

# QUANTUM BATTERY 1

## OPERATING INSTRUCTIONS

For QB1 Batteries with Serial Numbers : 223739 - C807

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### 1. IMPORTANT

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Understand how to use your new Quantum Battery and you will enjoy its full power and speed.

**First.** Charge the Quantum Battery **after each use.**

**Second.** Turn the Quantum Battery switch off **after each use.**

**Third.** Stop using and recharge when all three green lights do not turn on after the flash recycles.

**Fourth.** If the red STOP light comes on, turn off all power and refer to part 3.

**Fifth.** Brand new batteries MAY sometimes get warm the first few times they are charged. This is normal. If this occurs stop charging (sooner than the usual 16 hour overnight charge) and use your Quantum Battery. After a few charging cycles, new cells will be "broken-in" and will not become warm.

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### 2. RECHARGING - THE KEY TO HIGH PERFORMANCE

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#### NORMAL CHARGING

**Always recharge the Quantum Battery immediately after using it. Do not wait. If a battery is stored in an uncharged condition it could permanently lose some or all of its capacity.**

1. Turn the Quantum Battery switch off.
2. Plug the QB26 charger into a 115 volt AC outlet and into the Quantum Battery.
3. The CHG (yellow) and BATT (green) indicators will light.
4. **Charge for 16 hours or longer.**

#### RECONDITION CHARGING

If you overdischarge your battery its capacity will drastically decrease. Overdischarge is caused by accidentally leaving your Quantum Battery ON when not in use. Or, it can be caused by continuing to use your battery after all the green lights go out. Undercharging can cause overdischarge also.

Whatever the cause, an overdischarged battery will seem to have lost 1/2 to 2/3 of its capacity.

Your Quantum Battery, however, is equipped to "recondition" an overdischarged battery. Recondition as follows:

1. Connect the charger.
2. Turn the Quantum Battery switch ON.
3. The CHG (yellow) indicator will be OFF. The ON (yellow) indicator will light. The BATT (green) indicators will light.
4. **Charge for 96 hours!**

Reconditioning a Quantum Battery is recommended only to save your cells and not as a routine charging. (Refer to Normal Charging).

#### TRAVEL

When traveling to countries with different voltage ratings, a Quantum Charger is recommended for that area. **Do not use a voltage adaptor.**

See our web page for charger listing.

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### 3. HOW TO LOAD A "POWER MODULE" INTO YOUR FLASH

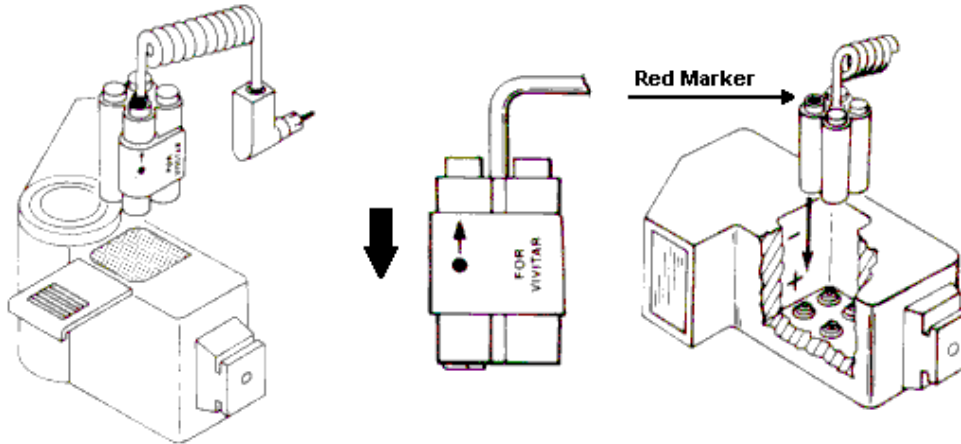
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To power your flash with the Quantum Battery the correct Power Module must be properly inserted into the flash battery compartment. Check the Power Module package label for compatibility with your flash.

Vivitar flashes require module A or G depending on flash model. A special clip is provided to correctly align the module.

For other flashes, the clip is removed, and there are 4 possible positions for the Power Module. The Quantum Battery will tell you which one is correct. The red marker at the top of the Power Module indicates a ( $\pm$ ) polarity cylinder. In two of the four positions when the red marker is lined up with the (-) polarity in the flash nothing will happen. For the other two positions the red marker will match the (+) polarity inside the flash. One position will power the flash unit, the other will cause the red STOP! indicator to light (this indicates the Power Module is in backwards.)

The diagrams below and step-by-step procedure explain further.



**Vivitar flashes**

**Removing clips**

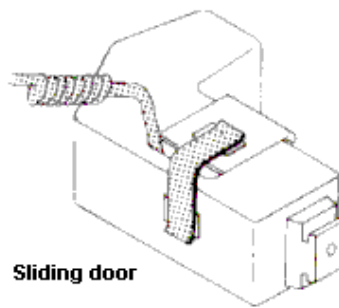
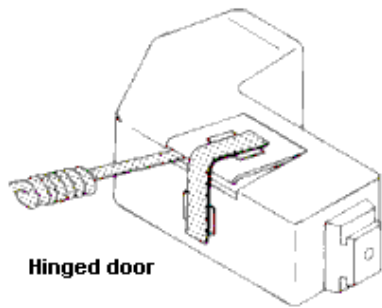
**Module alignment**

### Step-by-step procedure

1. Turn the Quantum Battery off. Turn the flash on.
2. Remove the batteries from the flash. Locate the ( $\pm$ ) markers in the battery compartment.
3. Match the red marker on the Power Module to the ( $\pm$ ) marker on the inside of the flash. There are two possibilities - choose one.
4. Plug the Power Module into either FLASH output
5. Turn the Quantum Battery ON. If the red STOP! indicator lights, turn it off! The Power Module is backwards. Line up the red marker in the other position and repeat this procedure.
6. When the Power Module is properly inserted, the flash will be powered (when switched on).
7. As a future reminder, red "dot" stickers are provided. Place one on your flash next to the red marker on the Power Module to indicate correct position.
8. If you cannot get power see "Care and Maintenance" or consult your dealer or Quantum Instruments.

**CAUTION!** Quantum Power Modules have been designed for use with the Quantum Battery. To avoid damage to your flash **DO NOT USE WITH OTHER POWER PACKS.**

**Securing the Power Module.** Use velcro fasteners provided as shown below.



For flashes with hinged doors place adhesive-backed velcro tab on the door, another on the flash body, close the door tightly against the Power Module, and secure with the 4" velcro strip.

For flashes with sliding doors, such as Vivitar, slide the door as far closed as possible. This will be sufficient to secure the Power Module. The velcro fasteners can be used in addition, if desired.

There are Power Modules for practically all major brands of flash. Consult the label on the Power Module box for compatibility with your flash. Also, new modules are being added continuously. For the latest information see your dealer or contact Quantum.

## CONTROLS, LIGHTS AND FUNCTIONS

**On switch.** When switched to ON, power is supplied to both FLASH outputs. The yellow ON indicator and one, two, or three green indicators should light. When switched off, the charger may be connected to the CHG jack.

**FLASH outputs.** Plug Power Modules into either output jack (or both outputs for dual power operation). Both outputs provide fast recycling and are protected by an automatic circuit breaker. In case of overload power will be interrupted and the red STOP! indicator will light. In a few seconds power will be restored, provided the circuit overload (short circuit) is removed.

**Red STOP! indicator.** If this lights, shut off the Quantum Battery and check that the Power Module is properly placed in the battery compartment. Other than that, if the indicator lights during normal operation it could indicate a malfunction or a temporary overload in the flash.

**Green BATTERY lights.** These monitor the power in the battery and indicate 1/3, 2/3 or 1 (full) charge left in the battery. After firing the flash some lights may go out, then come on again after the flash recycles. The status of the battery is most accurately indicated a minute or more after firing the flash.

**IMPORTANT.** When the green lights do not come on after flash recycling, shut off the Quantum Battery and recharge. Allowing the battery to discharge further will severely decrease the cells' recharging lifetime, possibly requiring replacement.

**Carrying the Quantum Battery.** Clip it to your belt or connect a camera strap to the "D" rings for over-the-shoulder wearing.

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## 4. CARE AND MAINTENANCE

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- If the Quantum Battery is not used for long periods of time give it a charge every 3-6 months to maintain maximum recharge life.
- Store at room temperature.
- Recharge indoors at room temperature.
- Never submerge the charger or the Quantum Battery in water.

- Use the Quantum Battery between temperatures -40°F and 120°F (-40°C to 55°C)

### **In Case of Trouble**

- Check for the proper Power Module orientation. Is it seated firmly in the battery compartment? Is it the correct model Power Module for your flash? For Vivitar flashes, is the special clip properly mounted on the Power Module?
- Be sure the Power Module is securely plugged into an output jack.
- Is the flash unit switched on?
- If the unit appears not to be charging check that the wall outlet is live, the charge plug is all the way in the CHG jack, and the switch is off.
- When the capacity of the battery on a full charge diminishes substantially, the cells can be replaced by sending the Quantum Battery and its charger to the factory either directly or through your dealer. First be sure the batteries have been given a "reconditioning" charge - see charging instructions.
- If you have further questions do not hesitate to contact Quantum Instruments, Inc.



CONTAINS SEALED LEAD ACID BATTERY.  
MUST BE RECYCLED OR DISPOSED OF PROPERLY.

**DO NOT PLACE USED BATTERIES IN YOUR REGULAR TRASH!**

Return this battery to a federal or state approved sealed lead battery recycler.  
This may be where you purchased the battery.