

GP Batteries

PRODUCT SPECIFICATION

GP ReCyko⁺ Fast Charger Model: GPAR05

Revision History

Revision	Date	Initiator	Reason for Change
00	22 Dec 06	Mei Fung	New release
01	9 Feb 07	Julie Cheng	Re. On 'Operating Temperature'
02	2 Apr 07	Julie Cheng	Deleted note
03	28 May 07	Ivy So	Rev. on 'Special Feature' & Approval'
04	7 May 08	Gladys Chan	Rev. on 'Charge Indicator' and 'Approval'

Prepared By	Approved By
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Date: 7 May 08	Date: 7 May 08

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GP Batteries

Product Specification

Model No.: GPAR05



Unit : mm

- Product Name : GP ReCyko+ 2hr Fast Charger
- Description : 2-4 Hrs Battery Charger with AC Plug Cord
- Special Feature : Battery Ejector & Easy Check 3-Color LED Icons
- Input Voltage : AC100-240V 50/60Hz (GS/BS)
AC100-120V 60Hz (UL)
- Output Voltage : DC1.6V
- Application : For charging 1 to 4 pcs of NiMH AA & AAA batteries

Charging Current :

Plug Type	Input	Output	Charging Current (mA)						Trickle Charge Current (mA)	
			AA (pcs)			AAA (pcs)			AA (pcs)	AAA (pcs)
			1-2	3	4	1-2	3	4	1-4	1-4
GS BS	AC100-240V 50/60Hz	DC1.6V	1150	766	575	475	317	237.5	102.5	42.5
UL	AC100-120V 60Hz		1100	733	550	475	317	237.5	98	42.5

Charging Time :

GP ReCyko+	Battery	Typical Capacity	Charging Time (mins)		
			1-2 pcs	3 pcs	4 pcs
	AA	2050mAh	~ 110	~ 170	~ 225
AAA	820mAh	~ 115	~ 170	~ 225	

- Termination Methods : $-\Delta V$: 0-5mV, Temperature Cutoff: 50°C ($\pm 10^\circ\text{C}$)
Safety Timer: 190 mins. (1-2 AA/AAA), 400 mins (3-4 AA/AAA)
- MTBF : 30000 hours (at Ambient Temperature 25°C)
- Operating Temperature : 5°C to 45°C
- Storage Temperature : -25°C to 60°C

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Product Specification

Model No.: GPAR05

Charge Indicator :	Condition	Indication
	• Power connected	• Green power LED on
	• GP ReCyko+ battery inserted in charger and charging in progress	• Orange battery icon slow pulsing
	• Wrong / damaged battery inserted	• Orange battery icon fast blinking
	• When charging is finished and then switch to trickle charge.	• Orange battery icon solid on
* Remarks: - GP ReCyko+ batteries do not require a recharge prior to first use. They are charged before shipped. - GP ReCyko+ batteries come with good capacity retention. Remove the batteries and unplug the charger once the charging is complete. Do not leave batteries in the charger for extended periods. Always unplug the charger when it is not in use.		

Dimensions : 116 (L) X 72.5 (W) X 32 (H)mm

Approval : AR05GS - GS, CE
AR05BS - CE
AR05US - UL
AR05PSE - PSE

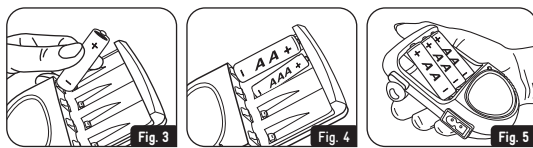
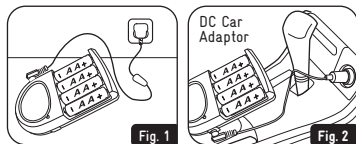
Warranty Period : 12 months from ex-factory date.

2 Hrs*
with Battery Ejector

GP ReCyko⁺

GREEN GENERATION BATTERY TECHNOLOGY

Instruction Manual



Charging Time

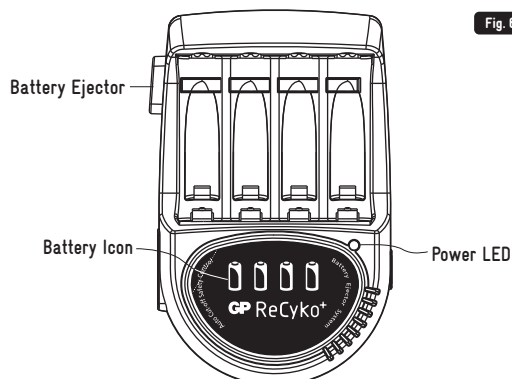
Type	Size	Typical Capacity	Charging Time (mins)		
			1-2 pcs	3 pcs	4 pcs
GP ReCyko ⁺	AA	2050mAh	~110	~170	~225
	AAA	820mAh	~115	~170	~225

Specifications

Model	Input	Output	Charging Current (mA)						Trickle Charge Current (mA)	
			AA		AAA		AA	AAA	1-4 pcs	1-4 pcs
			1-2 pcs	3 pcs	1-2 pcs	3 pcs	4 pcs	4 pcs		
GP AR05GS GP AR05BS	AC100-240V 50/60Hz or DC 12V	DC1.5V	1150	766	575	475	317	237.5	102.5	42.5
GP AR05US	AC100-120V 60Hz		1100	733	550	475	317	237.5	98	42.5

LED Indications (Refer to Fig. 6)

Condition	Indication
• Power connected	• Green power LED on
• GP ReCyko ⁺ battery inserted in charger and charging in progress	• Orange battery icon slow pulsing
• Wrong / damaged battery inserted	• Orange battery icon fast blinking
• Full charge or trickle charge	• Orange battery icon solid on



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Charger Features

- Compact charger with AC cord
- Charge 1 to 4 AA or AAA GP ReCyko⁺ batteries
- Equipped with 4 individual charging channels
- Termination methods:
 - Individual minus delta voltage (-dV)
 - Individual temperature sensor
 - Individual safety timer
- Over-temperature protection
- Primary and damaged batteries detection
- Easy check LED icons
- Battery ejector

**Read the instruction manual thoroughly before use.
Keep the manual for future reference.**

Charging Instructions

1. Charge 1 to 4 AA or AAA GP ReCyko⁺ batteries in any combination. Each charging slot can only charge 1 battery (either AA or AAA).
2. Connect the provided AC cord with the charger and plug it into the power source (Fig.1). OR connect GP DC 12V car adaptor to the charger and plug it into the cigarette lighter jack (Fig.2). DC car adaptor is only included in select models.
3. Power LED will light up when power is connected.
4. Insert AA or AAA GP ReCyko⁺ batteries into the charging slots according to the polarity indications (+/-). Different contact plates for AA and AAA GP ReCyko⁺ batteries are set in the outer and inner part of the charging slots respectively. (Fig.3) When inserting AAA batteries into the charging slots, slant the batteries to ensure smooth contact with the plates. (Fig.4)
5. Battery Icon will pulse slowly when charging is in process.
6. If alkaline, carbon zinc, lithium, rechargeable alkaline or damaged batteries are mistakenly inserted into the charging slots, the corresponding Battery Icon will blink fastly and the charger will stop charging. All other Battery Icons will turn off.
7. If the charger does not work properly, all Battery Icons will turn off. The Power LED will blink. The charger will stop charging.
8. Battery Icon will be solid on when battery is fully charged and in trickle charge mode.
9. Once charging is complete, unplug the charger from the power source and remove the batteries with the battery ejector (Fig.5).

For best performance and optimal safety, charge GP ReCyko⁺ batteries with GP ReCyko⁺ Charger/ GP PowerBank

Attention

1. It is normal for batteries to become warm during charging and they will gradually cool down to room temperature after being fully charged.
2. For best result, use GP ReCyko⁺ Charger at room temperature with good ventilation.
3. Charging time may vary based on different battery capacities. (Refer to the Charging Time Table)
4. Remove batteries from an electrical device if it will not be used for a long time.
5. If the performance of the batteries decreases substantially, it is time to replace the batteries.
6. The batteries should be removed from the charger before they are scrapped and disposed of properly.
7. If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent to avoid a hazard.

Caution

1. Charge GP Nickel Metal Hydride (NiMH) batteries only. Do not charge non-rechargeable batteries.
2. Do not charge other types of batteries, such as alkaline, carbon zinc, lithium, rechargeable alkaline or any other unspecified batteries, as they may leak or burst, causing personal injury and damage.
3. Never use an extension cord or any attachment not recommended by GP, as this 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 short circuit batteries.
6. Do not wet, incinerate or disassemble the charger and batteries.
7. For indoor and dry location use only. Do not expose the charger to rain, snow or extreme conditions.