## ENERGIZER CHARGERS & NiMH RECHARGEABLE ACCUS FAQ

sizes must not be charged in the same channel.

1. Can different battery sizes be charged at the same time? Ultra Fast Charger: yes, AA and AAA can be charged in whatever configuration you want. It is the benefit of individual charge channels Universal Charger and Compact Charger: yes, but different

2. Can different battery capacity (mAh) cells within the same sizes be charged at the same time? Ultra Fast Charger: yes, each channel is monitored individually and will switch off when each individual cell is charged Universal Charger and Compact Charger: No it is not recommended as the lower capacity cell when charged will switch off the charging process within the same channel

- 3. Can Energizer chargers charge NiMH & NiCd at the same time?
  Compact Charger & Universal Charger: No, do not mix systems together.
  The Ultra Fast Charger charges NiMH only
- 4. What does it mean if the red light is flashing after batteries are placed in the Universal charger? There is a fault; the polarity is reversed (battery put in the wrong way round) or the batteries are not suitable for charging.
- 5. What if the batteries won't start charging in the Compact Charger?

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6. Will the red LED automatically switch off when the charging is complete?

Ultra Fast Charger and Compact Charger: Yes the red LED light will switch off when battery are charged Compact Charger: Yes the red LED will switch off after 10 hours Universal Charger: only for AA, AAA, C and D, red LED will turn off and green LED light up indicating trickle charge is on. 9V, red LED will not switch off after charging. Remove batteries manually.

7. Can batteries be left in the charger after they have been charged?

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Yes. A trickle charger maintenance current will keep batteries completely charged for AA, AAA, C and D in Universal Charger. This will be the case for batteries in Compact Charger and Ultra Fast Charger as well

- 8. The new and improved high capacity, longer lasting AA NiMH battery is 2300mAh. What does this mean? NiMH batteries have varying mAh or milliamps ratings. These ratings indicate the power capacity of the battery. The higher the capacity, the longer the battery will last between charges. 2300mAh batteries will be charged in 80 minutes in the Ultra Fast Charger, approx 5h00 in the Universal Charger, and 10 h in the Compact Charger. Lower mAh will be charged in less time.
- 9. Do Energizer NiMH batteries need to be charged before using them for the first time?

Yes, Energizer NiMH batteries are not fully charged upon purchase so they need to be charged before use. However, because they are not fully discharged, either, they should actually charge in less time than before first use.

- 10. Are Energizer NiMH batteries available in all sizes? Yes, Energizer offers AA, AAA, C, D and 9V sizes.
- 11. Do NiMH batteries have to be fully drained before recharging? Do they have a "memory"? No, there are none of the memory problems with NiMH like there are with NiCd. They can be recharged after a few hours of use or when convenient. If batteries have been stored for more than 1 month, recharge before using to maximise power.
- 12. How many times can Energizer NiMH batteries be recharged? AA 1700 mAh can be recharged up to 1000 times. The new AA 2300 mAh has greater power capacity but can be recharged approx up to 700 times. Capacity improvement will always decrease the number of cycles. Every cell available on the market above 2000 mAh will have below 1000 charge cycles

13. What is the main difference between an overnight and a fast charger?

A Fast Charger has a much higher charging current than the overnight charger. This enables cells to be charges in less time. An overnight Charger charges AA with 200-280 mA while charging current of Fast Chargers is often above 1600 – 1800 mA. Energizer Ultra Fast Charger charging current is 2100 mA

- 14. What is the relation between capacity and charging time? The higher the capacity is the longer the charge time. The majority of fast chargers have constant charge current - by increasing the cell's capacity the charging time is increased. To get the benefit of a higher capacity battery, either the charge time has to be increased, or a new more powerful charger needs to be purchased.
- 15. Is fast charge of high capacity cell possible? Fast charge and high capacity are 2 conflicting features. While increasing the capacity it is difficult to make those capacity charged in shorter time.

## 16. What is the trickle charge?

Once the charger determines that the battery is fully charged, it switches off. The trickle charge feature continues charging the battery at a very low rate to keep the battery at its optimum capacity, thus offsetting the self-discharge NiMH gradually discharge at a 1% a day rate when not used). This is a valuable feature if you do not use your batteries just after charging them.

## 17. Why shouldn't you mix old batteries with new ones? The performance of a battery-operated product is limited by the weakest of all the batteries in the device. One old or weak battery can cause poor product performance even if all the others are new or fully charged

## 18. Are there devices that rechargeable batteries are not recommended for?

Rechargeable batteries are not recommended for use in devices where the batteries need infrequent replacement. This would include smoke detectors, TV remote controls and flashlights kept on standby for emergency use (unless it is a rechargeable light kept on charge).

Rechargeable batteries have a tendency to slowly lose their charge when not in use and may deliver unsatisfactory performance in these devices.

