

**NC-MQR02/NC-MQN01N**

## **AA/AAA Charger: Ni-MH/Ni-Cd**

### **Operating Instructions/Service Manual**

Thank you for purchasing this SANYO product.

Please read and understand these instructions carefully for safe and satisfying operation.

Be sure to keep this instruction manual handy for future reference.

#### **FEATURES**

- Exclusively for use with SANYO AA and AAA (HR-3U, N-3US, N-3U, HR-4U and N-4U) rechargeable batteries of Ni-MH (Nickel-Metal Hydride) and Ni-Cd (Nickel Cadmium) type.
- Charge up to 4 AA batteries or up to 2 AAA batteries at once.



### **Danger**

Signifies danger which may result in serious injury or death.



### **Warning**

Indicates items or action which may cause serious injury or death.



### **Caution**

Indicates items or actions which may result in damages or personal injury.

## **Notes on use BATTERY CHARGER NC-MQR02/NC-MQN01N**

### **⚠ DANGER**

- Use to charge SANYO Ni-MH and Ni-Cd AA/AAA batteries only. Other types of batteries may burst causing personal injury and damage.
- Risk of electric shock, dry location use only.
- Do not insert the batteries with their + (positive) and - (negative) terminals reversed.
- Be sure to use charger with correct voltage only AC100 ~ 240V.
- Do not modify or disassemble.
- If electrical transformer connected as a power of this charger, this will be a cause of heat and fire.
- Please connect charger with commercial power source.

### **⚠ WARNING**

- Do not insert any objects (such as a screwdriver or metal wires) into the charger.
- Keep out of reach of infants. Children may use only under strict parental supervision.

### **⚠ CAUTION**

- Disconnect charger from outlet promptly once charging is complete.
- Be sure to charge batteries between 0°C~35°C.
- If something appears wrong with the charger and/or batteries, disconnect from the electric outlet immediately and contact the nearest service center.

## Notes on use RECHARGEABLE BATTERIES

### **⚠ DANGER**

- Be sure to use only with the exclusive SANYO battery charger.
- Do not insert the batteries with their + (positive) and - (negative) terminals reversed.
- Do not solder lead wire or terminals directly onto the battery or modify it.
- Do not connect the + (positive) and - (negative) terminals together or let the battery contact metals such as necklaces and hairpins.
- Do not connect the batteries directly to a power outlet or cigarette lighter of an automobile.
- Never expose to heat or fire.
- If any liquid from the battery gets into your eyes, promptly wash it off with clean water and consult your doctor at once.

### **⚠ WARNING**

- Stop charging once the specified charging time is reached.
- Never allow batteries to come in contact with or be immersed in water.
- Do not connect more than 20 batteries together.
- Stop using batteries immediately if you notice anything wrong with them such as leakage, color change or deformity.
- Keep out of reach of infants. Children may use only under strict parental supervision.
- If any liquid from the battery gets on skin or clothing, promptly rinse with clean water.
- Do not subject the battery to strong shocks.
- When using 2 or more batteries in a device, make sure they were charged simultaneously.
- Remove batteries from unit or device when not in use.

Not following all of the above warnings may cause electric shock, battery damage/leakage, overheating, explosion, or fire and can result in severe personal injury and/or damage to the property

Recommended temperature ranges for use:

	(NI-MH)	(NI-Cd)
To use (discharge) the batteries	0°C~50°C	-20°C~60°C
To charge the batteries	0°C~35°C	0°C~35°C
To store the batteries	-20°C~30°C	-30°C~35°C

Using the batteries outside the above temperature may shorten battery life and decrease efficiency.

## OPERATING INSTRUCTIONS

### CHARGE INDICATOR LIGHT

(NC-MQR02)

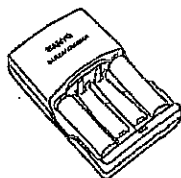
Light is on (steady) while charging and turns off automatically when charging is complete.

(NC-MQN01N)

Light is set by timer and turns off automatically after 13 hours.

### HOW TO CHARGE

1. Place 1 to 4 of AA or 1 to 2 of AAA size batteries into the charger so that the + (positive) and - (negative) ends (terminals) of the batteries correspond to the same + and - marking in the charger. When charging 1 to 2 of AA, insert them into the end positions. For charging 1 to 2 AAA batteries, use center positions. AAA and AA batteries can be charged simultaneously.
2. Plug the charger into an electrical receptacle (outlet) of AC 100~240V. The charge indicator light is illuminated and battery charging begins.  
(NOTE: Do not insert or remove batteries during this charging process)  
When charging is complete, the charge indicator light turns off.  
The charging cycle time depends on battery type. See specification chart.
3. Disconnect the charger from the electric outlet once charging is complete.
4. Remove the batteries from the charger. Be careful to handle them, the temperature of batteries right after charging can be high.



1-2 AA battery charge



1-2 AAA and/or 1-3 AA battery charge (up to 4 batteries)



1-4 AA battery charge

## SPECIFICATIONS

SANYO Model No.	NC-MQR02			NC-MQN01N*3	
Voltage	AC100 - 240V			AC100 - 240V	
Input	50-60Hz, 8W			50-60Hz, 5W	
Output	DC1.2V, 1275 mA × 2 565mA × 4 / 310mA × 2			DC1.2V, 240mA × 4	
LED indication	ON steady - charging OFF - charge complete			ON steady - charging OFF - timer off	
Battery/ Charge time*2	Ni-Cd AA (700mAh)	1-2 batteries*1	35(min)	Ni-Cd AA (700mAh)	3.5(hrs)
		3-4 batteries	80		
	Ni-Cd AA (1000mAh)	1-2 batteries*1	50	Ni-Cd AA (1000mAh)	5.5
		3-4 batteries	110		
	Ni-Cd AAA (250mAh)	1-2 batteries	50	Ni-Cd AAA (250mAh)	2.0
		3-4 batteries	-		
Ni-MH AA (2100mAh)	1-2 batteries*1	105	Ni-MH AA (2100mAh)	9.0	
	3-4 batteries	230			
Ni-MH AA (1850mAh)	1-2 batteries*1	95	Ni-MH AA (1850mAh)	8.0	
	3-4 batteries	215			
Ni-MH AAA (750mAh)	1-2 batteries	145	Ni-MH AAA (750mAh)	5.5	
	3-4 batteries	-			
Dimensions (L × W × H mm)	105 × 65 × 27.5 (mm)			105 × 65 × 26 (mm)	
Weight	approx. 95 (g)			approx. 90 (g)	

\*1 When place batteries at end positions.

\*2 Charging time is the standard.

\*3 Timer length of NC-MQN01 is 13hours.

## ADDITIONAL NOTICE

- **Discharge**—Batteries self-discharge (lose their charge) when not in use. Be sure to charge them before use. Batteries that have not been used for awhile (about a month) will lose some of their charge. This is not a malfunction.  
If the batteries haven't been used for a long time, charge and then discharge the batteries 2 or 3 times before using. This will recharge the batteries to their fullest capacity.
- **Battery Life**—Charging and then discharging is possible for approximately 500 times, depending on their use.
- **Operating Temperature**—Batteries are chemical products. Even when used within the recommended temperature ranges, their efficiency may vary. This is normal, and not a malfunction.
- Periodically wipe off the positive and negative terminals of the charger and batteries with a dry cloth. Dirt built-up may prevent batteries from being charged.
- Batteries may become warm while charging, but it is not a malfunction.
- Noise may appear on the radio or television during charging. In this case, use a separate outlet.
- Avoid charging and discharging near a heat source such as heater or in direct sunlight

**SANYO**

SANYO Electric Co., Ltd.