



Experience the Effectiveness

BIPHASIC DEFIBRILLATOR

RELIFE 900

POWERED BY

Masimo SET **SunTech Medical**



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**7 inch Colour TFT Screen**

Allows the clear and precise display of multiple waveforms and defibrillation parameters

**Bi-phasic waveform (Current - Controlled)**

The current controlled bi-phasic waveforms lowers the electrical threshold for successful defibrillation, besides adjusting for impedance

**High Energy Efficiency**

100 charge / discharge of 300J with fully charged new battery

**Wide Energy Levels**

2-300 J of energy level can be selected for defibrillation by the user

**Remote energy selection and charging**

Remote energy selection, charging and discharging through paddles facilitate convenient usage

**Voice Prompt Support**

Continuous voice prompts and on screen messages to aid in revival and resuscitation process

**Metronome Signal for CPR Support**

Metronome signal for synchronizing chest compression during CPR

**Synchronized Cardioversion**

Synchronized Cardioversion function is available for providing defibrillation on sync with ECG waveform

**24 Events**

Memorises always the last 24 Critical Event ECG information which can be viewed or recorded

**Patient-Paddle Contact Indication**

Patient-Paddle quality of contact is provided on screen

Optional Enhancements***AED Mode with Selectable Energy Protocols**

In Automated External Defibrillator (AED) mode, the shock sequence can be selected based on the requirement

**Pulse oximetry**

Accurate SpO_2 measurements powered by

**Non-invasive Blood Pressure**

Accurate NIBP measurements powered by



*Upgradable at additional cost



Product Specifications

Manual Defibrillator		Shock delivery Control	Control on the front panel with blinking LED
Defibrillator Waveform	Current Controlled, Biphasic	ECG analysis time	< 15 seconds
Energy Selection Option	2-300J in steps of 2, 3, 5, 7, 10, 20, 30, 50, 70, 100, 150, 200, 250, 300 Joules	Impedance measurement	Verifies electrode contact
Energy Selection Control	Selected using keys located on the front panel or on the sternum paddle.	Movement and artefact detection	Continuous examination of signal quality
Paddle Assembly	Detachable type external paddle assembly with coiled retractable high voltage cable Adult & paediatric paddles integrated into same handle	VF/VT Sensitivity	> 90%
Charge Control	Control on the front panel and on the apex paddle.	Specificity	> 95%
Synchroniser	Energy is delivered within 50 msec of the detected R-wave peak. SYNC message displayed on screen. Sync LED illuminates in Sync mode & blinks during each detected QRS wave Sync marker appears on both screen and recorder strip	Monitor	
Patient Impedance	25–200 ohms:Actual patient impedance during shock is displayed on the screen	Display	7" Colour TFT
Charge Time	300 Joules in less than 7 seconds when connected to AC mains 300 Joules in less than 9 seconds with a fully charged new battery	Sweep speed	25 ± 1 mm/sec
AED (Optional)		ECG Input modes	ECG input through Paddles or ECG Patient cable.
Shock Sequence	Low-Low-Low/Low-Low-High/Low-High-High Low - 200J and High - 300J (Programmable)	ECG Lead selection	3 Lead or 5 Lead cable
Analysis Control	Automatic on attaching electrodes. Additional control on the front panel to restart rhythm analysis	Leads off indication	LEADS OFF message displayed on the screen.
AED Mode Usage Guidance	Though voice prompts and on screen text messages	User gain settings	8 level setting 2.5, 5, 7.5, 10, 15, 20, 30 & 40 mm/mV
Shock delivery	Through external disposable electrodes suitable for patients with weight >25 Kgs.	Reset recovery	Automatic recovery of waveform within 0.5seconds after overload or defibrillation
		Pace pulse recognition	Detects and rejects pace maker pulses of amplitude between ±2mV and ±700mV and duration between 100microseconds and 2milli seconds.
		Common mode rejection	>90 dB at 50Hz
		Input impedance	>2.5 Mohm
		Frequency response	0.5 to 40 Hz
		Heart rate display	10 to 300 BPM; Accuracy ±2 BPM or 2% whichever is higher.
		QRS tone	Audible tone with every detection of QRS. Beep volume can be adjusted by users.

Product Specifications

Defibrillator protection	Available
ECG trace freeze	Available & Freezes the ECG trace on the screen. MARK key can be configured to freeze and remove freeze condition. HR, SpO2, NIBP display and Alarms are active in freeze mode.
1 Channel Thermal Recorder (Optional)	
Paper speed	25 ± 1 mm/sec
Paper size and type	Thermal paper in rolls. 58 mm width, 15 meters.
Event recording	Stores and prints 3 seconds pre critical data and 7 seconds post critical event data up to 24 events. Data is retained even after the unit is turned off.
Recorder mode	Configurable to print either real time or 6 seconds delayed ECG.
Memory	
Event information	Last 24 critical events are stored along with ECG information. Events include MARK key press, Shock delivery and HR Alarm violation.
Trend	Last 200 NIBP measurement data and last 200 Alarm violation information.
Power and Battery	
AC input	100 – 240Vac, 50/60 Hz & < 240 VA
Battery	Sealed Lead Acid 12V, 4.5AH; >100 discharges of 300 Joules (With Fully Charged New Battery)
Safety	
Classification	Class I with internal power supply as per IEC 60601-1
Degree of protection	
• ECG	Type CF
• SpO2	Type BF
• NIBP	Type BF
• Paddle	Type BF
Physical and Environmental	
Dimensions	370mm (W) x 300mm (D) x 290mm (H)
Weight	Less than 8.5Kg. (including battery, external paddles)
Operating temperature	0 to 40° C
Storage temperature	-10 to 60° C (except disposable electrodes)
Relative humidity (operating and storage)	15 to 95% non-condensing

Masimo SpO2 (Optional)	
SpO2	
SpO2 Range	1 – 100%
Resolution	1%
Accuracy (During no motion conditions)	70 – 100% ± 2%, in Adults and Paediatrics 0 – 69%, unspecified
Accuracy (During motion conditions)	70 – 100% ± 3%, in Adults and Paediatrics 0 – 69%, unspecified
Averaging time	2-4 / 4-6 / 8 / 10 / 12 / 14 / 16 Seconds (User selectable)
Pulse Rate	
Range	25 – 240 bpm
Resolution	1 bpm
Accuracy (During no motion conditions)	± 3 bpm
Accuracy (During motion conditions)	± 5 bpm
Perfusion Index Resolution	0.01%
Low perfusion performance (>0.02% Pulse Amplitude and % Transmission > 5%)	Saturation(%SpO2) ± 2% Pulse Rate ± 3 bpm
Suntech NIBP (Optional)	
Method	Oscillometric
Operating Modes	Manual, Automatic and Stat
Blood Pressure Range	
Systolic	Adult: 40 – 250 mmHg Paediatric: 40 – 230 mmHg
Diastolic	Adult: 20 – 200 mmHg Paediatric: 20 – 160 mmHg
MAP (Mean Atrial Pressure)	Adult: 26 – 220 mmHg Paediatric: 26 – 183 mmHg
Cuff Pressure Measurement Range	0 to 300 mmHg
Initial Inflation Pressure	Adult: 160 mmHg Paediatric: 140 mmHg
Pressure Transducer Accuracy	± 3 mmHg or 2% of the reading whichever is greater
Cycle Time in Auto mode	1, 2, 3, 5, 10, 15, 30, 60, 90 Minutes (User selectable)
Cycle Time in Stat mode	5 Minutes
Maximum Inflation Time	75 Seconds
Blood Pressure Accuracy	Meets accuracy requirements of ANSI/AAMI SP10:2002(R)2008, EN1060-4:2004 and ISO 81060-2-2009 standards

*Technical specification subject to change

CERTIFIED ISO 13485:2003, ISO 9001:2008 COMPANY

BPL Medical Technologies Private Limited

Regd. Office: 11th KM, Bannerghatta Road, Arakere, Bangalore - 560076, India.

Toll Free: 1800-4252355

Website: www.bplmedicaltechnologies.com

For Enquiries: sales.medical@bpl.in

CIN: U33110KA2012PTC067282



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