

Youshiko



----- YC1600 -----

Youshiko YC1600 Intelligent battery charger
User Manual

**Please carefully read the instruction
before using.**

INSTRUCTION MANUAL

Features

1. Big backlit LCD display indicates the charge level for each battery individually.
2. 16 independent charging circuits: enables individual charging and single slot monitoring of 1-16 rechargeable NiMH / NiCd batteries only in any combination of sizes AA / AAA.
3. Patented technology – allows you to charge batteries of different sizes or capacities simultaneously.
4. Automatic charge selects the suitable charging current for AA and AAA batteries automatically.
5. Unique discharge (via refresh Button) function – allows you to refresh the batteries before the charging process
6. Reverse polarity protection.
7. Over heat Protection.
8. Protects batteries from damage when batteries are inserted incorrectly.
9. Automatic shut-off by safe timer after 6 hours.
10. The special automatic shut-off circuit senses when batteries are fully charged & automatically terminates charging.
11. AC Adapter and DC Cord – powered by an external AC adapter for indoor use or by a 12V DC car adapter for use with the car cigarette lighter while you are traveling.
12. GENIUS intelligent microprocessor optimizes the charge process and maximizes the life battery.
13. Minus Delta V Detection – maximizes the charging capacity and allows you to fully charge batteries.

OPERATION - Charging AA / AAA rechargeable batteries

A. Power input:

1. For indoor use only! Plug the enclosed AC power adapter into the jack on the back of the charger. Then connect the AC adapter to an electrical outlet.
2. For car usage: connect the optional DC car cord to the vehicle's cigarette lighter without the charger attached and then connect the charger to the other end of the DC car cord.

B. Charging batteries:

1. Insert 1-16 AA/AAA NiMH/NiCd batteries into the battery slots according to the attached polarity symbols (+/-).
2. Press the Refresh button to discharge the batteries; the battery icon keeps shifting up and down during discharging process.
3. When the batteries are fully discharged, the battery icon stops and shift to charging automatically and displays the battery capacity during charging.
4. The flashing full battery icon indicates abnormal batteries, such as bad batteries or alkaline batteries; in this case the charger will stop charging. When batteries are bad, it will not charge and show ERROR. **ERROR**
5. With all good and normal batteries charger will keep charging and when the batteries are fully charged, the full battery icon flash up.
6. When charging is completed, unplug the charger from the outlet and then remove the batteries from the charger.

Specification -----





Input: 12V==2000mA
Output: AA: 1.2V==500mA
AAA: 1.2V==250mA
Discharge current: 200-300 mA
Battery type: Ni-MH rechargeable batteries
Ni-CD rechargeable batteries

Charging times -----

Battery Capacity	Charging Time 1-16 PCS
AAA 700mAh	3.3 hrs
AAA 900mAh	4.3 hrs
AA 1500 mAh	3.9 hrs
AA 1600 mAh	4.2 hrs
AA 1800mAh	4.6 hrs
AA 2000mAh	5.2 hrs
AA 2300mAh	6.0 hrs

The charging time is just for reference, and the other battery capacity can be calculated in the same way.

LCD Indicator

LCD Indicator	Status
	Charging
	Discharging
 (Solid)	Fully charged
 (Flashing)	Charging in progress

IMPORTANT SAFETY PRECAUTIONS

Please keep this user manual safe for future reference

Please observe the following safety instructions when using the charger

1. Never try to open the case of the charger or attempt your own repairs. High-voltage internal components create the risk of electrical shock when exposed.
2. Please do not leave the charger unattended while charging.
3. Keep the product away from water or other liquids. Moisture on the device may cause fire or electric shock!
4. Should you ever notice smoke or an unusual smell coming from the charger, unplug the AC adapter from the power outlet immediately.

AC ADAPTER SAFETY PRECAUTIONS — — — — —

1. Never connect to an outlet with a voltage outside the rating that is indicated on the AC adapter. Use only the provided with the charger, AC adapter or the DC car adapter cable for charging.
2. Please make sure that the AC Adapter power cord is not cut or damaged and do not place heavy objects on it.
3. Never try to modify the AC adapter power cord and do not bend, twist or pull.
4. Never touch the AC adapter with wet hands.
5. Do not overload extension cords or wall outlets.
6. For indoor use only, do not expose the charger to rain or snow.
7. To avoid damage to the outlet or the cable, pull out the plug, not the cord when disconnecting the unit from electric supply.
8. Make sure the cord is located properly so that no one will step on it or trip over it.
9. To reduce the risk of electric shock, unplug the charger from the outlet before cleaning it or when not in use.
10. Do not use solvents to clean the device. It may cause damage to the surface and the plastic parts. Clean the unit gently with a soft, dry cloth only.
11. Keep out of reach of children.

Battery SAFETY Precautions — — — — —

Improper use thereby handling of batteries may cause leakage or explosion and can cause serious damage to the charger.

Please note the following important safety precautions to prevent problems with batteries:

1. Please use only NiMH or NiCd AA or AAA rechargeable batteries with this charger.
2. Do not charge any other kind of batteries as specified – they may burst and cause personal injury and damage.
3. Always make sure that the plus (+) and minus (-) polarity of the batteries are facing correctly, according to the polarity symbols (+/-) on the charger. Incorrect polarity can cause explosions or fire.
4. Do not expose batteries to direct heat and do not burn them. Doing so may cause explosions.
5. Do not operate the charger at outside temperatures above 40°C; otherwise it may cause electrolyte leakage, overheating or damage the battery.
6. While discharging process the batteries usually get very warm.
7. If ever electrolyte gets in your eyes, immediately wash it with running cold water and consult a doctor.
8. Please recycle used batteries by bringing them to an appropriate collecting point, or return them to your vendor – this will help to protect our environment.



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