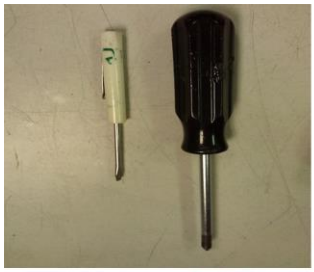
www.displayrepairkit.com

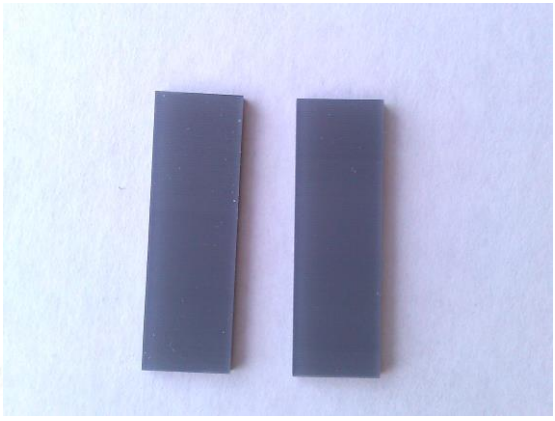
Display Repair Kit

This kit is compatible with all Fluke 80 Series (83, 85, 86, 87, & 88), Matco MD-88 Fluke 88, and Fluke Kent-Moore J39200 Multimeters.

Older Fluke 80 Series Multimeters have Pink Elastomers that loose their bounce over time. This will cause missing, faded, or fading LCD segments on the display. This is known as “ghosting” within the testing community. These instructions offer two solutions: 1) Temporary Fix that involves cleaning the original pink elastomers. 2) Replacing the elastomers with new Gray elastomeric connectors from DRK.

Equipment (Tools) Needed





What you will need:

- **(2) Elastomeric Connectors (Elastomers)**
- **Phillips Screwdriver**
- **Flat head Screwdriver**
- **Small Flat head Screwdriver, or equivalent**
- **Alcohol Pad**
- **Latex Gloves (Surgical Gloves), or similar (Optional ESD Precaution)**
- **Pencil Eraser (Optional. Recommended only for severe dirt and grime removal)**

Caution

ESD (Electrostatic Discharge) awareness and practices should be followed to minimize potential damage.

- **Discharge personal static prior to handling**
- **Avoid plastic, vinyl, and Styrofoam in work area**
- **Perform replacement at a static free work station**

****Warning****

Remove All Input Signals and Test Leads Before Proceeding

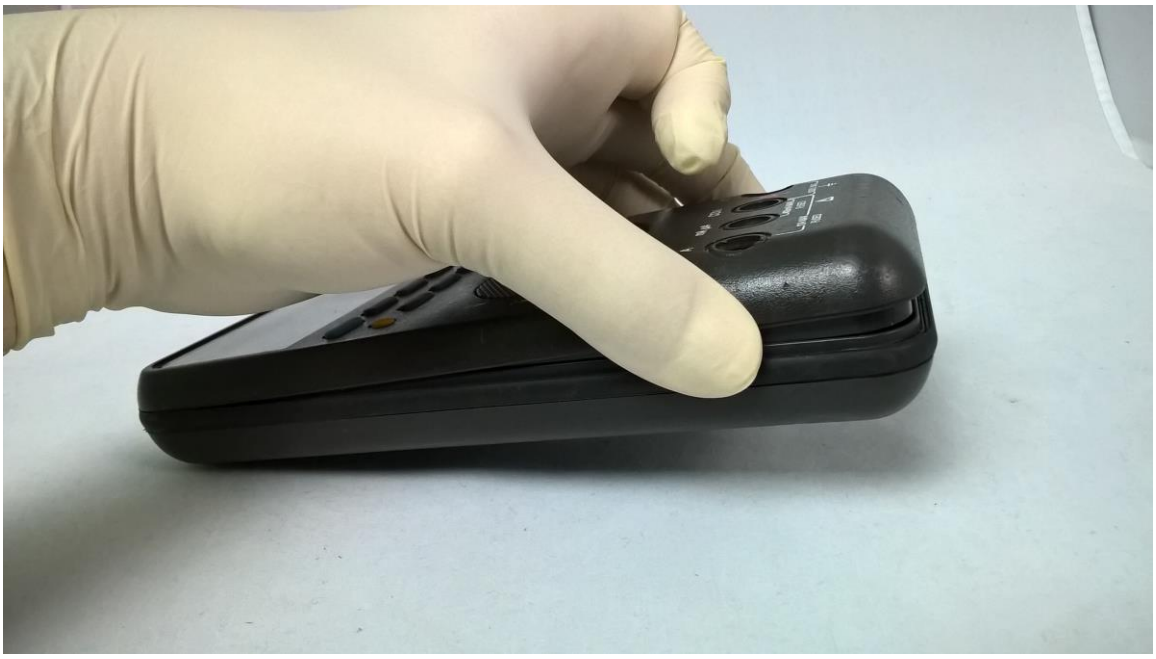
1. Case Disassembly

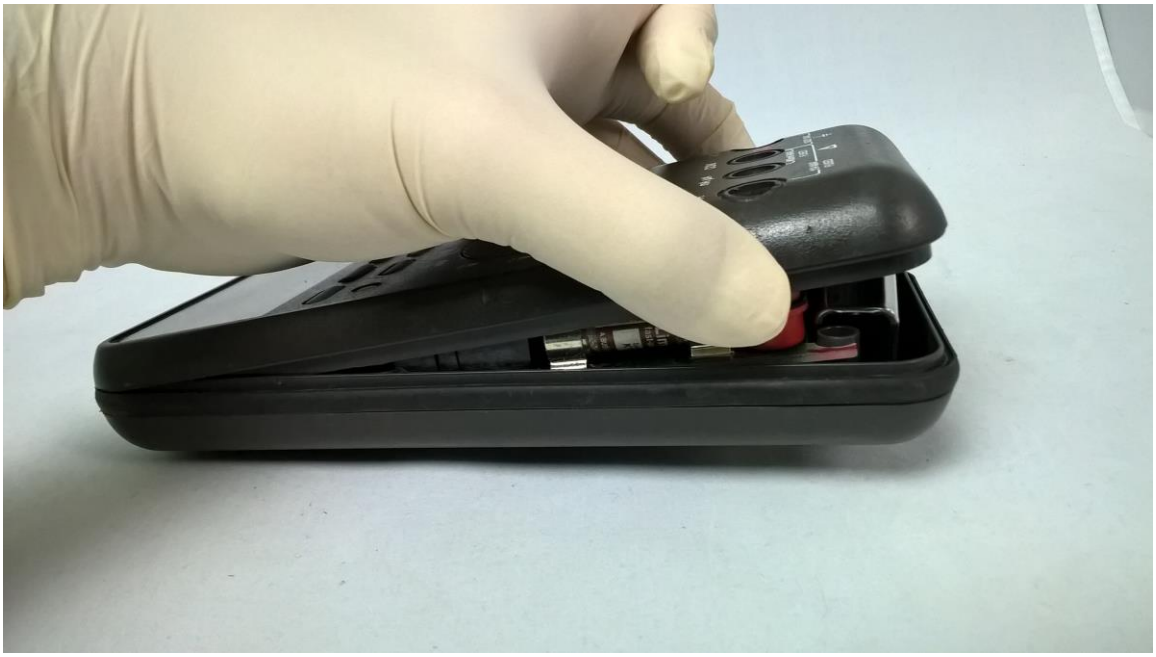
- **Disconnect all test leads from any live source**
- **Turn Fluke to Off position**
- **Remove Test Leads**
- **Using Phillips head screwdriver, remove the screws from the bottom (lower) case**

*****NOTE*****

The gasket between the case is sealed to the bottom casing. The Top (Upper) Case lifts from the Bottom (Lower) case easily. Do Not attempt to remove, or separate the gasket from the lower casing.

- **Lift up by the Top (Upper) Case, from the input terminal side, to separate it from the Bottom (Lower) Case. (See Pics)**
  - **Lift up until Top (Upper) Case unsnaps from the Bottom (Lower) Case on the display side.**





*****Be careful not to remove, or adjust the dust jacket seal that is connected to the bottom half of the case. Make sure to lift from the top case only where the input connectors are*****

- **Lift up from the input side <u>GENTLY</u> until the top case unsnaps from the display side.**

***** Latex Gloves may be used as an ESD Precaution*****

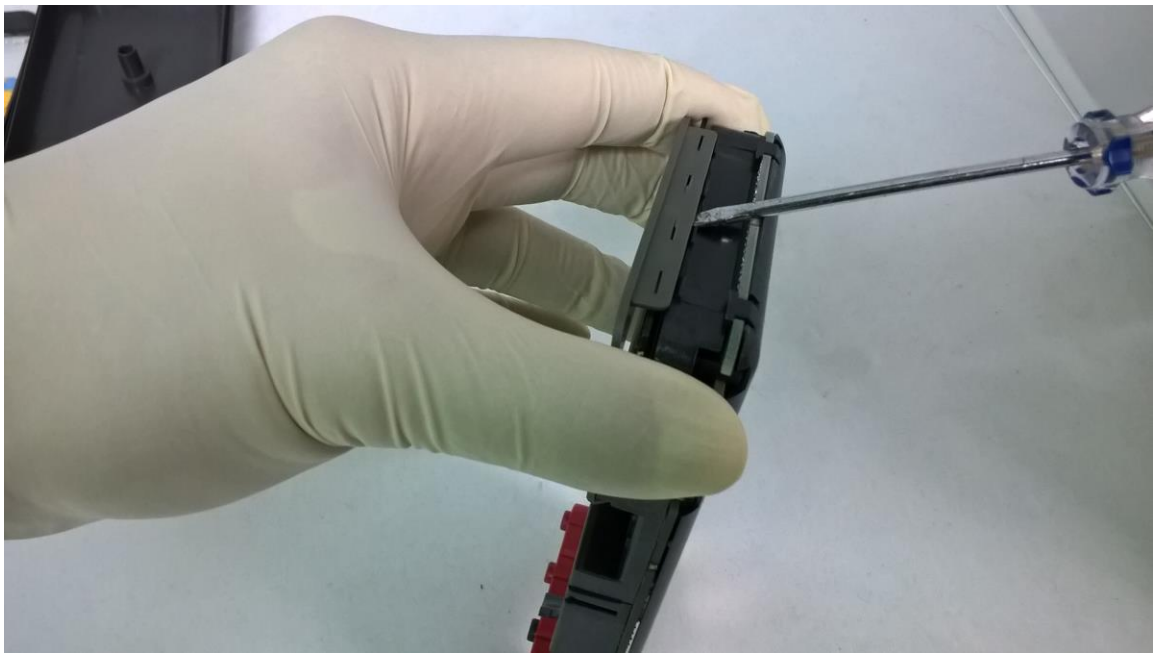
- **Remove the Rubber Button Pad and set aside, or keep with the Top Case**

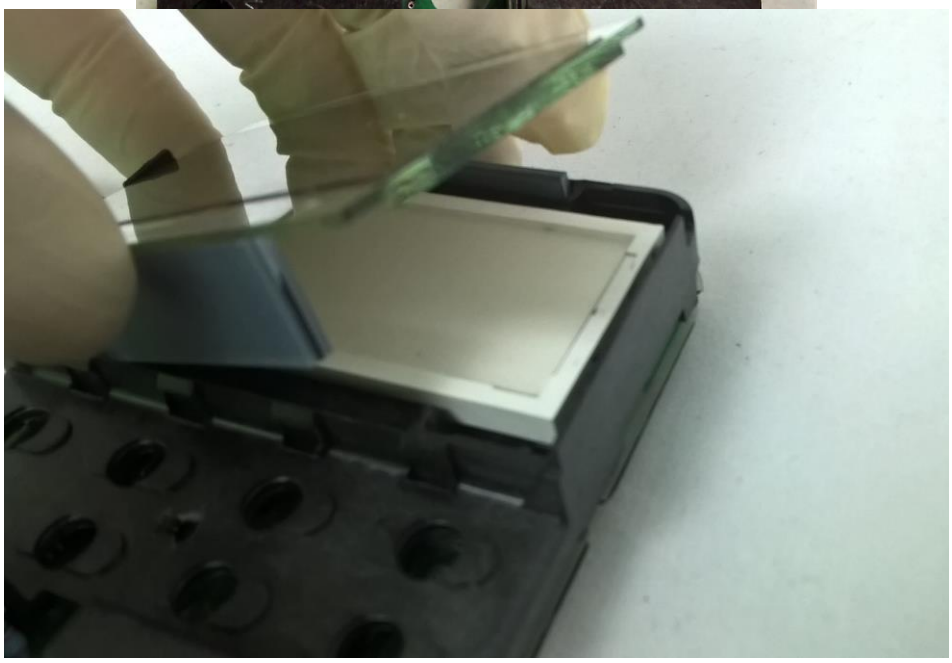
2. Steps for Cleaning, or Replacing Elastomeric Connectors:

1. **Remove the Fluke Meter Main PCB board from the casing.**
    a. **Remove the 9V Battery.**
    b. **The PCB board should be loose and come right out by lifting up by the input receptacle.**

2. **Use the small Flathead Screwdriver to remove the LCD Faceplate**

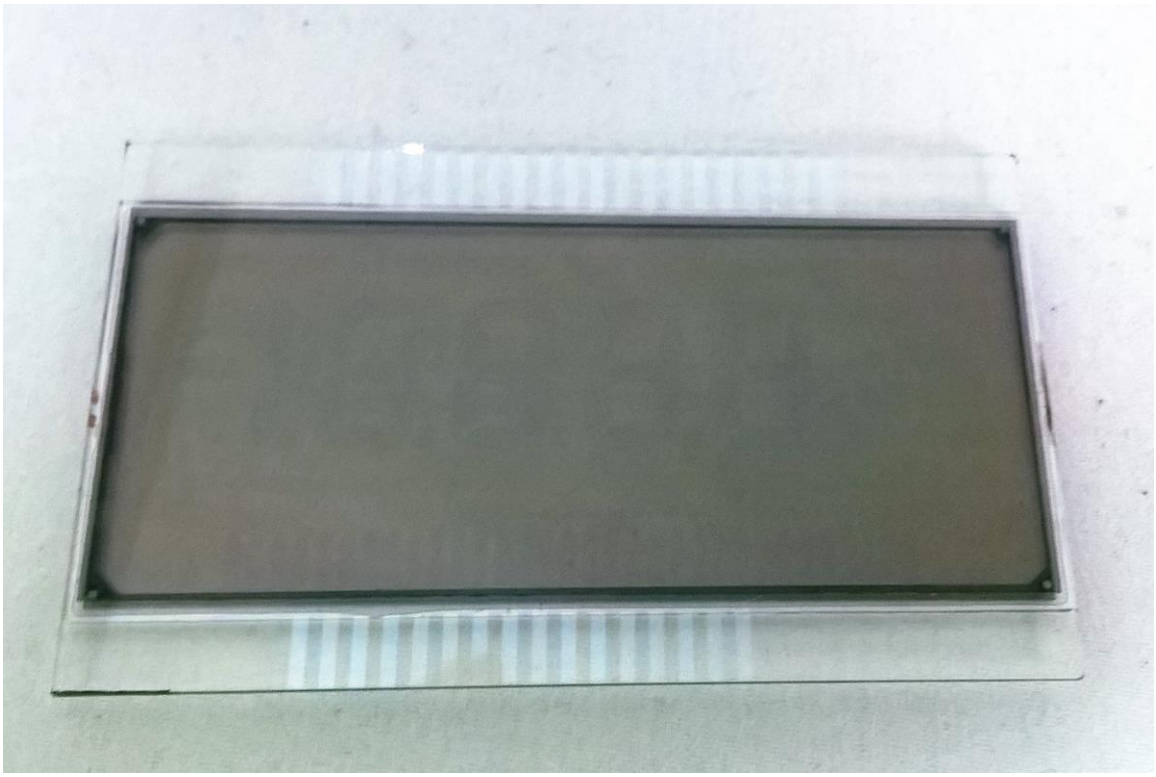
LCD Faceplate



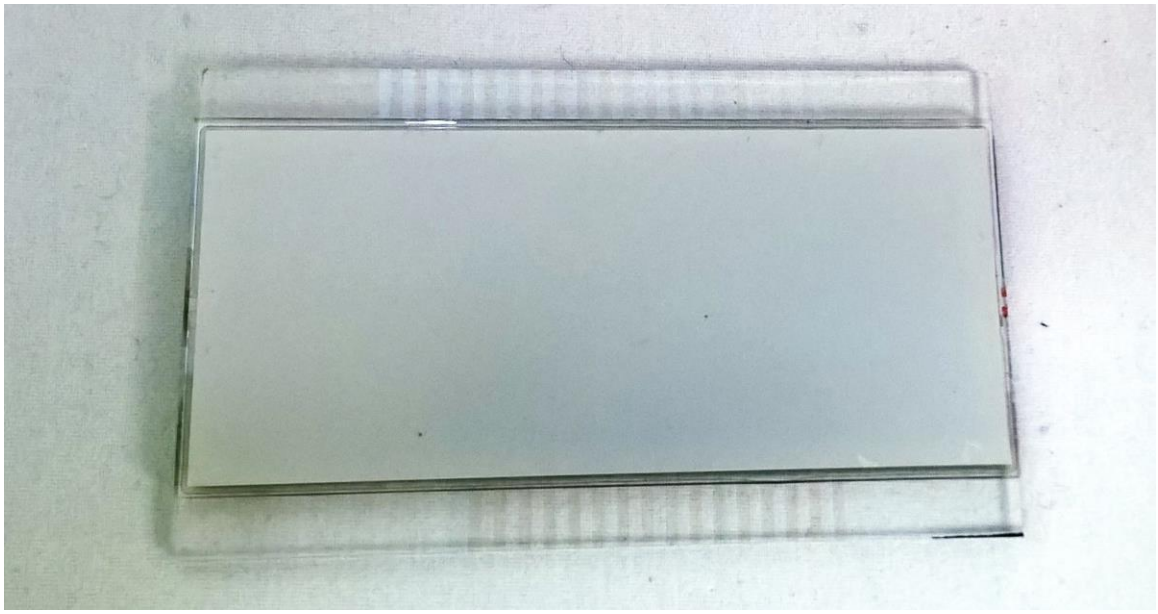


3. **Remove the LCD from PCB Board.**
    a. **LCD may seem to stick a little. It's normal. Carefully lift by the edges until LCD Comes out.**
    b. **Elastomers may, or may not, come out along with the LCD. Again, this is normal.**

c. **Remove the elastomers if they are still attached and Set LCD Display aside.**

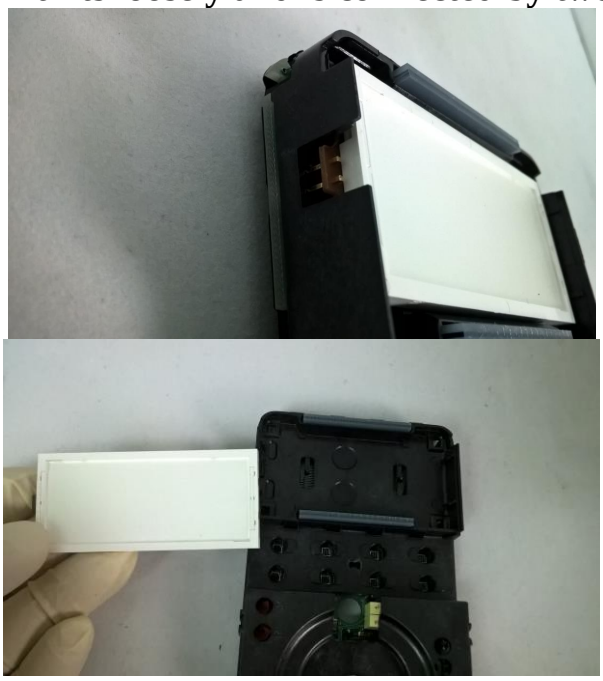


LCD FRONT SIDE (Grayish, or Digit Side)



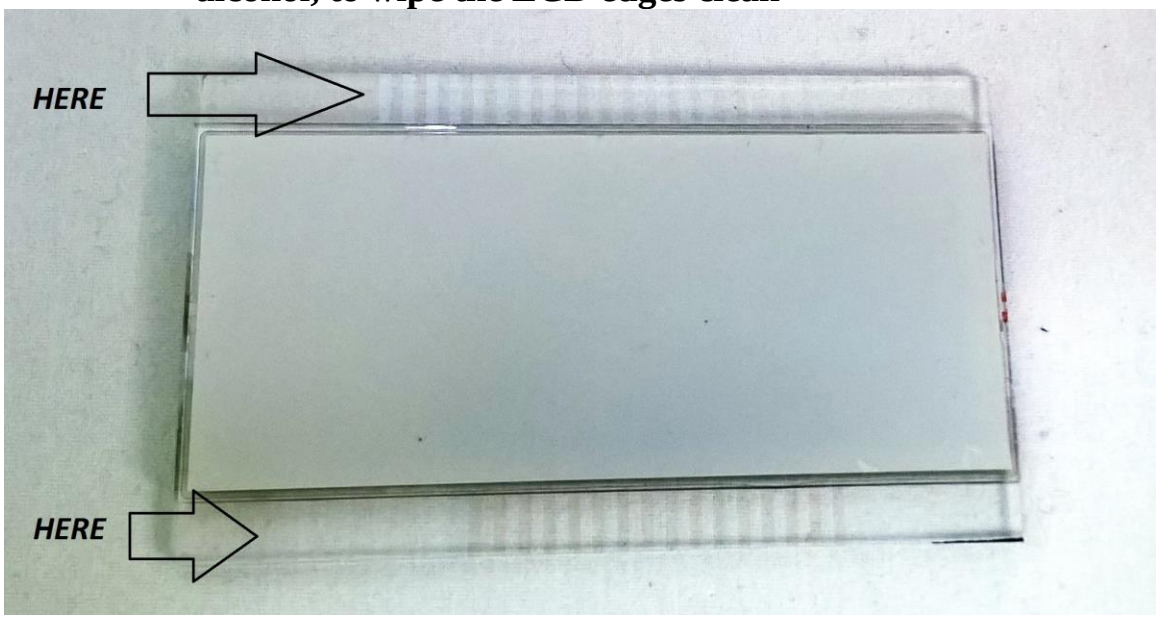
LCD BACK SIDE (White Side)

d. **It may, or may not be necessary to remove the BACK LIGHT. It fits loosely and is connected by two pins.**



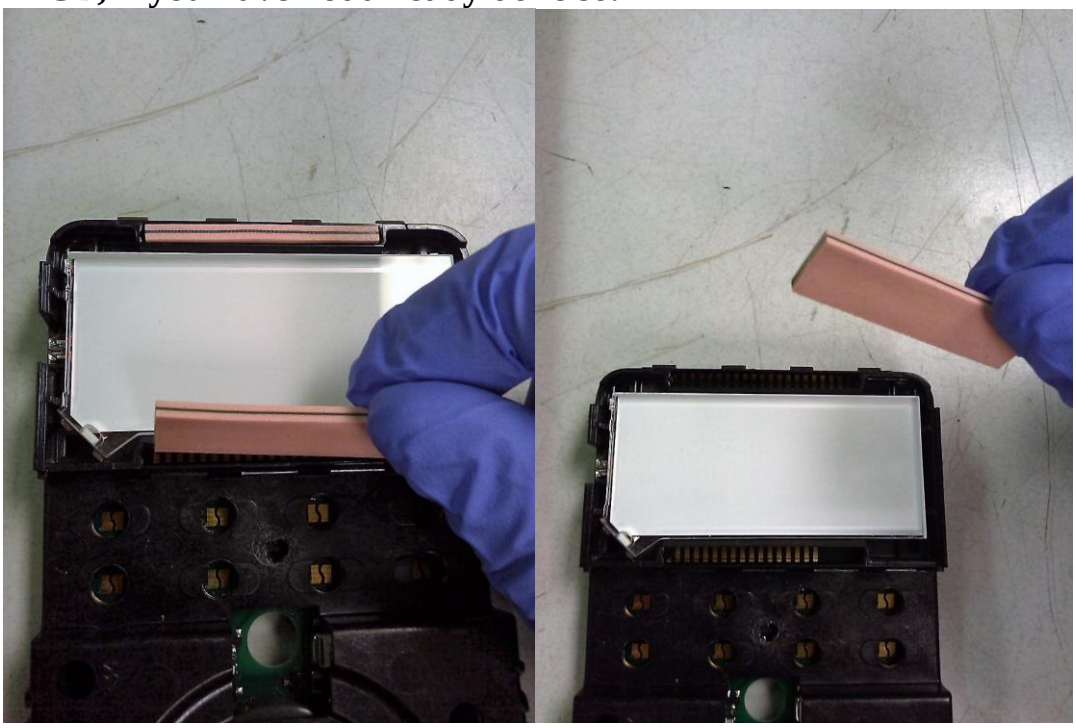
e. **NOTE: If The Back Light is removed, be sure to put back in place BEFORE the LCD.**

f. **FOR TEMPORARY FIX only if new Elastomers ARE NOT available. Use Alcohol Pad, or Cotton Swab and cleaning alcohol, to wipe the LCD edges clean**



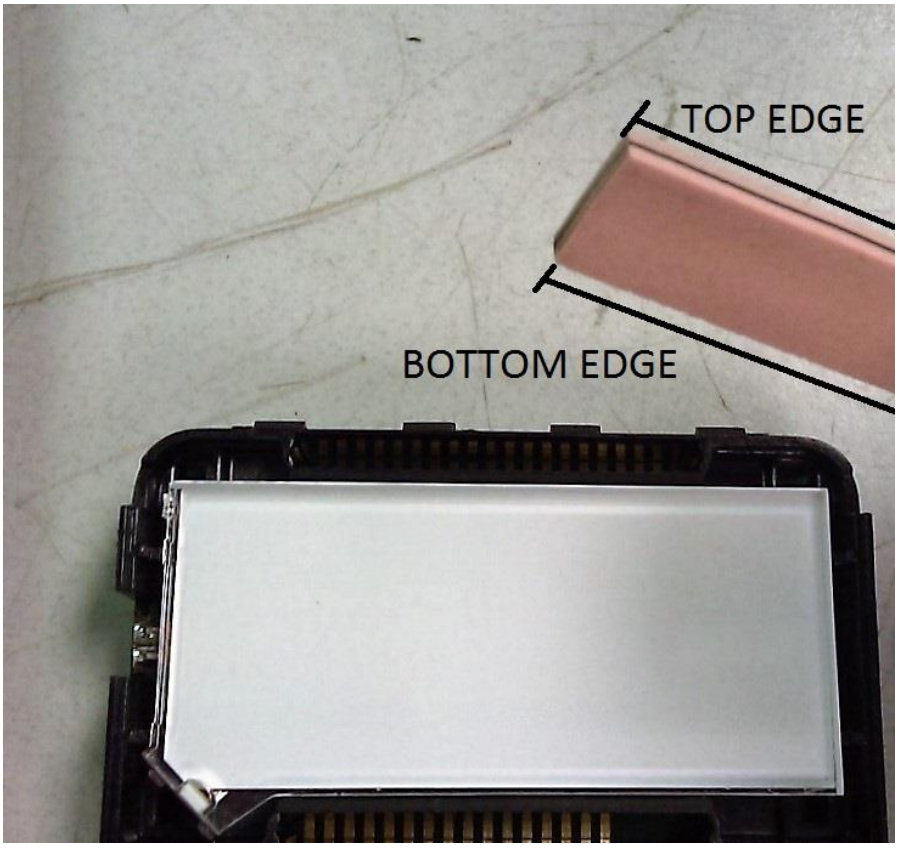
For temporary fix, clean along the edges of the LCD for best results.

4. **Remove the Old Pink Elastomeric Connectors from the Main PCB, if you have not already done so.**

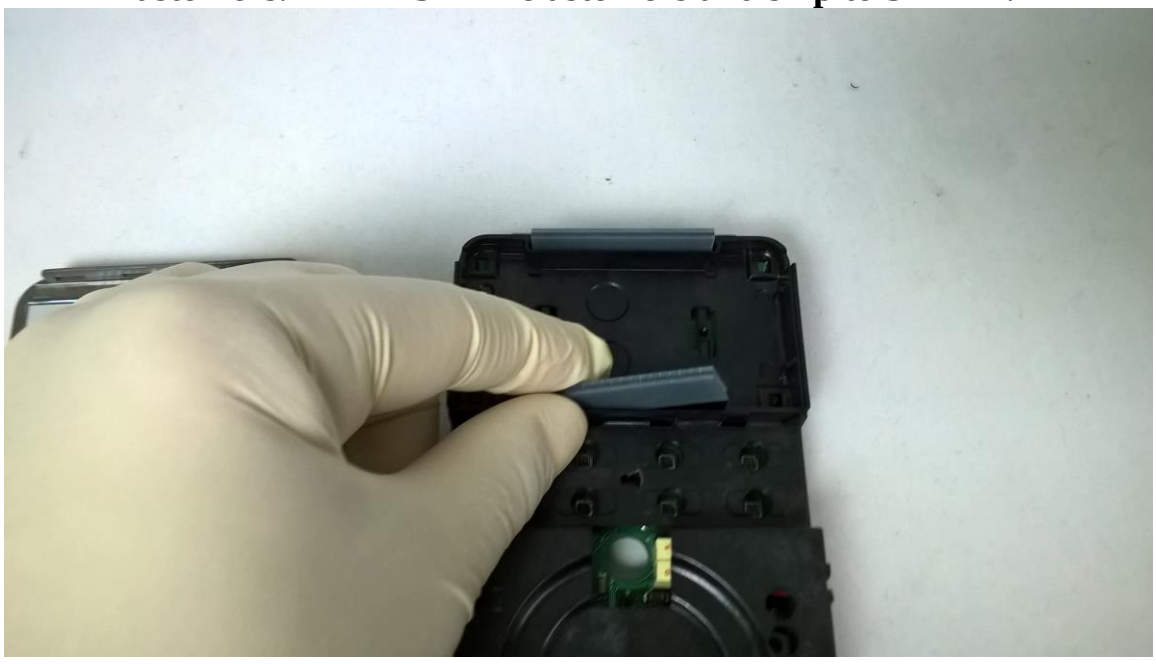


***FOR CLEANING ONLY, PLEASE CONTINUE.**

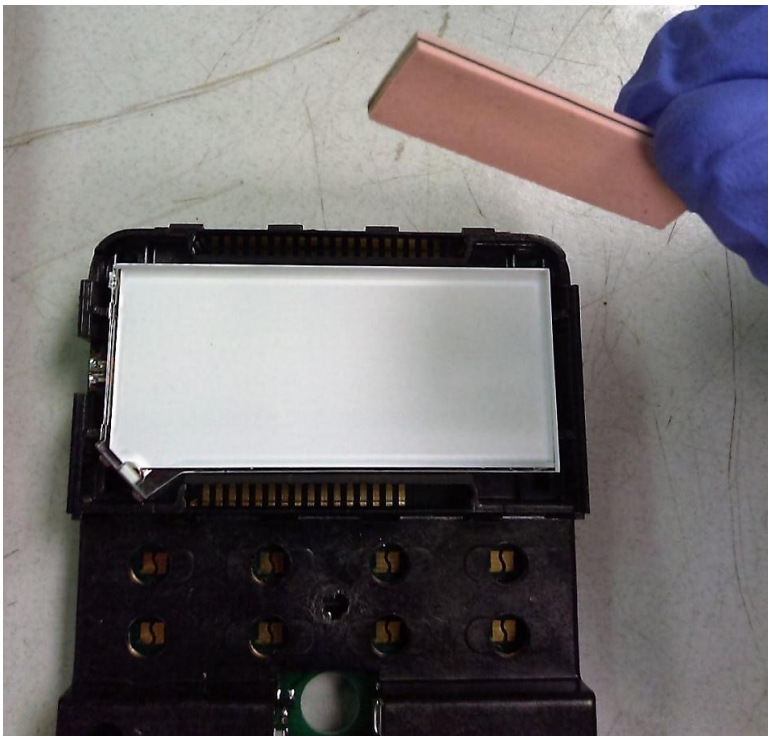
****FOR REPLACING OLD PINK ELASTOMERS WITH NEW GRAY ONES, PLEASE SKIP TO STEP 6*****



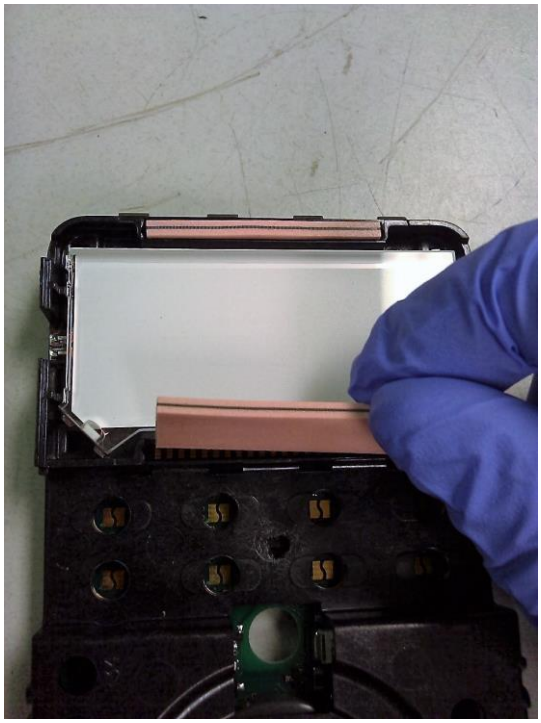
5. **FOR TEMPORARY FIX CLEANING ONLY: Clean the Old Elastomers with an alcohol pad, or cotton swab with cleaning alcohol. Simply wipe along the top and bottom edges of the Elastomers. RE-INSERT elastomers and skip to STEP 7.**



6. **REPLACING OLD PINK ELASTOMERS WITH NEW GRAY ELASTOMERS: Insert the (2) TWO New Gray Elastomeric Connectors into the slots where the old pink ones were removed from.**



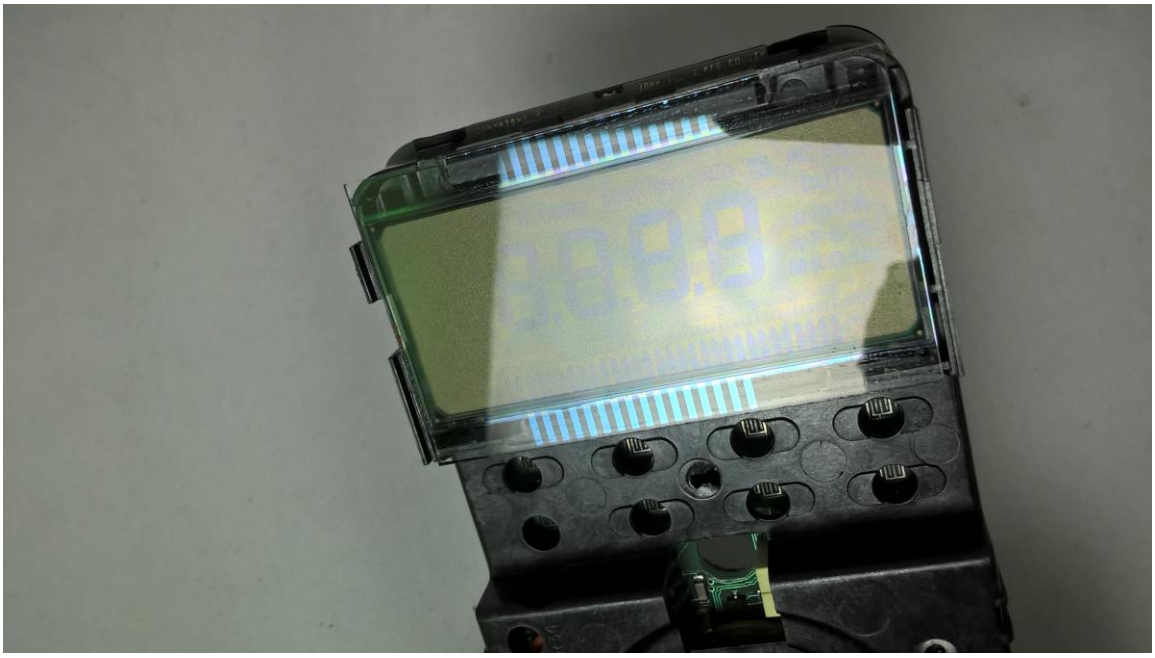
7. **Re-insert the (2) TWO Original Pink Elastomers into the slots.**



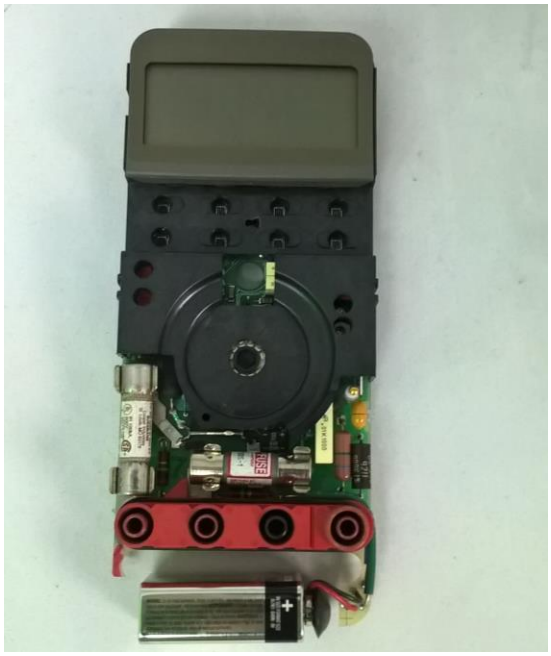
8. **Insert the Back Light.**

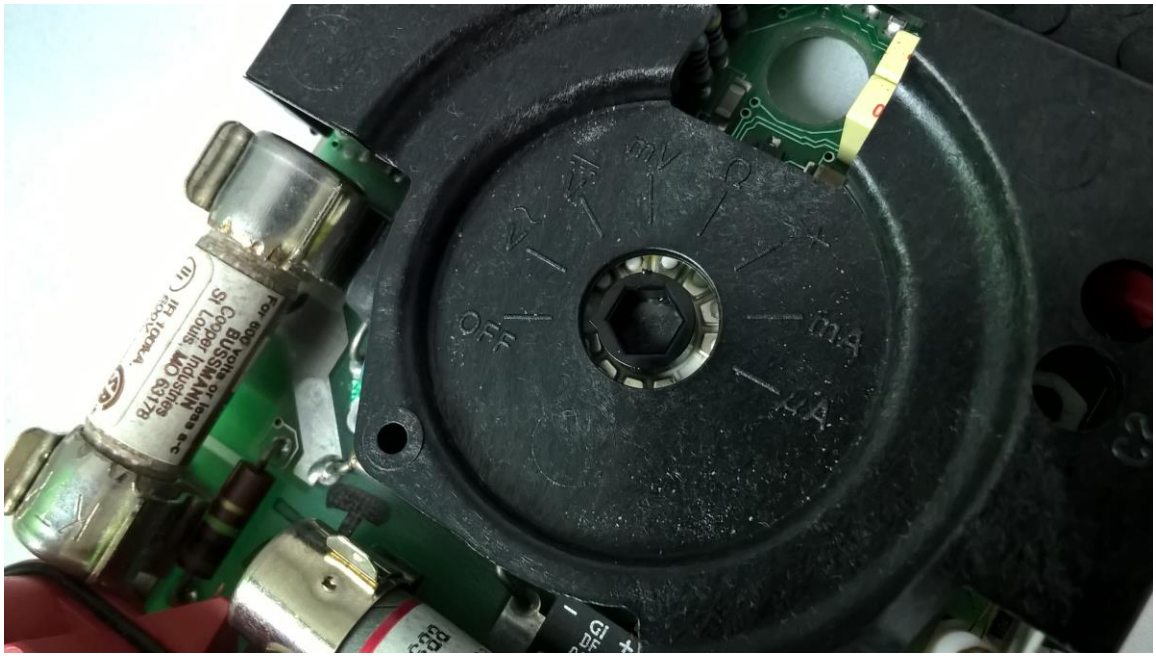
Be sure that Back Light pins are inserted properly as shown in this picture above.

9. **Place the LCD over the Elastomeric Connectors. Make sure LCD Digit Side (grayish side) is on top as in picture. Also, verify that the LCD is right side up and NOT upside down.**

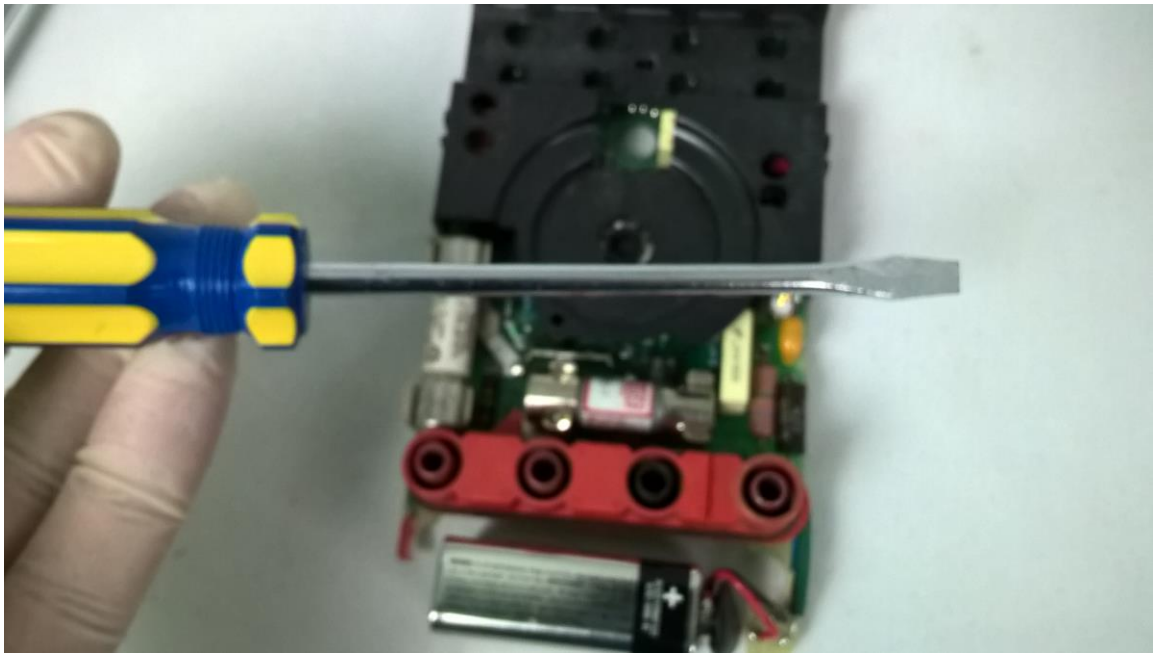


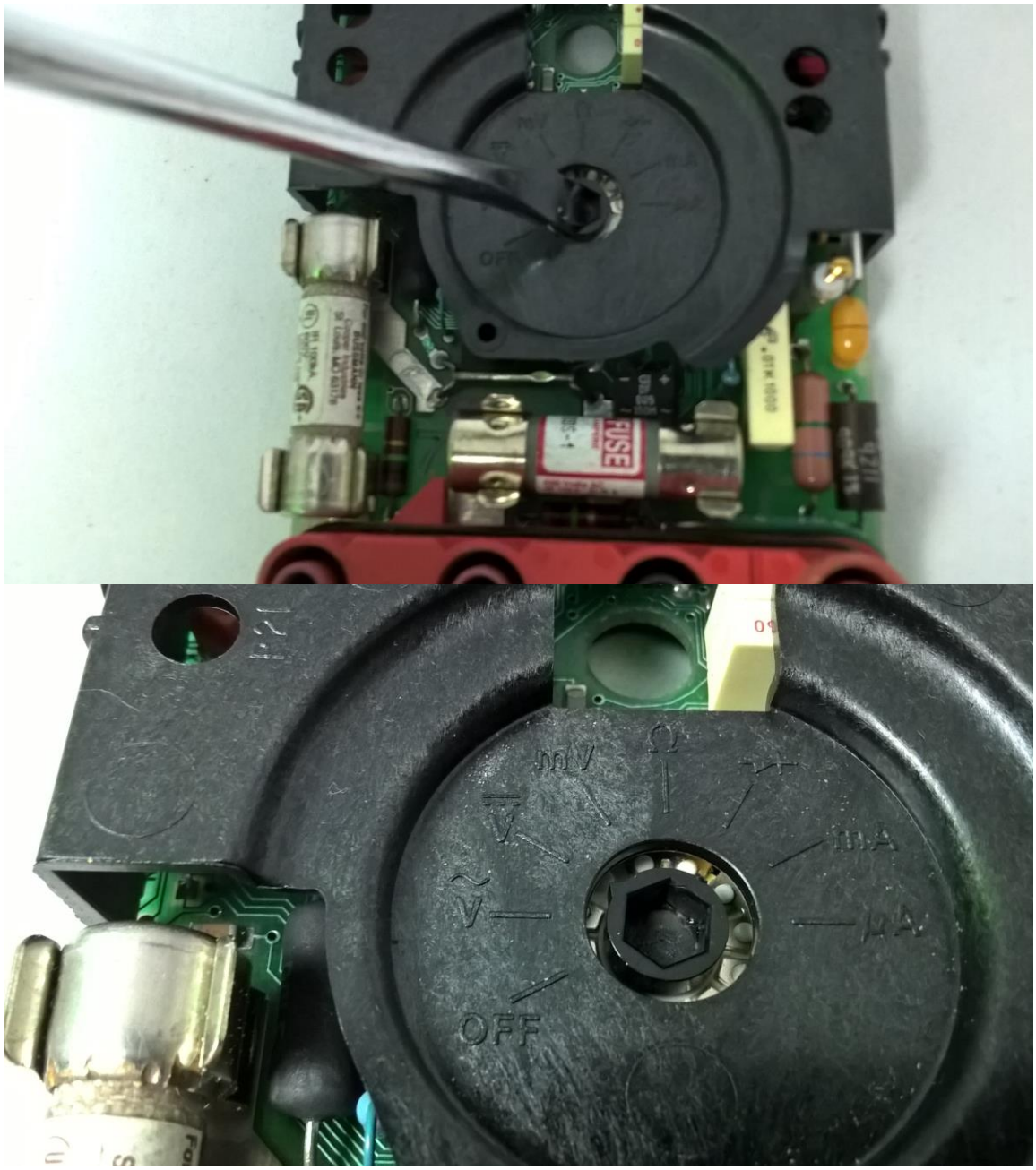
10. Re-Insert 9V Battery





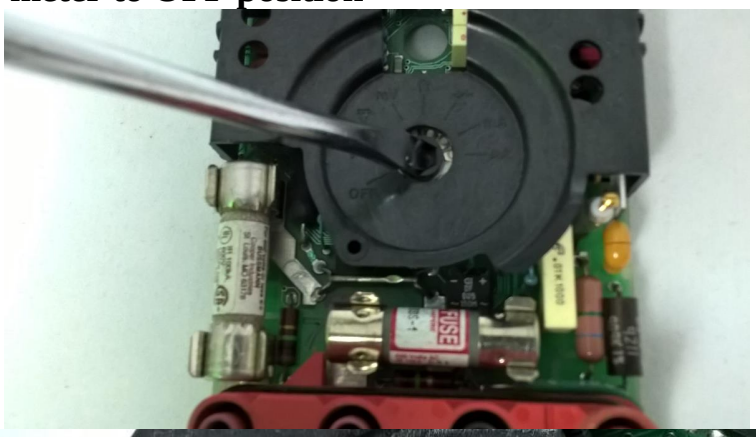
11. **Use Finger, or Flat Head Screw Driver to turn meter switch on. Turn to VDC marked** ⎓ or, the second position.

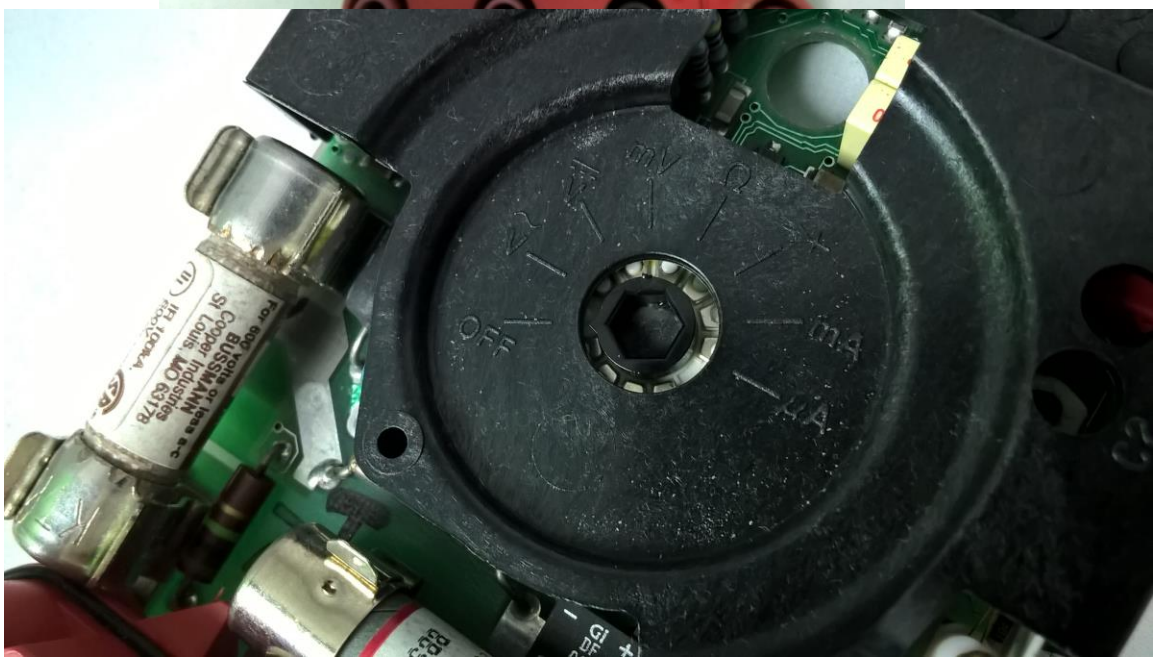


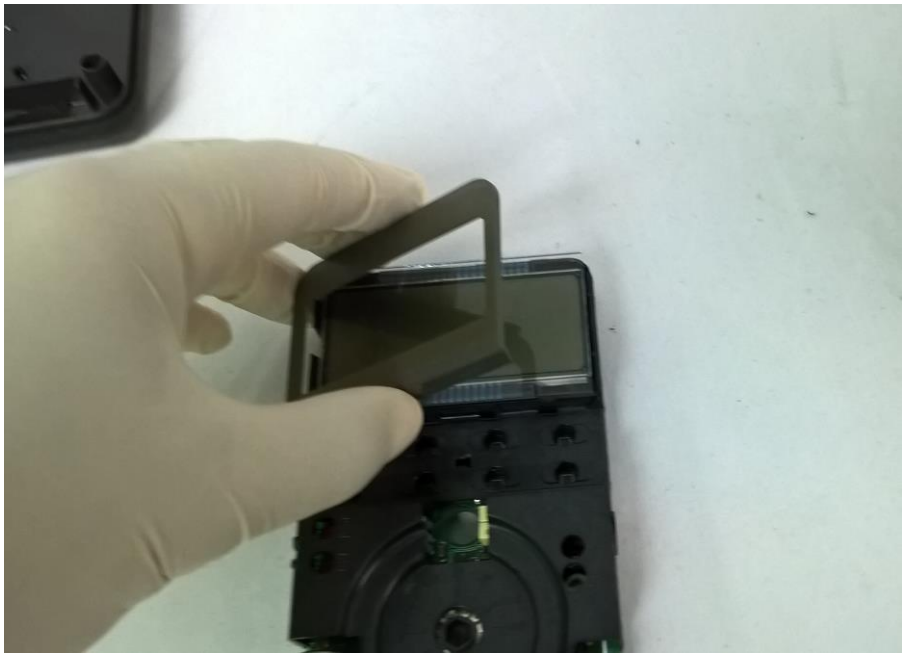


12. GENTLY press down on the LCD and verify that the LCD is on correctly, and that the digits appear normal.

13. Turn the meter to OFF position

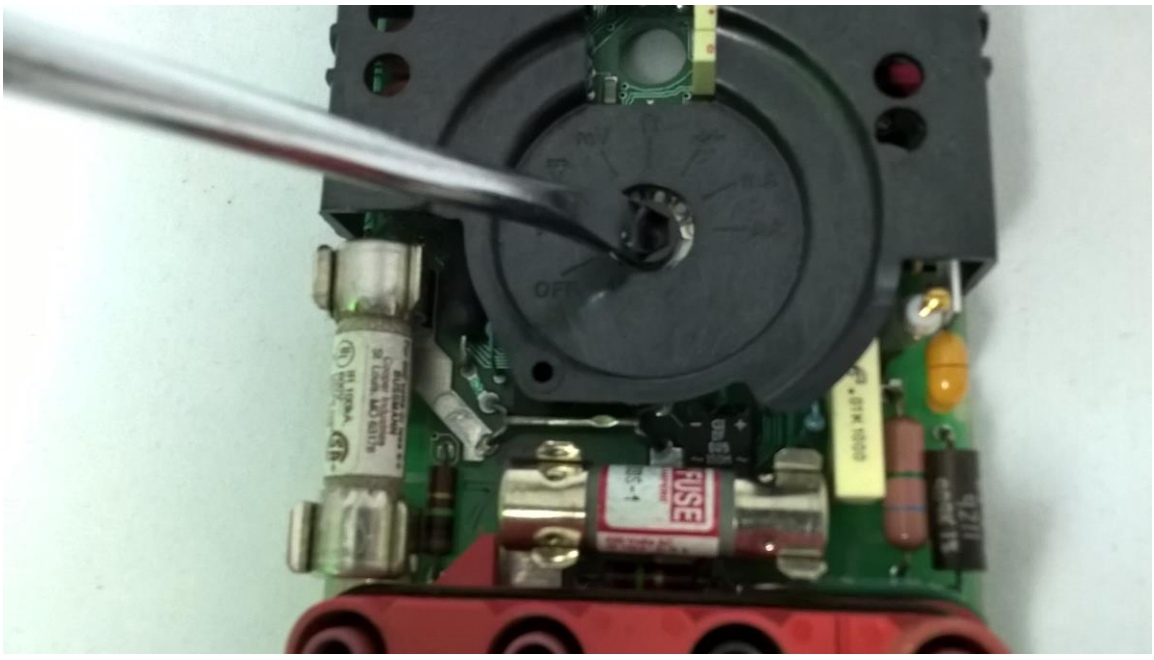






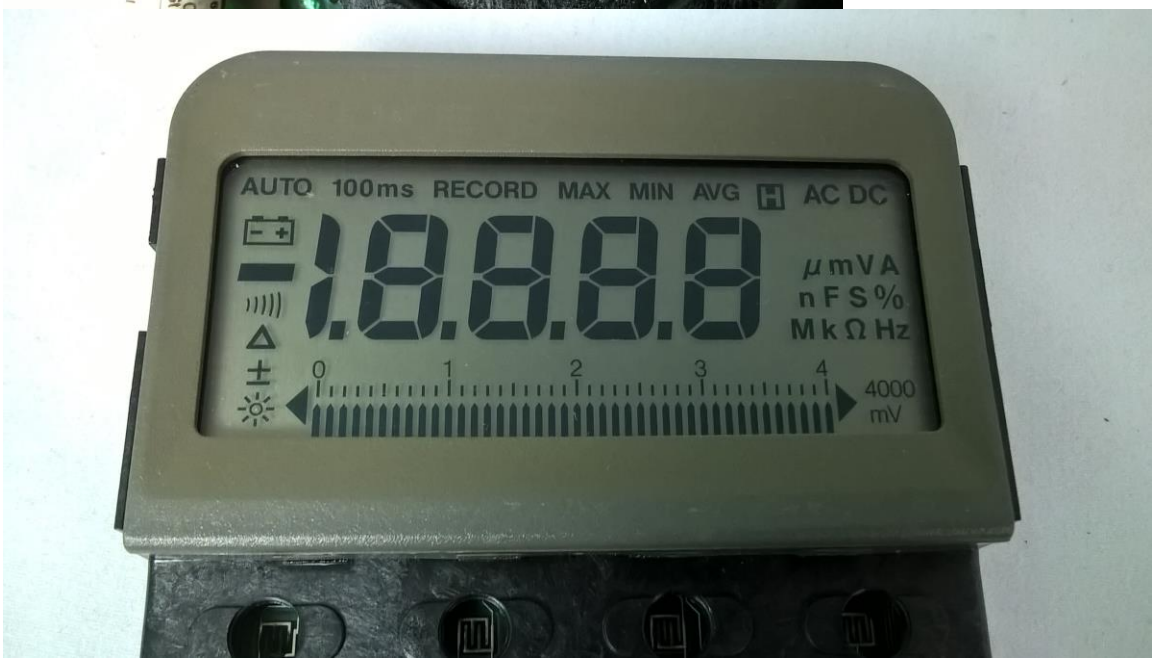
14. Place the LCD Cover over the LCD and gently press down and carefully snap into place.

a. **New Gray elastomeric connectors may be slightly taller than the original pink elastomeric connectors. This is Normal. Apply enough pressure to snap the LCD Cover into place.**



15. Use Finger or Flat Head Screw Driver to turn meter on one last time before completing re-assembly. Verify that the display is clear and that all LCD segments are showing.

*****SEE IMPORTANT NOTE AT THE END IF LCD DISPLAY IS STILL FADED, OR MISSING SEGMENTS*****

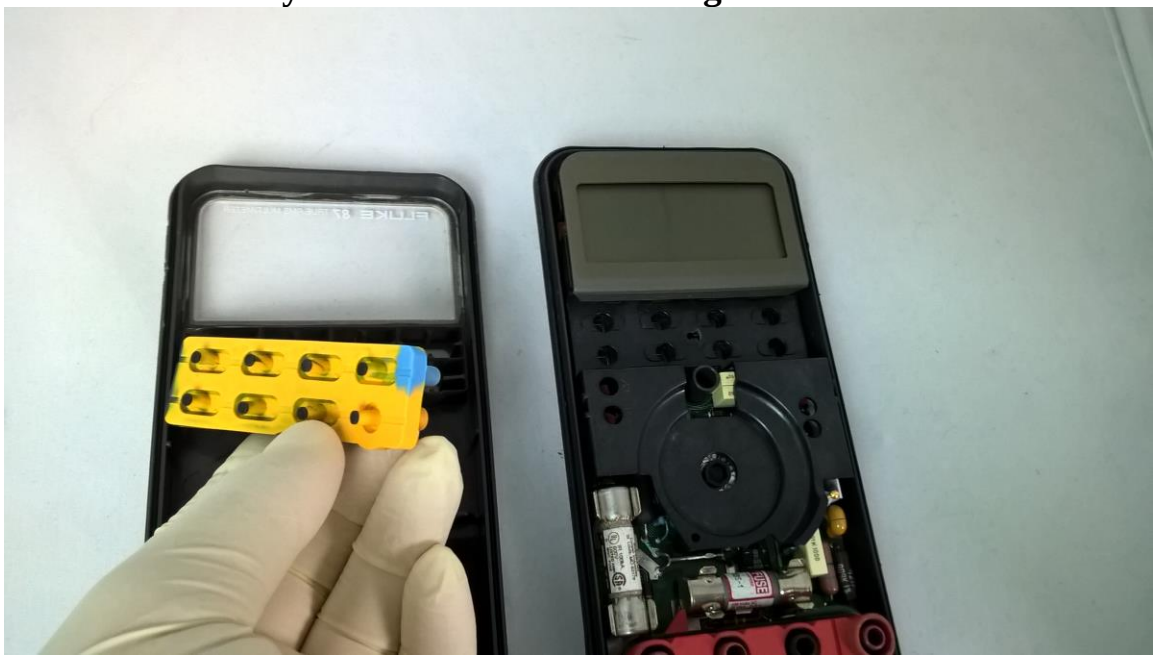


16.Turn Meter Off

17. Place main PCB back into the bottom case

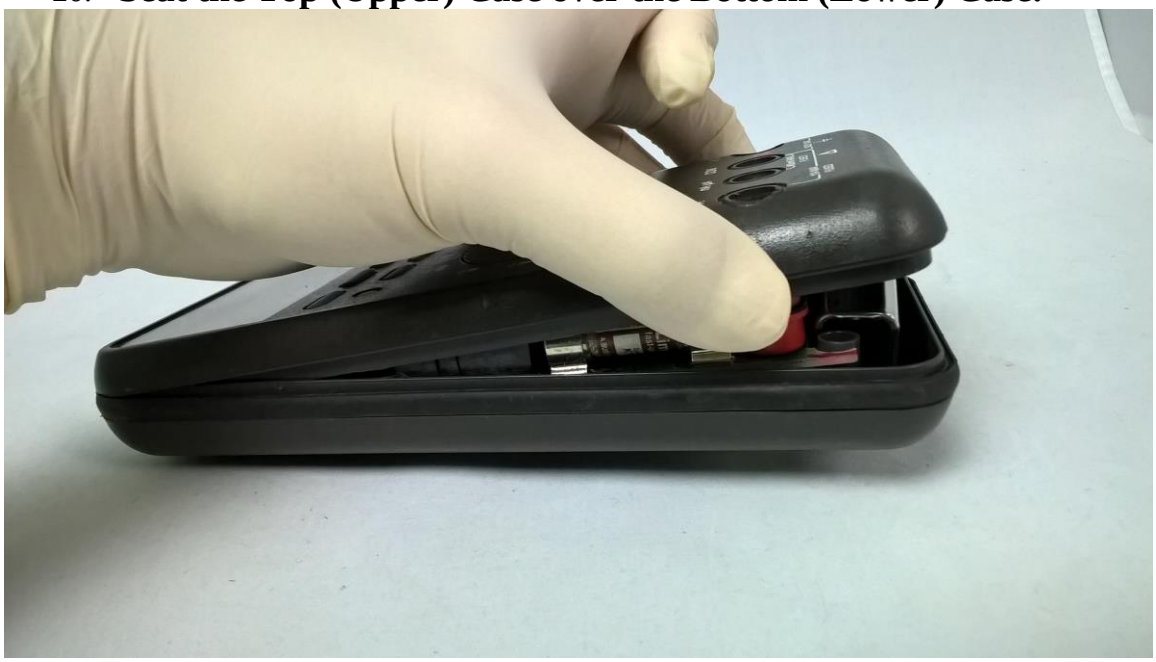
18. Place the Button Pad into place on the Main PCB

a. **It may still be on the front casing**



19. Verify that the 9V Battery is connected.

20. **Seat the Top (Upper) Case over the Bottom (Lower) Case.**



21. **Press the Top and Bottom Casings together Firmly and evenly to ensure a nice snug enclosure**

22. **Insert screws to the Bottom (Lower) Casing**

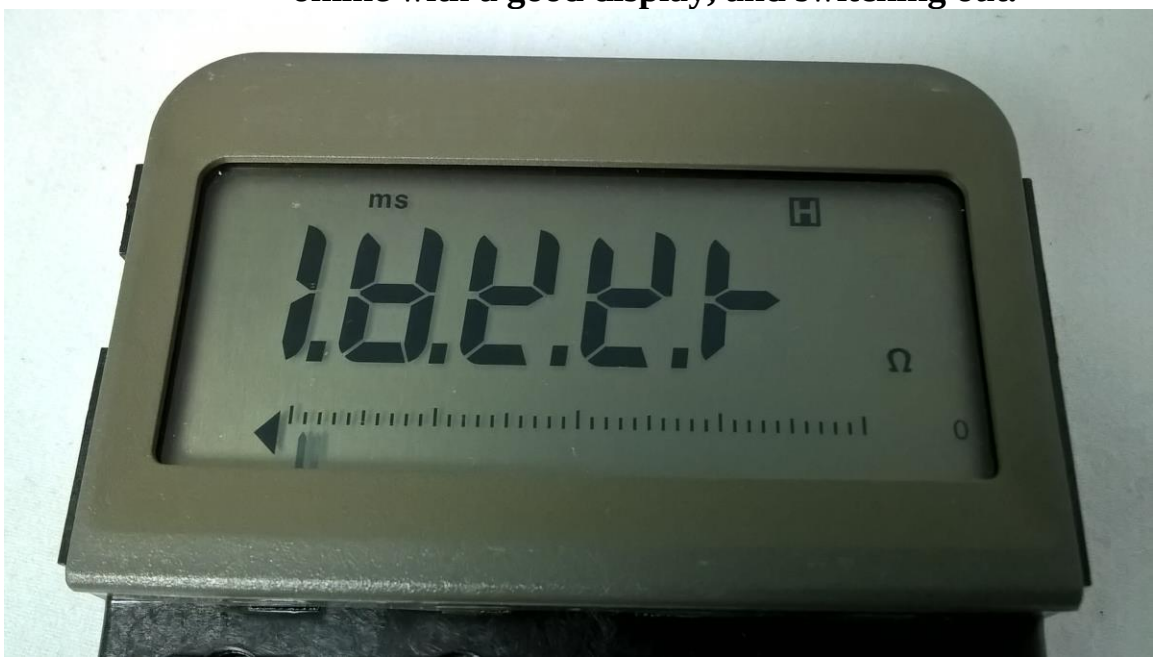
Enjoy your nice digital display.

*****IMPORTANT*****

If your display is physically damaged, or cracked, or if the LCD Cover is broken or cracked, then this procedure will not work. The LCD cover, or LCD would have to be replaced separately to fix the display.

IMPORTANT: If display is still faded, or missing segments:

i. **Carefully inspect the Display area along the sides and underneath the Main PCB. Verify that there are no loose, or broken parts that are causing a loose connection between the LCD and the PCB.**
ii. **Inspect for broken tabs on the Top Shield. Broken tabs on the Top Shield will usually cause a loose connection.**
iii. **Replacement Parts may be needed to correct this problem.**
iv. **If there are no loose connections and the LCD is still missing segments, then the LCD Display is bad. There are no known replacements available for these older Fluke 80 Series Meters. Our Best recommendation is to find a reasonable priced unit online with a good display, and switching out.**



This Picture (above) is an example of a bad, or broken LCD Display. Notice that the LCD Segments are completely missing. This usually occurs when there is a crack, or chip on the glass section of the LCD that connects to the elastomers.

All Kits Come with 60 day money back Warranty, or item exchange. Buyer pays return shipping

For more information on Fluke Series LCD Repair Kits, Services, and Input Connectors, please email us at contact@displayrepairkit.com.

We are now offering Calibration Services on All Test Equipment. All Calibrations are NIST Traceable and come with calibration sticker and certificate. Contact us for more information.