

QUANTUM QB-11 FAST CHARGER

INSTRUCTIONS

FAST CHARGER QB-11 FOR QUANTUM BATTERY QB-20

The QB-12 is an adaptor cable used in conjunction with the charger/adaptor QB-11 for charging the QB-20 without removing it from the powerpack. Follow same charging instructions listed below.

Instructions

The newly designed QB-11 charger makes the Quantum Battery more effective than ever. It rapidly charges the battery, balances the cells, and indicates when full charge is attained. The QB-11 interfaces between regular 200B charger and QB-20 sealed lead battery. It cuts off current when the battery is fully charged, not after heat build-up as with the NiCad system. This results in less strain and a more reliable battery.

The QB-11 charges the QB-20 replacement battery for Norman 200B power packs. The QB-11 is connected between the regular Norman charger and the QB-20 to properly regulate and charge the battery.

The QB-11 will provide 3 functions; it will rapidly charge one or two QB-20 batteries, it will charge balance a badly discharged cell, and it will indicate a full charge.

Charging the battery

Remove the QB-20 from the 200B and connect it (them) to the QB-11. Plug the Norman charger into the QB-11. **Press the red button** on the Norman charger, and push **PRESS TO START** on the QB-11. The red light of the Norman should light, and the red light on the QB-11 will go out.

As the battery is charged, the QB-11 light will blink on and off. Eventually it will stay lit, indicating full charge. A full charge for one battery takes 1 1/2-2 hours. Charging two batteries takes twice as long. The regulated QB-11 cannot overcharge the batteries if left on charge for longer than necessary for "full" charge.

When power is removed from the QB-11, disconnect the QB-20 from it to prevent discharge of the battery.

Charge Balancing

You can increase the life of your battery by "balancing" the cells. This means equalizing the capacity of the six internal cells in each QB-20. To balance the cells with the QB-11, simply allow it to charge the QB-20 for 12-24 hours. We recommend this procedure periodically, whenever the batteries are not needed for use.

Charge balancing will also revive what appears to be a "dead" battery, due to overdischarging. This could occur if the 200B was left on accidentally, or if a QB-20 was used repeatedly without being charged back to 100% each time. If the QB-20 appears "dead" or very low in capacity, charge it with the QB-11 for 24-48 hours to revive it.

Using the QB-20

Place the QB-20 in the Norman 200B and operate as usual. The QB-20 will deliver typically 120 full power flashes (200 watt-second) on a full charge. To get optimum performance a slight adjustment of the 200B circuit may be advisable as outlined below.

WARNING HIGH VOLTAGE

- 1. Remove the battery from the 200B! Turn off!**
2. Turn the control on the 200B circuit board fully counter clockwise.
3. Turn the control back clockwise 2 "hours" (1/6 turn).

This control DO NOT ADJUST



Operating Units

1. Resting the QB-20 when not needed, by turning the 200B off, increases the number of flashes.
2. Charge the QB-20 after each use. Frequent charging promotes long battery life.
3. Turn the 200B off when recycle time exceeds 5 seconds and recharge the battery immediately.
4. Store the battery in a fully charged state only.