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### Attachments (Electronic Files)

Filename	File Description	File Type
Att 2 to 00072686.pdf	CPRcard UG - Webfile	pdf
Att 5 to 00072686.pdf	CPRcard UG - Print Specifications	pdf
Att 3 to 00072686.zip	CPRcard UG - Native Indesign Folder	zip
Att 1 to 00072686.pdf	CPRcard UG - Prepressfile	pdf
Att 4 to 00072686.pdf	CPRcard UG - Folding Instructions	pdf

### Electronic Signatures

Status	Signoff User	Local Client Time
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Verify and approve document	Nguyen, Phuong Helen	2021-05-12T13:27:37Z
Verify and approve document	Risanger, John Sigve	2021-05-12T12:56:29Z
Verify and approve document	Eilevstjønn, Joar	2021-05-12T13:12:41Z

### Part References Valid at Time of Print (for current status see Agile PLM system)

Item Number	Description
20-18063	CPRcard User Guide

## Additional Info

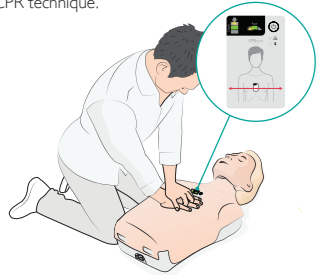
<b>Create User</b>	Risanger, John Sigve
<b>Create Date</b>	2021-02-02T14:13:49Z
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## Specifics

<b>Type</b>	01 User Guide
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<b>Other</b>	Accordion User Guide with print on both sides. See Att 4 to 00072686 for folding instructions and size guidelines. See Att 5 to 00072686 for print specifications

## Get Familiar with CPRcard

CPR is best performed by CPR-trained rescuers. It is also recommended to get familiar with the CPRcard by practicing on a training manikin using standard CPR technique.



Practice following the feedback from the CPRcard:

1. Turn on CPRcard.
  2. Place the card correctly **without** removing the liner from the adhesive. (See Correct Placement on page 6).
  3. Focus on depth feedback (See Compression Depth on page 8). Gradually increase the depth of compression so that the recommended depth target is reached.
  4. Focus on rate feedback (see Compression Rate on page 8). Compress slowly and gradually increase the rate of compression until each of the rate indicators lights up.
  5. Focus on performing compressions at an adequate depth and rate.
  6. Remember to release between each compression.
- To stay familiar with the CPRcard, repeat as often as needed.



**Caution**  
Do not practice on a person as this may cause injuries to the person.

## Troubleshooting

Symptom	Possible cause	Possible solution
Card does not turn on (no LEDs turning on)	<ul style="list-style-type: none"> <li>On/Off button is not sufficiently pressed</li> <li>Card temperature is below 0 °C (32 °F)</li> <li>The device is broken</li> </ul>	<ul style="list-style-type: none"> <li>Press and hold the On/Off button firmly to try to turn on the CPRcard.</li> <li>If the problem persists, do not use the CPRcard on a patient.</li> </ul>
Warning LED turns on at start-up and stays on for 1 minute	<ul style="list-style-type: none"> <li>Internal error detected</li> <li>Depleted battery</li> </ul>	<ul style="list-style-type: none"> <li>Turn the card off and on again.</li> <li>If the problem persists, do not use the CPRcard on a patient.</li> </ul>
Not all LEDs light up at start-up	The device is broken.	
CPRcard turns off during CPR	<ul style="list-style-type: none"> <li>Compression inactivity &gt; 1 min</li> <li>Accidental activation of On/Off button</li> <li>Internal error detected.</li> <li>Depleted battery</li> </ul>	Do not interrupt CPR – continue CPR without feedback.
Depth target (green LED) not achieved during CPR	<ul style="list-style-type: none"> <li>Too shallow compressions</li> <li>Incomplete release (leaning)</li> </ul>	Press harder and release completely between compressions.
The CPRcard moves around during CPR	The liner was not removed before the CPRcard was placed on the patient.	Remove the liner and place the CPRcard on the patient's bare chest as quickly as possible to avoid interrupting CPR.
Inactivity indication while performing compressions	<ul style="list-style-type: none"> <li>Chest compressions not detected</li> <li>Too shallow compressions (&lt;1 cm)</li> <li>Too slow compressions (&lt;40/min)</li> </ul>	Press harder and/or faster. Release completely between compressions.
Bluetooth connectivity issues		Do not interrupt CPR – continue CPR.

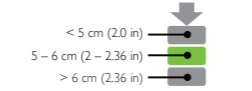
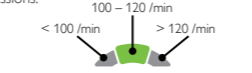
## Specifications

Dimensions	Height 86 mm x Width 54 mm x Depth 2 mm Weight < 7 g
External Material	Polycarbonate (PC) and self-adhesive medical tape.
Battery	Non-rechargeable lithium battery 15 mAh nominal capacity* Typical battery life: >30 minutes of CPR End-of-shelf-life battery life: minimum 10 minutes of CPR
Shelf life	3 years from the production date
Operating/Storage Conditions	Temperature: 0 – 40 °C (32 – 104 °F) Humidity: ≤ 90% RH Atmospheric Pressure: 620 – 1060 hPa
Shipping Conditions	Temperature: -40 – 40 °C (-40 – 104 °F) Humidity: ≤ 90% RH Atmospheric Pressure: 550 – 1060 hPa
Bluetooth® Low energy transmitter	Frequency band: 2.400 – 2.4835 GHz Modulation: Gaussian frequency shift modulation Maximum radio-frequency shift modulation: 1 mW Effective radiated power: 0 dBm
Ingress protection rating	IP67. Dust tight, and protected against water submersion to 1 meter (3.3 feet) for 30 minutes *Battery performance varies with temperature.



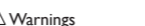
**Caution**  
Do not store your CPRcard above 40 °C as this may reduce the lifetime of the battery.

## Specifications

Compression Depth	Depth feedback is based on the median depth of the last 5 compressions. 
Compression depth accuracy	±5 mm or ±10%, whichever is greater
Compression Rate	Rate feedback is based on the median rate of the last 5 compressions. 
Compression rate accuracy	±5%

## Electromagnetic Conformity

The device is intended for use outdoors and indoors except for near HF surgical equipment, and the RF shielded room for magnetic resonance imaging. No particular actions are required to maintain safety and performance with regard to electromagnetic disturbances for the expected service life.



**Warnings**

- Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 in) to any part of the CPRcard. Otherwise, degradation of the performance of this equipment could result.

## Electromagnetic Emissions Tests

Emissions Test	Standard or test method	Compliance
RF emissions CISPR 11	Group 1 Class B	Group 1 Class B
Harmonic emissions	IEC 61000-3-2	Class A
Voltage fluctuations/ flicker emissions	IEC 61000-3-3	Complies

## Electromagnetic Immunity Tests

Immunity Test	Standard or test method	Compliance Level and Immunity Test Level
Electrostatic discharge	IEC 61000-4-2	±8 kV contact ±2kV, ±4kV, ±8kV ±15 kV air
Radiated RF EM fields	IEC 61000-4-3	10V/m 80 MHz – 2.7 GHz 80% AM at 2 Hz

Proximity fields from RF wireless communication equipment	IEC 61000-4-3	380-390 MHz: 27 V/m 430-470 MHz: 28 V/m 704-787 MHz: 9 V/m 800-960 MHz: 28 V/m 1700-1990 MHz: 28 V/m 2400-2470 MHz: 28 V/m 5100-5800 MHz: 29 V/m
Rated power frequency	IEC 61000-4-8	30 A/m 50 Hz or 60 Hz
Electrical fast transients / bursts	IEC 61000-4-4	±2 kV 100 kHz repetition frequency
Surges: Line-to-line	IEC 61000-4-5	±0.5 kV, ±1 kV
Surges: Line-to-ground	IEC 61000-4-5	±0.5 kV, ±1 kV, ±2 kV
Conducted disturbances induced by RF fields	IEC 61000-4-6	3V ; 0.15 MHz – 80 MHz 6 V in ISM and amateur radio bands between 0.15 MHz and 80 MHz 80% AM at 1 kHz
Voltage dips	IEC 61000-4-11	0% U <sub>r</sub> ; 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% U <sub>r</sub> ; 1 cycle and 70% U <sub>r</sub> ; 25/30 cycles Single phase: at 0°
Voltage interruptions	IEC 61000-4-11	0% U <sub>r</sub> ; 250/300 cycle

U<sub>r</sub> is the a.c. mains voltage prior to application of the test level.

## Federal Communications Commission (FCC) and Industry Canada (IC) Statements

This device complies with part 15 of the FCC Rules and Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage, et
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.



**Caution**  
Changes or modifications not expressly approved by Laerdal Medical could void the user's authority to operate the equipment.

FCC ID: QHQ-20-10468  
IC: 20263-2010468



This product is in compliance with the essential requirements of EU Council directive 93/42/EEC as amended by EU Council directive 2007/EC, Council Directive 2014/53/EU on Radio Equipment (RED) and Council Directive 2011/65/EU on restriction of the use of certain hazardous substances (RoHS).

## Symbol Glossary

Symbol	Definition
	CE mark
	Single Use. Do not re-use.
	Follow Instructions for Use
	WEEE Symbol
	Manufacturer
	Date of Manufacture YYYY MM DD
	Defibrillation-proof type BF applied part. The entire CPRcard is the applied part.
	Warning/Caution
	Device catalogue number reference
	Unique Device Identification
	Ingress protection rating
	Temperature limitations
	Humidity limitations
	Pressure limitations
	Machine readable Unique Device Identification (UDI). Datamatrix with UDI numbers (XXX = last three UDI digits)
	Not to be used in a bed or on soft surfaces
	Not for patient under 8 years

## Support

If you need assistance or to report any issues, contact a local Laerdal representative or visit [www.laerdal.com/CPRcard](http://www.laerdal.com/CPRcard) for more information.

## Waste Handling



This appliance is marked according to the European directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE).

By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product.

The symbol on the product indicates that this appliance may not be treated as household waste. Instead, it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment.

Disposal must be carried out in accordance with local environmental regulations for waste disposal.



**Caution**  
Do not cut the device as this may damage the battery and expose harmful chemicals.

## Service and Warranty

CPRcard does not have any replaceable or serviceable parts. The CPRcard has a one-year limited warranty. Refer to the Laerdal Medical Warranty for terms and conditions. For more information visit [www.laerdal.com](http://www.laerdal.com).

[www.laerdal.com/CPRcard](http://www.laerdal.com/CPRcard)



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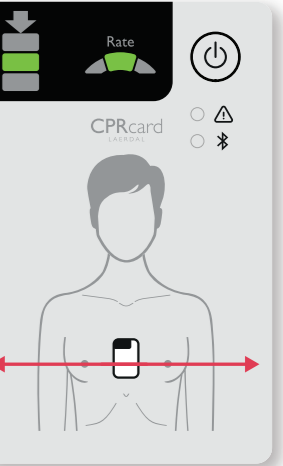
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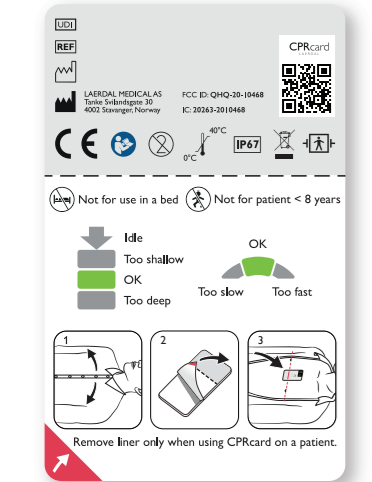
helping save lives

# CPRcard

## User Guide



**Important Information and User Instructions**  
(on the back of the card)



**Intended Use**

CPRcard is a single-use device intended to provide chest compression feedback to a CPR trained rescuer performing CPR on a suspected cardiac arrest patient, 8 years or older, lying flat on the back on a firm surface.

**Indication for Use**

When performing CPR on a suspected sudden cardiac arrest patient.

**Operating Principle**

A battery powered device placed between the patient's bare chest and the rescuer's hands for giving feedback on compression depth and rate to a rescuer performing CPR. Using an accelerometer, the device measures its own relative movement perpendicular to the device surface and uses this to give input to an algorithm for calculation of correct feedback on compression rate and depth. The device is equipped with wireless communication functionality for transfer of performance data.

**Warnings and Cautions**

A Warning states a condition, hazard, or unsafe practice that can result in serious personal injury or death.  
A Caution states a condition, hazard, or unsafe practice that can result in minor personal injury or damage to the product.

**Note**

A Note states important information about the product or its operation.

**Important Information**

Before using CPRcard, read these instructions thoroughly. Observe all warnings, cautions and instructions in this User Guide. Retain this guide for future reference.  
CPR cannot ensure survival regardless of how well chest compressions are performed. For some patients, the cardiac arrest is not reversible despite any available care.  
Common side effects of properly performed CPR include skin abrasion, bruises, rib and sternum fractures, and occasionally injuries to internal organs.  
The CPRcard does not guide the decision of whether or not to perform CPR on a suspected cardiac arrest victim. This decision must be made independent of the device.

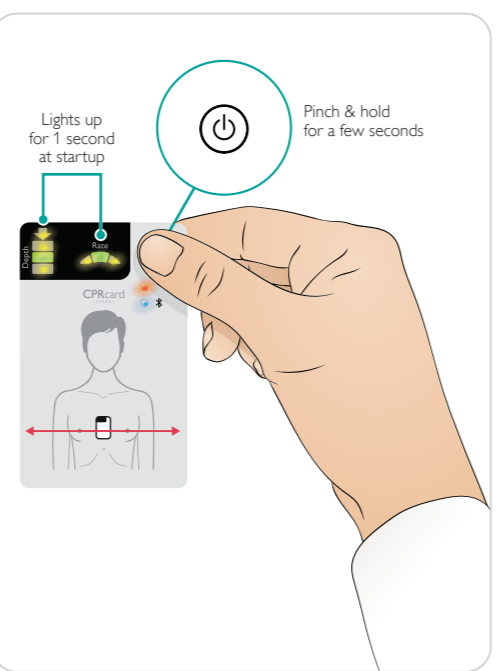
**Warnings**

- Do not use CPRcard on a patient on a "soft surface" (e.g. bed/mattress, stretcher or transportation cot) as it will provide inaccurate feedback that can result in too shallow compressions.
- Do not delay CPR to search for the CPRcard or if you experience any problem using it. Begin CPR without the card.
- Do not use the CPRcard in a moving environment (e.g. during patient transport in a car, boat or aircraft) as it may provide inaccurate feedback.
- Do not use CPRcard on an open wound or recent incision site as this may lead to cross-contamination and cause further injury.

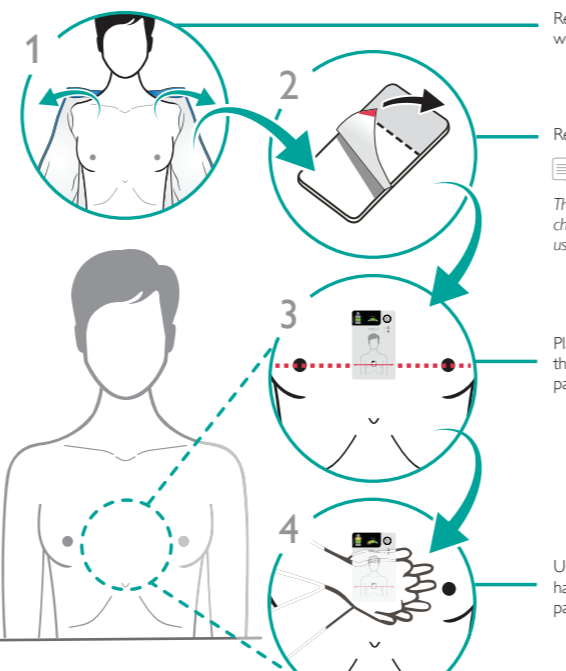
**Caution**

Using CPRcard under sunlight might affect the visibility of the feedback from the card. Continue CPR even if you don't see the feedback from the card.

**Turn On/Off**



**Correct Placement**



**Remove clothes to bare the skin of the patient's chest. If needed, wipe the skin dry before placing the card.**

**Note**

The patient tape helps the CPRcard to stay in place on the patient's chest during CPR. The patient tape's liner should only be removed for use on a patient.

**Warning Indicator**

If a device error is detected, the red Warning Indicator will turn on and compression feedback will stop. Such an error may be caused by a depleted battery or a technical malfunction. The CPRcard should be replaced.

**Caution**

Release pressure between compressions to allow the chest to recoil completely to maintain efficient compressions.

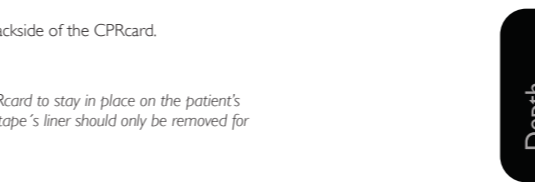
**Note**

The CPRcard does not provide feedback on incomplete release (leaning) between compressions.

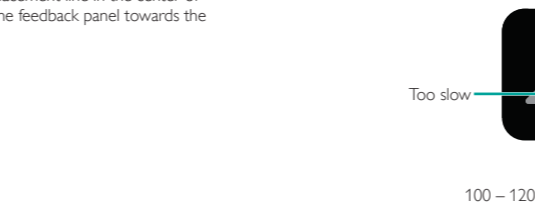
**Chest Compression Feedback**

Feedback on compression depth and rate are provided by indicator lights. The green lights indicate the targets according to the 2020 international CPR guidelines.

**Compression Depth**



**Compression Rate**



**Caution**

Release pressure between compressions to allow the chest to recoil completely to maintain efficient compressions.

**Note**

The CPRcard does not provide feedback on incomplete release (leaning) between compressions.

**Idle Indicator**

When no compressions are detected for more than 1.5 seconds, the idle indicator will blink.



**Note**

If there are no compressions detected for one minute, the CPRcard shuts down automatically.

**Warning Indicator**

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**Caution**

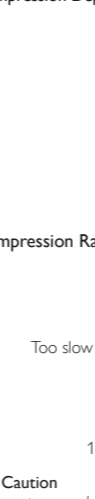
Do not interrupt CPR if compression feedback stops. Continue CPR without feedback.

**Caution**

Do not place the defibrillation pads on top of the CPRcard as this may obstruct the CPR feedback and interfere with the defibrillation.

**Use with a Defibrillator**

Follow defibrillator voice guidance when using the CPRcard together with a defibrillator. There is no need to remove the CPRcard before delivering a shock.



**Caution**

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**Bluetooth® Wireless Technology**

CPRcard allows wireless connectivity using Bluetooth® Low Energy\*. Possible uses with compatible apps are:

- Firmware upgrade
- Transfer of stored data. Summary data is stored for events with more than 50 compressions
- Live streaming of CPR feedback during use

CPRcard is only available for Bluetooth connection after the card is turned on and before chest compressions are initiated.  
Refer to [www.laerdal.com/CPRcard](http://www.laerdal.com/CPRcard) for more information.

**Warning**

Do not delay CPR if you are not able to establish a Bluetooth connection.

**\*Bluetooth is a trademark owned by Bluetooth SIG, Inc.**

**Single Use**

The CPRcard is intended for single-use only and should not be re-used. After use on a patient, the CPRcard may be contaminated and must be disposed of in accordance with local protocol.  
If data transfer is required after patient use, the CPRcard can be placed in a plastic bag. The compatible app or software can perform the transfer through the bag.

**Maintenance and Inspection**

Perform functional test quarterly to ensure that the CPRcard is functioning as it should.

- Inspect the CPRcard for physical damage (e.g. tears and cracks).
- Turn on the device.
- Observe and verify that all the lights function (see illustration), the lights should display for one second.
- Turn off the device.

**Caution**

Do not attempt to modify the CPRcard in any way before use as it can affect its functionality.

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