The charger is designed to charge NiCd and NiMH rechargeable batteries only.
Get Started

Step 1: Plug the +3.0V 4A AC cord to an outlet then into the battery charger.

Step 2: Insert the battery/batteries to be charged within 8 seconds. “Charge” (default mode) and the battery voltage will show.

Step 3: Allow charger to sit for several hours to charge the batteries.

Change Operation Mode and/or Charging Current

1. Hold then press and release the MODE button within 8 seconds of inserting batteries to change modes. (Charge, Discharge, Refresh or Test can be selected).

2. Press the CURRENT button within 8 seconds of the last action to select the charging current. (200, 500, 700 or 1000 mA may be selected).

   **Note:** 1500 & 1800 mA can only be selected if one or two batteries only are charged (bays 1 & 4 only).

3. After 8 seconds from last button press, the display will blink once and the batteries will start charging.

   **Note:** The charging current can no longer be changed. You can reset the current by taking out all the batteries out and repeat the above steps

4. Press the DISPLAY button to view various display modes.
### Various displays (toggled by pressing DISPLAY button)

<table>
<thead>
<tr>
<th>Stage in Charge mode</th>
<th>Voltage (V)</th>
<th>Current (mA)</th>
<th>Time (hh:mm)</th>
<th>Capacity (mAh/ Ah)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During charging</td>
<td>Instantaneous battery voltage</td>
<td>Charging current</td>
<td>Charging time elapsed</td>
<td>Accumulated capacity</td>
</tr>
<tr>
<td>Full stage</td>
<td>Trickle charging current</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Although the individual charging bays can be operated in different modes, the charging current of the second, third and fourth charge bays cannot be set higher than that of charging bay 1.

### Operating Modes (Charge, Discharge, Refresh, Test)

Regardless of operation mode, the batteries will end up fully charged.

- **Charge:** Charge up the rechargeable battery (it will automatically switch to trickle charge after rechargeable battery is full).
- **Discharge:** Discharges the rechargeable battery then charges it one time to minimize any memory effect.
- **Refresh:** Batteries will be discharged and recharged up to 20 times or until the charger cannot remove additional charge. The battery will receive a final charge and has reached its capacity. For old rechargeable batteries or those have not been used for a long times, refreshing may bring the rechargeable battery back to the optimum condition.
- **Test:** Batteries are charged to full, then discharged to measure capacity, then recharged to full. Capacity is measured in Ah/mAh.

**Note:** In Discharge, Refresh and Test modes, the discharge current will be half of charging current selected.
Trickle Charging

- After the rechargeable battery is fully charged in any of the operating modes, the charger will give a small amount of current to the rechargeable batteries to maintain the fully charged level.
- Trickle charge is automatically launched when rechargeable batteries are fully charged and kept at the charging unit.
- The signal “Full” will be displayed on the LCD.

Charge four batteries with different modes at the same time

Example: Two batteries at charge mode, one at discharge mode and one at test mode.
1. Plug the AC power cord to the power source.
2. Insert the two batteries for charging in bays 1 & 2
3. “Charge” will be displayed in the LCD as Charge mode is the default mode.
4. Within 8 seconds:
   - Press the CURRENT button to select the charging current at 200, 500 or 700 mA.
   - After 8 seconds, the display will blink once to confirm and end changes.
5. Insert the third battery for “Test” in bay 3.
6. Within 8 seconds:
   - Press the BAY 3 button. The No. 3 display will flash.
   - Press the MODE button to select the “Test” mode.

Note: Press the BAY 3 button before pressing the MODE button; or the mode of all bays will be changed at the same time.
- Press the CURRENT button to select the charging current in the test mode: 200, 500 or 700 mA.
After 8 seconds, the display will blink once to confirm and end changes.

7. Insert the fourth battery for “Refresh” into bay 4.
   - Press the BAY 4 button. The No. 4 display will flash:
   - Press the MODE button to select the “Refresh” mode.

**Note:** Press the BAY 4 button before pressing the MODE button; or the mode of all bays will be changed at the same time.

   - Press the CURRENT button to select the discharge current in the refresh mode: 100, 250 or 350 mA.
   - After 8 seconds, the display will blink once to confirm and end changes.

Different display modes are exhibited:
Charging current, Time, Voltage and Capacity

8. The “Full” sign will be displayed once the battery is fully charged from any operating mode.
Charging 2 batteries at charging current of 1500 or 1800 mA

1. Plug the AC power cord to the power source.
2. Insert the two batteries within 8 seconds to compartments 1 & 4 only:

   Charging current can be set at 1500 or 1800 mA when only two batteries are charged in compartments 1 and 4.

3. “Charge” will be displayed in the LCD as Charge mode is the default mode.
   - Press the CURRENT button to select the charging current at 1500 or 1800 mA
   - After 8 seconds, the display will blink once to confirm and end changes.

   ![Display showing charging current](image)

   This display will blink once and charging starts

   Once charging has started, the current can no longer be changed. The user can then change the current only by taking out all the batteries out and repeating the above steps.

4. “Full” sign (or trickle charge current) will be displayed once the battery is fully charged.

Determine Current Battery Voltage

1. Insert the battery into the charger.
2. Press and release the DISPLAY button until V (voltage) and a number show in the display.
3. The number will be the current voltage of the battery.

**Note:** This is not the capacity of the battery but only the current voltage. To check capacity use the Test mode.

**Determine Battery Capacity**

The battery charger determines the capacity of a battery by counting the amount of power removed from a fully charged battery.

During the Test mode the rechargeable batteries will be:

- Charged fully
- Discharged to determine the battery capacity
- Charged fully again for use.
- The discharge capacity in (mAh) or (Ah) will be estimated and shown after the discharging ends.

**Note:** Once the discharge cycle is done, the discharge capacity reading will not change as the battery is fully charged again.

**TEST MODE:** Insert the battery for “Test” into the charge bay.

Within 8 seconds:
1. Press the BAY button. The corresponding will flash.
2. Press the MODE button to select the “Test” mode.
3. Press the CURRENT button to select the charging current in the test mode: 200, 500 or 700 mA.
4. After 8 seconds, the display will blink once to confirm and end changes.
5. The discharge capacity in (mAh) or (Ah) will be estimated and shown after the discharging ends.

<table>
<thead>
<tr>
<th>TEST MODE Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>User-selected Charging current</td>
</tr>
<tr>
<td>Thereafter Discharging current</td>
</tr>
</tbody>
</table>
When to Discharge/Refresh Batteries

1. If you use a radio or camera for short times then recharge the batteries, it is best to use the Discharge/Refresh cycle occasionally to refresh the battery.
   Note: Discharge current will be half of charging current selected.

2. Old rechargeable batteries that do not seem to be charging should be refreshed. The Discharge/Refresh cycle will discharge then charge the battery up to 20 times or until the charger cannot remove more capacity from the battery in discharge mode, it will charge the battery full, and complete the refresh cycle.
   Note: Discharge works best after the batteries have been used under load at least 5-10 times.

<table>
<thead>
<tr>
<th>DISCHARGE MODE Current</th>
<th>100 mA</th>
<th>250 mA</th>
<th>350 mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>User-selected Discharging current</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thereafter Charging current</td>
<td>200 mA</td>
<td>500 mA</td>
<td>700 mA</td>
</tr>
</tbody>
</table>

New Batteries do not show Full Capacity & Charger says FULL.

- Rechargeable batteries improve capacity over time.
- Charge batteries before their first use or after a long storage.
- Then, use the batteries in a device (under load), charge them, use them, charge them, 5-10 times before “refreshing” the batteries.

000 on the display

- If you are looking at Time Elapsed (h) and you just put batteries in, you will see 0.00.
- When an overheating condition occurs (usually due to too high of a charging current selected), the
charging will be stopped immediately and the display will show “000 mA”.

- The charging process will only resume once the temperature of the rechargeable batteries drops to a safe level.
- If overheat conditions continue to occur, the rechargeable batteries shall be taken out to cool down and then charged at a lower current.

When the battery is overheated the charging ceases automatically. “000 mA” will be displayed.

### Display Readings

**Milliamp: “mA”** is the charging current or speed of charge in that charge bay.

**Milliamp hours: “mAh”** is the capacity of the battery or the amount of charge added to a battery.

- If a 2600mAh capacity battery is already half full when you charge it you will not add 2600mAh of capacity to the battery.

**Amp hours: “Ah”** is the capacity of the battery or the amount of charge added to a battery.

- When the battery charger shows values above 1999mAh, it changes to Amp hours.
- When the mAh (Milliampere hour) reaches 2000 the display switches to Ah (Ampere hour) by moving the decimal point.
- One mAh is 1/1000 of an Ah.

**Time elapsed: “h”**. Shows the charging time.

**Voltage: “V”**. Measures battery voltage.

**NULL:** Will show when:
- No battery is in the charging bay.
• The battery is below .9 volts and the charger thinks the battery is damaged so will not charge it.
• You may want to invest in a small charger/holder that will bring the battery back above .9v when attached for 20-30 seconds.
• The battery can then be charged in our charger.

**FULL:** Will show when the battery has completed its charging cycle. The FULL display may alternate with a trickle charge display.

### Various displays in Charge Mode

<table>
<thead>
<tr>
<th>Stage in Charge mode</th>
<th>Various displays (toggled by pressing DISPLAY key)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Voltage (V)</td>
</tr>
<tr>
<td>During charging</td>
<td>Instantaneous Battery voltage</td>
</tr>
<tr>
<td>Full stage</td>
<td>Trickle charging current</td>
</tr>
</tbody>
</table>

### Various displays in Discharge Mode

<table>
<thead>
<tr>
<th>Stage in Discharge mode</th>
<th>Various displays (toggled by pressing DISPLAY key)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Voltage (V)</td>
</tr>
<tr>
<td>During discharging</td>
<td>Instantaneous Battery voltage</td>
</tr>
<tr>
<td>During charging</td>
<td>Charging current</td>
</tr>
<tr>
<td>Full stage</td>
<td>Trickle charging current</td>
</tr>
</tbody>
</table>
### Various displays in Refresh Mode

<table>
<thead>
<tr>
<th>Stage in Refresh mode</th>
<th>Various displays (toggled by pressing DISPLAY key)</th>
<th>Voltage (V)</th>
<th>Current (mA)</th>
<th>*Time (hh:mm)</th>
<th>Capacity (mAh/ Ah)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During discharging processes</td>
<td>Instantaneous Battery voltage</td>
<td>Discharging current</td>
<td>Discharging time elapsed</td>
<td>Capacity during discharging</td>
<td></td>
</tr>
<tr>
<td>During charging processes</td>
<td>Instantaneous Battery voltage</td>
<td>Charging current</td>
<td>Charging time elapsed</td>
<td>Capacity determined in last time discharging</td>
<td></td>
</tr>
<tr>
<td>Full stage</td>
<td>Instantaneous Battery voltage</td>
<td>Trickle charging current</td>
<td>Elapsed time of last discharging</td>
<td>Maximum battery capacity determined in discharging</td>
<td></td>
</tr>
</tbody>
</table>

### Various displays in Test Mode

<table>
<thead>
<tr>
<th>Stage in Test mode</th>
<th>Various displays (toggled by pressing DISPLAY key)</th>
<th>Voltage (V)</th>
<th>Current (mA)</th>
<th>*Time (hh:mm)</th>
<th>Capacity (mAh/ Ah)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During charging</td>
<td></td>
<td>Charging current</td>
<td>Charging time elapsed</td>
<td>“--- mAh”</td>
<td></td>
</tr>
<tr>
<td>During discharging</td>
<td>Instantaneous Battery voltage</td>
<td>Discharging current</td>
<td>Discharging time elapsed</td>
<td>“--- mAh”</td>
<td></td>
</tr>
<tr>
<td>During 2nd charging</td>
<td>Instantaneous Battery voltage</td>
<td>Charging current</td>
<td>2nd charging time elapsed</td>
<td>Capacity of the battery determined in discharging</td>
<td></td>
</tr>
<tr>
<td>Full stage</td>
<td>Trickle charging current</td>
<td>Discharging time elapsed</td>
<td>Capacity of the battery determined in discharging</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Insert AAA batteries

- Look for a narrower silver curve, below the AA battery connection.
- Slide the negative end of the AAA battery back so that it is laying in this narrow curve and the press down on the positive end of the battery until it is flat in the charging bay.
- The battery will catch the clip that holds the AAA batteries.

Can I Charge or Test other types of batteries?

- The BC1000 is designed to be used with NiCd (Nickel Cadmium) or NiMH (Nickel Metal Hydride) batteries only.
- Charging other types of batteries may damage the charger or the batteries.

Note: Some brands of NiMH rechargeable batteries require a specific type of charger. Please look on the specific battery packaging for this information.

How long does it take to charge batteries?

Charging time varies depending on capacity, depletion of a battery and charging current selected.

<p>| Table 1. Charging Time with various charging current |
|-------------------------|-------------------------|-------------------------|</p>
<table>
<thead>
<tr>
<th>Size of battery</th>
<th>Battery Capacity</th>
<th>Charging current selected (mA)</th>
<th>Estimated charging time</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>2600 mAh</td>
<td>1800</td>
<td>~80 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1500</td>
<td>~100 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000</td>
<td>~2 h 30 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>700</td>
<td>~3 h 30 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500</td>
<td>~5 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200</td>
<td>~13 h</td>
</tr>
<tr>
<td>AAA</td>
<td>1000 mAh</td>
<td>700</td>
<td>~70 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500</td>
<td>~100 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200</td>
<td>~5 h</td>
</tr>
</tbody>
</table>

Model: BC1000       www.lacrossetechnology.com/support
Cautions

1. The charger is restricted to charging NiCd and NiMH rechargeable batteries only. Never adapt this charger to other types of batteries such as alkaline, lithium, carbon zinc or other types that are not specified.
2. The charging unit shall only be used only at normal indoor room conditions.
3. Always follow the charging instructions for the rechargeable battery. Observe the recommended charging current of the rechargeable batteries.
4. Never use any power cable and transformer other than those originally supplied with the charging unit.
5. The rechargeable batteries may become hot during charging (especially when high charging current is chosen). Take extra care when taking out the batteries after charging.
6. Unplug the charging unit from the power source when not in use.

Care and Maintenance

- The manufacturer and supplier cannot accept any responsibility for any improper or incorrect use and any consequences occurred.
- Any performance of repairs or alternations by someone other than the original supplier will invalidate the warranty.
- This product is only designed to be used by people who have read and understood this instruction manual.
- The specifications of this product may change without prior notice.
- This product is not a toy. Keep out of the reach of children.
- Do not mix old and new batteries
- Do not mix Alkaline, Standard, Lithium or Rechargeable Batteries
- Always purchase the correct size and grade of battery most suitable for intended use.
- Replace all batteries of a set at the same time.
Clean the battery contacts and also those of the device prior to battery installation.

Ensure the batteries are installed with correct polarity (+ and -).

Remove batteries from equipment with is not to be used for an extended period of time.

Remove used batteries promptly.

Only use rechargeable NiCd or NiMH batteries in this charger.

### Specifications

<table>
<thead>
<tr>
<th>Input voltage for AC/DC adapter:</th>
<th>100-240 VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output voltage for AC/DC adapter:</td>
<td>+3.0V 4A</td>
</tr>
<tr>
<td>Charging current range:</td>
<td>200 mA - 700 mA</td>
</tr>
<tr>
<td>Max charging capacity</td>
<td>3000 mAh</td>
</tr>
<tr>
<td>(capacity of rechargeable batteries):</td>
<td></td>
</tr>
<tr>
<td>Dimensions (L x H x W) of Charging unit:</td>
<td>2.95” x 5.11” x 1.57”</td>
</tr>
<tr>
<td></td>
<td>(75 x 130 x 40 mm)</td>
</tr>
</tbody>
</table>

### Warranty and Support

La Crosse Technology, Ltd. provides a 1-year limited time warranty (from date of purchase) on this product relating to manufacturing defects in materials & workmanship.

Before returning a product, please contact our friendly customer support with questions or visit our online help (manuals and FAQS):

### Phone:
1-608-782-1610

### Online Product Support: www.lacrossetechnology.com/support

### Product Registration:
www.lacrossetechnology.com/support/register

### View full warranty details online at:
www.lacrossetechnology.com/warranty_info.pdf

### Warranty Address:
La Crosse Technology, Ltd
2830 S. 26th St.
La Crosse, WI 54601