







# **ZOLL Sales Guide**

FOR INTERNATIONAL DISTRIBUTORS POWERHEART® G5 AED



Welcome to the ZOLL family!

On behalf of ZOLL® Medical Corporation, I would like to welcome you as a ZOLL distributor. At ZOLL, we value our distributor partnerships and take seriously the impact that you and your organisation will have on the sales of our AEDs and related accessories.

This **Sales Guide** was designed to familiarize you with the Powerheart® G5 AED. Whether you're new to selling AEDs or have a lot of experience, we hope you will find the information inside useful. We've included helpful information on what differentiates the Powerheart G5 from other AEDs on the market as well as sample questions to ask your customers as you begin your conversation regarding AEDs. This guide also includes helpful links to marketing literature and sales tools that you will find useful when presenting the Powerheart G5 AED to your customers.

If you have any questions, please contact your local ZOLL office or representative. Once again, thank you for joining our team. We wish you the best of success in your sales efforts. Regards,



# Distribute

Marketin

Powerhee Accessor

### Distribute

Ready for

PlusTrac What is

What is

Why ZOI

Question

Notes

# Table of Contents

or Resources	
g Materials and Sales Tools	3
art G5 AED Packages, ries, and Training Products	4–14
or Sales Tools	
or the Rescue	16
™ AED Programme Management	17
Sudden Cardiac Arrest?, What is an AED?	18
High-quality CPR?	19
LL Powerheart AED?	20–22
as to Ask Your Customers	23–26
	27–28

# Marketing Material and Sales Tools for Powerheart® AEDs

Website	Notes
www.zoll.com/aed-portal	Online access to ZOLL's AED Business Partner Resource Portal — a dedicated place, to obtain quick and easy access to the latest AED marketing materials, images and sales tools. Please visit www.zoll.com/aed-portal to request your login details.
www.zoll.com/mom	Online access for ordering printed marketing materials. Please contact your Account Manager to get your login information for other assistance.

# Powerheart G5 Defibrillators

This list details the generic defibrillator options available. The relevant language code should be added in place of the XX when placing your order.

Powerheart G5 AED Packages		
G5A-XXC	Powerheart G5 A	
	Powerheart G5 K	



Kit, Automatic, with RescueCoach<sup>®</sup> user prompts and display for visual instructions, internal memory for 90 minutes of rescue data and battery. Complete with Intellisense™ (ICPR) device for CPR feedback. AHA/ERC 2015 Guidelines Compliant.

# Each package includes:

- Powerheart G5 Automatic Defibrillator with 8-year warranty
- Intellisense® lithium battery (420 discharges)
- Intellisense™ electodes: Intellisense non-polarised adult defibrillation electrodes with ICPR device, at least 2 years shelf life













# Powerheart G5 AED Kit, ICPR, Semi-Automatic

Powerheart G5 Kit, Semi-Automatic, with with RescueCoach user prompts and display for visual instructions, biphasic waveform, internal memory for 90 minutes of rescue data and battery. Complete with ICPR device for CPR feedback. AHA/ERC 2015 Guidelines-compliant.

# Each package includes:

- Intellisense™ electodes: Intellisense non-polarised adult defibrillation electrodes with ICPR device, at least 2 years shelf life.

# AED Kit, ICPR, Fully-Automatic

• Powerheart G5 Semi-Automatic Defibrillator with 8-year warranty • Intellisense lithium battery (420 discharges)

# G5A-XXA



### Powerheart G5 AED Kit, Fully-Automatic

Powerheart G5 Kit, Automatic, with RescueCoach user prompts and display for visual instructions, internal memory for 90 minutes of rescue data and battery. AHA/ERC 2015 Guidelines Compliant.

### Each package includes:

- Powerheart G5 Automatic Defibrillator with 8-year warranty
- Intellisense lithium battery (420 discharges)
- Intellisense non-polarised adult defibrillation electrodes, at least 2-year shelf life



# G5S-XXA

### Powerheart G5 AED Kit, Semi-Automatic



Powerheart G5 Kit, Semi-Automatic, with RescueCoach user prompts and display for visual instructions, biphasic waveform, internal memory for 90 minutes of rescue data and battery. AHA/ERC 2015 Guidelines Compliant.

### Each package includes:

- Powerheart G5 Semi-Automatic Defibrillator with 8-years warranty
- Intellisense lithium battery (420 discharges)
- Intellisense non-polarised adult defibrillation electrodes, at least 2-year shelf life

### Intellisense Lithium Battery, G5 Series

• Intellisense battery compatible with Powerheart G5 AED models

# Intellisense Lithium Battery, G5 Series, TSO

• Intellisense battery compatible with Powerheart G5 AED models • Battery for medical aircraft equipment with certification TSO C142a • Includes FAA labeling & TSO insert

### Intellisense Adult Electrodes with ICPR Device, G5 Series

• One pair of non-polarised adult disposable electrodes, at least 2-year

• Automatic detection of electrodes and integrated determination of

# Intellisense Adult Electrodes, G5 Series

• One pair of non-polarised adult disposable electrodes, at least

• Automatic detection of electrodes and integrated determination of

# Intellisense Paediatric Electrodes, G5 Series

• One pair of non-polarised, paediatric disposable electrodes, at least

• Automatic detection of the paediatric mode and integrated determination of the expiry date

Carry Cases and Ready	r Kits	Trainers and Training Acce	essories
UKIT001A	Universal Ready Kit for First Aid, AED Powerheart Series	190-5020-002G5	AED Trainer wit
	<ul> <li>The Ready Kit includes non-latex gloves (medium and large), razor, medical shears, 2 paper towels, 2 4x4 gauze pads, and a one-way CPR mask</li> <li>Kit attaches easily to the outside of all Powerheart AED carry cases</li> </ul>		The Powerheart the Powerheart This device is fo <b>Each package i</b> • Remote
XCAAED007A	Premium Carry Case, G5 Series		<ul><li>Adult training e</li><li>Language cont</li></ul>
	<ul> <li>Quality carry case with adjustable strap for better protection of the Powerheart G5</li> <li>Includes a back pocket for additional storage space</li> </ul>	190-5020-001	G5 AED Trainer The Powerheart the Powerheart (
XCAAED008A	Protective Soft Carrying Case, G5 Series		This device is fo Each package i
	<ul> <li>Soft-sided (grey) carry sleeve with adjustable shoulder strap. Includes zippered pouch for storage of extra pads and other rescue accessories</li> </ul>		<ul> <li>Remote</li> <li>Adult training e</li> <li>Language conf</li> </ul>
XBPAED001A	Backpack for AED, G5 Series	XTRRMT001A	Remote control f
	<ul> <li>AED carrying backpack with room for replacement electrodes and ready kit</li> </ul>	a sa a a a a a a a a a a a a a a a a a	<ul> <li>To remotely co various rescue</li> </ul>
Cables & Adaptors		XTRPAD005A	Replacement Ele
50-01568-01USB	Data Cable, G5 Series		<ul> <li>Powerheart G device allow y</li> </ul>
	<ul> <li>Data Cable, Powerheart G5: USB (A-to-A)</li> <li>Communication cable for data exchange and configuration of your Powerheart G5 via PC</li> </ul>		with the Power

# h ICPR Electrodes

t G5 Trainer is designed to closely mimic G5 AED for effective, hands-on training. or training purposes only.

# includes:

electrodes with ICPR device figuration CD

# r with Standard Electrodes

t G5 Trainer is designed to closely mimic G5 AED for effective, hands-on training. or training purposes only.

# includes:

electrodes nfiguration CD

# for G5 AED Trainer

ontrol the G5 Trainer and to simulate e scenarios (previously 190-2080-001)

# ectrodes for G5 AED Trainer, Adult with ICPR Device

5 training electrodes with CPR feedback you to simulate hands-on rescue scenarios erheart G5 Trainer in addition to CPR simulation

XTRPAD004A	Replacement Electrodes for Powerheart G5 AED Trainer, Adult	50-00392-10	AED Wall Ca
	<ul> <li>Powerheart G5 training electrodes allow you to simulate hands-on rescue scenarios with the Powerheart G5 Trainer</li> <li>One (1) set of training electrodes are provided with initial Powerheart G5 Trainer purchase</li> </ul>	* * AED	This well-cons to store your / be stored insi <b>Sizing:</b> • Internal (H/Y
XTRPAD006A	Replacement Electrodes for Powerheart G5 AED Trainer, Paediatric	CARDING C	• External (H/
0 C ( )	<ul> <li>Powerheart G5 paediatric training electrodes allow you to simulate hands-on paediatric rescue scenarios with the Powerheart G5 Trainer</li> </ul>	Violand	<ul> <li>Protrusion from</li> <li>Included:</li> <li>All hardware</li> </ul>
		50-00392-20	AED Wall Ca
XSMAED001A	Powerheart G5 AED Simulator with ICPR Device		This well-cons to store your /
	<ul> <li>Powerheart G5 AED Simulator with ICPR Device (for demonstration and simulation purposes only)</li> </ul>	° <b>VAED</b>	
XSMAED002A	Powerheart G5 AED Simulator	12	Sizing: • Internal (H/
	<ul> <li>Powerheart G5 AED Simulator with ICPR Device (for demonstration and simulation purposes only)</li> </ul>		<ul> <li>External (H/</li> <li>Protrusion froe</li> <li>Included:</li> <li>All hardware</li> </ul>
Wall Cabinets & Brackets			
180-2022-001	Wall Mount for AED G5 with Premium Carry Case and Ready Kit	50-00392-30	AED Wall Ca
	<ul> <li>Made of painted metal, 320 x 300 x 100mm; can be mounted onto info board</li> <li>Suitable for either Powerheart G3 or G5 AEDs in carry case</li> </ul>	* * AED	This well-cons to store your be stored insi <b>Security:</b> Audible alarm can also be v
180-2021-101	Surface Mount Cabinet with Alarm, Strobe (Traditional Style/Plastic Front)	CARDIAG	enabled or di <b>Sizing</b> :
	• Replaces 180-2021-001	Vi Sobroe	• Internal (H/ • External (H/ • Protrusion fro Included:

• All hardware and two keys

# Cabinet, Surface Mount

onstructed stainless steel AED wall cabinet is designed ur AED in an easily accessible location. The AED can nside the cabinet with or without a carry bag.

1/W/D): 36.20 cm x 36.20 cm x 17.78 cm H/W/D): 44.45 cm x 44.45 cm x 17.8 cm from the wall: 17.78 cm

are and two keys

Cabinet, Surface Mount with Alarm, Security-enabled

onstructed stainless steel AED wall cabinet is designed ur AED in an easily accessible location.

arm triggered when the door is opened. The alarm e wired into a building's security system and can be disabled by provided key.

1/W/D): 36.20 cm x 36.20 cm x 17.78 cm H/W/D): 44.45 cm x 44.45 cm x 17.8 cm from the wall: 17.78 cm

are and two keys

# Cabinet, Surface Mount with Alarm & Strobe, Security-enabled

onstructed stainless steel AED wall cabinet is designed ur AED in an easily accessible location. The AED can nside the cabinet with or without a carry bag.

arm triggered when the door is opened. The alarm e wired into a building's security system and can be disabled by provided key.

1/W/D): 36.20 cm x 36.20 cm x 17.78 cm H/W/D): 44.45 cm x 44.45 cm x 17.8 cm from the wall: 17.78 cm

50-00599-01	Spare Cabinet Keys (50-00XXX-XX Series)	TSO-Compliant Batteries	and Defibrillator Kits
	• Spare keys for all cabinets in 50-series		attery has received FAA TSO o be taken on board commer
165-0195-004	Spare Cabinet Keys (180-00XXX-XX Series)	Powerheart G5 TSO la	anguage configurations avai
	<ul> <li>Spare keys for all cabinets in 180-series</li> </ul>		Product Name
		Powerheart G5 TSO Kit,	Auto, International English, Intell
-		Powerheart G5 TSO Kit,	Auto, English (UK), Intellisense C
Signage		Powerheart G5 TSO Kit,	Semi, English (UK), Intellisense C
160-0163-001	AED Window Decal	Powerheart G5 TSO Kit,	Semi, International English, Intell
		Powerheart G5 TSO Kit,	Auto, International English
AED	<ul> <li>Window decal features symbol to aid in raising awareness</li> </ul>	Powerheart G5 TSO Kit,	Auto, English (UK)
<b>G</b>	of where the AED is located.	Powerheart G5 TSO Kit,	Semi, International English
() manos		Powerheart G5 TSO Kit,	Semi, English (UK)
160-0164-001	AED Inspection Tags (5 pack)		
	<ul> <li>AED inspection tags (5 pack)</li> </ul>	available by either:	it configurations for your spe st, which can be scheduled fo
168-6002-002	Green AED 3D Wall Sign Kit	Ű	d-alone TSO battery for use
UT UT UT	This 3D Wall Sign Kit helps ensure people know where an AED is stored. The kit includes a highly visible 3D sign that projects from the wall, plus two window decals. • Size (H/W/D): 20.04 cm x 17.78 cm x 14.96 cm		
Om		XBTAED005A-TSO	Intellisense Lithiur
168-6002-001	AED 3D Wall Sign and Cabinet Door Decals		<ul> <li>Intellisense batte</li> </ul>
AED AED	This 3D Wall Sign Kit helps ensure people know where an AED is stored. The kit includes a highly visible 3D sign that projects from the wall, plus two window decals. • Size (H/W/D): 20.04 cm x 17.78 cm x 14.96 cm	Pow Batt TSC • She	

FAA TSO-C142 certification, which rd commercial aircraft.

tions available for sale are as follows:

	Product Code
tellisense CPR	G5A-00C-TSO
e CPR	G5A-02C-TSO
e CPR	G5S-02C-TSO
tellisense CPR	G5S-00C-TSO
	G5A-00A-TSO
	G5A-02A-TSO
	G5S-00A-TSO
	G5S-02A-TSO

# r your specific country may be

heduled for work by the Portfolio

ery for use with existing G5 devices

# ense Lithium Battery, G5 Series, TSO

isense battery compatible with Cardiac Science erheart G5 AED models ery for medical aircraft equipment with certification -C142a. Includes FAA labeling & TSO insert f life 5 years

### **TSO-Compliant Devices**

G5A-XXC-TSO	Powerheart G5 TSO Kit, ICPR, Fully Automatic	G5A-XXA-TSO	Powerheart C
	Powerheart G5 Kit with TSO battery, Automatic, with RescueCoach user prompts and display for visual instructions, and TSO battery for medical aircraft equipment with certification TSO-C142a. Includes FAA labeling & TSO insert. AHA/ERC 2015 Guidelines-compliant.		Powerheart G RescueCoach and TSO bat TSO-C142a AHA/ERC 20
	<ul> <li>Each package includes:</li> <li>Powerheart G5 Automatic Defibrillator with 8-year warranty</li> <li>Intellisense lithium TSO battery</li> <li>Intellisense non-polarised adult disposable electrodes with ICPR device, at least 2-year shelf life</li> <li>ICPR device for CPR feedback</li> </ul>		Each packag • Powerheart • Intellisense li • Intellisense r at least 2-ye

### G5S-XXC-TSO

Powerheart G5 TSO Kit, ICPR, Semi-Automatic

Powerheart G5 Kit with TSO battery, Semi-automatic, with RescueCoach user prompts and display for visual instructions, and TSO battery for medical aircraft equipment with certification TSO-C142a. Includes FAA labeling & TSO insert. AHA/ERC 2015 Guidelines-compliant.

# Each package includes:

- Powerheart G5 Semi-Automatic Defibrillator with 8-year warranty
- Intellisense lithium TSO battery
- Intellisense non-polarised adult disposable electrodes with ICPR device, at least 2-year shelf life
- Complete with ICPR device for CPR feedback

# G5S-XXA-TSO



Powerheart G5 Kit with TSO battery, Semi-automatic, with RescueCoach user prompts and display for visual instructions, and TSO battery for medical aircraft equipment with certification TSO-C142a. Includes FAA labeling & TSO insert. AHA/ERC 2015 Guidelines-compliant.

# Each package includes:

- 8-year warranty
- at least 2-year shelf life

13

# t G5 TSO Kit, Fully Automatic

t G5 Kit with TSO battery, Automatic, with ach user prompts and display for visual instructions, pattery for medical aircraft equipment with certification 2a. Includes FAA labeling & TSO insert. 2015 Guidelines Compliant.

# age includes:

art G5 Automatic Defibrillator with 8-year warranty

- se lithium TSO battery
- se non-polarised standard adult disposable electrodes, -year shelf life

# Powerheart G5 TSO Kit, Semi-Automatic

• Powerheart G5 Semi-Automatic Defibrillator with • Intellisense lithium TSO battery • Intellisense non-polarised standard adult disposable electrodes,



# Ready for the Rescue

At ZOLL, our goal is to provide intuitive and intelligent AEDs in every public space around the world and to enable bystanders to act quickly, appropriately and with confidence in sudden cardiac arrest emergencies.

That is why all of our AEDs are designed to remove the guesswork and support unexpected heroes throughout the rescue. We are by your side, giving you the potential to help save lives.

# Smart:

**Real-Time CPR Feedback:** Real-time feedback technology guides rescuers on optimal rate and depth of chest compressions through voice, text and visual prompts that help ensure the delivery of high-quality CPR.

Interactive and Intuitive: ZOLL AEDs provide step-by-step instructions and corrective guidance to support you throughout the rescue.

**Rescue Confidence:** Designed for ease of use — from applying the pads and performing CPR to delivering a shock, you can have peace of mind with ZOLL AEDs as your rescue partner.

# Ready:

**Rescue Ready® Services:** Your rescue equipment needs to be ready the day you need it, not just the day you buy it. From tracking consumables and CPR/AED certifications, you can count on ZOLL to help you manage your AEDs.

Automatic Self-Testing: All ZOLL AEDs perform a series of self-tests to verify that the internal circuitry, battery and pads are fully functional so you can have confidence it will be ready to use.

**Designed for Durability:** Designed to withstand harsh environments and temperature extremes, ZOLL AEDs have an ingress protection (IP) rating of IP55, which means they are highly resistant to dust and moisture.

# Trusted:

Mission-Focused: Our AED technology innovations are inspired to provide rescuers with the tools and confidence to help save lives.

Legacy of Excellence: A pioneer in resuscitation technology, ZOLL has been empowering first responders and unexpected heroes around the world for more than 25 years.

# PlusTrac AED Programme Management

For a successful AED programme, you need an AED that is ready to deliver a lifesaving shock. Just having an AED is a great start. However, to save a life, the AED has to have working batteries and valid electrode pads.

**PlusTrac<sup>™</sup>** is a complete solution for AED programme management that ensures your AED is ready for use in a cardiac arrest emergency. The PlusTrac management programme consists of:

- Easily track and document AED inspections as well as pad and battery expirations.
- Manage and track the status of your staffs AED/CPR certifications
- Create real-time, web-based status reports
- Scalable for organisations and deployments of any size

PlusTrac gives you access to your programme for each AED, and live customer support for designing, implementing, and maintaining the programme. Choose from one-year or five-year programme terms.

With PlusTrac, customers can track pad, battery, and responder training expirations regardless of the device manufacturer. PlusTrac customer support can provide you with templates and assistance in loading customer device data into their personal programme site. Periodic device checks can be recorded quickly by logging in and entering the results of your inspection on a PC or by using our CheckAED app.

# What Is Sudden Cardiac Arrest?

Sudden Cardiac Arrest (SCA) affects the electrical system of the heart and causes the heart to fibrillate, or "quiver." When a heart is fibrillating, it no longer circulates blood. An SCA victim will generally lose consciousness and immediately become completely unresponsive. The only effective treatment for cardiac arrest is to deliver a shock from an AED as soon as possible and administer high-quality CPR.



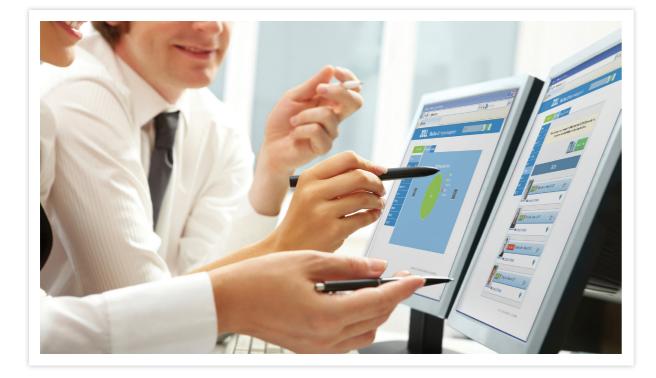
CPR evacuates blood from the enlarged heart.

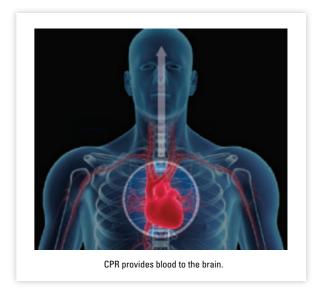
# What Is an AED?



An AED (automated external defibrillator) is a portable medical device that can be used by people who are not medical professionals. AEDs are designed to be easy to use, to enable rescuers who may have little or no training to "shock" a victim in cardiac arrest.

AEDs do not "jump start" a heart. Rather, they terminate erratic electrical activity to help allow the heart to establish a normal sinus rhythm. An AED can automatically identify a shockable rhythm and deliver a shock to the patient. AEDs are very safe. An AED will not shock a normal heart rhythm.





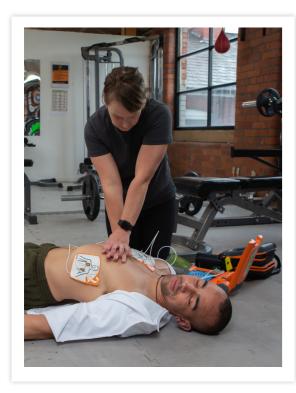
# What Is High-Quality CPR?

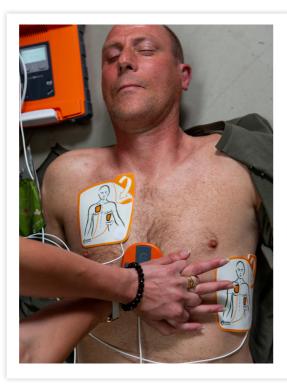
High-quality CPR is pushing hard and fast on the centre of a victim's chest at a depth of 5 cm to 6 cm (2-2.4 inches) and a rate of 100 to 120 compressions per minute.

Performing effective CPR is crucial during a cardiac emergency and often leads rescuers to wonder, "Am I doing CPR properly?" With Intellisense CPR Feedback, providing effective CPR compressions is now within reach. Thanks to a compact design, Intellisense CPR Feedback may be used on patients of all chest sizes. Motion sensor technology provides rescuers with immediate voice prompts if their CPR compression rate and depth are outside the 2015 ERC/AHA acceptable parameters. The easy-to-use, intelligent CPR tool works in combination with your Powerheart G5 automated external defibrillator to deliver potentially life-saving CPR and defibrillator therapy.

# Why Is CPR Important?

Cardiopulmonary resuscitation (CPR) moves oxygenated blood to the heart and brain, keeping the person alive until the heart's electrical system can restart. Rescuers must strive to perform high-quality CPR. Chest compressions from 5 cm to 6 cm (2–2.4 inches) deep at a rate of 100 to 120 per minute should be started immediately. This will keep the victim's blood moving to the brain and heart and greatly increase their chance of survival.





# Why Powerheart AEDs?

The latest guidelines from resuscitation councils worldwide are clear: Successful defibrillation must be supported with high-quality CPR. The AED's first heart analysis is critical. If it calls for no shock, only real-time high-quality CPR can lead to a shockable rhythm on the next heart analysis. High-quality CPR provides a struggling heart with oxygenated blood needed to help restore a normal rhythm. Powerheart AEDs help rescuers provide both.

### 2015 ERC/AHA Guidelines for CPR

The European Resuscitation Council (ERC) and American Heart Association (AHA) determined that "... high-quality CPR improves survival from cardiac arrest"<sup>1</sup> and highlights the following important criteria to define high-quality CPR for patients 8 years and older.

- Ensuring compressions of adequate rate: between 100-120 compressions per minute
- Ensuring compressions of <u>adequate depth</u>: between 5-6 cm (2-2.4 inches)
- Allowing <u>full chest recoil</u> during compressions

Why Do I Need the Powerheart G5 AED with Intellisense (ICPR)? Delivering high-quality CPR in accordance with these ERC/AHA guidelines can be difficult, especially in stressful rescue situations. To help both professional and lay rescuers deliver the best quality CPR, the Powerheart G5 AED can be equipped with the ICPR system. The ICPR system is a motion sensor and a proprietary algorithm that, when placed on the chest, monitors the rescuer's CPR compressions. If the compressions deviate from ERC/AHA guidelines, the AED will provide voice and text corrective prompts to help the rescuer correct errors and provide the best CPR possible.

# The Powerheart G5 AED with Intellisense (ICPR) provides active coaching on all the criteria of the ERC/AHA guidelines.

# ICPR SENSOR-CPR Feedback to Aid Rescuers

Voice and text prompts provide rescuers with CPR instruction that helps achieve compression rate targets. With the G5 ICPR sensor, corrections are provided when compressions are outside the critical criteria.

This powerful combination of coaching and feedback ensures compressions are performed at the correct rate.

- Fully Release".

This easy-to-understand approach helps to ensure compressions are delivered at the right pace without the rescuer having to rely solely on the AED display.

• RescueCoach guides users through each critical step of the rescue with user paced voice/text prompts.

• The ICPR system helps guide rescuers on the rate of CPR with text and voice prompts. It keeps them on track by providing voice prompts such as "Press Faster", "Press Slower" and "Press Harder and

# Powerheart G5 ICPR Feedback

### Depth of Compressions

The ICPR system utilises a non-slip, motion-sensing disc, placed in the centre of the chest, to monitor the depth of compressions.

- If the rescuer is not pressing hard enough, a text prompt and loud voice from the AED will prompt, "Press harder and fully release".
- If the rescuer is pressing too hard, he or she will hear the prompt, "Press softer".

Pressing too hard? Not pressing hard enough? This feedback system helps the rescuer achieve the required 5–6 cm (2 inch–2.4 inch) compression depth, and ensures the rescuer can receive important corrective prompts without having to monitor the movement of a metre on an AED as with some other devices. Again, focus on the victim; not on the AED.

### Intellisense<sup>™</sup> CPR Feedback

Real-time voice and text corrective prompts for CPR quality.

### ERC/AHA point out in their 2015 guidelines,<sup>2</sup>

"Observational studies indicate that leaning (on the chest wall) is common during CPR in adults and children."<sup>1</sup> It is critical to prevent this common error in CPR, since the ERC/AHA also reports "Leaning on the chest wall between compressions precludes full chest wall recoil...and could potentially influence resuscitation outcomes."1



# Why Is Rate, Depth, and Recoil Important When Performing CPR?<sup>1</sup>

### Chest Compression Rate

In adult victims of cardiac arrest, it is reasonable for rescuers to perform chest compressions at a rate of 100 to 120/min.

### Why Does It Matter?<sup>4</sup>

- Number of chest compressions delivered per minute during CPR is an important determinant of return of spontaneous circulation (ROSC) and survival with good neurologic function.
- More compressions are associated with higher survival rates, and fewer compressions are associated with lower survival rates.
- Excessive compression rate and depth adversely affect outcomes.

### Chest Compression Depth and Recoil

Rescuers should perform chest compressions to a depth of at least 5 cm (2 inches) for an average adult, while avoiding excessive chest compression depths (greater than 6 cm [2.4 inches]) and allowing complete chest recoil after each compression.

### Why Does It Matter?<sup>5</sup>

- Compressions create blood flow primarily by increasing intrathoracic pressure and directly compressing the heart, which in turn results in critical blood flow and oxygen delivery to the heart and brain. Rescuers often do not compress the chest deeply enough despite the recommendation to "push hard".
- Compression depth may be difficult to judge without use of feedback devices.

### Conclusion:

The ICPR technology integrated in the ZOLL Powerheart G5 AED, is designed to support rescuers with real-time, guideline driven feedback to deliver the most effective CPR in order to increases the chances of survival from SCA

<sup>1</sup>Kleinman et al. Part 5: Adult Basic Life Support and Cardiopulmonary Resuscitation Quality: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2015;132(suppl 2):S414–S435. European Resuscitation Council Guidelines for Resuscitation 2015: Section 2. Adult Basic Life Support and Automated External Defibrillation. Resuscitation. 2015 Oct 15;95:81-99.

<sup>2</sup>Hazinski, M.F. et. al., (2015). Highlights of the 2015 American Heart Association Guidelines Update for CPR and ECC. The American Heart Association, (1), Chest Recoil, p. 7

<sup>3</sup>Hazinski, M.F. et. al., (2015). Highlights of the 2015 American Heart Association Guidelines Update for CPR and ECC. The American Heart Association, (1), Chest Compression Rate, p. 7.

<sup>4</sup>Hazinski, M.F. et. al., (2015). Highlights of the 2015 American Heart Association Guidelines Update for CPR and ECC. The American Heart Association, (1), Chest Compression Depth, p. 7.

<sup>5</sup>Hazinski, M.F. et. al., (2015). Highlights of the 2015 American Heart Association Guidelines Update for CPR and ECC. The American Heart Association, (1), Emphasis on Chest Compressions, p.7.

# Why is the Powerheart G5 AED with Intellisense CPR Feedback the right choice for my customers?

Whether they are experienced or first-time responders, they'll appreciate how the Powerheart G5 AED combines ease of use, reliability and advanced technology to help victims survive sudden cardiac arrest.



The Powerheart G5 AED with Intellisense CPR provides corrective feedback to ensure delivery of high-guality compressions. One button dual-language functionality and daily self-tests give rescuers the confidence to act.

- Intellisense CPR Feedback Distinct text/voice corrective CPR prompts for rate and depth as well as a reminder to fully release between compressions to reduce pressure on the victim's chest.
- Rescue Ready Conducts self-tests on pads, battery and internal circuitry.
- RescueCoach Guides users through each critical step of the rescue with user-paced voice/text prompts.
- Dual-Language Change from primary to secondary language in the push of a button.

# Powerheart Public Access AED Product Selection Guide Questions to ask your customers:

Do you have responders with current CPR certifications and who are knowledgable about the use of an AED?

- Will they always be the persons responding to an emergency?
- Is it likely or possible that an untrained person could respond?
- The G5 is designed to be used by trained or untrained responders. The Powerheart G5, with enhanced features like dual-language options, ICPR feedback and USB data transfer, can provide additional guidance for untrained rescuers.

Could children (under 8 years old or weighing less than 25 kg) ever potentially be present in your facility?

• The Powerheart G5 device supports paediatric victims with paediatric pads.

# How many AEDs do you have (or plan to install)?

- Will your AED(s) be located in the same facility as the programme administrator?
- Is AED readiness important to you?

With a Powerheart G5, you will always be Rescue Ready with our regular automatic self-testing. Our AEDs perform a series of patented self-tests to verify that the internal circuitry, battery and pads are fully functional so you can have confidence it will be ready to use.

# **Examples of Public Access AED Environments**

- Commercial (large corporate, small, and medium businesses)
- Schools (public, private, colleges, universities, vocational/technical)
- Public areas (sports venues, shopping centers, churches, theme parks, etc.)
- Government (municipalities, parks, provincial and federal buildings)
- Police/Law Enforcement (trained first responders)
- Recreational facilities (gyms, ski areas, climbing walls, etc.)
- General inpatient units, outpatient clinics, diagnostic/treatment areas (radiology, endoscopy, dialysis, physical therapy, sleep clinic), public areas with outpatients/visitors, urgent care, non-critical medical services (outpatient)

# Questions to ask if a customer has not thought of implementing an AED programme:

- What happens during a medical emergency at this facility?
- Would you walk me through how your emergency response team responds to worksite emergencies?
- Do you feel it's important to be prepared for an employee who has health problems?
- What do you know about AEDs? Have you ever seen one? If so, have you ever seen the Powerheart G5 defibrillator?
- Would you like me (or a ZOLL rep) to visit you in the next couple of weeks to discuss the steps to implement a successful AED programme at your facility?
- Would you like a free site assessment for your facility?

# Secondary questions:

- AHA/ERC guidelines advise that early defibrillation happen within 3–5 minutes of collapse. Do you think that emergency responders (local ambulance or emergency services) can get to any part of your facility in that timeframe?
- Who would be involved in making decisions about safety protocols?
- When decisions are made about safety, what is your top priority? Cost? Total cost of ownership? Implementation and maintenance? Liability?
- How do you think implementing an AED programme would impact your employees?

# Questions for facilities that have begun looking at AEDs and/or AED programmes:

- Why are you implementing an AED programme? Is it being driven by an incident or mandate, or are you being proactive?
- When looking at AEDs, what is the most important feature that you are considering?
- Have you considered both the short-term, initial purchase and long-term expenses associated with an AED programme?
- Have you performed a site survey of your facility? Would you like some help with that?
- Did you know that half the time an AED is used in a rescue, no shock is advised during the first heart analysis? Or that high-quality CPR is just as important as the shock?
- Where will these AEDs be deployed? Have you considered the environmental conditions where they will be placed?

# Questions for facilities with AED programmes or that are thinking of implementing an AED programme:

- Does your facility have a defined emergency response plan for cardiac emergencies?
- How do you manage the training of your staff?
- What type of post-event support do you have available in the case of a rescue involving an AED?
- If you have AEDs deployed in your facility, how do you manage the consumable replacements and AED maintenance?












# ZOLL MEDICAL CORPORATION

### An Asahi Kasei Group Company | 269 Mill Road | Chelmsford, MA 01824 | 978-421-9655 | www.zoll.com

Copyright © 2020 ZOLL Medical Corporation. All rights reserved. AED Plus, CPR-D-padz, Pedi-padz, Uni-padz, Real CPR Help, ZOLL AED 3, Powerheart, RescueCoach, RescueReady, Intellisense, and ZOLL are trademarks or registered trademarks of ZOLL Medical Corporation in the United States and/or other countries. All other trademarks are the property of their respective owners. For subsidiary addresses and fax numbers, as well as other global locations, please go to www.zoll.com/contacts.

