### INSTRUCTION MANUAL

YOKOHAMA QUICK CHARGER WITH LCD DISPLAY

## Safety

Read the following user manual carefully before use to prevent damage to the charger and to protect yourself and others. Keep this user manual so that you can reach it in the future if necessary.



In emergency situations\* disconnect the charger from the power supply and locate the nearest distributor.

\* Emergency situations include:

- Smoke escaping the device
- Leak of substance from the device
- Change of shape of the device
- Damage to the housing or components of the device following a fall
- 1. This device is intended for indoor use only.
- 2. Attempts to charge other types of cells (alkaline, zinc carbon, lithium or any types of batteries other than Ni-MH or Ni-CD) may cause personal injury or damage to the device.
- 3. Protect the device from rain and moisture to prevent electric shock or fire
- 4. Do not use the device if the plug is damaged
- 5. In no circumstances should you perform any repairs to the device or the batteries on your own
- 6. This device is not intended for use by persons in need of supervision or children
- 7. Cells may contain hazardous substances and may not be intended as reusable. Contact the cell manufacturer for information concerning the properties of cells.

# **Properties and benefits**

Congratulations on your purchase of our Product. YOKOHAMA is an intelligent charger intended for charging up to 4 Ni-MH/Ni-Cd AA/AAA-type batteries. Thanks to the latest microprocessor technology applied, this functional device guarantees efficient, secure, portable and easy charging.

• Charging 1-4 AA/AAA Ni-MH Ni-CD batteries The YOKOHAMA charger loads any combination of 1-4 AA/AAA Ni-MH or Ni-Cd batteries.

### • Safe charging time

The charger automatically detects the suitable charging time, reducing the current at the appropriate time. The charger reduces the current after approximately 6, 9 or 12 hours regardless of the charging time.

- **4 independent charging channels** You can charge any combination of batteries
- 5 charging protection levels
- DC voltage cut

Thanks to the high-sensitivity detector, the device stops charging when it detects that the batteries are fully charged

- Safe charging time The device stops charging when the charging time exceeds 15 hours
- **Protection against reverse polarity** Electrical circuits protect the device and batteries when the batteries are inserted in reverse
- Protection against overload and short circuit The YOKOHAMA charger maintains a constant level of voltage throughout the charging cycle and also protects the charger when attempting to charge the batteries after short circuit. The indicator flashes in the event of short circuit.
- Detecting damaged and unrechargeable cells\* This feature protects the charger when attempting to charge damaged or unrechargeable cells.

\*Note: Charging cells other than rechargeable can cause fluid to leak out of them

- AC 100-240V mains voltage switch allows to use the charger in multiple countries
- **Maintenance charging:** when the batteries are fully recharged, the low current will continue to affect the batteries in order to maintain full charge level by minimizing the loss of charging through current leakage.

• Low level of current leakage

If the charger is not connected to the power source and the batteries are left in the charger, they are usually discharged. YOKOHAMA charger minimizes this type of energy loss.

Table 1: MESSAGES ON LCD DISPLAY

DISPLAY MESSAGE	DESCRIPTION		
CHARGING 🗋	0-33% CHARGED		
CHARGING	33-66% CHARGED		
CHARGING 🛱	66-99% CHARGED		
CHARGING	CHARGING		
	COMPLETED		

MESSAGE DISPLAYED	DESCRIPTION
CHARGING X	0-33% CHARGED
CHARGING XX	33-66% CHARGED
CHARGING XXX	66-99% CHARGED
CHARGING XXXX	CHARGING COMPLETE

### Use

### QUICK START

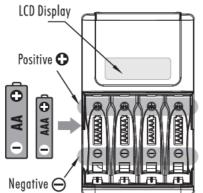
In order to start using the YOKOHAMA charger, follow the steps below:

- 1. Insert the batteries into the charger
- 2. Connect the cable to the charger
- 3. Connect the charger to the power source
- 4. The corresponding battery icon will appear on the LCD screen
- 5. Ater charging is complete, the icon stops flashing and a message is displayed
- 6. Remove the batteries from the charger. The batteries can also be left in the charger until they are needed (the charger should remain connected to the power source so that the batteries are not discharged).

#### CHARGING

1. Place 1 to 4 AA/AAA batteries in the battery compartment

### [DRAWING]



LCD display  $\rightarrow$ Positive polarity +  $\rightarrow$ Negative polarity -  $\rightarrow$ 

- 2. Connect the charger to the power source. The LCD will start up and a charge level will appear. The individual charge level of each battery is displayed on the icon representing the battery.
- 3. When the battery icon stops flashing, charging is complete. Unplug the charger and remove the batteries when they are fully charged or not in use. Follow the recommended charging time. Do not charge the batteries excessively.



<sup>LI</sup> TIP: The batteries may be hot after charging is complete. It is a normal phenomenon. In order to prevent burns, wait a few minutes after the charging has finished before removing the batteries.

# Additional charger information

### The YOKOHAMA charger has unique properties.

Depending on factors such as temperature, output battery level, and battery condition, the charging cycle may consist of output charging, quick charging or maintenance charging. This sequence is carefully monitored with the microprocessor to prevent ultrafast charging. For low-capacity (mAh) batteries, charging time may amount to only a few minutes.

### Device maintenance and troubleshooting tips

### **Battery storage**

Store packages with batteries in cool places, not exposed to high temperatures or humidity. High temperature significantly accelerates the aging process. In order to minimize it, fully charge the batteries before storing them for a longer time (30 days or more). During long-term storage, discharge and recharge the batteries at least once every six months. See: Additional charger information section above.

• If the LCD status indicator does not start, make sure the device is properly connected to the power source. If the indicator still does not start or flash, the battery may be damaged, incorrectly inserted or after short circuit. If suspecting short circuit, do not attempt to repair the device on your own, but take it to an authorized repair center.

- When charging different types of batteries or batteries of different capacities, the charging time should be based on the charging time of batteries of similar type and similar charging time. Detailed information can be found in an appropriate charging table\*\*.
- Insert the batteries properly and avoid reversing +/- polarities.
- Disconnect the device from the power source after charging is complete.
- The charger is intended for Ni-MH/Ni-CD batteries only. Charging of other types of cells may cause explosion, damage to the device, personal injury and damage to objects.
- Incorrect use may result in electric shock.
- This device is intended for indoor use only. Protect from exposure to humidity and high temperatures.
- Do not disassemble or reassemble the device.

## Specifications

Input voltage: AC 100-240V ~ 50/60Hz							
Output voltage:	DC 4x1.4V						
	AA:	1-2 pcs: 400 mA	AAA:	1-2 pcs: 200mA			
		3 pcs: 260mA		3 pcs: 130mA			
		4 pcs: 200mA		4 pcs: 100mA			

#### \*\*\* Appropriate time

Battery type	Battery capacity	Time 1-2 pcs:	Time 3 pcs:	Time 4 pcs:
AA Ni-MH	2400mAh	6h	9h	12h
AA Ni-MH	2000mAh	6h	9h	12h
AAA Ni-MH	1200mAh	6h	9h	12h
AAA Ni-MH	800mAh	4.8 h	7.3h	9.6h

213x196 mm, 54x66 mm, 80g

