

Video cam

CAMCORDER NICAD BATTERY SLOW CHARGER

Why slow charge a battery ?

NiCd batteries respond best when treated gently. A battery consists of a number of cells, each rated at 1.2 volts. If some of these cells are only partially discharged when charging commences (ie unbalanced), these cells will become fully charged first. Most fast chargers will shut off at this point, and so the battery as a whole may be only 80-90% charged. Keene Slow Chargers maintain a 100mA constant current charge which gently forces all of the cells to come up to their maximum possible potential.

Instructions for use

Connect the charger to a power source; either to 240v mains using the adapter supplied, or to a car cigar lighter socket with the lead supplied (car lead n/a with 9.6v chargers). Place or slide the battery onto the charger with its contacts matching those on the charger. When both the power source and the battery are connected the charge LED should light up to indicate that the battery is receiving charge.

Please Note; Much of the advantage of slow charging would be lost if the charger were to switch off in the same manner as a conventional charger, and so Keene Electronics slow chargers quite deliberately have no method of full charge detection or automatic shut off. Because of this, the charge LED will **not go out** when the battery becomes fully charged and the unit will continue to charge for as long as the battery is connected to it. This is to ensure that all of the cells are gently forced up to their maximum possible capacity.

How long should I Charge the battery for?

Because the process of charging and discharging the battery is not 100% efficient, you have to put slightly more charge than you actually get out, The actual amount varies according to the current at which you charge, and so the following times are for the Keene Slow Charger ONLY and are not applicable to other chargers.

Battery capacity	Charge time
1000mAh	14hrs
1600-1800mAh	24hrs
2400mAh	34hrs
3300mAh	46hrs
4500mAh;	63hrs

(The calculation is based upon 14hrs of Charge for every 1000mA of battery capacity and is applicable to NiCd cells only).

If I accidentally leave the battery on charge for too long will it do any harm?

Not at all. The charge current delivered is so gentle that a battery could be left on charge for several days without fear of harm. That said, there is no actual benefit to be gained by charging a battery for longer than is required.

Do I need to use the slow charger every time ?

The slow charger is intended to be a supplement to, rather than a replacement for your existing charger. Ideally, use the slow charger in place of your existing charger about once every 5 or 6 times and your nicads should stay in tip top condition. If time permits you can of course use the slow charger as often as you wish.

Specification

Input voltage	13.8-30v DC
Input voltage (9.6v models)	16-30v DC
Output current	100mA Constant

Please note that the mains adapter is supplied purely to provide the slow charger with the correct supply voltages and it should not be connected to any other unit for any other purpose.