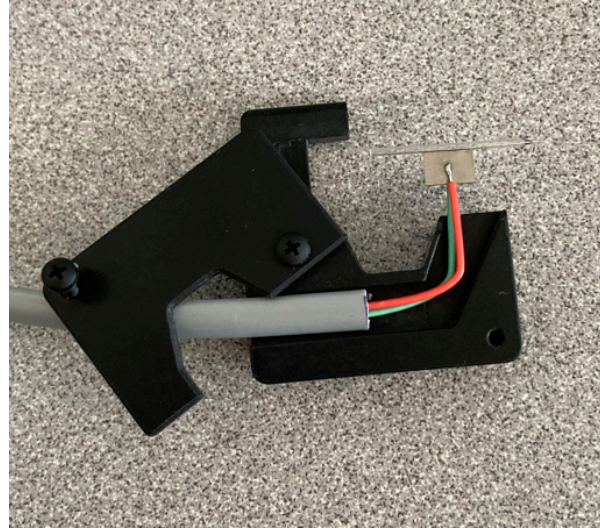


Dispenser Assembly Jig Manual

The micropipette on the dispenser can be replaced by the user. The dispenser assembly jig will help to ensure the micropipette is replaced correctly.

Open the dispenser cartridge assembly by loosening the two black plastic screws on the front of the dispenser assembly and moving the dispenser cover out of the way.

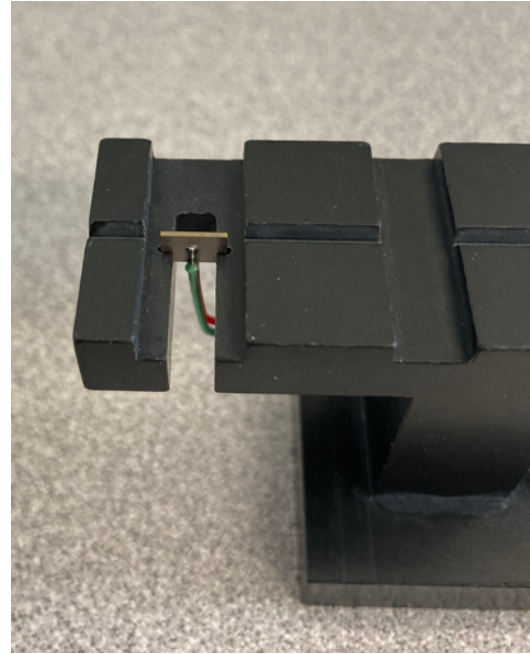
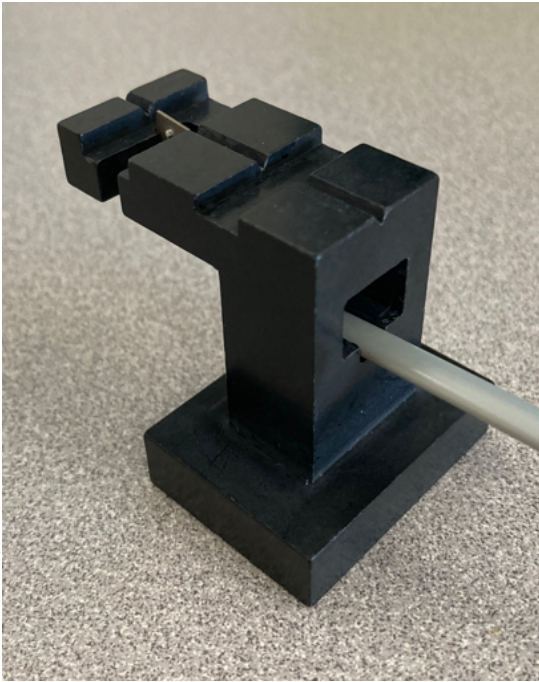


You can now remove the old micropipette by removing the RJ 11 wire assembly and dipping the piezo/micropipette end of the RJ 11 wire in acetone until the glue holding the micropipette is dissolved. Be careful to only dip the piezo and not the grey insulation on the RJ 11.

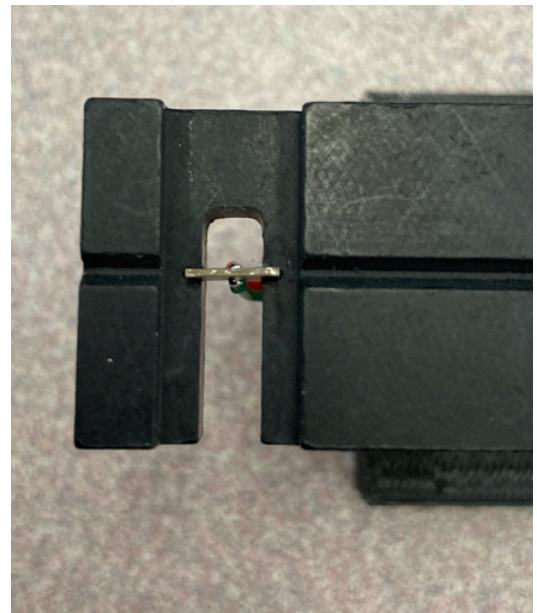
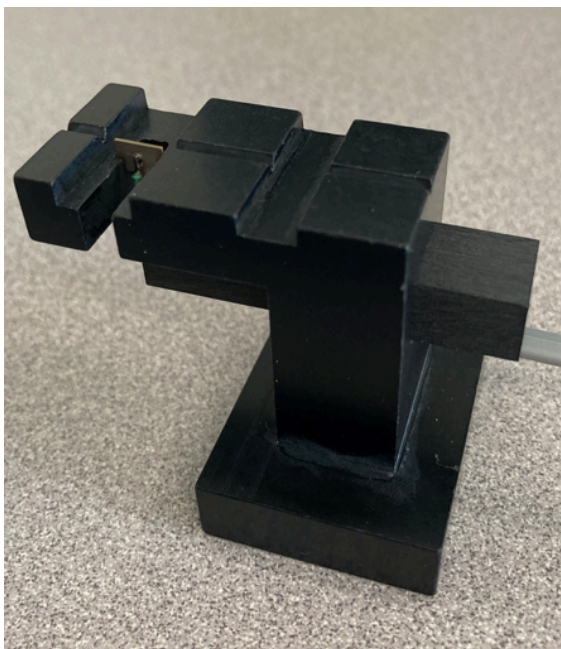
Once the RJ 11 has been cleaned, bend the the green and red wires to 90° halfway between the piezo and the grey insulation.



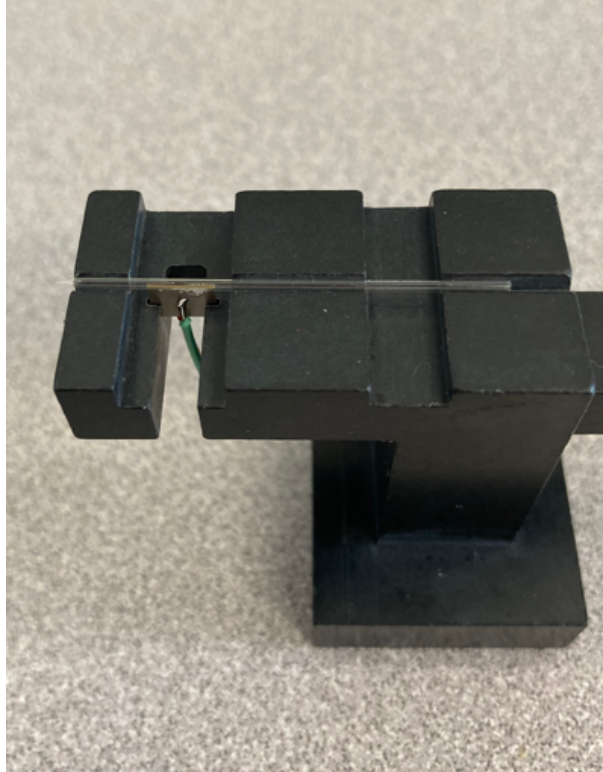
Insert piezo through the square cutout on the back of the jig and place piezo into small slot.



Push RJ 11 down and use provided pin to secure RJ 11. The piezo should align with the slot running across the top of the jig.



Use this slot to attach a new micropipette using a cyanoacrylate glue. Apply a thin bead of glue to the top of the piezo, ensuring no glue gets on the faces of the piezo. Position the micropipette in the slot such that the tapered end (tip) does not extend more than 7mm from the piezo.



Once the glue has cured, carefully remove pin and lift piezo and micropipette away from assembly jig. Carefully pull RJ 11 through the square cutout to fully remove piezo and micropipette from jig. If a glass micropipette has just been attached, shorten the opposite end of the micropipette by scribing the glass and breaking it. Use a scoring wafer such as the Sutter ceramic scoring wafer (www.sutter.com, part number CTS). Re-assemble the dispenser by reinserting the piezo and micropipette into cartridge and tightening the two black plastic screws.

There are several critical parts in the replacement process:

- Use a thin, quick-drying glue and not a gel formulation in order to have the best transmission of ultrasonic vibrations to the micropipette (We recommend Crazy glue).
- Use a fresh tube of glue every time; old glue can result in poor adhesion and improper functioning of the dispenser.
- Ensure correct alignment between the piezo and micropipette slot.
- Scribe and break the glass micropipette cleanly to avoid glass particles from entering the capillary.
- Avoid touching the glass micropipette tip. The slightest contact will break the tip.