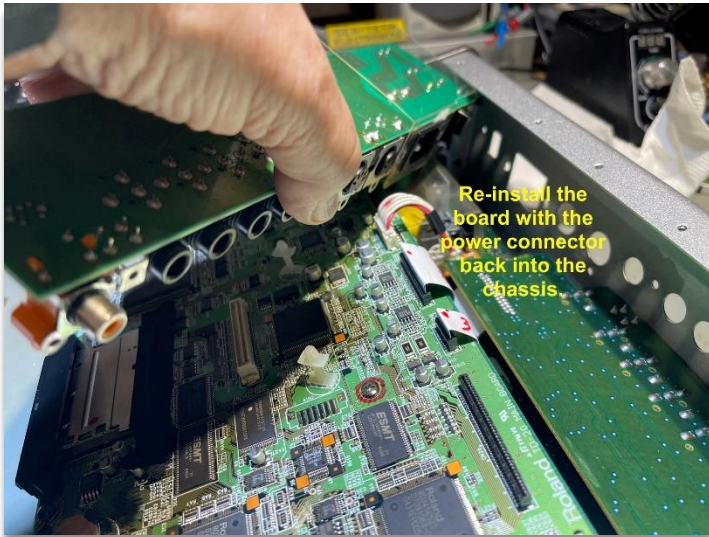
14. INSTALL MAIN BOARD



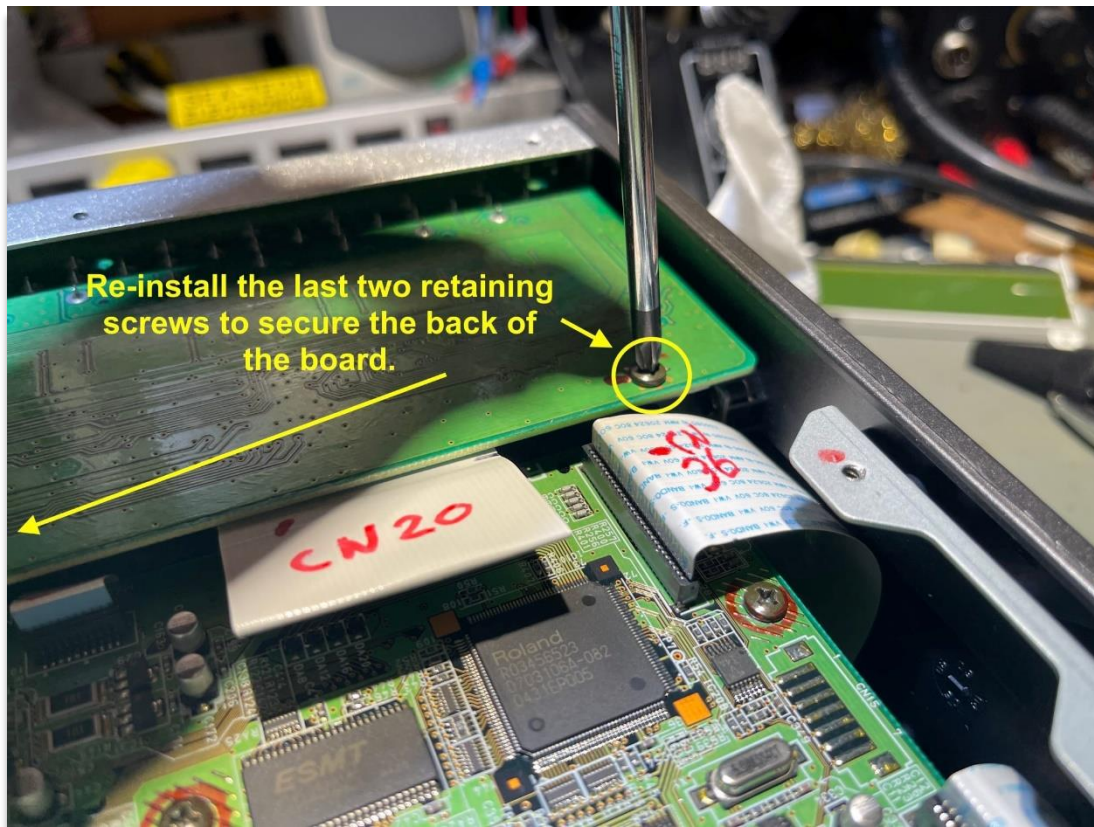
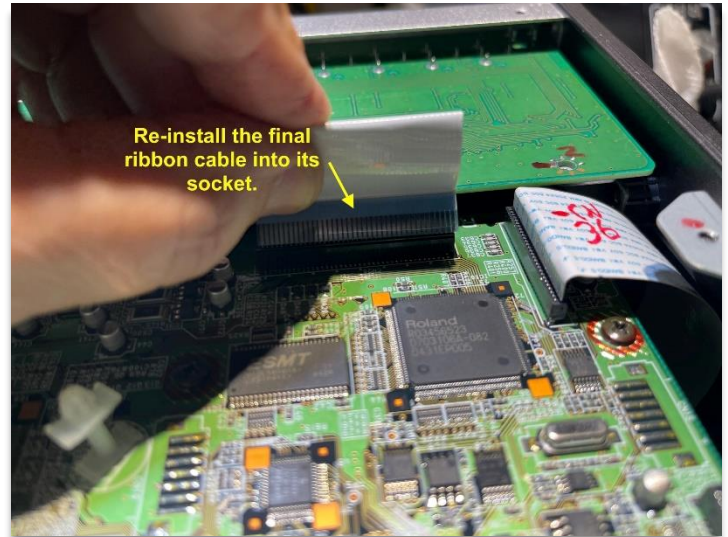
15. INSTALL MASTER/OUT PCB



16. INSTALL MIDI IN/OUT PCB BOARD



17. INSTALL TRIGGER INPUT PCB



18. INSTALL BACK METAL COVER

