Panasonic POWER THE EXPERIENCE™ eneloop Battery Catalog 2017/2018

A LEADING GLOBAL BATTERY MANUFAC

For over 90 years, Panasonic has been creating powerful, energy efficient, quality products.

From next generation lithium-ion batteries for electric vehicles to robust battery power for space exploration; from pin type lithium batteries for wearable technology to sustainable solar storage systems, Panasonic has delivered solutions to meet the technology needs of tomorrow.

210
BILLION
DRY BATTERIES
SOLD IN
120
COUNTRIES

430
MILLION

eneloop

RECHARGEABLE BATTERIES SHIPPED GLOBALLY² 5th
BEST
GLOBAL
GREEN
BRAND³



65th BEST GLOBAL BRAND⁴







National Storage Battery Co., Ltd and Matsushita Dry Battery Co., Ltd. established

1935

@

National Hyper, Japan's first fully metal jacket dry battery produced

1954

Developed lithium primary batteries

1971



Developed Ni-MH batteries

1989



Launched mercury-free alkaline batteries

1992

1931

Started battery production in Osaka 1937

Automotive lead-acid batteries released 1967

Produced alkaline batteries

1987

Launched Ultra Alkaline and Panasonic Alkaline batteries 1991

Launched mercury-free carbon zinc batteries



1994 Started

Started production of cylindrical lithium-ion batteries

TURER

Panasonic

82nd WORLD'S MOST **VALUABLE** BRAND⁵



YOU CAN RECHARGE eneloop BATTERIES UP TO



PANASONIC PARTNERED WITH **IN 2017 FOR**



ISO 9001:2008 and ISO 14001:2004 certified

1) As of June 2017. 2) As of July 2017. 3) Interbrand 2014. 4) Interbrand 2015. 5) Forbes 2016. 6) Battery life based on testing method established by IEC 61951(7.5.1.3). Results may vary based on conditions of use

Began production of HIT® photovoltaic modules

1997

2004

Started mass production of Ford Escape Hybrid battery systems

eneloop Ni-MH batteries are launched

2005



2008

Evolta certified

by Guinness World

Book of Records

as world's No.1 longest

lasting alkaline

Developed multi-purpose lithium-ion battery modules

2009



2010

Started

mass

production of

lithium-ion

batteries

for HEV

Panasonic & Tesla Motors signed an agreement to build a Gigafactory in Reno, Nevada

2014

2015

In the USA, 10 for 10 campaign celebrates eneloop's 10th anniversary America launches Platinum Power AA and AAA batteries with Evolta technology

Panasonic Energy Corporation of

2016

2017 0% lead,

mercury or cadmium added to SHD Power batteries



PANASONIC ENERGY CORPORATION OF AMERICA

The US headquarters for Panasonic batteries, Panasonic Energy Corporation of America (PECA), is nestled in the heart of the Chattahoochee Valley in the historical city of Columbus, Georgia.

Rooted in Muscogee county, the Panasonic hub of battery know-how consists of three state-of-the-art battery facilities. The Sales and

Marketing group uses packaging flexibility and design expertise to provide market and customer focused solutions for a variety of battery goods. The Lithium Battery Division, a 24/7 operation, is the only manufacturer of CR123A primary lithium cells in North America. The Materials Division, a department of the Lithium Battery Division, has a dual-role as a manufacturer of battery cans to sister Panasonic companies worldwide and as the manufacturer of battery cans and battery internal components to the Lithium Battery Division.

Using stringent controls and advanced production techniques, Panasonic factories produce batteries to the highest quality and performance standards. Since 1931, Panasonic has been the trusted brand of choice for people around the globe.

In North America, our extensive product portfolio provides powerful solutions for a wide range of devices. Our feature brands are eneloop, eneloop pro, Platinum Power, Alkaline Plus Power, Industrial Alkaline, Lithium and Super Heavy Duty Power.

Today's market is fluid, ever changing and customer focused. To address

customers' various requirements, PECA provides localization as well as industry and consumer centered solutions. Our packaging adaptability and style proficiency allow us to rapidly create tailor-made solutions. Excellence is at the heart of our business, with quality, performance, safety and reliability as the key foundations.

Whether it is a unique pack, display or customized marketing material, Panasonic's team will deliver the right product to fully satisfy customers' standards and expectations. With the perfect combination of power and performance for indoor and outdoor environments in devices big and small, Panasonic wants to power your experience.





PACKAGING SOLUTIONS



ACCESSORIES



LONG STORAGE LIFE

eneloop ready to use rechargeable Ni-MH batteries maintain 70% of their charge for up to 10 years (when not in use and stored properly) ¹.

RECHARGE — REUSE

Improvements to the conductive surface layer of the active (positive) electrode material (made primarily from nickel-metal hydride) produce greater conductivity and durability. Limiting the degradation of the conductive layer increases the number of times eneloop batteries can be recharged... up to 2100 times ².

PRE-CHARGED WITH SOLAR POWER

eneloop's unique "Clean Energy Loop" initiative is a reality. All eneloop and eneloop pro batteries are pre-charged at the factory in Japan using power generated from solar energy³. This process is certified twice a year by The Green Energy Certification Center.

PERFORMS IN LOW TEMPERATURES

Keep your tactical flashlights, walk-ie-talkie radios, battery powered lanterns, cameras and other devices powered during the winter season. eneloop and eneloop pro batteries deliver exceptional performance in extreme low temperatures, down to -4 degrees Fahrenheit ⁴.

	eneloop	eneloop	eneloop pro	encloop pro
CAPACITY	up to 2000mAh¹	up to 800mAh¹	up to 2550mAh⁵	up to 950mAh⁵
CYCLES / RECHARGES	up to 2100 times²	up to 2100 times²	up to 500 times ⁶	up to 500 times⁴
STORAGE LIFE	Holds 70% charge up to 10 years¹	Holds 70% charge up to 10 years¹	Holds 85% charge up to one year⁵	Holds 85% charge up to one year ⁵
CHARGED AT THE FACTORY USING SOLAR POWER	Yes	Yes	Yes	Yes
LOW TEMPERATURE RATING	Down to -4 degrees F ⁴			
CHEMISTRY	LSD Ni-MH	LSD Ni-MH	LSD Ni-MH	LSD Ni-MH
RECYCLABLE	Yes	Yes	Yes	Yes
COUNTRY OF ORIGIN	Made in Japan	Made in Japan	Made in Japan	Made in Japan

1) Batteries can be recharged when full, or partially drained. eneloop charge capacity and mAh based on Panasonic internal IEC 61951-2(7.3.2) testing. 2) Recharge cycles based on testing method established by IEC 61951-2(7.5.1.3). Results may vary based on conditions of use. 3) Solar energy charging as certified by The Green Energy Certification Center. eneloop batteries need a charger to be recharged. Panasonic Ni-MH battery chargers are recommended. 4) Recommended storage conditions 68° F. Results may vary based on condition of storage and use. 5) Based on IEC 61951-2(7.3.2). 6) Battery life based on testing method established by IEC 61951-2(7.5.1.3). Results may vary based on conditions of use. 7) Patent pending.

PANASONIC NI-MH BATTERY CHARGERS

Panasonic Ni-MH battery chargers are built to high technical standards and share advanced technology features.

Both CC55 and CC17 chargers have individual charging capability. Panasonic CC55 and CC17 chargers can easily and efficiently charge 1 to 4 batteries. By charging the batteries individually, they will not over or undercharge them. If one battery completes the charging process before the others, the LED light will turn off to indicate the battery is ready to use.

Panasonic chargers are ideal for use at home, in the office, or on the road. They accept input voltages ranging from 100 to 240V, 50/60Hz for convenient, and safe use domestically and internationally.



Panasonic BQ-CC55



Panasonic BQ-CC75

USB



Panasonic 8Q-CC17

.........

ADVANCED Ni-MH







PANASONIC CC75 CHARGER

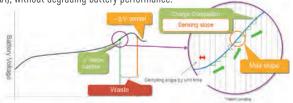


PANASONIC CC17 CHARGER

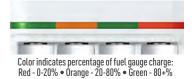
FUEL GAUGE CHARGE INDICATORS	u%-2u% (Red) • 2u%-8u% (Urange) • 80%-100% (Green)	No	No
CHARGE TIME	3 hours (4AA) • 3 hours (4AAA)	7 hours (4AA) • 6 hours (4AAA)	7 hours (4AA) • 6 hours (4AAA)
CHARGING CUT OFF	Peak sensing Technology	Delta V	Delta V
CHARGING OUTPUT PER BATTERY 4 AA	750 mAh	300 mAh	300 mAh
CHARGING BATTERIES INDIVIDUALLY	Yes	Yes	Yes
4 INDIVIDUAL LED CHARGE INDICATORS	Yes	Yes	Yes
SHORT CIRCUIT AUTO SHUT-OFF	Yes	Yes	Yes
INTEGRATED RETRACTABLE AC PLUG	Yes	Yes	Yes
MULIT-VOLTAGE, AC100-240V, 50/60Hz	Yes	Yes	Yes
USB PORT	No	Yes	No

PANASONIC CC55 CHARGER ADVANCED FEATURES

The CC55 uses advanced "peak sensing technology" which allows eneloop batteries to be charged very rapidly, in as little as 3 hours (4AA) and 1.5 hours (2AA), without degrading battery performance.



Additionally, the CC55 features 4 LED fuel gauge charge indicators which measure the remaining charge of each battery cell. Once the battery has been fully charged, the LED indicator will turn off. This makes it easy for consumers to determine that the battery is ready to use.





eneloop Ni-MH rechargeable batteries deliver the perfect balance of power, shelf life, and recharge capabilities for hundreds of uses in electronics, outdoor products, and a number of other household devices.

The eneloop batteries provide up to 2000mAh (AA) and 800mAh [AAA] of power¹, maintain 70% of their charge for up to 10 years¹, and can be recharged up to 2100 times².





























AA + Charger K-KJ55MCA4BA

AA + C Spacers K-KJS2MCA2BA











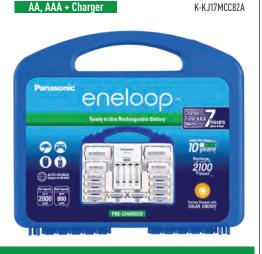


















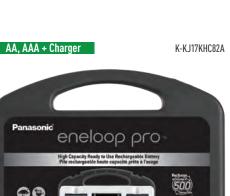
AA

BK-3HCCA8BA

eneloop pro

BAA



























PLATINUM POWER Powered by Evolta Technology

LONGER LASTING²

Platinum Power AA and AAA batteries Alkaline Plus Power². are the latest of Panasonic's advanced battery technology. delivering powerful performance across a wide range of devices. Powered by Evolta technology, they last 33% longer than

They feature Panasonic's latest technologies – Advanced Formula, Triple Tough Coating, Anti-Leak protection and a 10 year shelf life3.

Designed to deliver more power to meet the increasing demands of today's power hungry devices, our AA and AAA Platinum Power batteries are at the forefront of the alkaline battery industry.



ADVANCED FORMULA AND TECHNOLOGY IMPROVEMENTS

The combination of high-purity manganese dioxide, a unique Titanium additive, and ultra high density cathode filling technology provide longer lasting performance for high drain devices.

Optimized can thickness, uniform density of the active ingredients, and advanced gasket technology allow for the addition of more active ingredients and added structural integrity. In addition to longer lasting power performance, Platinum Power AA and AAA batteries also provide high impact resistance. reducing defective conductivity after accidental dropping.

NEW HIGH PERFORMANCE MATERIALS PLATINUM POWER ALKALINE REGIII AR AI KAI INE High-purity manganese dioxide





TRIPLE TOUGH COATING

Panasonic Platinum Power AA and AAA batteries utilize a customized iron / nickel alloy layer on the negative terminal. This additional alloy layer creates a triple tough coating which prevents iron oxidation, reduces contact resistance, and improves the battery's ability to stay connected for smooth energy flow.

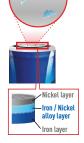
STRUCTURE Nickel layer partially peels off Exposed iron oxidizes

Panasonic

REGULAR ALKALINE

Panasonic PLATINUM POWER ALKALINE STRUCTURE

Additional alloy layer prevents iron oxidation Oxidation is

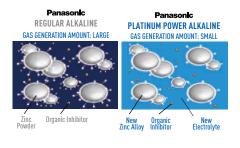


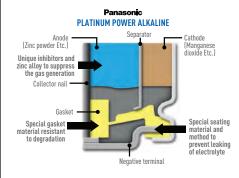


ANTI-LEAK PROTECTION

Leakage in alkaline technology batteries is largely caused by a build-up of hydrogen gas which is generated within the battery when it is overdischarged during use or while being stored. The gas increases pressure in the battery and can lead to leakage.

Panasonic has developed a unique gasket material which has increased resistance to degradation. This new material and the highly specialized sealing method, when combined with the new zinc alloy, electrolytes and organic inhibitors, dramatically reduce gas build-up generated within the cell, and the possibility of electrolyte leakage.













LR6XE/48PC















AA









































ALKALINE **PLUS POWER®**

Panasonic Alkaline Plus Power batteries are great for everyday household use. These battery cells are formulated to provide long lasting power for a wide variety of devices,

> including toys, remote controls and beauty products.

Alkaline Plus Power AA and AAA batteries can be stored up to 10 years¹. New electrolyte and alloy components combined with new production techniques provide improved levels of leak protection. This technology is especially important when batteries are subjected to an overdischarge during use or long periods of storage.



















































1) When unused and properly stored. Applies to AA and AAA batteries only.













AA LR6XWA/C



AAA LR03XWA/C



LR14XWA/C



LR20XWA/C



6LF22XWA/C



INDUSTRIAL **ALKALINE BATTERY**

Panasonic Industrial Alkaline batteries are designed for today's heavy current or continuous use applications. Our Industrial Alkaline AA, AAA, C and D batteries protect power for up to 7 years and 9V up to 5 years. These dependable batteries are for end-users in the professional, industrial. and contractor marketplace. Sold exclusively to commercial accounts for use in industrial applications, these alkaline batteries are not available for retail sales.



corrugated boxes for commercial use. The inner carton description is written in English, French and Spanish with a safety locking tab to prevent accidental spillage and damage to the batteries. The durable, economical bulk packaging uses bold graphics and large, legible type font for easy product identification.





















Flashlights Walkie Talkie Alarm Clock

LITHIUM

Panasonic lithium batteries offer exceptional power and performance. A lightweight and durable power source, they perform well in extreme temperatures and have a shelf life of up to 10 years. They are an ideal energy solution for many specialty products such as home security systems, night vision equipment and tactical LED flashlights.









CR2 CR-2PA/2B **Panasonic**

CR123A





CR-123APA/2B

CR123A

CR-123PA/6B

Panasonic ummum























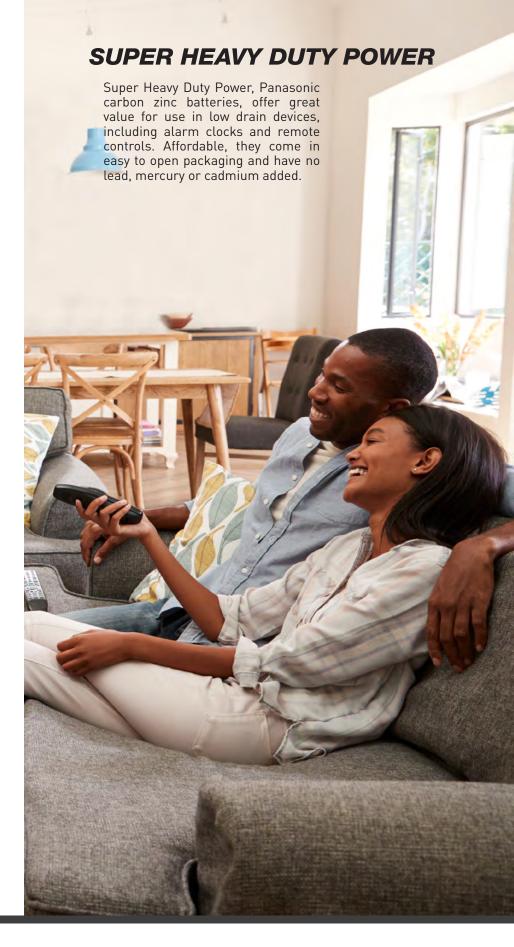
















We offer

MERCHANDISING SOLUTIONS

to meet all your needs

Packaging is our forte. Every day we pack hundreds of thousands of Panasonic batteries while ensuring they are delivered to the customer in the best way to support their business model.

All of our cardboard displays are pre-filled to minimize the final assembly labor cost for our customers. Additionally, we even design unique, customer specific racks.

Our comprehensive display portfolio

includes clip strips, small mod trays, large trays, decorative PDQs, cardboard floor displays and permanent metal racks. We have it all – footprint efficient solutions for compact areas, seasonal sales, secondary locations, and permanent fixtures.

Our merchandisers come in many shapes and sizes, but they are all united by a strong design which communicates the trusted Panasonic brand people can rely on. Driving incremental sales has never been easier.





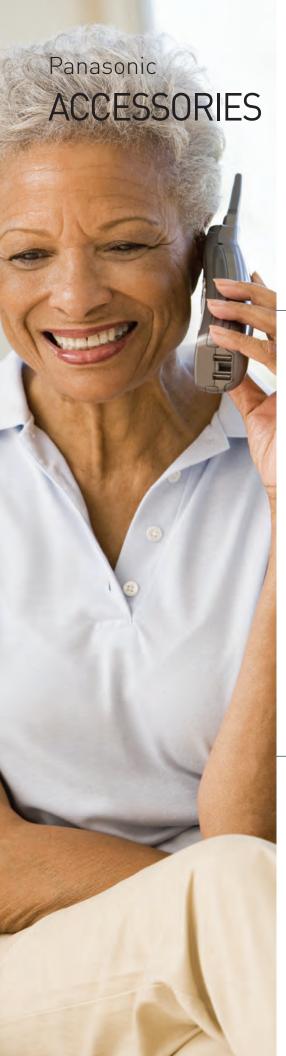




chemistries are also available.







NECK LIGHTS

Our convenient LED neck light is ideal for walks, fishing, and camping. LED light provides high brightness while using a fraction of the power.

- Hands-free design
- 13 lumens LED light
- Up to 15 hours of continuous light
- IPX1 water resistant design
- 45 degree, wide angle beam
- "Quick Lock" design
- Batteries (2 x CR2032) included



PHONE BATTERY

Ideal for your cordless phone, Panasonic DECT batteries are the perfect solution to keep you connected. Panasonic DECT phone batteries are ideal for DECT 6.0 phones and are currently offered in two packs sizes: 2 AAA and 4 AAA.

- Compatible with DECT phones using AAA Ni-MH battery cells
- Up to 750mAh typical/700mAh minimum







HHR-4DPA/2B

HHR-4DPA/4B

HHR-4DPA/8BA

- Battery replacement for Panasonic Series: KXTG1000, KXTG4000, KXTG4100, KXTG4700, KXTG6300, KXTG6400, KXTG6500 (not including model KXTG6500), KXTG6600, KXTG7400, KXTG7500, KXTG7500, KXTG7700, KXTG8000, KXTG8200, KXTG9300, KXTG9400
- Battery replacement for Panasonic Models: KXTG113, KXTG243, KXTG265, KXTG4311*, KXTG4312*, KXTG4313*, KXTG4313*, KXTGA101, KXTGA106, KXTGA402, KXTGA402, KXTGA651, KXTGA641, KXTGA641, KXTGA642, KXTGA652, KXTGA653, KXTGA659, KXTGA660, KXTGA740, KXTGA750, KXTGA805, KXTGA805, KXTGA805, KXTGA806, KXTGA807, KXTGA931, KXTGA931, KXTGA936, KX-HN6000W, KX-HN6003W, KX-HN6006K, KX-HNH100W

BATTERY STORAGE CASES

Panasonic plastic battery storage cases are ideal for conveniently storing 4 AA or 5 AAA batteries. This easy to use design has been engineered by Panasonic in Japan to safely store AA and AAA batteries in a compact enclosure when not in use.

- Convenient, portable design
- Fits perfectly in a purse or briefcase for battery power on the go
- Easy to use, dual thumb tab design makes the case easy to open and close
- Each storage case can store up to 4 AA or 5 AAA battery cells
- Available in 2 and 6 packs



BQ-CASE2SA • BQ-CASE6SA

There are two main types of batteries – primary (non-rechargeable) and secondary (rechargeable). Primary batteries are disposable batteries. They have only one life cycle and once they are drained, they can no longer be used. Alkaline, carbon zinc, lithium and zinc air batteries are examples of primary batteries. Secondary batteries (nickel metal hydride, nickel cadmium, lithium-ion) can be recharged and reused. Panasonic Panasonic Panasonic Panasonic

CHOOSING THE RIGHT BATTERY

Use the right battery for the right device for optimum results. Carbon zinc batteries are great for low drain devices such as remote controls, both alkaline and rechargeable batteries work great in mid to high drain devices such as toys and game controllers.

CARBON ZINC BATTERIES

Primary batteries essentially consist of three materials: metal, metal oxide, and electrolyte. Carbon zinc batteries use manganese dioxide for the positive electrode, zinc chloride and ammonium chloride for the electrolyte, and zinc for the negative electrode.

For low-drain devices which require a small current load





ALKALINE BATTERIES

Alkaline batteries are designed to produce a larger current than carbon zinc batteries. The electrolyte contains potassium hydroxide, an alkaline-aqueous solution which enables a high current flow.

For mid-high drain devices which use high continuous current



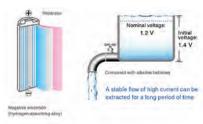


NI-MH RECHARGEABLE BATTERIES

Nickel-metal hydride batteries allow a stable flow of high current to be extracted, yet they can also be recharged and reused. They use nickel hydroxide for the positive electrode, and a hydrogen-absorbing alloy which soaks up and releases hydrogen at high levels of density for the negative electrode.

For mid-high drain devices





A FEW TIPS FOR BATTERY CARE AND USE:



Always use the same battery type in the device and never attempt to charge primary batteries



Handle batteries with care and do not expose them to excessive heat.



Replace all your batteries in the device at the same time.



Store batteries in a cool, dry and safe place, and away from children and pets.



Protect the environment and recycle your batteries where possible.



Find us online.

PanasonicBatteryProducts.com















Panasonic Energy Corporation of America 1 Panasonic Drive Columbus, GA 31907 855-562-2300

SUPPORT: PECACustomerFeedback@us.panasonic.com SALES: batterysales@us.panasonic.com