The iPAD SP1
Automatic External Defibrillator

Overview

SP1 Layout

Patient Mode Switch:

- Easily switch from Adult to Child mode without changing pads.

- Safety cover prevents accidental switching.

Speaker:

Ambient noise detector measures level of background noise and adjusts the volume of the voice prompts accordingly.

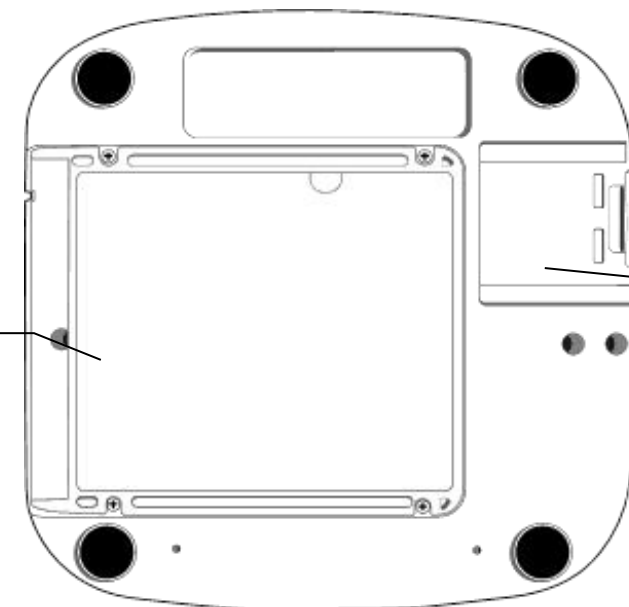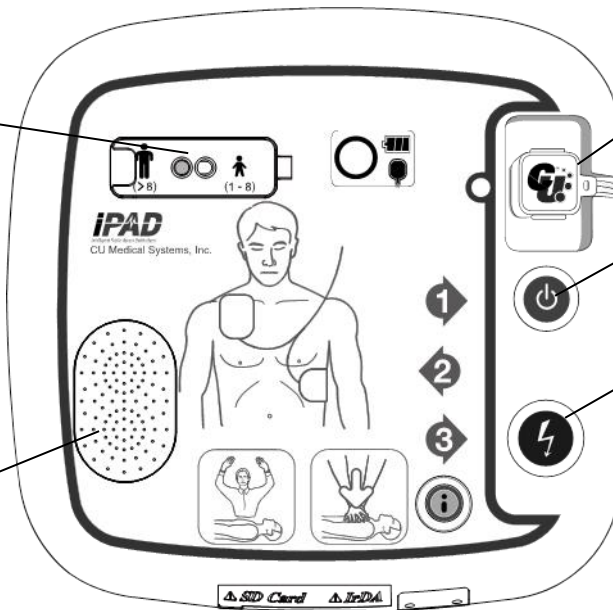Ideal for noisy environments such as public places, factories, warehouses, schools etc.

Pad Connector

Power Button

Shock Button

Smart Pads Storage:

- Electrode pads are stored, pre-connected, in a clear compartment on the underside of the unit.

Disposable Battery Pack

- High Capacity - Type DC 12 Volt 4.2Ah, Lithium Manganese Dioxide

- Capacity - Minimum 200 shocks (150J)
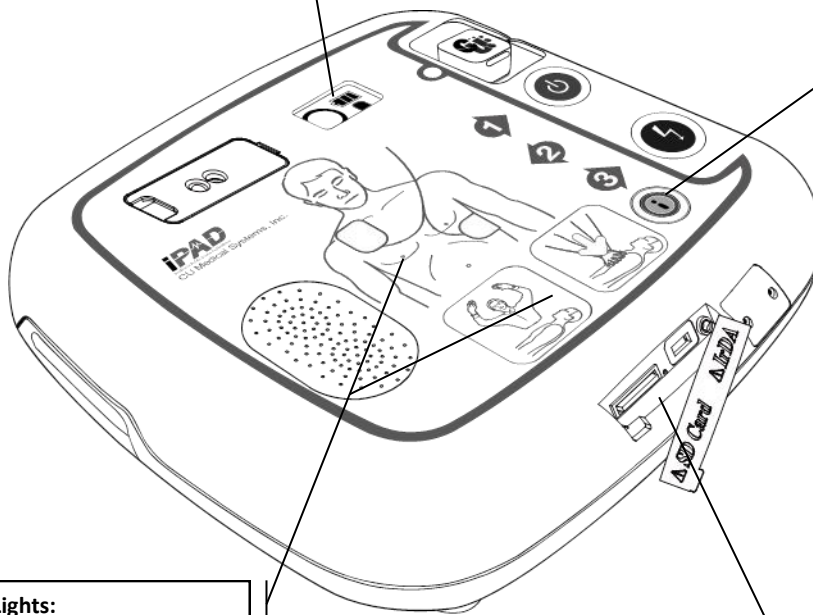
- Lifespan - 5 years - assumes unit is kept within operable temperature range and after the initial check, the unit is left in standby mode.

iPAD
www.ipad-aed.com

SP1 Layout Cont.

Visual Indicator:

Visual Indicator shows at a glance

- Battery Life

- Unit Status

- Pad Status

Information Button:

'i' button performs the following functions;

Allows responder to select if CPR metronome is heard during CPR

Checks for faults and errors

Provides 'handover' information to Ambulance crew (usage time and shocks delivered)

Allows the SP1 to be programmed with CPR protocols such as compression rate, number of compressions, breaths and cycles etc, ensuring that the SP1 is always up to date

Downloads data for review

Checks the units software version

Indicator Lights:

Indicator Lights operate in time with the voice prompts to prompt the responder with;

 - Pad placement

 - Staying clear of casualty

 - CPR compressions

Data Recording

- IrDA Port - Wireless Transmission of data to PC

- SD Card Port - Data can be transferred easily

- Internal Memory (Nand-Flash) - ECG, Event

- Storage Capacity - Multi recording 5 events / max 3 hours

 - Data review program - CU-EX1 Software (for PC)

Key Features

The new iPAD SP1 from CU Medical is the latest in the range of intelligent public access defibrillators from one of the Worlds leading manufacturers of clinical defibrillator monitors.

Designed to be used by minimally trained individuals, the iPAD SP1 is suitable for use almost anywhere that people gather, whether it's within the workplace, a shopping centre or a hospital, the iPAD SP1 makes saving lives easier than ever.

Easily switch from Adult to Child mode without changing pads

Safety cover prevents accidental switching

Smaller child pads also available

Ambient noise detector measures level of background noise and adjusts the volume of the voice prompts accordingly.

Ideal for noisy environments such as public places, factories, warehouses, schools etc.

Integrated pad storage - electrode pads are stored, pre-connected, in a clear compartment on the underside of the unit.

Pads are easily removed by pulling on the exposed tab

The pads are always ready for use and easily checked

CPR Detection - the iPAD SP1 detects if CPR is being performed when appropriate

If CPR is not being performed, voice prompts encourage the responder to 'perform CPR'

If CPR is being performed, voice prompts encourage the responder to 'continue CPR'

iPAD
www.ipad-aed.com

Key Features Cont.

Visual Indicator shows at a glance

- Battery Life

- Unit Status

- Pad Status

Integrated pad storage - electrode pads are stored, pre-connected, in a clear compartment on the underside of the unit.

Pads are easily removed by pulling on the exposed tab

The pads are always ready for use and easily checked

Internal memory stores the last 5 events/3 hours of data.

Data can be transferred via the built in SD card and IrDA ports

Data can be reviewed via the 'CU-EX1' software (for pc)

'i' button performs the following functions;

- Allows responder to select if CPR metronome is heard during CPR

- Checks for faults and errors

- Provides 'handover' information to Ambulance crew (usage time and shocks delivered)

- Allows the SP1 to be programmed with CPR protocols such as compression rate, number of compressions, breaths and cycles etc, ensuring that the SP1 is always up to date

- Downloads data for review

- Checks the units software version

Visual Indicator Statuses

Indicator	Description	Note
Status LCD **Device Operation**	The device is functioning normally.	⭕
Status LCD **Device Operation**	The device has an error.	✖
Status LCD **Battery Level Indicator**	The battery is fully charged.	🔋
Status LCD **Battery Level Indicator**	Less than half battery power remains.	🔋
Status LCD **Battery Level Indicator**	Less than a quarter battery power remains.	🔋
Status LCD **Battery Level Indicator**	Battery is low.	🔋
Status LCD **Pad Status**	The expiration date of the pad is more than 3 months.	
Status LCD **Pad Status**	The pad will expire within 3 months.	
Status LCD **Pad Status**	The pad is used or expired.	
Do Not Touch Patient Indicator: Off	You may touch the patient.	
Do Not Touch Patient **Indicator: Light**	You may not touch the patient.	
CPR Detection Indicator: Light	Indicates that CPR is being performed.	
CPR Detection Indicator: Flashing	Indicates that CPR is not performed or not properly performed.	
i-Button: Flashing in Red	The device detected an error. Press the i-Button for more information.	
Shock Button: **Flashing in Orange**	The device is ready to deliver a defibrillating shock. Press the Shock Button to deliver a shock.	

Specifications

Physical	
Category	Nominal Specifications
Dimensions	260㎜ x 256㎜ x 69.5㎜ (Width x Length x Height)
Weight	2.4㎏ (Including the battery pack and pads)

Environmental	
Category	Nominal Specifications
Operational Status (The device is in emergency use)	
	Temperature: 0°C ~ 43°C (32°F ~ 109°F)
	Humidity: 5% ~ 95% (non condensing)
Altitude	0 to 15,000 feet (operational and storage)
Drop	Withstands 1.2-meter drop to any edge, corner, or surface
Vibration	Operating: Meets MIL-STD-810G Fig.514.6E-1, random Standby: Meets MIL-STD-810G Fig.514.6E-2, swept sine(helicopter)
Sealing	IEC 60529: IP55
ESD	Meets IEC 61000-4-2:2001
EMI (Radiated)	Meets IEC 60601-1-2 limits, method EN 55011:2007 +A2:2007, Group 1, Class B
EMI (Immunity)	Meets IEC 60601-1-2 limits, method EN 61000-4-3:2006 +A1:2008 Level 3 (10V/m 80MHz to 2500MHz)

Defibrillator	
Category	Nominal Specifications
Operating Mode	Semi-automated
Waveform	e-cube biphasic (Truncated exponential type)
Output Energy	150 J at 50 Ω load for adults 50 J at 50 Ω load for children
Charge Control	Controlled by an automated patient analysis system
Charging Time	Within 6 seconds of the voice prompt "Shock Advised".

AED Comparison Table

	IPAD SP1	Cardiac Science G5	Cardiac Science G3	Philips/ Laerdal FR3	ZOLL AED Plus	Physio Control Lifepak CR+	Heartsine Samaritan	DefibTech Lifeline
Electrodes Tested For Presence	✔	✔	✔	✔	✔	✖	✖	✖
Daily, Weekly, Monthly Self Tests	✔	✔	✔	✔	✔	✔	Weekly	Daily
All Tests Automated	✔	✔	✔	✔	✔	✔	✔	✔
Status Indicator Showing Clinical Readiness	✔	✔	✔	✔	✔	✔	✔	✔
Battery Capacity Gauge	✔	✔	✔	✖	✖	✖	✖	✖
Pad Life Indicator	✔	✔	✖	✖	✖	✖	✖	✖
Used Pad Detection	✔	✔	✔	✖	✖	✖	✖	✖
Pad Life Upto	36 months	2 Year	2 Years	2 Years	5 Years	2 Years	3.5 Years	2 Years
Uses Same Set of Pads of Adult And Child	✔	✖	✖	✔ [2]	✖	✖	✖	✖
Ambient Noise Detector	✔	✖	✖	✖	✖	✖	✖	✖
Integrated Pad Storage	✔	✔	✔	✖	✔	✔	✔	✔
CPR Detection	✔	✖	✖	✖	✔	✖	✖	✖
Illuminated Prompts	✔	✖	✖	✔	✔	✔	✔	✔
Internal Memory Capacity	15 hours	90 Minutes	1 Hour	8 Hours via memory card	7 Hours	20 Minutes	45 Minutes	Dependant On Card
Data Transfer Method	IR / SD Card	USB	Direct Connect	Direct Connect	Direct Connect	IR	Direct Connect	Data Card
User Reprogrammable	✔	✔	✔	✔	✔	✖	✔	✔
CPR Metronome	✔	✔	✔	✔	✔	✖	✔	✔
Paramedic Handover Information	✔	✔	✖	✖	✖	✖	✖	✖
Fluid Ingress Protection	IP 55	IP55	IP 24	IP 55	IP 55	IP 55	IP 56	IP54
Battery Capacity (Shocks/Shelf)	200/5 years	500/4 Years	290/5 years	/5 years	/5 years	/2 years	/3.5 years	125/5Years 300/7 Years
Carry Case Supplied As Standard	✔	✖	✖	✖	✔	✔	✔	✖
Manual Self Test Option	✔	✖	✖	✖	✔	✖	✖	✔
All Status Indicators Visible When Case Is Closed	✔	✖	✔	✖	✖	✔	✖	✖

[1] Via key.

Data supplied by Community Heartbeat Trust

SP1 Accessories

SP1 Disposable Adult/Child Smart Electrode Pads

SP1 Adult/Child "Smart" Pads, capable of 'talking' to the device to share

expiry notice and previous usage.

These pads are useable with paediatric patients thanks to the intuitive adult/
paediatric switch on the device.

SP1 Disposable Battery Pack

This Lithium-Manganese Oxide (LiMnO2) disposable battery.

With up to five years life or in excess of 200 shocks it is high
performing while cost effective.

SP1 Orange Carry Case

This highly visible carry case is the perfect companion for your SP1 device.
Currently available at no additional cost.

The bag has space for an additional set of pads, a spare battery and an AED
Start Kit. There is also a detachable shoulder strap.

The case offers protection while still being able to use the device.

Additional Options

Electrode Pads Adapters

These pad adapters will allow the electrode pads from Zoll, Phillips and
PhysioControl to be used with the iPAD SP1.

This means the same pads can be unplugged from iPAD and plugged
straight in to the defibrillator on the front line vehicle. This reduces risk,
saves time, reduces trauma and is cost-effective.

SP1 Wall Bracket

This sturdy metal wall bracket is the perfect means for keeping the i-
PAD at hand, ready to use.

The SP1 is securely cradled and held in place, with a Velcro strap for
quick release.

SP1 Wall Cabinet

This rigid plastic wall cabinet is ideal for holding your
i-PAD within an indoor environment. The device is held
firmly in place until required. There is also a battery
operated alarm, which is triggered when the door is

iPAD
www.ipad-aed.com