

*iTECH Logo*

# Personal Analyzer Charger

**BCiQpac;**  
*115VAC NiCd/NiMH*  
**BCiQpacW**  
*230VAC NiCd/NiMH*

## General Information

### SUPPLIED ACCESSORIES

Check the packing carton for these accessories:

1. AC adapter  
(453006 - 115VAC)  
(453007 - 230VAC)
2. battery adapter (see label)
3. screwdriver (747017)
4. four screws (621049)

(Use numbers in parentheses for replacement parts.)

### PRECAUTIONS

Before using this unit, be sure to carefully read the applicable items in the operating instructions and in the safety suggestions.

Afterwards keep them handy for future reference. Take special care to follow the warnings indicated on the unit and the power supply as well as in the operating instructions.

## SAFETY

### Care of the AC adapter -

The cords of the AC adapter should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Never take hold of the AC adapter if your hand is wet and always grasp the plug before connecting or disconnecting it.

## PLACEMENT

### Foreign material -

Care should be taken so that objects do not fall into and liquids are not spilled into the unit. Do not subject this unit to excessive smoke, dust, mechanical vibration or shock.

### Stacking -

Do not place any objects on top of the unit or stack the units on top of each other.

## MAINTENANCE

Clean the case, LCD panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad scouring powder or solvent such as alcohol or benzene.

## SERVICE

The unit should be serviced by qualified personnel when:

- 1 the AC adapter is damaged; or
- 2 objects have fallen in or liquid has been spilled into the unit; or
- 3 the unit has been exposed to rain; or
- 4 the unit does not appear to operate normally or exhibits a marked change in performance; or
- 5 the enclosure has been cracked or physically damaged.

## **WARNING**

TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK; DO NOT EXPOSE THE POWER SUPPLY TO RAIN OR MOISTURE.

THE FOLLOWING NOTICES ARE APPLIED ONLY FOR THE **USA**:

**This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received including interference that may cause undesired operation.**

## **CAUTION!**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet or a circuit different from that to which the receiver is connected.

Consult the manufacturer or an experienced TV radio technician for help.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

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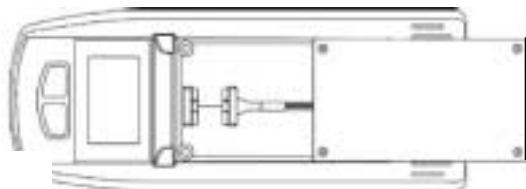
## Unpacking

Open the iQpac box. You will find the iQpac and battery adapter separately packaged. The battery adapter package contains the adapter, a screwdriver and four screws. You will also find a power supply for the iQpac.

You will use the screwdriver and screws to attach the battery adapter to the iQpac.

## Prepare for Operation

### Install the Battery Adapter



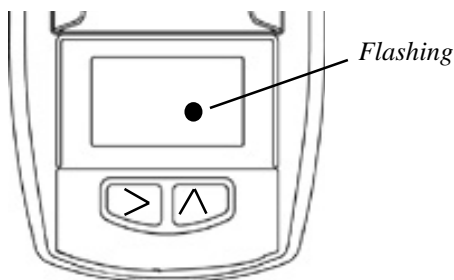
The battery adapter is separately packaged in the carton.

- 1 Attach the adapter plug to the connector in the IQPAC.
- 2 After the connector is firmly seated and locked in place, orient the adapter per the insert diagram that was packaged with your adapter.
- 3 Then, with the screwdriver that was packaged with your adapter, install and tighten the four screws to secure the adapter.

### CONNECT THE POWER SUPPLY

Connect the cable with the round connector to the IQPAC receptacle on the rear of the charger.

Next, plug the power supply into the wall - a flashing dot will appear on the LCD.

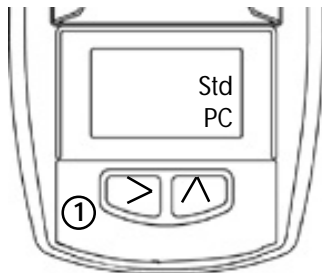


### **Warning:**

*If air temperature exceeds +50°C or 122°F, the IQPAC will display the flashing message “HI° C” and suspend operation until the temperature drops to a safe level.*

## Program the IQPAC Charge System for Your NiCd or NiMH Battery

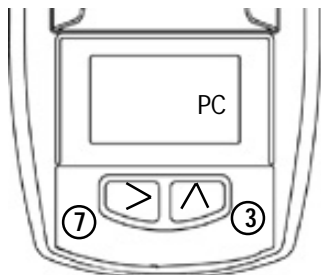
Now you may program the IQPAC for use with your NiCd or NiMH battery. First select the charge system.



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*(PC) Pulse Charge Favored by some for eliminating memory impact and reputedly prolonging life for NiCd batteries. Not recommended for NiMH.*

1. Press > Key.
2. LCD displays your current settings for charge method and rate.

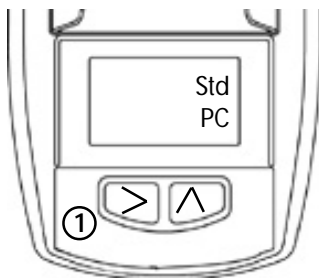


*(CC) Constant Current Charge recommended for use with NiMH batteries.*

3. Press ^ Key.
4. LCD scrolls each time you press the key.
5. The flashing symbols are your current settings for charge rate and charge type.
6. Proceed to your desired charge system (CC or PC).
7. Press the > Key again to select the displayed charge system (CC, PC). This action will also exit the menu.

## Program the iQpac Charge Rate for Your NiCd or NiMH Battery

Continue to program the iQpac for use with your NiCD or NiMH battery.



1. Press **>** Key.
2. LCD Displays the current settings for charge method and rate.



3. Press **^** Key.
4. LCD scrolls each time you press the key.
5. The flashing symbols are your current settings for charge rate and charge type.
6. Proceed to your desired charge rate (Lo or Std or Hi).
7. Press the Left Key again to select the displayed charge rate (Lo/Std/Hi) and exit the menu.

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### CHARGE RATE

*iQpac offers three charge rates for the following battery capacities:*

**LO(500mA):**  
400-999mAh battery

**STD (1000mA):**  
1000-1499mAh battery

**HI (1500mA):**  
1500+mAh battery

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*Determine your battery capacity and select the suitable rate.*

**Ex:**  
Batt. 800mAh  
Use **Lo**

Batt. 1450mAh  
Use **Std**

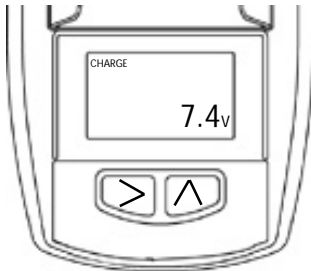
Batt. 1600mAh  
Use **Hi**

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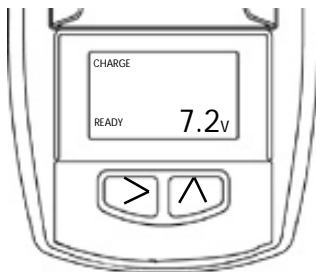
## iQpac Operation

### “Charge” Your Battery

Insert your battery in the iQpac adapter and a charge will begin.



The LCD will display the “CHARGE” operation and the battery volts that are applied during the charge.



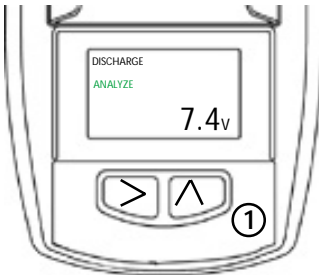
When the battery is fully charged the LCD will display:

1. the “CHARGE” operation,
2. the “READY” message (indicating the battery is fully charged),
3. and the battery volts.

## “Quick Analyze” Your Battery

You will use “Quick Analyze” to charge your battery and also read a display of the capacity that was delivered to that battery.

This display will give you confidence in your battery’s ability to perform well, last for a shift and be reliable in important situations.



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*Some owners always use “Quick Analyze” to know their battery capacity at the end of all charges.*

*Other owners only use “Quick Analyze” when they are concerned about their recent battery performance.*

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Insert your battery in the iQpac and

1. press the ^ Key to begin “Quick Analyze”. You will initially see the messages “ANALYZE” (flashing = Quick), “DISCHARGE” and the battery volts. The “DISCHARGE” will empty the battery prior to the charge cycle.



After the battery reaches one volt per cell, the charge will begin. The LCD will display the “CHARGE” cycle, capacity during charge and the battery volts under charge.

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If your battery capacity reading is less than 90% of the rated capacity - go to “Spec Analyze”.

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When the battery is fully charged and “Quick Analyze” is complete:

The LCD will display:

- the “Ready” message,
- the mAh capacity that was delivered to the battery during the “Charge” cycle,
- and the battery volts.

*Compare this reading to your battery mAh specification to determine the battery’s ability to perform. **If your battery is below 90% of capacity - please consider it to be unacceptable for use and go to “Spec Analyze”.***

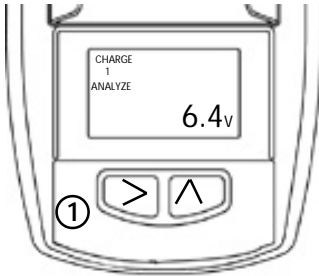
## **Remove the Battery and Miss Your Capacity Reading?**

You can display your battery capacity if you failed to check your display before you removed your battery.

1. Do not put your battery back on the iQpac.
2. Press the **^** key to display the capacity measured during the previous test.

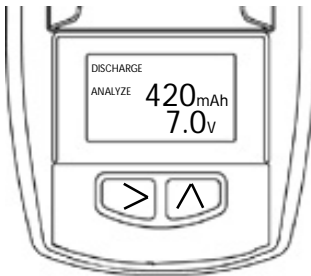
## “Spec Analyze” Your Battery

You will use “Spec Analyze” to compare your battery capacity to the battery manufacturer’s specification - within a 3% tolerance. This measurement is used for battery warranty returns or to determine when to discard your battery.



Insert your battery in the iQpac and

1. press the ➤ Key to begin “Spec Analyze”.  
You will initially see the words “ANALYZE”, “CHARGE” and the battery volts. The charge process will completely charge the battery.



The fully charged battery will then be discharged while the iQpac measures the capacity that was placed in the battery by the prior charge cycle.



After the discharge, the battery will be charged again so it is ready for your use.



*Final Display*

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*Standard practice considers the battery to be unacceptable for use when it falls below 80% of the rated mAh. If your battery is relatively new, most battery pack manufacturers will accept your battery for warranty replacement with this measurement.*

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The LCD will freeze the display of the final capacity of the analyzed battery prior to and during the final charge cycle and when the battery is “READY”.

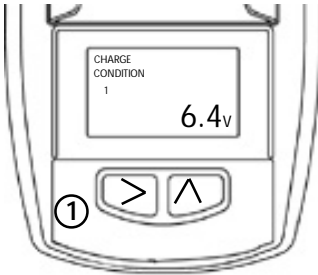
## **Remove the Battery and Miss Your Capacity Reading?**

You can display your battery capacity if you failed to check the display before you removed your battery.

1. Do not put your battery back on the iQpac.
2. Press the **^** key and display the capacity measured during the previous test.

## “Condition” Your Battery

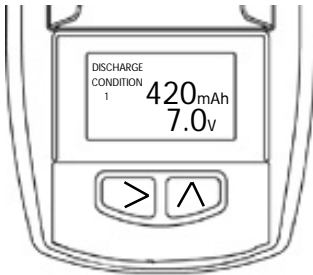
You will use “Condition” after long periods of storage (3 months or more) or to restore available capacity.



Insert your battery in the IQPAC and

1. press the > and ^Keys at the same time to begin “CONDITION”.

You will initially see the words “CONDITION”, “CHARGE” and the battery volts. The charge process will completely charge the battery.



The fully charged battery will then be discharged while the iQpac measures the capacity that was placed in the battery by the prior charge cycle.

The process will repeat and the Cycle count “2” will appear on the display during the charge/discharge.



After the final discharge, the battery will be charged again so it is ready for your use.

Standard practice considers the battery to be unacceptable for use when it falls below 80% of the rated mAh. If your battery is relatively new, most battery pack manufacturers will accept your battery for warranty replacement with this measurement.



### Final Display

The LCD will freeze the display of the final capacity of the conditioned battery prior to and during the final charge cycle and when the battery is “READY”.

## Remove the Battery and Miss Your Capacity Reading?

You can display your battery capacity if you failed to check the display before you removed your battery.

1. Do not put your battery back on the iQpac.
2. Press the  $\wedge$  key and display the capacity measured during the previous test cycles.

## **Capacity Restored**

During “CONDITION”, the discharge process is the step that removes battery crystals and restores capacity.

Most batteries are conditioned by this process.

You will know if your battery is successfully conditioned when the charge is complete. If the displayed capacity is 5% higher than your battery’s rated capacity - the conditioning was a success.

## **Specifications**

### **Electrical**

AC Input:	115VAC +/-10% 60Hz 230VAC +/-10% 50Hz
Chg/Dsg Rate:	Selectable 500/250, 1000/500, 1500/750mA
Mnt. Rate:	C/30
Batt. Cells:	2-8 cells
Batt V:	2.4.6-9.6VDC

### **Controls**

Charge:	Default Activated
Keypad:	Two-key
Functions:	Pulse Conditioning Charge Constant Current Charge Quick Analyze Spec Analyze Condition

### **Mechanical & Other**

Cooling:	Fan
Dimensions:	9.4"l x 3.5"w x 2.7"h
Weight:	2.0 lbs.
Display:	Custom LCD Condition, Analyze, Charge, Discharge, Cycle #, Volts, mAh, Lo/Std/Hi, CC/PC
Agency Approvals:	UL, FCC, CSA, CE, CB

## **For Help or Further Information**

**YOU MAY CONTACT iTECH BY WRITING, FAXING  
OR CALLING:**

Product Support:

iTECH,

9454 Waples Street,

San Diego, CA 92121 USA

Phone: (858) 458-1500, x 2111

(800) 233-6868, Option 1

Fax: (858) 458-1798

email: techsupport@itecheng.com

Website:www.itecheng.com

If you need help with your iQpac product, you need to provide the following information:

Your battery adapter model and the iQpac serial number; the manufacturer/ brand and model number of your battery.

### **ADDITIONAL INFORMATION**

iTECH will also be pleased to discuss your observations and develop or quote iQpac products with special features for special requirements, including unique battery formats and special configurations. In this case, please address your communication or make your call to the attention of Product Marketing at the same fax, phone and address as above.

## **WARRANTY**

iTECH warrants the iQpac equipment against defects in material and workmanship for a period of three years from date of original purchase. The battery adapter is covered for one year.

This warranty covers all parts. This warranty does not cover finish and appearance. This equipment, if found defective with regard to its workmanship or materials, and if returned to iTECH's factory during the warranty period, will be repaired at that factory.

## **WARRANTY CONDITIONS**

**1. Registration:** Warranty only extends to the purchaser. The registration card included with this product should identify the purchaser and be mailed within 10 days, to:

iTECH

9454 Waples Street,

San Diego, CA 92121 USA

Phone: (858) 458-1500, x 2111

(800) 233-6868, Option 1

Fax: (858) 458-1798

email: techsupport@itecheng.com

Website: www.itecheng.com

**2. Unauthorized Repair or Abuse:** The equipment must not have been tampered with, modified, or abused; attempted service by anyone other than iTECH employees or authorized iTECH service representatives will void the warranty. The serial numbers must be intact.

**3. Shipment:** For warranty repair: Contact the above with your product serial number and the failure details. After you receive a RMA, send your iQpac to iTECH (properly packaged) along with a copy of the RMA number on the package and a detailed description of the problem. You pay the freight to iTECH and we pay the return freight to you. In order to ensure prompt service, please call iTECH before sending your product.

This warranty only covers the iQpac product and is not extended to associated equipment or accessories. Seller disclaims and excludes from its warranty any liability for incidental or consequential damages arising from the use of this product. Some states do not allow limits on how long an implied warranty lasts, or upon the recovery of incidental or consequential damages, so the above limitations and exemptions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If you have any dissatisfaction with our products or service, please contact iTECH.

