

# LIFEPAK® 9

defibrillator/monitor



Simple, logical controls

User-friendly displays

CODE SUMMARY™  
critical event record

Space-saving  
vertical design

Optional Shock  
Advisory System™



The Physio-Control LIFEPAK 9 defibrillator/monitor was designed to meet the needs of clinical, biomedical engineering, and purchasing professionals throughout the world. This unit's simple 1-2-3 operation and user-friendly display, plus its compact, portable, space-saving design, revolutionized in-hospital defibrillation.

Innovative features include high and low energy select displays, annotating recorder that prints out time, date, leads, and gain, and CODE SUMMARY critical event record, which recaps critical events from the moment of "power on."

This unit also features a Defibrillation Adapter used with auxiliary paddles for "hands-free" defibrillation. An optional Shock Advisory Adapter converts the LIFEPAK 9 defibrillator/monitor into an automatic external defibrillator for hospital codes.

Designed for ease of maintenance with on-screen diagnostics for simple test and calibration, this unit includes an integral chassis which allows 360° serviceability.

The LIFEPAK 9 defibrillator/monitor joins a standardized family of hospital products from Physio-Control.

**ECG MONITOR**

ECG Lead Selections: Std, Paddles, I, II, III

Input: Isolated ECG via QUIK-LOOK® defibrillator paddles, FAST-PATCH® disposable defibrillation/ECG electrodes or 3-lead patient cable.

Patient Cable Length: 4.0m (13 ft) total length; 3.1m cable (10 ft) with 0.9m leads (3 ft)

Common Mode Rejection: 100dB minimum with respect to chassis ground and 65dB minimum with respect to isolated ground, when measured at 60Hz. Common mode range for patient cable input ≥ 10 Volts peak with respect to isolated ground.

Monitor Display Size: 102mm (4 in) wide x 76mm (3 in) tall, non-fade

Sweep Speed: 25mm/second

Frequency Response: Non-diagnostic

ECG Leads: 1.0 to 40Hz (-3dB)

Paddles: 2.2 to 20Hz (-3dB)

ECG Size: Adjusts amplitude of ECG trace on monitor and strip chart recorder.

Heart Rate Meter: 3 digit readout displays rates from 20 to 300 bpm. Heart rates outside this range do not yield valid systole tones or heart rate display.

Heart Rate Alarm: User selectable alarm limits. Three high/low settings (150/40, 120/60, 160/90). Other limit options available via SET UP menu.

1 mV Cal: Momentary pushbutton switch on rear panel simulates a 1 mV signal pulse to the ECG input.

ECG Output: 1 Volt/mV

**GENERAL**

AC Input Options: 120 or 240 Vac nominal line voltage without adjustment. 50 or 60Hz, with adjustment in SET UP menu.

Battery Type: Sealed lead-acid, 16 Vdc nominal, 3 Amp-hour

Battery Capacity: A new, fully charged battery will provide one of the following prior to shut down:

	Typical	Min
360 J discharges	75	40
Minutes of monitoring	90	70

Low Battery Indicator: Advises operator to connect AC power.

Battery Charge Indicator: Illuminates when battery is charging.

Battery Charge Time: 24 hours to full capacity.

Service Indicator: Indicates self-diagnostic routines have detected improper operation requiring service attention.

Power Consumption: 160 Watts maximum while monitoring with recorder ON and defibrillator charging.

Height: 35.2cm (13.9 in)

Width: 29.7cm (11.7 in)

Depth: 31.0cm (12.2 in)

Weight: 12.7kg (28 lbs)

Power Cord Length: 3m (10 ft)

Standard Paddle Electrode Area: 82 square cm

**DEFIBRILLATOR**

Defibrillator Waveform: 5 millisecond monophasic pulse (Edmark)

Energy Select:

External Paddles: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 50, 100, 200, 300, 360 Joules

Internal Paddles: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 50 Joules

Charge Controls: Independent momentary pushbutton controls on front panel and APEX paddle.

Paddle Cord Length: 3m (10 ft)

Charge Indicators: Flashing lamps on paddle and front panel pushbutton along with increasing stored energy display indicate charge in progress. Upon full charge, energy available is displayed on monitor and charge completed tone sounds.

Charge Time: Charge to 360 Joules in less than 10 seconds with a fully charged battery.

SYNC: Synchronizes defibrillator pulse to patient-generated QRS complex.

SYNC Indicator: Inverted triangle marker on displayed ECG waveform identifies synchronizer trigger point with respect to patient's QRS complex.

**THERMAL ARRAY RECORDER**

Paper Size: 50mm wide x 30m (100 ft)

Paper Speed: 25mm/second

Delay: ECG prints 8 seconds after first appearing on the monitor.

Frequency Response: Non-diagnostic. Diagnostic available via SET UP menu.

ECG Leads (non-diagnostic): 1.0 to 40Hz (-3dB)

ECG Leads (diagnostic): 0.05 to 100Hz (-3dB)

Paddles: 2.2 to 20Hz (-3dB)

Annotation: Time, date, ECG lead, ECG gain, heart rate, defibrillation parameters, test load discharges

CODE SUMMARY Critical Event Record: Digitally stored record of ECG and device parameters.

**ENVIRONMENTAL**

Atmospheric Pressure: 797mmHg to 500mmHg (-570 to 11000 ft)

Relative Humidity:

0 to 95% (non-condensing) at 0 to 34°C

0 to 80% (non-condensing) at 35 to 45°C

Temperature Range: 0 to 45°C operating -30 to 65°C storage

All specifications at 20°C unless otherwise stated.



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