



POWERPLUS LITHIUM ION BATTERY CHARGER PART NO BC90 ONLY FOR USE WITH RSLSTEEPER POWER PLUS LITHIUM- ION BATTERIES USED WITH (PART NO BP90 USA)

Battery Charger Basic Information

The charger forms part of the **PowerPlus** Lithium-Ion battery system. This system is designed for prosthetics use.

The charger is housed in a grey case, and is intended for use **only** with **PowerPlus** Lithium-Ion batteries (BP90). A label on the battery identifies these batteries as Lithium-Ion.

IMPORTANT NOTE:

THIS CHARGING UNIT MUST NOT BE USED WITH ANY OTHER TYPE OR MAKE OF BATTERY.

The charger unit is very easy to use. It is connected to the mains power supply using the appropriate transformer. One or two partially or fully discharged batteries are pushed into the sockets on the upper surface of the charger. There are two recharging sockets and these are completely independent.

They may be used singly or together. Each socket has a 3-colour lamp associated with it. This indicates the state of charge of the battery in the socket (red, amber or green as appropriate).

Charging continues until the light next to the socket is green for at least ten seconds. The battery is then fully charged.

Lithium-Ion batteries do not suffer from the "memory effect" that reduces capacity over time with Nickel Cadmium cells. They can therefore be recharged from a partially discharged state without affecting the maximum capacity.

If the yellow light illuminates when the battery test button is pressed then the battery has about 30% of its capacity remaining. It is recommended that the batteries are recharged every night regardless of the state of charge indicated.

Powering the Charger

Position the small round output plug on the mains adapter lead into the hole on the side of the charger unit, making sure it is firmly pushed home.

The charger lights may flash intermittently for a few seconds. This is normal and should be ignored. Insert the mains plug fitted to the lead on the transformer into a socket of the domestic power supply. Both red lights will illuminate indicating that no batteries are present.

Charging a Battery

Place a battery into either socket. The amber light on that side of charger will flash and then settle to a steady amber color. This indicates that the battery is charging.

If the red light continues with a battery in the socket press the ? button on the battery and the amber light should flash and the charging cycle will start.

If the red light remains illuminated try another battery. If the second battery charges properly then the first battery may be defective and should be returned for service. If however the red light still shows then return the charger for service.

When the battery is fully charged the amber light will go out and a steady green light will come on.

(If the battery was fully charged when inserted, the amber light will flash and the green light will come on almost immediately)

The charging process will take approximately three hours, depending on the state of the battery. The majority of the charging is done in the first hour. The battery will work well after this time, but since it will not be fully charged its capacity will be limited.

Battery Life

For maximum battery life, try to follow these rules:

- ◆ It is recommended that batteries are recharged every night regardless of the indicated state of charge.
- ◆ Always remove batteries from the prosthesis when it is not being worn.
- ◆ Store batteries at normal room temperature. Avoid temperature extremes.
- ◆ Stop using the battery, test and recharge it whenever the prosthesis becomes slow.

The **PowerPlus** system meets the essential requirements of the Medical Devices Directive.

Use only with RSLSTEEPER transformers: NTO0017 - UK or NLI 0040 - European.
In the United States of America, Liberty Technology will supply an appropriate transformer.
The transformer unit supplied for this system (NTO 0017 or NLI 0040) is specified as follows:
CE certified by BABT to PS/ 624451, IP40, and EN60555/pt 2 & 3 it is a class 2 device.
It provides a 12V DC output at 1A.
It meets EN60950, EN60065, EN41003, EN55014, EN50082-1 & 140.
It is certified for indoor use only.
The charger unit will only accept 12 Volts DC at 1A.

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