

## Eclipse PRO

Ambulatory ECG and Patch Recorder Model 98700



The Eclipse PRO is a versatile Ambulatory ECG recorder from Spacelabs Healthcare that can record 3 channels of ECG for up to 14 days using a range of patient cables, a 3 channel patch sensor, or up to 3 days of true 12-Lead ECG with a 10 lead patient cable.

Eclipse PRO is a waterproof recorder free from dirt traps, and can be cleaned with a range of disinfectants.

A single USB-C port can be used to rapidly recharge the internal battery and for programming and download.



## **Features**

| The ECG monitor has the |
|-------------------------|
| following features:-    |

- 14 day, 3 channel ECG recording without recharging
- 10-Lead, true 12 channel ECG recording for up to 72 hours
- Multi channel patch option for multi day use
- Low energy BLE wireless interface for communication to Symptoms Spacelabs Mobile App with 128 bit encrypted AES security for event management
- Provides haptic feedback
- 2.5 μV digitization for maximum ECG fidelity (12-bit)
- Pacemaker Spike Detection
- Patient activity acquisition using an accelerometer
- Lead off detection and Time and Date Recording
- Patient event button
- Patient event with symptoms / activities can be entered via the patients smartphone using the Mobile App.
- Full color display (23 x 23 mm) for configuration and hook-up
- · Lightweight and comfortable to wear
- Long life rechargeable lithium-ion battery
- Fast data download (< 60 seconds for 14 day, 3-Lead procedure)</li>
- Hard wearing and easily cleanable

| Internal Storage        | 16 GB   |  |  |  |
|-------------------------|---|--|--|--|
| Physical Dimensions     |   |  |  |  |
| Dimensions              | 70 x 48 x 15 mm (max)                               |  |  |  |
| Weight                  | Recorder body < 40 g (12-Lead patient cable < 85 g) |  |  |  |
| Electrical Requirements |   |  |  |  |
| Battery                 | Rechargeable Lithium-lon battery                    |  |  |  |
| Battery Check           | Recording days available displayed on screen        |  |  |  |

## **Environmental Requirements**



| Storage &<br>Transport | Temperature  | -20 °C to 60 °C   |                                |             |  |
|------------------------|--------------|---|--------------------------------|-------------|--|
| Humidity               |              |   |                                |             |  |
| Operating              | Temperature  |   |                                |             |  |
| , 3                    | Humidity     |   |                                |             |  |
| Pressure               |              |   |                                |             |  |
|                        |              | -381 m (-1253 ft) to 3010 m (9878 ft)   |                                |             |  |
| Water Ingress          | Protection   | Waterproof recorder, tested to IP67   |                                |             |  |
| Shock                  |              | 1 m drop  |                                |             |  |
| General                |              |   |                                |             |  |
| ECG Recording •        |              | <ul> <li>Standard 12-Lead via IEC or AHA 10 electrode cable</li> <li>3 channel Ambulatory ECG via 3 Electrode &amp; 4 Electrode cables (long, medium, or short)</li> <li>3 channel patch recording</li> </ul> |                                |             |  |
| Sampling Rate          | e            | 8192 samples per second   |                                |             |  |
| Stored Rate            |              | 128 samples per second  |                                |             |  |
| Dynamic Rang           | ge           | 10 mV   |                                |             |  |
| Amplitude Re           | solution     | 2.5 μV (Noise < 2 μV RMS) 12-bit  |                                |             |  |
| ECG Accuracy           | 1            | Meets 60601-2-47 Standard Amplitude +/- 10 % at 5Hz   |                                |             |  |
| Data Stored            |              | Full disclosure ECG, with pacing and patient event markers. Recording date & time, patient name & record number, and recorder serial number.  |                                |             |  |
| Frequency Re           | esponse      | 0.05 Hz to 40 Hz Ambulatory ECG bandwidth (patch, 3 or 4 electrode cables) and 0.05 Hz to 160 Hz enhanced bandwidth (12-Lead).  |                                |             |  |
| Pacing Pulse           | sensitivity  | Pulse widths 0.1 ms to 2.0 ms, 2 mV to 200 mV amplitude between defined pacing electrodes   |                                |             |  |
| Common Mod             | de Rejection | >= 80 dB at 20, 50, 60, 100 and 120 Hz  |                                |             |  |
| Input Impeda           | nce          | > 10 M Ohm  |                                |             |  |
| Noise Suppre           | ssion        | Active neutral system (in 12-Lead mode)   |                                |             |  |
| Display                |              | 23 x 23 mm color display  |                                |             |  |
| Clock                  | Accuracy     | Clock & Calendar, selectable 12/24 hour and US / EU / Chinese formats.  Better than +/- 30 seconds in 24 hours.   |                                |             |  |
| Electromad             | netic Comp   | patibility  |                                |             |  |
| Emissions              | , ,          | CISPR11/FCC Part 15 Class B   |                                |             |  |
| Immunity               |              | IEC 61000-4-3 Radiated RF 10 V/m 80 MHz to 2.7 GHz IEC 61000-4-2 ESD 8 kV contact, 15 kV air  |                                |             |  |
| Regulatory             | ,            |   |                                |             |  |
| Regulatory             |              | CE marked in accordance with Medical Device Directive 93/42/EEC as amended by 2007/47/EC IEC60601-1:2012, IEC60601-2-47:2012, IEC60601-1-2:2014, IEC60601-1-6:2013, IEC60601-1-11:2015                        |                                |             |  |
| Accessorie             | S            |   |                                |             |  |
| 3 electrode c          | able long    | 700-0372-00   | 4 electrode cable short        | 700-0379-00 |  |
| 3 electrode c          | able medium  | 700-0373-00   | 10 electrode patient cable IEC | 700-0376-00 |  |
| 3 electrode c          | able short   | 700-0378-00   | 10 electrode patient cable AHA | 700-0377-00 |  |
| 4 electrode c          | able long    | 700-0374-00   | Patch (box 10)                 | 712-1052-00 |  |
| 4 electrode ca         | able medium  | 700-0375-00   | Belt Clip                      | 706-0207-00 |  |
| Patient Diary          |              | 000-0585-00   | Patient Self-Hook-Up Guide     | 073-0607-00 |  |



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