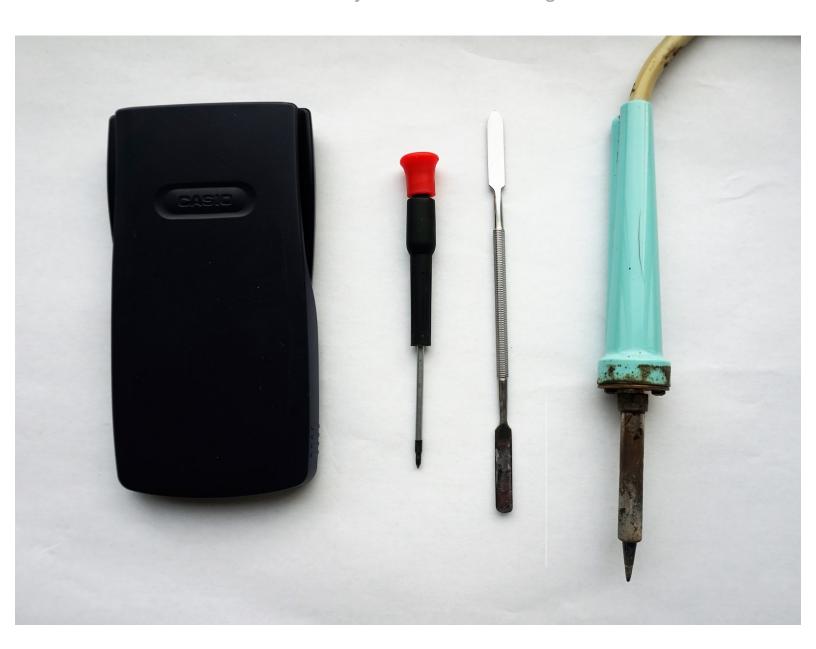


# Casio fx-82MS Button Replacement

This guide will explain step by step how to replace a malfunctioning button on the Casio fx-82MS.

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#### **INTRODUCTION**

The Casio fx-82MS is a commonly used simple calculator in many schools. It has a very long lifetime. But sometimes a button stops working, which can be very annoying. In this guide we will guide you through the steps to fix this problem.



## **TOOLS:**

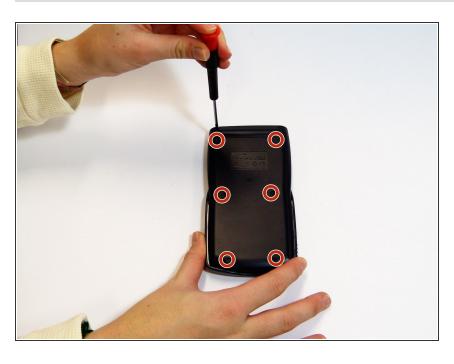
- Phillips #00 Screwdriver (1)
- Soldering Iron (1)
- Spudger (1)
- Utility Knife (1)

#### Step 1 — Button





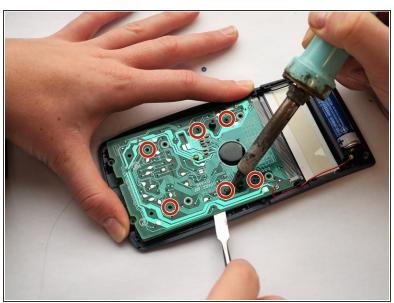
- This is the calculator in question.
- The tools you will need are: a Phillips screwdriver, a spudger and a soldering iron.
  - (i) If you don't have access to a solding iron, you need a stanley knife instead.

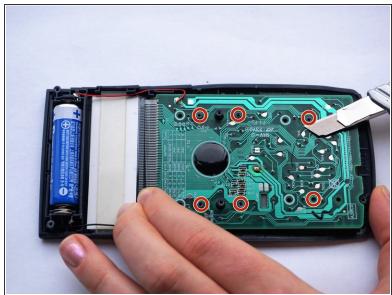


- Flip over the calculator.
- Locate the 6 screws on the backside.
- Remove all six screws.

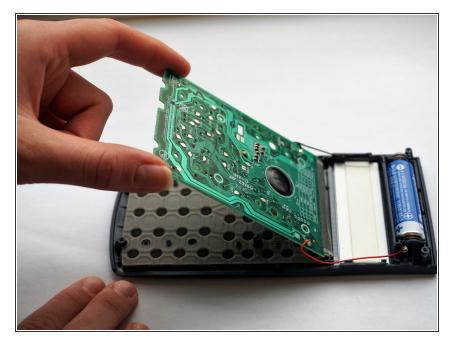


 Once all six screws have been removed, take the back part off of the calculator.

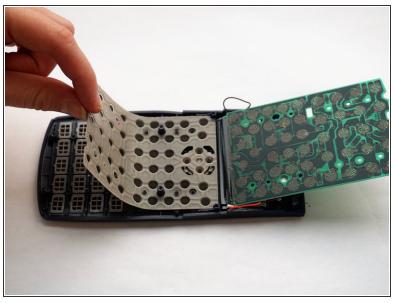


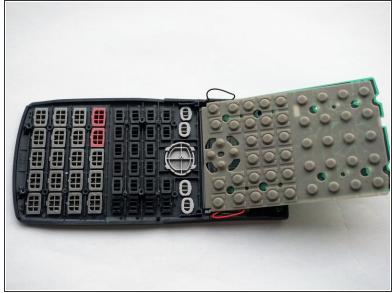


- Locate the rubber contact points.
- Solder the rubber contact points, while using the spudger to pry the PCB loose.
  - (i) PCB stands for Printed Circuit Board.
  - Toxic gasses might be created. Hence, do this in a well ventilated room.
- Start with the lower plugs (left on the photo). Gently pry the PCB loose at the same time.
  - For this step a third person is required for safety. One person uses the solder iron, the other one uses the spudger to pry the PCB loose.
- If you don't have accessibility to a solder iron, use a utility knife to remove the plugs.

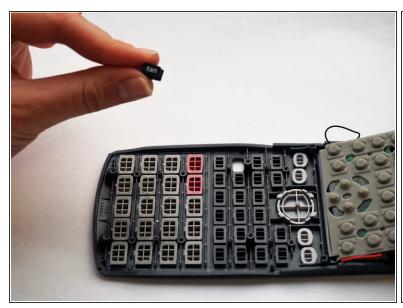


- After having soldered away all six plugs, lift up the PCB.
  - ♠ Flip the board sideways as shown in the picture.



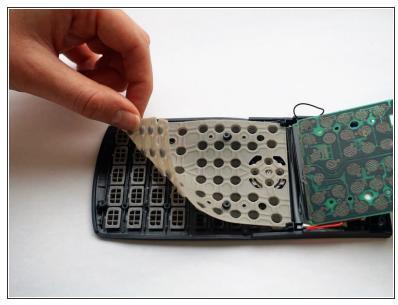


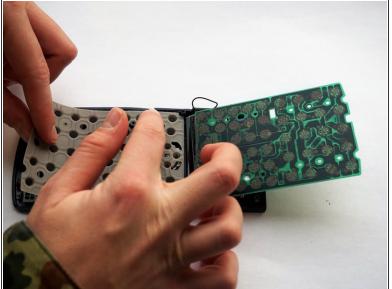
- Remove the rubber mat.
  - ↑ Do this carefully, to make sure the buttons stay in their place.



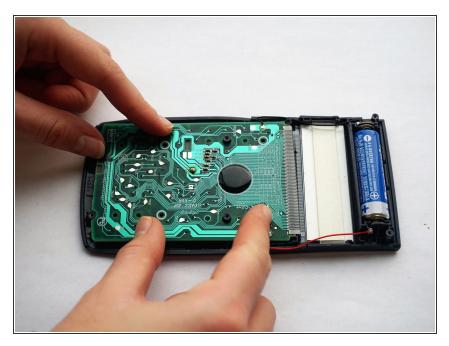


Replace the broken button.





- Put the rubber mat back in its place.
- Make sure you push the six slightly damaged plugs through the rubber mat.



- Push the PCB back into place.
  - Again make sure you push the slightly damaged plugs through the PCB, to make everything fits perfectly again.

## Step 10



 Place the back side of the casing back on top of the front.



 Put all six screws back in the back side of the casing.