

## AA + AAA Smart USB Battery Charger

### **Thanks for Your Purchase**

This is a charger for AA and AAA size Ni-Mh and Ni-Cd batteries. It can be connected to any USB socket, including mains, car, solar USB chargers, and even PCs, Laptops and modern TVs and games consoles.

### **Using the pack**

Insert 1-4 AA or AAA batteries using the markings inside the case to get the + and – ends of the batteries the right way around. Pull down the adaptor at the top of the battery compartment to use AAA batteries.

Use the cable supplied to connect the pack to any USB socket. The battery symbols on the screen show how much power is in each battery, and will flash during charging. When the battery symbol stops flashing and show as full, charging has finished and the pack will switch to trickle charge mode.


### **Refresh / Charge**

After inserting the batteries and connecting to a USB socket, push the button to put the pack into 'refresh' mode. This will fully drain the batteries and then fully charge them. This process can be occasionally used to maximise the capacity of Ni-Cd batteries. There is no benefit to this process for Ni-Mh batteries but nor does it harm the batteries if you wish to do so.

## Hints & Tips

- Charging 4x 3000mAh AA batteries will take approximately 6 hours. When charging fewer batteries or if the batteries are already partially charged, charging time will be reduced.
- Ni-Mh batteries can be partially charged, and there is no need to wait until the batteries are empty before recharging them, or to wait until they are full before using them.
- Some AAA batteries may be loose fitting depending on brand/capacity. Use high capacity batteries for a better fit, or insert padding such as tissue paper to keep the batteries in place during charging.
- If the batteries have not been used for many months (eg if they are new they may have been in storage for a long period) then the batteries may be in a deep-discharge or very low voltage state, in which case it may be necessary to charge them twice or more before they are truly fully charged. After this, the charger's intelligent function will work as normal to fully charge them the first time.
- Do not expose to moisture, fire, harsh chemicals, soaps or detergents.
- Do not dispose of this battery pack or batteries in normal household waste, take them to a recycling centre.

## Specifications

Power Output	750mA / 5V
Charging Method	Delta V/0 Delta V
Certifications	
Charging Protection	Timer , Over current, reverse polarity, defective and non-rechargeable battery detection
Guarantee	1 year

## Further Information

The latest version of this user guide, our full range of charging products: [www.portapow.co.uk](http://www.portapow.co.uk)  
Contact us at [info@portablepowersupplies.co.uk](mailto:info@portablepowersupplies.co.uk) if you have any questions.