

Brainfingers

Getting Started

Verson10

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Installing the Brainfingers Software

Download and install the latest version of the software from
http://www.brainfingers.com/ba10.htm

Once the software is installed, depending on your computer set up, you may need to set the software to run with Administrator privilege. This can be done by right clicking on the Brainfingers BA software icon, then click on Properties, Compatibility, Change Settings for all Users, and then check the box 'Run this program as an Administrator.'

Setting Up the Brainfingers Hardware

The hardware consists of:
- Brainfingers Headband
- Amplifier
- USB Cable, found behind black liner
- Three Sets of Replacement Sensors, found behind black liner
- Tube of Sensor Gel, found behind black liner

Use the USB Cable to connect the Amplifier to your computer.

The headband is made up of 6 sensors; they have a shiny side, which faces out. The shinny coating on each of the 6 sensors results from encasing the sensor holders and headband wires with a high-strength slow curing black epoxy.

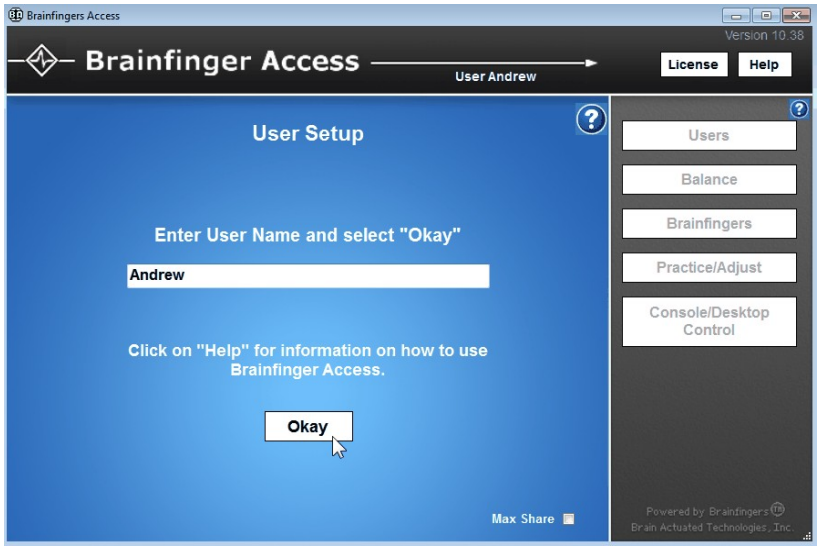
The dull gray side is the actual sensor, which presses against the forehead. The gray wire of the headband with plug needs to run down the left hand side of the head and be plugged into the front of the amplifier.

The headband is adjustable by using the elastic cord with the cord spring stop for fine adjustment and the clamp on the thick wire for gross or large adjustment. To move the clamp you have to first loosen the elastic cord around the clamp.

Once the headband has been put on it should be placed in the middle of the forehead. Make sure all six sensors are touching the forehead. It is a good idea to check that each sensor is in good contact with the forehead using a gentle finger touch to the shiny side of each sensor.

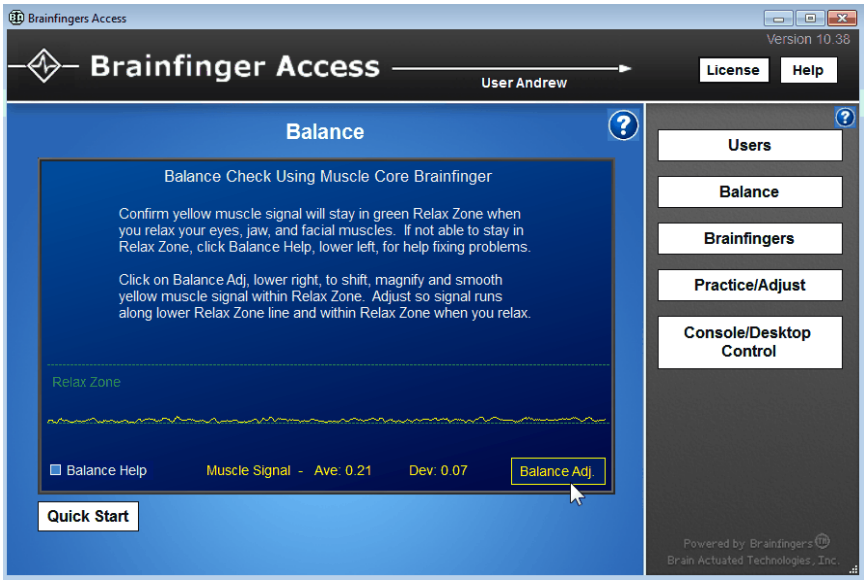
Brainfingers Software – Quick Start

Double click BA icon to launch Brainfingers; enter a user name. The next time you launch you will be asked to choose this user or to enter a new user name. Adjustments made for a user are saved, thus it is important to create a unique name for each user.



Click on **Okay** button. This will take you to the Balance Check window.

Balance Check Window



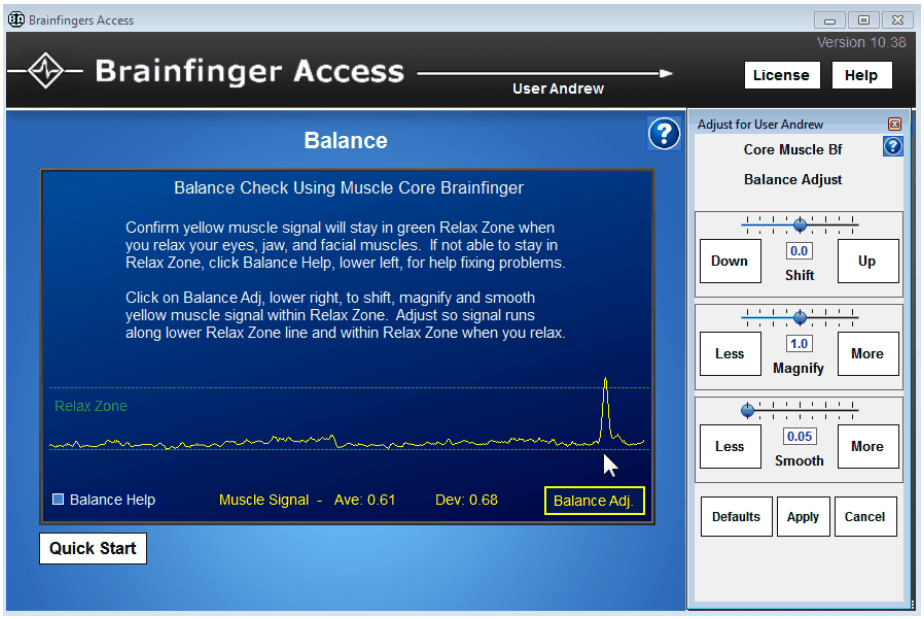
The Balance Check window shows your muscle signal in yellow and a green Relax Zone. Notice smoothness of yellow line in the above example. This is the desired response. If you relax your facial muscles the yellow muscle line will become smoother and move down towards the lower part of the green Relax Zone.

If the yellow muscle line does not stay in the Relax Zone when you relax facial muscles select **Balance Help** checkbox to assist you with checking for possible problems due to external noise and or headband to forehead connection.

Select B**alance Adj** to bring up the Core Muscle Balance Adjust window.

Here you can fine-tune your yellow muscle signal by shifting it up or down within the Relax Zone by changing the **Shift** value, making it more or less responsive by increasing or decreasing the **Magnify** value, and making it more or less smooth by changing the **Smooth** value.

Notice in the window below, the user did a slight eyebrow lift at the end of the sweep of the yellow muscle signal to confirm that the signal was both smooth when he relaxed and responsive to the slight muscle contraction at his forehead.



Once you are satisfied with your muscle response, close the Balance Adjust panel by clicking on **Apply** or **Cancel**.

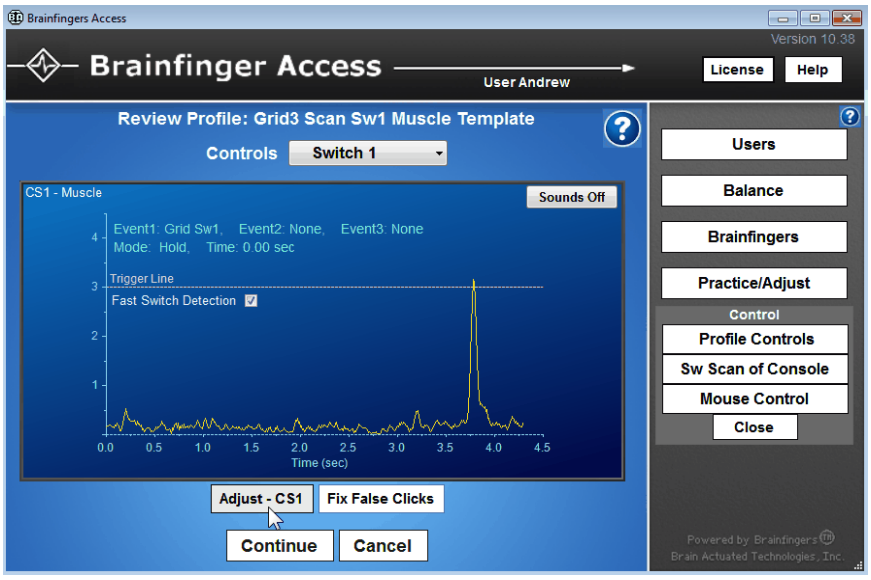
Then from the navigations buttons on the right select **Console/Desktop Control** and then select **Profile Controls**. This will bring you to the Desktop Control window where you can select a Profile to control a third party software package, such as Grid 3.

Desktop Control with Profile



Select **Grid 3 Scan Sw1 Muscle Template**, and then select **Launch Profile**. This will take you to the Review Profile window.

Review Profile



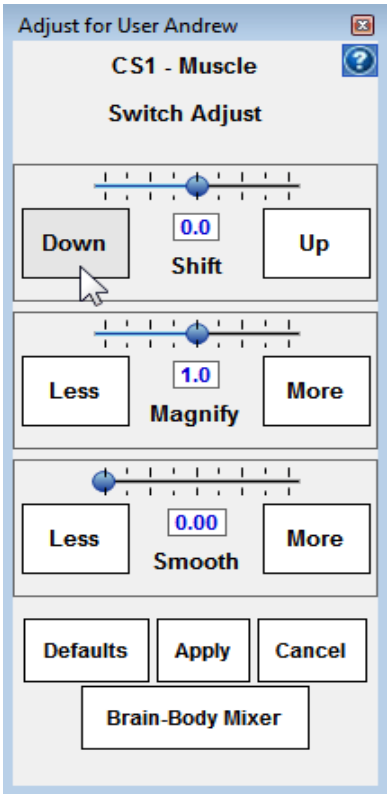
The Review Profile will show your muscle signal (yellow line) and a Trigger line. When you carry out a muscle action (e.g. eyebrow raise, swallow, clenching teeth together etc) and your muscle signal goes above the Trigger line it will activate a computer event "Hold Switch". This trigger action is shown in the image above. Further note that the Event 1 that will be triggered is "Grid Sw1". In other words, the Grid 3 software will recognize an external switch connected to it's Grid Sw1 port is being held closed.

Switch Adjust

If you select **Adjust – CS1** you will be able to adjust your control, a CS1 Muscle Switch Adjust window (shown below) will appear to the left of the Review Profile window.

The three adjustment options allow you to

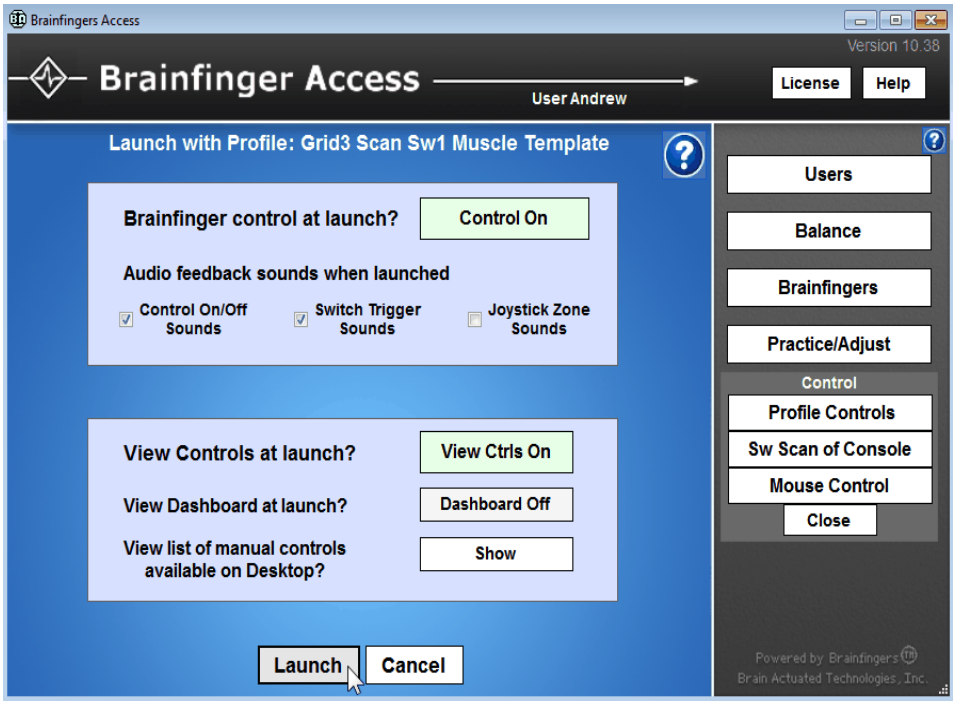
- **Shift** – Move your muscle signal line in relation to the Trigger line, this can be used if your muscle action is only very small or too big.
- **Magnify** – Adjust the muscle signal so that it requires less or more effort.
- **Smooth** – This will smooth and flatten out the muscle signal; it will also allow the switch to respond slower.



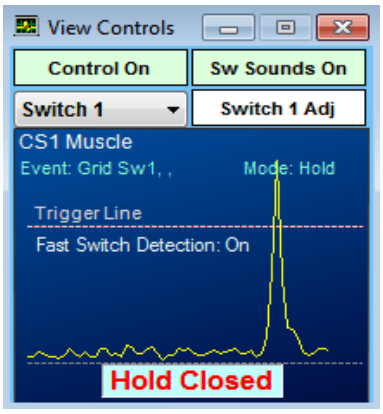
Close the adjustment window by selecting **Apply** or **Cancel**. Then within the Review Profile window select **Continue** to go to the Launch window.

Launch

The control at launch settings can be left as standard; control of computer events will be on and the switch sound Brainfingers makes when you go over the trigger line will be audible. When ready to go to your desktop select **Launch**.



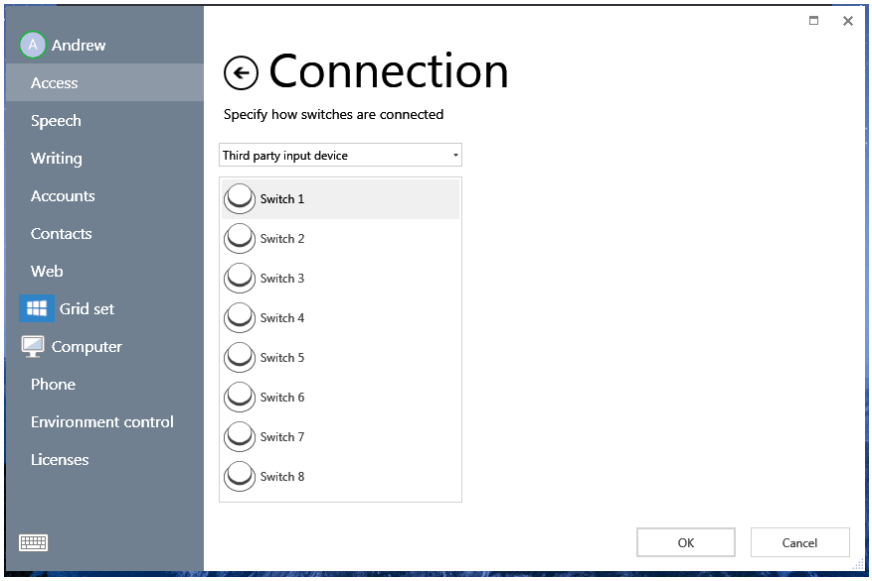
The Brainfingers screen will now shrink down to a small box in the upper right, shown below, that shows your Brainfingers control window. You can now start Grid 3 and set it up for using it with the Brainfingers software.



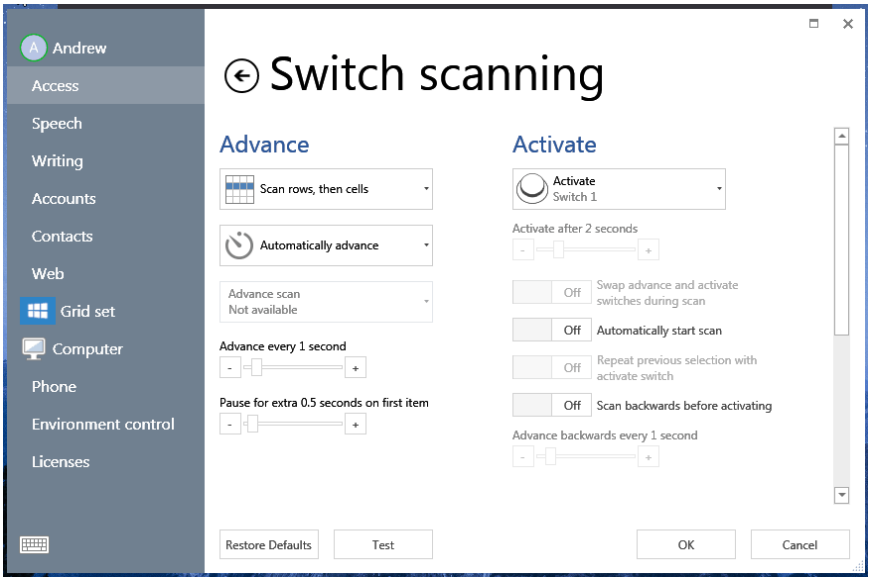
Setting up in Grid 3

If you have not got Grid 3 installed this can be done from the Grid 3 Online Installer: https://thinksmartbox.com/product/grid-3/

With the Brainfingers software running, Grid 3 can be set up for switch access. To set this up, go to the Menu bar – Settings – Access – Switches – Connection. It needs to be set to Third Party Input device.



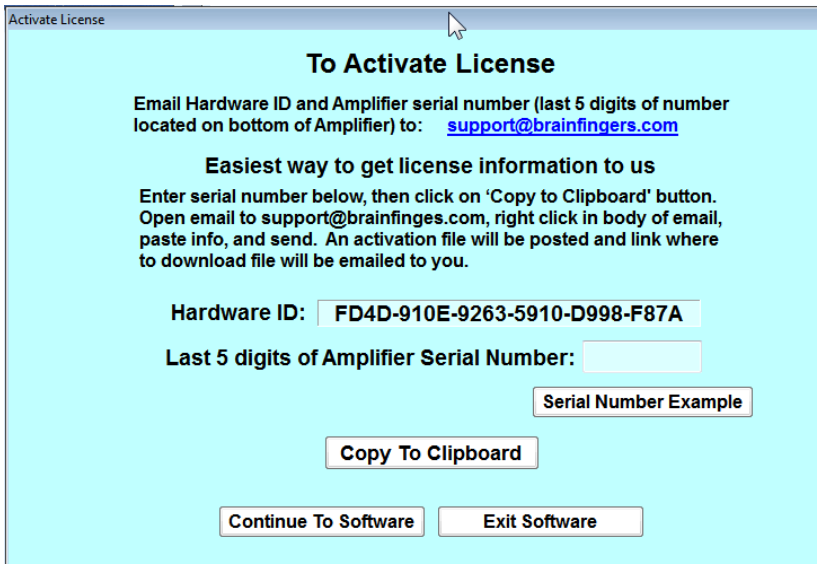
Once selected under Switches go to Activation, on this Switch Scanning screen you can set up the scan pattern and timing for the switch scan. When you have finished setting it all up, it can be tested from the Test button at the bottom of the screen.



On the test page when you make your muscle action you should hear the beep (unless turned off) from the Brainfingers software and also see it scanning. Once tested you can then press OK, Grid 3 will now be set up for control by Brainfingers.

Licensing Your Software

Once installed the software will run on a computer for a 30-day trial. After purchase a trial version can be converted to a license version. This is done from the Brainfingers software; click the button for License (top right). The License screens will indicate how many trial days are left and give the option to activate the license.



For Activation, you need the last 5 digits of Amplifier Serial Number and Hardware ID. The serial number is found on the bottom of the Amplifier, an example is shown below:



Follow the directions in the license screen to send the last 5 digits of serial number and the Hardware ID to support@brainfingers.com. We will create and post an activation file, and email a link to the post back to you.

Headband Maintenance

Cleaning

It is best to clean the headband and sensors with soap and water. Antibacterial soap can be used. Alcohol can be used for wiping sensor surfaces clean. **However,** soaking the headband in alcohol should not be done as soaking the black epoxy in alcohol can degrade the epoxy coating and thus degrade the strength of the headband.

Make sure headband is dry before using.

Replacing Sensors

The sensors on the headband usually need to be replaced between 4 – 7 months. The sensors just snap on to the back of the headband and can be replaced by gently unsnapping the old sensor and then pushing on a new one. A picture of this is below.



Further Settings

To help with further adjustments of the Brainfingers software, take a look at the Brainfingers Access Help file that can be opened from the Help button in the top right hand corner of the Brainfingers window. There are also hyperlink help icons, appearing as question mark icons, within each Brainfinger Access window. Please note the Help button and hyperlink help icon in the image below.



Help File

Shown here is the opening window of the Brainfinger Help file.

