CADWELL®
Helping you help others

IN-PATIENT AND REMOTE EEG MONITORING SOLUTIONS FOR ROUTINE, AMBULATORY, INTENSIVE CARE, AND EPILEPSY

Arc EEG

MADE IN THE USA

WWW.CADWELL.COM

Arc EEG Amplifiers

Arc EEG is the result of a decades-long collaboration with our customers in response to the ever-changing needs of brain monitoring. Arc amplifiers are all rugged, drop-tested, and easy to clean and disinfect, with IP-22 water resistance to enhance patient safety.

Essentia®

Essentia is flexible and rugged enough for quality EEG in clinical practice, intensive care, epilepsy, and outpatient clinics.

Apollo™

Apollo offers flexibility from ambulatory EEG to the EMU. As patient volumes fluctuate, Apollo can be redeployed to meet needs.

Zenith™

Zenith provides high channel count extracranial and intracranial EEG, integrated cortical stimulation, and smart Zenect™ connectors designed for faster and safer workflow.

Essentia Amplifier

- 32 channels
- 7 active/reference pairs
- 250 - 2000 Hz storage rates
- Electrode continuity check
- Continuous impedance checking

Essentia is compatible with:

- Patient event button
- USB Photic Stimulator (1-60Hz)
- Remote Input Box with color-coded, secure inputs for convenient bed-side placement
- USB oximetry sensor (available in select markets)

Apollo Amplifier and Recorder

- 32 channels
- 3 active/reference pairs
- Compact and lightweight 1 lb. 3 oz. (539g)
- Continuous impedance checking
- Patient event microphone
- Compatible with a patient event button and a USB Photic Stimulator (1-60Hz)

Q-Video® Mobile 3

Capture HD video with automatic infrared activation, onscreen video display, and onboard battery adds ambulatory and remote monitoring video EEG functionality

Rugged Tablet

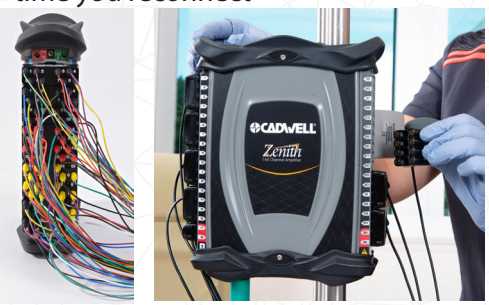
Integrated cellular capability provides remote or continuous monitoring for aEEG.

Zenith Amplifier

- Record up to 288 channels. 1MHz sampling with storage up to 8kHz
- Auto-generate montages and streamline input layout with auto input mapping (patent pending)
- Select any input as ground and any other input as the recording reference on any amplifier
- Fully integrated cortical stimulator.
- For functional mapping, use the software-controlled internal switch matrix for stimulation of any contact

Zenect™ Electrode Connectors

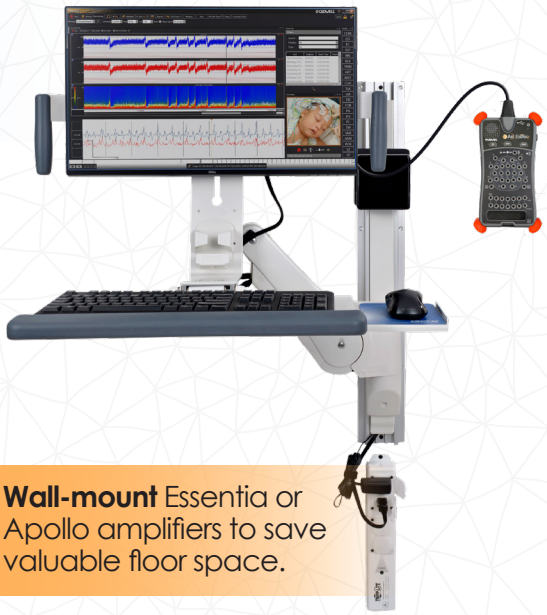
Patented smart ID mass electrode magnetic connectors associate each electrode to its waveform and maintain those associations every time you reconnect



Zenith without (left), and with (right) Zenect™ Electrode Connectors

Flexible Configurations: Carts and Wall-Mounts

Cadwell understands that carts are an important part of the EEG experience. Our configurations are designed with technicians and physicians - and their enviroments - in mind.



Wall-mount Essentia or Apollo amplifiers to save valuable floor space.

The robust **EEG Cart** features a small footprint, adjustable sit/stand workstation heights, an 8-foot telescopic camera mount, and individual removeable supply drawers. It can support an all-in-one or desktop PC, UPS, and a single monitor setup.

Use the lightweight **Fuzion Cart** in clinical practice with a laptop, small form factor, or all-in-one PC.

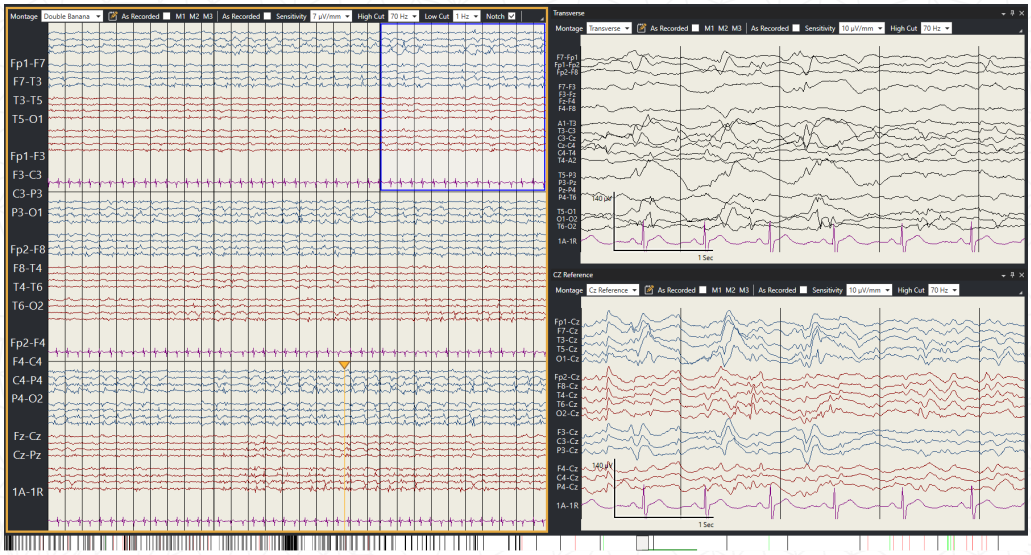
The **Pole Cart** offers a small footprint for intensive care units.

Arc EEG Software

software features the most recent EEG programming code in a new and simple platform that offers simple operation, easy to interpret data, streamlined assessment tools, and a rich report generator.

Arc software requires little training for new users, and helps you:

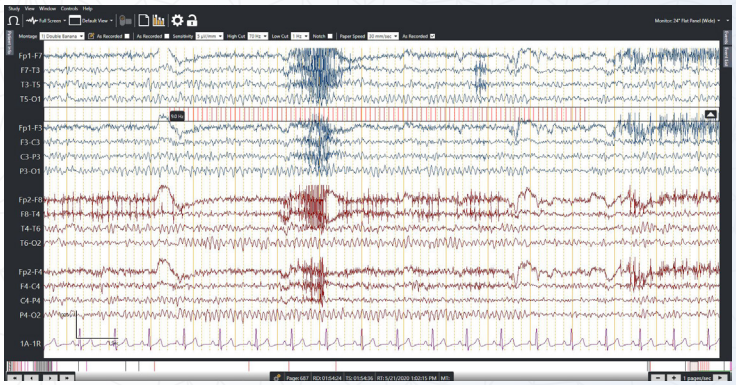
- **Save critical time.** Start a study with a single click and enter patent information later.
- **Capture important information.** Highlight videos, detect subtle movements, switch cameras, and add images to reports.
- **Review in record time.** Review and monitor live data simultaneously. Customize displays, auto-shade reviewed pages, and export just highlights. Quickly analyze EEG data frequency with automated FFT measurement tool.



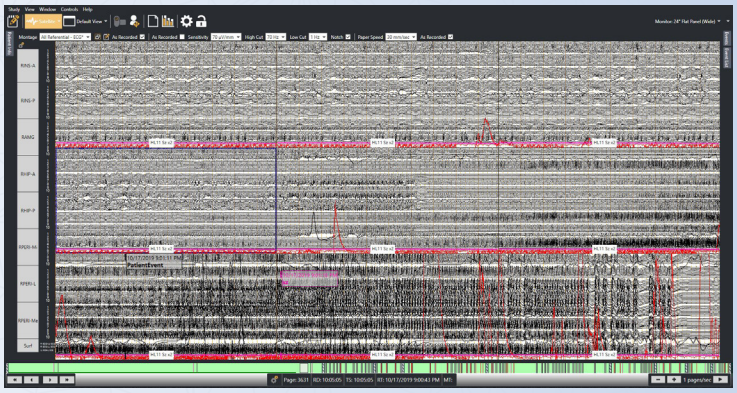
Each user can customize views, windows, paper speeds, and montages.

Software Features

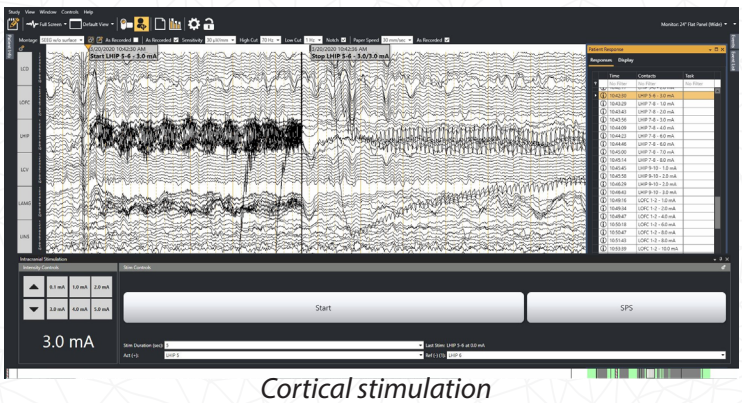
- Customize patient information fields
- Switch users without interrupting studies
- Set up user-specific study types, views, montages, windows, displays, hot keys, and event buttons
- Customize screen calibration to ensure appropriate display of EEG data regardless of monitor
- Align EEG traces
- Superimpose traces
- Customize report templates and create narratives quickly
- Import and review Easy® III EEG records
- Choose Persyst® or Synopsis for seizure detection
- Support specialized Laplacian montages
- Anonymize studies
- Export and share data with a universally compatible viewer
- And much more



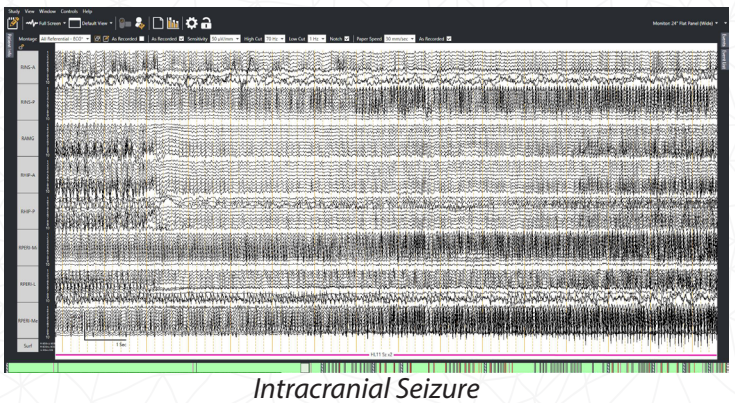
Routine EEG with Photic Stimulation



Intracranial Satellite View



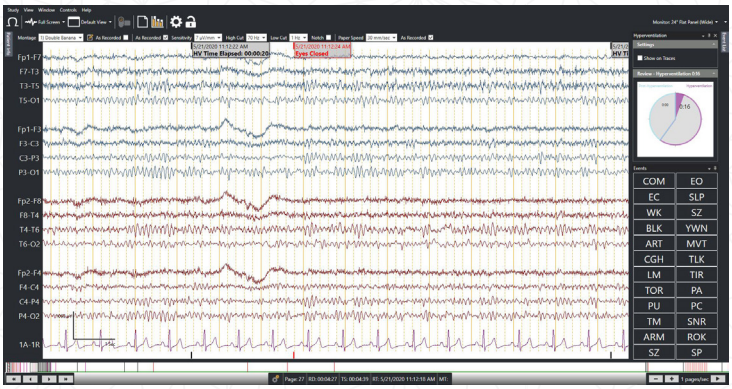
Cortical stimulation



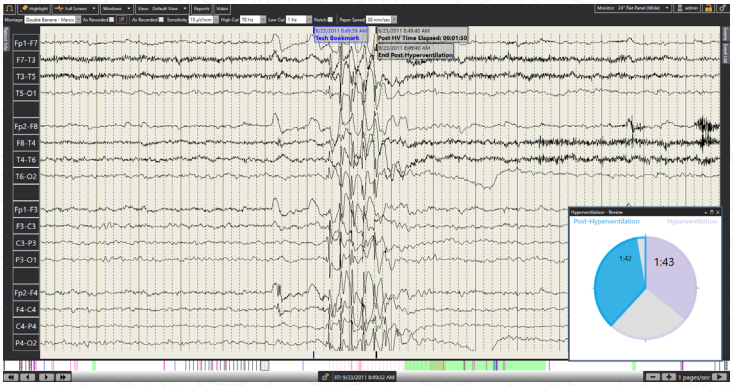
Intracranial Seizure

Sentinel with Synopsis Trends, patient events log, patient button notification, and video monitoring.

ICU Burst Suppression with Synopsis Trends



Routine Hyperventilation

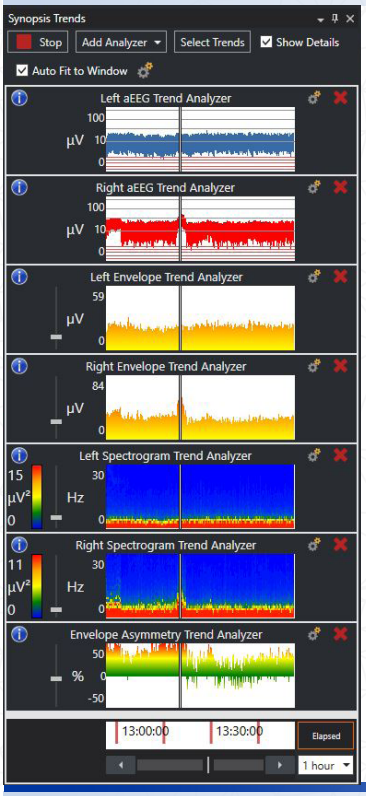


Spike-and-Wave Discharge During Hyperventilation

Sentinel™ gives you the power to remotely monitor multiple patients from one computer.

Ideal for nurses' stations and control rooms, Sentinel enables remote camera control, live video feed switching, Synopsis trends viewing, and alerts.

Synopsis helps you recognize key events in EEG records.



Analyze EEG data patterns and display trend information customized to each user's requirements. Identify, filter, and set parameters for AEEG, Alpha:Delta, Band Power, Amplitude Asymmetry, Envelope, Spectogram, and Specral Entropy.

Trends Package

- Display customized trends based on each patient's unique requirements.
- Modify trends on the fly.
- Save complete trends setups.

Detection Package

- Trends Package included
- Detection Window enables adjustable threshold settings for ease of event identification and marking.
- Seizure View can consolidate files automatically to show only marked data.

CadLink™ ensures controlled access of secure and safe information.

Integrate Arc EEG with with your current technologies.

- Fail-safe streaming. Remote EEG monitoring, storing and streaming of clinical data
- Secure data and communication: Safe and HIPAA-compliant transferring of encrypted data.
- Simple setup. Fast server and client updates that occur independently of EEG recording software.

Options

1. CadSchedule: Eliminate redundancy and error. Schedule tests, visits, patients, rooms and providers from any CadLink PC. Appointments auto-populate the Arc home screen.
2. HL7 Support: Import patient information from HIS/EMR, and export results and reports back to the EMR.
3. Auto-Archiving: Automatically archive data according to predefined criteria to ensure that short-term storage never gets full. Set up automatic status e-mail notifications.

Routine and Ambulatory EEG solutions

Arc gives you a choice of solutions for routine adult and pediatric EEG: **Essentia** and **Apollo**.

- Essentia ensures high quality EEG signals, even in noisy environments. Its rugged and water-resistant design will withstand the use and abuse of real-life clinical practice. The compact Remote Input Headbox with secure cable connectors ensures convenient setup, recording integrity, and patient comfort.
- Apollo allows your patients the benefits of an ambulatory system: portable, lightweight, comfortable, and battery powered.

At-home **Ambulatory EEG**

Apollo is a compact and wearable ambulatory solution for at-home and remote EEG studies.

- Meet CPT code changes for intermittent and continuous monitoring.
- Take Apollo from clinical to ambulatory use with the **Q-Video® Mobile 3** camera with automatic infrared switching, onboard battery, and video display.
- Capture 96+ hours of uninterrupted battery-powered recording with no patient intervention. Batteries can trickle-charge at night for longer studies.
- Patients can move freely with continuous data acquisition and impedance checking.

Real-time **Remote Monitoring**

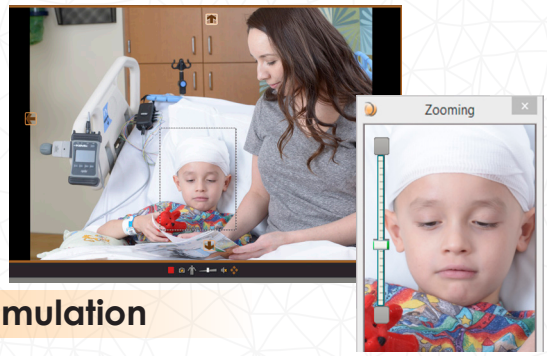
Remotely monitor patients continuously or intermittently, whether your patient is in the hospital or at home with **Apollo**.

1. Apollo is light and wearable. Backpack, harness, and head-mount options assist with patient comfort.
2. Acquire data on 32 channels for up to 96 hours without patient intervention. For longer studies, the rechargeable batteries can trickle charge over USB while your patient is sleeping.
3. The unique patient microphone lets your patient record time-synchronized events.
4. If your patient loses a reference electrode during their remote study, change the reference on the fly remotely.
5. Capture and remotely view HD video with Q-Video Mobile 3.

Long Term Monitoring in intensive care and epilepsy monitoring units

Apollo and **Essentia** are effective physician tools for evaluating EEG background, ischemic events and clinical and subclinical seizures in the Neonatal ICU, NeuroICU and EMU.

Arc EEG Software is an essential EEG professional tool for the diagnosis of epilepsy, localization of seizure foci, monitoring of treatment efficacy, and the pre-surgical workup in the epilepsy monitoring unit.



High channel count **Intracranial EEG with Cortical Stimulation**

Zenith is Cadwell's solution for high-channel count EEG with integrated cortical stimulation. Zenith will change the way you monitor epilepsy.

- Simplify your EMU workflow. Reduce the risk of errors, shorten setup and surgical time, and enhance data accuracy and analyses to improve your patient outcomes.
- Create a complete montage in one click. Simplify electrode layout with patent-pending automated input mapping.
- Functionally map the brain and localize epileptogenic zones with grid, strip and stereotactic electrodes
- Control cortical stimulation mapping through Arc software to help guide the plan for neurosurgery.
- Customize cortical SSEP stim parameters and document stim responses with graphs and tables of functional and afterdischarge responses.
- Use Short Pulse Stimulation (SPS) for interruption of afterdischarges during cortical stimulation.
- All intracranial case settings, including montages, follow the patient record.

Disposable and reusable electrodes, and all EEG supplies and accessories

Use Disposable EEG+ Cup Electrode Packs to reduce the clinical and financial implications of health care associated infections.

- Customize your kits with 12-inch, 48-inch, and 60-inch lead lengths
- Provide quality signals and improve impedances with larger 10mm silver/silver chloride EEG+ cups that hold more conductive gel
- Open just one 25-lead pack per patient setup

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FOR ALL OF YOUR ELECTRODES, ACCESSORIES AND CONSUMABLE SUPPLIES

We are dedicated to helping you help others by developing innovative, user-friendly EEG solutions.

The Cadwell Story

John Cadwell, BSEE, MD, saw a need for innovative and reliable neurophysiology instruments during his residency at the University of Washington School of Medicine.

John combined his experience in electrical engineering and medicine to design the world's first microprocessor-controlled EMG instrument. Together with his brother, Carl Cadwell, DDS, John formed Cadwell in 1979.

In the 1980s, Cadwell developed the best-selling 5200A EMG and the Spectrum 32 EEG.

In the 1990s, Cadwell's Sierra took over the EMG line and Cadwell introduced Cascade IONM and Easy EEG.

In the 2000s, Cadwell developed the industry's best integrated report generator and introduced Easy PSG.

Lately, we have expanded our headquarters and opened offices in China, Singapore, The Netherlands, and UAE. Our global sales and support teams help physicians and medical centers worldwide help their patients.

Today, our brands include Arc EEG, LTM and ICU cEEG; Cascade® IONM; Sierra® EMG and EP with integrated ultrasound; Easy® PSG and ApneaTrak HSAT; and CadLink™ data management.

Cadwell is staying true to its mission: helping you help others.

Cadwell has a long history of supporting customers. Please discuss service, support, warranty and training information with your sales manager or distributor.

CADWELL®

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