Repairing Kurio Tablet Micro USB Connector (charging port)

If the USB micro jack / charging port on your Kurio tablet is broken, it is possible to repair it. This guide explains how, and includes pictures of the process. Please note that this is a rather difficult repair process.

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INTRODUCTION

This guide will explain how to replace a broken micro USB connector on a Kurio tablet. This process is very difficult; it is simpler and easier to just replace the mainboard (used mainboards can be found on eBay).

TOOLS:
- Soldering Iron (1)
- Digital Multimeter (1)
- Solder (1)
- Phillips #0 Screwdriver (1)
- Flathead Screwdriver (1)
- Probe and Pick Set (1)
- Small Needle Nose Pliers (1)

PARTS:
- Replacement Kurio Micro USB connector (check eBay) (1)
Step 1 — Identify the problem

- Before beginning, ensure that the USB micro jack is the problem. Try a different USB cable or charger. See if you can identify damage to the jack without opening the device. It's a bit tough to see in the photo, but this micro USB jack has been damaged: it has only four of the five internal connectors.

Step 2 — Disassemble the Kurio

- Remove the four screws that secure the back case. Gently pry off the back case, being careful not to crack...
it or bend the screen or mainboard. A flathead screwdriver may help with this task.

Step 3 — Detach the mainboard

- Unscrew the three silver screws holding the mainboard in place. Flip up the plastic retainers that clamp the two ribbon cables into their connectors. Peel back any tape holding the cables or mainboard down. Then flip the mainboard over. Don't detach the wires leading to the battery or WiFi antenna! They are soldered to the mainboard.

Step 4 — Remove the damaged micro USB connector

- Remove the damaged micro USB connector, carefully, without damaging the mainboard or surrounding components. This is tricky. You'll want to heat it with a soldering iron, and gently pry it away from the board. You may need a helper to use pliers while you apply heat. Make sure to heat the contacts to avoid ripping the traces off the board!
Step 5 — Attach the replacement micro USB connector

- Attach the replacement micro USB connector. It helps to first clean the area with flux, and remove old solder from the traces. You'll want to gently bend the new connector's pins towards the board, and tin them and the board traces with solder in advance. Pop it into place, then heat the connector pins (not mounting posts) to secure it.

Step 6 — Test, then secure the new connector with adhesive

- Use a multimeter or continuity tester to ensure no traces are bridged or shorted. Four of the five connector pins lead to nearby test points on the mainboard (one pin in not connected to anything). If everything works, use solder and strong epoxy to fix the new connector in place. Do not get any solder or epoxy inside the connector!
Step 7 — Reassemble the Kurio

With the new connector installed, tested, and secured, reassemble the Kurio. Since the new connector is glued in place, future replacements will require a new mainboard. The correct micro USB connectors can be found on eBay.

Thanks for reading! If this guide helped you or you have suggestions, be sure to let me know.