



ANIMAL THERAPY SYSTEMS

...The Exclusive Distributor of the Animal Calibrated Electro-Acuscope/Myoscope Therapy System. This system is the only biofeedback modulated microcurrent therapy system available in human and animal healthcare today.

How important is it to have Acuscope calibrated for animal use?

The instrument calibration is a very important factor due to the remarkable differences which exist between the electrical current distribution networks of human and equine patients. Therefore, for faster, far-superior results the Electro-Acuscope and the Myoscope have been specifically calibrated to interface with equine anatomy.

Several years ago, the inventor of the Acuscope, Dr. Anthony Nebrensky, and Joyce Jackson (founder of Animal Therapy Systems) closely studied the anatomy of animals and calculated the differences between animal and human physiology. They determined that adjustments made to the calibration allow the instrumentation to more precisely monitor feedback and calculate micro-electrical responses to various parameters (e.g. impedance, tissue viscosity, various electro-chemical considerations, velocity of current conduction, etc.)

The animal-calibrated Acuscope and Myoscope surpass the human-calibrated instruments in their ability to fine tune the muscles, tendons, ligaments, fascia, and nervous system of the animal.

In the collected measurement of bio-impedance from cross sectional areas, excitation points can show up to 30%-90% in difference (depending on the breed of animal) caused by dynamic changes in pulsatile blood flow to organs, arterial pulse waveforms and respiration. This means that if the instrument is not calibrated for animal use, the impedance window becomes too large and the



constant current stage of the excitation source will not be able to supply enough voltage to keep the signal constant. This will result in lower than expected values, noisy "pulsatile" imprecise and indistinct data signals. The inventor of the Acuscope Dr. Anthony Nebrensky and the manufacturer now strongly recommend Acuscope users who are treating animals to use instruments calibrated specifically for use in animal therapy.

How do I find out if my instrument is animal calibrated?

If you are buying a used instrument you can verify by serial number of the device if the instrument was calibrated for equine or human use. Contact Animal Therapy Systems for verification. Arrangements can be made if animal calibration is found to be necessary for your practice.

How much it will cost to have Acuscope calibrated for animal use?

When purchasing new equipment there is no additional charge for animal calibration. The charge to re-calibrate used equipment will depend on the condition and age of the equipment. Some instruments in the marketplace can be over 25 years old.

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Why is conductive solution important?

Special characteristics of conductive solutions are very important because they influence the degree of benefit your patient will receive. Often misunderstood, the ion composition of solution materials merit special consideration. The solutions developed for animal therapy have a multi-purpose task.

- 1) stability of electrode potentials;
- 2) ability to reject "noise" under the electrodes;
- 3) ability to match the input amplifier impedance;
- 4) ability to eliminate distortion due to phase shift difference at various frequencies and biological conditions etc.

How are ingredients able to penetrate the skin in order to work?

EquiSol type solutions were developed based on micro-ion technology with selected polar ingredients to match the mutual attraction effect between positive and negative ions moving simultaneously under the direction of the instruments signal. The conductive solution is used to insure penetration and absorption down to the blood vessel to nourish and repair tissue as well as regulating stability of electrode potentials.



Can other conductive electrolytes such as EKG, EMG, EEG or Ultrasound high velocity compounds be used to substitute conductive solutions specially developed for Acuscope animal therapy?

Absolutely not if you are sincerely concerned about your client's short and long term rehabilitation treatment benefits.

The electrode/solution/skin interface is one of the most critical areas of concern in the proper usage of the instrumentation. Unmatched electrolytes can overproduce or diminish the average response magnitude and even produce unwanted voltages, therefore causing waveform distortions and thereby canceling the intended tissue restoration benefits.

For example when you use other conductive compounds, loading of electrode current density is increased and the resistive and reactive components of the electrode-electrolyte impedance become non-linear.

Because of this non-linearity, the magnitude of the electrode impedance becomes a function of the amplitude of the bioelectric event. Thus small and large-amplitude signals will encounter different impedance; therefore creating conflicts with undesirable or counterproductive therapeutic yields. Each electrolyte will produce its own physiological effects.

The conductive solution compounds such as Equisol 2000 and other manufacturer suggested products specially developed for animal therapy are essential and the only suitable choice.

To learn more about Equine or Canine Acuscope Therapy, and/or becoming a Certified Equine or Canine Acuscope Therapist, please contact Animal Therapy Systems