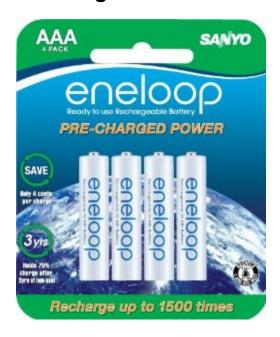
# SANYO ENELOOP, The Ultimate NiMH Rechargeable AA & AAA Batteries.



All of us have had the misfortune of AA or AAA batteries going "DEAD" in a device at the most inappropriate time and discovering there are no replacement batteries in the house. I confess, I've been in this situation far too many times. So well over a year ago, I began a passionate search for the ultimate rechargeable AA and AAA batteries and discovered the Sanyo Eneloop battery, available through Amazon.com.

I've used the Eneloop AA & AAA batteries with outstanding results in all of our home devices including weather radios, flashlights, cameras, walkie/talkies, blood pressure monitor, wireless mouse and the most utilized household convenience, the Control4 remote. In my circumstance, I find the "four battery" wall plug charger (\$11.00 @ Amazon.com) best serves all my requirements. It charges both the AA and AAA batteries in 6 to 7 hours. The Eneloop AA battery can be inserted into either a "C" or "D" Eneloop battery adapter shell for use in those devices requiring C or D battery configurations.

The batteries are inexpensive and from the voice of experience I highly recommend them. Go to <a href="http://us.sanyo.com/Battery-Products">http://us.sanyo.com/Battery-Products</a> for the total product line description and review the following detailed information which I believe you will find extremely convincing.

Bill Fuelling 4/2/13

The new SEC-HR4U8BPN 8-AAA eneloop battery pack utilizes SANYO advanced rechargeable battery technology allowing them to be recharged up to 1500 times, 33% more than any eneloop battery!

They deliver excellent power performance. They come pre-charged and can be used immediately out of the package. These encloop cells also have increased storage life and better extreme temperature performance than the original encloop batteries.

- SANYO eneloop 800 mAh, improved low self discharge rechargeable AAA batteries
- •Maintain 75 percent of their charge after 3 years of storage
- •Can be recharged up to 1,500 times
- Pre-charged and ready to use right out of the package
- •Work in extreme temperatures down to ?
- •Provide long lasting power at a cost of only 4¢ per recharge
- •Pre-Charged using power generated from solar energy
- •No memory effect batteries can be recharged when fully, or partially drained

### **INCREDIBLY LONG STORAGE LIFE**



SANYO 1500 cycle rechargeable eneloop Ni-MH batteries maintain up to 75% of their charge after three years of storage compared to conventional rechargeable batteries which often have 0% charge after only 2 years of non-use.



### KEEPS YOUR DEVICES POWERED IN XTREME COLD WEATHER

Keep your portable players, cameras, flashlights and other devices powered in the winter. eneloop 1500 cycle and XX batteries deliver exceptional performance at extreme low temperatures, down to?

### ENELOOP...CLEAN ENERGY FROM THE FACTORY TO YOUR DEVICE

SANYO's "Clean Energy Loop" initiative has become a reality. All eneloop 1500 cycle and XX batteries are charged at the factory in Japan using power generated from solar energy.

# PURCHASE GENUINE SANYO eneloop BATTERIES

eneloop

PRE-CWATAGED POWER

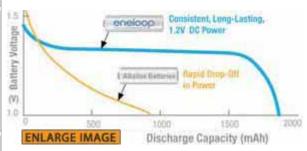
IN THE STANDARD POWER

IN THE STANDARD

For more details click here

## WHEN IS 1.2V BETTER THAN 1.5?

eneloop器onsistently High Voltage Level



The initial voltage level of a battery provides no indication of how long the battery will last or how much power it can deliver. Alkaline battery cells rapidly drop below 1.5V soon after they are put into use and the voltage continues to steadily decline over time.

Since alkaline cells are non-rechargeable, they must be discarded and then replaced. SANYO's eneloop batteries deliver best-in-class Ni-MH high capacity power and are rechargeable up to 1500 times. Devices like cameras flash units and wireless game controllers can easily draw more than 1000mA of current; rapidly depleting alkaline batteries.

eneloop batteries maintain a consistently high voltage level keeping your devices operating for a longer period of time. When you use eneloop Ni-MH rechargeable batteries, you will realize that "1.2V" can indeed be better than "1.5V".

### WHY ARE ALKALINE BATTERIES 1.5V?



Regular disposable AA and AAA batteries are considered Primary Cells, and are most widely recognized as conventional "alkaline" batteries. There are two electrodes inside each cell; one is made of Zinc, known as the anode (the negative terminal) and the other is made of Manganese Dioxide, known as the cathode (the positive terminal). The electrodes are surrounded by an alkaline electrolyte, the chemical from which alkaline batteries get their name.

Battery chemistry of an alkaline battery generates 1.5V. As the chemical reaction fades, so does the power of the alkaline battery cell. This is why the voltage from alkaline batteries drops off shortly after the battery is put into use and the power continues to fade over time.

## WHY ARE NI-MH RECHARGEABLE BATTERIES 1.2V?

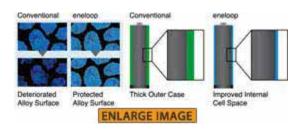


Ni-MH rechargeable batteries have two electrodes inside the cell: Nickel and Mercury Hydride. Battery chemistry of an Ni-MH rechargeable battery generates 1.2V. While alkaline batteries experience rapid drops in voltage Ni-MH rechargeable batteries maintain the same voltage throughout most of the entire charge.

The chemical makeup of Ni-MH batteries eliminates the "memory effect", which means the cells can be recharged at any time without having to be fully discharged.

eneloop batteries have continued to raise the performance bar in Ni-MH rechargeable technology. eneloop has increased "low self discharge" performance on Ni- MH rechargeable batteries which allows eneloop cells to store power for longer periods of time.

## WHAT MAKES ENELOOP THE BEST RECHARGEABLE BATTERY



The new SANYO eneloop battery incorporates a highly-durable super-lattice alloy which lessens the deterioration of this important alloy material. This super-lattice alloy increases the electrical capacity of the battery chemistry through lower internal resistance and delivers a long lasting, stable voltage output.

A new strong, thin outer case has also been added to the eneloop battery design in order to improve the internal cell space efficiency. The new case optimizes the balance of the components and when combined with other improvements have led to an increase in the number of times that eneloop batteries can be recharged.

## eneloop = LOWER COST OF OWNERSHIP

Wireless game controllers incorporate power-hungry features such as built-in speakers, gyroscopes and motion sensors. Consider the hidden cost of ownership in operating two wireless game controllers.

## Let's make the following assumptions:

- 1. You play video games one hour per day or 365 hours per year, using two remote/wireless controllers.
- 2. A pair of batteries (either alkaline or eneloop) will provide you with roughly 20 hours of game-play usage time.
- 3. In the first year, you will need 18.25 pairs of batteries per controller (either new alkaline or recharged eneloops).
- 4. You will consume 73 alkaline battery cells in one year (for two controllers) compared to only 4 eneloop cells which can be recharged 1500 times (\$0.04 per cell).
- 5. Four AA Alkaline batteries will cost roughly \$5.49 MSRP.

6. Four AA eneloop batteries with an AC charger will cost \$21.99 MSRP.

Now let's look at the annual cost of ownership in only the first few years and then extend it out to ten years (at that point, you probably won't be playing on the same game system). It is quite obvious that eneloop more than pays for itself in just the first year of ownership!

	TOTAL ANNUAL COST PER YEAR							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	10 Year Total	
eneloop	\$24.75 Include s Charger	\$2.92	\$2.92	\$2.92	\$2.92	\$2.92	\$51.03	
E Alkaline Batteries	\$100.1	\$100.1	\$100.1	\$100.1	\$100.1	\$100.1	\$1,001.9	
	9	9	9	9	9	9	3	

<sup>\*</sup>Usage assumptions & cost calculations listed below.



# RECHARGEABLE BATTERY POWER YOU CAN RELY ON WHEN YOU NEED IT MOST!

eneloop batteries deliver dependable power allowing you to maximize your music, gaming, computer, photography and other experiences. eneloop batteries can be used to power these and many more devices.

#### NEW 1500 CYCLE VS. ORIGINAL 1000 CYCLE ENELOOP

The new 1500 cycle eneloop delivers four important new features

- 1. 500 extra charging cycles The new eneloop is rechargeable up to 1500 times
- 2. 33% improved low self-discharge The new 1500 cycle battery maintains 75% of its charge for up to 3 years when not in use. The original version maintained 75% of its charge for up to 2 years when not in use.

- 3. Improved low temperature performance The new 1500 cycle battery can be used in environments down to -4 degrees F. The original eneloop can be used in temperatures as low as 14 degrees F.
- 4. Each battery cell is pre-charged using solar energy when it leaves the factory in Japan.

#### **Genuine SANYO eneloop Batteries**

SANYO has three authentic styles?of packaging: 1. The 1500 cycle batteries which are in a blue/green cardboard blister design with a earth image screened on the package. 2. The 1000 cycle batteries are in a blue and orange cardboard blister pack. 3. The eneloop XX batteries are in a black cardboard blister package. Products sold in plastic bags or flexible foil style packages are not authorized for sale by SANYO in the U.S. and may not contain authentic SANYO batteries.

# How to tell the difference between the New 1500" and the Original 1000 eneloop batteries



It is easy to distinguish between the 1500 and 1000 cycle eneloop batteries. The 1500 battery has a gray top (in the Green/Blue package pictured) and the 1000 (in the Blue/Orange package pictured) has a white top.

eneloop Battery Specifications								
Product Name	"1500 Cycle"	"1000 Cycle"	eneloop XX					
Technology	Ni-MH rechargeable battery		Ni-MH rechargeable battery					
Applications all-purpose		all-purpose	high power consumption					

					devices
Recharges / Discharging Cycles	up to	1500	up to	1000	up to 500
Low self- discharge / Storage Capacity	Maintains 7 charge after non-	3 years of	Maintains its charg years of		Maintains 75% of its charge after 1 year of non-use
Low Temperature Capacity	-4 degi	rees F	+14 de	grees F	-4 degrees F
Size	AA	AAA	AA	AAA	AA
Model number	SEC- HR3U4BPN (4 Pack)	SEC- HR4U4BPN (4 Pack)	SEC- HR3UTG- 4BP (4 Pack)	SEC- HR4UTG- 4BP (4 Pack)	4HR-3UWX
	SEC- HR3U8BPN (8 Pack)		SEC- HR3UTG- 8BP (8 Pack)		
	SEC- HR3U16SPN (16 Pack)				
Voltage	1.2 V	1.2 V	1.2 V	1.2 V	1.2 V
Typ. Capacity	2000 mAh	800 mAh	2000 mAh	800 mAh	2500 mAh
Min. Capacity	1900 mAh	750 mAh	1900 mAh	750 mAh	2400 mAh

# **Eneloop THE BIRTH OF A NEW TECHNOLOGY**

For more than 35 years, SANYO has been a leading manufacturer of battery technology. In 2005 SANYO set out to develop a new type of rechargeable battery that would literally change the way people live, work and play. The result was eneloop, a rechargeable battery created with a very simple idea in mind: provide a common energy source that can be reused over and over again. This wooping energy became eneloop. Today, eneloop battery cells

are recognized by millions of consumers worldwide as the industry premier rechargeable battery.



eneloop's "signature features" include ready to use rechargeable power with the ability to maintain 75% of their charge for up to 3 years (when not in use), can be recharged up to 1500 times, they have no "memory effect" and outstanding performance even in extremely low temperatures (down to -4 degrees F).

Americans deposit 8 billion disposable batteries into landfills each year! eneloop batteries can be recharged up to 1,500 times, which means that the purchase and use of a single eneloop cell can keep many hundreds of batteries from entering landfills! They can also be recycled free of charge at any of the 50,000+ Rechargeable Battery Recycling Corporation (RBRC) recycling centers near you.

## \*Usage Assumptions

Two Wii<sup>®</sup> remote controls

1 hour usage per remote, per day, per year

\*20 hour avg. battery life per remote

\$5.49 MSRP - 4 pack AA akaline

\$21.99 MSRP - eneloop 4 pack AA + charger

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# eneloop Recharge Cost Assumptions and Calculations

0.144 Kilowatts @ 8 hours per 4 batteries

4 AA --- 1,500 recharges each

1,500 cycles x 8 hours each = 12,000 hours of AC power

0.144 KW x 12,000 hours = 1,728 KWH

1,728 KWH x \$0.12 = \$207.36

Initial product cost = \$21.99 (4AA eneloop + 4 position charger) Total cost of product and recharging = (\$207.36 + \$21.99) = \$229.35

Total number of recharge cycles =  $(4 \text{ batteries } \times 1,500 \text{ each}) = 6,000 \text{ recharges}$ 

Cost of recharge = (\$229.35/6,000) = \$0.038 (3.8?PER RECHARGE)

NOTE: Cost of electricity is based on 2010 national US average energy costs @ \$0.12 per KWH

# **Product Description**

The new SEC-HR4U8BPN 4-AAA eneloop battery pack utilizes SANYO's advanced rechargeable battery technology allowing them to last longer than ever before! They provide excellent performance-to-cost advantages over both conventional alkaline and other rechargeable batteries. Unlike disposable batteries which can only be used only once and are wasteful to the environment, the new eneloop batteries can be recharged up to 1,500 times. They come pre-charged, can be used immediately out of the pack and maintain 75% of their charge for up to 3 years when not in use. Eneloop batteries deliver reliable battery performance when you need it the most!