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.

ENVIROMENTAL SPECIFICATIONS
Not protected against ingestion 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 113°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)

PHYSICAL CHARACTERISTICS
IPX1 dust/fluid ingestion 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
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 ingestion rating
Battery Type: Nickel cadmium
Weight: 0.9 kg (2.0 lbs)
Voltage: 12 V DC
Capacity: 1.6 to 1.7 amp hours
Charge Time (with fully depleted battery): 2.25 hours
Conditioning Time: 8 hours typical, 10 hours maximum
Operating Temperature Range: 5° to 35°C (41° to 95°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 ingestion 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
Operating Temperature Range: 5° to 35°C (41° to 95°F)
Long-term (>1 day) Storage Temperature Range: 0° to 35°C (32° to 95°F)

LIFEPAK SLA BATTERY
PHYSICAL CHARACTERISTICS
Not protected against ingestion 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
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:

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th></th>
<th>AFTER LOW BATTERY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Typical</td>
<td>Minimum</td>
<td>Typical</td>
<td>Minimum</td>
</tr>
<tr>
<td></td>
<td>LCD</td>
<td>EL</td>
<td>LCD</td>
<td>EL</td>
</tr>
<tr>
<td>Monitoring (minutes)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>NiCd*</td>
<td>110</td>
<td>81</td>
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<td>43</td>
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<tr>
<td>NiCd**</td>
<td>146</td>
<td>108</td>
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<tr>
<td>NiCd***</td>
<td>155</td>
<td>114</td>
<td>85</td>
<td>62</td>
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<tr>
<td>NiCd****</td>
<td>220</td>
<td>162</td>
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<td>86</td>
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<tr>
<td>SLA</td>
<td>180</td>
<td>132</td>
<td>100</td>
<td>73</td>
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<tr>
<td>Defibrillation (350 joule discharges)</td>
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<td></td>
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<tr>
<td>NiCd*</td>
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<tr>
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<tr>
<td>NiCd***</td>
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<td>54</td>
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<tr>
<td>NiCd****</td>
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<td>144</td>
<td>90</td>
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<tr>
<td>SLA</td>
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<td>85</td>
<td>76</td>
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<tr>
<td>Monitoring plus Pacing (minutes at 100 ma, 60 ppm)</td>
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<tr>
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<tr>
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<tr>
<td>SLA</td>
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<td>122</td>
<td>100</td>
<td>71</td>
</tr>
</tbody>
</table>

*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.