



Smart Battery Pack Charger for NiMH/NiCd: 8.4V - 9.6V (Item No. 01026)

User Manual

Detailed Description

- Smart Charger for Ni-MH battery packs 8.4V-9.6V (7- 8 cells).
- Rating input voltage: 100~240VAC 50/60Hz.
- Rating input current: 0.2Amp.
- Input power should not be over 11W.
- Please use the charger for battery packs which have a capacity 600-2500mAh.
- Rating output voltage is 8.4V/9.6V VDC, output voltage range is 7VDC~12VDC.
- Charge current is 600±60mA, Trickle current is 200±20mA.
- The max output power is 7.3W.
- This charger has protections against short-circuit and reverse polarity.
- When charging, the temperature of battery should not be over 140°F (60°C).
- This charger can auto distinguish a bad battery and indicate malfunctions.
- Able to activate over-discharged cells.
- Current ramp-up benefits cell capacity and life cycle.
- Unique test mode guarantees high quality.
- Cell voltage should be under 1.56V/cell, while the maximal $-\Delta V$ Value is 5 mv/cell.
- Please note the following temperatures and environmental conditions for this charger; when in operation the environmental temperature should be between 14°F and 86°F or -10~30°C (UL Certification), operating humidity should be less than 90 %RH with non-condensing conditions. Please store device at the temperatures of -22°F and 185°F (-30~85°C), with the humidity less than 95 %RH and non-condensing conditions.

The five stages of the charging process are:

1. Wake up stage - when the voltage of the cell is lower than 1.0V±0.1V, the charger will use pre-charge current to charge the battery.
2. Current ramp up stage - when the voltage reach to 1.0V±0.1V, charging current will ramp up from wake up current, and at the end of this stage, the current will be set to fast charge value by the MCU.
3. Constant current stage - charge battery with fast charge current, until the condition of $-\Delta V$ (5mv/cell max) voltage occurred, constant current stage ends.
4. Trickle charging stage - the charger will use supplementary current to charge the battery.
5. After the trickle charging stage, the red charging light goes out and the green-light turns on. If the charger detects the battery is fully charged, the charger will use pulsed current to charge the battery to balance the loss of battery self-discharge.

WARNING!

Children should be supervised to ensure that they do not play with the appliance. This device is not intended for use by persons with reduced physical, sensory, or mental capacities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning usage of the appliance by a person responsible for their safety.

Operation Instruction:

1. Connect battery pack to output connector and plug into AC power source.
2. Make sure battery polarity is connected correctly (Red wire is positive).
3. After being connected correctly to the battery pack, the red LED will be on, showing that it is charging.
4. After battery is fully charged, LED will be green showing the battery is fully charged.

Cautions:

1. Please don't use the charger with low capacity (under 600mAh), high capacity (over 2500mAh), or unrechargeable battery packs.
2. Use this charger only with batteries by Tenenergy, like the Tenenergy high drain rate battery packs. We are not responsible for any damage caused by charging other brand's battery packs using this charger.
3. Pay attention to battery surface temperature, immediately stop charging if feels very hot.
4. Always keep an eye on the battery pack when charging, unplug when complete, and do not leave charging too long.
5. Thus unit is for charging Ni-MH battery packs only.