

Super Universal Ni-MH/Ni-Cd Battery Charger

with Car adaptor & external AC adaptor

Model T-2299

Owner's Manual

Thank you for purchasing the Super Universal Ni-MH/Ni-Cd Battery Charger. Please read this manual carefully. It contains important operating instructions. This Super Universal Ni-MH/Ni-Cd Battery Charger will quickly and efficiently charge all high capacity AA, AAA, C, D and 9V Nickel Metal-Hydrate (Ni-MH) or Nickel-Cadmium (Ni-Cd) batteries.

Warning :

- Batteries are not charged as shipped. Must be charged prior to first use.
- Charge **only** Ni-MH or Ni-Cd type batteries on this charger.
- Batteries may leak or explode causing personal injury if inserted improperly, disposed of in fire, mixed with other battery types, or short circuited.

Features :

- Powered by the supplied AC adaptor when using at home/Office or by the supplied 12VDC Car adaptor when using in a vehicle.
- Recharges Ni-MH/Ni-Cd batteries 2 pieces or 4 pieces high capacity of AA/AAA/C/D Ni-MH/Ni-Cd and 1-2 pieces of 9V at a time.
- Batteries life well protected by -dV detection and timer protection for AA,AAA,C & D size batteries.
- Automatic charging current selection for the different size of batteries.
- LED display for rapid charge/trickle charge/bad cell detection
For AA,AAA,C & D size batteries
RED LED – rapid charge ; GREEN LED – Cells are ready for use / trickle charge ; Flashing RED LED - Cells are not suitable for charging
For 9V batteries : RED LED - Charging

Safety Features :

- Negative delta V cut -off function
- Safety timer to prevent over charge
- Short circuit protection
- Reverse-polarity protection
- Bad cell Detection

Charging Instructions

1. Insert 2 / 4 pieces of AA/AAA/C/D or 1 / 2 pieces of 9V cell rechargeable Ni-MH/Ni-Cd batteries into the battery compartment; **battery must be charged in pairs** (9V cell can be charged individually). For charging only 2 pieces of AA/AAA/C/D cells, insert the batteries to the left or right side of the charging terminal (Fig. 1) & (Fig.2)



Fig. 1



Fig. 2

2. Batteries must be charged in pairs with same battery size & capacity; If the different size of batteries are placed in one charging terminal, the RED LED will flash and the charging is terminated.
3. Make correct contact for polarity (+ and -) ; according to the sign in the battery compartment.
4. Do not mix to charge Ni-MH or Ni-Cd batteries at same time.
5. **When using at home/Office**

Connect the supplied AC adaptor's barrel plug into the jack on the back of the charger. Plug the AC adaptor into household electric outlet.

Caution: The supplied AC adaptor supplies 12VDC and delivers 800mA, and its plug fits into the charger's **DC input jack**. Using an adaptor that does not meet these specifications could damage the charger or the adaptor.

When using in a vehicle

Connect the supplied DC car adaptor's barrel plug into the charger's **DC input jack**. Plug the large end of the cord into the 12V car lighter power port.

6. When AA/AAA/C/D cells are placed in the charger, the RED LED will light up to indicate the proper charging. After the batteries are fully charged, the RED LED will turn off and the GREEN LED will light up indicating the trickle charge is on. The charged batteries are ready for use.
7. When 9V cells are placed in the charger, the RED LED will light up. After about 9-17 hours, remove the 9V cells from the charger and now the charged batteries are ready for use. Observe the charging time. Do not overcharge the batteries. (NOTE: The charging of 9V cells are by manual control, therefore the RED LED light will continue to stay on unless you remove the 9V cells from the battery compartment.)
8. Unplug the charger and remove the batteries from the charger when not in use.
9. Begin again at *Step 1* to charge the next set of batteries.

Bad Cell Detection :

When charge process is started, the charger detects the health status of each of the cells in the battery compartment. If any battery is unsuitable for charging. i.e. short circuit or reversed polarity, the RED LED will flash.

And all the charging process will be terminated until the damage cell(s) disposed.

Specifications :

Input	DC 12V 800mA USE WITH AN EXTERNAL ADAPTOR	
Charge current:		Max Timer
AAA	400 mA	3 hours
AA	850 mA	3.5 hours
C	850 mA	8 hours
D	850 mA	14 hours
Trickle charge current: (AAA, AA, C, D)	25-40mA	
Detect Method	-ΔV auto cut-off for AAA, AA, C, D size batteries	
Charging current for 9V	16mA	
Charging time	AAA 600-900mAh	1.5-3 hours
	AA 800-2500mAh	1-3 hours
	C 1200-4500mAh	2-7 hours
	D 1200-9000mAh	2-14 hours
	9V 100-200mAh	9-17 hours

*Charge time will vary depending upon the brand, capacity and condition of batteries being charged.

Important Safety Instructions

1. Before charging, read instruction.
2. This charger is intended for use with Nickel-Cadmium and Nickel-metal-hydrate rechargeable batteries only. Attempting to charge other types of batteries may cause personal injury and damage to the charger.
3. Recharge only one type of battery (Ni-Cd or Ni-MH) at each time.
4. Do not expose charger to rain or moisture. For indoor use only.
5. Remove from mains when not in use.
6. Never use an extension cord or any attachment not recommended by manufacturer, otherwise this may result in a risk of fire, electric shock or injury to persons.
7. Do not operate the charger if it has been subjected to shock or damage. Take it to a qualified serviceman for repair.
8. Do not disassemble the charger. Incorrect reassemble may result in a risk of electric shock or fire.
9. Unplug the charger from outlet before attempting any maintenance of cleaning.
10. This power unit is intended to be correctly orientated in a vertical or floor mount position.