



**Instruction Manual for
JUICE's Multi-Battery Charger**

Congratulations on the purchase of JUICE's Multi-Battery Charger Kit. The Multi-Battery Charger Kit with microprocessor controls, 'Safe-Charge' technology, provides all the Alkaline and NiMH power you need. JUICE nickel metal hydride (NiMH) batteries have been specifically designed for use in digital cameras. JUICE rechargeable alkaline (RAM) can be used in any application where you would use disposable and rechargeable alkaline batteries (RAM). Please read this manual carefully as it contains important operating instructions.

Warranty

JUICE chargers are warranted to be free of manufacturing defects for 5 years from the date of purchase. This warranty does not include damage resulting from misuse. If the product proves defective during this period it will be replaced or repaired send postage paid to:

Winner International Inc.
32 West State Street
Sharon PA 16146
or contact sales@winner-intl.com
For further information, call
Winner International Inc. Toll Free:
Winner International Inc.
1-800-527-3345



ENVIRONMENTALLY FRIENDLY:
0% Mercury and 0% Cadmium.
Plus, extended use means fewer throwaways.

I. How to install / insert batteries in charger

1. Open lid with push button.
2. Install battery, negative (-) end into position first, and snap positive (+) end into position next.
3. Close lid & plug wall adapter into electrical outlet.

II. Charger Features

1. Corded type charger with 120V AC wall adapter.
2. Charge 1 to 4 batteries of AA or AAA rechargeable RAM or NiMH batteries (Note: charges NiCd batteries as well, but JUICE doesn't promote the use of batteries that use the extremely toxic Cadmium compound).
3. Fully automated battery chemistry identification via built in microprocessor – no switches or selector buttons needed.
4. Equipped with 4 individual charging channels – each channel is controlled separately; therefore, RAM and NiMH can be charged simultaneously, as well as AA and AAA.
5. Damaged and old battery detection.
6. Single-use battery detection & rejection.
7. Reverse polarity protection – rejects batteries inserted w/ reverse polarity.
8. Short circuit protection – stops charging, if charger terminals would be shorted w/ metal objects (i.e. wires, screw driver, etc.).
9. Overvoltage protection.
10. Four Dual color LED's indicate charge progress for each channel separately.
11. Safe and convenient charge

III. Charge Instructions

1. Charge 1 to 4 AA or AAA batteries at any time
2. Open lid by pressing down on the button at top of charger.
3. Insert batteries into charge slot with proper polarity (+/-); insert negative end first and snap positive end into position.
4. Connect wall adapter with its corresponding plug to the charger and plug it into electrical outlet, 120V AC, 60 Hz. Charger performs a self-test indicated by the 4 LED lighting up green and going out again. With no batteries in the charger, the LED's will light up for 1 second and turn off. In case batteries are already in position, the LED's will light up for 1 second and then continue flashing green indicating charge in progress. LED's will turn solid green, when batteries are ready to use.

Best charge is obtained by convenient overnight charging. Note that batteries and charger can become hot during charging, which is normal.

5. The LED indicator will turn red during the charge process, if a defective/damaged battery is diagnosed by the micro-processor, or a non-rechargeable primary battery is being attempted to charge. If the red LED comes on for RAM or NiMH, this would indicate that these particular batteries have reached their end of useful life or will get weaker and new batteries should be purchased.
6. Once charging is complete, unplug the charger from electrical outlet and remove batteries.

For best performance, use only JUICE's RAM and NiMH batteries.

IV. Charge Times

Chemistry/Type	AAA	AA	Capacity Rating
Rech. Alkaline	2-3 hrs	5-8 hrs	800mAh for AAA, 2000mAh for AA
NiMH	2-3 hrs	5-8 hrs	800mAh for AAA, 2000mAh for AA
NiCd	1 hr	2-3 hrs	280mAh for AAA, 700mAh for AA

Note: Faster charge times w/ not fully discharged cells and lower capacity cells.

V. Electrical Specifications

Adapter Input Voltage	Adapter Output Voltage	Adapter Output Current	Charge Current per cell (4 cells)	Maintenance Current per cell (4 cells)
AC 120V + 10%	3 V	2000 mA	325 mA + 50 mA	25 mA + 5 mA

VI. Caution

1. Charge only Rechargeable Alkaline (RAM), Nickel Metal Hydride (NiMH) and Nickel Cadmium (NiCd) batteries. otherwise may lead to a risk of fire, electric shock or personal injury.
2. Do not charge other types of batteries such as Disposable Alkaline, Zinc carbon, Nickel Zinc, Lithium or any other type not specified as they may leak or burst, causing personal injury and damage.
3. Never use an extension cord or any other attachment not recommended by JUICE, otherwise may lead to a risk of fire, electric shock or personal injury.
4. Unplug the charger from the outlet before attempting to clean or when not in use.
5. Do not wet, incinerate or disassemble the charger and batteries.
6. Indoor and dry location use only. Do not expose charger to rain, snow or extreme conditions.

VII. Troubleshooting

1. Charger's LED changes from green flashing to red – what do I do?

- a. The charger will signal red if the microprocessor measures an irregular battery response during the charging progress. This will typically happen when the batteries get older and 'worn out' indicating that it is time to replace the batteries and purchase a new set, or non-rechargeable primary batteries are being attempted to charge by mistake.
- i. Check to ensure that rechargeable alkaline (RAM), nickel metal hydride (NiMH) or nickel cadmium (NiCd) batteries are in the charger and not primary, non-rechargeable batteries.
- ii. RAM batteries: Batteries will show red LED's after they have been cycled for their useful life and batteries show internal shorting. There will be still remaining capacity in the batteries, but it is time to get a new set for better performance.
- iii. NiMH batteries: Again, batteries will show a red LED's after they have been cycled for their useful life and batteries show internal shorting. There will be still remaining capacity in the batteries, but it is time to get a new set for better performance.
- iv. Some NiMH batteries can also show a red LED, if you attempt to 'double charge' (charge batteries more than once in a row without using them) already charged batteries; this is a part of the over voltage protection program. In this case, batteries will have regular capacity on discharge and will show regular green LED the following charge.

2. Irregular green flashing or no green light at all – what do I do?

- a. If a battery shows an irregular green flashing profile, it indicates that the battery chemistry is not stable and these batteries may have been abused or have problems due to other reasons. These batteries will not charge up efficiently and provide poor capacity in use. It is recommended to replace these batteries with new ones.
- b. If the green light does not come on at all, after the battery is inserted, they have to be replaced with new ones. No charging is possible at all.

3. Green LED doesn't stop flashing – what is the reason for that?

- a. After many charging cycles, it is possible that the battery contacts in the charger get dented in and shorter batteries would not make very good contact. Check for loose contact of batteries; correct by bending negative contact back out w/ tweezers or pliers. Clean contacts as well.

4. Batteries show green, but will not work in device – what is the reason for that?

- a. Old batteries could show green LED as the fully charged voltage level is properly reached, but the impedance (internal resistance) of the battery maybe already too high to operate the device. In this case the batteries should be replaced with new ones.