The Embla® Recording Systems are developed and designed based on a decade of experience in the field of sleep technology. These systems offer a high degree of flexibility and signal quality to meet the highest demands of clinical work and research.

- The Embla recorders are indispensable in a wide range of clinical and research settings that require maximum flexibility and efficiency in data collection.
- By providing a comprehensive lab-based and portable application in one dynamic recorder, these devices maximize your investment.
- The Embla recorders all use the Somnologica™ software, which is designed to meet the needs for flexibility in research and ease-of-use in clinical work.

**Embla Recording Systems**

Embla Recording Systems represent an integration of advanced digital technology and precision engineering into ergonomically designed PSG and EEG systems.

- Embla is available in a number of different configurations:
  - Designed for the dedicated high-performance sleep center. It offers a comprehensive array of patient, bedside and communication units to perform PSG and full EEG studies with ease.
  - Offering extended referential recording capability, bipolar, respiratory and DC-level inputs. Suitable for both routine and extended sleep protocols, the Embla systems enable you to expand your services and record full EEG.
  - Designed for EEG and polygraphic applications in clinical and research settings, the same recorder can be used in laboratory and ambulatory recordings. Its compact size allows the recorder to be easily carried by the patient.

**Streamlined Design**

The patient interface of the Embla Recorder consists of the Bedside Unit and the Patient Unit. Both are lightweight and feature quick-disconnect for easy patient mobility.

- The clinically enhanced Patient Unit greatly reduces the cabling for signals such as respiratory effort, snoring, flow and SpO2. Worn by the patient, problems with tangled cables are eliminated.
- For routine EEG applications, the Patient Unit can be disconnected from the Bedside Unit and not used.
- The Bedside Unit is lightweight and can be comfortably worn by the patient with a strap attachment.
- A mobile stand or mounting bracket provides mobility and stability.

The Embla recorders share recording capabilities and performance-packed features.

- Featuring from 12 up to 32 referential channels (EEG, EOG, ...)
- Reference can be any single electrode or the common of any number of electrodes. Easily switched during acquisition.
- 8 bipolar channels for physiological signals such as EMG and EKG.
- 9 respiratory channels that include a built-in pressure transducer with steel luer lock, precise, 3-dimensional analysis of body
The Embla ambulatory recording systems are truly flexible. Designed for EEG and polygraphic applications in clinical and research settings, the same recorder can be used in laboratory and ambulatory recordings. Its compact size allows the recorder to be easily carried by the patient.

- **Built-In Functions that Make a Difference**
  - Device-integrated impedance function with illuminated display provides quick and easy bedside measurements.
  - Easily accessible event buttons allow the caregiver or patient to enter time-stamped event entries.
  - Integrated Ambient Light Detector registers ambient light changes in the patient environment.

- **The Connection that Counts**
  The Embla systems set the standard by utilizing an ethernet network to speed clean and reliable signals to the viewer in a variety of recording environments. Using standard networking technologies changes the paradigm for delivery of services by opening a wide area of Ethernet connectivity options including your existing LAN, dedicated sleep lab LAN, wide area networks (WAN) and wireless networks. The Embla devices optimize facility operations and can be moved to new locations within the network environment with ease.
  - Not tied to the limitations of cabling, the Embla Ethernet interface integrates more easily into even the most complex recording situations.
  - Somnologica™ Studio will automatically detect Embla recorders regardless of where they are moved within the network.
  - Somnologica Studio will automatically resume the recording if the recorder is moved in the middle of the recording.
  - Ethernet is a very well established, reliable technology that is cost effective and easy to maintain.

- **Embla Ambulatory Systems**
  The Embla ambulatory recording systems are truly flexible. Designed for EEG and polygraphic applications in clinical and research settings, the same recorder can be used in laboratory and ambulatory recordings. Its compact size allows the recorder to be easily carried by the patient.

- **Designed for Optimal Flexibility**
  The Embla ambulatory recorders are customized in software. With configurable sensor settings, you can define custom...
Somnologica Studio

Somnologica Studio is the performance powerhouse at the heart of all Embla systems and is designed for both clinical and research applications. Proven in hundreds of locations worldwide, Somnologica Studio provides solutions with a comprehensive array of tools that streamline workflow and improve patient data management.

- Work confidently with the proven and powerful capabilities of the Windows NT®, 2000® or XP® operating systems.
- Navigate easily and perform a sleep study in obvious steps using the Operation Sheet.
- Optimize your time by using tools that provide superior analysis power and scoring speed without compromising accuracy.
- Recording review is fast and easy with dynamic review tools that include montage reformatting, reference switching, re-filtering, and page comparison.
- Get the results you need with flexible report options that include customizable reports and versatile export tools.

Expand Your System Capabilities

To further enhance your system, you can add other options to create a complete and integrated system:

- Add the Data Management Module to help you keep track of your patients. It provides convenient access to patient information and flexible search features. This allows you to quickly locate patient groups or records of interest, enabling you to assess trends or target areas for intervention.
- Add Synchronized Digital Video to your Embla system for enhanced data analysis.
- Expand your services by adding the Embletta® PDS recorder for diagnosing sleep-disordered breathing.
- Take advantage of the latest technology with Xact products. The product line includes the XactTrace Respiratory Inductive Plethysmograph (RIP), the Embletta Xact AutoSet Interface and the Embletta Xact LM module.
- Expand to the Somnologica Science platform to meet your advanced research needs.

Future-Proof Your Investment

Embla’s industry-leading engineering expertise makes the latest innovations in digital technology available with integrated, modular system components. Embla systems represent the most comprehensive, multi-application array of sleep and sleep/EEG products available today. Designed with your success in mind, the Embla systems ensure that your needs are covered today and beyond with superior, proven products that work for you.

For more information on how Embla products can meet all of your PSG and PSG/EEG needs, contact your local representative.

settings for almost any sensor available. This innovative design enables the recorder to be used in a variety of settings including on-line partial polysomnography, full polysomnography recording, or ambulatory EEG.

The Embla Ambulatory recorders can collect data from:

- 16 multipurpose channels
- Event button channel
- 2 oximeter channels
- 4 auxiliary channels

The data from the Embla is either recorded directly into Somnologica during on-line acquisition or downloaded to Somnologica from PC-Cards after ambulatory studies.
**Embla Communication Unit**
Controls the system and facilitates network communication.

Standard RJ45 Ethernet connection for connecting to your local network
8 isolated auxiliary channels, for external devices, such as ETCO2
2 isolated serial ports for external device communications, such as CPAP

**Embla Patient Unit**
Smart, efficient recording of respiratory parameters

- 9 respiratory channels
- Oximetry
- Flow/Pressure (nasal cannula/mask)
- Flow limitation
- Oral flow
- Snore (by nasal pressure or by neck vibration sensor)
- Abdominal movement (by XactTrace RIP belts or by Piezo element sensors)
- Chest wall movement (by XactTrace RIP belts or by Piezo element sensors)
- SpO2 averaged, SpO2 beat-to-beat, pulse rate, pulse waveform (oximeter)
- Event marker
- Body position / Activity

**Embla N 7000**
Polysomnography with extended EEG capabilities
Up to 60 channels

**Bedside Unit**
32 referential channels (EEG, EOG...)
8 bipolar channels (EKG, EMG Legs,...)
Amplifier re-referencing during acquisition
Integrated impedance test
Accessible event button
Integrated ambient light detector
Wide range of selectable sampling rates
Interface for electro-cap
Quick release

**Embla S 7000**
Polysomnography for sleep centers
Up to 40 channels

**Bedside Unit**
12 referential channels (EEG, EOG...)
8 bipolar channels (EKG, EMG Legs,...)
Amplifier re-referencing during acquisition
Integrated impedance test
Accessible event button
Integrated ambient light detector
Wide range of selectable sampling rates
Quick release
SMART SLEEP SYSTEMS

- Get what you need with a clinically streamlined design
- Use modular configurations of up to 60 channels
- Enjoy flexibility: sleep studies by night and EEG studies by day
- Simplify with ergonomically arranged system components
- Plug into existing network infrastructure to minimize installation costs
- Facilitate wireless networking with Ethernet connectivity
- Increase ease and comfort with minimal cabling and connections
- Detach smoothly and quickly when leaving bed
- Run a device-integrated impedance test effortlessly
- Acquire high quality signals
- Work with the industry-leading Somnologica Software

Embla systems are manufactured by Medcare Flaga, Reykjavik, Iceland. The manufacturer works in accordance with the ISO 9002/EN 46002 quality system and has the authority to mark the products with the CE mark (CE 0413). The CE mark is a declaration that the device is in compliance with the directives set forth by the European Union for medical devices, in particular the MDD annex VII. Embla AY10 is tested and certified by DEMKO to comply with EN 60601-1, Embla N7000 and S7000 are tested and certified by SEMKO to comply with EN 60601-1 standard of electrical safety of medical devices. Embla N7000 and S7000 are also certified and tested to comply with EN60601-1-2, UL 2601-1, CAN/CSSA-C22.2, NO.601.1-M90, AS/NZS 3200-1-0.

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