

QUANTUM BATTERY 2R

9 VOLT BATTERY SYSTEM

QUANTUM BATTERY 5

12 VOLT BATTERY SYSTEM

OPERATING INSTRUCTIONS

IMPORTANT

Charging your Quantum Battery properly is the most important procedure to follow. Please remember this:

Never discharge the battery to complete exhaustion. It is not a ni-cad and does not need "conditioning" to erase "memory".

Always charge the battery, as soon as possible, after use and **always** store it away fully charged. Please see other instructions under charging.

INTRODUCTION

Quantum Battery 5 (QB5) supplies 12-13 volt power for two-way radios and other electronic equipment. It is powered by a 2.1 amp- hour high-rate, sealed lead battery.

Quantum Battery 2R (QBR2) supplies 8-9 volt power for two- way radios and other electronic equipment that require less voltage than the QB5 delivers. It is powered by a 3.0 amp-hour high-rate, sealed lead battery.

Both battery systems are excellent for hot and cold weather operation. They maintain a high state of charge for months (instead of days or weeks like conventional ni-cads).

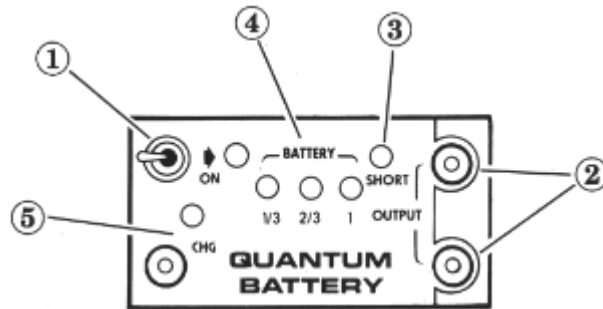
Quantum Batteries (QB) excel in performance (over several days), for emergency communications, commercial, cellular and industrial operations or for any intense radio use. Quantum has perfected the technology with years of experience in powering professional photoflash and amateur radio equipment.

To use your QB, a separate adapter is required to connect it to the radio. Several types of adapters are available to fit most popular two-way radio models. Please consult your dealer or Quantum Instruments Inc. for the latest types.

CONTROLS, LIGHTS & FUNCTIONS

1. **ON/OFF SWITCH** - Always switch off when finished. The yellow indicator lights when on.
2. **OUTPUTS** - For QB5 plug adapter into here until it is firmly seated and tighten shell lightly. On the QB2R, plug adapter into output until it "clicks" in. Both batteries provide two outputs so you can power two radios simultaneously.
3. **SHORT/STOP INDICATOR** - If this lights it means the internal circuit breaker has tripped. Switch OFF immediately. There is either a short or an overload. The circuit breaker will reset automatically in a few seconds.

4. **BATTERY INDICATORS** - These 3 lights monitor the approximate power remaining in the battery. When transmitting some lights may go out, however, the status of the battery is most accurately displayed in the receive mode. **DO NOT OPERATE** if all of the green indicator lights are out. **RECHARGE IMMEDIATELY.**
5. **CHARGE JACK and INDICATOR**



OPERATION

The Quantum Battery model you need is determined by the voltage requirements of the radio you wish to power. Consult the enclosed listing for this information. If there is no listing for your radio or you are unsure of which model to use consult your dealer or Quantum Instruments Inc. directly.

To use the battery connect the proper Adapter (purchased separately) to your radio. The QB5 and the QB2R have different Output jacks to prevent radios from being powered by the incorrect voltage.

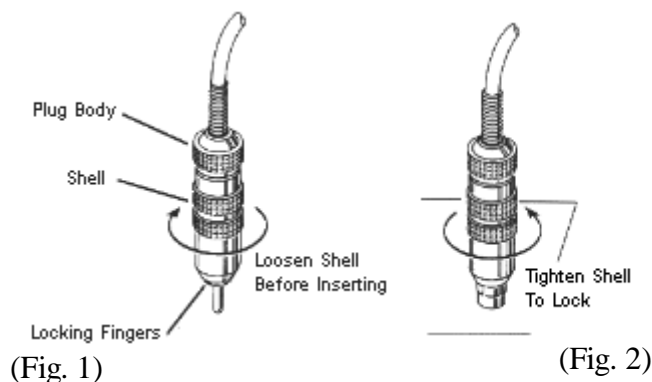
On the QB2R insert adapter plug into output jack until it "clicks" and locks into the jack.

For the QB5 loosen the shell on the plug until the locking fingers just start to become hidden under the shell. Insert the plug into the battery output jack until it is firmly seated. (If you do not loosen the shell first the plug will be difficult to insert into the battery.) See Fig. 1.

While holding the plug gently tighten the shell. Once you feel resistance when tightening, you will only need to tighten it 1/8 of a turn more to lock the plug onto the QB5. See Fig. 2.

To release the plug, loosen the shell about 1 turn and the plug can be disconnected from the battery.

Turn power ON and OFF with switch on the QB. In this way you will not drain the battery accidentally.



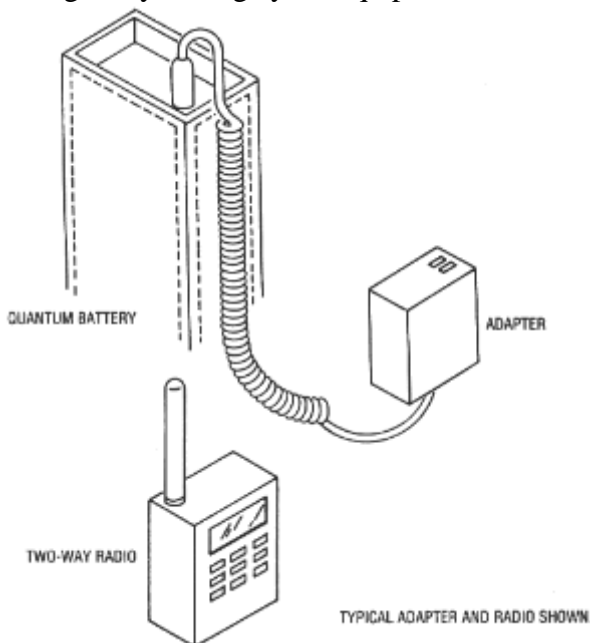
CHARGING

Switch the Quantum Battery OFF. Disconnect the radio from the QB. Plug the charger into the QB charge jack and into a 110-120 volt VAC outlet. The yellow CHG indicator will light.

Charge for 12 hours minimum. You may recharge a partly or fully discharged battery to full capacity without fear of battery "memory". We recommend peaking up the QB with an over-night charge prior to use, for maximum performance.

We do not recommend leaving the battery on charge for more than three days.

CAUTION: Do not connect a device (two-way radio etc.) to the QB while charging. The normal charging voltage may damage your equipment.



CARE & MAINTENANCE

1. If not used for long periods, recharge every 3 months to maintain maximum recharge life.
2. Store at room temperature. Recharge indoors at room temperature.
3. Operate between -40° to 122°F (-40° to 50°C).
4. In case of trouble:
 - Check for proper adapter seating on your radio.
 - Be sure Adapter plug is:
 - > firmly seated on the QB5.
 - > fully clicked on the QB2R.
 - Is the radio switched on?
 - Was the charger connected to a live outlet?

BATTERY REPLACEMENT

When the battery capacity diminishes substantially the cells can be economically replaced by returning the Quantum Battery to your dealer or to Quantum Instruments, Service Department. (Used cells will be recycled).

SPECIFICATIONS

Battery Type :	Industrial high rate lead cell.
Power :	(QB2R) 9 volt, 3.0 amp-hours. (QB5) 12 volt, 2.1 amp-hour.
Size / Weight :	(QB2R) 7" x 3" x 1.75" / 34 ounces. (QB5) 7" x 3" x 1.75" / 36 ounces.
Outputs :	Two available for simultaneous operation.
Charging :	110-120 VAC regulated charger included. Charging light.
Output Protection :	Automatic resetting circuit breaker. Indicator lights when tripped.
Temperature Range :	-40° to 122°F (-40° to 50°C).
Number of Recharges :	250-1000 depending on depth of discharge.



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.