

# BeneHeart C1A

## Automated External Defibrillator (AED)



### Defibrillator

Operations	Semi-automatic and fully automatic versions
Waveform	Biphasic Truncated exponential (BTe), with automated voltage and duration compensation for patient impedance
Range of selected energy	100 to 360 J (adult) 10 to 100 J (child)
Energy default	200-300-360 J (adult) 50-70-100 J (child) Default configuration meets AHA/ERC Guidelines 2015.
Energy accuracy	$\pm 2$ J or $\pm 10$ % of setting, whichever is greater
Power on time	< 2 seconds
ECG analysis time	< 5 seconds
Charge time	0 seconds (as device is pre-charged during ECG analysis)
Time from power on to shock ready	< 8 seconds (200J, new battery, 20 $\pm$ 5 $^{\circ}$ C)
Mindray shockable rhythm analysis algorithm	Acquires and analyzes the patient's ECG signals to determine whether or not to give a defibrillation shock
Sensitivity and specificity	Meets AAMI DF80 specifications and IEC 60601-2-4 specifications
Patient impedance range	25 to 300 $\Omega$

### User Prompts

User prompts	Voice prompts
CPR coaching	Voice guide CPR metronome CPR real-time feedback <sup>1</sup>
CPR protocol	Meets AHA/ERC Guidelines 2015 and/or can be configured locally

### Controls

Lid release/ON-OFF	Controls device power on/off
Shock button	Delivers energy when button presses by the user (semi-automatic only)
Adult/child mode switch	Switch to child mode for reduced energy and appropriate CPR guidance

Language button	Optional feature allows the user to switch between max. 3 languages
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### Physical Characteristics

Dimension	210 mm (w) x 286 mm (d) x 78 mm (h)
Weight	2.0 kg (including one battery)

### Environmental

Dust/water resistance	IP55
Temperature	Operating: -5 to 50 $^{\circ}$ C Short-term storage: -30 to 70 $^{\circ}$ C for a maximum of 7 days Long-term storage: 15 to 35 $^{\circ}$ C
Humidity	Operating/storage: 5 to 95 % (non-condensing)
Altitude	Operating/storage: -381 m to +4575 m
Shock	RTCA-DO-160G-2010, Section 7 IEC60601-1-12, 10.1.3, 10.1.4
Vibration	MIL-STD-810G-2008, method 514.6, Category 13, Category 14, Category 20, Category 24 EN13718-1, 4.7.2
Bump	EN1789, 6.3.4.2 EN13718-1, 4.7.2
Drop	1.5 m
EMC	IEC60601-1-2: 2014 EN13718-1, 4.5.7 IEC 60601-1-12, 11

### Battery

Type	Lithium manganese dioxide (Li/MnO <sub>2</sub> ), disposable, 4200 mAh
Standby life	6 years (at 20 $\pm$ 5 $^{\circ}$ C, performing auto test every week, not in use, not sending self-test report) 5 years (at 20 $\pm$ 5 $^{\circ}$ C, performing auto test every day, not in use, not sending self-test report)
Capacity	With new battery at 20 $\pm$ 5 $^{\circ}$ C: $\geq$ 15 hours of operating times; provides max. 400 shocks @200J ( $\pm$ 3 shocks < 1 minute )
Replace battery	Min. 10 shocks at 200 J and 30 minutes

indication of operating time (at 20±5 °C, typical).

Weight 300 g

#### Electrode Pads

Type Pre-connected, disposable, for adult/child

Shelf life 5 years (from date of manufacture)

#### CPR Sensor<sup>2</sup>

Weight Approximately 180 g (without battery)

Thickness 17.5 to 19 mm

#### Automatic Self-test

Auto-test Daily, weekly, monthly, quarterly

Status indicator Visual indicators indicating system readiness

#### Data Storage

Events Up to 500 events

Voice recording Up to 1 hour

CPR data Up to 5 hours

Self-test reports 1000 records

Data export Through USB flash memory

#### Communications

Wireless data Through 5G/2.4G Wi-Fi or cellular (4G)<sup>3</sup>

transfer to AED-network

Alert™ 2.0 system

<sup>1</sup> Requiring to configure with CPR sensor

<sup>2</sup> For further information about the availability of CPR sensor, please contact with your local sales representatives.

<sup>3</sup> For further information about the availability of 4G data transfer and AED-Alert™ 2.0 system, please contact with your local sales representatives.

