





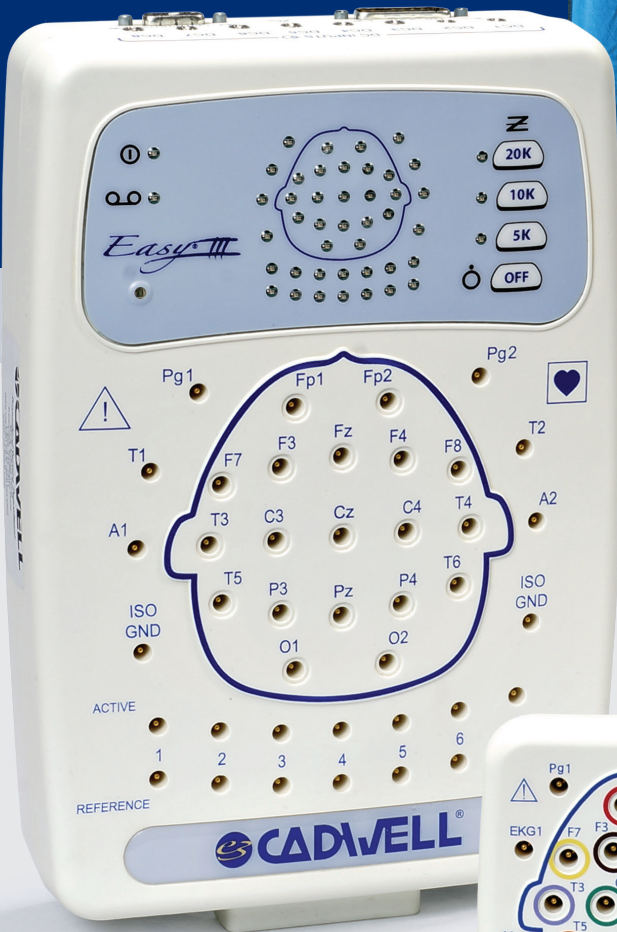
Streamline your sleep diagnostic test

Initialize, record, score, and review both
performing all of your sleep diagnostics u

PSG

With the Easy III amplifier and remote input box, you record crystal clear signals, protect your equipment, ensure recording integrity and provide patient convenience during in-lab sleep studies.

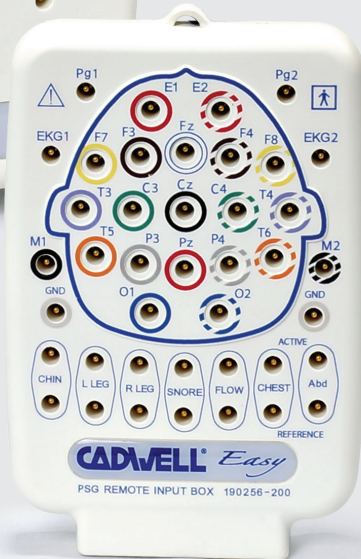
Easy III provides 4kHz sampling rate and bedside impedance checks.



Hardware Solutions

The 32 channel, 4 kHz, high-quality **Easy III** amplifier with integrated DC channels stays safely mounted to the wall or night stand. The color-coded **Remote Input Box** simplifies the connection of electrodes and sensors.

Place your signals at the amplifier or on the patient with up to 12 **EasyNet® Patient Modules** for nasal pressure, oximetry, body position or limb movement actigraphy.



Easy III can be installed on either computers supplied by Cadwell or computers managed and maintained by your hospital's IT department.

Testing with integrated PSG and HSAT

With PSG and Home Sleep Apnea Testing, using one efficient software and workflow.



HSAT

Seamlessly introduce Home Sleep Apnea Testing in your program with the new generation of ApneaTrak.

Thoughtful design helps your patients confidently and comfortably complete their testing. Setup is simple with color-coded connections, anatomical imagery, and patient instructional videos and guides. The built-in, rechargeable battery records up to three nights on each charge.



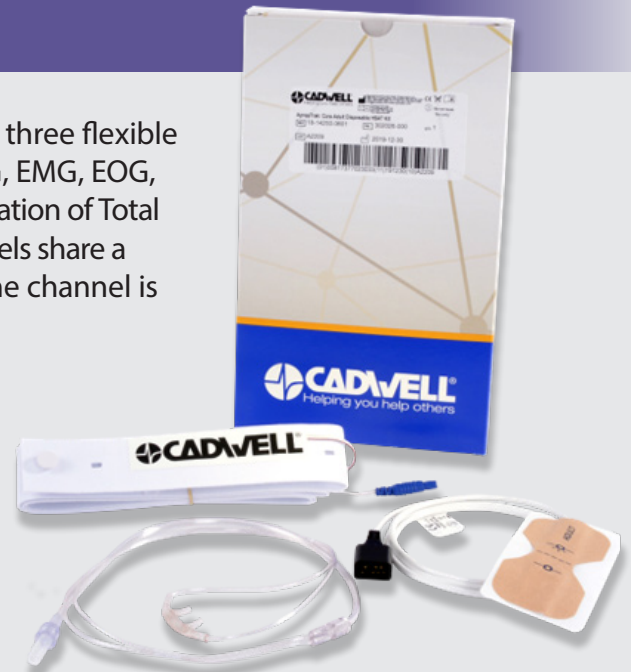
Hardware Solutions

ApneaTrak: Core records all required channels for Type 3 Testing to rule-in sleep apnea.

ApneaTrak: Legacy captures more respiratory detail from additional channels.

ApneaTrak: TST adds three flexible channels of either EEG, EMG, EOG, or ECG, enabling calculation of Total Sleep Time. Two channels share a common reference; one channel is bipolar.

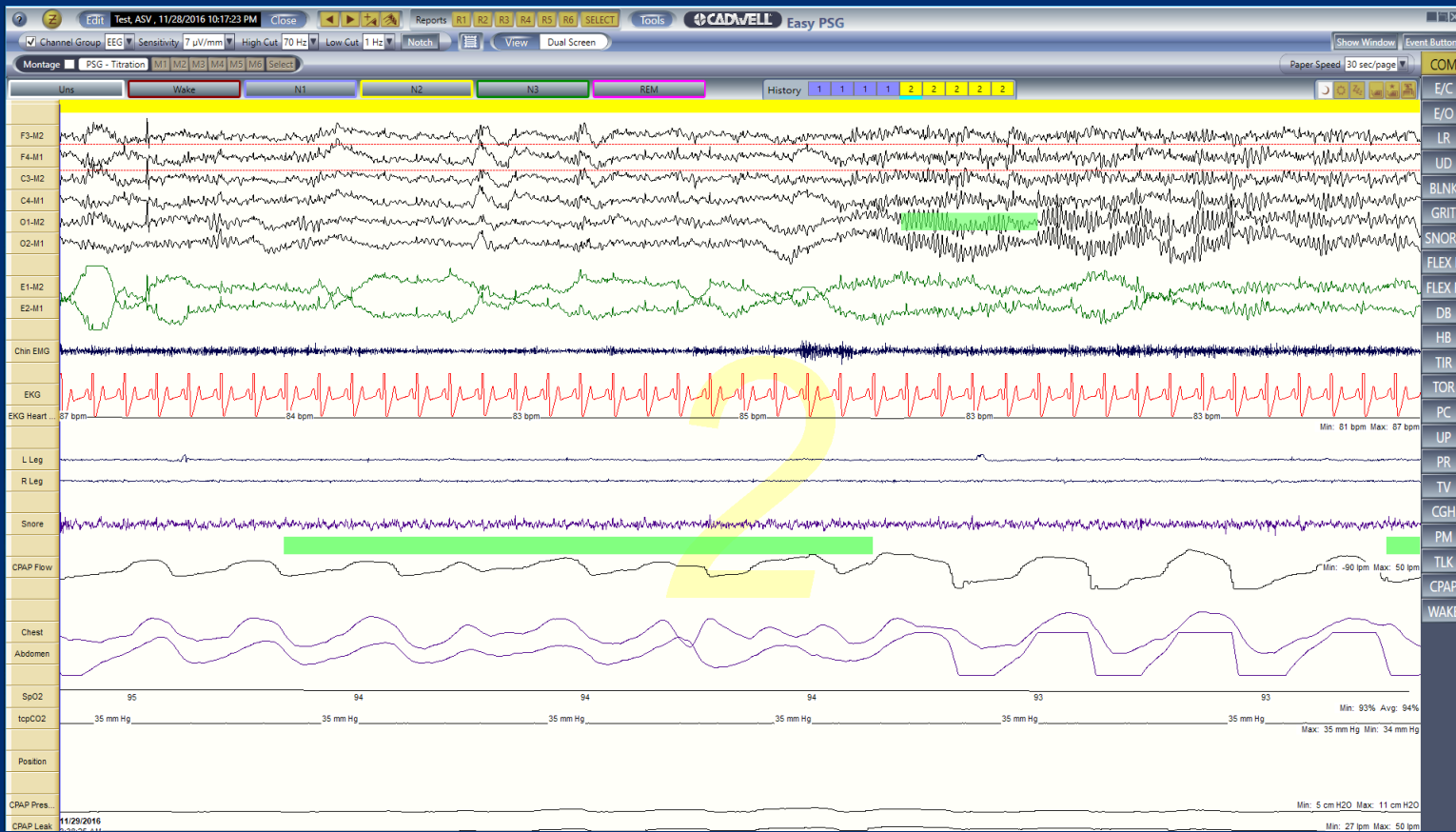
Core	Legacy	TST	Channels
✓	✓	✓	Pressure Cannula
✓	✓	✓	Oximetry
✓	✓	✓	Body Position
✓	✓	✓	Thoracic Respiratory Effort
•	✓	✓	Abdominal Respiratory Effort
•	✓	✓	Thermal Airflow
•	✓	✓	Snore Sensor
•	•	✓	3 channels of ExG



ApneaTrak Disposable Kits are exclusive to the new ApneaTrak. No interface cables required! Save time cleaning after every patient and reduce possible infection control issues. On return, keep the device and throw everything else away! Reusable kits are also available.

A FLEXIBLE WORKSPACE

Role-based, personalized software behaves the way you want and can be modified on-the-fly.



Customize a dual-monitor workspace.



Configure your recording workspace to see everything on a single monitor. Quickly estimate the presence of N3 sleep with Delta Highlight.

Simultaneously monitor live and recorded video to improve patient care during the study.

Synchronized montages and reports mean you don't need to copy files to every station.

Build your workspace across multiple monitors, or consolidate to a single monitor display.

The screenshot shows a multi-monitor workstation with several windows open:

- Q-Video Plus:** Displays a live video feed of a patient in bed.
- Flow Volume Loop:** Shows a circular plot of flow and volume.
- Report Token:** Lists various study parameters and results, including an AHI of 8.8.
- Event List Window:** Shows a table of events with columns for text, elapsed time, start time, duration, and priority.
- Digital Value Panel:** Displays key vital signs: 95% SpO2, 84 BPM, 17/5/7 cm H2O, 6.1 ml/kg, 10 bpm, 34.7 mm Hg, and O2 0.0 lpm.
- PSG All Night Summary:** Shows a grid of waveforms for SpO2, Heart Rate, CPAP & O2 Titration, End Tidal CO2, and tcpCO2.
- Basic Trace Window (Live):** Shows a synchronized montage of respiratory signals for L Leg, R Leg, CPAP F, Chest, Abdomen, and SpO2.

Easy Auto Archiver

Settings

Show Records to Archive

Archive Now

Clear Log

There are currently 5 record(s) set to be archived :

- Test, EtCO2 - Diagnostic PSG 3/11/2017 7:59:40 PM
- Test, tcpEt - Diagnostic PSG 6/7/2017 8:04:28 PM
- Test1, tcpCO2 - Diagnostic PSG 3/17/2018 7:48:46 PM
- Test2, tcpCO2 - Diagnostic PSG 4/5/2018 8:10:12 PM

The screenshot shows the Easy III Review Data window with a table of patient records:

Last Name	First Name	Patient ID	Date	Study Type	Physician	Referring PI
Smith	John	001SJK68	6/14/2018 12:00:25 AM	Type 3 PSG	Admin	
Adams	Michael	001AMX85	4/17/2018 7:35:23 PM	Split Night PSG		
Brown	Nancy	001BNX66	4/17/2018 7:25:12 PM	Titration PSG		
Diaz	Ivan	001DIX47	4/6/2018 7:20:28 PM	Diagnostic PSG		
Andrews	Theodore	001ATX23	4/6/2018 7:17:22 PM	Diagnostic PSG		
Parks	Asher	001APX05	4/5/2018 8:10:12 PM	Diagnostic PSG		
Avery	Hannah	001AHX58	3/17/2018 7:48:46 PM	Diagnostic PSG		
Bentez	Gabriel	001BGX81	2/19/2018 11:26:38 PM	Titration PSG		
Alexander	Addison	001AAX96	2/14/2018 8:57:18 PM	Titration PSG		
Day	Liam	001DLX27	2/9/2018 9:21:47 PM	Split Night PSG		
Johnson	Aubrey	001JAX51	2/6/2018 8:18:08 PM	Titration PSG		
Carter	Bennett	001CBX98	2/5/2018 9:23:49 PM	Diagnostic PSG		
Lucas	Matt	001LMX26	2/5/2018 8:41:06 PM	Diagnostic PSG		
Allridge	August	001AAX45	11/14/2017 7:30:21 PM	Diagnostic PSG		
Snow	John	001GOT08	11/8/2017 9:17:02 AM	Clinical EEG		
Glen	Iain	001HMX01	10/17/2017 7:25:43 PM	Diagnostic PSG		
Pratt	Michael	001SKT24	9/29/2017 8:09:30 PM	Diagnostic PSG		

The screenshot shows the Easy III Auto Archive Settings dialog box with the following options:

- Enable Auto Archiving
- General | Location | Recurrence
- Include Video
- Include Associated Documents
- Delete after Archive **!** *If selected, when a record is successfully archived, all data for that record (including EEG, Video, and Associated Documents) will be deleted from the server, even if you have chosen not to archive that type of data.*
- At least one of the following options MUST be selected or auto-archiving will NOT occur
- Archive records that haven't been accessed in a specified number of days 90
- Archive records with a specific status Ready To Archive

ApneaTrak studies appear in the Easy III Review window. Score ApneaTrak data exactly how you score PSG studies.

Simplify your workflow and save time with better data management and Auto-Archiving.

CADWELL 909 North Kilgus, Kennewick, WA 99336
800-245-3001
www.cadwell.com

Patient: Tait, ASV Study Type: PAP PDS
DOB: 2/22/1967 Patient Details: Male, 49 years, Height 72",
MRN: T14400210 Sleep Latency: 150.0 min, BMI 33.9
Physician: Sleep Provider Ref. Physician: Referring Provider
Recording Technician: Sleep Technician Recording Details: Recorded at 10:20:25 PM on
Scoring Technician: Sleep Technologist for 45.5 minutes.

Titration Polysomnography Report

Sleep Data
Lights Out: 10:26:55 PM Sleep Latency: 7.5 min.
Lights On: 5:52:22 AM REM Latency: 47.2 min.
Sleep Onset: 7.5 min. Wake After Sleep Onset (WASO): 15.0 min.
Total Recording Time (TRT): 444.5 min. (7.4 hrs.) Sleep Efficiency: 80%
Sleep Period Time (SPT): 433.5 min. (7.2 hrs.) Sleep Maintenance Efficiency: 87%
Total Sleep Time (TST): 390.5 min. (6.5 hrs.)

Stage Stages

Stage	Time (min)	% TST	Arousals and Awakenings
TST	390.5 min.		Total Arousals: 15
NREM	240.0 min.	61%	Arousaling Index: 2.4
N1	49.0 min.	12%	Total Arousal: 34
N2	186.5 min.	48%	Arrousal Index: 5.4
N3	4.5 min.	1%	
REM	140.5 min.	37%	
WASO	64.0 min.		

Respiratory Data

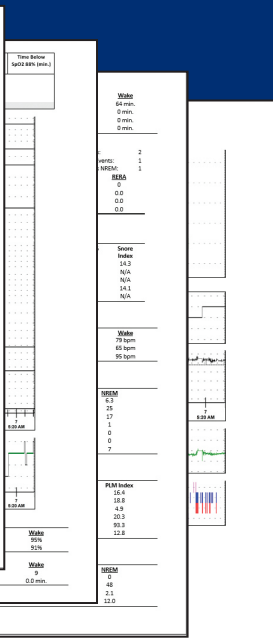
APNEA	CAH	CAH REM	CAH REM	CAH REM	CAH REM
APNEA: 8.2	CAH: 3.5	CAH REM: 8.7	CAH: 1.4		
AHI REM: 6.6	CAH AHI REM: 3.4	RDI REM: 6.0	CAH REM: 0.2		
AHI NREM: 10.5	CAH AHI: 3.5	RDI NREM: 10.5	CAH NREM: 1.8		

Titration Data

Therapy Detail	Total Time (min.)	Sleep Time (min.)	REM (min.)	NREM (min.)	Hypop. Count	Apnea C/O/M	Total Resp. Count	AHI	Central AHI	RDI	SpO2% Mean/Low	Time Below SpO2 88% (min.)
CPAP (CPAP/Mask/Humidifier/Pressure Relief)												
5/N/H/F	47.0	36.5	0.0	36.5	7	0/5/0	12	19.7	0.0	19.7	96/92	0.0
5/F/H/F	16.6	16.6	8.6	8.0	2	0/3/0	5	18.1	0.0	18.1	95/92	0.0
7/F/H/F	30.4	27.4	5.4	22.0	2	0/4/0	6	13.1	0.0	13.1	95/93	0.0
9/F/H/F	17.1	15.0	0.0	15.0	3	0/0/0	3	12.0	0.0	12.0	96/92	0.0
Bilevel (IPAP/EPAP/Backup Rate/Mask/Humidifier/Pressure Relief)												
10/5/0/F/H/F	23.2	14.3	10.8	3.5	3	1/1/0	5	21.0	4.2	21.0	94/92	0.0
12/7/0/F/H/F	39.3	31.3	16.7	14.5	1	2/2/0	5	9.6	3.8	9.6	94/92	0.0
13/7/0/F/H/F	20.2	20.2	0.0	20.2	2	1/0/0	3	8.9	3.0	8.9	94/93	0.0
14/7/0/F/H/F	23.4	23.4	5.7	17.7	1	2/0/0	3	7.7	5.1	7.7	94/92	0.0
12/7/0/F/H/F	44.4	30.9	8.8	22.2	1	3/0/0	9	7.8	5.8	7.8	94/91	0.0
Adapt (EPAP/Max PS/Min PS/Mask/Humidifier/Pressure Relief)												
7/15/3/F/H/F	49.5	39.0	16.0	23.0	2	0/0/0	2	3.1	0.0	3.1	94/91	0.0
8/15/3/F/H/F	133.3	125.8	68.5	57.3	5	0/0/0	5	2.4	0.0	2.4	94/89	0.0

Comments:
 CPAP: 5/N/H/F: Start Titration
 CPAP: 5/F/H/F: Change to Full Face d/t Leak
 CPAP: 7/F/H/F: Increase to 7 d/t Obstr. Apneas
 CPAP: 9/F/H/F: Increase d/t Obstr. Hypopneas
 Bi: 10/5/0/F/H/F: Switch to Bilevel at patient request, feels it is difficult to exhale.
 Bi: 12/7/0/F/H/F: Increase d/t obstr events (some centrals present). | Backing off on IPAP, events far more central now.
 Bi: 13/7/0/F/H/F: Increase IPAP for continued events, primarily hypopneas, some indication of centrals but will titrate obstr. first.
 Bi: 14/7/0/F/H/F: Increase per continued events.
 ASV: 7/15/3/F/H/F: Centrals heavily predominant (>50%), per order, switching to ASV
 ASV: 8/15/3/F/H/F: Doing much better, centrals resolved, increasing EPAP d/t some indication of obstr hypopneas.

Mask= N: Nasal, P: Nasal Pillow, F: Full Face | Humidifier= H: On, -Off | Pressure Relief= F: Flex, E: EPR, -Off



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800-245-3001
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Patient: Tait, ASV Study Type: PDS
DOB: 2/22/1967 Patient Details: Male, 52 years, Height 72",
MRN: T14400210 Sleep Latency: 150.0 min, BMI 33.9
Physician: Sleep Provider Ref. Physician: Referring Provider
Recording Technician: Sleep Technician Recording Details: Recorded at 10:20:25 PM on 11/1/2013
Scoring Technician: Sleep Technologist for 45.5 minutes.

Diagnostic Polysomnography Report

Sleep Data
Lights Out: 10:07:57 PM Sleep Latency: 15.0 min.
Lights On: 5:13:07 AM REM Latency: 107.0 min.
Sleep Onset: 15.0 min. Wake After Sleep Onset (WASO): 18.0 min.
Total Recording Time (TRT): 426.0 min. (7.1 hrs.) Sleep Efficiency: 89%
Sleep Period Time (SPT): 411.0 min. (6.8 hrs.) Sleep Maintenance Efficiency: 91%
Total Sleep Time (TST): 373.0 min. (6.2 hrs.)

Stage Stages

Stage	Time (min)	% TST	Arrousal and Awakenings
TST	373.0 min.		Total Arousals: 15
NREM	228.0 min.	61%	Arousaling Index: 2.4
N1	66.0 min.	18%	Total Arousal: 172
N2	230.5 min.	62%	Arrousal Index: 27.7
N3	26.0 min.	7%	
REM	145.0 min.	39%	
WASO	93.0 min.		

Respiratory Data

APNEA	CAH	CAH REM	CAH REM	CAH REM	CAH REM
APNEA: 6.3	CAH: 0.6	CAH REM: 6.3	CAH: 0.0		
AHI REM: 15.4	CAH AHI REM: 1.0	RDI REM: 15.6	CAH REM: 0.0		
AHI NREM: 4.8	CAH AHI: 0.6	RDI NREM: 4.8	CAH NREM: 0.0		

Apnea + Hypopnea Events: 3 CPAP AHI Events: 4 REBA Events: 0 Central/AHI Events: 0
 Apnea + Hypopnea Events: 1 CPAP AHI Events: 1 REBA Events: 0 Central/AHI Events: 0
 Apnea + Hypopnea Events: 3 CPAP AHI Events: 3 REBA Events: 0 Central/AHI Events: 0

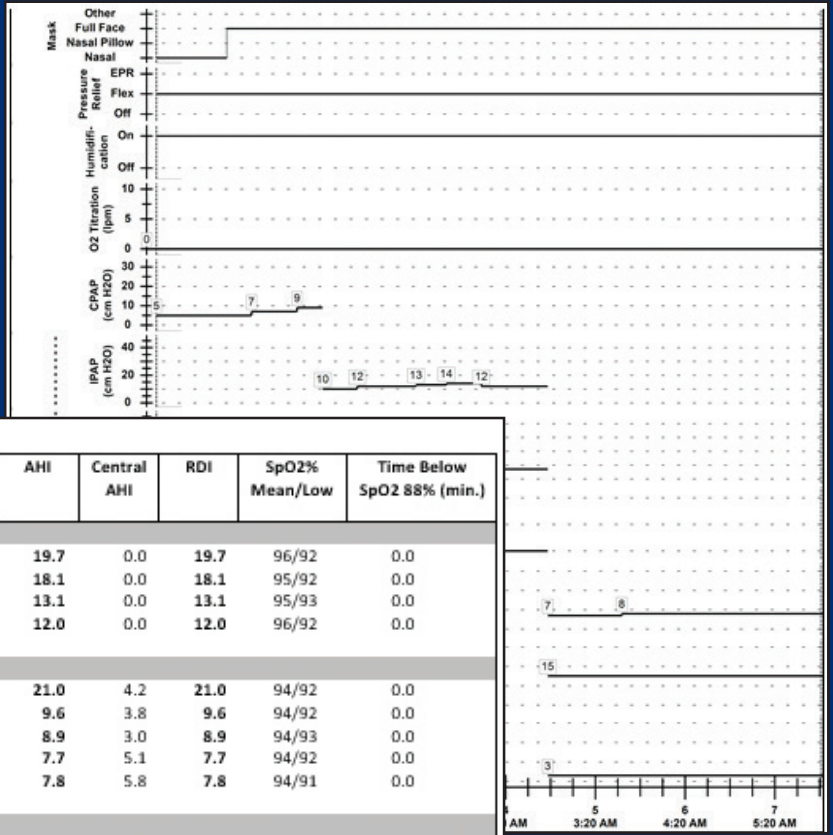
Events
 Max. Duration (sec): 0.0 0.0 0.0 23.9 0.0 0.0
 Mean Duration (sec): 0.0 0.0 0.0 15.2 0.0 0.0
 Total Index: 0.0 0.0 0.0 6.3 0.0 0.0

Body Position Data

Position	Time (min)	REM	NREM	Apnea/Hypopnea C/O/M	AHI	Mean SpO2 %	Score Index
Supine	397.2	28.5	238.0	0/0/0/0/0	6.5	94%	44.7
Left	68.8	23.5	37.0	0/0/0/0/0	5.0	96%	0.0
Prone	0.0	0.0	0.0	N/A/N/A/N/A/N/A/N/A	N/A	N/A/N/A	N/A
Right	0.0	0.0	0.0	N/A/N/A/N/A/N/A/N/A	N/A	N/A/N/A	N/A
Upright	0.0	0.0	0.0	N/A/N/A/N/A/N/A/N/A	N/A	N/A/N/A	N/A

CLINICALLY-FOCUSED REPORTS

- Build reports the way you want them with flexible and configurable templates.
- Make your workflow more efficient by instantly sending results to the EMR via HL7Link.
- Highly detailed titration reports provide more insight into your complex patients, including AdaptSV, AutoSV, AVAPS, iVAPS, Inspire, and Oral Appliance Therapy.



Titration Data

Therapy Detail	Total Time (min.)	Sleep Time (min.)	REM (min.)	NREM (min.)	Hypop. Count	Apnea C/O/M	Total Resp. Count	AHI	Central AHI	RDI	SpO2% Mean/Low	Time Below SpO2 88% (min.)
CPAP (CPAP/Mask/Humidifier/Pressure Relief)												
5/N/H/F	47.0	36.5	0.0	36.5	7	0/5/0	12	19.7	0.0	19.7	96/92	0.0
5/F/H/F	16.6	16.6	8.6	8.0	2	0/3/0	5	18.1	0.0	18.1	95/92	0.0
7/F/H/F	30.4	27.4	5.4	22.0	2	0/4/0	6	13.1	0.0	13.1	95/93	0.0
9/F/H/F	17.1	15.0	0.0	15.0	3	0/0/0	3	12.0	0.0	12.0	96/92	0.0
Bilevel (IPAP/EPAP/Backup Rate/Mask/Humidifier/Pressure Relief)												
10/5/0/F/H/F	23.2	14.3	10.8	3.5	3	1/1/0	5	21.0	4.2	21.0	94/92	0.0
12/7/0/F/H/F	39.3	31.3	16.7	14.5	1	2/2/0	5	9.6	3.8	9.6	94/92	0.0
13/7/0/F/H/F	20.2	20.2	0.0	20.2	2	1/0/0	3	8.9	3.0	8.9	94/93	0.0
14/7/0/F/H/F	23.4	23.4	5.7	17.7	1	2/0/0	3	7.7	5.1	7.7	94/92	0.0
12/7/0/F/H/F	44.4	30.9	8.8	22.2	1	3/0/0	9	7.8	5.8	7.8	94/91	0.0
Adapt (EPAP/Max PS/Min PS/Mask/Humidifier/Pressure Relief)												
7/15/3/F/H/F	49.5	39.0	16.0	23.0	2	0/0/0	2	3.1	0.0	3.1	94/91	0.0
8/15/3/F/H/F	133.3	125.8	68.5	57.3	5	0/0/0	5	2.4	0.0	2.4	94/89	0.0

Comments:
 CPAP: 5/N/H/F: Start Titration
 CPAP: 5/F/H/F: Change to Full Face d/t Leak
 CPAP: 7/F/H/F: Increase to 7 d/t Obstr. Apneas
 CPAP: 9/F/H/F: Increase d/t Obstr. Hypopneas
 Bi: 10/5/0/F/H/F: Switch to Bilevel at patient request, feels it is difficult to exhale.
 Bi: 12/7/0/F/H/F: Increase d/t obstr events (some centrals present). | Backing off on IPAP, events far more central now.
 Bi: 13/7/0/F/H/F: Increase IPAP for continued events, primarily hypopneas, some indication of centrals but will titrate obstr. first.
 Bi: 14/7/0/F/H/F: Increase per continued events.
 ASV: 7/15/3/F/H/F: Centrals heavily predominant (>50%), per order, switching to ASV
 ASV: 8/15/3/F/H/F: Doing much better, centrals resolved, increasing EPAP d/t some indication of obstr hypopneas.

Mask= N: Nasal, P: Nasal Pillow, F: Full Face | Humidifier= H: On, -Off | Pressure Relief= F: Flex, E: EPR, -Off



DESIGNED FOR KIDS *of all ages*

- Configure software for pediatric and neonatal patients.
- Interface with external oximetry, CO₂ and pH monitors.
- Record enough channels for nocturnal seizure montages.
- Capture high quality video to validate the trace data during acquisition and review.



MONITOR YOUR WAY, *anywhere*

Access all stored patient data as well as live recordings from anywhere via Citrix. Build physician worklists so you know which studies you've already done and which studies need to be completed.

When you purchase Easy® III PSG and ApneaTrak HSAT flexible equipment, you're caring for your patients with time-tested and user-friendly sleep diagnostic equipment that gives you clear signals.

You're implementing efficient and flexible software with live remote viewing, concise reporting, and complimentary upgrades, and you're gaining a dedicated team of support personnel available to assist you around the clock.

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 Laboratories in 1979.

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

Cadwell's Sierra took over the EMG line and Cascade IONM and Easy EEG were introduced in the 1990s. In the 2000s, Cadwell developed the industry's best integrated report generator, and released the Easy PSG.

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® EDX; Easy® PSG and CadLink™ data management.

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

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



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