FRI-2147

EEG Headband Kit

User's Guide

The FRI-2147 EEG Headband Kit is a convenient accessory for recording EEG signals from the brain. It has a number of spaced holes, where electrodes can be placed in the desired locations for signal measurement. Electrodes are placed on the skin side of the headband, with the top snap portion emerging through the hole. The electrode cables are snapped on top. The headband is completely adjustable for most sizes, and comes with an elastic chin strap to adjust the tension for comfort.

The unique features of the TDE-2147 are that it contains a combination of snap electrodes (for the forehead) and dry electrodes for temporal lobe measurements. The appropriate leads are included.

http://www.floridaresearchinstruments.com

Usage notes

The headband is shipped fully assembled, to help show how it is configured. We recommend you have someone help you to adjust it to your own head.

This manual is for the headband only. You will also need electrodes & cables to measure the signal, and Q-tips & rubbing alcohol to cleanse the electrode skin contact sites.

Florida Research Instruments recommends using two types of electrodes with the EEG Headband - the Flat Snap with Lead Wire [TDE-205], and/or the Disposable / Reusable Dry EEG Electrode [TDE-200]. The main difference between these electrodes is that the "dry" electrode has tiny prongs to help press into the skin. However, both can be used with or without saline. The Flat Snap electrode is recommended for hairless skin such as the forehead. It will be more comfortable. The "dry" electrode is recommended for areas with (thin) hair obstructing the electrode. There may be some problems with long or thick hair, it needs to make good contact with the skin to get a good signal. In most cases injecting electrode gel will solve the problem.

For the snap electrodes, the TDE-205 lead wire is recommended. For the dry electrodes, the TDE-207xx Lead wire is recommended for connecting the electrodes to your EEG measurement device. One end snaps to an electrode, the other is terminated with a standard biomedical safety plug. It is available in a variety of colors.

To use the headband:

The recommended placement is:

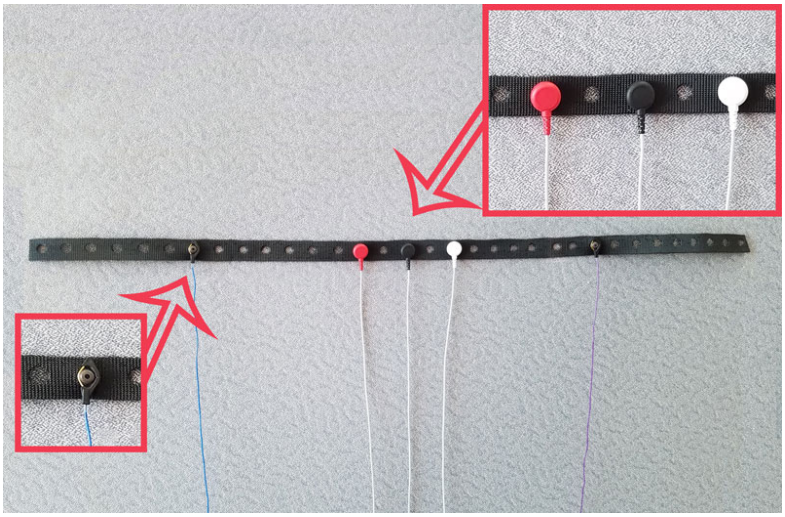
- 3 Snap Electrodes across the forehead
- 2 "dry" electrodes, one behind each ear

There are 2 basic steps:

1. **Attach electrodes to band**
2. **Wrap band around head**

1. Attach electrodes to band

Your headband may arrive with electrodes already in place. If they are removed, or they are not spaced appropriately for your head, you will need to attach the electrodes. This will be easier to do with the headband removed from your head. Electrodes are placed underneath the strap, with the snap poking up through the nearest hole. Then, the cable is pressed on top of the strap/electrode. You may need to wiggle it to make sure your cable has a firm connection with the electrode. It should not pop off or move. This process is the same for both types of electrodes included in this kit.



2. Wrap band around head

Forehead electrode placement

Temporal lobe electrode placement

After attaching the electrodes/cables to the headband, prepare to place the headband on on the head. Hold the headband in place to see where the electrodes will touch the skin. Moisten a Q-Tip in rubbing alcohol, and scrub the surface of the head directly underneath the contact point for each electrode. This will remove oil/debris from the skin, resulting in a better signal. Then place the headband on the head, with the center electrode in the center of the forehead. In the photo, the lead for the center electrode is black.

Congratulations! You are now ready to measure electrical potentials!

Check out our website for additional accessories and tools for measurement.

http://www.fri-fl-shop.com

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