



# Medtronic

## LIFEPAK EXPRESS™

### Defibrillator

The entry-level AED from Medtronic, the world leader in medical technology and defibrillation

Easy to use, appropriate for those with minimal training

With the advanced technology trusted by more medical professionals

Meets the tough specifications required by emergency medical services (EMS) teams

Unique built-in system helps assure the EXPRESS has full power and is ready for rescue

Synchronized replacement dates for battery charger and electrodes cut maintenance efforts in half



Created especially for the first person at the scene of a sudden cardiac arrest, the LIFEPAK EXPRESS defibrillator is the entry-level automated external defibrillator (AED) from Medtronic.

The EXPRESS is so easy to use, it is suitable for the minimally trained responder. The defibrillator shows and tells the rescuer exactly what to do, one step at a time, making each step obvious. A centrally located, flashing shock button makes it clear what the user should push if the defibrillator determines a shock is needed. In the chaotic conditions surrounding sudden cardiac arrest, the defibrillator's ease of use helps promote quick, effective treatment.

The EXPRESS is compatible with the advanced LIFEPAK defibrillators used by the majority of emergency medical services (EMS) teams, including the industry-leading LIFEPAK 12 defibrillator/monitor, and is built to the tough environmental specifications EMS teams require. ADAPTIV™ biphasic technology automatically

adjusts therapy to each person's needs and escalates from 200 to 360 joules if the heart doesn't respond to previous shocks. This can enhance defibrillation success, with the goal of saving more lives.

The battery system uses an easy-to-change CHARGE-PAK™ battery charger, and replacement dates for the battery charger and electrodes are synchronized, cutting required maintenance efforts in half. A unique built-in system helps ensure the EXPRESS has full power if and when sudden cardiac arrest strikes. Infant/Child Reduced Energy Defibrillation Electrodes make therapy available to even the youngest victims of sudden cardiac arrest; up to eight years old or 25 kg (55 lbs).

Innovative data management tools support compliance with state and local regulations following AED use. Users can wirelessly transmit ECG and event data through an infrared IrDa port to a PC, eliminating the need for data cards.

**DEFIBRILLATOR**

**Waveform:** Biphasic truncated exponential, with voltage and current duration compensation for patient impedance.\*  
**Output Energy Sequence:** Multiple levels, user configurable from 200J to 360J (150J min. outside the U.S.).  
**Output Energy Accuracy:** ±10% into 50 ohms, ±15% into 25 to 100 ohms.

**Shock Advisory System™:** An ECG analysis system that advises whether a shock is appropriate; meets rhythm recognition criteria specified in DF39.

The device charges for shock only when the Shock Advisory System advises defibrillation.

**Device Capacity:** Twenty (20) full discharges or 140 minutes of "on time" with a fully charged device.

**Shock Charge Time:** Charge times with a fully charged device: 200 joules in less than 9 seconds, 360 joules in less than 15 seconds.

**System Recharge Times:** Recharge times with a fully discharged device: able to deliver six (6) shocks or provide 42 minutes of operating time after 48 hours of recharge and 20 shocks or 140 minutes of operating time after fourteen (14) days of recharge time with a new CHARGE-PAK battery charger at temperatures above 15° C (59° F).

**Controls:**  
 Lid Release/ON-OFF - Controls device power.  
 SHOCK button delivers defibrillation energy.

**Electrical Protection:** Input protected against high voltage defibrillator pulses per IEC60601-1/EN60601-1 .

**Safety Classification:** Internally powered equipment. IEC60601-1/EN60601-1.

**USER INTERFACE**

**User Interface:** The user interface includes voice prompts, audible tones and graphic prompts.

**Readiness Display:** The readiness display shows the device status.

**OK Indicator:** Shows "OK" when the last self-test was completed successfully. When the "OK" indicator is visible, all other indicators are not visible. The "OK" indicator is not displayed during device operation.

**CHARGE-PAK Indicator:** When displayed, replace the CHARGE-PAK battery charger.

**Attention Indicator:** When first displayed, at least six (6) discharges or 42 minutes of operating time remain.

**Service Indicator:** Service required when displayed.

**ENVIRONMENTAL**

**Note:** All performance specifications defined assume the unit has been stored (two hours minimum) at operating temperature prior to operation.

**Operating Temperature:** 0° to +50° C (+32° to +122° F).

**Storage Temperature:** -40° to +70° C (-40° to +158° F) with CHARGE-PAK battery charger and electrodes, maximum exposure time limited to one week.

**Atmospheric Pressure:** 760 mmHg to 429 mmHg, 0 to 15,000 feet above sea level.

**Relative Humidity:** 5 to 95% (non-condensing).

**Water Resistance:** IEC60529/EN60529 IPX4 "Splash proof" with electrodes connected, CHARGE-PAK battery charger installed.

**Shock:** MIL-STD-810E, Method 516.4, Procedure 1, (40g, 6-9 ms pulse, 1/2 sine each axis).

**Vibration:** MIL-STD-810E, Method 514.4, Helicopter – category 6 (3.75 Grms) and Ground Mobile – category 8 (3.15 Grms).

**PHYSICAL CHARACTERISTICS**

**Height:** 10.7 cm (4.2 in)

**Width:** 20.3 cm (8.0 in)

**Depth:** 24.1 cm (9.5 in), excluding handle

**Weight:** 2.0 kg (4.5 lb) with CHARGE-PAK battery charger and electrodes.

**SETUP OPTIONS**

**Energy Sequence:** Users can choose an energy sequence to match their applicable energy protocol (e.g. 200J, 300J, 360J).

**Motion Detection:** The motion detection system can be set to off or on during analysis.

**Energy Protocol:** The user can configure the defibrillator to increase energy after every shock or only increase it after a lower energy was unsuccessful.

**Turn-On Prompt:** The turn-on prompt option allows the user to select the prompting style upon power on.

**CPR Time:** The CPR Time can be set to match local protocol.

**Pulse Prompt:** The pulse prompt option allows the user to select the voice message for CPR prompting according to the *Guidelines 2000*, as recommended by the American Heart Association (AHA) and the International Liaison Committee on Resuscitation (ILCOR).

**Device ID:** The device ID feature assigns a unique identifier to a particular device, which is printed on all reports.

**ACCESSORIES**

**CHARGE-PAK Battery Charger**  
**Type:** Li/SO2Cl2 Lithium Sulfuryl Chloride, 11.7V, 1.4 amp-hours.

**Replacement:** Replace after each patient use, after 30 minutes of accumulated "on" time, or when CHARGE-PAK indicator is visible, typically after two (2) years.

**Weight:** 80.5 grams (0.18 lb)

**QUIK-PAK™ Electrode Pads**  
**Pads:** ECG is received from disposable defibrillation electrodes, standard placement (anterior-lateral).

**Pads Packaging:** User intuitive, rapid release QUIK-PAK electrodes allow the electrode pads to be preconnected to the device and protected under a top cover.

**Pads Replacement:** Replace every two (2) years.

**Infant/Child Reduced Energy Defibrillation Electrodes:** Intended for use with any EXPRESS defibrillator on children up to 8 years of age or 25kg (55 lbs).

**DATA STORAGE**

**Memory Type:** Internal digital memory.

**ECG Storage:** Dual patient data storage. Minimum 20 minutes of ECG stored for the current patient, summarized data stored for the previous patient.

- Report Types:**
- **Continuous ECG** – A continuous patient ECG report.
  - **Continuous Summary report** – A summary of critical resuscitation events and ECG waveform segments associated with these events.
  - **Event Log report** – A report of time stamped markers, which reflect operator and device activity.
  - **Test Log report** – A device self-test activity report.

**Capacity:** Minimum 200 time-stamped event log markers.

**Communications:** Wireless transfer to a personal computer.

**Data Review:** Medtronic provides an array of tools to meet customer needs for data viewing and analysis.

\* The specifications apply from 25 to 200 ohms. Voltage compensation is limited to the voltage that would result in delivery of 360 joules into 50 ohms.

All specifications are at 20°C unless otherwise stated.

AED users should be trained in CPR and use of the AED. Please consult your physician. A prescription is required. For further information please call Medtronic at 1.800.442.1142.



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