

CORTADO SERVICE BULLETIN #15.11.1

Applies to: Only Cortado serial numbers ZD1201 through ZD1251

Symptom: Low or no sound from the Cortado output, only when the piezo disc is hit very hard.

Cause: Quiescent bias current through Q1 and Q2 set too low.

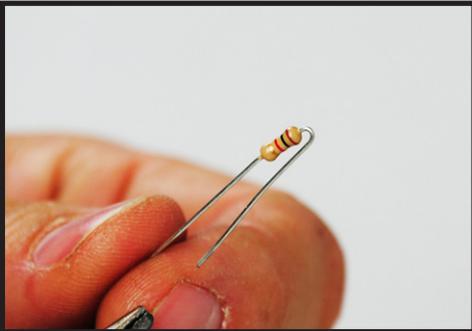
Solution: Lower bias resistor value by adding parallel resistance.

If your kit's serial number is between ZD1201 and ZD1251 then you received a 1K5 Resistor for R8. Most likely your circuit will work fine using this bias resistor value for R8. On some rare occasions (depending on the transconductance of the FETs), the circuit will not bias properly using this resistor value. This would appear as a very low output, and then only when the piezo disc is hit very hard, as if the signal just barely has enough current to get through the circuitry.

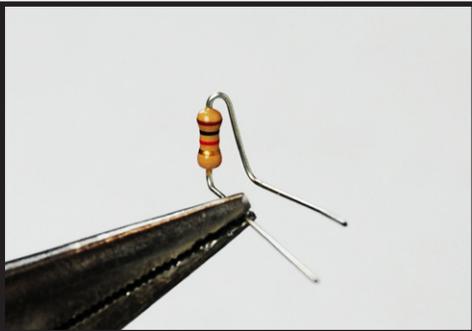
If your Cortado kit is between serial numbers ZD1201 and ZD1251, and you are experiencing the issue described here, this could mean that your FETs are not biasing properly with the 1K5 bias resistor (R8). This issue can be rectified by placing a 1K resistor in parallel with R8, the 1K5 resistor. This effectively lowers R8's resistance to ~600 ohms which allows more bias current to flow through Q1 and Q2. If you need a 1K resistor, please contact us and we will send you one that you can use for this mod.

The procedure consists of soldering the 1K resistor to the solder side of the board across the solder pads of R8.

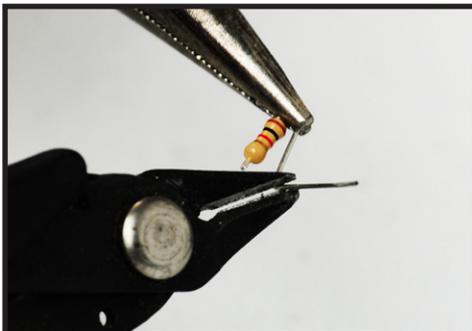
1. Bend one lead on the 1K resistor the same way you bent R8



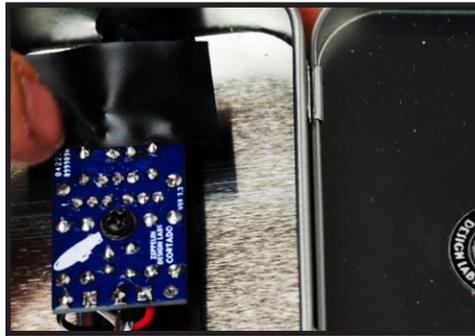
2. Bend both leads at a 90 degree angle, as pictured.



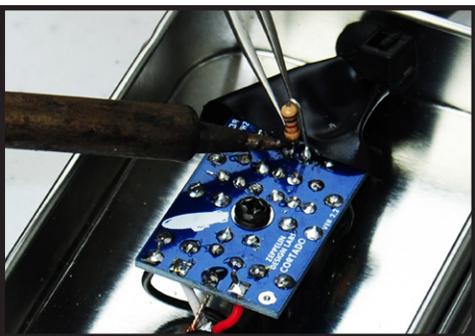
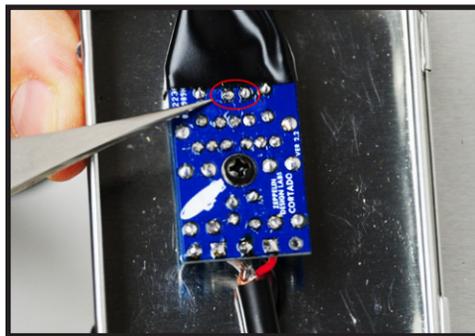
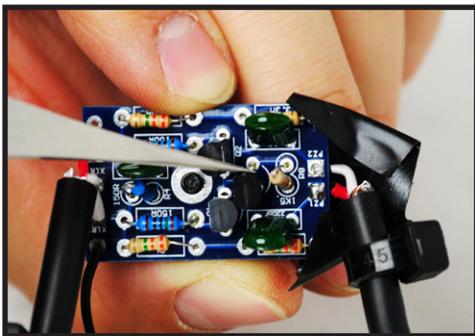
3. Cut the bent leads about 2mm after the bend.



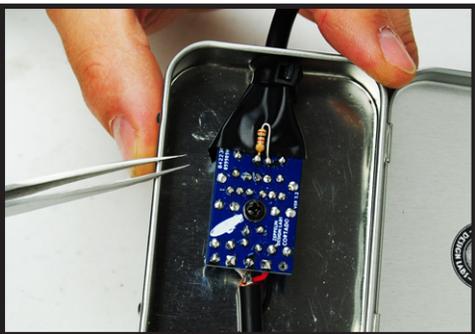
- Place a piece of electrical tape on the board to keep the resistor from shorting out against any other components.



- Solder the 1K resistor on the pads of R8. Before you solder the resistor double check to make sure you know which pads are connected to R8. See photo.



- Bend the resistor over against the electrical tape.



Once you have finished the soldering procedure double check the solder joints to make sure they are solid. The next step is to plug your Cortado into your mixer and see if this fixed the problem. If the issue was a low bias current, this should have fixed the problem.