BATTERY SUPPORT SYSTEM 2

FASTPAK® 2 BATTERY

LIFEPAK® SLA BATTERY

LIFEPAK NiCd BATTERY

FASTPAK BATTERY

BATTERY SUPPORT SYSTEM 2

Simple operation, automatically charges and conditions batteries in all three wells

Maintains both NiCd and SLA batteries

FASTPAK 2 BATTERY

Fuel gauge indicates state-of-charge

1.2 amp hour capacity

Backwards compatible with LIFEPAK 5, 10 and 11 products

LIFEPAK SLA BATTERY

SLA chemistry suited for low-use environments

2.5 amp hour capacity

LIFEPAK NiCd

On screen battery symbols indicate state of charge

1.6 amp hour capacity

1.7 amp hour capacity

2.4 amp hour capacity

The Physio-Control Battery Support System 2 is an intelligent, highly automated system which recognizes and optimizes maintenance of both NiCd (FASTPAK, FASTPAK 2 and LIFEPAK NiCd) and Sealed Lead-Acid (LIFEPAK SLA) chemistry batteries.

The sophisticated recognition software allows charging of SLA batteries alongside a NiCd battery. All three battery wells allow charging, conditioning and shelf life testing.

Enhanced NiCd pulse charging algorithm allows for optimal battery performance. Conditioning the NiCd battery provides a series of charge/deep discharge cycles to measure and optimize battery capacity. This removes the effect of voltage depression (memory) that can shorten the life of NiCd batteries.

Battery Support System 2 is user-friendly, providing clear indication when batteries are ready to use or need to be discarded.

Innovative platform design provides ease of use and the flexibility to add new features and enhancements to support future battery technologies.

The push-button fuel gauge in FASTPAK 2 and LIFEPAK NiCd batteries provides a quick and easy check of the battery capacity. The high-capacity LIFEPAK NiCd battery makes it ideal for use with multiparameter monitoring. In addition, LIFEPAK NiCd engages the battery capacity symbols on the LIFEPAK 12 device screen to provide a clear indication of its charge level. The LIFEPAK SLA battery is well-suited for the low-use environment.

Physio-Control offers leading-edge solutions for the problems you face today and configurable capabilities for the solutions you will need tomorrow.

BATTERY SUPPORT SYSTEM 2

GENERAL SPECIFICATIONS

Dimensions: 31.5 x 37.6 x 9.7 cm (12.4 x 14.8 x 3.8 in)

Weight: < 8.2 kg (18 lbs) (excluding batteries)

Number of Battery Wells: 3
Charging, conditioning and shelf life test capability in all battery wells. Power Requirements:

Commercial: 100/120/220/240 V AC ± 10%, 50/60 ± 3 Hz

Military: 100/120/220/240 V AC ± 10%, 50/60 ± 3 Hz, 400Hz +/- 7Hz

Fuses: Two fuses in the power input module (5 x 20 mm F 1A 250 V, Low or High break capacity) per IEC 127-2, sheet 1 or 2, such as Bussman GDA or GDB, Littelfuse 216, or Schurter SP or SFS.

ENVIRONMENTAL SPECIFICATIONS

Not protected against ingression of fluids. Indoor use only.

Altitude, Operating: To 4,572 m (15,000 ft)

Altitude, Non-operating: To 5,500 m (18,045 ft)

Humidity: 5 to 95%

Temperature, Operating:
5° to 45°C (41° to 95°F) (commercial)
0° to 50°C (32° to 122°F) (U.S. Military)

Temperature, Storage:
-40° to 70°C (-40° to 158°F) (commercial)
-46° to 71°C (-51° to 160°F) (U.S. Military)

Vibration:
IEC 68-2-6 (commercial)
MIL-STD-810E, Method 514.4 Category 4, 6, 8 (U.S. Military)

FASTPAK AND FASTPAK 2 BATTERIES

PHYSICAL CHARACTERISTICS

IPX1 dust/fluid ingression rating (FASTPAK 2)

Battery Type: Nickel cadmium

Weight: 0.7 kg (1.5 lbs)

Voltage: 12 V DC

Capacity: 1.2 amp hours

Charge Time (with fully depleted battery): 1.5 hours

Conditioning Time: 7 hours typical, 8 hours maximum

Charging Temperature Range: 5° to 35°C (41° to 95°F)

Operating Temperature Range: 0° to 50°C (32° to 122°F)

Long-term (>1 day) Storage Temperature Range: 0° to 35°C (32° to 95°F)

Battery Life (FASTPAK 2): Up to 5 years or 750 cycles

LIFEPAK NiCd BATTERIES

PHYSICAL CHARACTERISTICS (1.6 and 1.7 Ah)

IPX4 dust/fluid ingression rating

Battery Type: Nickel cadmium

Weight: 0.9 kg (2.0 lbs)

Voltage: 12 V DC

Capacity: 1.6 or 1.7 amp hours

Charge Time (with fully depleted battery): 2.25 hours

Conditioning Time: 8 hours typical, 10 hours maximum

Charging Temperature Range: 5° to 35°C (41° to 95°F)

Operating Temperature Range: 0° to 50°C (32° to 122°F)

Long-term (>1 day) Storage Temperature Range: 0° to 35°C (32° to 95°F)

Battery Life: Up to 5 years or 500 cycles

PHYSICAL CHARACTERISTICS (2.4 Ah)

IPX4 dust/fluid ingression rating

Battery Type: Nickel cadmium

Weight: 0.9 kg (2.0 lbs)

Voltage: 12 V DC

Capacity: 2.4 amp hours

Charge Time (with fully depleted battery): 3.0 hours

Conditioning Time: 9 hours typical, 11 hours maximum

Charging Temperature Range: 5° to 35°C (41° to 95°F)

Operating Temperature Range: 0° to 50°C (32° to 122°F)

Long-term (>1 day) Storage Temperature Range: 0° to 35°C (32° to 95°F)

LIFEPAK SLA BATTERY

PHYSICAL CHARACTERISTICS

Not protected against ingression of fluids. Indoor use only.

Battery Type: Sealed Lead Acid

Weight: 1.4 kg (3.0 lbs)

Voltage: 12 V DC

Capacity: 2.5 amp hours

Charge Time: 6 hours typical, 12 hours maximum

Conditioning Time: 28 hours typical, 56 hours maximum

Charging Temperature Range: 5° to 35°C (41° to 95°F)

Operating Temperature Range: 0° to 50°C (32° to 122°F)

Long-term (>1 day) Storage Temperature Range: 0° to 35°C (32° to 95°F)

Battery Life: Up to 3 years or 100 cycles

BATTERY OPERATING TIME

Two new fully charged batteries will provide the following prior to shutdown:

	TOTAL				AFTER LOW BATTERY			
	Typical		Minimum		Typical		Minimum	
	LCD	EL	LCD	EL	LCD	EL	LCD	EL
Monitoring (minutes)								
NiCd*	110	81	60	43	10	6	2	1
NiCd**	146	108	80	58	10	6	2	1
NiCd***	155	114	85	62	14	8	2	1
NiCd****	220	162	120	86	20	12	4	2
SLA	180	132	100	73	16	10	2	1
Defibrillation (360 joule discharges)								
NiCd*	80	72	45	40	7	7	3	3
NiCd**	107	95	60	53	7	7	3	3
NiCd***	110	99	60	54	10	10	3	3
NiCd****	160	144	90	80	14	14	6	6
SLA	145	131	85	76	12	12	3	3
Monitoring plus Pacing (minutes at 100 ma, 60 ppm)								
NiCd*	105	75	60	42	9	6	2	1
NiCd**	136	98	80	56	11	7	2	1
NiCd***	145	104	85	60	12	8	2	1
NiCd****	210	150	120	84	18	12	4	2
SLA	170	122	100	71	14	10	2	1

***FASTPAK, FASTPAK 2 (1.2 Ah)**
****LIFEPAK NiCd (1.6 Ah)**
*****LIFEPAK NiCd (1.7 Ah)**
******LIFEPAK NiCd (2.4 Ah)**

For further information please contact your local Physio-Control representative or visit www.physio-control.com.

PHYSIO CONTROL

HEADQUARTERS / MANUFACTURING

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