

LifeVest[®]

Model 4000

Patient Manual



ZOLL Lifecor[®]

PN 20B0047 Rev FI

Restricted sale

Federal (USA) law restricts this device to sale by or on the order of a physician.

Effectivity

This manual describes the LifeVest[®] 4000 wearable defibrillator system.

Disclaimer

Information, operation, specifications, and product appearance may change without notice. Names and data used in examples are fictitious.

Trademarks

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Copyright notice

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Patents

US patents: 6,681,003; 6,280,461; 6,253,099; 6,169,387; 6,097,982; 6,065,154; 5,944,669; 5,929,601; 5,741,306; 5,078,134; 4,928,690; others pending.

Software nonexclusive license

The LifeVest device includes certain software ("Software"). ZOLL Lifecor grants you a nonexclusive license to use the Software solely for diagnostic and treatment purposes as part of use of the LifeVest device. You are prohibited from: (i) reproducing the Software; (ii) removing or destroying any proprietary markings, copyright notices or other legends which are part of the Software; (iii) modifying or reverse engineering the Software; or (iv) removing the Software from the LifeVest device. Title to the Software will remain at all times with ZOLL Lifecor. You must keep the Software confidential.

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1: Introduction

About the LifeVest system

The LifeVest device continuously monitors your heart. If it detects a life threatening rhythm that is too fast, the device delivers treatment to restore normal rhythm. If you are conscious, you can prevent a treatment by using the response buttons when the device alerts you that a treatment is coming.

About this manual

This manual:

- is for patients who are using the LifeVest wearable defibrillator.
- gives you instructions on the use and care of the device.
- is intended to supplement the training you received when you were fitted with the LifeVest device.

What's in this manual

Here's how to use this manual:

- The next few pages contain safety information.
- **Meet the LifeVest system** tells you about the components, what they're called, and basically how they work.
- **How to use the LifeVest device** suggests a daily routine, tells you how to use and care for the device, and tells you what to tell your family members.
- **How to take care of the garment and electrode belt** goes into the specific details about how to assemble and put on the garment and electrode belt. This section also covers removing the device when you shower or bathe, and how to launder the garment.
- **Responding to alerts** explains the types of alerts and tells you what to do if you get an alert.
- Appendixes include **Quick charts**, a **Glossary**, and **Symbols**. The quick charts are particularly helpful as reminders of how to do things. The glossary defines terms and abbreviations. The list of symbols defines icons on the components, in this manual, and on the packaging.
- Use the **Index** at the back of the manual to find what you're looking for quickly.

Safety information

This information helps you safely operate the LifeVest device. Read and understand these warnings, cautions, and symbols before using the device.

Terms used

 **WARNING:** Warns you of possible injury or death that can be caused by misuse of the device. This includes device failure that could lead to you being not protected by the device.

 **CAUTION:** Advises you of a possible problem with the device. Such problems include damage to the device or other property, or minor injury.

Shock hazard

- Always wear the LifeVest device and make sure the electrode belt and battery are properly connected to the monitor. The device cannot detect an abnormal rhythm or deliver a treatment if not worn and properly connected.
- Do not let another person wear your LifeVest device. Because the device has been programmed to recognize your specific heart rhythm pattern, if it detects an unfamiliar heart rhythm, it may shock that person.
- Do not attempt to open the monitor, battery, charger, or electrode belt. This may expose you to high voltage and damage the system.

Rescue defibrillation

- If you should require conventional defibrillation, a warning label on the garment informs medical personnel to unfasten and lay open the garment, thus removing the front therapy pad from your chest. If the garment remains fastened and connected, the LifeVest device may interfere with the defibrillation, and the conventional defibrillator may damage the device.

To help ensure proper operation

- Use the LifeVest device only after you understand all training and instructions.
- Do not put anything other than the monitor into the holster. The extra weight may pull the electrode belt from the body.
- Keep the device out of the reach of children. The device may be damaged by improper handling.
- Do not kink the cables. Kinking the cables may damage them and cause the system to malfunction.

- Do not drop the device. If you do drop one of the device components, inform ZOLL Lifecor immediately.
- Do not put foreign objects, such as fingers, paper clips, or hair pins into any connectors or openings.
- Protect the device from moisture and extreme sunlight when wearing it outdoors. To protect the device, always wear clothing over the garment and keep the monitor and battery in the holster.
- Do not put the monitor, electrode belt, battery, or charger in or near water. Do not bathe or shower while wearing the LifeVest device. Also, before washing the garment and holster, be sure to remove the electrode belt and the monitor.
- Do not allow food or liquid to splash or drip on the LifeVest device.
- Do not expose the device to direct sunlight, excessive heat, or excessive cold for prolonged periods of time.
- Use only the cables, batteries, and accessories specified in this manual. If you use any other items, the system may not operate correctly.
- Operate the system within the range of 0°C to 50°C (32°F to 122°F), up to 95% relative humidity (non-condensing), and up to 10,000 feet in altitude.

Risk of fire

- Use appropriate caution in an oxygen-rich environment. As with any defibrillator, there is a risk of sparking during defibrillation.

Gel release

- The therapy pads should not release gel unless a treatment is about to be given. Gel seepage at any other time indicates a damaged electrode belt. If this occurs, call your device provider immediately.
- If the therapy pad gel gets into your eyes, flush your eyes immediately with water and contact your physician. Your eyes may become irritated from the gel.

Travel

- The LifeVest device has not been tested or approved for use in aircraft. Check with your airline for any special restrictions on using personal electronic equipment when making your flight reservations.

Electromagnetic interference

Many common devices, including motors and electronic equipment, may produce electromagnetic interference, also known as EMI, that can affect the operation of the LifeVest device. The LifeVest device has been tested with a number of common sources of such interference, including cellular telephones, airport security systems, and anti-theft detection systems. This testing, along with clinical trial testing, has demonstrated that in everyday use the LifeVest device is not normally affected by commonly encountered electromagnetic interference.

Anti-theft detection systems, also known as electronic article surveillance systems, are often used in department stores and libraries to prevent theft by electronically sensing a special tag on a piece of merchandise when the tag passes through a detector gate. In the USA, these detector gates are commonly located near the doorways. In Europe, the detector gates may be positioned near the checkout areas.

To prevent possible interference with the LifeVest device, follow these simple guidelines when passing through airport security gates or anti-theft detection gates:

- Walk through the gate at a normal pace.
- Avoid lingering near or leaning on the gate.

In some occupational and hospital environments, unusually high levels of electromagnetic interference may be encountered. Examples of possible sources of such interference include: communication equipment such as microwave transmitters, arc welding equipment, high voltage transmission lines, electrocautery systems, and electronic muscle stimulators. These environments should be avoided while wearing the LifeVest device.

In the unlikely event that electromagnetic interference causes you to receive arrhythmia alarms, hold the response buttons to prevent being shocked and move away from the source of the interference. The LifeVest device should return to normal monitoring mode in approximately 5 seconds.

Wireless interference

The LifeVest can be susceptible to or cause wireless interference. Follow these instructions:

- **Cell phone use** – When using a cell phone, keep it at least 8 inches away from the sensing electrodes (the round ones) on the electrode belt. If you experience noise alarms while using a cell phone, move the cell phone away from the electrode belt or stop using the cell phone.
- **Charger use** – The charger contains a cell phone for data transmissions. Keep the charger at least 8 inches away from your body to prevent interference. If you experience interference when near the charger, move away from the charger. If you take the charger to a hospital, be sure that the use of cell phones is permitted. If not, do not use the charger while in the hospital. If you need to transmit data, use the wired modem connection.
- **General precaution** – If you experience any interference with the LifeVest when in the presence of any other wireless device, move away from the device or stop using it. If you continue to have problems, call ZOLL Lifecor at 1-800-543-3267.

FCC regulatory information

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.

The monitor contains:

FCC-ID POOWML-C40

The charger contains:

FCC-ID POOWML-C40
FCC-ID AU792U05E06800

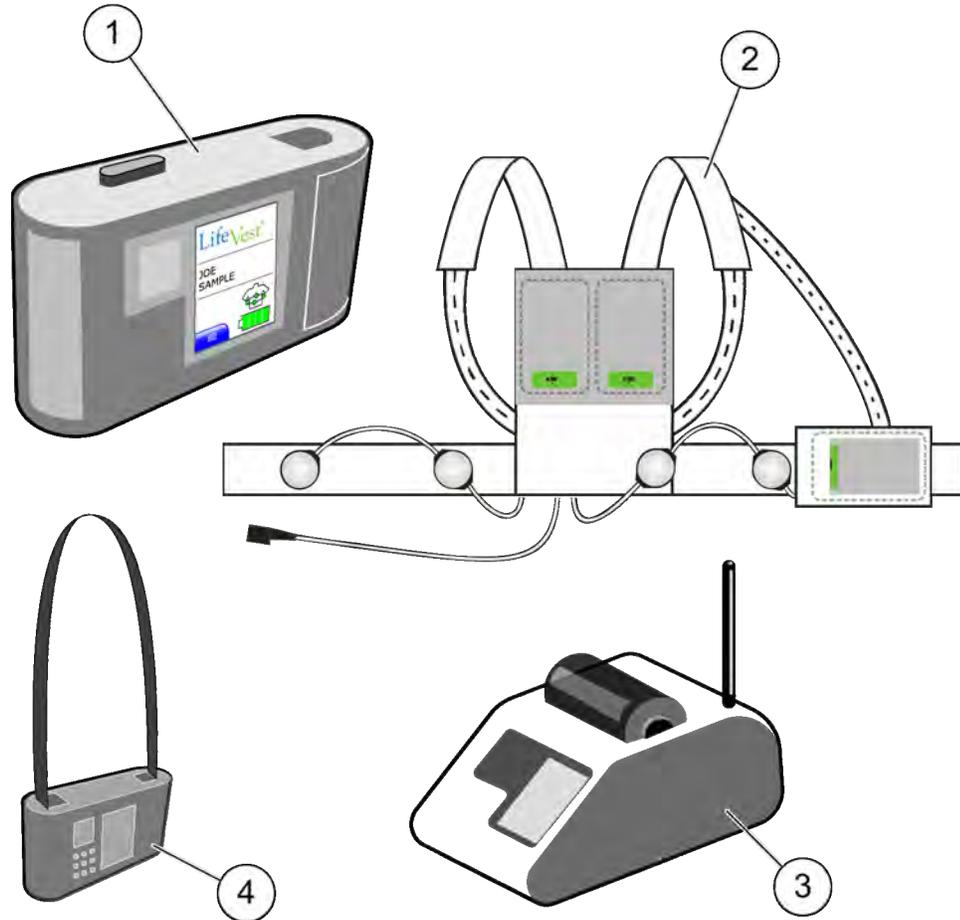
To comply with FCC RF exposure requirements, a minimum separation distance of 20 centimeters (7.9 inches) must be maintained between the user's or bystander's body and the antenna on the charger. When a separation distance of 20 centimeters or more, the charger produces RF exposure that is well below the maximum permissible exposure limits.

Changes or modifications to this device not authorized by ZOLL Lifecor could void the RF compliance and negate your authority to operate the device.

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2: Meet the LifeVest system

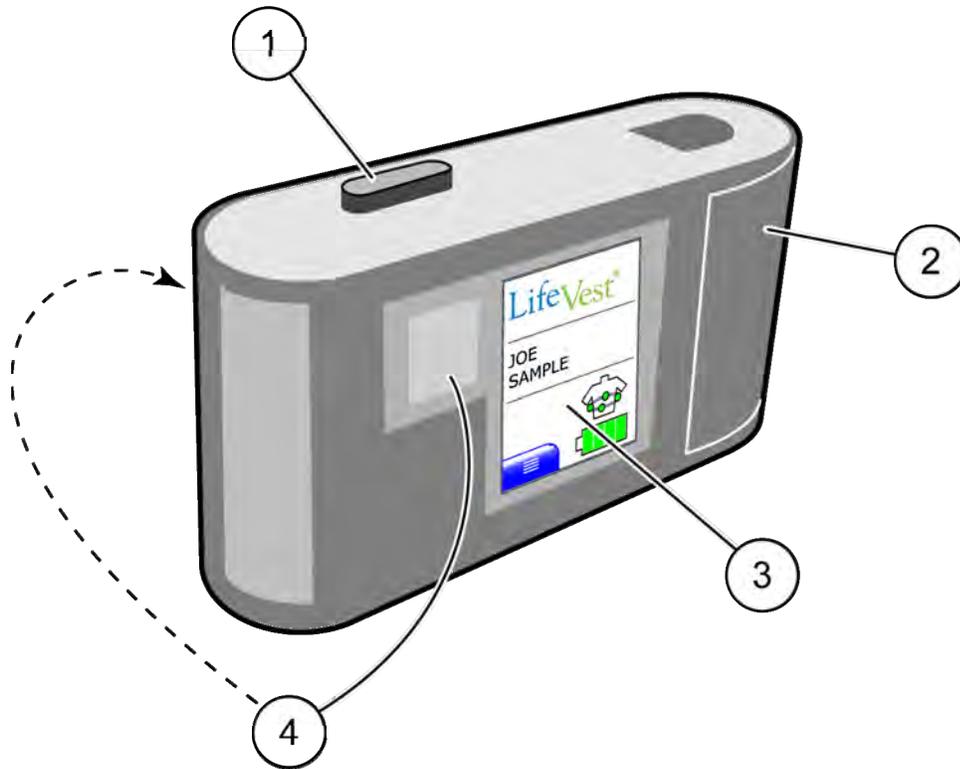
Components



Item	Description
1 Monitor	Main unit of LifeVest system. Connects to electrode belt. Monitors your heart rhythm and delivers defibrillating treatment. See details on page 2-2.
2 Garment and electrode belt	Fits around your body and connects to the monitor. See details on page 2-3.
3 Charger	Recharges the battery, communicates wirelessly with the monitor, and transmits data for doctor review. See details on page 2-4.
4 Holster	Lets you carry around the monitor.

Monitor

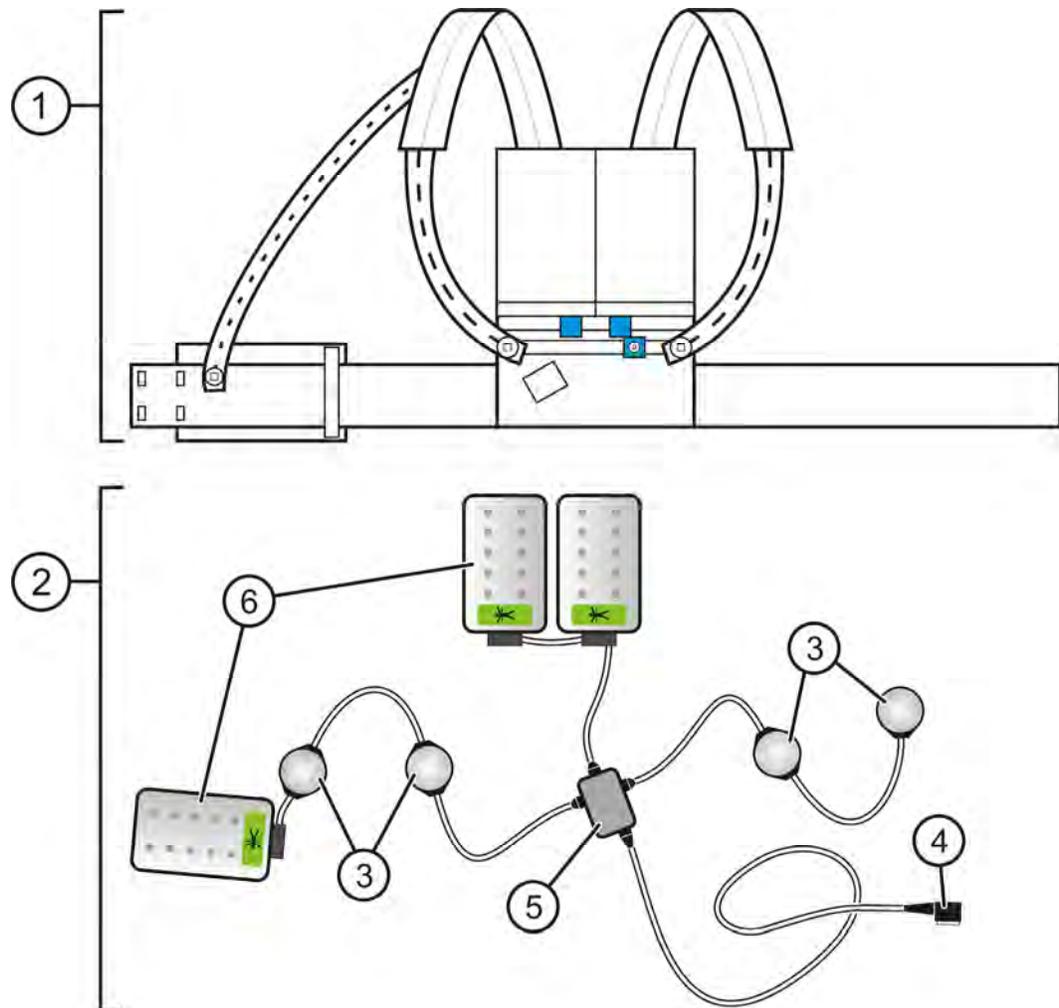
For details about operating and caring for the monitor, see section 3. For details about responding to alerts, see section 5.



Item	Description
1 Connector	Connects to electrode belt.
2 Battery	Powers the monitor. To recharge the battery, use the charger; see page 2-4.
3 Touchscreen	Displays messages about device operation, and allows patient to interact with device. In normal operation, the display is upside-down for reading by the patient who is wearing the device. For more on the monitor touchscreen, see page 2-5.
4 Response buttons	Two buttons, located front and back, that light red when the device senses that your heart is in a rapid life-threatening rhythm. You should, if conscious, press <i>both</i> response buttons to stop from getting a defibrillating treatment. You can press and release the response buttons; you don't have to hold them continuously.

Garment and electrode belt

For details on assembling, wearing, and caring for the garment and electrode belt, see section 4.

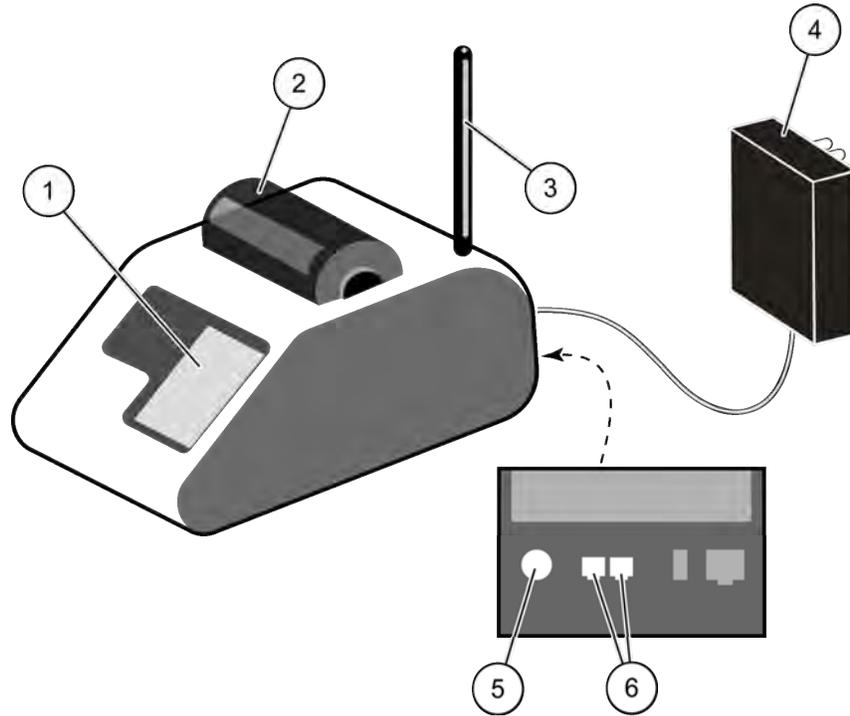


Item	Description
1 Garment	Worn under your clothing to hold the heart sensors and therapy pads against your chest.
2 Electrode belt	Assembles to garment and contains heart sensors, vibration box, and therapy pads.
3 Heart sensors	Sense your heart's electrical signal for the monitor. Also called electrodes.
4 Connector	Connects to the monitor.
5 Vibration box	Notifies you that the device is preparing to give you a treatment.
6 Therapy pads	Deliver a treatment to your heart.

Charger

The charger recharges the battery, communicates wirelessly with the monitor, and transmits data for your doctor to review.

The LifeVest system includes two batteries so that the monitor can run continuously on battery power. For details on battery care, see section 3.



Item	Description
1 Touchscreen	Displays messages about device operation, and allows patient to interact with device. For more on the charger touchscreen, see page 2-6.
2 Battery	Shown charging in charger while other battery is in monitor.
3 Antenna	Raise the antenna for best reception for transmitting data.
4 Power supply	Plugs into a standard power outlet to provide power to the charger.
5 Power supply connector	Connects the power supply to the charger.
6 Phone jacks	Connects the charger to a phone line. Only use if instructed by ZOLL Lifecor.

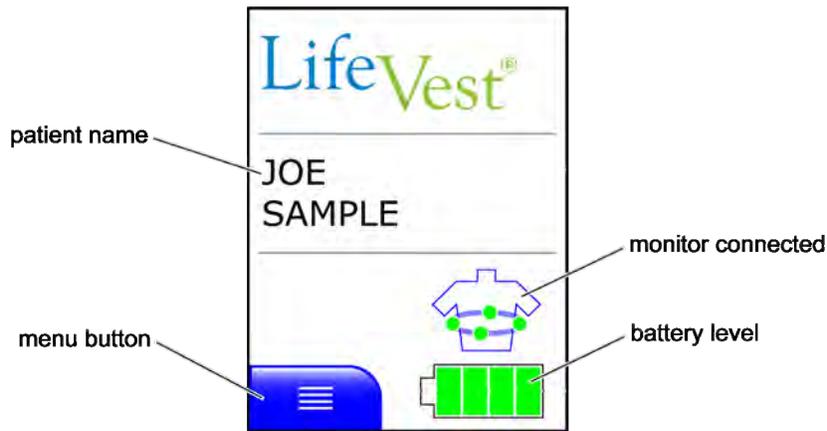
Monitor touchscreen

Shown below is an example of the monitor screen during normal monitoring.

Not all of the symbols, controls, and indicators are shown in this example. Some symbols are shown only at certain times.

As situations change, the screen will change to advise you and suggest an action to take. Screens that require you to take some action will have a help screen associated with them. For more on help screens, see page 2-7.

For a complete description of how to use the touchscreen in the daily use of the LifeVest, see section 3.



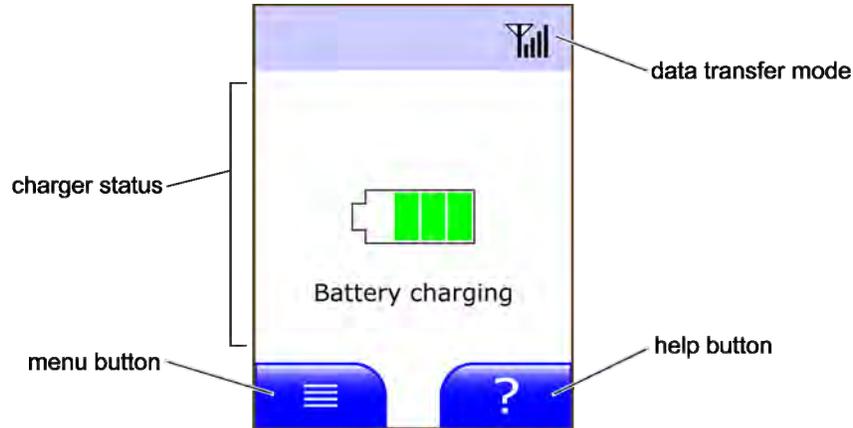
Item	What it means and how to use it
Patient name	Displays your name so you know this device was programmed for you.
Menu button	Tap to display the patient menu, where you can select various options. See details in section 3.
Monitor connected	Shows that the monitor is connected to the patient and is in normal monitoring mode. <div style="text-align: center;">  </div> If you see this symbol instead of the monitor connected symbol, the electrode belt is not connected. See details in section 3.
Battery level	Shows amount of charge remaining in battery. Also shows when the battery is discharged or is defective. See details in section 3.

Charger touchscreen

Shown below is an example of what you might see on the charger screen during normal use.

Not all of the symbols, controls, and indicators are shown in this example. Some symbols are shown only at certain times.

For a complete description of how to use the touchscreen in the daily use of the LifeVest, see section 3.

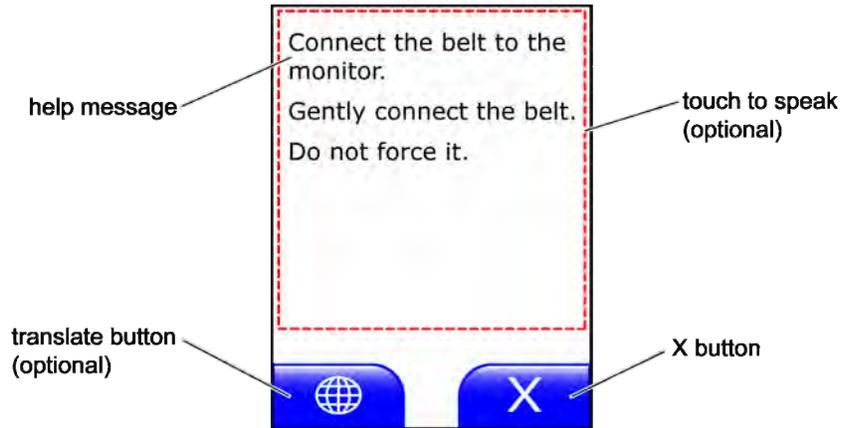


Item	What it means and how to use it
Data transfer mode	Shows how data will be transmitted to your health care provider. You will see one of these symbols: <ul style="list-style-type: none">  LifeVest is set up for a wireless connection. The number of bars indicates the signal strength.  LifeVest is set up for a wireless connection, but there is no signal. Try relocating the charger to improve the signal. If you continue to see this symbol, call ZOLL Lifecor.  Charger communication may not be functioning properly. Charger can still be used to charge battery. Call ZOLL Lifecor.  LifeVest is set up for a land line phone.
Charger status	Shows what is going on with the charger. If a battery is inserted into the charger, the battery status is shown here. If there is no battery inserted, you'll get a message telling you to insert the battery.
Menu button	Tap to display the menu where you can select various options. During normal operation, you can ignore this button.
Help button	Tap for help related to the charger status being displayed.

Help screens

If you press a help button  on any screen on the monitor or charger, you'll get a help screen.

Shown below is an example of a help screen.



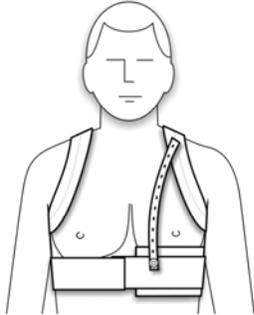
Item	What it means and how to use it
Help message	Brief message telling you what to do based on the present condition.
Translate button	Tap to see the help message in the secondary language. When you leave the screen, the display returns to the primary language. This button appears only if a secondary language has been programmed.
Touch to speak	If the speak option is enabled, touch the message area of the screen to hear the help message. The message will be spoken in the language displayed. The area to press is shown by the dashed line in the example above; the dashed line will not be visible on screen. This feature works only on the monitor, not on the charger. To enable this feature, see section 3.
X button	Tap to close the screen.

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3: Using the LifeVest

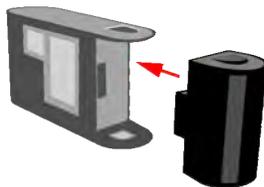
Daily routine

This is an overview of the steps involved in the daily use of the LifeVest. Some details are found elsewhere in this manual.



- 1 Wear the assembled electrode belt and garment.

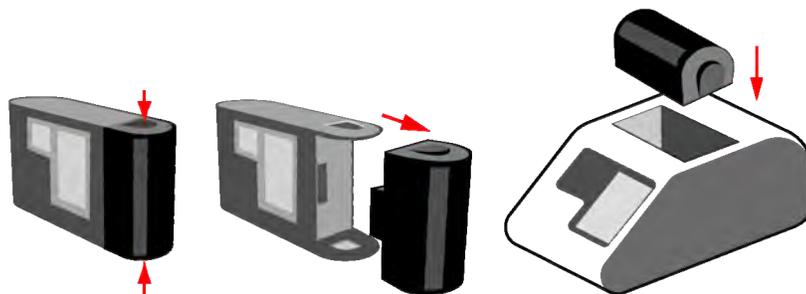
For details about assembling the electrode belt and garment, see section 4.



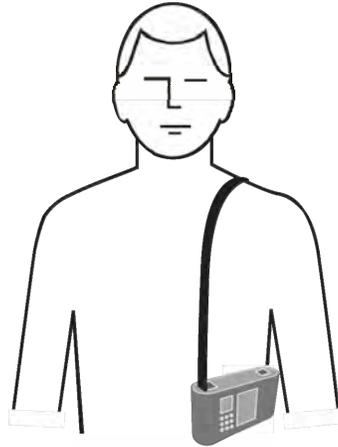
- 2 Put a fully-charged battery into the monitor and follow the normal startup routine. See page 3-3.



- 3 Change and recharge the battery every 24 hours. See page 3-4.

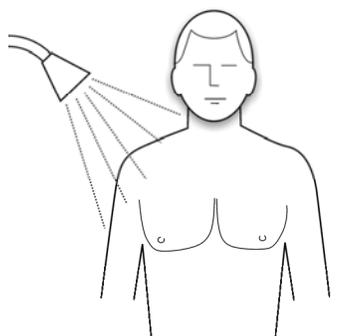
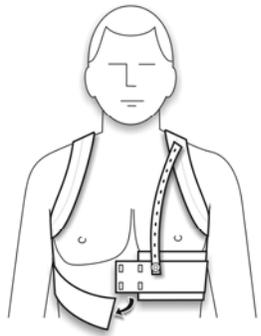


- 4 Wear the monitor in its holster. The holster strap is adjustable to give you several options for comfortably wearing the system.



- 5 Respond to any alerts. See section 5.

- 6 Completely remove the LifeVest when you shower or bathe. See section 4.

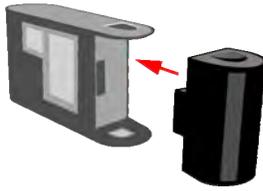


- 7 Change and wash the garment every 1 or 2 days.

Wash only the garment. Do not wash the electrode belt, monitor, or any other accessories.

Follow the instructions in section 4 for laundering the garment.

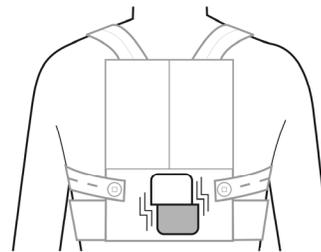
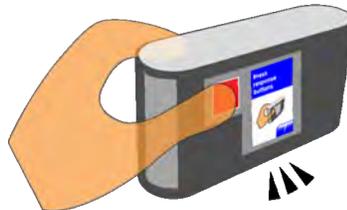
Normal startup routine



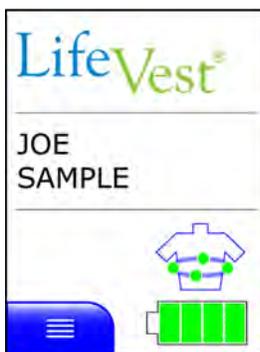
- 1 Put a fully-charged battery into the monitor. Make sure the battery is completely inserted.
- 2 Startup screens appear.



- 3 When you hear the gong and feel the vibration in your back, press the response buttons.



If you do not hear the gong or feel the vibration within 30 seconds, remove the battery. Reinsert the battery and try again. If the monitor still does not operate normally, contact ZOLL Lifecor.



- 4 The monitor displays your name and battery level.

Make sure your name appears on the monitor. If your name does not appear, contact ZOLL Lifecor immediately.

During normal monitoring, most of the time the LifeVest displays a dark screen. To see the display, press the response buttons.

Taking care of the batteries

What you need to know

- You have two batteries so you can use one while charging the other. Change and recharge batteries every 24 hours.
- Recharging the battery can take up to 16 hours.
- Place the charger in a safe place where you can leave it plugged in. Keep the second battery in the charger while you use the monitor.
- The battery and charger may get warm. This is normal. Place the charger in a well ventilated place.
- Use only the batteries and charger supplied with the LifeVest system.
- Remove the battery from the monitor whenever you're not wearing the device. For example, when you remove the device to take a shower, be sure to remove the battery first, to ensure the device is not active when you are not wearing it.

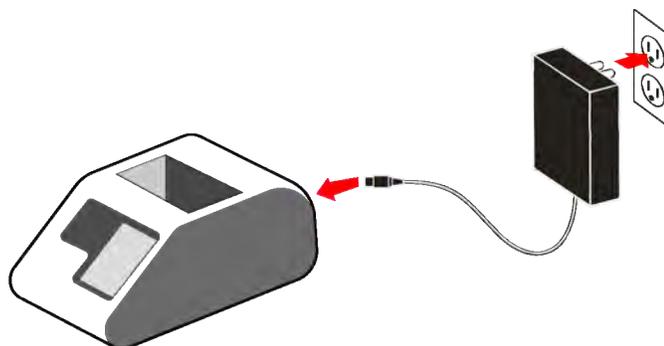
In the event of a power outage

If power is interrupted for any reason, you need to take steps to keep your batteries charged.

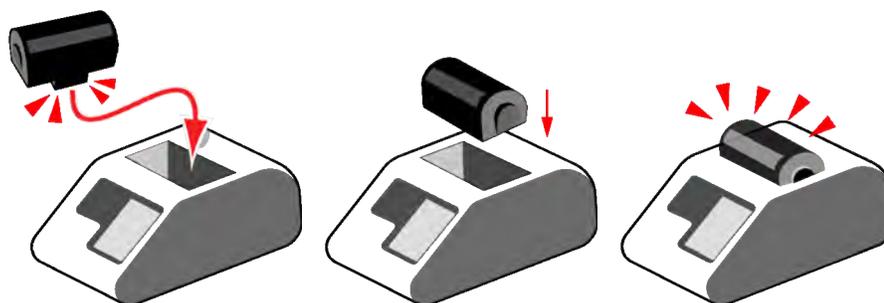
- Notify your electric company and fire department to let them know you have a medical device that needs power.
- Locate a source of backup power if possible, such as a generator. Plug the battery charger into the backup power and charge the spare battery continuously. Change the batteries every 24 hours.
- If a generator is not available, and you expect power to be out for more than 24 hours, contact ZOLL Lifecor immediately at 1-800-543-3267 to have spare batteries sent to you.
- When the power is restored, plug in your charger as normal. Continue charging and changing batteries every 24 hours.

Charger setup

- 1 Place the charger in the room where you sleep, on a nightstand or end table, near a power outlet.
 - Place the charger so you can easily get to the top of the unit to insert and remove the battery.
 - The charger can actually be placed anywhere in the house, but we recommend the room where you sleep so it's convenient to use every day.
- 2 Plug the power supply into the back of the charger, then plug it into a standard power outlet. Make sure the outlet stays on all the time, and is not controlled by a lightswitch.



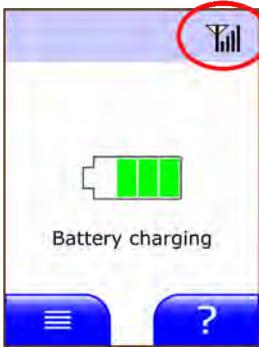
- 3 Insert the spare battery into the charger.
 - Orient the battery with its connector facing the rear of the charger.
 - Push the battery in firmly.



- On the charger's touchscreen, read the battery status. Battery should be charging, charged, or testing.
- For details about reading the battery status on the charger, see page 3-9.



4 Raise the antenna on the charger.



5 Look for a symbol along the top of the charger's display:



- Charger is set up for a cellular network.
 - Signal strength is shown by the number of bars. The more bars, the better.
 - If you have at least one bar, charger setup is finished.
-



- You may see this signal at power-up until the charger finds a signal. That is normal.
 - If you get this symbol all the time, charger is not getting a signal.
 - Try relocating the charger to another part of the house in order to get a signal.
 - If the problem continues, call ZOLL Lifecor.
-



- Charger communication may not be functioning properly.
 - Charger can still be used to charge battery.
 - Call ZOLL Lifecor.
-

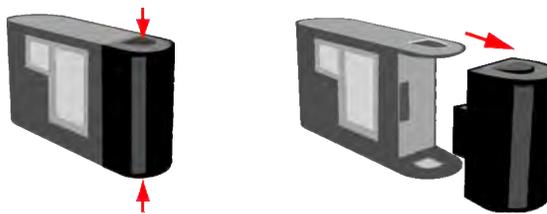


- Charger is set up for a land line phone connection.
 - Charger functions normally, but uses a land line to transfer data.
 - In this mode, a phone line must be plugged into the back of the charger.
-

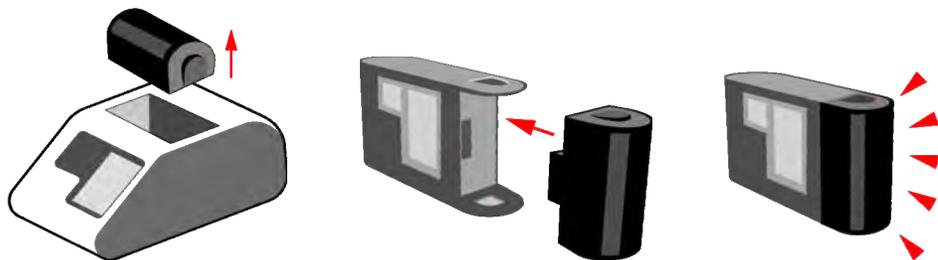
Change and recharge batteries daily

While you are wearing the device, change and recharge the batteries every 24 hours. Leave the electrode belt connected during this procedure.

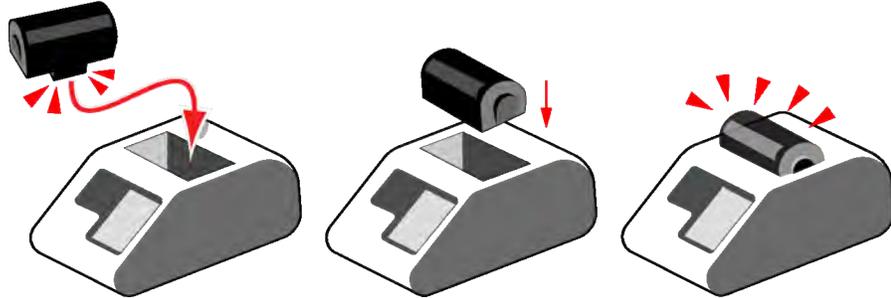
- 1 Remove the existing battery from the monitor.
 - You can leave the monitor in the holster with the electrode belt connected.
 - Open the holster end flap, then push the battery latches and slide the battery out of the monitor.



- 2 Remove the fully-charged battery from the charger and put it into the monitor.
 - Push the battery firmly into the monitor until it clicks.
 - Make sure the battery is fully inserted into the monitor.
 - Make sure the device follows the startup routine on page 3-3.

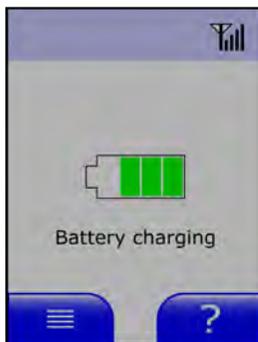


- 3 Put the used battery from the monitor into the battery charger.
 - Orient the battery with its connector facing the rear of the charger.
 - Push the battery in firmly.



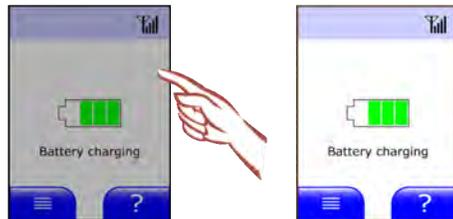
- Verify that the battery is being charged.
- Read the battery status on the charger. See page 3-9.

Charger display dims in the dark

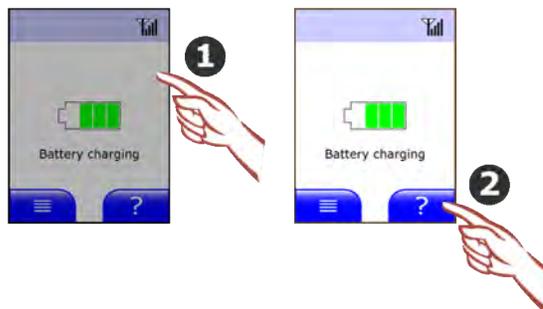


When the room gets dark, the charger display gets dim.

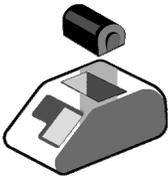
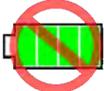
To return the display to full brightness, either turn on the light in the room or tap the screen.



If you want to press a button and the screen is dim, first tap the screen to make it bright. Then tap the button.

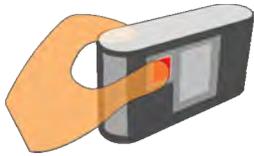


Battery status indicators

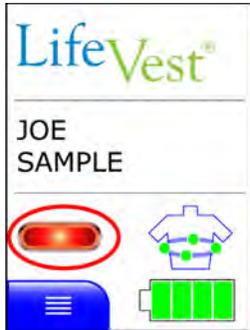
Screen shows	What it means	What to do
 <p>Insert battery</p>	There is no battery in the charger	Insert the battery into the charger. Leave one battery in the charger while you use the other battery.
 <p>Battery charging</p>	Battery is charging	Let the battery charge. This can take up to 4 hours.
 <p>Battery charged</p>	Battery is fully charged, ready for use in monitor	Leave battery in the charger until ready to exchange battery.
 <p>Battery testing</p>	Battery is being tested	<p>Let the test run, which can take up to 12 hours. Test verifies battery function as part of normal routine. After test, battery will be charged, which can take another 4 hours. So the whole process can take up to 16 hours.</p> <p>If you need to use the battery sooner, remove battery from charger as soon as you see this on the screen. Then put the battery back into the charger to skip the test and charge the battery. The test will be performed the next time the battery is plugged into the charger.</p>
 <p>Battery problem</p>	Battery has a problem, but still might hold a charge	<p>The battery may charge, but will take longer than normal. Battery can be used, but should be replaced. Call ZOLL Lifecor.</p>
 <p>Charger problem</p>	Charger has a problem, and cannot charge the battery.	<p>Do not leave a battery in the charger. Battery is not being charged.</p> <p>Remove the battery and reinsert it firmly to try again. Call ZOLL Lifecor.</p>

Recording your heart rhythm

At times, you may want to record your heart rhythm for your doctor to review. Follow this procedure to record your heart rhythm.

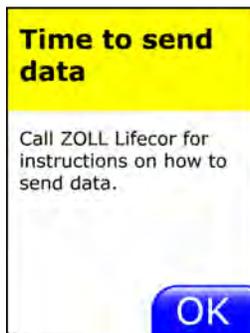


- 1 Hold the response buttons for 3 seconds.



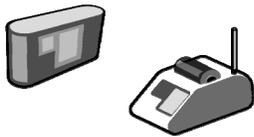
- 2 Release response buttons when you see the recording indicator  and hear a single gong.

Sending data manually

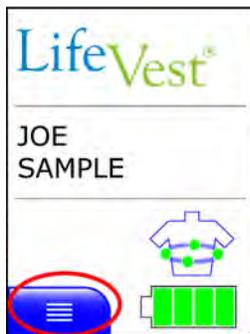


If you get this message, you need to send data manually.

Call ZOLL Lifecor, then follow along with this procedure.



1 Go into the same room where the charger is located.



2 On the monitor, tap the menu button .



3 Tap **Send data**.



4 On the monitor's display, look at the symbol  above the charger antenna.

- Signal strength is shown by the number of segments. The more segments, the better.

- You may see this symbol  while the device seeks a connection. This is normal.

- If this symbol  does not go away after several minutes, you cannot send data. Press **Cancel** and try again later.



5 When you see at least one green segment on the signal strength symbol  tap **OK**.



6 The monitor shows that data is being sent. Stay near the charger until the transfer is complete.



7 The monitor shows when data transfer is complete. Tap **OK**.



If the monitor is unable to send data, you'll get this message.

Tap **X** and try again.

If you continue to have a problem sending data, you will get additional instructions from ZOLL Lifecor.

Speak options

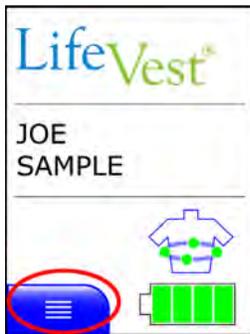
There are three speak options associated with the help screens:

- Speak when you tap the top of the help screen.
- Speak with every help screen.
- Don't speak with the help screens.

You can also change the volume of these messages. This does not affect the volume of the treatment prompts, which are always delivered at full volume.

Screens speak in the language displayed.

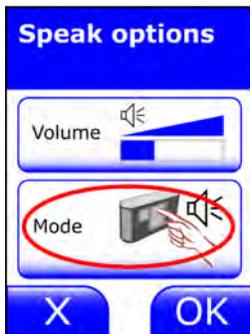
Follow this procedure to change the speak mode or volume.



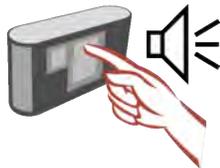
1 On the monitor, tap the menu button .



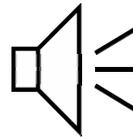
2 Tap **Speak options**.



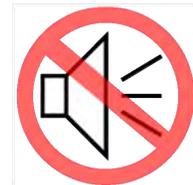
3 Tap **Mode** until you see the speak mode you want.



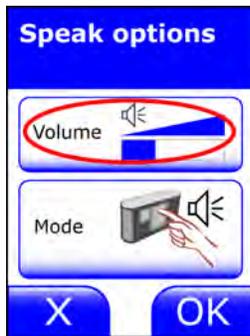
LifeVest speaks when you tap the top of the screen.



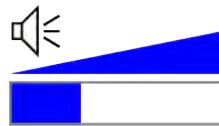
LifeVest speaks with every help screen.



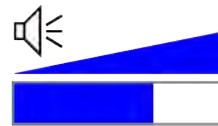
LifeVest does not speak.



4 Tap **Volume** until you hear the desired volume.



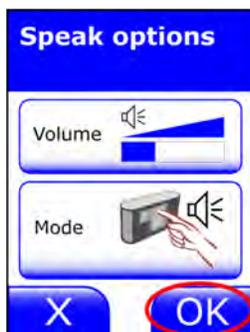
Volume level 1.



Volume level 2.



Volume level 3.



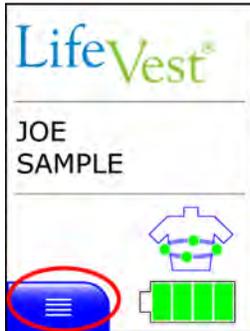
5 When you are finished with the speak options, tap **OK**.

To close the screen without making any changes, tap **X**.

Airplane mode

Airplane mode disables the LifeVest from wirelessly transmitting data to avoid interfering with aircraft operation and other electrical equipment.

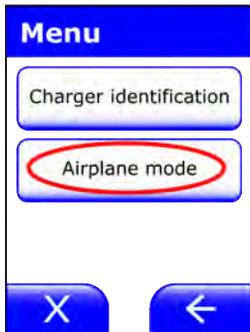
Follow this procedure to set the LifeVest for airplane mode.



- 1 On the monitor, tap the menu button .

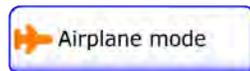


- 2 Tap the next page button .

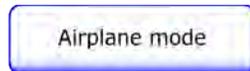


- 3 Tap **Airplane mode**.

When the airplane symbol appears on the button, airplane mode is selected. Each time you tap **Airplane mode**, it toggles between on and off.

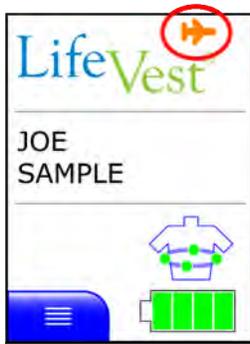


Airplane mode ON. No signals are transmitted from LifeVest.



Airplane mode OFF. This is the normal position.

Tap **X** to save your changes and close this screen.



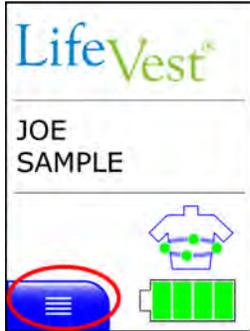
- 4 On the home screen, notice the airplane symbol in the upper right corner. That means the LifeVest is in airplane mode.

When you see the airplane symbol, no signals will be transmitted from LifeVest.

The monitor will go out of airplane mode the next time you change the battery, or if you attempt to manually send data.

System info screens

If you ever call for service or support, you may be asked for information about your LifeVest. You may be instructed to go into the system information screens.



- 1 On the monitor, tap the menu button .



- 2 Tap **System info**.



- 3 System information will be shown.
 - To go from one screen to another, tap the next page  button.
 - To close either screen, tap **X**.

Periodically clean and inspect the system

How to clean the garment

Specific details about laundering the garment are in section 4.

How to clean the non-washable items

Unplug the battery charger and disconnect the power cord before cleaning.

Non-washable items such as the battery, charger, cables, ECG electrodes, and therapy pads may be cleaned using a soft cloth sparingly dampened with Formula 409[®] all-purpose cleaner or equivalent cleaning solution.

When you clean these items, keep in mind:

- Don't apply liquids directly to any of the non-washable items, as they contain electronic components that can be damaged.
- Don't attempt to clean any electrical contacts or connectors.
- Don't use any cleaning solution on the garment.

Inspection

Inspect your system periodically. If you should notice any of the following conditions, please notify ZOLL Lifecor as soon as possible:

- Cracks in the housing of the monitor, battery, or charger.
- Cracks in the therapy pads.
- Tears in the garment or holster.
- Blue gel leaking from the therapy pads at any time other than when defibrillation is about to occur or has just occurred.

What family members need to know

Who this information is for

This information is for the family and friends of the person wearing the LifeVest device.

What you need to know

Since your family member or friend may be wearing the LifeVest device for a period of time, you may want to understand the daily routine involving the device, as well as warnings and cautions directed to the patient. In that case you should probably read this entire manual.

Information for family members

Anyone associated with the patient should be aware of the following information:

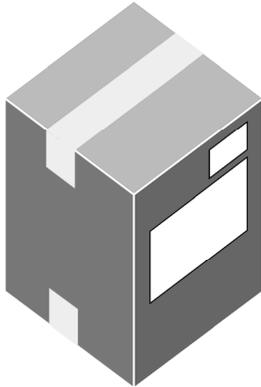
- **Don't hold the response buttons for the patient.** Only the patient should press the response buttons. The patient's ability to press the response buttons lets the device know whether or not the patient is still conscious and is critical in deciding when to give the patient a shock.



WARNING: If anyone other than the patient holds the response buttons, needed therapy may not be delivered, possibly resulting in serious injury or death.

- **Don't touch the patient when a treatment is about to occur.** If anyone touches the patient when the patient receives a treatment, the person touching the patient will be shocked.
- **Don't remove the battery, don't disconnect the electrode belt from the monitor, and don't loosen the garment unless you are prepared to do CPR (cardiopulmonary resuscitation) on the patient.**
- **Don't let anyone else wear the LifeVest device.** If someone other than the patient wears the device, it will not recognize the unfamiliar heart rhythm and may shock that person.
- If the LifeVest shock does not revive the patient and the patient is unconscious, call 911 (or your emergency medical service) and then start CPR.
- A label on the front of the garment reminds medical personnel to open the garment before giving the patient conventional external defibrillation.
- Keep the LifeVest device out of the reach of children.

When you are finished with the device



Call ZOLL Lifecor and arrange to return the LifeVest system.

In the USA, call 1-800-543-3267.

Battery recycling

The lithium-ion batteries used with the LifeVest device are recyclable and should be returned to ZOLL Lifecor.



WARNINGS:

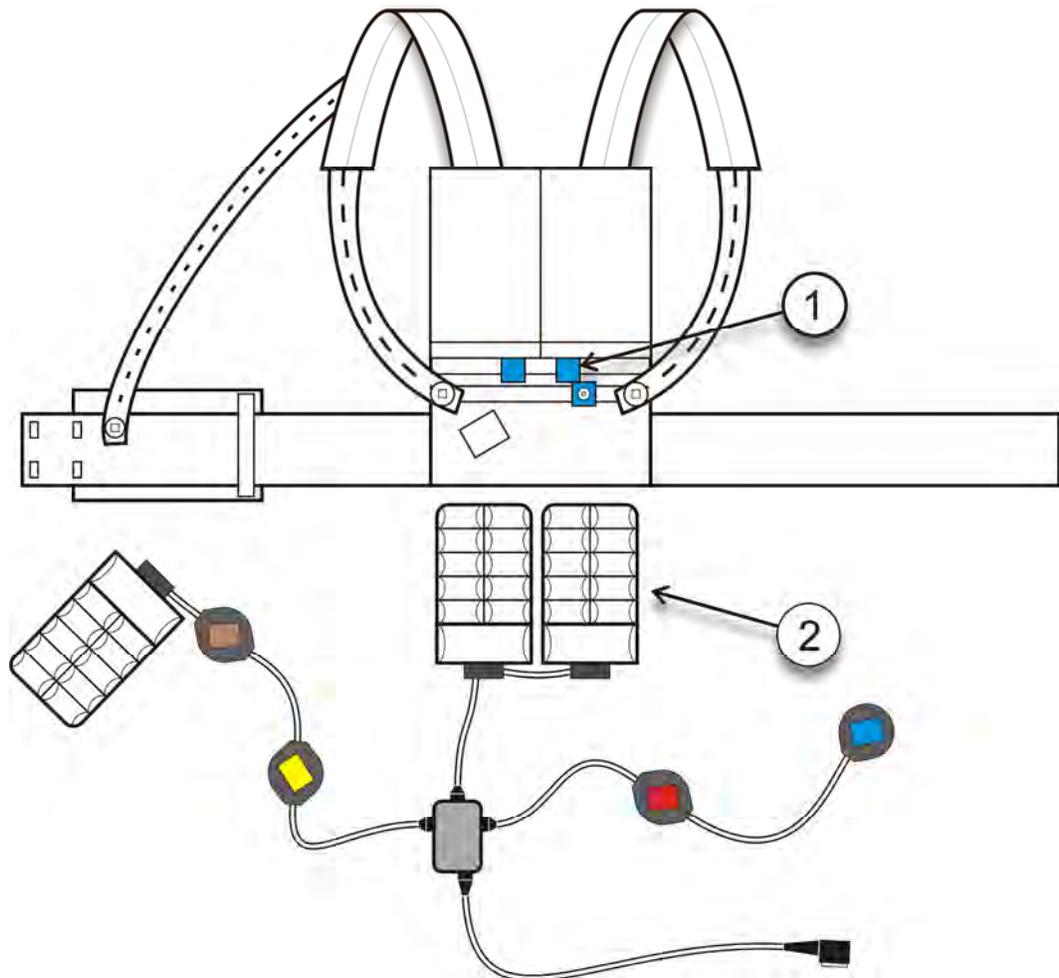
- Do not dispose of the batteries in the trash.
- Do not incinerate the batteries since they might explode.

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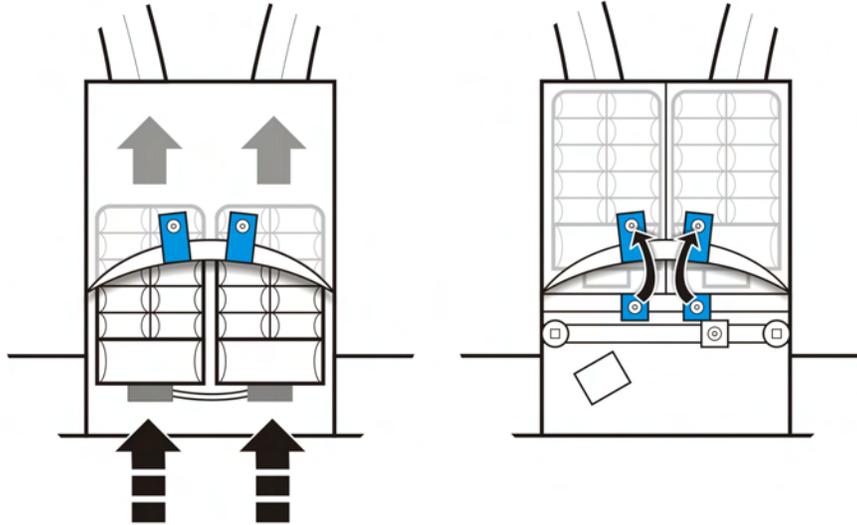
4: Taking care of the garment and electrode belt

Assembling electrode belt to garment

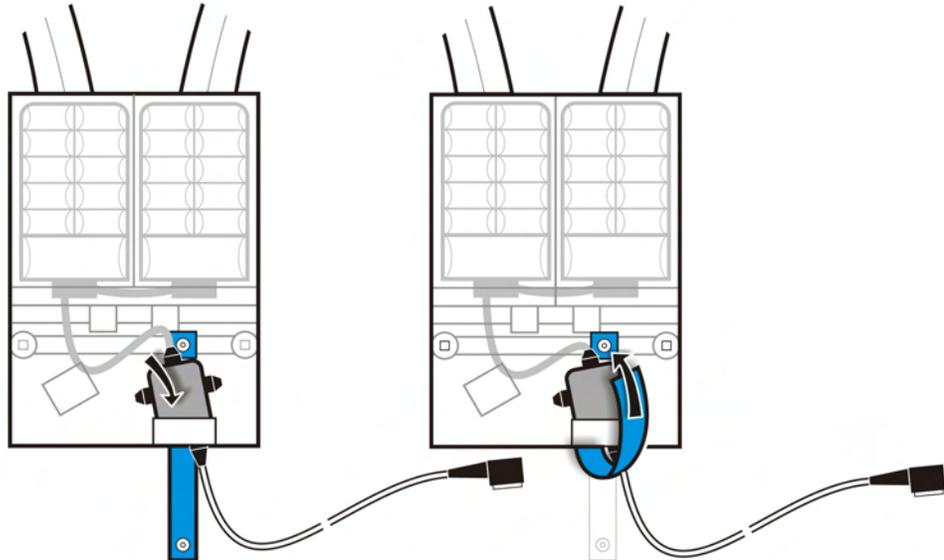
- 1 Lay the electrode belt and garment on a flat surface as shown below.
 - Place the garment with the blue tabs (shown as item 1 below) on the back pockets facing up.
 - Place the electrode belt with the white foam sides of the therapy pads (shown as item 2 below) facing up.



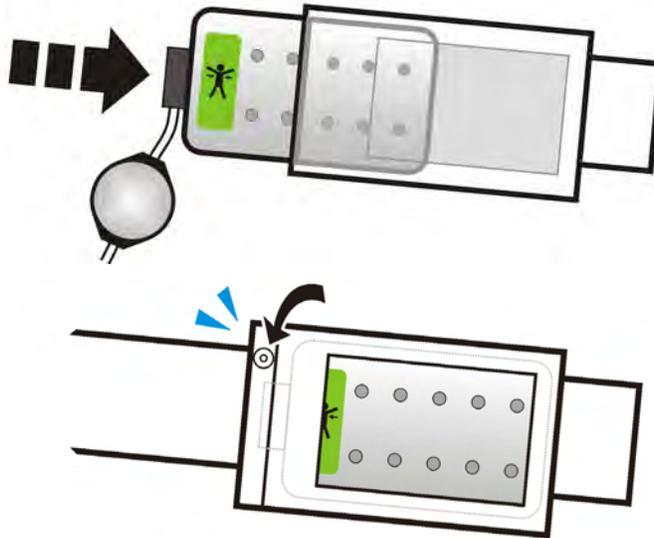
- 2 Insert the rear therapy pads into the garment's rear pockets.
 - Make sure the metal sides of the pads (with the green stickers) face the metallic mesh on the pockets.
 - Secure by closing the two snaps.



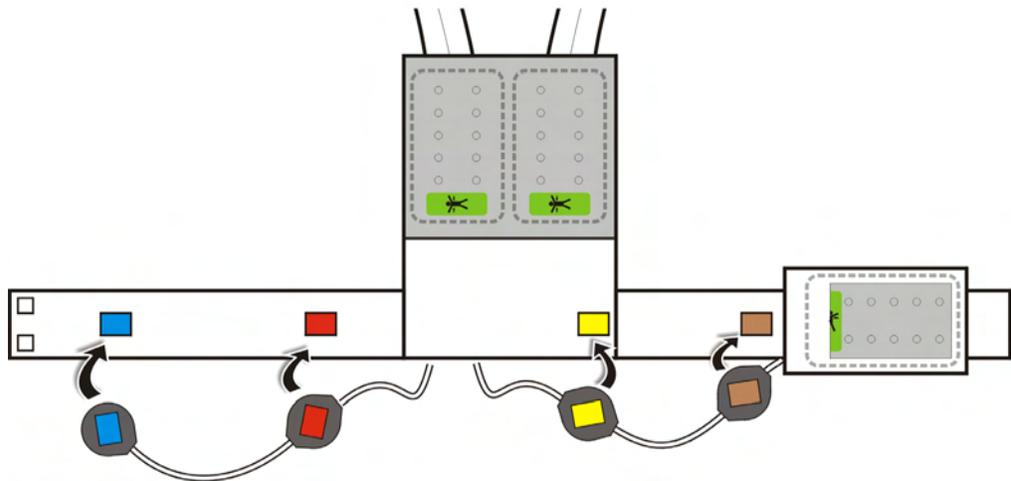
- 3 Attach the vibration box to the garment.
 - Position the vibration box with the connector cable exiting down.
 - Slide the vibration box under the strap along the edge of the garment, with the connector cable going under the strap.
 - Secure with the attached blue strap.



- 4 Turn the garment over. Insert the front therapy pad into the front pocket.
 - Make sure the metal side of the pad (with the green sticker) faces the metal mesh on the pocket.
 - Once the therapy pad is fully inserted, snap the pocket closed.



- 5 Attach the ECG electrodes to the garment. Match the colors on the backs of the electrodes to the colors on the garment.



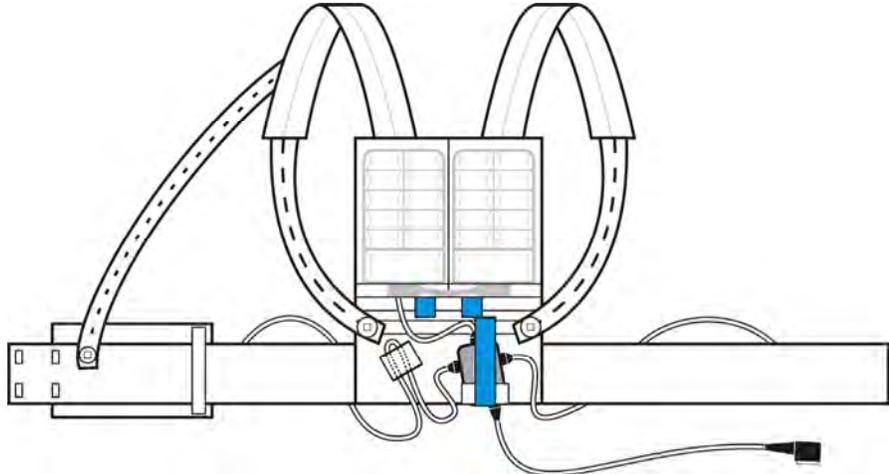
Assembled electrode belt and garment

The assembled electrode belt and garment resembles the following figures.

If the straps are not buttoned, button them now.

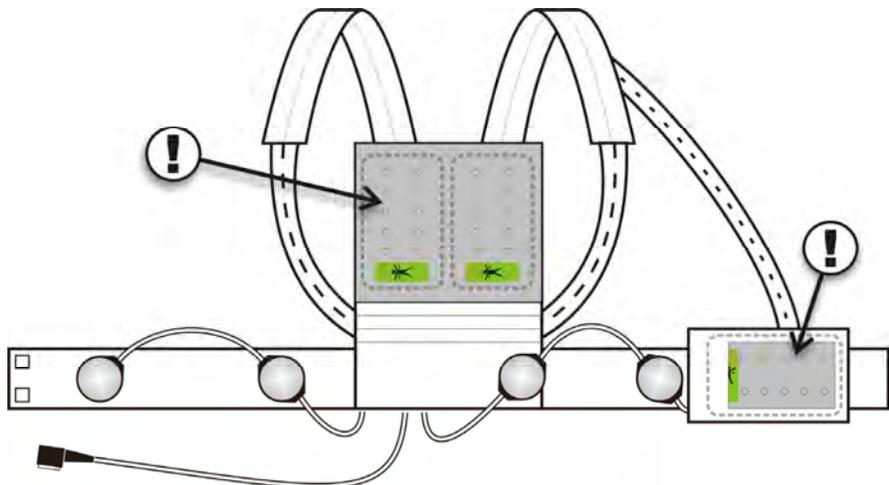
Outside view

This side faces away from your body when worn.



Inside view

This side faces toward your body when worn, with the metallic mesh pockets against your skin.



Putting on the garment and electrode belt

- 1 Before putting on the garment, remove all clothing and undergarments from your upper body.

All underwear and clothing must be worn OVER the device, NOT under it.

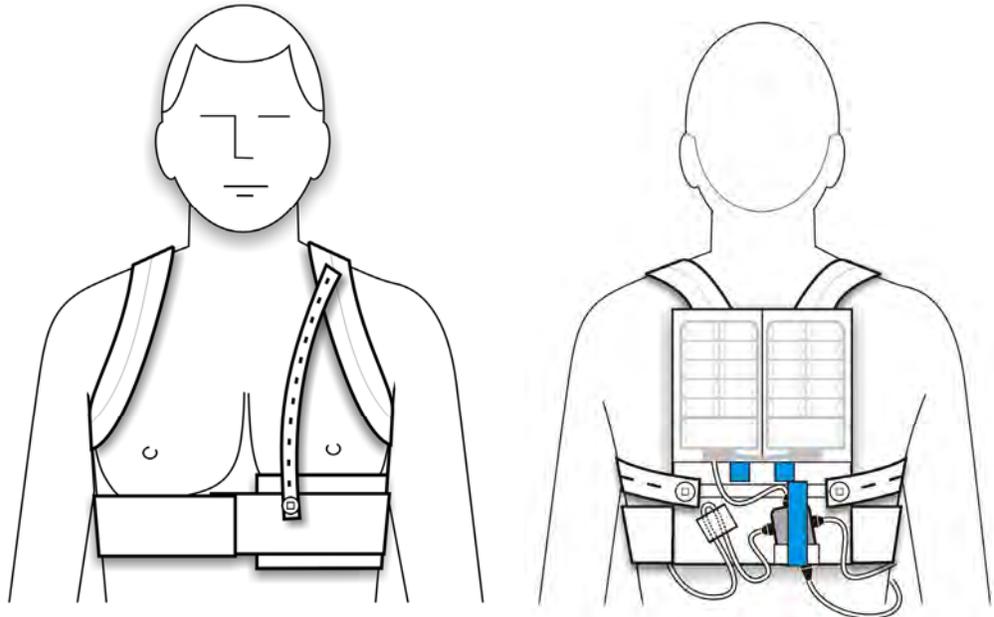
- 2 If desired, apply unscented hand lotion or skin cream to the four ECG (round) electrodes.

- 3 Put on the garment and connect the garment ends together in the front.

- Make sure that the garment doesn't get twisted.
- The metal mesh pockets must touch your bare skin in order for a defibrillating pulse to be delivered.
- If you are a female, wear a bra OVER the assembled electrode belt and garment. Make sure that the metallic side of the front therapy pad is pressing against your body rather than the underside of your left breast.

- 4 Look in a mirror to make sure that:

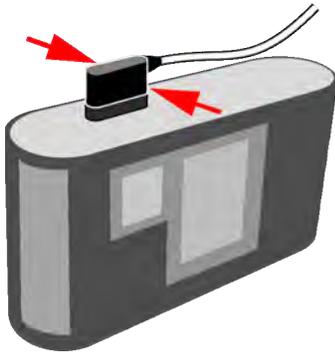
- Garment and belt assembly are being worn correctly.
- Garment is not twisted.
- Electrodes and therapy pads are pressing against bare skin. The metallic mesh pockets and metallic side of the therapy pads (with green stickers) **MUST TOUCH YOUR BODY** for the device to work properly.



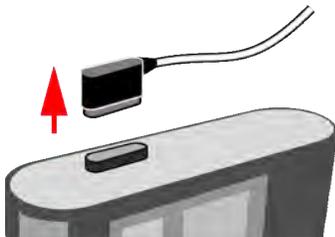
Connecting and disconnecting the electrode belt

Normal daily use does not require disconnecting the electrode belt from the monitor. However, if you do need to disconnect the electrode belt, follow this procedure.

To disconnect the belt

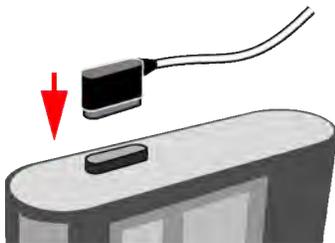


- 1 Squeeze the sides of the connector as you pull it away from the monitor.



- 2 Pull the connector out of the monitor.

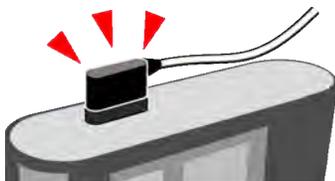
To connect the belt



- 1 Line up the connector with the monitor. The cable should be facing toward the center of the monitor.

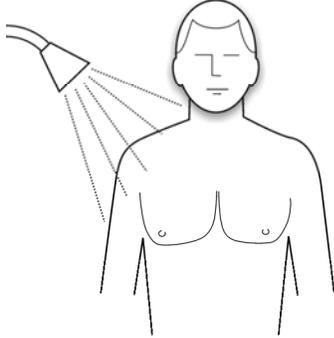


WARNING: Do not force the connector. Allow the connector to align before pushing it in. Forcing the connector may damage it and cause the system to malfunction.



- 2 Gently push the connector straight in until it locks in place.

Removing when you shower or bathe

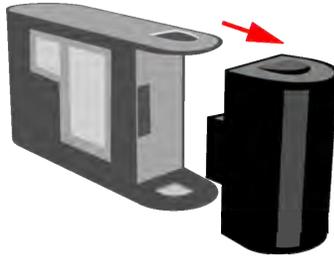


When you remove the device to bathe or shower, you are not protected by the device. Bathe or shower in the evening, preferably when someone else is home with you.

When you remove the device for any reason, remove the battery first. When you put the LifeVest device back on, put the battery in last.

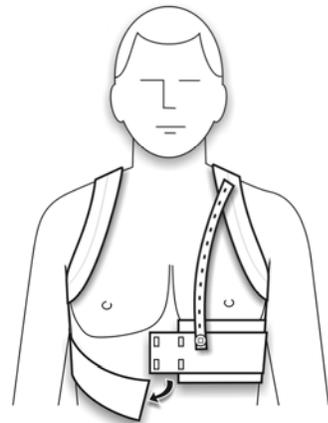
Completely remove the LifeVest device when you shower or bathe. Don't put the monitor, electrode belt, or battery in or near water.

To remove the LifeVest device before you bathe or shower



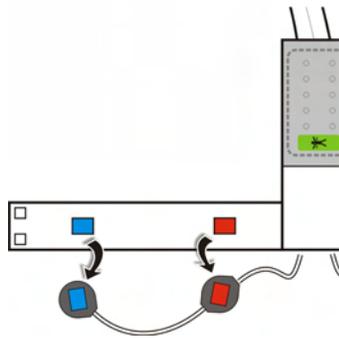
1 Remove the battery from the monitor. Keep the belt connected to monitor.

2 Unfasten and remove the garment from your body.

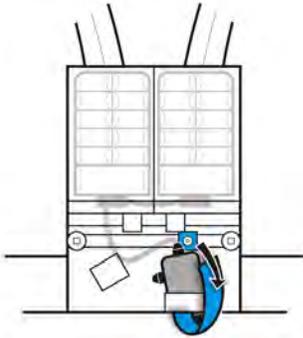


If you plan to change the garment, follow the procedure on the next page to disassemble the electrode belt from the garment.

Diassembling the electrode belt and garment

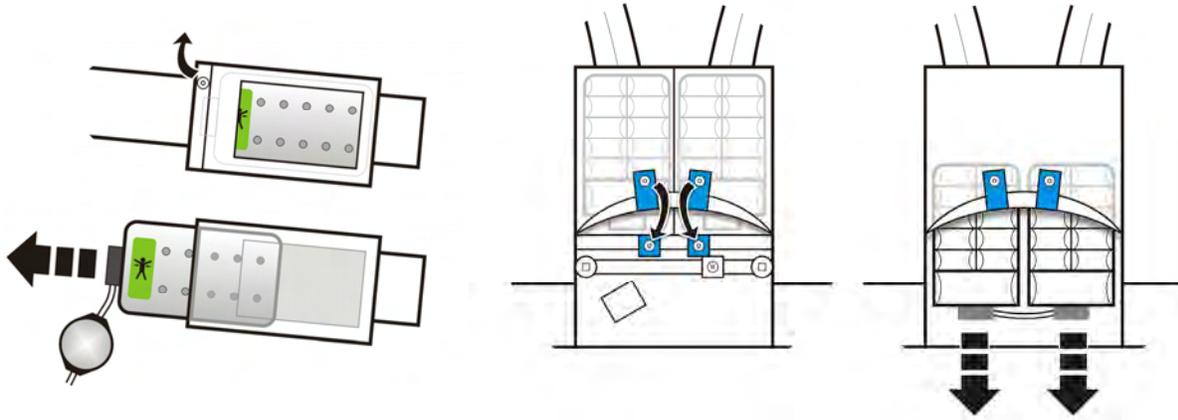


- 1 Remove electrodes from garment. Pull on the electrodes, not on the wires.



- 2 Remove the vibration box from the garment.

Do not use the vibration box as a handle to pull or lift the electrode belt. Pulling on the vibration box can damage the internal wiring and cause the system to malfunction.



- 3 Unsnap and remove the therapy pads from their pockets.

- 4 Wipe the metal surfaces of the electrodes and therapy pads with a soft cloth dampened with rubbing alcohol.
- 5 Reassemble the garment and electrode belt as described on page 4-1.
- 6 Put on the assembled garment and electrode belt as described on page 4-5.

To launder the dirty garment, see next page.

Laundering the garment



Launder the garment every 1 or 2 days.

Before washing the garment:

- Remove the electrode belt to protect it from damage. **Do not wash the electrode belt.**
- Leave the straps buttoned on the garment. Attach the ends of the garment together.

Wash the garment by itself. Do not wash it with other laundry.

The garment may be hand-washed or machine washed, using a normal wash cycle and warm water, with a maximum water temperature of 45°C (113°F).

Use clothes washing detergent only, such as Woolite® Original, Tide®, Purex® After the Rain, Fab® Spring Magic, or Arm & Hammer® for sensitive skin.

 **CAUTION:** Do not use chlorine bleach, bleach alternatives, fabric softener, or anti-static sprays. Do not use detergents that include bleach or fabric softener additives.

Use a clothes dryer or hang the garment to dry. If you use a clothes dryer, set it to a warm or medium setting. Do not use the high heat setting.

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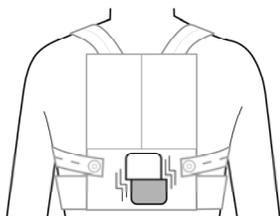
5: Responding to alerts

Types of alerts

How you respond to an alert depends on the type of alert you get. There are three types of alerts:

- vibration
- siren
- gong

Vibration



If you get a vibration in the back of the electrode belt, you are being warned that you're about to get a siren alert. You will also get a short vibration alert every time you change the battery.

Press the response buttons to stop this alert.

Follow the same instructions as for the siren alert on page 5-2.

Siren

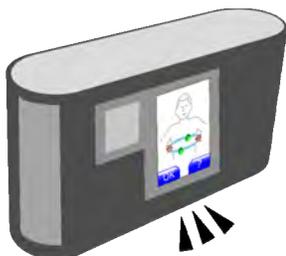


The siren is a high-pitched two-tone alarm that means an abnormal rhythm has been detected.

Press the response buttons to stop this alert. If you don't respond to this alert, you will probably receive a treatment within the next minute.

Follow the instructions on page 5-2.

Gong



The gong is a low-pitched "gong" sound that repeats about once a second.

This type of alert is accompanied by a message stating a problem that needs your attention. Read the message to see what action needs to be taken. For specific help, press the help button on the screen.

Follow the instructions on page 5-4.

Siren



If you are conscious, press the response buttons to stop the treatment from occurring.

- The siren stops and a voice prompt alerts bystanders that the treatment has been stopped.
- **NO ONE ELSE** should press the response buttons. Only you, the patient, should press the response buttons.
- If you feel dizzy, find a place to sit or lie down.
- You can press and release the buttons; you don't have to hold them continuously. Press and release the response buttons each time you feel the vibration alert or hear the siren alert.



If you are not conscious, naturally you will not be able to press the response buttons.

- This allows the device to deliver a treatment.
- Voice prompts alert bystanders not to touch you.
- Voice prompts also alert bystanders to call an ambulance after you have been given a treatment.



WARNINGS:

- If you fail to press the response buttons when you are awake, you may receive a treatment, which will be painful. That is why you need to press the response buttons if you get the siren alert.
- If you receive a treatment while your heart is beating normally, the treatment may cause an abnormal rhythm to occur. There is a small possibility that the abnormal heart rhythm may not be detected and death may result.
- Do not press the response buttons by artificial means or by having another person press them for you. If anyone other than the patient presses the response buttons, needed therapy may not be delivered, possibly resulting in serious injury or death.
- Do not remove the battery from the monitor when you get alerts. The device needs to be powered up in order to continue to function.

If you get a treatment

After getting a treatment, you may feel wetness on your back, sides, and chest. This is gel that was released just before the first treatment was delivered. You might also have some chest soreness.

When any of these messages appear, tap the help button  for reminders about what to do.



- 1 Call your doctor's emergency number immediately to report your treatment.
- 2 **Unless your doctor tells you otherwise**, continue to wear the LifeVest system.
 - Leave the belt connected. Do not remove the electrode belt or garment, and do not disconnect the electrode belt from the monitor.
 - Leave the battery in the monitor. Do not remove the battery. Continue to change and recharge the batteries as normal.
 - Leave the gel under the therapy electrodes. Do not wipe them dry.
 - Tap **OK** after reading the message.



- 3 Check the display for any messages and take the action indicated.
 - For help with specific messages, tap the help button .
 - For general instructions for any message accompanied by a gong, see page 5-4.

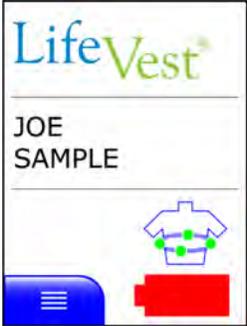
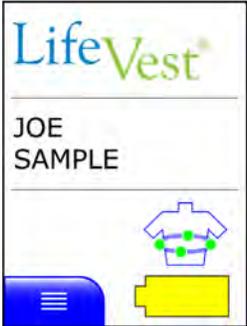


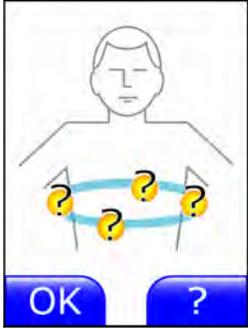
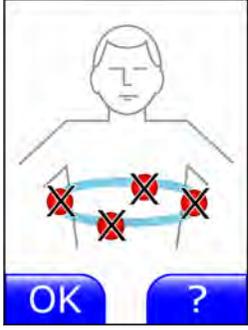
- 4 Call ZOLL Lifecor and arrange to get a new belt.
Tap **OK** to resume normal monitoring.

Gong

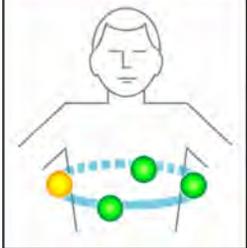
If you get a gong, there is a problem that needs your attention.

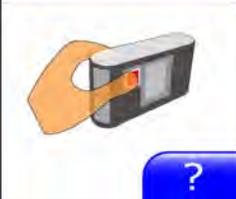
- Read the message on the monitor's display.
- For specific help with any message, tap the help button .
- Use this chart to see what the message means and what to do.
- Some messages refer to additional details located elsewhere in this manual.

Message	What it means	What to do
 <p>The screenshot shows the LifeVest logo at the top, followed by the name 'JOE SAMPLE'. Below the name is an icon of a vest with green dots representing electrodes. At the bottom right, there is a red battery symbol. A blue help button with a question mark is visible in the bottom right corner.</p>	<p>Red battery symbol means that battery has discharged and needs to be changed.</p>	<p>Change to a fully-charged battery and place discharged battery into the charger.</p> <p>Tap the battery symbol for helpful reminders.</p>
 <p>The screenshot shows the LifeVest logo at the top, followed by the name 'JOE SAMPLE'. Below the name is an icon of a vest with green dots representing electrodes. At the bottom right, there is a yellow battery symbol. A blue help button with a question mark is visible in the bottom right corner.</p>	<p>Yellow battery symbol means that battery condition cannot be determined, but battery may continue to function normally.</p>	<p>Continue to use and recharge battery as normal.</p> <p>Tap the battery symbol for helpful reminders.</p> <p>Call ZOLL Lifecor.</p>
 <p>The screenshot shows an icon of a vest with green dots representing electrodes. Below the icon is a grey rectangular device (the monitor) with a black cable extending from it. At the bottom left, there is a blue help button with a question mark.</p>	<p>Electrode belt is not connected to monitor.</p>	<p>Connect the electrode belt to the monitor.</p>

Message	What it means	What to do
	<p>Monitor is receiving a poor signal from the electrode belt.</p> <p>Electrode icons can be any combination of green, yellow, or red to show specific conditions. Tap the help button  for details.</p>	<p>Adjust your garment and electrode belt so that each ECG electrode is touching your skin.</p> <p>Pay particular attention to the electrode icons that show yellow or red on screen.</p> <p>Tap OK to return to normal operation.</p> <p>For more details about this message, see page 5-10.</p>
	<p>Monitor is not receiving a clear signal from the electrode belt. Electrodes are probably not in good contact with skin.</p> <p>Electrode icons can be any combination of green, yellow, or red to show specific conditions. Tap the help button  for details.</p>	<p>Adjust your garment and electrode belt so that each ECG electrode is touching your skin.</p> <p>Pay particular attention to the electrode icons that are yellow or red.</p> <p>Tap OK to return to normal operation.</p> <p>For more details about this message, see page 5-10.</p>
	<p>Therapy pad is not making contact with your skin.</p>	<p>Make sure the therapy pads are inserted correctly, with their metal sides (with green stickers) against your skin.</p> <p>Make sure the therapy pads and mesh pockets are pressing against your skin.</p> <p>Tap OK to return to normal operation.</p> <p>For more details, see page 5-12.</p>
	<p>You have received a treatment and the gel is drying out.</p>	<p>Add gel to the therapy pads or replace electrode belt.</p> <p>Tap OK to return to normal operation.</p> <p>See details on page 5-15.</p>

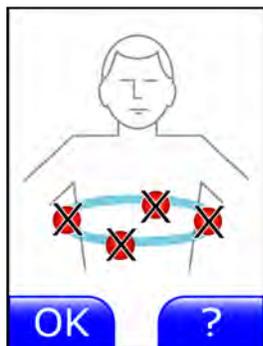
Message	What it means	What to do
 <p>Call for service</p> <p>Device has a problem that may require service. Call ZOLL Lifecor for service. 101</p> <p>OK</p>	<p>System has a problem that requires servicing. You can continue to use the device.</p> <p>Note the code beginning with the number 1.</p>	<p>Write down code number and call ZOLL Lifecor.</p> <p>Tap OK to return to normal operation.</p>
 <p>Call for service</p> <p>Device has a problem and cannot be used. Call ZOLL Lifecor immediately for service. 201</p>	<p>System has a more severe service problem. You CANNOT use the device.</p> <p>Note the code beginning with the number 2.</p>	<p>Write down the code number and call ZOLL Lifecor immediately.</p>
 <p>Change battery</p>  <p>OK ?</p>	<p>Battery has discharged and needs to be changed.</p>	<p>Change to a fully-charged battery and place discharged battery into the charger.</p> <p>Tap OK to return to normal operation.</p>
 <p>Check belt</p>  <p>?</p>	<p>After multiple attempts to adjust the belt, monitor is still not receiving a good signal from the electrode belt.</p>	<p>See details on page 5-11.</p>

Message	What it means	What to do
<p>Checking...</p> 	<p>Device is checking to see if the belt is sending a clear signal.</p>	<p>No action required. Just wait while this screen is displayed.</p>
<p>Continue to wear LifeVest</p> 	<p>You have received a treatment.</p>	<p>Continue to wear the LifeVest device.</p> <p>Call your doctor's emergency number immediately.</p> <p>Leave the electrode belt connected; change and recharge the battery as normal until you receive a replacement belt.</p> <p>Follow instructions about what to do after receiving a treatment on page 5-3.</p> <p>Tap OK to return to normal operation.</p>
<p>Device disabled. Call ambulance.</p> 	<p>Device has been disabled and is no longer monitoring your heart signal.</p>	<p>This message is intended to tell bystanders to call an ambulance if you are found unconscious.</p> <p>If you are conscious and you feel OK, follow instructions on page 5-18.</p>
<p>Performing belt maintenance</p>  <p>25%</p> <p>Please wait.</p>	<p>The system is performing maintenance on the belt.</p>	<p>No action required. Just wait while this screen is displayed.</p>

Message	What it means	What to do
<p>Press response buttons</p> 	<p>You are to press the response buttons to test their function every time the battery is installed.</p>	<p>At startup, press the response buttons as a reminder of what to do when a siren alert sounds.</p>
<p>Release response buttons</p> 	<p>This message may appear at startup. You may be holding the response buttons instead of pressing and releasing them.</p>	<p>Release the response buttons. If you are not holding the response buttons, device may be defective. Call ZOLL Lifecor.</p>
<p>Release response buttons</p> 	<p>This message may appear after a detection. You may be holding the response buttons and you are no longer having a treatable heart rhythm.</p>	<p>Release the response buttons. If you are not holding the response buttons, device may be defective. Call ZOLL Lifecor.</p>
<p>Time to send data</p> <p>Call ZOLL Lifecor for instructions on how to send data.</p> 	<p>Data should be sent manually as soon as possible. Either a treatment was delivered or the monitor has data that has not been transmitted for some time.</p>	<p>Contact ZOLL Lifecor for instructions about how to send data. Tap OK to return to normal operation. See details in section 3.</p>

Message	What it means	What to do
 <p>The screenshot shows a yellow header with the text "Too much gel. Clean skin." Below this is a diagram of a person's torso with a blue gel pad on the chest. A red arrow points to the right, indicating the gel should be wiped off. At the bottom are two blue buttons: "OK" and "?".</p>	<p>Too much gel is on your skin.</p>	<p>Leave the gel that is under the therapy pads, but wipe the gel from the skin that is not under the therapy pads.</p> <p>Tap OK to return to normal operation.</p> <p>See details on page 5-17.</p>

Belt problem message



This screen shows which ECG electrodes (the round ones) are causing problems.

The symbols help you to determine the problem. You may get any combination of these symbols:



Electrode off skin: Electrode is not making good contact with skin.



Poor signal: Could be muscle noise, electrical noise, weak signal, or interference.



Good signal: Situation normal, no action required.

If you get one or more of the yellow or red symbols, make sure:

- The electrodes indicated by the yellow or red symbols are touching your skin.
- Nothing is between the ECG electrodes and your skin, such as clothing or one of the cables.
- Garment and belt fit snugly, with the electrodes pressing against your skin.

While you're wearing the LifeVest, tap the help button  for reminders about what to do.

Check belt message



After you get a number of belt problem screens, you may get this message. It means that the monitor is still not receiving a good signal from the electrode belt.

If you get this message:

- 1 Disconnect the electrode belt from the monitor.
- 2 Take off the garment and make sure that nothing is covering the metal surfaces of the ECG electrodes.
- 3 Put a dab of unscented hand lotion, skin cream, or moisturizer on the surface of each ECG electrode (the round ones, not on the therapy pads).

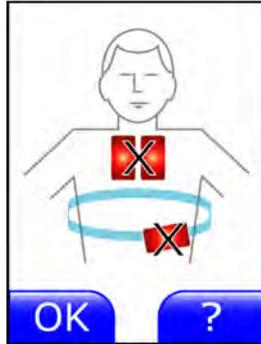


- 4 Put the garment on and connect the electrode belt to the monitor.

While you're wearing the LifeVest, tap the help button  for reminders about what to do.

If problems continue, call ZOLL Lifecor.

Therapy pad problem message



This screen shows when the therapy pads (the large rectangular ones) are causing problems by not making good contact with your skin.

The symbols help you to determine the problem:



Therapy pad off skin: Metal side is not making good contact with skin.



Therapy pad on skin: Situation normal, no action required.

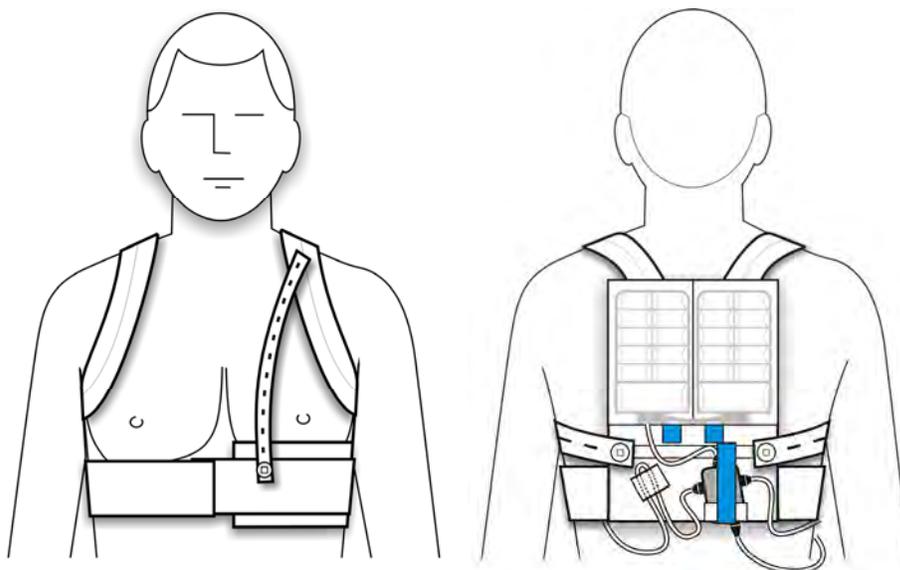
If you get red symbols, make sure:

- Therapy pads and mesh pockets are pressing against your skin. For details, see page 5-13.
- Therapy pads are inserted correctly into their pockets, with the metal sides (with the green stickers) facing the metal mesh. For details, see page 5-14.
- Garment and belt fits snugly, with the metal mesh of the therapy pads pressing against your skin.

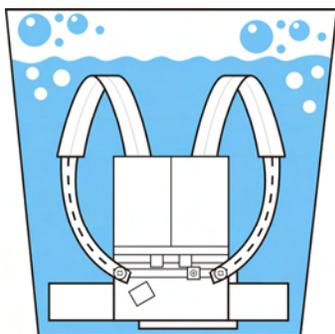
While you're wearing the LifeVest, tap the help button  for reminders about what to do.

Therapy pad and mesh pocket may not be pressing against your skin

- 1 Change your body position and make sure that the garment is not twisted or loose.
- 2 Make sure that the metal mesh pockets and the therapy pads are pressing against your bare skin. For details about putting on the garment and electrode belt, see section 4.



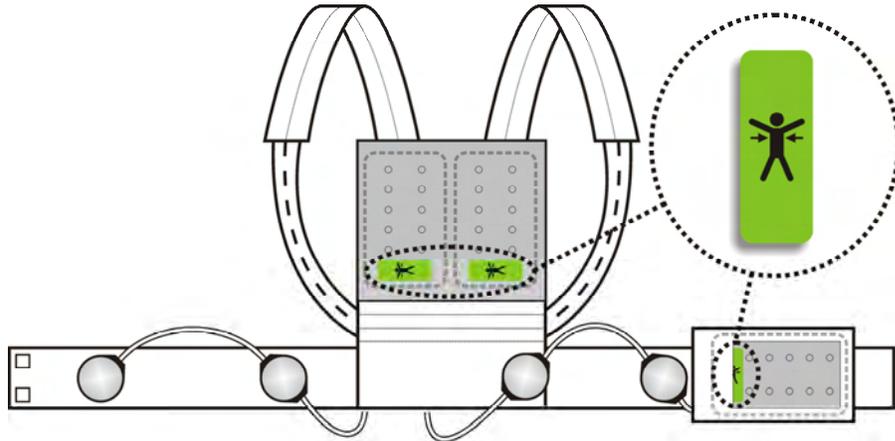
- 3 To help prevent stretching, launder the garment every 1 or 2 days. Follow the instructions for how to launder the garment in section 4.



- 4 If problems continue, call ZOLL Lifecor.

Therapy pad may not be inserted correctly into its pocket

- 1 Remove the battery from the monitor, then remove the garment and electrode belt from your body.
- 2 Make sure the therapy pads are inserted correctly, their metal sides (with green stickers) facing the metal mesh, which faces your body.



- 3 Put on the garment and electrode belt, then put the battery into the monitor to resume normal operation.
- 4 If problems continue, call ZOLL Lifecor.

Add gel



After you receive a treatment to correct an abnormal rhythm, you may see this message telling you to add gel.

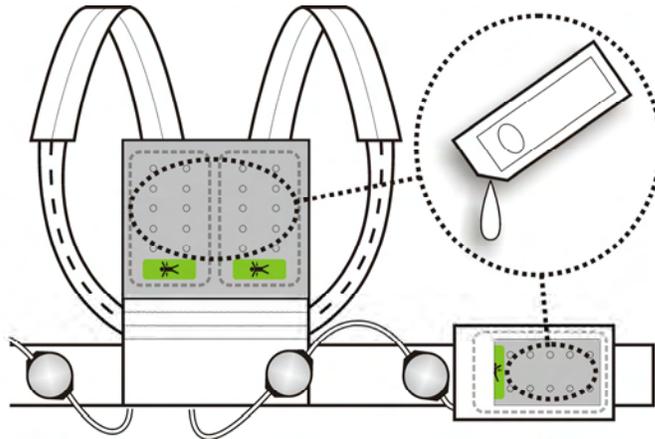
Follow the instructions below to add gel.

While you're wearing the LifeVest, tap the help button  for reminders about what to do.

Tap **OK** to resume normal monitoring.

To add gel

- 1 Remove the battery from the monitor, then remove the electrode belt and garment from your body.
- 2 Locate the packets of gel you got with the LifeVest system. Add one-half packet of gel to each therapy pad, directly onto the mesh material of each pocket. Apply to the rear pads and the front pad (but not to the ECG electrodes.)



- 3 Put on the electrode belt and garment. Refer to section 4.
- 4 Put the battery into the monitor and follow the normal startup routine.

Replace belt



After you receive a treatment to correct an abnormal rhythm, you may see this message telling you to replace the belt.

Continue to wear the belt until you get the replacement belt. The belt is still functional and can provide additional treatment if needed.

When you receive the new belt, follow the instructions below to replace the belt.

While you're wearing the LifeVest, tap the help button  for reminders about what to do.

Tap **OK** to resume normal monitoring.

To replace the electrode belt

- 1 Remove the battery from the monitor.
- 2 Disconnect the electrode belt from the monitor.
- 3 Remove the electrode belt and garment from your body.
- 4 Disassemble the electrode belt from the garment, assemble the new electrode into a clean garment, and put on the assembled electrode belt and garment. Refer to section 4.
- 5 Connect the electrode belt to the monitor.
- 6 Put the battery into the monitor and follow the normal startup routine.

Too much gel



After you add gel to the electrode belt, you may see this message telling you there is too much gel between the therapy electrodes.

Follow the instructions below to remove the excess gel.

While you're wearing the LifeVest, tap the help button  for reminders about what to do.

Tap **OK** to resume normal monitoring.

To remove excess gel

- 1 Remove the battery from the monitor.
- 2 With the electrode belt and garment on your body, and using a towel or soft cloth, wipe your skin between the front and back therapy pads on the left side of your body. Be careful not to remove the gel under the therapy pads.
- 3 Reinstall the battery into the monitor.

Device disabled message



If the LifeVest detects an untreatable condition called asystole, where your heart slows and stops, it will display this message to alert bystanders.

Under rare circumstances, it may display this message when your heart has not stopped.

If you are conscious and you feel OK and you get this message, follow the instructions below.

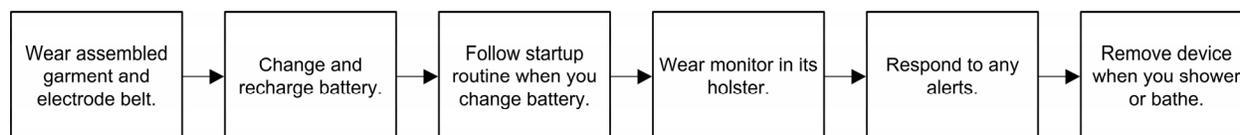
If you get this message and you're conscious

The problem may be with the signal from the ECG electrodes. Follow this procedure to correct the problem.

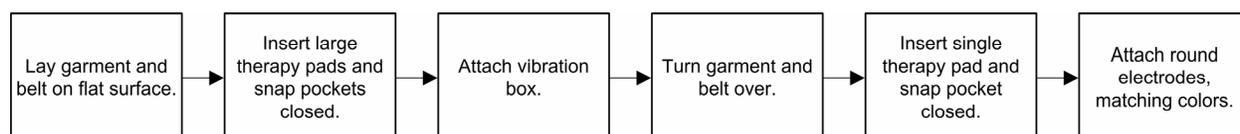
- 1 Remove and reinstall the battery.
- 2 If the message returns, check your electrode belt and garment. Make sure:
 - All ECG electrodes are touching your skin.
 - Nothing is between the ECG electrodes and your skin, such as clothing or one of the cables.
 - Garment and belt fit snugly, with the electrodes pressing against your skin.
- 3 If you continue to get this message even though you remain conscious, call ZOLL Lifecor.

Appendix A: Quick charts

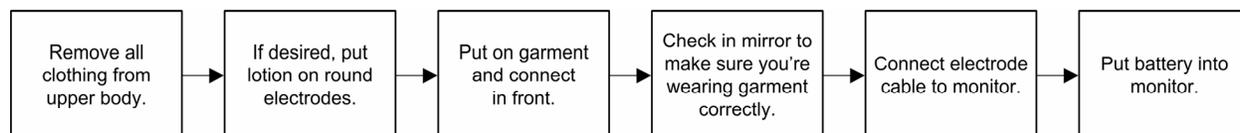
Daily routine



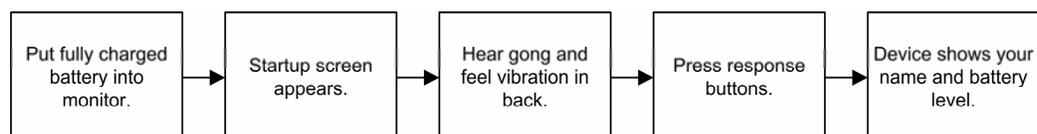
Assemble electrode belt and garment



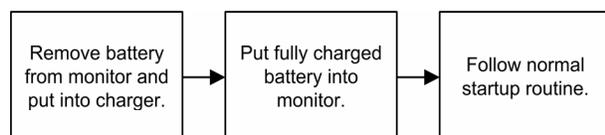
Put on LifeVest system



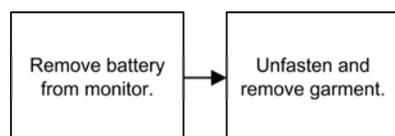
Normal startup routine



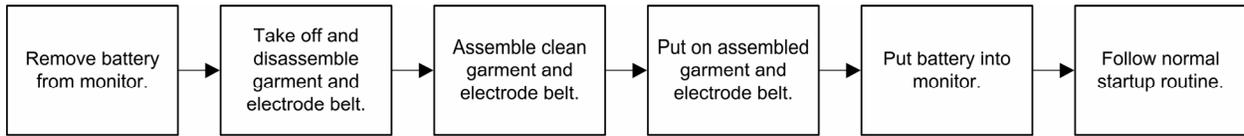
Recharge batteries daily



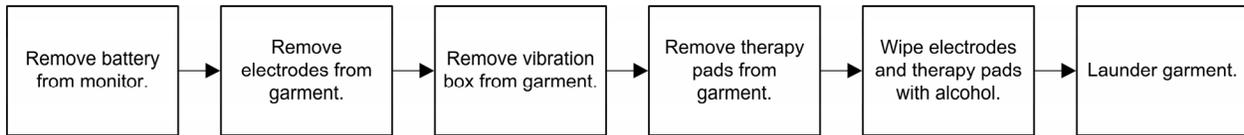
Remove LifeVest system before bathing or showering



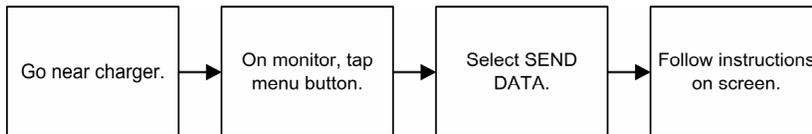
Change garment as needed



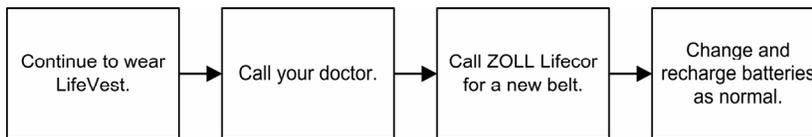
Disassemble electrode belt and garment



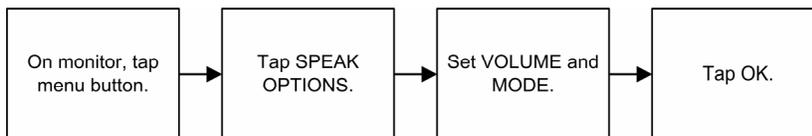
Manually send data to your doctor



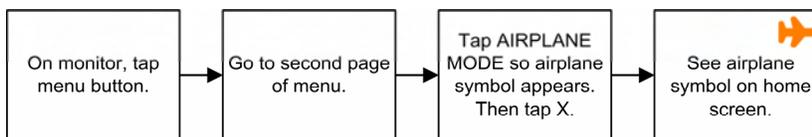
If you get a treatment



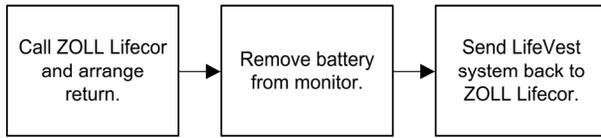
Change speak options



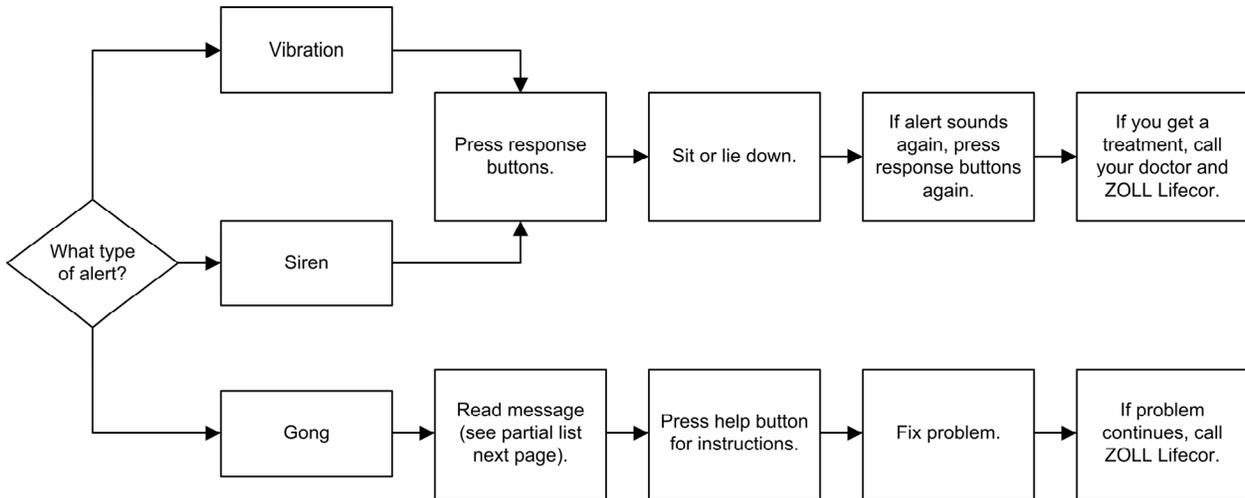
Airplane mode



When you're finished with device

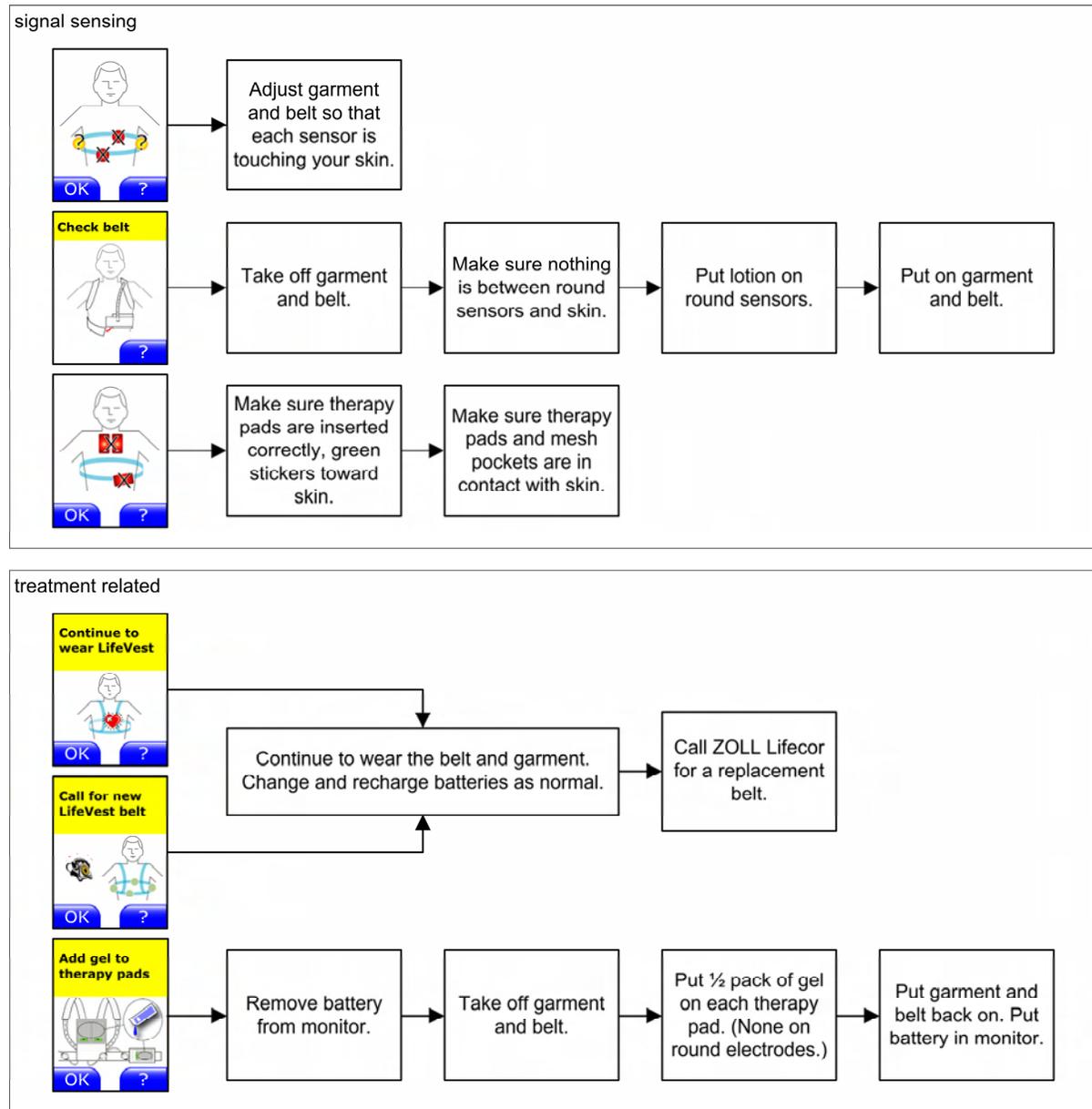


If you get an alert



Responding to a gong alert

This is just a partial list. For complete list and further details, see section 5.



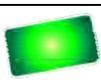
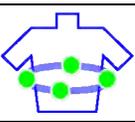
Appendix B: Glossary

Arrhythmia	Abnormal heart rhythm.
Asystole	Heart stops beating.
Cardioversion defibrillation	Restoration of normal heart rhythm by electrical treatment.
ECG electrodes	Electrocardiogram electrodes, used to monitor heart rate.
Electrode	A solid electrical conductor through which an electric current enters and leaves a body.
Electrode belt	The belt that contains the ECG electrodes, the therapy pads, the vibration box, connector, and cables.
Electromagnetic interference (EMI)	Electrical or magnetic interference caused by sources such as motors, transformers, welding equipment, and speakers, that can interfere with device performance.
Fibrillation	Rapid, uncoordinated contractions of the heart muscle.
Garment	The cloth that holds the electrode belt in place against the patient's skin.
ICD	Implantable cardioverter defibrillator. Is implanted in the chest and is used to treat abnormal heart rhythms.
Joules	Units of measurement of shock energy.
MI	Myocardial infarction or heart attack. The damaging or death of a region of heart muscle usually resulting from a blocked blood supply to that area.
SCA	Sudden cardiac arrest.
SCD	Sudden cardiac death. Usually follows SCA.
Therapy pads	The large electrodes (one pad in front; two pads in back) that deliver defibrillating energy to treat SCA.
Ventricular fibrillation (VF)	Rapid, uncoordinated, and ineffective beating of the ventricles (lower portion) of the heart. Can be fatal if untreated.
Ventricular tachycardia (VT)	The lower portion of the heart muscle beats at a fast, abnormal rate. This can lead to VF if untreated.
VT/VF	Ventricular tachycardia/ventricular fibrillation. Primary abnormal heart rhythms responsible for SCA.

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Appendix C: Symbols

	Cell modem selected: Cellular modem is selected. LifeVest is in range of the cell network and can transmit data. Number of bars indicates signal strength.
	No cell signal: No data can be sent via cell network.
	Cell modem is not functioning.
	Bluetooth signal strength: Indicates signal strength from charger. Number of pie pieces indicates signal strength. Signal must be present in order to send data from monitor to charger.
	No Bluetooth signal: No data can be sent between monitor and charger.
	Battery level (on monitor): Number of bars indicates battery charge.
	Battery charging (on charger): Animated to show that battery is charging.
	Battery empty (on monitor): Battery is discharged. Battery will still operate for a while but should be changed.
	Battery testing: Animated to show that battery is being tested.
	Battery problem: Battery has a problem and may need to be replaced. Call ZOLL Lifecor.
	Battery low: Battery is low, a critical situation. Change battery as soon as possible and recharge battery. Tap for help.
	Battery may be defective: LifeVest cannot determine battery condition. Call ZOLL Lifecor for service. Tap for help.
	Menu button: Tap to see menu.
	OK button: Tap to acknowledge that you have read the screen. If any selections or changes were made on the screen, they take effect.
	Cancel button: Tap to back out of the screen. If any changes were made, they are disregarded.
	Translate button: Tap to change the language on the screen to the secondary language. Only shown when there is a secondary language.

	Help button: Tap to see help screen.
	X button: Tap to close the screen.
	Next page button: Tap to go to the next page when there is more than one.
	Previous page button: Tap to go to the previous page when there is more than one.
	Charger problem: Charger has a problem and cannot be used. Call ZOLL Lifecor immediately.
	ECG sensor good signal: Situation normal, no action required.
	ECG sensor poor signal: Check sensor for cause of poor signal and fix problem.
	ECG sensor off skin: Check sensor that is off skin and fix problem.
	Therapy pad on skin: Situation normal, no action required.
	Therapy pad off skin: Check electrode that is off skin and fix problem.
	Land line dialing mode: Shows that LifeVest is connected to a land line phone.
	Land line dialing mode with sound: Shows that LifeVest is connected to a land line phone and that sound will be heard when phone connection is attempted.
	Monitor transmitting: Monitor is transmitting data to the charger.
	Monitor trying to connect: Monitor is trying to connect to the charger.
	Airplane mode: Monitor will not transmit data.
	Monitoring mode: Animated to show that LifeVest is in monitoring mode. Situation normal, no action required.

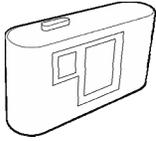
	Standby mode: Animated to show that LifeVest is in standby, not monitoring. Connect belt to monitor so that LifeVest can resume normal monitoring mode.
	Recording: LifeVest is recording your ECG signal (manually activated).
	Service required: Device has a problem and requires service. Call ZOLL Lifecor.
	Battery: Do not incinerate.
	Battery: Do not short circuit.
	Caution: Read and follow the caution text next to this symbol. If on a product, consult accompanying documents.
	CE marking, indicates conformance with European Medical Device Directive.
	Laundering symbol: Normal cycle in warm water.
	Laundering symbol: Tumble dry warm.
	Laundering symbol: Only non-chlorine bleach, when needed.
	Laundering symbol: No anti-static spray.
	Laundering symbol: Iron on low temperature.
	Laundering symbol: No fabric softener.
	Manufacturing date.
	Expiration date.
	Monitor connector: Type BF defibrillator-proof connector.



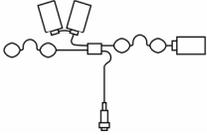
Packaging: Battery



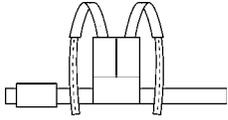
Packaging: Charger.



Packaging: Monitor.



Packaging: Electrode belt.



Packaging: Garment.



Power supply electrical information: Alternating current (AC).



Power supply electrical information: Direct current (DC).



Therapy pad label: Place this side (foil side) of the therapy pad next to your skin.

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