# Please read these instructions carefully before using this product.

# SPEED HOUSE AA/AAA NIMH USB Charger



1.2V AA/AAA NiMH battery auto-cut quick charger

Thank you very much for purchasing the SPEED HOUSE AA/AAA NIMH USB Charger. For your safety, please carefully read this manual before use and follow the instructions correctly.

# Safety Precautions

- Charger and batteries can be hot while charging, be careful not to burn yourself, and use the charger away from inflammables.
- Improper operation can damage the equipment and the batteries causing leak, intense heat and
- If you are not used to using rechargeable batteries, seek advice from experts to use them safely.

# DANGER Failure to follow these instructions can result in high risk of death or injury.

- •Use NiMH batteries having capacity of 700mhA or more, and charge them correctly.
- •Do not use the charger for any purposes other than charging NiMH batteries.
- Do not insert needles or metal pieces into the charger or connect to the output terminals.
- •Do not put the charger in water or salt water. Do not operate with wet hands or charge wet batteries.
- Do not disassemble or modify.
- ●Use USB compliant power source only. Never connect to a power supply with output voltage higher than 9V.



# $\sqrt{\P}\setminus$ WARNING Failure to follow these instructions can result in high risk of death or injury.

- •Make sure that the polarity is correct before inserting batteries.
- •Do not cover the charger or battery with a towel or blanket.
- •Do not charge near flammable materials or plastics that can ignite or deform from heat.
- •Do not charge batteries when it is hot or immediately after use.
- Do not use the charger if you notice any abnormality.
- ●Do not charge batteries longer than 3 hours. If charging does not finish within 3 hours, stop charging and check batteries.
- Do not charge fully charged batteries.
- Do not use the charger in a car.

## CAUTION Failure to follow these instructions may result in accidents, injury or damage.

- Charge batteries in an ambient temperature of -10°C 40°C.
- Do not use under direct sunlight.
- •Always monitor the charger while it is in operation.
- Do not use continuously.
- Always remove batteries after charging.
- •Do not drop or apply an impact.
- Do not store in a damp or dusty environment.
- Keep out of reach of children.

#### **Specifications**

Input Voltage and Current: DC 5 - 9V/1.5A or more

Max Charging Power: 10W

Max Charging Current: 1.0A/slot

Battery size and type:

AA/AAA NiMH (Nickel Metal Hydride)

Operating Temperature:  $-10^{\circ}$ C -  $40^{\circ}$ C Dimensions (L x W x H):  $63 \times 59 \times 25$ mm

Weight: 36g

Accessories: Micro USB/Type-A USB cable

# Micro USB port for power input AAA battery negative terminal AAA battery negative terminal Positive terminal Left most slot is channel 1

#### How to Use

- ①Connect the supplied micro USB cable to the input port. (Note the direction.)
- ②Connect the other side of the USB cable to a USB power supply. (1.5A or more recommended.)
- ③In the case of an AC adapter, connect it to an AC power outlet. In the case of a PC or a mobile battery, turn the power on.
- ④Insert AA and/or AAA NiMH batteries in any slot of the charger. Any slot combination can be used. Always make sure that the polarity is correct.
- (5) When charging starts, LED indicator of each slot blinks blue. Charge starts with single-blink or double-blink when the voltage is low, and it will become triple-blink when the voltage becomes stable.
- (6)When the charge completes, the LED turns to sold green. Remove batteries immediately.

This charger charges battery of each slot independently and safely even if the capacity or size of battery is different on each slot.

# System Self-Check Function

This charger has a self-check function that runs automatically when connected to a power source. Each LED indicator briefly turns on and off while self checking. When an error is detected, the LED indicators show the error in red color.

\*Refer to the table below for details of errors.

CH1	CH2	CH3	CH4	Error Description
Blink	0ff	0ff	0ff	Out of operation temperature range
Blink	Blink	0ff	0ff	Out of input voltage range
Blink	Blink	Blink	0ff	Hardware failure
Blink	Blink	Blink	Blink	Firmware exception ※Firmware update needed

Once the charger has completed the self-check and no batteries are inserted, the charger will enter the standby mode and the white indicator light will blink every 5 seconds.

### Error Indicator of Each Channel

Single red blink: The internal resistance of battery is too high or charging a non-

rechargeable battery by mistake.

Double red blink: The charging temperature is too high or too low.

Triple red blink: The charge capacity or time limit has been exceeded.

Solid red:Channel hardware error, unable to charge

#### **MEMO**

## <Troubleshooting>

Problem	Possible Reason	Solution
LED indicator stays off	The battery is inserted the wrong way.	Re-insert the battery with the correct polarity.
after inserting a battery.	The battery is making poor contact with the charger.	Clean the contacts with a dry cloth or cotton swab.
Taking too long to charge.	Low-power input.	Use more than DC 5V/1.0A input power.

#### KYOSHO CORPORATION

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.