

Reanibex Serie 800

Monitor Defibrillator
Monitor Desfibrilador
Moniteur Défibrillateur



FEATURES

- Manual and Automated Biphasic Defibrillator up to 360 Joules.
- Lightweight equipment with monitoring and diagnostic capabilities.
- Large colour display (8,4").
- Synchronized Cardioversion.
- 3, 5 and 10- lead patient cable.
- High performance with ease of use and very intuitive.
- Modular. Easily upgradeable.
- Plug and play system to add new options.
- 12-lead ECG data transmission from the field to the Emergency Service.
- Masimo Rainbow SET technology that monitors SpO2, Carboxyhemoglobin and Methemoglobin.
- Oridion capnography. Microstream technology.
- Non-invasive Blood Pressure from SunTech Medical.
- Operates from the mains (AC), from a vehicle battery (DC) and with its internal battery.

CARACTERÍSTICAS

- Desfibrilador Bifásico Manual y Automatizado hasta 360 Julios.
- Equipo ligero con capacidad de monitorización y diagnóstico.
- Amplia pantalla color (8,4").
- Cardioversión sincronizada.
- Cable de paciente de 3, 5 y 10 latiguillos.
- Altas prestaciones con un uso fácil y muy intuitivo.
- Modular. Fácilmente ampliable.
- Sistema Plug and Play para añadir nuevas opciones.
- Transmisión de las 12 derivadas ECG del escenario de actuación a la central de Emergencias.
- Monitorización de SpO2, Carboxihemoglobina y Metahemoglobina con tecnología Masimo Rainbow SET.
- Capnografía de Oridion. Tecnología Microstream.
- Presión sanguínea no invasiva de SunTech Medical.
- Funcionamiento desde la red (AC), desde la batería de un vehículo (DC) y con su batería interna.

CARACTÉRISTIQUES

- Manuel et Automatique avec Technologie bi-phasique jusqu'à 360 joules.
- Équipement léger avec des capacités de monitorisation et de diagnostic.
- Grand écran couleur (8,4").
- Cardioversion synchronisée.
- Câble de patient à 3, 5 et 10 brins.
- Haute performance avec simplicité d'utilisation et très intuitive.
- Facilement extensible.
- Plug and Play système pour y ajouter des nouvelles options.
- Transmission de 12 dérivations ECG du site d'intervention à la centrale d'urgence.
- Monitorisation de SpO2, Carboxyhémoglobine et la Méthémoglobine avec Masimo Rainbow SET.
- Capnographie d' Oridion. Technologie Microstream.
- Pression artérielle non invasive de SunTech Medical.
- Fonctionnement sur secteur (CA), depuis la batterie d'un véhicule (CC)et avec sa batterie interne.



- 01** Therapy selector
Selector de terapia
Sélecteur de therapie



- 02** Status Indicator
Indicador de estado
Indicateur d'état



- 03** Optional Modules. Plug & Play System
Módulos opcionales. Sistema Plug&Play
Modules optionnels. Plug&Play system



- 04** Non invasive pacing
Marcapasos no invasivo
Stimulateur cardiaque non invasive



- 05** External reusable paddles with contact indicator on the APEX paddle
Palas externas reutilizables con indicador de contacto en Pala APEX
Palettes externes réutilisables avec indicateur de contact dans la palette APEX



- 06** Automated Defibrillator
Desfibrilador Automatizado
Défibrillateur Automatisé

- 07** Large Colour Screen organised by functional areas

Amplia Pantalla en color organizada por zonas funcionales
Écran couleur organisé par zones fonctionnelles



- 08** Bluetooth transmission
Transmisión Bluetooth
Transmission Bluetooth



- 09** 106 mm Printer (Optional)
Registrador de 106 mm (Opcional)
Enregistreur de 106 mm (Optionel)



- 10** "Compact Flash" memory card
Tarjeta de memoria "Compact Flash"
Carte Memoir "Compact Flash"



- 11** Dedicated key for 12 ECG acquisition
Tecla dedicada para la adquisición de 12 ECG
Touche dédié pour l'acquisition de 12 ECG



ACCESSORIES

- Carrying case.
- Ambulance bracket (EN1789).
- 3/ 5/ 10- lead patient cable.
- REANIBEX Data Manager. PC Software for managing the information recorded by the device.

ACCESORIOS

- Bolsa de transporte.
- Soporte para ambulancia (EN1789).
- Cable de paciente de 3/ 5/ 10 latiguillos.
- REANIBEX Data Manager. Aplicación Software para gestión de todos los datos registrados por el equipo.

ACCESOIRES

- Sacoche de transport.
- Support d'Ambulance (EN1789).
- Câble de patient à 3/ 5/ 10 brins.
- REANIBEX Data Manager. Application logicielle PC pour la gestion de toutes les données enregistrées par l'appareil.

OPTIONS

- 01** Non invasive pacing.
- 02** Pulse oximeter. SpO2/ SpMet/ SpCO/ PVI/ SpHb/ SpOC.
- 03** Capnography. Microstream technology from Oridion Medical.
- 04** Non-invasive blood pressure from SunTech Medical.
- 05** 12-lead ECG acquired simultaneously.
- 06** Bluetooth data transmission to PDA or Computer and from the PDA to a web server.

OPCIONES

- 01** Marcapasos no invasivo.
- 02** Pulsioxímetro. SpO2/ SpMet/ SpCO/ PVI/ SpHb/ SpOC.
- 03** Capnografía. Tecnología Microstream de Oridion Medical.
- 04** Presión sanguínea no invasiva de SunTech Medical.
- 05** Adquisición simultánea de 12 derivadas ECG.
- 06** Transmisión Bluetooth a PDA o PC y de la PDA al servidor web.

OPTIONS

- 01** Stimulateur cardiaque non invasive.
- 02** Oxymétrie. SpO2/ SpMet/ SpCO/ PVI/ SpHb/ SpOC.
- 03** Capnographie. Technologie Microstream de Oridion Medical.
- 04** Pression artérielle non invasive de SunTech Medical.
- 05** L'acquisition simultanée des 12 dérivations ECG.
- 06** Transmission Bluetooth au PDA ou PC et du PDA vers le serveur web.

Reanibex

Serie 800

Technical Specifications

GENERAL

Dimensions	300 mm (Width) x 260 mm (Depth) x 350 mm (High)
Weight	Basic equipment with AC/DC module: 7.6 Kg External paddles: 0.95 Kg Battery: 0.8 Kg

DEFIBRILLATOR

Waveform	Biphasic truncated exponential adapted to patient's impedance
Energy delivery	By means of reusable external paddles for adults (pediatric paddles integrated) or multifunction disposable electrodes
Output energy accuracy	$\pm 15\%$ or ± 3 Joules, whichever is greater, over the whole range
Charging time	Less than 5 seconds at 200 Joules with a new fully charged battery Less than 7 seconds at 360 Joules with a new fully charged battery

MANUAL MODE

Selectable energy levels	1-10, 15, 20, 30, 50, 70, 100, 125, 150, 175, 200, 250, 300 and 360 Joules
Energy selection control	Therapy selector on the front panel
Charge control	Key on front panel or key on the reusable external paddles
Synchronized cardioversion	SYNC key on the front panel
Indicators	Texts and voice messages, audible alerts, status indicator, synchronization indicator, battery indicator, external power supply connection indicator
Available energy indicators	Charging tone, available energy tone, flashing discharge button, indication of the selected energy on screen

AED MODE

Selectable energy levels	150, 175, 200, 250, 300 and 360 Joules
Audible and on-screen messages	Guide the user through the operation protocol
Indicator	Texts and voice messages, audible alerts, status indicator, battery indicator, external power supply connection indicator
Available energy indicators	Charging tone, available energy tone, flashing discharge button, message and icon on screen
Defibrillable rhythms	Ventricular fibrillations and rapid ventricular tachycardias
Specificity and sensibility of the detection algorithm	Fulfills AHA requirements
Resuscitation guidelines	Factory set 2010 Guidelines (ERC/AHA)

ECG MONITOR

Inputs	Ability to view up to 3 ECG waveforms on screen. 3 lead-wires patient cable: leads I, II or III. 5 lead-wires patient cable: leads I, II, III, aVF, aVL, aVR and V. 10 lead-wires patient cable: leads I, II, III, aVF, aVL, aVR, V1, V2, V3, V4, V5 and V6. ECG signal can be obtained through patient cable, reusable external paddles or multifunction disposable electrodes.
Sensitivity	0.25, 0.5, 1, 2 and 4 cm/mV and auto-gain
Heart rate	From 30 to 300 ppm with $\pm 10\%$ of accuracy
Common mode rejection rate	More than 100 dBs (IEC 60601-2-27)
Frequency response	Mains filter: 50 Hz o 60 Hz On recorder: 0,67 – 40 Hz, 1 – 30 Hz or 0,05 – 150 Hz On screen: 0,67 – 40 Hz or 1 – 30 Hz

SCREEN

Size	8,4" (diagonal)
Type	Color TFT
Resolution	800 x 600 pixels
Sweep rate	25 mm/s for ECG and SpO ₂ waveforms, and 6.25 or 12.5 mm/s for CO ₂ waveform
Waveform display time	5,4 seconds for ECG signal (10,8 seconds in cascade mode)

RECORDER

Type	Thermal array
Paper width	50 mm (106 mm optional)
Speed	10, 25 and 50 mm/s with an accuracy of $\pm 5\%$
Operation modes	Manual: Waveforms are printed along with their events and measurements using the printer start/stop key on the front panel. Automatic: The equipment can be configured to print automatically when a marker is introduced, when a discharged is performed or when there is an alarm. Delayed: Waveforms are printed with a 8 seconds delay with respect to the information displayed on screen.
Reports	Operation report, trends, 12 lead reports, configuration parameters, last test results, equipment information and information of the events stored in the memory card.

PACEMAKER

Waveform	Rectangular constant current
Pulse width	40 ms ($\pm 10\%$ of accuracy)
Amplitude	From 0 to 200 mA ($\pm 10\%$ of accuracy)
Frequency	From 30 to 180 ppm ($\pm 10\%$ of accuracy)
Operating modes	Fixed and On-demand
Refractory period	340 ms from 30 to 80 ppm 240 ms from 85 to 180 ppm

PULSIOXMETRY

Range	From 0 to 100 %
Accuracy	Without movement $\leq 2\%$ With movement $\leq 3\%$
Pulse frequency	From 25 to 240 ppm
Pulse frequency accuracy	Without movement $\leq 3\%$ With movement $\leq 5\%$
Optional parameters	SpMet, SpCO, SpHb, PVI and SpOC

NONINVASIVE BLOOD PRESSURE

Range	Systolic: 40 – 260 mmHg Diastolic: 20 – 200 mmHg MAP: 26 – 220 mmHg
Accuracy	Fulfills the requirements of the ANSI/AAMI SP10:1992 and 2002 standard
Initial pressure	160 mmHg (default value for adult patients) 120 mmHg (default value for pediatric patients)
Pulse frequency range	From 30 to 220 ppm
Pulse frequency accuracy	$\pm 2\%$ or $\pm 3\%$ ppm, whichever is greater
Automatic measurement interval	Configurable from 1 to 60 minutes
Measurement time	30 seconds of average, 130 seconds maximum
Calibration	Annually

**END-TIDAL CARBON
DIOXIDE**

Range	From 0 to 99 mmHg
Resolution	1 mmHg (0,1 kPa)
Accuracy	From 0 to 38 mmHg: ± 2 mmHg From 39 to 99 mmHg: ± 5 % of the reading + 0.08% every 1 mmHg (above de 4 mmHg)
Sample size	50 ml per minute
Calibration	Annually or after 4,000 hours of operation, whichever occurs first

**AIRWAYS RESPIRATION
RATE (awRR)**

Range	From 0 to 150 breaths/minute (bpm)
Resolution	1 bpm
Accuracy	From 0 to 70 bpm: ± 1 bpm From 71 to 120 bpm: ± 2 bpm From 121 to 150 bpm: ± 3 bpm

12-LEAD ECG

Inputs	10 lead-wires patient cable. Acquired signals can be printed on the recorder in the following formats: 3x4, 3x4 +1R and 3x4 + 3R.
12-leads transmission	From the equipment to a PDA and from the PDA to a remote server.

DATA STORAGE

Internal memory	Stores the operation report and the trends of all the monitored parameters up to a maximum of 24 hours from the switching on.
Compact Flash memory card	Stores the continuous ECG signal along with all the events and the audio (optional and only in AED mode). Stores the last 100 events with their associated ECG signal.

BATTERY

Type	Rechargeable NiMH, 3 A/h, 12 V
Capacity	More than 150 shocks at 360 Joules with a new fully charged battery at 25 °C More than 140 minutes of monitoring with ECG, SpO ₂ , CO ₂ and NIBP measurement taken every 15 minutes.
Charging time	Approximately 3 hours
Battery indicators	Battery capacity and status indicator on-screen Low battery, absence of battery and battery charging indication on the status indicator.

ENVIRONMENT

Operating temperature	From 0 °C to 45 °C
Storage temperature	From -20 °C to 60 °C
Humidity	10 to 95% non-condensing
Altitude	0 to 4000 m
Shocks	EN 1789:2007
Vibrations	EN 1789:2007
Solids/Water resistance	IPX4
EMC	IEC 60601-1-2:2007
Safety	IEC 60601-1
AC Supply	Input: 100 – 240 VAC, 50/60Hz, 2.5 Amperes
DC Supply	10 – 16 VDC, 10 Amperes