# INSTRUCTIONS FOR USE

LIVEMETRIC LM1CS

BLOOD PRESSURE MONITOR

**C€** <sub>2797</sub>



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PLEASE READ THIS USER MANUAL THOROUGHLY BEFORE USING THE WRISTBAND.

## KEEP THE USER MANUAL FOR FUTURE REFERENCE.

FOR SPECIFIC INFORMATION ABOUT YOUR OWN BLOOD PRESSURE, CONSULT YOUR DOCTOR.

#### INTRODUCTION

Thank you for purchasing the LiveMetric LM1CS Blood Pressure Monitor. The LM1CSis a wristbandthat can be worn comfortably all day long, and is intended to measure your blood pressure and provide you with systolic, diastolic and heart rate values. The wristband utilizes highly responsive sensors, in conjunction with advanced Artificial Intelligence technology, to provide accurate measurements of your blood pressure. The wristband can be operated by simply pushing a button, there is no need to calibrate the device. You can view measurements either on the digital watch face or on the LiveMetric mobile application.

#### SAFETY INFORMATION

#### INTENDED USE

LiveMetric LM1CS is a non-invasive blood pressure monitor. The blood pressure waveform is measured on the patient's wrist.

The LiveMetric LM1CS provides a noninvasive characterization of the arterial circulation and its beat-to-beat variability in pressure and flow, as well as various hemodynamic parameters derived from these pressure signals.

The Interpretation of the numerical values will be made by medical professionals only.

The device does not report any diagnosis but provides numerical values. It is the physician's responsibility to make proper judgments based on these numbers.

LiveMetric LM1CS is also intended for use by a physician or other qualified healthcare provider for the calculation of heart rate and heart rate variability based on waveform analysis.

#### INDICATIONS FOR USE

The LiveOne is intended to be used in patients who have a need for a noninvasive blood pressure and hemodynamic monitor.

The LiveOne is intended to be used on subjects  $\geq$  18 years old, who have a palpable radial pulse. Software is used to provide data to qualified medical professionals for the purpose of assessing the patient's cardiac health via blood pressure readings taken during daily activity for up to a 24-hour period. LiveOne is intended only for measurement and display; it makes no diagnosis.

#### **CONTRAINDICATIONS**

The device is not indicated for use on patients who are:

under 18 years old; pregnant; do not have at least one wrist with skin intact; have a wrist circumference less than 6.19 in (155mm); have a wrist circumference greater than 8.26 in (210mm); have implanted VADs or other mechanical circulatory support devices, whether intracorporal or extracorporeal; have impaired cognition; or have physical disability which inhibits the use of the device.

#### RECEIVING AND INSPECTION

Remove the wristband from the packaging and inspect for damage. If your monitor is damaged, DO NOT USE IT. Contact [phone number] if the wristband is damaged.

YOUR PACKAGE INCLUDES:

- 1 LiveMetric LM1CS wristband
- 1 Charging Cradle
- 1 Charging Cable
- 1 User Manual Booklet
- 1 Quick Setup Card

#### **GENERAL WARNINGS**

- Please carefully read all instructions before using the LiveMetric LM1CS device;
- Do not useLiveMetric LM1CS without fully understanding instructions and safety information; Be aware that self-diagnosis of measurement results and self-treatment are dangerous!
- 1 You should NOT self-adjust medication based on the measurement results;
- Be cautious when using LiveMetric LM1CSif you sufferfrom severe blood flow problems or blood disorders, as tightening the wristband may cause internal bleeding and/or damage blood flow in the internal blood vessels;
- ⚠ Do not apply the device on a wrist which is under medical treatment, or with an unhealed wound:
- ⚠ If any itching, skin rash and/or local edema appears, please remove and avoid using the wristband;
- The presence of any of the following medical conditions increases the risk of obtaining an

inaccurate reading using the device: shock; cardiac arrhythmias; atrial or ventricular premature beats; atrial fibrillation; arterial sclerosis; poor perfusion; vessel anomalies; very low blood pressure; pregnancy; diabetes; pre-eclampsia; renal diseases; having undergone breast or axillary lymph node removal operations; an arteriovenous shunt; an intravenous drip or blood transfusion; implanted electrical devices such as cardiac pacemaker; other medical electrical equipment attached to the body; a condition that may compromise circulation; severe blood flow problems or blood disorders (increased risk of bruising); trembling or shivering;

- Never charge the wristband while placed on wrist;
- ⚠ If the black casing of the device becomes heated, please remove the wristband immediately and consult customer services:
- ⚠ DO NOT use this device on newborns, infants, children, toddlers or persons who cannot express their intentions;
- Let Do not use the wristband for any purpose other than measuring blood pressure;
- Avoid using the device next to other device/s which emits electromagnetic fields; it may result in incorrect operation of the device;
- Do not use the device with other medical, electrical equipment simultaneously;
- ⚠ Do not use the device where high frequency surgical equipment, magnetic resonance imaging (MRI), computerized tomography (CT) scanner or X-ray machine is operating;
- ⚠ Do not use the device near electromagnetic fields emission equipment, such as cellular phones, microwave ovens or televisions;
- Do not use the device where flammable gases (e.g. anesthetics gas, oxygen and hydrogen) or flammable liquids (e.g. alcohol) are present;
- ⚠ The product contains small parts that may cause a choking hazard; keep the device, and its parts, out of reach of infants and children;
- ⚠ Do not attempt to open, disassemble, repair, modify or adjust the device by yourself; it may cause accidents, damage the device, cause inaccurate measurements, and void the user warranty;
- ⚠ Do not drop the unit on the floor, or subject it to extreme temperatures, high humidity, direct sunlight, dust or chemicals; this may damage the device;
- Do not replace the battery on your own;

- Read and follow the "Important information regarding Electro Magnetic Compatibility (EMC)" in the Technical Data Section;
- Read and follow the "Correct Disposal of This Product", in the Technical Data Section, when disposing of the device and any used accessories or optional parts.
- The device is not water resistant. Avoid water, rain or sweat from infiltrating into the device;
- ⚠ Do not use an alcohol-based or solvent agent to clean the device. Clean the device only with a soft, dry cloth. Clean the screen carefully with a damp cloth. Do not submerge any part of the LiveMetric LM1CS in water at any time;
- Store the device and the components in a clean, dry and safe location.

#### **GENERAL PRECAUTIONS**

- Do not subject the monitor to strong shocks, such as dropping the unit on the floor.
- Do not submerge the device or any of the components in water.
- A Store the device and the components in a clean, safe location. Changes or modification not approved by the manufacturer will void the user warranty.
- ▲ Do not disassemble or attempt to repair the unit or components. This may cause an inaccurate reading as well.
- Do not use the device outside the specified environment. It may cause an inaccurate reading.
- A Dispose of the device, components and optional accessories according to applicable local regulations. Unlawful disposal may cause environmental pollution.
- Do not use the device in a moving vehicle such as in a car or on an airplane.
- Do not take measurements for 30 minutes after bathing, drinking alcohol or caffeine, smoking, exercising or eating.

## SAFETY SYMBOLS USED IN THIS PRODUCT LABELING

	Manufacturer: LiveMetric (Medical) SA , Luxembourg	55° C 131 -23° F ° F	Storage and Transportation Temperature Limits
	Read this manual before use	% 15 %	Storage and Transportation Humidity Limits
<b>†</b>	Type BF Applied Part	1,008 (2) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	Storage and Transportation Atmospheric Pressure Limits
F©	FCC ID: 2AQVELM1CS	Single Patient Use	Single Patient Use
$\wedge$	Caution: Consult user manual	豢	Keep away from heat
IP22	ingress Protection	予	Keep package dry
REF	Catalogue Number	1	Quantity
SN	Serial Number	(€	CE Mark
<b>4</b> 3.7V	Internally Powered		Unique Device Identification

## BEFORE TAKING BLOOD PRESSURE MEASUREMENTS

To ensure a reliable blood pressure measurement, follow these recommendations:

- Avoid eating, drinking alcohol, smoking, exercising, and bathing for 30 minutes
- before taking a measurement. Rest for at least 5 minutes before taking the

- measurement.
- Stress raises blood pressure. Avoid taking measurements during stressful times.
- The wristband can be applied to your left or right wrist.
- Measurements should be taken in a quiet place.
- Position the sensors on the most palpable point on the wrist, and have your arm rested on a table throughout the measurement.
- Remain still and do not talk during the measurement.
- Keep a record of your blood pressure and pulse readings for your physician. A single
- measurement does not provide an accurate indication of your true blood pressure.
- You need to take and record several readings over a period of time. Try to measure
- your blood pressure at the same time each day for consistency.

#### **KNOW YOUR MONITOR**

#### WRISTBAND





**CHARGING CLIP** 

(Insert Image)

**CHARGING CABLE** 

(USB-C to USB)

Insert Image-

**INSTRUCTION MANUAL** 

USING THE WRISTBAND FOR THE FIRST TIME

#### CHARGING THE BATTERY

We recommend charging the battery to a full 100% prior to use. The battery takes about 3 hours to charge fully when the battery is empty. Once fully charged, the battery will last for approximately 5-7 days depending on frequency of use.

To charge the device - plug the USB-C end of the charging cable into the charging clip.

Plug the USB end of the charging cable into a USB adapter or power source.

Attach the charging clip to the back of the watch face by pinching the sides of the charging clip.

Confirm that the wristband is charging by looking at the LED light on the button of the device.

This light will alternate between red and purple flashes when the wristband is charging. The light will turn solid green when the wristband is fully charged.

To check the percentage of battery charge remaining, click the watch face button to scroll through the wristband options (e.g. time, last blood pressure measurement, last heart rate, etc.) until you get to the percentage of battery remaining, indicated by the icons below:



#### DOWNLOAD LIVEMETRIC APP

- 1. Go to your app store (Google Play or Apple Store)
- 2. Download the LiveMetric App.
- 3. Once installed Press **Open.**
- 4. The app will then request permission to access your location and to run in the background. For best results, we recommend setting your location permissions to "Always Allow" and the background permissions to "Allow."
- 5. Authenticate your device. You will receive a four-digit code on your wristband. Enter this code on the Code Confirmation screen on the app, then click "Next."
- 6. Watch the device tutorial to learn about the features of your wristband.
- 7. Once you have watched the tutorial, click "Continue."

**Note:**If you do not allow the app to run in the background, then the wristband may not be able to take automatic blood pressure measurements throughout the day. Please, allow the app to run in the background for optimal performance.

## SETUP THE LIVEMETRIC APP

1. Launch the LiveMetric App and read **Terms of Agreement** on the screen.

- 2. Check the box to confirm that you agree to terms (Note: device cannot be operated without agreeing to terms of use)
- 3. On the app's Welcome Screen, press "I have the wristband" to start operating your wristband.
- 4. Create your account on the profile screen; first select the units you want to fill the demographic data lb/Kg and sm/ft
- 5. Fill all your profile demographics: Gender, Date of Birth, Height, Weight (Note: demographic data is necessary to ensure accuracy of blood pressure measurements)
- 6. Confirm that your wristband is charged, then press "I'm Good, Let's Continue."

#### PAIR YOUR WRISTBAND WITH A SMARTPHONE

Before pairing your wristband, make sure the mobile phone battery level is greater than 30%. Make sure your device is not connected to the charger before starting the next steps.

- 1. Enable Bluetooth on your smartphone.
- 2. Turn on your device, by pressing the square button on the watch face.
- 3. Pair your device via Bluetooth. To do this, first make sure that Bluetooth is "on" in your phone's settings. Then, return to the app screen, and activate the device by double tapping on the watch face. The app will automatically search for Bluetooth devices.
- 4. The app will display a list of Bluetooth devices found during pairing. Click the toggle next to the device named "LiveMetric" to select this device. Then, press "Pair with device" at the bottom of the screen.
- 5. Confirm that your wristband connected successfully by looking at the LED light on your wristband. While pairing, this light should flash blue. Once it is successfully connected to your smartphone, this light will be solid blue (no longer flashing).
- 6. Upon pairing the wristband to your smartphone, the app should automatically begin updating the wristband to the most current firmware version if the firmware is out of date.
- 7. You have completed the set-up process for the wristband and app! Now, you are ready to use the device.
- 8. Watch the Placement Tutorial to learn how to put on your wristband properly. **This step is** crucial to making sure that you get accurate blood pressure readings! Once you have finished watching the tutorial, press "Continue."

**Note:** "LiveMetric" is the only app that we recommend that you use with your deviceto transfer

data correctly.

If you change the smart device that was paired with your device, delete the pairing information from your old smart device to avoid communication issues.

PLACINGTHE WAISTBAND

Blood pressure can differ between the right and left wrists, LiveMetric recommends always using the same wrist when measuring blood pressure. Consult with your physician to determine which wrist you should use for your measurements.

Determine the correct position of the deviceon your wrist by running your forefinger and middle finger down your thumb to your wrist. You should feel your pulse. Place the wristband sensors onto the pulsing artery, making sure the band is as close as possible to the bottom of your palm. Tighten your wristband so that it is snugly-fit – not too tight and not too loose. Your wristband should not move or slide from its position.

Select right or left to indicatewhich wrist you placed the band on pairing page and press next. The app will also give you feedback about how well-placed the wristband is. You may need to make adjustments to the placement both during set-up and periodically.

Select which arm your wristband is placed on, left or right. Then, click "Continue."

On the Placement screen, you will see four signals, one from each of the wristband sensors. Good, high quality signals appear green and poor, low quality signals will be red. For good wristband placement, ensure that at least two of the signals are good (i.e. green).

Watch the Measurement tutorial to learn how to take blood pressure measurements with your wristband. Once you have watched the tutorial video, click "Continue."

**Note:**If your device is not connected to your selectedsmartphone when you take the measurements, the measurements taken in the last 72 hours will be saved locally and will be transferred to the smartphone once connected.

#### TAKING YOUR FIRST MEASUREMENT

- On the Measurement screen, press "Start" on the blue circle to begin taking a measurement.
- 2. The app will begin measuring your blood pressure. You will see your pulse wave displayed at the bottom of the screen during measurements. For best results, be silent and still during the measurement.
- 3. Once the measurement has been completed, the app will display your systolic and

diastolic blood pressure values, as well as, your heartrate.

4. After looking at your results, click "Done, Go to app."

#### USING YOUR DEVICE DAILY

To get an accurate blood pressure reading, proper placement of the wristband is essential. Watch the "Placement Tutorial" video on the LiveMetric app for detailed instructions on how to wear the wristband. This video is accessible by clicking on "Placement" on the menu at the bottom of the app screen and then clicking the play symbol on the top right corner of the Placement screen.

- 1. Make sure that the device is correctly positioned on your wrist. If you are not sure, go to placement screen and verify that at list one of the signal lines is green.
- 2. Click continue and wait calmly until blood pressure values appear.

**Note:** With normal daily activity, the wristband *may* move out of position. Be sure to check wristband placement periodically to ensure proper placement.

If the wristband is not placed correctly, the device will fail to measure your blood pressure – no results will appear on the screen.

#### RECOMMENDED METHOD TO BLOOD PRESSURE MEASUREMENTS

To take a manual blood pressure measurement, you should be relaxed and comfortably seated in a room with an ambient temperature.

- Keep still, breath calmly and avoid movements.
- Keep your upper arm next to the body, with your elbow bent so that your arm is approximately at a 90-degree angle.
- Sit in a comfortable chair with your back supported.
- Keep your feet flat and your legs uncrossed.
- Relax your wrist and hand. Do not bend your wrist back, clench your fist or bend your wrist forward..
- Activities, such as, bathing, drinking alcohol or caffeine, smoking, exercising, and eating
  may raise blood pressure. Stressful situations may also raise blood pressure. For the most
  accurate measurements, wait at least thirty minutes after any of these activities or after
  stressful events to take blood pressure measurements.
- Rest for at least 5 10 minutes before taking a blood pressure measurement.
- You should refrain from speaking and moving while taking manual measurements.
- A single measurement is NOT an accurate indication of your true blood pressure. You

- need to take several readings over a period of time to determine your true blood pressure. Speak to your physician if you have questions about how frequently you should be monitoring your blood pressure.
- Remember to generate blood pressure monitoring reports for your physician prior to meeting with him/her in the clinic. You can do this on the LiveMetric app. The instructions for how to generate reports can be found in section 6 of this manual.

#### PERFORM MANUAL MEASUREMENT

- Go to the "Home" screen on the LiveMetric app by clicking "Home" icon on the bottom dashboard.
- Sit still in the position described above, then click the circle that says "Measure" in the middle of thescreen.
- Breath calmly as acircle will slowly spin on the screen and your pulse wave will be displayed on the app screen while the wristband is taking a measurement. If you wish to stop this measurement at any time, click "Stop."
- Once the wristband completes a measurement, the app will display your systolic and diastolic blood pressure values along with your heart rate.

**Note:** These instructions apply only to measurements taken manually. For automatic blood pressure measurements in which you set the frequency with which the wristband automatically measures your blood pressure, you will not need to stop daily activities to record your blood pressure.

#### **WARNING!**

- DO NOT adjust medication based on your readings from this blood pressure device. Take medication only as prescribed by your physician. ONLY a physician is qualified to diagnose and treat high blood pressure.
- NEVER diagnose or treat yourself based on your readings. ALWAYS consult with your physician.

## SCHEDULING BACKGROUNDBLOOD PRESSURE MEASUREMENTS

To be able to take blood pressure measurements automatically using your wristband, you must "allow" the LiveMetric app to run in the background in your phone's app settings.

- Click on the menu button on the top left corner of the app screen. When the menu

- appears, click "Scheduling."
- Click on the "Background Checks" section to set automatic monitoring frequency. This
  means that the wristband will automatically take measurements without notifying the
  user or requiring any input from the user.
- Click on the "Night Mode" section to set your average sleep times.

#### RECORDING EVENTS

Events include activities, such as, eating meals, taking medications, exercising, etc. You can create events on the LiveMetric app to determine what your blood pressure is before, during, or after certain activities.

- On the LiveMetric app, go to "Create New Event."
- Enter a Title for your event.
- Select an Activity Type for your event from the dropdown menu.
- Set a time, date, and repetition frequency for the event.
- Set a location for the event.
- Set a color for the event. This color will be displayed with an event marker on any blood pressure reports you choose to generate.

#### VIEWING READINGS AND GENERATEREPORTS

- To see your blood pressure readings, go to "Monitor" at the bottom of the app screen.
   You will see a graph showing your systolic blood pressure readings (top curve), your diastolic blood pressure readings (middle curve), and your heart rate values (bottom curve).
- You can choose to see your data either in "List View" or in "Graph View" by toggling between these two options, displayed on the top right of the app screen.
- You can filter the data you see by selecting the drop-down menus on the upper left corner of the app screen. These filters will let you see only specific subsets of your data.
   For instance, you can filter by "Night" to see only measurements taken at night, or you can filter by Event to see only measurements taken during a certain event.
- To generate a report of your data, click on the notepad icon on the top right corner of the "Monitor" screen on the app.
- Select "Default Report" or "Custom Report" based on which data you would like your

report to include.

**Note:**Reports can be generated and sent automatically to family members, caretakers, physicians, etc. The type of report you generate for each person you share your data with can be customized, as stated in step 5. When you start wearing the wristband, you may want to consult with your physician to see which information they would recommend including in the report.

#### **NOTIFICATIONS**

To view notifications, click on the bell icon on the upper right corner of the app's "Main" screen. Here, you will see notifications about Bluetooth connectivity status, wristband battery status, etc.

#### **SETTINGS**

#### **BLUETOOTH SETTINGS**

ENTERING BLUETOOTH PAIRING MODE

To pair your device to your smartphone, press and hold the wristband button for about 3 seconds, or until the LED light flashes blue. Your wristband is now in pairing mode. Once your device is successfully paired with your smartphone, the LED light on your wristband should appear a solid blue (not flashing).

DISCONNECTING YOUR WRISTBAND

To unpair your wristband from your smartphone, click on the menu icon on the upper left corner of the app's "Main" screen. Go to "Wristband." You will see the wristband's firmware version, battery level, and connectivity status displayed. Click "Forget Wristband" to disconnect the device.

#### SELECTING WHICH WRIST THE BAND IS PLACED ON

While we recommend always wearing the wristband on the same wrist, we understand that you may want to switch between wristband placement between arms. If you do so, you should indicate which wrist the band is being worn on by going to the "Placement" screen on the LiveMetric app and then toggling between Left and Right to indicate the proper placement arm.

#### RESETTING YOUR WRISTBAND

If your wristband freezes or is unresponsive for any reason, you may want to try resetting it. To reset the wristband, press and hold the button on the watch face for 15 seconds.

#### NOTIFICATION/LED LIGHT SETTINGS

- You may receive notifications from the LiveMetric app on your smartphone. Notification settings can be adjusted in the LiveMetric app by clicking on the menu icon on the upper left corner of the "Main" screen and then clicking on "Notifications & Sounds."
- Adjust App and Device Notifications, as well as, Silent Mode settings by following onscreen instructions.

## ERROR MESSAGES AND TROUBLESHOOTING

### **TROUBLESHOOTING**

#	problem	Source	Corrective actions
1.	Cannot click "Next"	Terms of Use	Please check the box "I agree and
		Screen	accept the terms of use"
2.	Cannot click "Next"	Profile setting	Please follow the error messages on
		Screen	the screen
3.	Pairing unsuccessful	Pairing Screen	Please check if the blue LED light is
			on. If not, please follow the corrective
			actions of problems 6-8
4.	Pairing unsuccessful	Pairing Screen	Please check if the blue LED light is
			on. If so, please remove the dongle
			located on the upper right side of the
			screen and re-insert it
5.	Pairing unsuccessful	Pairing screen	After following corrective actions 3-4
			and 6-8, call customer service
6.	No Blue LED	Black Casing on	Please double tap firmly on the black
		the wristband	casing
7.	No Blue LED	Black Casing on	Please charge the wristband
		the wristband	
8.	No Blue LED	Black Casing on	Please hold down the reset button for
		the wristband	30 seconds
9.	Cannot place the wristband	UI	Please follow the illustrations and
			instructions on the screen
10.	The wristband is inflicting pain	Wristband	Please loosen the wristband using the

	on the patient's wrist.		buckle
11.	The wristband keeps moving on	Wristband	Please tighten the wristband using the
	the patient's wrist		buckle
12.	None of the waveform lines are	Wristband	Try to reposition the wristband;
	turning green		inward, outward, toward palm, away
			from palm
13.	The waveform lines are flat	Wristband	Allow a few seconds for the sensors'
	every time the wristband is		signals to adjust, and then see if a
	moved		green waveform line appears
14.	After multiple repositioning	Wristband	Check if the LED light is blinking
	attempts, no green waveform		blue-green;
	line has appeared		
15.	The Blue-Green LED light is	Wristband	Click "Cancel" and pair the device
	not blinking (following 14) only		(See 'Operating Instructions' on how
	blue LED light is on.		to pair)
16.	The Blue-Green LED is not	Wristband	Click "Cancel" and double tap the
	blinking, and the Blue LED		casing to pair the device after the Blue
	light is not on (following 14)		LED is seen
17.	Blue Green LED is not blinking	Wristband	Charge the wristband
	and Blue LED light is not on		
	(following 16); even after		
	double tapping		
18.	Cannot place the wristband	UI	Please follow the illustrations and
			instruction on the screen
19.	The wristband is inflicting pain	Wristband	Please loosen the wristband using the
	on my wrist		buckle
20.	The wristband keeps moving on	Wristband	Please tighten the wristband using the
	my wrist		buckle
21.	Unsure that the placement is	Wristband	Click "Next" to view the waveform

	correct		lines and follow the instructions on
			screen
22.	The LED has stopped blinking	Wristband	Click "Cancel" and start again
23.	What is ABPM	Placement	ABPM is a mode that allows you to
		Screen	monitor a patient, automatically, in a
			clinical setting, for a predefined period
			of time. In this mode you can
			configure the monitoring parameters;
			please refer to troubleshooting in
			ABPM Setting
24.	What is Single Mode	Placement	Single Mode allows you to monitor the
		Screen	patient's waveform line derived from
			the active sensor. Periodically you can
			update the BP and HR values
25.	I don't have enough	ABPM Setting	Please note that if 1 hour is chosen as
	measurements	Screen	the total time, it is best to select a
			frequency of 10 /15/20 minutes in
			order to get a significant number of
			measurements
26.	What is timeout?	ABPM Setting	How long the wristband should
		Screen	attempt to get a successful
			measurement in each session of
			measuring, during the monitoring
			process
27.	No value appears;	ABPM	Please consider repositioning the
	I get ""	Measurement	wristband
		Screen	
28.	No value appears;	ABPM	Please check that the patient is not
	I get ""	Measurement	moving while the LED is blinking
		Screen	blue-green
29.	No value appears;	ABPM	Make sure the patient has rested before

	I get ""	Measurement	measurement has taken place
		Screen	
30.	No value appears;	Wristband is not	Please click "Done" to restart the
	I get ""	blinking	session. The connection could not be
			restored
31.	I got a pop-up message that the	ABPM	Please click "Done" to restart the
	connection cannot be restored	Measurement	session. The connection could not be
		Screen	restored.
32.	Did not get any values;	Single	Please reposition the wristband
	Waveform looks flat	Measurement	
		Screen	
33.	Did not get any values;	Single	Please check that the patient is not
	Waveform is irregular	Measurement	moving
		Screen	
34.	Did not get any value;	Wristband is not	Please click "Done" to restart the
		blinking	session. The connection could not be
			restored
35.	The waveform line looks noisy	Single	Consider removing any
		Measurement	electromagnetic interference while
		Screen	monitoring
36.	I got a pop-up message that the	ABPM	Please click "Done" to restart the
	connection cannot be restored	Measurement	session. The connection could not be
		Screen	restored
37.	Did not get any values	Measurement	Please click "Re-measure" and follow
		Screen	actions 12-13 and onward
38.	Did not get any values	Measurement	Please click "Done" and start the
		Screen	process of measurement from the
			beginning

ERROR MESSAGES

Error	Description	Correction actions
Please fill in day	Cannot click "Next" on profile setting	Please complete day of birth
data	screen	
Please fill in	Cannot click "Next" on profile setting	Please complete month of birth
missing month	screen	
data		
Please fill in	Cannot click "Next" on profile setting	Please complete year of birth
missing year data	screen	
Please fill in	Cannot click "Next" on profile setting	Please select gender
missing gender	screen	
data		
Please fill in	Cannot click "Next" on profile setting	Please complete weight
missing weight	screen	
data		
Please fill in	Cannot click "Next" on profile setting	Please complete height
missing height	screen	
data		
Battery level is	Cannot operate device	Please charge the wristband
critical – please		
charge the		
wristband		
Battery level is	Error message appears	Please Complete measurement and
low – please		charge the wristband
charge the		
wristband after		
current		
measurement		
Battery Low	Error message from tablet	Please charge the tablet

## MAINTENANCE

To protect this Device from damage, please use with CAUTION Being aware of the following:

- A Changes or modifications not approved by the manufacturer will void the user warranty.
- A DO NOT disassemble or attempt to repair this device or other components.

#### **STORAGE**

- Store your device in a clean, safe location.
- Do not store your device:
  - If your device is wet.
  - In locations exposed to extreme temperatures, humidity, direct sunlight, dust or corrosive vapors such as bleach.
  - In locations exposed to vibrations or shocks.

## **CLEANING**

- Do not use any abrasive or volatile cleaners.
- Use a soft dry cloth or a soft cloth moistened with neutral soap to clean your device,
   and then wipe them with a dry cloth.
- Do not wash or immerse your device in water.
- Do not use gasoline, thinners or similar solvents to clean your device.
- Do not use a wet cloth on the charging cableor the terminal of the charging clip.

#### **WARNINGS!**

- ! Stop using this device and consult with your physician if you experience skin irritation or discomfort.
- Prolonged rubbing and pressure may irritate the skin. Give your wrist a break by removing your device for a while after extended wear.
- ⚠ Be careful not to let chemical products such as lotions, oils, skin creams or cosmetics collect on the band. If this happens, wipe them immediately, otherwise it may impact the material and lifetime of product.

## **DISPOSAL**

Dispose of your device and other components according to applicable local regulations. Unlawful disposal may cause environmental pollution.

## **SPECIFICATIONS**

#### **PERFORMANCE**

Accuracy of pressure:  $\pm 3$ mmHg or  $\pm 2\%$  of reading

Accuracy of Heart Rate: ±4% of reading

Measurement Unit: Systolic: 50-250 mmHg / Diastolic: 30-180 mmHg

Measurement Range: Pulse Rate: 40-199 / minute

#### **SENSORS**

LiveMetric's LiveOne contains the following sensors:

Accelerometer, which tracks your motion patterns

4 pressure sensors

#### **MATERIALS**

The LiveOne LiveMetric wristband is made of a flexible, durable elastomer material, like that used in many sports watches, Silicon 60 shore A (Shin-Etsu Silicon CHN), and includes a stainless steel black anodized buckle. The black casing is made of black anodized aluminum. The upper antenna cover is made of PC. The bottom support is made of ABS.

#### WIRELESS TECHNOLOGY

LiveMetric LM1CS contains a Bluetooth 4.0 radio receiver.

#### **BATTERY**

LiveMetric LM1CS contains a rechargeable, 1 cell lithium-polymer battery.

#### **MEMORY**

100 MB internal device memory

#### WRISTBAND SIZE

Wristband sizes are shown below. Please note that we recommend measuring the patient's wrist prior to purchase as shown on the packaging.

Large – Fits a wrist between 7.1 - 8.26 inches (180 - 210 mm) in circumference

Small – Fits a wrist between 6.10 – 7.1 inches (155 - 180 mm) in circumference

#### **ENVIRONMENTAL CONDITIONS**

This equipment complies with FCC RF radiation exposure limits, set forth for an uncontrolled environment.

#### TECHNICAL DATA

14° to 104° F
(-10° to 40° C)
-4° to 14° F
(-20 to -10° C)
113° to 140° F
(45° to 60° C)
IP22
28,000 feet
(8,534 m)
V(ESD) ±500V
ing Conditions
5V
1A
3.7V

## FCC STATEMENT

This device complies with part 15 of the FCC Rules. 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.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or

television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the
- receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the users authority to operate the equipment.

#### IC Statement

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Le présentappareilestconforme aux CNR d'Industrie Canada applicables aux appareils
- radioexempts de licence. L'exploitationestautorisée aux deux conditions suivantes :
- (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareildoit accepter tout brouillageradioélectriquesubi, mêmesi le brouillageest susceptible d'encompromettrele fonctionnement.

### TRADEMARK STATEMENT

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#### WARRANTY

Your LiveMetric, LM1CS, is warranted to be free from defects of material and workmanship appearing within 2 years from date of purchase, when used in accordance with the provided

#### instructions.

We will, without charge, replace the unit if it is covered by the above warranty condition. Replacement is your only remedy, and our only responsibility, in terms of this warranty. To obtain warranty service, please contact our Customer Care line on [number] for the shipping address of the inspection center, and the return shipping and handling fee. Enclose the proof of purchase, and a letter with your name, address, contact number, and a brief description of the specific problem. Pack the product carefully to avoid damage during transit.

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This warranty provides you with specific legal rights, and you may have other rights, which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply. Some states do not allow exclusion, or limitation, of incidental or consequential damages, so the above limitation my not apply.



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Device SN: LM1CS0011219C

Device Revision: 002

User Manual Reference: IFU-LM1CS-001-C

User Manual Revision: Rev.001