mindray

# BeneHeart C1A

Semi-/Fully-Automatic AED (Automated External Defibrillator)

## Smarter & Faster



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Location: Moldova
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www.mindray.com

P/N:ENG-BeneHeart C1A-210285X8P-20190830



mindray
healthcare within reach


## Intuitive Design

- Open the lid to power on
- Semi-automatic or fully automatic version
- Up to 3 languages to select
- Pre-connected adult/ child electrodes
- Adult/child mode

# Smart & Easy

## Intelligent ResQNavi™

For public rescue, the rescuer's proficiency in the resuscitation process often varies greatly. Rescuers who lack resuscitation experience need more detailed guidance, while experienced rescuers only need simple prompts and too complicated prompts might reduce the efficiency of these rescuers.
Based on a large number of user behavior and psychological research results, ResQNavi™ technology can evaluate the proficiency level of rescuers and provide targeted intelligent rescue navigation for different rescuers throughout the whole resuscitation process.

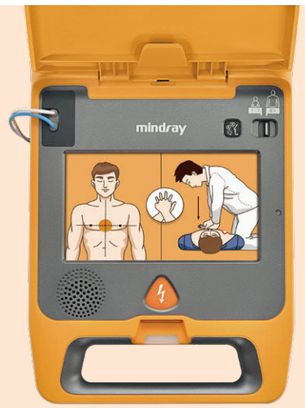
## User Interactive Rescue Guidance

BeneHeart C1A knows what you need. When the rescuer is too nervous or inexperienced and does not apply the pads for a long time, ResQNavi™ is able to recognize the challenge of the rescuer encounters in time, and provide more detailed operation guidance for the rescuer through the change of voice prompts.

Skilled rescuer

Remove clothing from patient's chest.

Apply pads as shown on pads.




**Unskilled** rescuer

**Remove pads package from lid of AED. Tear open package.** Apply pads as shown on pads.

Apply pads **firmly** to patient's **bare** chest as shown on pads.

.....

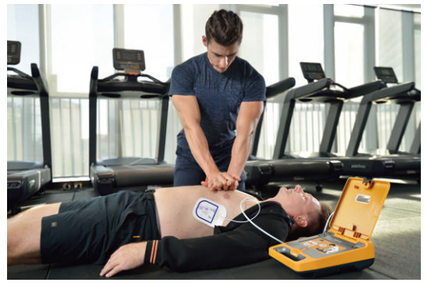
## Continuous Encouragement during CPR Process

ResQNavi™ provides comprehensive CPR navigation for rescuers in accordance with the latest AHA/ERC guidelines to help rescuers perform high quality CPR.

- CPR mode can be configured to 30:2, 15:2 and hands-only
- Simple switching between adult-child mode
- CPR metronome
- CPR real-time feedback[1]
- CPR process encouragement can continuously encourage the rescuer and help to achieve the goal of saving a life, just like a personal coach at side

EUROPEAN RESUSCITATION COUNCIL

American Heart Association.



*[1] Requiring to configure with CPR sensor. For further information about the availability of CPR sensor, please contact with your local sales representatives.*

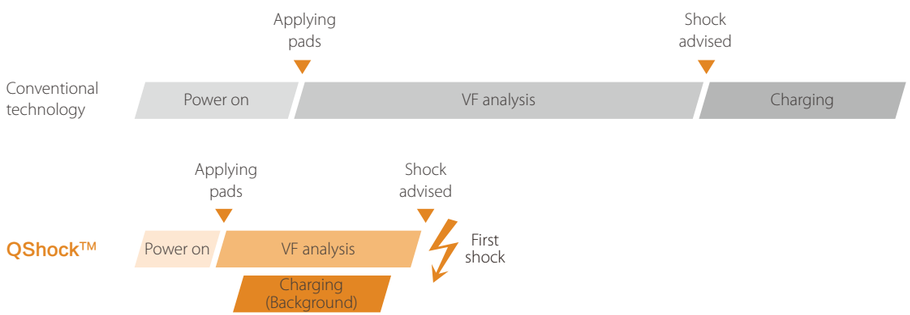
# Faster & Powerful Shock

## QShock™-Faster Time to 1st Shock

Success rates for defibrillation drop every second.
BeneHeart C1A is equipped with our new QShock™ technology. With the QShock™, BeneHeart C1A is able to increase the chance of a successful defibrillation.
It only takes less than 8 seconds to deliver the first shock.[2]


## How can QShock™ technology achieve a faster first shock?

QShock™ not only greatly shortens the time of power-on and heart rhythm analysis but also performs synchronous pre-charging in the process of heart rhythm analysis.
After the rhythm analysis is completed the energy can be delivered immediately without any delay, so that victims can get electric shock as soon as possible, and rescuers might feel more calm due to the shorter time for waiting.




[2] *Not including the time of applying pads.*
[3] *As device is pre-charged during ECG analysis.*

## 360BTe-Higher Energy for Better Outcome

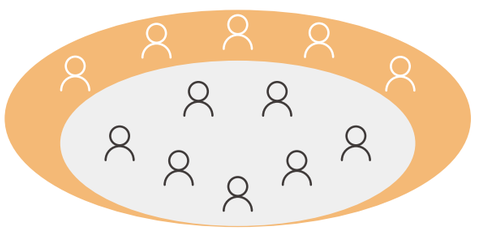
BeneHeart C series features 360J biphasic technology with auto-compensation according to patient impedance, which increases the chance to save difficult-to-defibrillate patients.

*If using a manual defibrillator capable of escalating energies, higher energy for second and subsequent shocks may be considered.*

*-- 2015 AHA Guideline, Part 7*

*… a larger study showed termination rates of refibrillation declined when using repeated 200J shocks, unless an increased energy level (360J) was selected.*
*Human studies have not shown harm (raised biomarkers, ECG changes, ejection fraction) from any biphasic waveform up to 360J.*

*-- 2015 ERC Guideline, Section 3*



200J works for many people,
but does not work for everyone.

**360J works while 200J failed.**

# Reliable & Durable Quality

BeneHeart C1A has passed a series of rigorous tests. Its reliable quality makes BeneHeart C1A able to face a variety of challenges of severe environments with great confidence.


6-surface 1.5m drop test

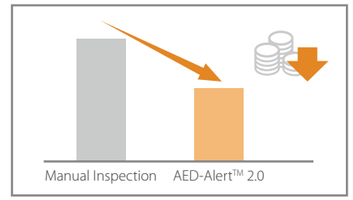

IP55 water-/dust-proof

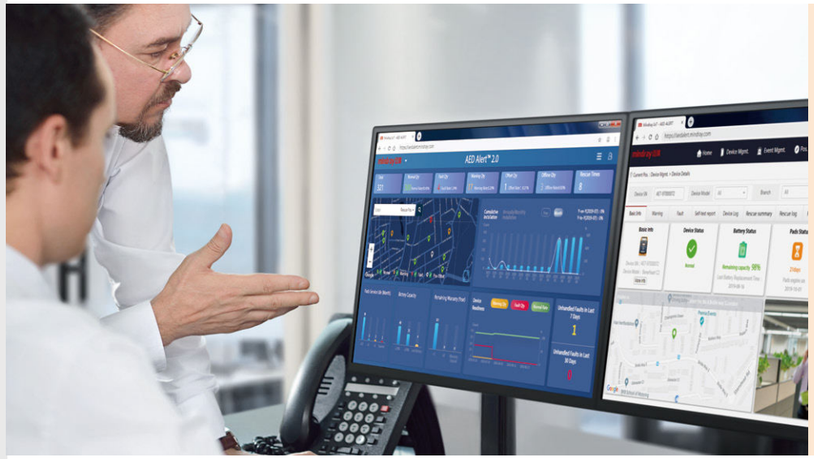
Meets all standards for helicopter and other transport

BeneHeart C1A is equipped with high quality consumables. The durable battery and pads have a life cycle up to 5 years, which results in lower total cost of ownership.

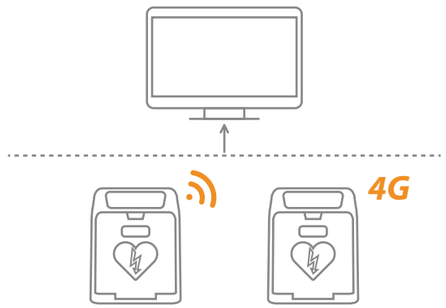
# Stay Connected, Stay Confident

AED-Alert™ 2.0 system[4] helps managers realize remote and centralized AED management through advanced IoT technology and replaces manual inspection with automatic self-test to reduce daily maintenance costs.
AED-Alert™ 2.0 provides comprehensive device status reminders to ensure AED's always ready to use, which results in the reduction of the daily maintenance risks at the same time.




- Complete overview of all AEDs
- AED fault notification
- Pads & battery expiry date reminder
- Electronic fence




## Flexible Network Solutions

BeneHeart C1A can be equipped with Wi-Fi or 4G in order to connect with AED-Alert™ 2.0 environments.


## High Data Security

AED-Alert™ 2.0 fully meets the EU General Data Protection Regulation (GDPR).

*[4] For further information about the availability of AED-Alert™ 2.0, please contact with your local sales representatives.*

# 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)<br>10 to 100 J (child) |
| Energy default | 200-300-360 J (adult)<br>100-100-200 J (child)<br>Default configuration meets AHA2020/ERC2021 Guidelines. |
| Energy accuracy | ±2 J or ±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± 5℃) |
| 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 Ω |

### User Prompts

| | |
|---|---|
| User prompts | Voice prompts |
| CPR coaching | Voice guide<br>CPR metronome<br>CPR real-time feedback[1] |
| 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 |

### 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 °C<br>Short-term storage: -30 to 70 °C for a maximum of 7 days<br>Long-term storage: 15 to 35℃ |
| Humidity | Operating/storage: 5 to 95 % (non-condensing) |
| Altitude | Operating/storage: -381 m to +4575 m |
| Shock | RTCA-DO-160G-2010, Section 7<br>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<br>EN13718-1, 4.7.2 |
| Bump | EN1789, 6.3.4.2<br>EN13718-1, 4.7.2 |
| Drop | 1.5 m |
| EMC | IEC60601-1-2: 2014<br>EN13718-1, 4.5.7<br>IEC 60601-1-12, 11 |

### Battery

| | |
|---|---|
| Type | Lithium manganese dioxide (Li/MnO2), disposable, 4200 mAh |
| Standby life | 6 years (at 20±5 °C, performing auto test every week, not in use, not sending self-test report)<br>5 years (at 20±5 °C, performing auto test every day, not in use, not sending self-test report) |
| Capacity | With new battery at 20±5 °C:<br>≥ 15 hours of operating times; provides max. 400 shocks @200J (± 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[2]** | |
| 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 transfer to AED-Alert™ 2.0 system | Through 5G/2.4G Wi-Fi or cellular (4G)[3] network |

[1] Requiring to configure with CPR sensor

[2] For further information about the availability of CPR sensor, please contact with your local sales representatives.

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

# BeneHeart C & BeneHeart S Series

# Automated External Defibrillator

# Operator's Manual

(BeneHeart C1/BeneHeart C1A/BeneHeart C2/BeneHeart C2A/
BeneHeart C1 Fully Automatic/BeneHeart C1A Fully Automatic/
BeneHeart C2 Fully Automatic/BeneHeart C2A Fully Automatic/
BeneHeart S1/BeneHeart S1A/BeneHeart S2/BeneHeartS2A/
BeneHeart S1 Fully Automatic/BeneHeart S1A Fully Automatic/
BeneHeart S2 Fully Automatic/BeneHeart S2A Fully Automatic)

CE 0123



■ Release time: 2019-12

■ Revision: 5.0

# 2 Equipment Introduction

## 2.1 Overview

The BeneHeart C & S series automated external defibrillator is designed for treating life-threatening heart beat irregularities.

There are two types of product models provided: semi-automatic and fully automatic. Some of the series equipments are configured with the screen. Characteristics of the product models are detailed in the following table.

| Model | | Defibrillation mode | With the Shock button? | With the Screen? |
|---|---|---|---|---|
| BeneHeart C series | BeneHeart C1 | semi automatic | Yes | No |
| | BeneHeart C1A | | | |
| | BeneHeart C2 | | | Yes |
| | BeneHeart C2A | | | |
| | BeneHeart C1 Fully Automatic | fully automatic | No | No |
| | BeneHeart C1A Fully Automatic | | | |
| | BeneHeart C2 Fully Automatic | | | Yes |
| | BeneHeart C2A Fully Automatic | | | |
| BeneHeart S series | BeneHeart S1 | semi automatic | Yes | No |
| | BeneHeart S1A | | | |
| | BeneHeart S2 | | | Yes |
| | BeneHeart S2A | | | |
| | BeneHeart S1 Fully Automatic | fully automatic | No | No |
| | BeneHeart S1A Fully Automatic | | | |
| | BeneHeart S2 Fully Automatic | | | Yes |
| | BeneHeart S2A Fully Automatic | | | |

After the electrode pads are applied to the patient's chest, the equipment analyzes the patient's heart rhythm.

- If a shockable rhythm is detected, the semi-automatic model requires the operator to deliver the shock, the fully automatic model delivers the shock without any intervention.
- If non-shockable rhythm is detected, the equipment enters CPR status by default.

Both types of models provide voice instructions that guide you through the entire defibrillation process. A flashing Shock button on the semi-automatic model is also presented to reinforce the voice prompts

The equipment also provides real-time CPR feedback, including the chest compression depth, rate and interruption time if it is connected with a CPR sensor.

### 2.1.1 Intended Use

The BeneHeart C & S series defibrillator, hereafter called the equipment, is intended to be used on adults and children in a sudden cardiac arrest. The patients must be:

- Unresponsive
- Not breathing or not breathing normally

The equipment also guides the operator throughout cardiopulmonary resuscitation (CPR) with voice and/or visual guidance.

The equipment is to be used in public places and facilities by persons who have been trained in its operation. The operator should be trained in basic life support, advanced cardiac life support or other emergency medical response.

### 2.1.2 Contraindications

Do not use the equipment when the patient is showing any of the following:

- Consciousness
- Breathing

## 2.2 Applied Parts

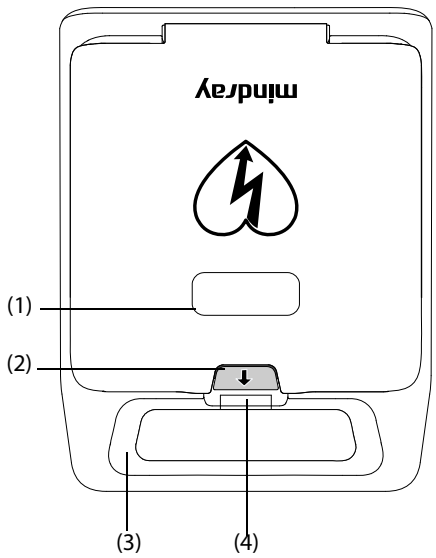
The applied parts of the equipment are:

- Electrode pads
- CPR sensor (if configured)

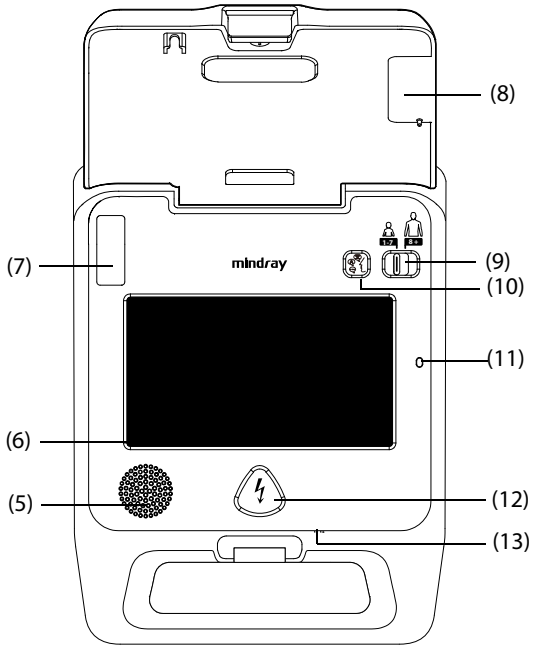
## 2.3 Main Unit

Based on the clinical application, the view that the equipment laid on the ground with lid opened is taken as the reference direction. The following views are defined by the reference direction.

### 2.3.1 Top View




With lid closed




With lid opened

(1) Pad expiration window: checks the expiration date of pads.

(2) Latch: opens or closes the lid.

(3) Handle

(4) Status indicator
- Green: the equipment is turned on, and can work correctly.
- Flashing green: the equipment is in the standby status, and is ready for operation at any time.
- Flashing red: auto test failure is detected on the equipment.
- Off: no battery is installed or the battery is malfunctioning.

(5) Speaker: the equipment automatically adjusts the volume depending on surrounding noise levels by default.

(6) Display screen (for equipment configured with the screen)

(7) Pads connector: connects the electrode pads.

(8) Pads package holder: stores the electrode pads.

(9) Adult/Child mode switch: flip right or left to switch between adult and child.

(10) Language button: press to switch between the configured languages.

(11) Optical sensor (for equipment configured with the screen):
the equipment automatically adjusts the screen brightness depending on surrounding light by default.

(12) Shock button (for semi-auto model): press to deliver a shock to the patient.

(13) Microphone: records voices. It is available only when the record function is enabled.

| Drop |
|---|
| 1.5 m per IEC 68-2-32, 1 on each of the six surfaces. |

**CAUTION**

- **The equipment may not meet the performance specifications if stored or used outside the specified temperature and humidity ranges. If the performance of the equipment is degraded due to aging or environmental conditions, contact your service personnel.**

## A.3 Physical Specifications

| Main Unit | Size (Width × depth × height) | Weight |
|---|---|---|
| BeneHeart C1/BeneHeart C1A/ BeneHeart S1/BeneHeart S1A | 21.0 cm×28.6 cm×7.8 cm (± 2cm) | 2.0 ± 0.3 kg, including one battery, excluding the Wi-Fi and cellular modules. |
| BeneHeart C2/BeneHeart C2A/ BeneHeart S2/BeneHeart S2A | | 2.3 ± 0.3 kg, including one battery, excluding the Wi-Fi and cellular modules. |
| BeneHeart C1 Fully Automatic/ BeneHeart C1A Fully Automatic/ BeneHeart S1 Fully Automatic/ BeneHeart S1A Fully Automatic | | 2.0 ± 0.3 kg, including one battery, excluding the Wi-Fi and cellular modules. |
| BeneHeart C2 Fully Automatic/ BeneHeart C2A Fully Automatic/ BeneHeart S2 Fully Automatic/ BeneHeart S2A Fully Automatic | | 2.3 ± 0.3 kg, including one battery, excluding the Wi-Fi and cellular modules. |

## A.4 Display Specifications (for Equipment Configured with the Screen)

| | |
|---|---|
| Type | TFT Color LCD |
| Brightness | Auto, Outdoor Mode, Indoor mode.<br>In the auto mode, the equipment automatically adjusts the screen brightness according to the ambient light. |
| Size | 7 inch |
| Resolution | 800×480 pixels |
| Viewed waveforms | 1 |
| Wave viewing time | Max. ≥ 6s (ECG) |

## A.5 Audio Indicators

| | |
|---|---|
| Speaker | Gives prompt tones (65 dB to 78 dB).<br>Supports multi-level tone modulation. |

## A.6 Interface Specifications

| | |
|---|---|
| USB connector | 1, USB 2.0 |
| micro USB connector | 1, supports Windows 7 or above operating system |
| Network connector | 1, connects the Wi-Fi or cellular (2G/3G/4G) network. |
| Multifunction connector | 1, connects the CPR sensor. |

## A.7 Battery Specifications

<table>
<tr><td>Battery type</td><td colspan="2">Disposable battery</td></tr>
<tr><td>Battery voltage</td><td colspan="2">12V</td></tr>
<tr><td>Battery capacity</td><td colspan="2">4200mAh</td></tr>
<tr><td rowspan="8">Equipment configured without the screen</td><td>Operating time</td><td>Testing condition</td></tr>
<tr><td>≥ 15 hours</td><td>The equipment is powered by a new battery at 20 °C± 5 °C of ambient temperature, wireless function off, not performing defibrillation charges or discharges, voice volume set to low.</td></tr>
<tr><td>300 200J discharges</td><td rowspan="2">The equipment is powered by a new battery at 20 °C± 5 °C of ambient temperature, wireless function off, voice volume set to low, with one minute of CPR between discharges</td></tr>
<tr><td>190 360J discharges</td></tr>
<tr><td>510 150 J discharges</td><td rowspan="3">The equipment is powered by a new battery at 20 °C± 5 °C of ambient temperature, wireless function off, voice volume set to low, with three discharges every minute</td></tr>
<tr><td>400 200J discharges</td></tr>
<tr><td>200 360J discharges</td></tr>
<tr><td rowspan="7">Equipment configured with the screen</td><td>≥ 12 hours</td><td>The equipment is powered by a new battery at 20 °C± 5 °C of ambient temperature, wireless function off, not performing defibrillation charges or discharges, voice volume set to low.</td></tr>
<tr><td>270 200J discharges</td><td rowspan="2">The equipment is powered by a new battery at 20 °C± 5 °C of ambient temperature, wireless function off, voice volume set to low, with one minute of CPR between discharges</td></tr>
<tr><td>170 360J discharges</td></tr>
<tr><td>450 150J discharges</td><td rowspan="3">The equipment is powered by a new battery at 20 °C± 5 °C of ambient temperature, wireless function off, voice volume set to low, with three discharges every minute</td></tr>
<tr><td>350 200J discharges</td></tr>
<tr><td>200 360J discharges</td></tr>
<tr><td>Battery fuel gauge (for equipment configured with the screen)</td><td colspan="2">Battery symbol on the display indicating the current battery level</td></tr>
</table>

# B Mindray Shockable Rhythm Analysis Algorithm

The equipment configured with Mindray shockable rhythm analysis algorithm acquires and analyzes the patient's ECG signals to determine whether or not to give a defibrillation shock. If a shockable rhythm is detected, the algorithm recommends a defibrillation shock. If a nonshockable rhythm is detected, the algorithm recommends no shocks, avoiding unnecessary defibrillation shock to the patient.

Mindray shockable rhythm analysis algorithm has been validated by using the database for evaluation of Mindray algorithm performance.

## B.1 Rhythm Recognition and Annotation Methodology

This section describes the recording method, rhythm source, rhythm selection criteria, annotation methods and criteria the database for evaluation of Mindray shockable rhythm analysis algorithm.

### B.1.1 Database for Evaluation of Mindray Algorithm Performance

The database for evaluation of Mindray algorithm performance includes international standard database and Mindray clinical database for evaluating the ECG data. The ECG data for evaluation is selected according to AHA recommendations[a] with a 10-second wave length.

Database for evaluation of Mindray shockable rhythm analysis algorithm includes:

- MIT-BIH: The Massachusetts Institute of Technology–Beth Israel Hospital Arrhythmia Database (from Holter)
- AHA: The American Heart Association Database for Evaluation of Ventricular Arrhythmia Detectors (from Holter)
- VFDB: MIT-BIH Malignant Ventricular Arrhythmia Database (from Holter)
- CU: The Creighton University Sustained Ventricular Arrhythmia Database [the third edition] (from hospital monitor)
- NST: The Noise Stress Test Database (12 ECG records of 30 minutes each plus 3 records of noise only - supplied with the MIT–BIH database)
- Mindray clinical data (from Mindray monitors, defibrillator monitors and automated external defibrillators)

### B.1.2 Rhythm Categories

Each rhythm category for evaluating the ECG data has been confirmed by the clinical experts.

- Shockable rhythms
  - Coarse ventricular fibrillation (VF): amplitude ≥0.2mV
  - Rapid ventricular tachycardia (VT): HR≥150bpm, QRS duration ≥120ms
- Nonshockable rhythms
  - Normal sinus rhythm
  - Asystole: amplitude <0.1mV
  - Atrial fibrillation/flutter, supraventricular tachycardias, sinus bradycardia, idioventricular rhythms, heart block, premature ventricular contractions, etc
- Intermediate rhythms
  - Fine ventricular fibrillation: 0.1mV < amplitude <0.2mV
  - Other VT: ventricular tachycardia that does not meet criteria for VT in the shockable rhythms category

# E Voice Prompts

The following table lists voice prompts that may occur during a rescue.

| Condition | Voice Prompt | Description |
|---|---|---|
| Open the lid | Powered on. Stay calm. Follow the instructions. | The lid is opened. |
| | Device error. Recommended to replace the Device. Stay calm. Follow the instructions. | The equipment malfunctions, use one standby equipment or start CPR immediately. |
| After turning on the equipment | Adult mode | The Adult/Child mode switch is pressed to Adult, or the electrode pads connected to the equipment are detected for the adult patient. |
| | Child mode. if the patient is an Adult, adjust the Adult/Child mode switch to Adult mode. | The Adult/Child mode switch is pressed to Child. |
| | Child mode | The Adult/Child mode switch is pressed to Child, or the electrode pads connected to the equipment are detected for the children. |
| Place the electrode pads | Remove clothing from patient's chest. Apply pads as shown on Pads. | Detecting the response time to the voice prompts, the equipment provides an intelligent voice guide here. This guide quickly helps the rescuer to remove the patient's clothing and place the electrode pads. |
| | Remove clothing from patient's chest. Plug in pads connector. | |
| | Remove pads package from lid of AED.Tear open package. Apply pads as shown on Pads. | |
| | Apply pads as shown on Pads. | |
| | Apply pads as shown on Pads. | |
| | Abnormal Pads connection. | Pads connection failure, start CPR immediately. |
| The equipment analyzes the patient's heart rhythm. | Do not touch the patient. Analyzing heart rhythm. | Repeats until analysis of the patient's heart rhythm is completed. This prompt will be interrupted if the equipment is ready to shock. |
| | No shock advised. | Notifies non-shockable rhythm has been detected. |
| | Motion detected. Do not touch or move the patient. | The equipment detects ECG noise artifacts, stop moving or touching the patient. |
| | Noise detected. Make sure pads are firmly attached. | The equipment detects ECG noise artifacts, better pads contact on the patient's skin is required. |
| | Pads off. Analysis interrupted. | Pads connection failure, the equipment automatically stops the heart rhythm analysis. Reconnect the electrode pads. |

| Condition | Voice Prompt | Description |
|---|---|---|
| The equipment delivers a shock. | Shock advised. | Notifies a shockable rhythm has been detected. |
| | Shock will be delivered in: 3, 2, 1 | Prompts the equipment is fully charged and is preparing to deliver a defibrillation shock. |
| | Shock delivered. | Prompts the shock is delivered. |
| | Press flashing shock button | Prompts the equipment is fully charged and ready to deliver the defibrillation shock. |
| | Shock canceled. Shock button was not pressed. | The Shock button is not pressed within the configured time and the equipment cancels the shock. |
| | Device error, charge failed. | The equipment is unable to start charging because of a fault condition. The equipment resumes the rhythm analysis after a charging failure. After three consecutive charging failures, the equipment automatically enters the CPR status. |
| | Device error, shock failed. | The equipment is unable to deliver a shock because of a fault condition. Or, it is not suitable to deliver a shock to the patient. The equipment disarms itself and resumes the rhythm analysis after a discharging failure. After three consecutive discharging failures, the equipment automatically enters the CPR status. |
| | Shock canceled. Press pads firmly to patient's bare skin. | |
| | Shock canceled. Pads must not be touching each other. | |
| | Rhythm change, shock canceled | The equipment detects a rhythm change and cancels the shock |
| Perform CPR | Start CPR immediately. | Prompts to prepare to provide compressions and breaths CPR. |
| | Give chest compressions immediately. | Prompts to prepare to provide compressions-only CPR. |
| | Continue to compress without rescue breaths. | |
| | Place one hand on center of chest, the other hand should be on top of first hand. Interlock the fingers. Continue to push down hard. | |
| | Place one hand on center of chest. Keep arms straight. Continue to push down hard. | |
| | Keep arms straight.Continue to push down hard. | |
| | Interlock the fingers. Continue to push down hard. | |
| | 100 compressions remaining. | |
| | 50 compressions remaining. | |
| | 20 compressions remaining. | |

| Condition | Voice Prompt | Description |
|---|---|---|
| Perform CPR | Push down hard. | Prompts to use more effort for compressions. |
| | Continue to push down hard. | |
| | Stop CPR. | Prompts to stop CPR. |
| | Continue with compressions. | Prompts to continue CPR. |
| | Give two rescue breaths. | Prompts to give breath to the patient. |
| | One | |
| | Two | |
| | Follow the metronome to give 200 compressions approximately. | Prompts the CPR metronome pacing the speed of compressions. |
| | Follow the metronome to give 30 compressions and 2 rescue breaths. | Prompts to prepare to provide compressions and breaths CPR. |
| | Follow the metronome to give 15 compressions and 2 rescue breaths. | |
| Use a CPR sensor for CPR | Incomplete recoil | Prompts to use more effort and release all pressure when moving hands up. |
| | Compress faster | Prompts to adjust the compression rate. |
| | Compress slower | |
| | Compress deeper | Prompts to adjust the compression rate. |
| | Compress shallower | |

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# BeneHeart C Series AED
# Accessories and Consumables

CATALOGUE 2020.02

www.mindray.com

P/N:ENG-BeneHeart C Series AED Accessories and Consumables Catalogue-210285X8P-20200224



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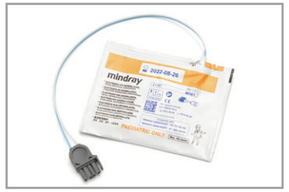
## Disposable Pads

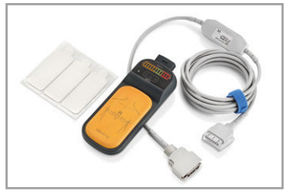
| Picture | Model | Part No. | Description | Purchasing Unit |
|---|---|---|---|---|
|  | MR62 | 125-000060-00 | AED disposable pads II, Adu/Ped, with auto-identification | 1 pair/pack |
| | MR62 | 125-000061-00 | AED disposable pads II, Adu/Ped, with auto-identification | 5 pairs/pack |
|  | MR63 | 115-001289-00 | AED disposable pads, Ped, with auto-identification | 1 pair/pack |
| | MR63 | 115-035427-00 | AED disposable pads, Ped, with auto-identification | 5 pairs/pack |
|  | MR60 | 115-040517-00 | Defibrillaton disposable pads, Adu/Ped, without auto-identification | 1 pair/pack |
| | MR60 | 0651-30-77007 | Defibrillaton disposable pads, Adu/Ped, without auto-identification | 5 pairs/pack |

| Picture | Model | Part No. | Description | Purchasing Unit |
|---|---|---|---|---|
|  | MR61 | 115-040518-00 | Defibrillaton disposable pads, Ped, without auto-identification | 1 pair/pack |
| | MR61 | 0651-30-77008 | Defibrillaton disposable pads, Ped, without auto-identification | 5 pairs/pack |

## Battery

| Picture | Model | Part No. | Description | Purchasing Unit |
|---|---|---|---|---|
|  | / | 115-065054-00 | Li-$MnO_2$ battery, 4200mAh, disposable, for C series AED only | Each |

## CPR Sensor

| Picture | Model | Part No. | Description | Purchasing Unit |
|---|---|---|---|---|
|  | / | 115-044871-00 | CPR sensor kit (without battery) including:<br>- CPR sensor without battery<br>- CPR sensor cable<br>- Disposable CPR sensor adhesive tape, 3pcs | Each |

## Data Review Software

| Picture | Model | Part No. | Description | Purchasing Unit |
|---|---|---|---|---|
| | / | 0651-30-77145 | Data output software package including:<br>- Software CD<br>- Installation guide | Each |

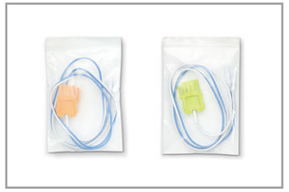
## Mounting Solution

| Picture | Model | Part No. | Description | Purchasing Unit |
|---|---|---|---|---|
|  | / | 045-003982-00 | Wall bracket, with mounting kit, green | Each |
|  | / | 045-003976-00 | Wall cabinet, with mounting kit,<br>with alarm and location sign, green | Each |

## Backpack

| Picture | Model | Part No. | Description | Purchasing Unit |
|---|---|---|---|---|
|  | / | 048-008497-00 | Backpack, red, for C series AED only | Each |
|  | / | 048-004292-00 | Rescue kit including:<br>- Disposable gloves, 2 pairs<br>- Disposable mouth-to-mouth respiratory membrane<br>- Disposable antimicrobial wipe<br>- Disposable razor<br>- Trauma scissors | Each |

## Training Tools

| Picture | Model | Part No. | Description | Purchasing Unit |
|---|---|---|---|---|
|  | / | 100-000206-00 | AED trainer reusable pads, Adu | 1 pair |
| | / | 100-000207-00 | AED trainer reusable pads, Ped | 1 pair |
|  | / | 100-000208-00 | AED trainer reusable pads cable, Adu, orange | Each |
| | / | 100-000209-00 | AED trainer reusable pads cable, Ped, green | Each |
|  | / | 100-000210-00 | AED trainer carry case | Each |
|  | / | 100-000345-00 | AED trainer remote control,<br>for C series AED only | Each |

| Picture | Model | Part No. | Description | Purchasing Unit |
|---|---|---|---|---|
|  | / | 100-000344-00 | AED trainer kit, for BeneHeart C2, with screen, including:<br>- AED trainer (for C2, with screen)<br>- AED trainer reusable pads, Adu, 1 pair<br>- AED trainer reusable pads cable, Adu<br>- AED trainer carry case<br>- AED trainer remote control | Each |
|  | / | 100-000343-00 | AED trainer kit, for BeneHeart C1A, no screen, including:<br>- AED trainer (for C1A, no screen)<br>- AED trainer reusable pads, Adu, 1 pair<br>- AED trainer reusable pads cable, Adu<br>- AED trainer carry case<br>- AED trainer remote control | Each |