

THE AUTONOMIC BALANCE — TRAINING SYSTEM —

ABTS Device Leads and Set Up

The following are the 6 leads (wires) that come with the ABTS Unit.

- 1 belt for Respiration Rate and HRV
- 1 black lead for EMG
- 1 white lead for EMG
- 1 green lead
- 1 black lead for temperature (rectangular portal)
- 1 red lead for GSR

When you run the software, a diagram will appear to the right of the screen that demonstrates where each lead should be inserted into the ABTS device. Also, the ABTS device has marked slots for each wire to be inserted.

Respiration Training: The **respiration belt** is placed above the navel and adjusted to fit snugly. You should have enough gap to place one finger between the belt and your body.

HRV Training: The **respiration belt** is placed above the navel and adjusted to fit snugly. You should have enough gap to place one finger between the belt and your body. You will also need to use the **black lead** for ECG (Heart Rate), the **white lead** for ECG and the **green lead** for “ground”. Clean the skin area where the electrodes will be placed with an alcohol prep pad. Snap on the disposable electrodes to the leads before placing on the body. The **black lead** is placed on the **right** side of the chest, below the collar bone. The **white lead** is placed on the **left** side of the chest, below the collar bone. The **green lead** is placed around the knuckle of the thumb with the Velcro strap. **For patients with a pacemaker: instead of on the chest, place the black lead on the inside of the right wrist and the white lead on the inside of the left wrist. Make sure you do not move your arms during training.**

EMG Training: The **black and white leads** are for EMG (muscle tension). Clean the skin area where the electrodes will be placed with an alcohol prep pad. You will snap the leads on the disposable electrodes and place the **white lead on the left side** and the **black lead on the right side** of the back of the neck on the trapezius muscles (shoulders) or on the forehead (directly above the arch of each eyebrow, with the wires going back over the head if using the forehead placement). Wrap or intertwine the black and white leads as this can help strengthen the signal to the device.

The **green lead** is the "ground" lead. This should be used with the small velcro strap. The end of the green lead should fasten to the velcro strap like a button. This strap should be fastened around the knuckle of the thumb. Be sure to wear the green lead as ground whenever you train on EMG (muscle tension). A second option for the green lead is to attach with the disposable electrodes to the spine at the back of the neck (must be on a boney area).

THE AUTONOMIC BALANCE — TRAINING SYSTEM —



Temperature Training: The black **temperature lead** should be taped to the index finger with medical waterproof tape (which can be purchased at any drugstore). You should only need about one inch of tape.

GSR/SC Training: The **red lead** and **green lead** are for GSR/SC training (sweating activity). These should be used with one of the small Velcro straps. The end of the red and green leads should fasten to the velcro strap like a button. The strap of the red lead should be fastened around the finger tip of the middle finger with the metal sensor opposite the fingernail. Be sure the metal sensor is not on a boney area. The green lead should be fastened around the finger tip of the ring finger with the metal sensor opposite the fingernail. Be sure the metal sensor is not on a boney area.

Where to Purchase Electrodes

Electrodes are available for purchase online. Any pre-gelled, snap on electrode will work with the device. Some inexpensive options available on Amazon and Ebay are listed below.

Amazon: Item name “3M Red Dot Foam Monitoring Electrode, 4.4cm Diam., 50/bag, 3M9640”



Ebay: Search for “BioProtech disposable ECG electrode”

