



IOM

Cadwell® Cascade® IOM

Overview

The Cadwell Cascade is a powerful, multi-modality system capable of performing EP (including SEP, TceMP, BAEP, VEP), free-run EMG, stimulated EMG, EEG, and train of four tests simultaneously. The Cascade can also be used clinically for multi-channel evoked potential testing and other applications.

The Cascade was designed with portability as a priority. The base unit weighs only 4.25 lbs. The

Cascade can be configured with a laptop computer for portability or as a desktop PC-based system.

Hardware designs that make a difference

Amplifier

The Cascade amplifier utilizes Crosspoint Technology. This unique technology provides the flexibility of a referential amplifier with the super quiet qualities of a true differential amplifier.

- 16-channel/32 input configuration.
- Dynamic montaging allows any combination of inputs be connected to a channel for unlimited channel utilization.
- Each channel has independent gain, hi-cut and lo-cut filter controls.
- Extensive shielding minimizes interference associated with long electrode cables.

Input Extenders

Input extenders effectively place the amplifier inputs closer to the electrode site. The patented shielding in our cable significantly reduces noise and allows the use of shorter electrode cable lengths. The main amplifier may be placed away from the operating table without any loss of signal fidelity or increase in interference.

- Each patented extender has eight inputs plus one ground with a molded shielded cable.



32-input amplifier with input extender

Electrical Stimulators

The Cascade has a variety of electrical stimulator options to suit a wide range of needs. Cascade stimulators display actual current delivered so you always know how much current is being delivered to the patient.

- ES-5-5: Four high current outputs (0-100mA) and one 0-5mA output.



ES-5-5 and ES-5-100 Stimulators



Cascade system with travel case

- ES-5-100 : Five high current outputs.
- ES-5-5V: Four high current outputs and one 0-5V output. This device does not provide current delivery information.
- ES-16: 15 high current outputs and one 0-20 mA low current output.
- ES-5-20: Four high current outputs and one 0-20 mA output.
- TCS-1: A constant voltage, transcranial stimulator with programmable train stimulation, 800V and 1000mA
- ES-5 : Four high current outputs and one 0-10 mA low current output, can be daisy chained with another ES-5. This device does not provide current delivery information.



Cadwell TCS-1 Stimulator

EP Stimulators

- Auditory click with insert earphones, shielded or lightweight headphones.
- Visual with LED goggles or strobe flash.



Cascade base unit with laptop

Innovative Design

With patented amplifier extenders, hardware built for durability, and an exceptionally small and light base unit utilizing micro miniature circuitry, the Cascade is unique in the industry.

Real Remote Monitoring

Everyone involved in a case can't always be present during surgery. That's why Cadwell has taken remote monitoring a step further. Any PC that's connected to a LAN or VPN can view the live data in real time. Remote viewers can set their views the way they want to see the data and can even change views and review data during the procedure independently from the technologist in the operating room.

Software simplifies set-up and use

The Cascade software offers sophisticated, powerful and easy to use features that allow you to provide superior care to your patients.

- Logical and intuitive keystrokes and mouse clicks using our Windows® XP software interface.
- Flexible data views give you the data you need when you need it.
- Unique procedure setup makes it easy to build and edit a test.

- True interleaving of multiple stimuli or manual control of each modality.
- Reporting features you've come to expect from Cadwell, such as traces, tables, predefined paragraphs, automatic sentence generation and more.
- Resize, move, maximize, or minimize any data window any time with a single mouse click.
- Detect electrosurgical devices and automatically pause acquisition and mute audio during their use.
- NerveGuard™: Automated EMG and threshold detection software reduces testing time.
- Files and event lists can be easily transferred to other Cascades, saving time in facilities with multiple systems.
- Auto Place Cursors feature accurately marks peaks for you.
- Stimulus Delivery Tone feature lets you and the surgeon know when the stimulus probe touches the patient.
- Pre-defined or "on the fly" comments can be added to the event record along with averages and related video images.



Cadwell ES-16 Stimulator

- Reject Settings: Unique user interface allows you to improve signal quality by quickly setting individual reject threshold levels for each channel.
- Review stored EEG and watch live EEG at the same time.
- EMG threshold detection with auto capture, auto store and selectable sound presentation (beeps, words, muscle name, etc.).
- Custom trace labels give you instant access to critical information.
- Flexible trending displays give you important data at a glance.
- Window for surgical microscope or other video views.
- Built-in impedance testing for all amplifier inputs.
- Review cases on other compatible PCs.
- Review the record exactly as recorded anytime throughout the procedure.
- Extensive help files explain every component of the system.
- Copy and paste windows, screens or event lists into other outside applications.
- Built-in amp calibration and self diagnostics.
- Train of Four modality.
- CSA, DSA and trending.
- FFT and digital filter package.

Cascade®- The IOM Dream Machine™

Whether you are the sole user at a single hospital, or on the move monitoring in multiple facilities, the Cascade is the most advanced, easy to use neuromonitoring instrument available today. The software is so intuitive and logical you'll be amazed at how much time is saved setting up before surgery and how easy it is to make changes during surgery. The small, compact design fits into the crowded OR and can be easily moved from one hospital to another. After all, more informed surgical teams lead to better patient care; and that's what matters most.



Cascade's small footprint fits easily into crowded operating rooms.

Cadwell Labs- More than 25 years of innovation

Cadwell has been developing instruments for the neurodiagnostic and monitoring business since 1979. We set high standards and build products that advance technology and result in better patient care.

Want to see Cascade in your facility?

For a personal, no-obligation demonstration or quote on this instrument, call Cadwell at 800-245-3001 or 509-735-6481.

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