

Devices and Products That Require Batteries

The Use of Batteries

Did you know that in 2016 over 600 million batteries were used in the United Kingdom?

Volta first invented the battery back in 1800. This battery was known as the voltanic pile. Copper and zinc discs were layered and separated by a layer of cloth or cardboard soaked in brine.

Popular Batteries

Alkaline batteries are the most popular type of household batteries. The batteries are readily available, have a long shelf life and last for a reasonable amount of time. Alkaline batteries are not rechargeable, but they do last much longer than older battery types such as Carbon Zinc batteries.

The two main categories of household batteries are non-rechargeable disposable (primary battery) and rechargeable (secondary battery). Both are commonly used. Disposable batteries are designed for one use only. Common sizes for standard household batteries are AAA, AA, C and D.

Disposable batteries are most commonly used in portable devices where the device has a low current, is only used from time to time, or used when there is no other power source. Primary batteries can also commonly be used for alarm and communication circuits where other electric power is available.

What Are Batteries Used For?

We use batteries so often, and in such a variety of appliances, that we often just take their availability for granted.

A home is not a home without a drawer full of batteries! I am sure everyone has had a Christmas morning where batteries have been forgotten for that new must have toy. Disaster! Most toys are battery operated and not electric! Think train sets, remote control cars, musical toys, some dolls and even your pet cat's toys! Many toys do not have batteries included so be sure to stock up at Christmas time!

We need batteries for clock radios, mobile phones, laptops, flashlights and PDA's. We need them for our camping equipment ie stoves, kettles and lights. Some home appliances use a battery or battery backup. For example lamps, irons, fans and air pumps. Many tools use batteries such as cordless drills, saws and garden trimmers. And how many people could even shave or brush their teeth without a good quality, reliable battery?

Has your battery ever gone flat in your smoke alarm? That screeching beep, beep, beep sound is a sharp reminder to – change the battery!

Every household needs a blackout kit – that little easy to find bag of items needed in case the power goes out. Candles, flashlight, batteries!

Wireless doorbells, remotes, gate controls, cordless phones and clocks all need batteries.

In the workplace, batteries are used in a variety of industries. In the factory they are used in forklifts, emergency lighting and radios. Heavy duty batteries are generally lithium batteries. Offices use a battery on their eftpos machine.

Batteries are an essential service in hospitals, powering pacemakers, defibrillators, pagers and baby monitors.

Common Types of Batteries

Computers and other home electronics commonly use lithium ion batteries. These rechargeable batteries use an intercalated lithium compound, compared to the metallic lithium used in a rechargeable lithium battery. Also known as LIBs, these batteries are also used in the military, aerospace and electric vehicles. Handheld electronics mostly use LIBs with a lithium cobalt oxide which offers high energy density but presents safety risks if the battery becomes damaged.

Different types of watches generally use different sizes of batteries, but the type of battery used in a watch is generally an alkaline button cell battery. There are various different sizes of watch batteries. Your friendly watch repairer can decipher which watch battery size is needed and change it for you.

Battery voltages depend on the chemicals and materials used to make the battery. Primary (non-rechargeable) alkaline batteries usually have a charge of 1.5 volts. Rechargeable NiCd (nickel cadmium) and NiMH (nickel metal hydride) normal output 1.25 volts.

Car Batteries

Wet Cell batteries (also known as flooded batteries) and VRLA Batteries are the two main types of car batteries.

Flooded batteries are lead acid. They have two different sub-categories. SLI Batteries use a fast burst of energy to start the car engine. The lead plate count is larger. It is a larger battery. Most cars come with this type of battery.

Deep cycle batteries last longer. The bursts of energy are weaker than in SLI batteries.

The second type of car battery is the VRL Battery. This is a sealed battery and gas cannot leak from it. These batteries can not be serviced. There are two categories of VRLA batteries.

Gell batteries are made with gelified electrolyte. Gel batteries are extremely tough and can withstand heat, spillage, movement and evaporation. Gel batteries function as flooded batteries except they are sealed and dry.

In Absorbed Glass Mat (AGM) batteries the liquid is contained in glass mats. The mats are thin fibers which are interlocked. AGM batteries also work just like a wet battery without the spillage of battery acid. They are sealed.

Batteries are an integral part of life. What with the use of laptops, tablets, mobile phones and other equipment our use is on the increase! Due to advances in production, the price has also decreased significantly over the past few years. Always look for quality products and shop around for the best service and pricing.