

How can I detect if my electrodes are broken?

Probably you have experienced this already: You have a bad EEG signal or when you press the "Check Impedance" button on your NeuroAmp only the lowest red LED lights up.

In this case one of your electrodes could be broken. You do not have to exchange the whole set. With a simple test you can find out which electrode is broken. This one can then be exchanged by an electrode of the same material. The color of the electrode is not relevant.

This is how to perform the test: You plug 3 electrodes into the NeuroAmp sockets of channel 1. Even better is to plug electrodes into all five sockets (channel 1 and channel 2). Then you hang the electrodes into a glass of salt solution. You can dissolve some reagent grade salt in distilled water or a pea-sized piece of Ten20. This will make the water conductive and you should then get green readings on all impedance bars when pressing the "Check Impedance" button. The broken electrode will show as a red LED. Please note that the impedance meter always needs at least three working electrodes in order to measure. This is why you should connect all five electrodes, if possible. If only the middle bottom LED is red, then possibly the electrode plugged into the GND socket is broken. Exchange this one for another, because this electrode must always work for the test.

The impedance check should be performed routinely before each session because a broken electrode cannot always be seen in the EEG.