i-PAD CU-SP1

(Intelligent Public Access Defibrillator)
Defibrillation capability for the general public

INNOVATIVE Medical Solutions
Specialists in Medical Electronics

Key Features
- Ambient noise detection(Auto volume adjusting)
- CPR detection
- Pads and battery status indicator
- Multi events recording
- Easy communication with CU-EX1 software
- Low cost of ownership

❖ Specifications

• DEFIBRILLATOR
- **Model :** IPAD CU-SP1
- **Standard Package :** Defibrillator, Pads, Battery, Manual
- **Output Energy :** Adult-150Joules / Pediatric-50Joules(Common usage)
- **Charging Time**
  Charging time : Less than 10 seconds
  Charging time after CPR finished : At least 6 seconds

• User Interface
- **User Support :** Detailed voice prompts and flashing indicators
- **CPR guidance :** Voice prompts for how to perform CPR for adult and child patient
- **Controls :** On/Off button, I button, Shock button
- **Indicator :** LCD display(Device status, Battery status, Pads status)
- **Sensing :** Pads expiring date, Pads connection status
- **CPR monitoring**
- **Automatic Volume adjusting**

• Enviorment
- **Sealing :**
  Waterjet proof IPX5 per IEC60529(IP55)
  Dust protected IP5X per IEC60529
- **Temperature :** Operation/Standby (0 ~ 43℃)
- **Vibration :** Meets MILSTD 810G

• Patient Analysis System
- **Patient Analysis :** Shockable rhythms (Ventricular Fibrillation, Ventricular Tachycardia)
- **Sensitivity/Specificity :** Meets AAMI DF80 Guideline

• Battery
- **Standard Capacity :** - Type : DC 12 volt 2.8Ah, Lithium manganese dioxide
  - Capacity : Minimum 50 shocks(150J)
- **High Capacity :** - Type : DC 12 volt 4.2Ah, Lithium manganese dioxide
  - Capacity : Minimum 200 shocks(150J)
- **Lifespan :** 5 years (high capacity battery)
  (With the condition of the temperature of operation/standby, standby mode after the first initial check)

• Data Recording and Transmission
- **IrDA port :** Wireless transmission of event data to PC, SD card
- **Internal Memory :** ECG, Event
- **Storage Capacity :** Multi Recording 5 events / Max 3 hours
- **Data Review PC Program :** CU-EX1

- Size : 260×256×69.5 (W×L×H, mm)
- Weight : 2.4kg

• Parts & Accessories

Standard Package
- Device
- Multifunction Defib. Pads
- Disposable LiMnO₂ Battery Pack
- User's Guide

Opition
- Carrying case
- SD card
- Software for data management with key file
- Wall bracket - Wall cabinet

CU-SP1 Trainer
- 8 Standard rescue scenarios
- Powered by AAA disposable, rechargable battery
- Simulates all the functions of CU-SP1

Auto volume adjusting, upto 90db
Ambient noise detector measures level of background noise and adjusts the volume of the voice prompts accordingly.

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

Smart CPR detection
- 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'

Easy communication
- Internal memory stores the last 5 events/3 hours of data
- Data can be transferred via the built in SD card and IrDA ports

Patient mode switch
- Easily switch from Adult to Child mode without changing pads
- Safety cover prevents accidental switching

i-PAD CU-SP2

(Intelligent AED for professional use)

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Key Features

- Manual Override, R-Sync function
- Graphic LCD status indicator
- Wireless ECG transmission device
- External Bluetooth Printer
- Ambient noise detection(Auto volume adjusting)
- Easy communication with CU-EX1 software

❖ Specifications

• DEFIBRILLATOR

- **Model :** IPAD CU-SP2
- **Output Energy :**
  AED Mode : Adult-150/200J(fixed) or 150-200J, 150-150-200J(Energy Escalating)
  Manual Mode : 2~200J, R-Sync
- **Charging Time**
  Charging time : Less than 10 seconds
  Charging time after CPR finished : At least 6 seconds

• User Interface

- **User Support :** Graphic guide, Detailed voice and text prompts
- **CPR guidance :** Voice prompts for CPR for adult and child patient
- **Controls :** On/Off button, I button, Shock button, 3 Menu buttons
- **Indicator :** Graphic LCD display (Device status, user's guide, ECG, heart rate, etc.)
- **Sensing :** Pads expiring date, Pads connection status, Pads usage detecting
- **ECG monitoring**
- **CPR monitoring**
- **Automatic Volume adjusting**

• Enviorment

- **Sealing :**
  Waterjet proof IPX5 per IEC60529(IP55)
  Dust protected IP5X per IEC60529
- **Temperature :** Operation/Standby(0 ~ 50℃)
- **Vibration :** Meets MILSTD 810G

• Patient Analysis System

- **Patient Analysis :** Shockable rhythms (Ventricular Fibrillation, Ventricular Tachycardia)
- **Sensitivity/Specificity :** Meets AAMI DF80 Guideline

• Battery

- **Rechargeable :** - Type : 11.1V DC, 1.9Ah Li-ion
  - Capacity : Minimum 60 shocks or 3 hours of operation
- **Disposable :** - Type : 12V DC, 4.2Ah LiMnO2
  - Capacity : Minimum 130 shocks or 5 hours of operation

• Data Recoding and Transmission

- **Internal Memory :** ECG, Event
- **IrDA :** Wireless transmission, SD card
- **Storage Capacity :** Multi Recording 3 events(up to 17 hours for each event)
- **Bluetooth :** Printer or CU-EM1
- **Data Review :** CU-EX1

• Size : 260×256×69.5(W×L×H,mm)
• Weight : 2.4kg

• Parts & Accessories

Standard Package
- Device
- Multifunction Defib. Pads
- Rechargeable Battery Pack
- Battery Charger
- User's Guide

Opition
- Carrying case
- SD card
- Printer
- CU-EM1 (ECG Transmission Device)

DEVICE SETUP	DATA REVIEW	EXIT
Device Mode		Manual Mode
Manual Override		CHARGE
Adult / Pediatric Mode		ADULT
Shock Energy		Escalating(150-150-200J)
ECG Gain		10mm/mV
Device Volume		1
Graphic Indication		ON 1/2

Manual Mode
When in manual override, the user can set the energy value for defibrillation.
Using R-Sync will detect the R-wave of the patient's ECG, and display the R-Sync mark on the LCD Screen with a short beep.

Wireless ECG transmission device(CU-EM1)
In Monitor Mode, the i-PAD CU-SP2 uses Bluetooth to receive ECG data from the CU-EM1 and displays it on the LCD Screen.

Printer
The i-PAD CU-SP2 supports connection to an external Bluetooth printer

i- PAD NF1200 (Semi-Automated)
i- PAD NF1201 (Fully-Automated)

(Intelligent Public Access Defibrillator)
Defibrillation capability for the general public

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Specialists in Medical Electronics

Key Features

- Patented *e~cube* Biphasic Truncated Exponential Shock Waveform
- Automatic Self-testing
- CPR coaching
- Multi event recording
- Pads status detection
- Simple operation
- LED status indicator

❖ Technical Specifications

- **DEFIBRILLATOR**
  - **Model :** NF1200   **- Operation :** Semi-Automated (NF1200), Fully-Automated (NF1201)
  - **Waveform :** Biphasic Truncated Exponential   **- Energy :** 200J (Fixed)
  - **Shock-to-Shock Cycle Time :** Typically less than 20 seconds
  - **Protocol :** Voice prompts and indicators guide user through protocol.
    Follow preconfigured settings. Can be modified with software
  - **Voice Instructions :** Detailed voice messages guide responder through use of the defibrillator
  - **Controls :** Shock Button (NF1200 only), i-Button, On/off Button
  - **Indicators :** 4 LEDs (different colors), i-Button

- **ENVIRONMENTAL / PHYSICAL REQUIREMENTS**
  - **Temperature :** Operating : 32º ~110º F (0º ~ 43℃)
    Standby : 32º ~ 110º F (0º ~ 43℃)
  - **Humidity :** Operating - 0% to 60% relative, non-condensing
    Standby - 0% to 95% relative, non-condensing
  - **Vibration :** Meets EN1789 random and swept sine, road ambulance specification
    in operating and standby states
  - **EMI** (Radiated/Immunity) **:** Meets EN55011 Group 1 Level B Class B and EN61000-4-3

- **Sealing**
  - Meets IEC60529 class IP54 with battery installed

- **BATTERY**
  - **Type :** 12 Volt DC, 4.2 Ah, lithium manganese dioxide, disposable long-life primary cell
  - **Capacity :** Minimum 200 shocks or 4 hours of operating time (25℃)

- **AUTOMATED AND USER-ACTIVATED SELF-TESTS**
  - **Daily Self-Tests :** Tests internal circuitry, waveform delivery system, battery capacity and software
  - **Battery Insertion Test :** Upon battery insertion, extensive automatic self-tests and user-interactive test check device readiness

- **Data stored**
  - Maximum 7 events can be saved.
  - 1 event can be recorded for 75 minutes
  - If 7 events are recorded, maximum recording duration for each event is 5 minutes

- Size : 220×281×82 (W×L×H, mm)
- Weight : 2.2kg

• Parts & Accessories

Standard Package
- Device
- Multifunction Defib. Pads
- Disposable LiMnO$_2$ Battery Pack
- User's Guide
- Quick Reference Card

Opition
- Carrying case
- IrDA connector for data communication
- Software for data management with key file
- Wall bracket   - Wall cabinet

TRAINER

i-PAD NF1200 T1
- 8 standard Rescue Scenarios
- Infrared remote control operation
- Powered by an external disposable battery pack or rechargeable battery pack
- Simulates all the functions of the NF-1200

i-PAD NF1200 T2
- 8 standard Rescue Scenarios
- Powered by AA Battery
- Function Switch
- Simulates all the functions of the NF-1200

Pads Connector Guide & LEDs
- Indicates the position of the pads connector
- Guide the user during rescue operation

Shock Button (NF1200 only)
- Delivers the shock

Information Button
- When pressed, guides the user
- during CPR and system trouble shooting

State LED
- Indicates operational state of the device

Battery Pack
- Disposable LiMnO$_2$ Battery Pack

IrDA Port
- Used for data communication