The Model 7800 is Ivy Biomedical’s fifth generation cardiac trigger monitor with the intended use primarily on patients in applications requiring precision ECG R-wave synchronization. Incorporating a simple, easy-to-use touchscreen interface, the 7800 displays two simultaneous ECG vectors, along with the patient’s heart rate.

**Intuitive Operation**

Acquiring an ECG trigger can often be a challenging task, and selecting the right ECG vector can be problematic. The 7800’s AUTO lead select feature (Trigger lead only) will determine which lead (I, II or III) provides for the best amplitude-to-noise ratio of the ECG signal and, thus, a more reliable cardiac trigger. The Model 7800 also has special hardware and software that measures skin-to-electrode impedance, ensuring a reliable scan.

**Patient Monitoring**

When required, high and low heart rate alarm limits can be adjusted to bracket a patient’s heart rate, so that a violation of these limits produces an audible and visual indication of the alarm.

**Imaging Applications**

The 7800 Monitor provides world-class cardiac triggering for use in synchronized applications such as Multi-Slice Computed Tomography (CT) and applications requiring precision R-wave synchronization.

**Precision Engineering**

A color Trigger mark clearly indicates the timing of each synch pulse with respect to the ECG, providing a visual reference for timing and synchronization.

**Improved Communications**

The Model 7800 has an electrically isolated Ethernet connector with 2 channels, enabling communication between the monitor and the external console, as well as the gantry display. An integrated USB Drive allows users to store and retrieve ECG events for retrospective analysis. The Model 7800 is available with or without an integrated strip chart recorder.
Accessories

AHA-Compatible

- **590435**
  RT Lead wires (Set of 4)

- **590432**
  Patient cable

IEC-Compatible

- **590451**
  RT Lead wires (Set of 4)

- **590446**
  Patient cable

- **590291**
  NuPrep Gel

- **590436**
  ECG Electrodes (Box of 40)

- **590386**
  USB with ECG Viewer Software

- **590035**
  Recorder Paper (10 Rolls)
World-Class Cardiac Triggering

**ECG Viewer Software**
Included on the USB drive is an easy-to-use ECG viewer specifically designed to enable detailed analysis of individual ECG waveforms.

**Integrated Chart Recorder**
Optional recorder prints ECG strips on demand for manual review.

**Touch Screen Operation**
Quickly adjust alarm limits, or make adjustments on the fly using the on-screen menus and buttons.

**Mounting Solutions**
Ivy Biomedical has a custom-designed, light-duty roll stand that enhances the maneuverability of the 7800. Please contact us for more information, or for custom requirements.

**590441**
Roll stand (shown)*

*Requires 3302-00-15
Roll stand Mounting Kit
Technical Specifications

**ECG Lead Selection**
- **Trigger Lead**: I, II, III, and AUTO
- **Second Lead**: I, II and III

**Patient Cable**
- 4 Lead cable with 6 PIN AAMI standard connector, isolated from ground related circuits by >4 kV rms, 5.5 kV peak

**Frequency Response**
- **LCD Display and Recorder**
  - Filtered: 1.5 to 40 Hz or 3.0 to 25 Hz
  - Unfiltered: 0.67 to 100 Hz
- **ECG Output**
  - Filtered: 1.5 to 40 Hz or 3.0 to 25 Hz
  - Unfiltered: 0.67 to 100 Hz

**Electrode Impedance Measurement**
- Technique: 10Hz ac signal < 10 uA rms
- Range: 200kΩ per lead
- Accuracy: ±3% ±1kΩ
- Recommended Electrode: 10% Chloride sponge type (590436)

**Cardiotach**
- Pediatric/Neonate Range: 10-350 bpm
- Adult Range: 10-300 bpm
- Accuracy: ±1% ± 1 bpm
- Resolution: 1 bpm
- Sensitivity: 300 μV peak
- Tall T Wave Rejection: T wave ≤ 1.2 * R-wave

**Pacer Pulse Rejection**
- Width: 0.1-2 ms at ±2 to ±700 mV

**Recorder**
- Feature: Optional
- Writing Method: Direct Thermal

**Synchronized Output (Trigger)***
- Output Trigger Delay: < 2 ms
- R to R Trigger Accuracy: ±75 μs typical @ 1 mV input
- Pulse Width Options: 1, 50, 100 or 150ms
- Pulse Amplitude Options: 0V to +5V or -10V to +10V
- Output Impedance: <100 Ω
- *Test input signal at ECG leads
- Conditions: ½ sine wave, 60ms width, 1mV amplitude, 1 pulse/second

**Alarms**
- High Rate: 15-250 bpm (5 bpm increments)
- Low Rate: 10-245 bpm (5 bpm increments)
- Asystole: R to R interval > 6 seconds
- Lead Off: Detached lead
- Check Lead: Imbalance between leads >0.5 V

**Display**
- Active Matrix TFT Color Touch Screen
- Resolution: 640x480
- Screen Size: 17.09cm x 12.82cm, 21.36cm (8.4 in.) diagonal

**Dimensions**
- Height: 8.72in. (22.14cm)
- Width: 9.25in. (23.50cm)
- Depth: 6.10in. (15.49cm)
- Weight: 5.6 lbs. (2.54kg)

**Operating Environment**
- Temperature Range: 5°C to 40°C
- Relative Humidity: 0-90% non-condensing
- Altitude: -100 meters to +3,600 meters
- Atmospheric Pressure: 500-1060 mbar
- Protection against ingress of fluids: IPX1 – Protection against vertically falling drops of water
- Storage Environment:
  - Temperature Range: - 40°C to +70°C
  - Relative Humidity: 5% to 95%
  - Altitude: -100 meters to +14,000 meters

**Power Specifications**
- Voltage Input: 100-120V~; 200-230V~
- Line Frequency: 50/60 Hz
- Fuses Type and Rating: T 0.5AL, 250V (Metric 5x20 mm)
- Maximum ac Power Consumption: 45 VA
- Power Recovery: Automatic, if power is restored within 30 seconds

**Communications**
- Ethernet: RJ-45 10Base-T, IEEE 802.3 (2 Channels)

**Data Storage**
- USB Flash Drive: minimum capacity 1GB
- ECG storage: 200 most recent events

**Compliance/Certifications**
- ANSI/AAMI ES60601-1:2005
- UL60601-1 1st edition
- IEC 60601-1 3rd edition
- IEC 60601-1 2nd edition
- CAN/CSA C22.2 No 601.1-M90:2005
- CDN MDR (CMDCAS)
- CAN/CSA C22.2 No 60601-1:08
- IEC 60601-2-27
- ISO 13485:2003
- MDD 93/42/ECC
- CE 0413
- RoHS: 2011/65/EU
- WEEE 2012/19/EU
- FDA/CGMP

**Notified Body**
- Intertek Semko AB
- Identification Number 0413
- MDD Classification: IIb
- Authorized Representative: Emergo Europe

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For additional specifications, refer to Operator Manual

(Specifications subject to change without notice)

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