

WOT TECHNOLOGIES

TD1220RDR

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

ROLAND TD-12

DISPLAY REPLACEMENT TUTORIAL
By Alejandro Gutierrez



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-12 with the new retrofit OLED display. The procedure for a TD-20 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-12 OVERVIEW



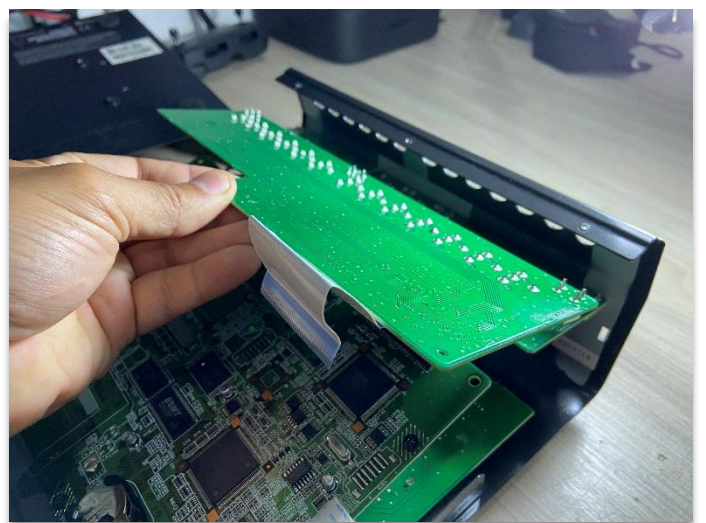
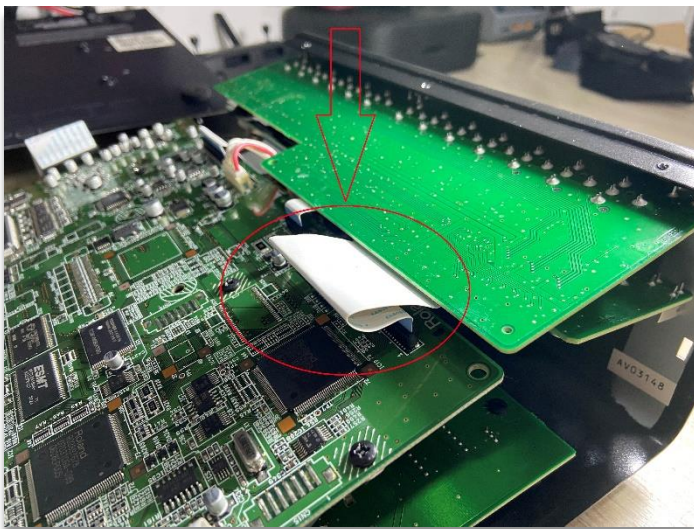
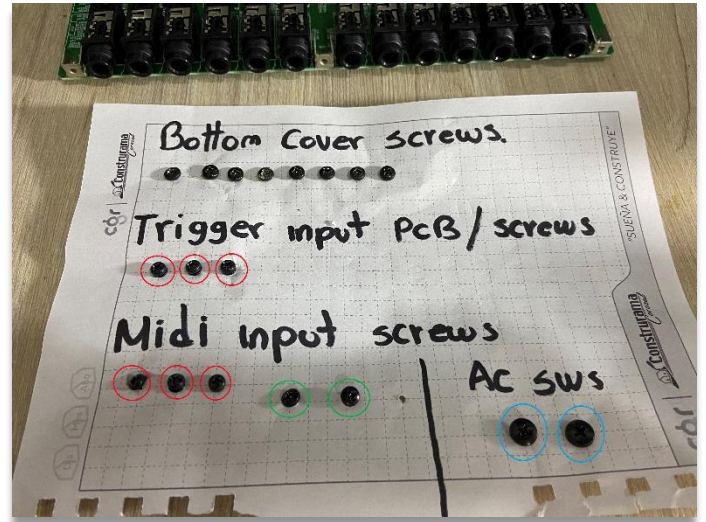
4. REMOVE BACK METAL COVER

- Remove the 8 screws marked with red color.



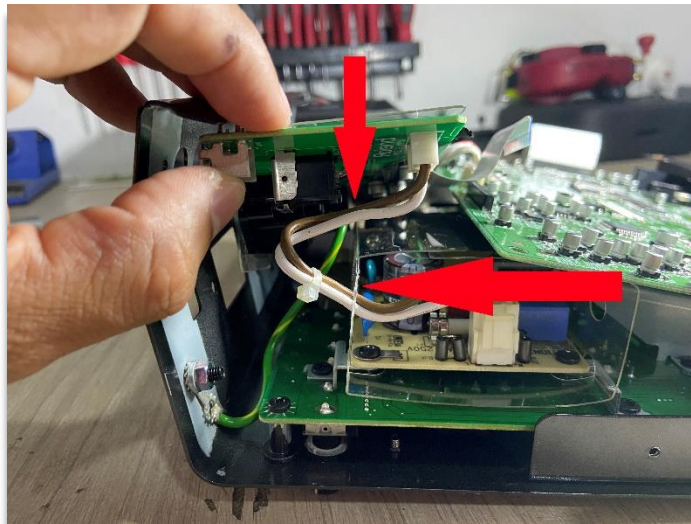
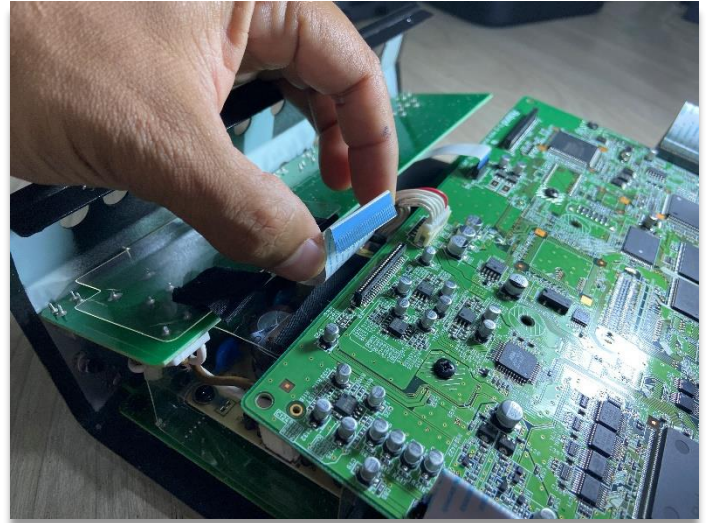
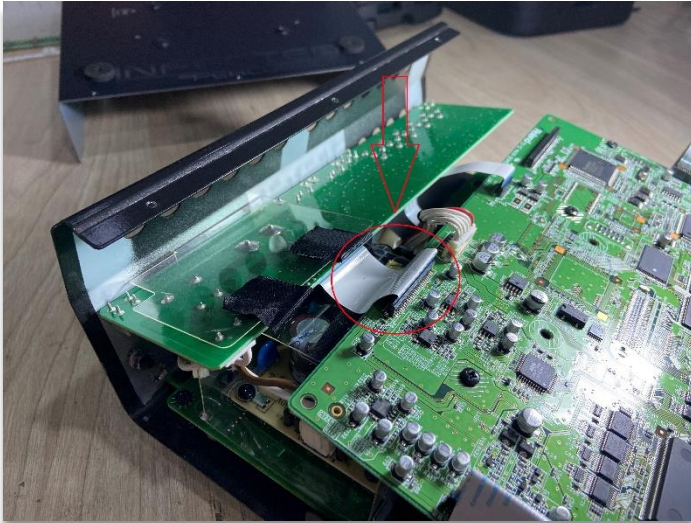
5. TRIGGER INPUT PCB BOARD

- Remove the 10 screws that holds the trigger input pcb and midi in/out port pcb boards.
- Keep in mind that all 10 screws are not the same sizes, we recommend to separate them in a paper sheet following the picture below.
- Remove very gently the ribbon cable from the Main board.
- **IT's not necessary to remove the GROUND SCREW.**



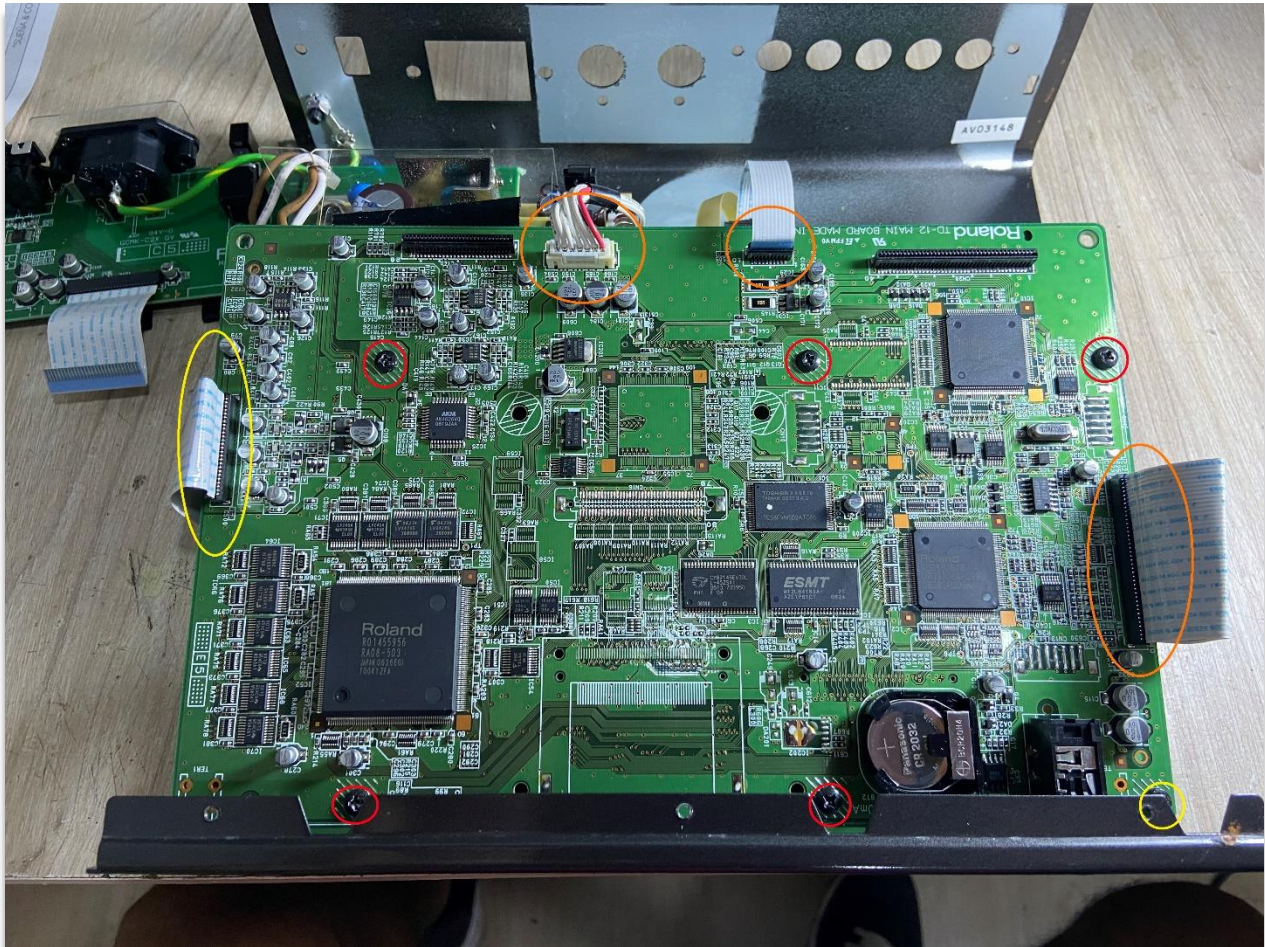
6. MIDI IN/OUT PCB BOARD

- Remove the ribbon cable very gently marked with red color.
- The brown and white cables are secured by a clear plastic protector so you can just pull out the cables very gently and then rotate the PCB board to the left side of the module.

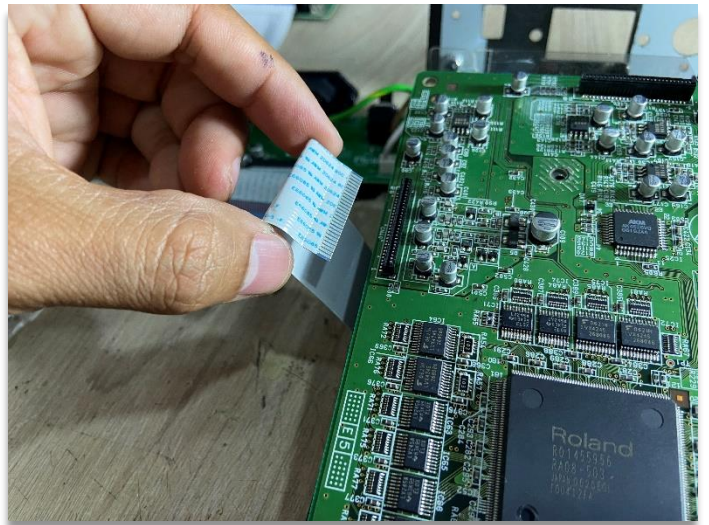
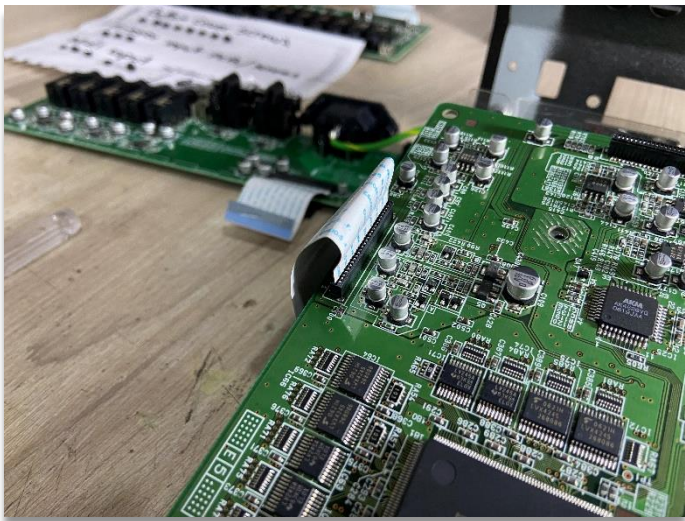
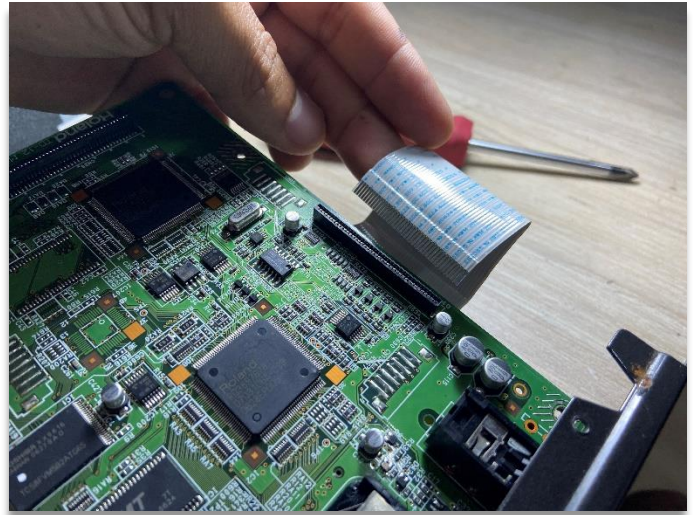
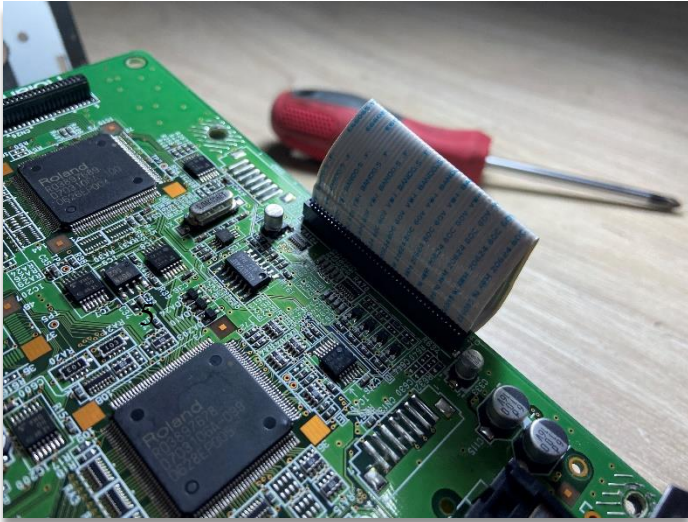


7. REMOVE ROLAND MAIN BOARD

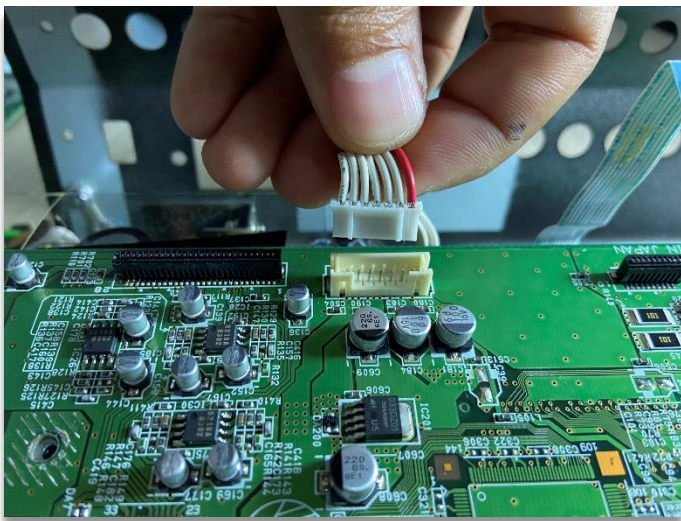
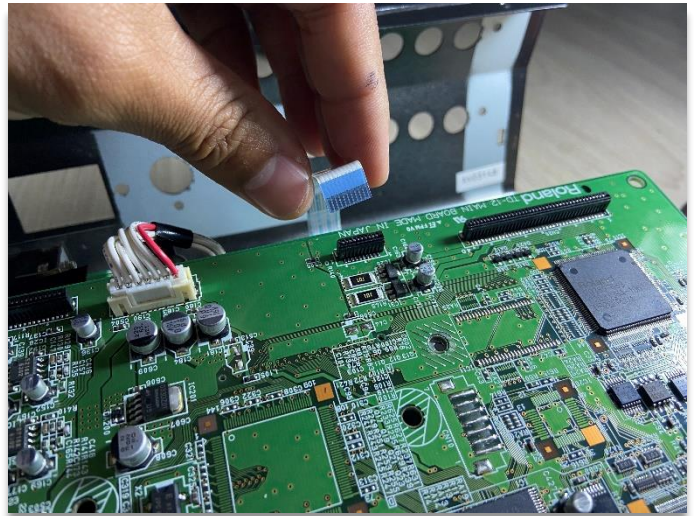
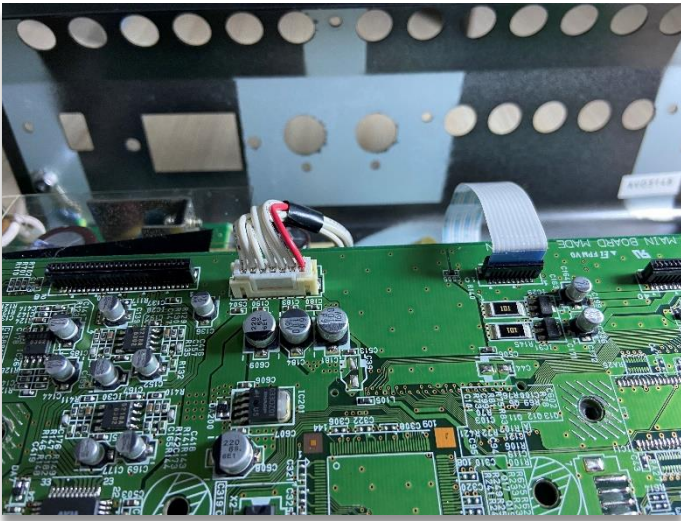
- Remove the 6 screws marked with red color.
- Remove very gently the ribbon cables marked with colors.



- Removing ribbon cables from the main board.

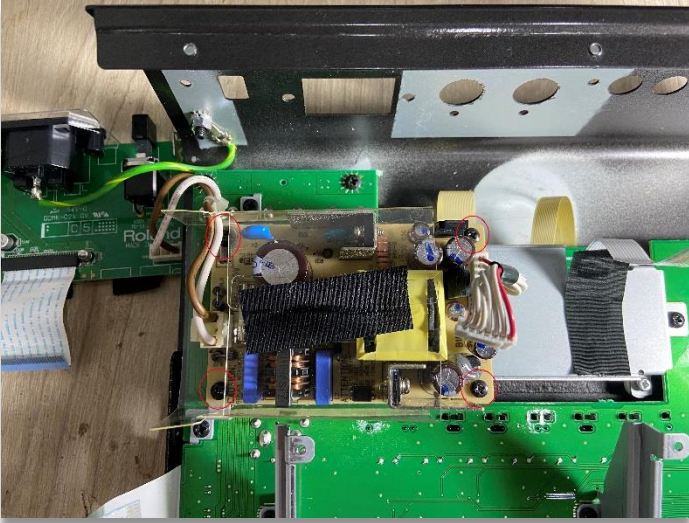


- Remove power supply cable and LCD ribbon cable.
- Then you can take out the main board.

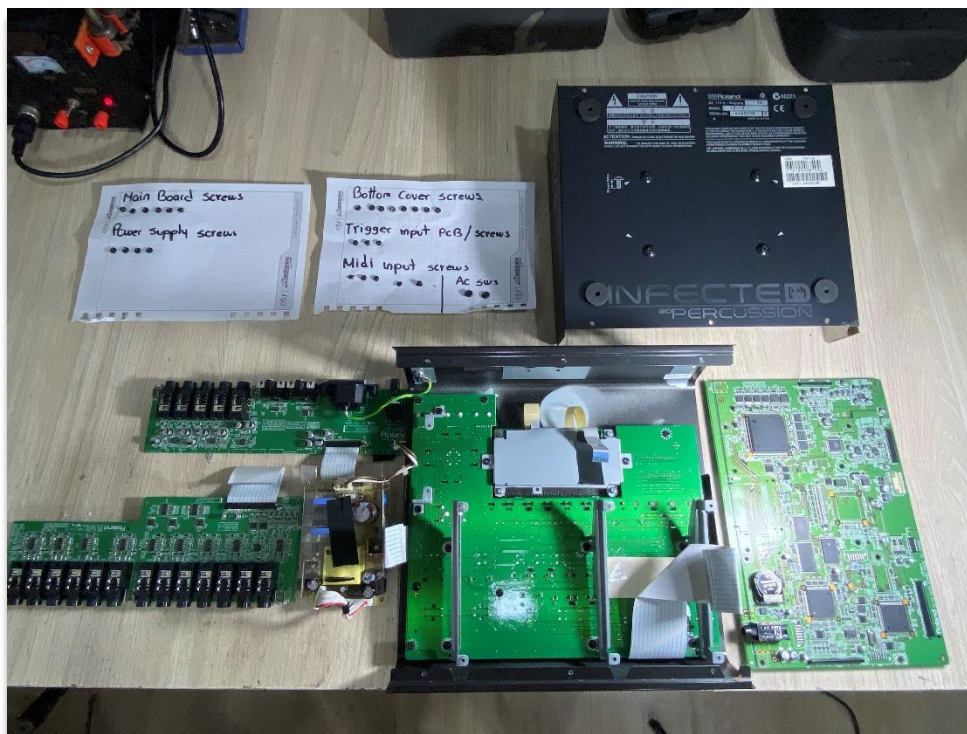


8. REMOVE POWER SUPPLY PCB

- Remove the 4 screws marked with red color.
- Now you can pull out the power supply board and put it on the left side of the module.

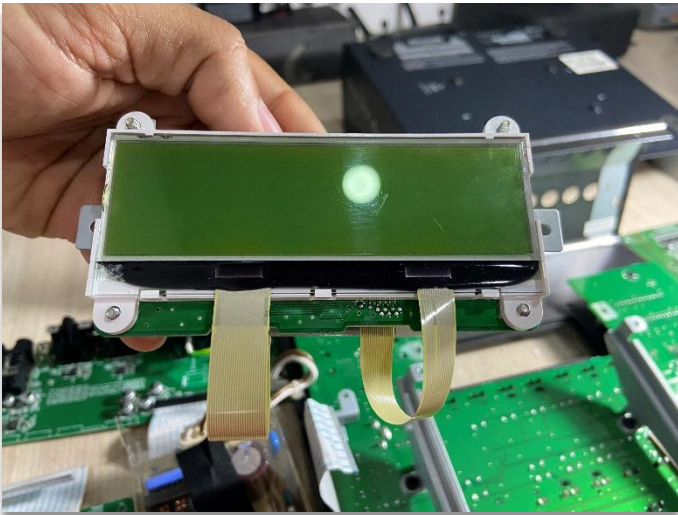
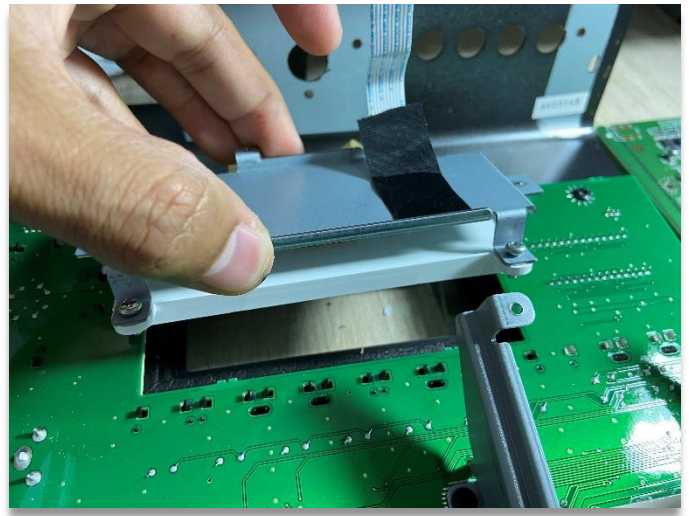
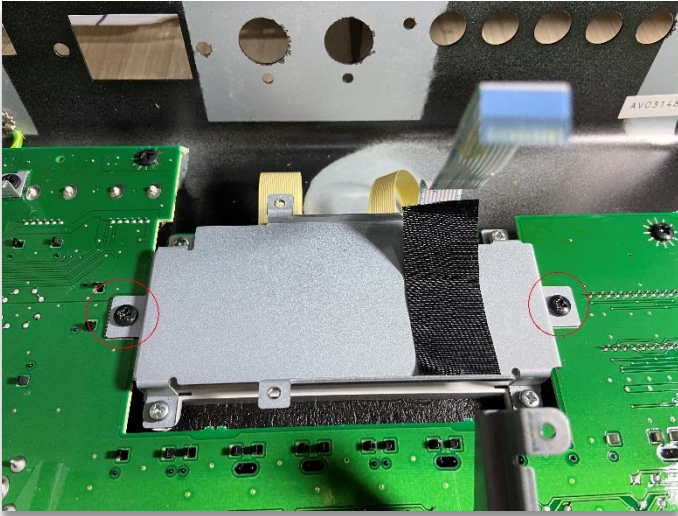


- NOW IT SHOULD LOOK LIKE THIS.



9. REMOVE LCD SCREEN DISPLAY

- Remove the 2 screws marked with red color.
- Then you can take the LCD SCREEN DISPLAY out from the module.



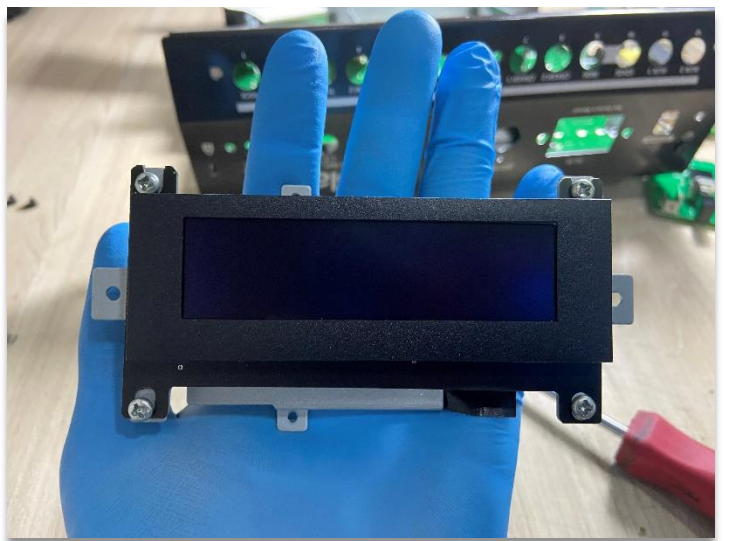
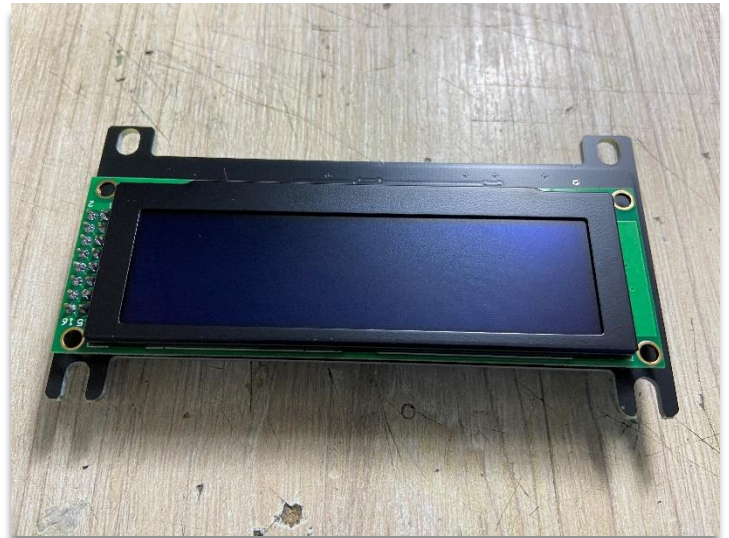
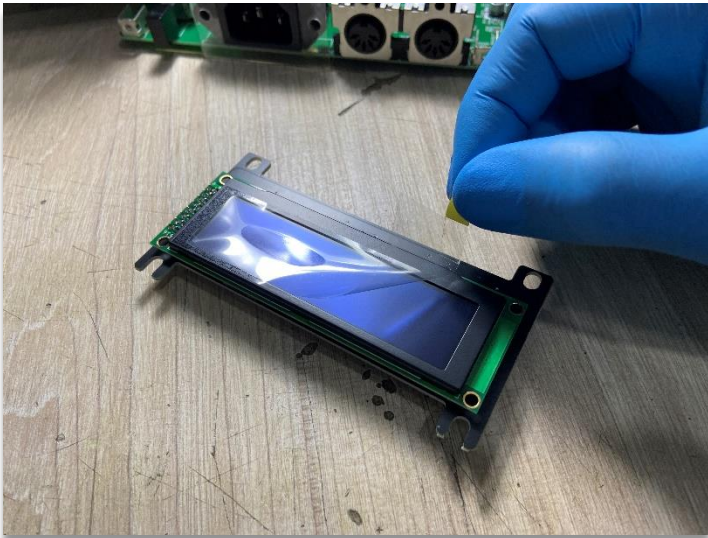
10. NEW DISPLAY OVERVIEW

- 1 Oled Display
- 1 Bezel sticker.
- 1 Oled to Main board Ribbon cable.
- 4 white washers.
- 4 black washers.
- 4 black screws.



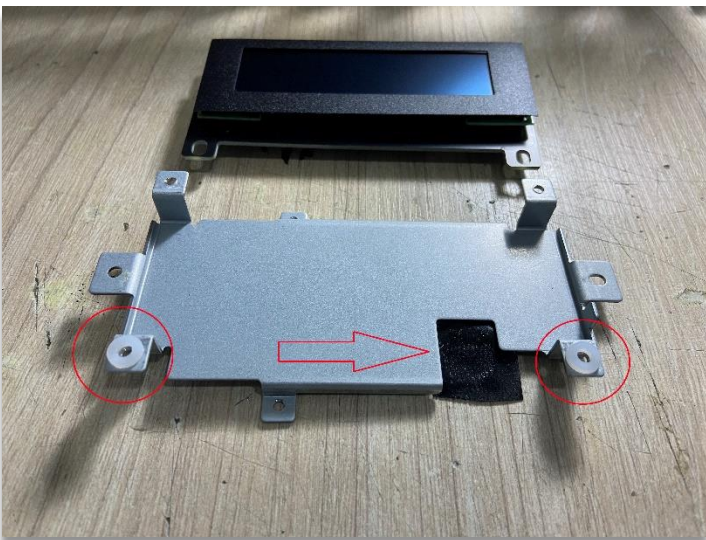
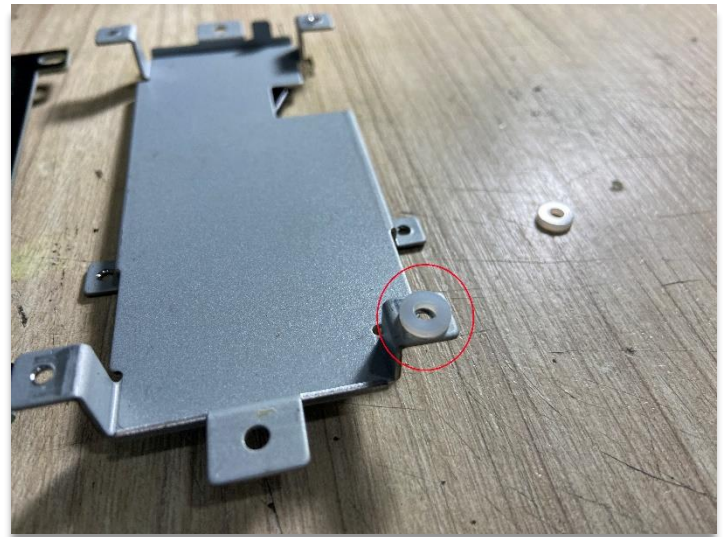
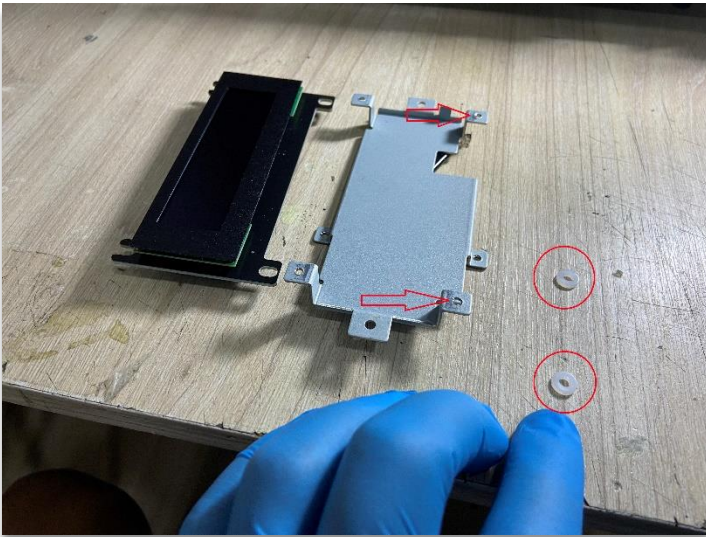
11. PEEL AND STICK BEZEL

- Remove the thin layer that protects the Oled display.
- Now you can stick the bezel sticker included in the 1220RDR kit and put it as shown below.

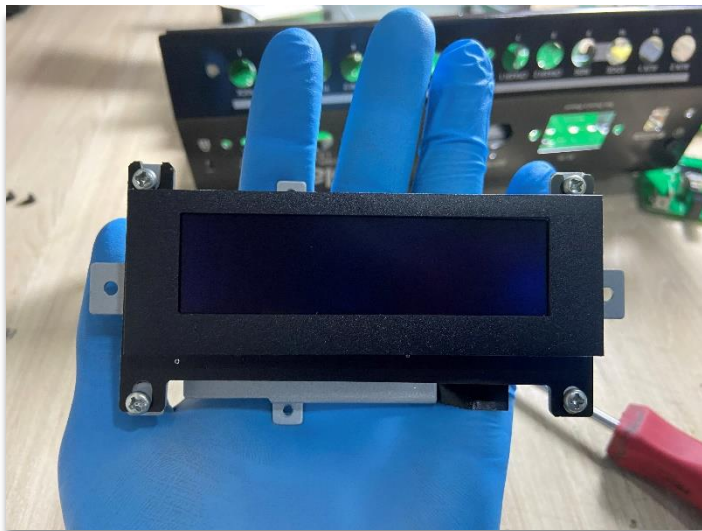


12. ASSEMBLY THE NEW DISPLAY

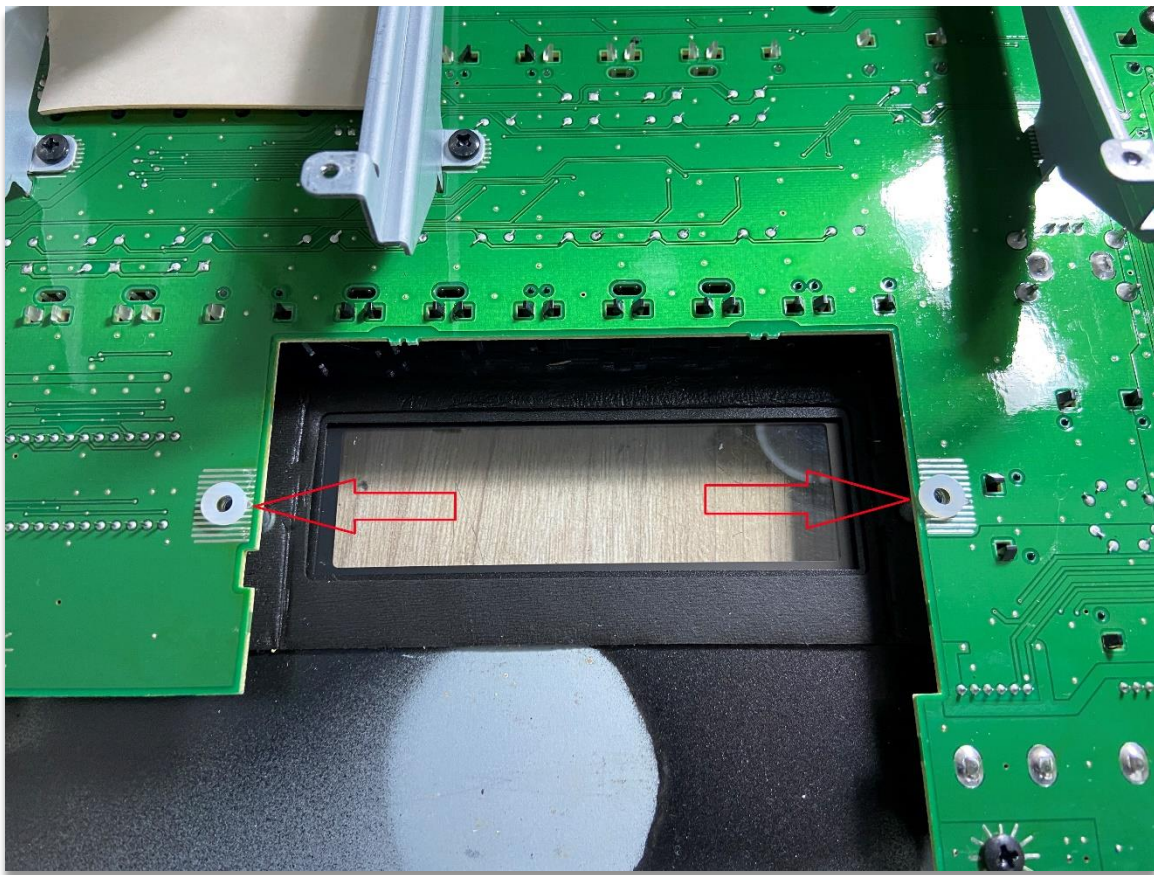
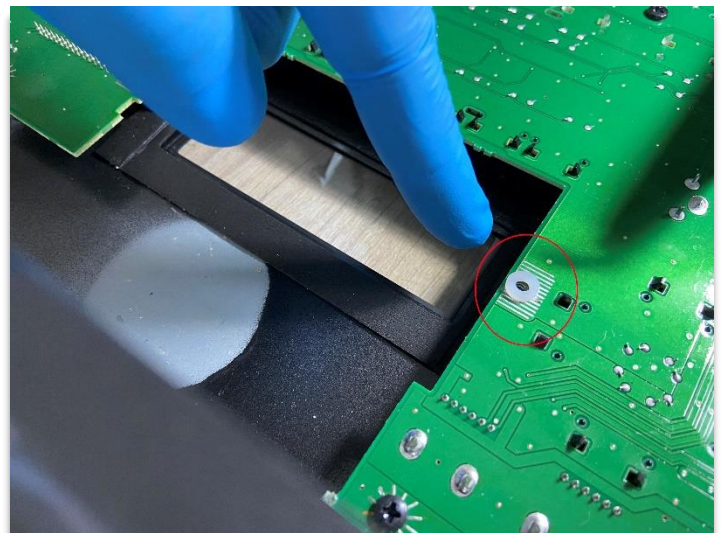
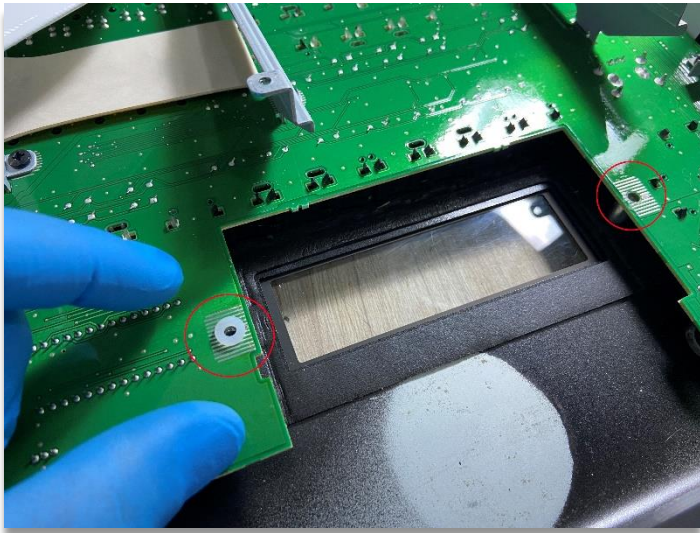
-We only need 2 white washers to level the new Oled display and those washers go to only one side of the metal mount as shown below. **KEEP IN MIND** that these 2 white washers are for leveling the new Oled Display. It must be completely level or flat.

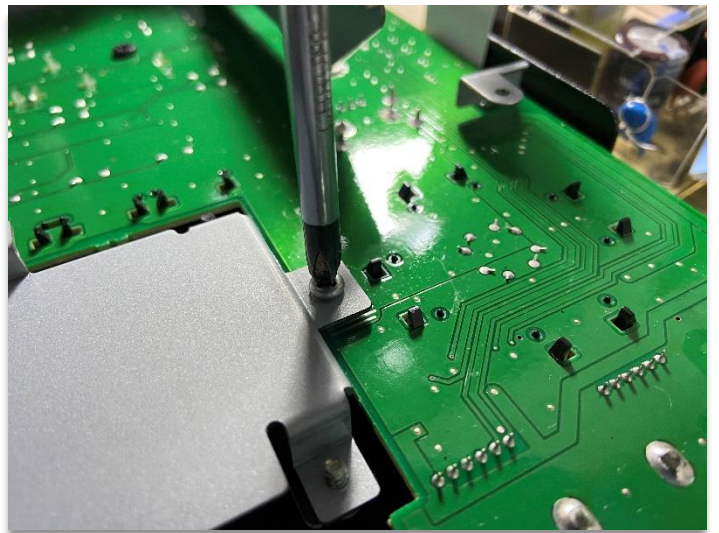
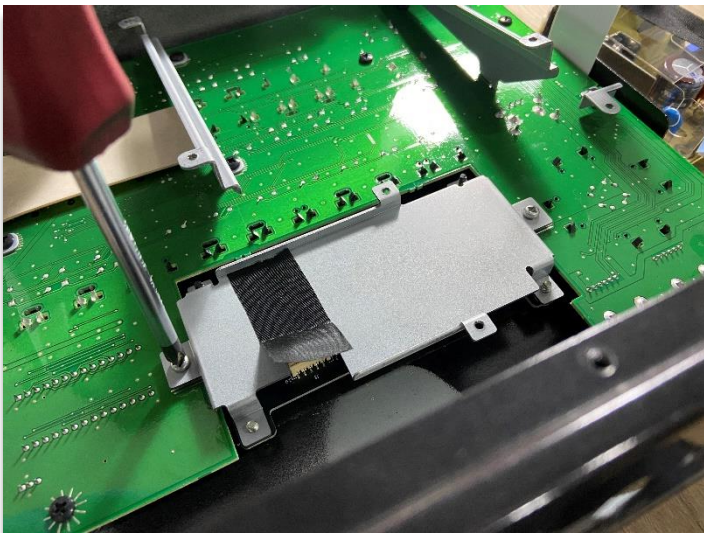
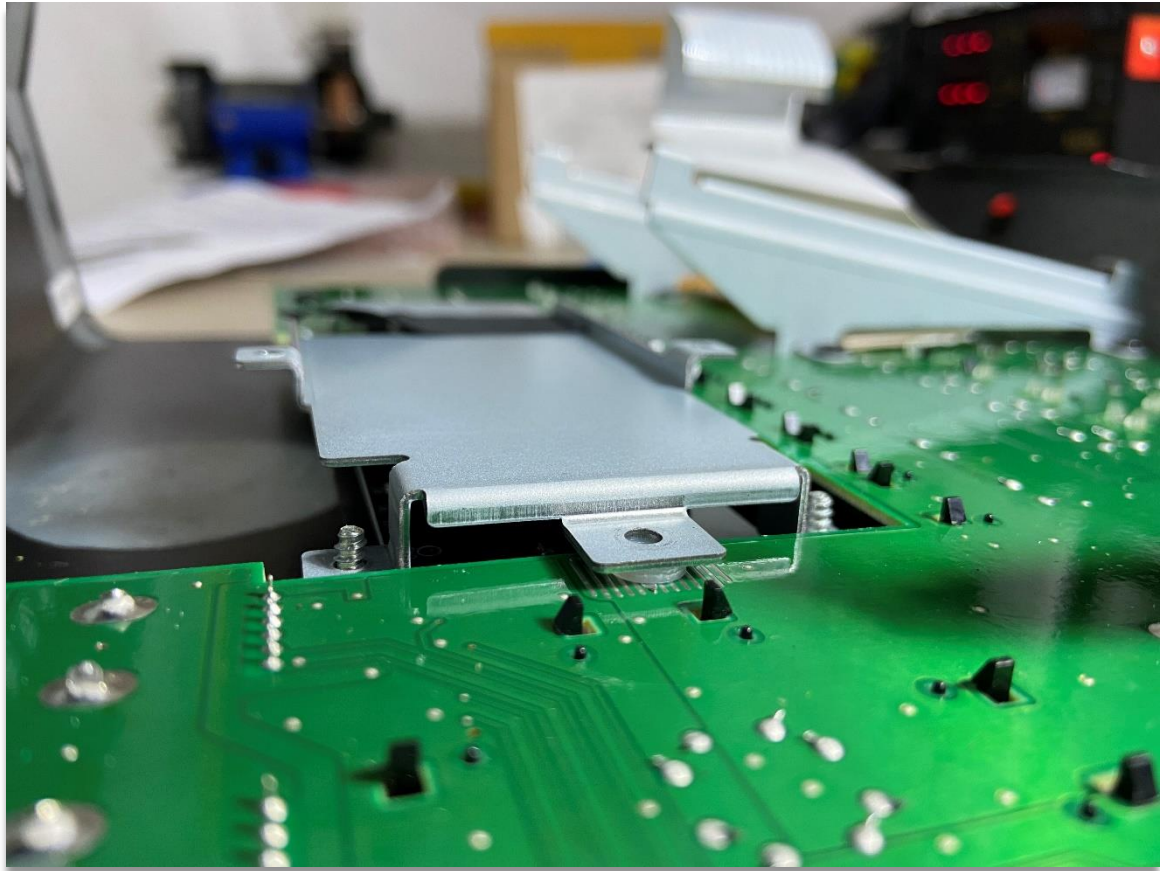


And put back the screws again to hold the new display to the metal mount and it should look like this.



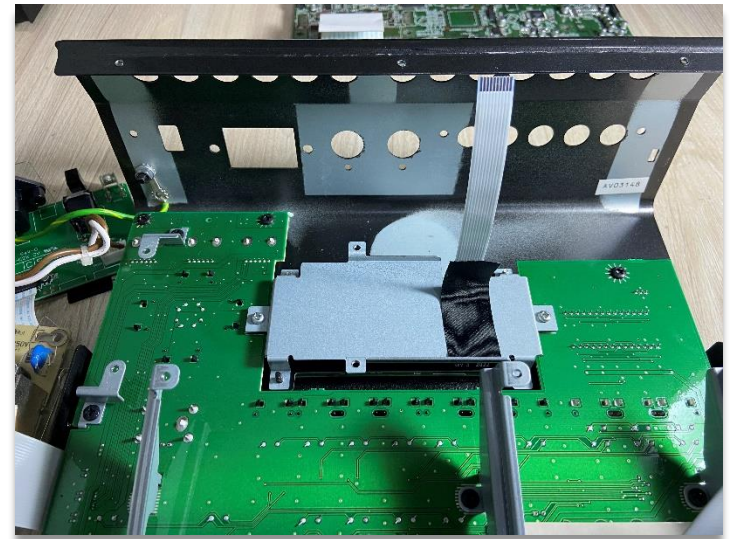
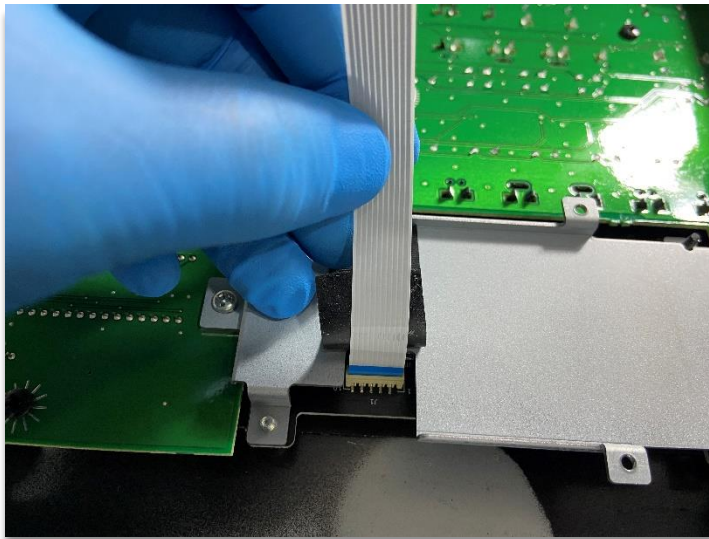
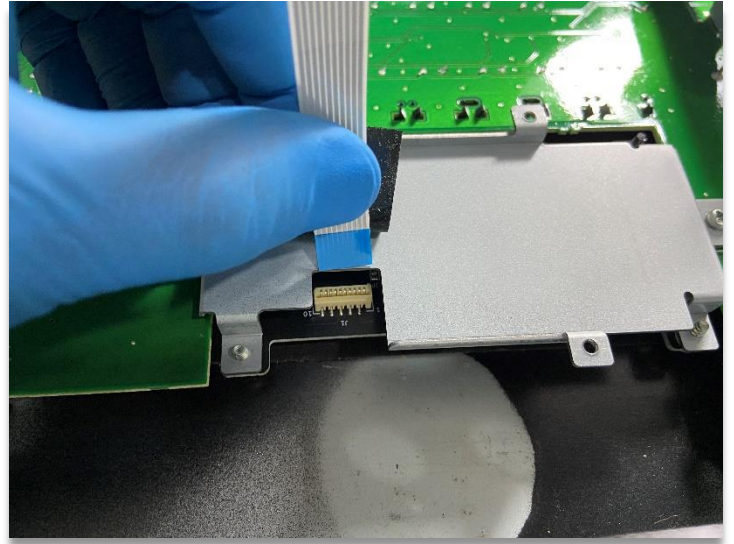
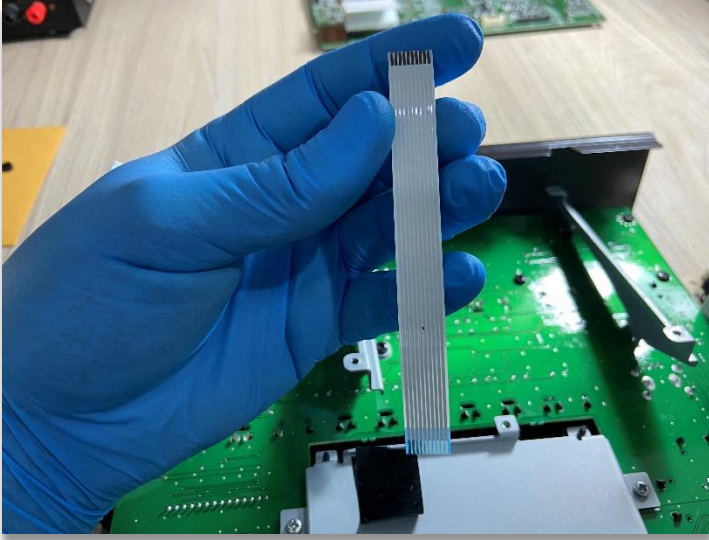
-Now we need 2 more white washers and place them as shown below, We Must need these washers to avoid the oled display touches the metal bezel of the module.





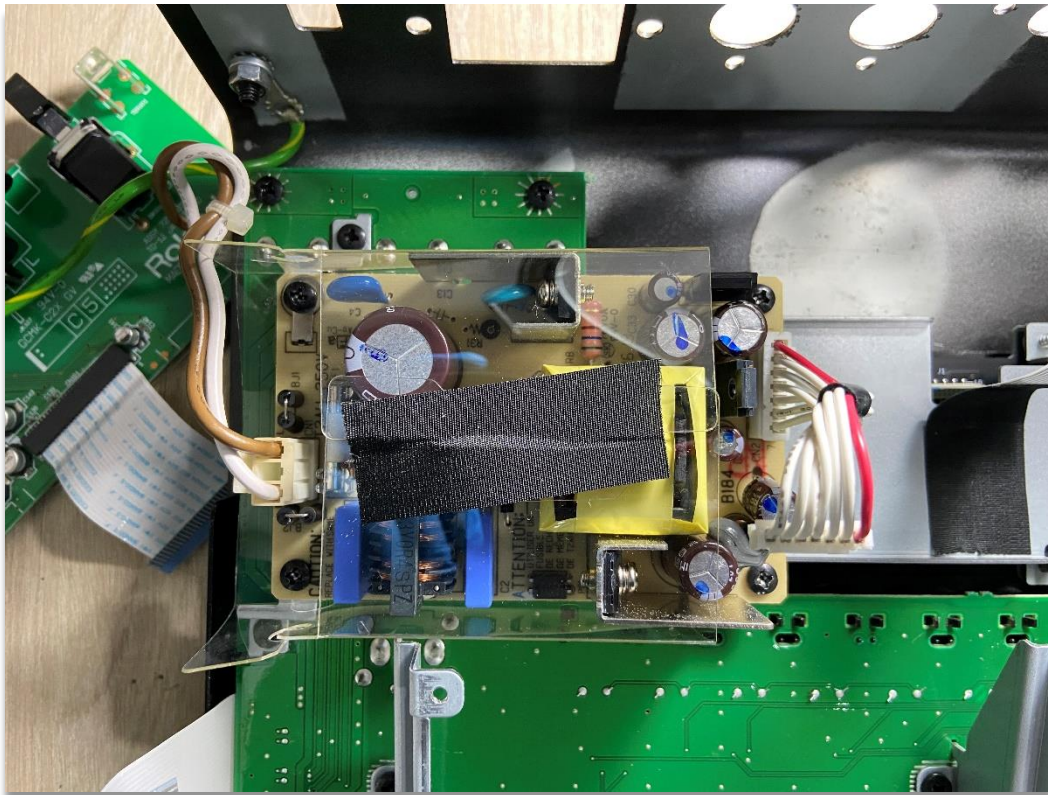
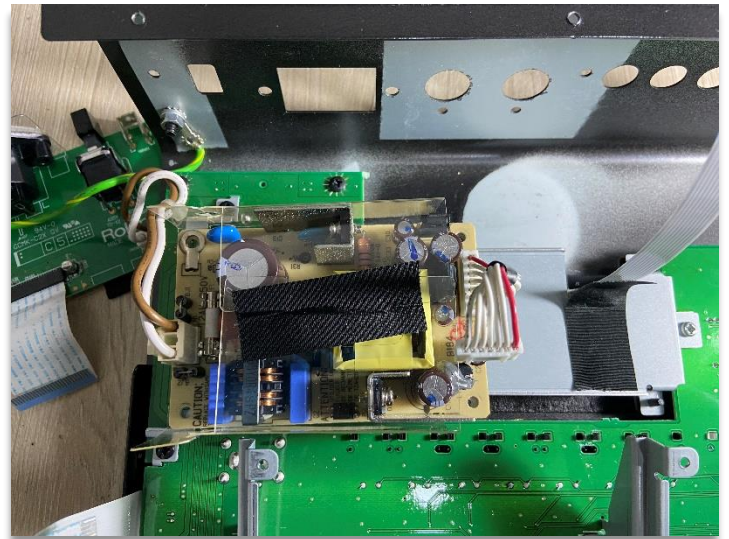
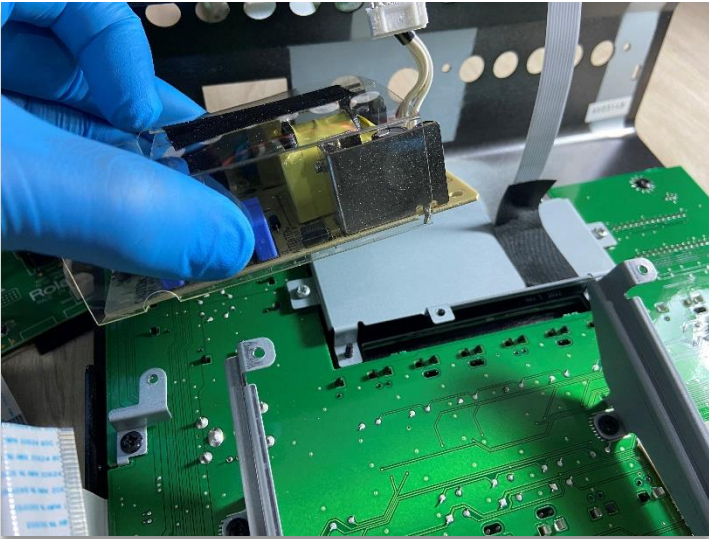
13. OLED RIBBON CABLE

-Install the Ribbon cable as shown below. Keep in mind the side of the connector.



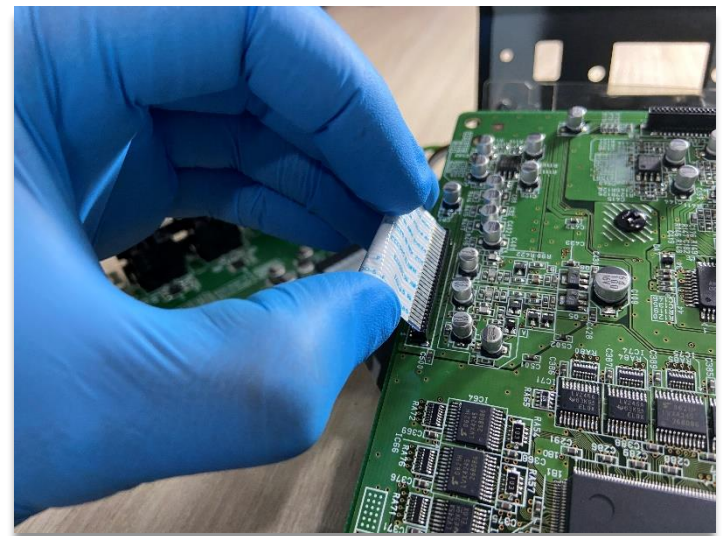
14. ASSEMBLY POWER SUPPLY PCB

- Put back the power supply pcb as shown below with the 4 screws.

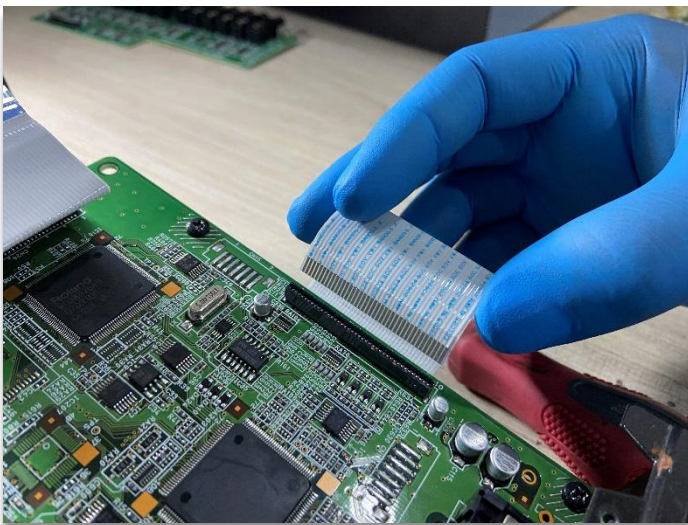
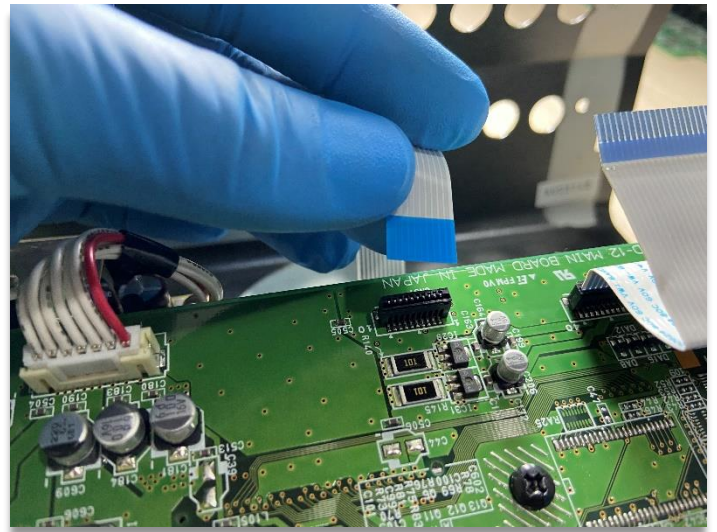
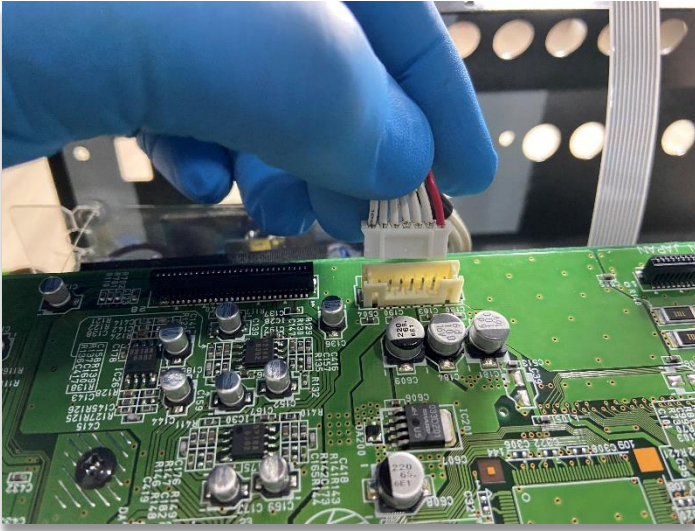


15. ASSEMBLY MAIN BOARD

-BE CAREFUL when assembly the main board and ribbon cables. If you desire to use a contact cleaner so this is the time to spray some on the ribbon ports.

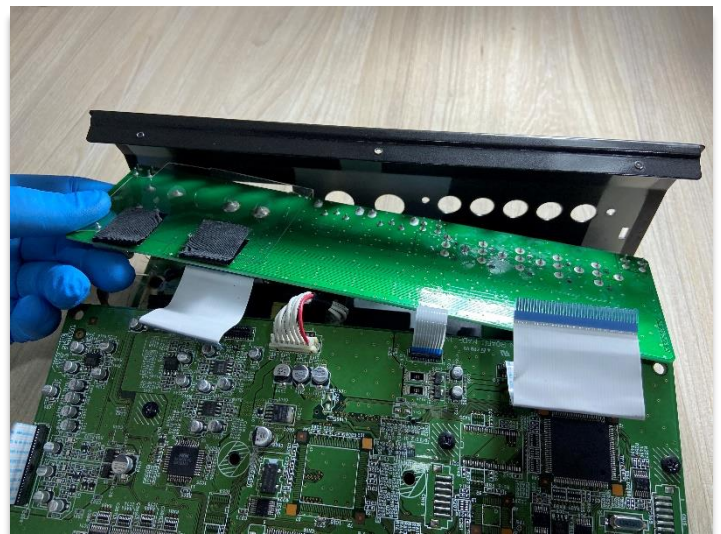
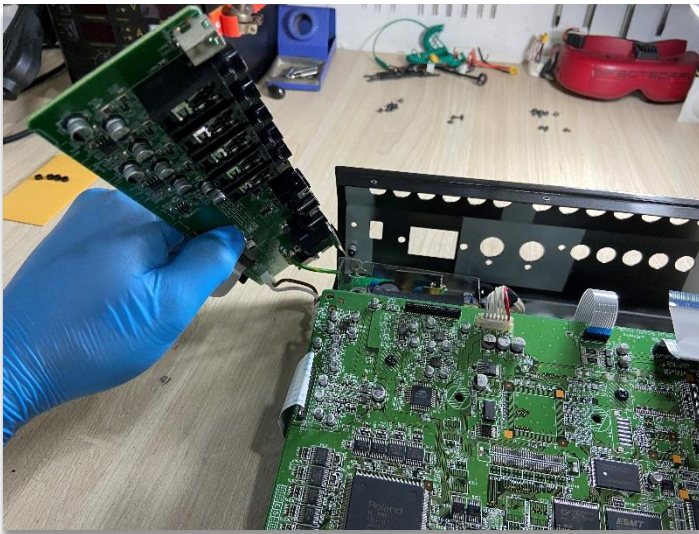


Don't forget to connect all the ribbon cables to the main board and the 6 screws that holds the main board.

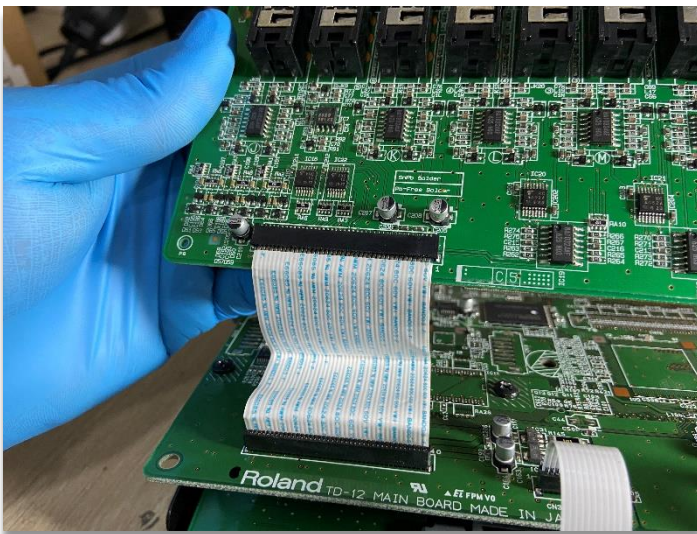
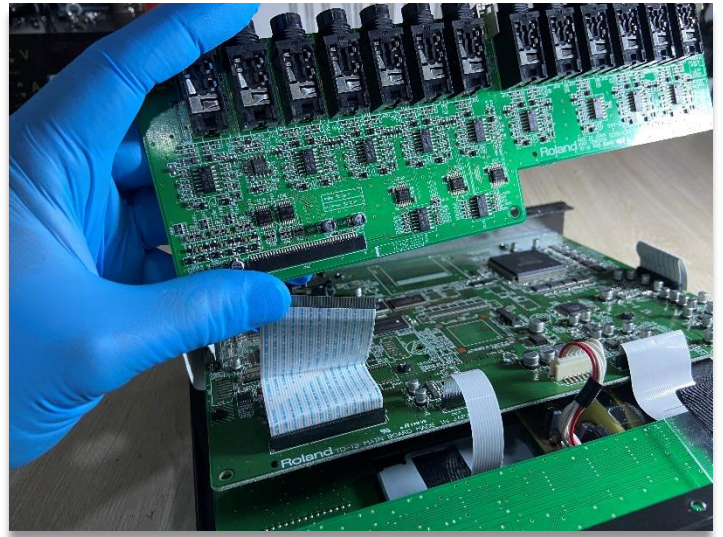
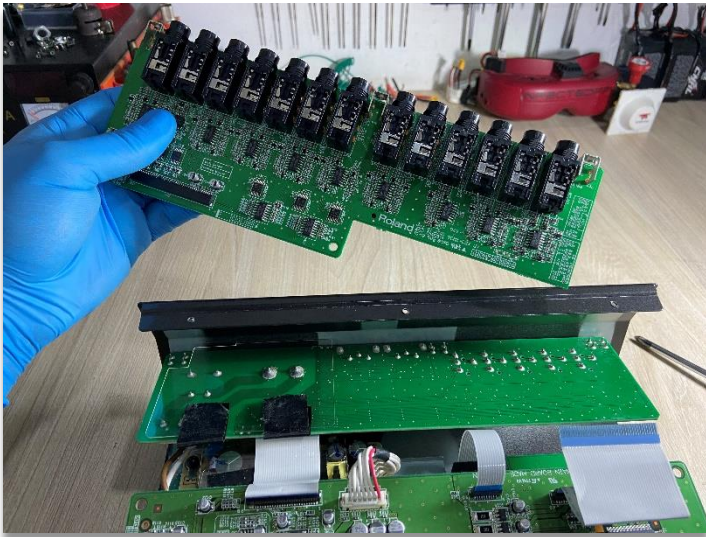


16. ASSEMBLY MIDI IN/OUT PCB

-rotate the midi in/out pcb and put it back in the module as shown below, Mind the cables when installing the pcb.



17. ASSEMBLY TRIGGER INPUT PCB



Now its time to put back all the screws as below.

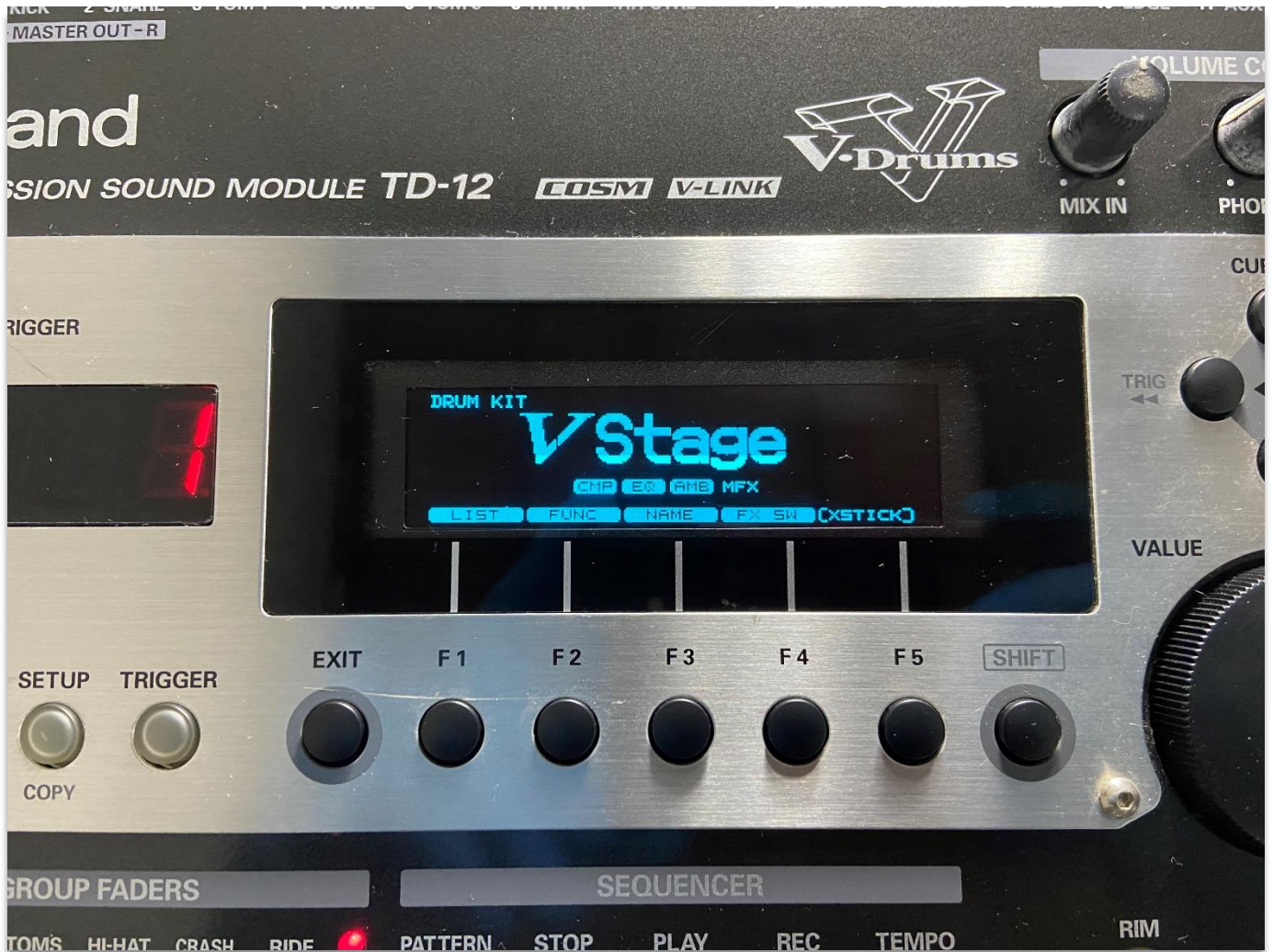


18. ASSEMBLY BACK METAL COVER

Put back the metal cover and don't forget the 8 screws.



19. FINAL RESULT



Its time to rock N roll folks!!!