

Mobile Battery Service Station "MBSS" On-Vehicle Battery Charger / Conditioner

Compatible with Medtronic & TMS LIFEPAK 12 Defibrillator Batteries

HIGHPAK 12 Lithium (TMS)

LIFEPAK® NiCd

LIFEPAK® SLA

FASTPAK® NiCd

FASTPAK 2® NiCd



The Battery Management Solution

Runs in your ambulance or at your station
Operates via 12V DC or 110-240V AC. If connected using both AC and DC cables, MBSS automatically switches to AC (shore-line) power when available.

On-Vehicle Charging ensures availability of battery power on your ambulance

Eliminates the need, hassle and liability of transporting discharged batteries to the station for charging

... allowing you to keep 2 fully charged batteries on-vehicle at all times.

Trickle charger keeps batteries fully charged

Compensates for NiCd self-discharge that occurs when batteries are stored on the shelf.

Fast – Ideal for long transports

Charges batteries faster than the LIFEPAK 12 typically dissipates them. Charges 1 battery 3x faster than Medtronic BSS2.

Optimised Performance with Smart Batteries

If a smart NiCd battery is inserted which has not been conditioned within the last 30 days, MBSS will automatically initiate conditioning. If needed, users may force charging by removing the battery and re-inserting within 3 seconds.

The Cost-Effective Solution

Reduces the number of spare batteries both at the central station and on-vehicle.

Extends battery life by avoiding the storage of drained batteries.

Reduces staff time spent on battery maintenance.

A Smart Hassle-Free Solution

User Friendly, Automatic

MBSS has no buttons, for fully automatic operation. Inserting the batteries automatically starts the charging cycle.

"No-Noise" Operation

Operates without fan for silent operation.

Priority Charging

The higher capacity battery is charged first for faster battery availability.

Desk Top or Wall Mount

MBSS Mount secures the MBSS for transport.

Comparison To Medtronic BSS2

MBSS charges, conditions and trickle charges the Medtronic LP12 batteries and adds the ability to charge TMS's 4.8ah HIGHPAK Lithium Batteries. MBSS is fully automatic and has no noisy fan. MBSS also has a smart charging algorithm and will charge or condition a battery over three times faster than the BSS2.

MBSS adds the ability to operate using AC or 12V DC power for mobile on-vehicle operation or desktop operation at the station (BSS2 only operates in-station off AC). Mount & DC Cable sold separately.



MBSS Specifications:

Battery Compatibility and Approximate Charging & Conditioning Times

<u>Compatible Batteries</u>	<u>Charging Time</u>	<u>Conditioning Time</u>
FASTPAK [®] NiCd - 1.2Ah	25 minutes	2 hours
FASTPAK 2 [®] NiCd - 1.2Ah	30 minutes	2 hours
LIFEPAK [®] NiCd - 1.7Ah	40 minutes	3 hours
LIFEPAK [®] NiCd - 2.4Ah	1 hour	4 hours
LIFEPAK [®] SLA - 2.5Ah	2.5 hours	7 hours
HIGHPAK - 4.8Ah	2.5 hours	Not needed

Physical Dimensions

~ 30 cm x 20 cm x 10 cm
2.9 kg without batteries and wall mount

DC Power Supply (12 V)

11.0 V - 16.0 V DC
Max Input Current 6 A (during charge)
Stand-by Current: 30 mA
Auto-switches to AC when available

AC Power Supply (Mains)

~100 V - 240 V AC
50 Hz to 60 Hz $\pm 3\%$
Maximum Power Consumption: 80 W during charge
Stand-by Power Consumption: ~5 W

Environmental Conditions

Operating Conditions

Temperature: +0 °C to +40 °C
Relative Humidity: 35 % to 80 %, non condensing

Transport and Storage

Temperature: -30 °C to +70 °C
Relative Humidity: 15 % to 90 %, non condensing

Transport Testing Standards

Shock, Vibration and Acceleration
Transport in Motorized Vehicles

EN 1789 (European Standard for ambulance and rescue vehicles)
Directive 95/54/EC (European Directive for motorized vehicles)

Ordering Information:

<u>Part #</u>	<u>Description:</u>	<u>Price</u>
AD-8210-0009	MBSS Battery Charger*	\$1,195.00
AD-8230-0042	MBSS Mounting Bracket	\$99.00
AD-8230-0029	MBSS DC Cable	\$59.00
Shipping and Handling		\$35 per MBSS
		\$5 per accy; \$10 min

TMS Medical Technologies

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HIGHPAK 4.8Ah Lithium Battery for LIFEPAK 12 Defibrillator



TURBO-CHARGE your LIFEPAK 12

- Run Time with 2 HIGHPAK Batteries:
 - ◆ 10 hours with monitoring!
 - ◆ 7 hours with monitoring, NiBP, CO2, SpO2, Bluetooth and 30 360J shocks!
- Only loses 10% of its charge per year on the shelf!
- Finally, a Smart Battery that is 100% maintenance free!

The LIFEPAK 12 Battery Solution

- **New Lithium Cell Technology**
High Capacity, reliable and safe
- **Maintenance Free / Conditioning not required!**
Rated to last 1500 charge discharge cycles.
- **Incredibly Long Shelf Life ... assuring you of battery power when you need it!**
Only loses 10% of its capacity if per 2 years on the shelf! Will dramatically outlast Physio's NiCds.
- **Light Weight: only 20 ounces**
... 23% lighter than Physio's 2.4Ah NiCds
- **Charge using the MBSS Mobile Battery Charger firmware version 4.1 or higher**
Programmer Battery (PN: 8210-0007) will upgrade older MBSS's to Version 4.1.

- **Operating Times with Two 4.8Ah HIGHPAKs**

	Approx Std Run Time	Approx Reserve Time
With monitoring	10h 15min	55 min
+ NIBP, Pacing, SpO2, CO2	7h 50min	25 min
+ Bluetooth	7h 10min	25 min
+ 30 360J Shocks	6h 50min	25 min

* Std Run Time = until LP12 displays "Change battery"

* Reserve Time = after LP12 displays "Change battery"

- **Smart Battery**

Pushing the battery button will provide you with an LED display of the current charge:

4 LEDs = Capacity 76% - 100%

3 LEDs = Capacity 51% - 75%

2 LEDs = Capacity 26% - 50%

1 LEDs = Capacity 11% - 25%

1 LED Blinking = Capacity <10%

Ordering Information:

<u>Part #</u>	<u>Description:</u>	<u>Price</u>
AD-8210-0010	4.8ah HIGHPAK Battery	\$395
	Programmer 15 day loan:	\$150
	Shipping and Handling	\$20 per battery or Programmer

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