

Non-Rechargeable Batteries

Dry-cell (primary) batteries:

An electrolyte is a solid material. This is the most common type of household battery. It is used once and discarded.

- Alkaline: “Long-life” batteries widely used in both light drain and heavy drain applications.
- Lithium/mercury: commonly used in cameras, watches and computer clocks. They have a very long shelf life but are expensive.



Help protect our environment by using rechargeable batteries to reduce the number of batteries requiring disposal and protect our environment!

Rechargeable Batteries

Dry-cell (secondary) batteries:

Modern rechargeable batteries can be recharged and reused up to 1,500 times! Batteries can be charged using external chargers, solar chargers or by charging internally e. g. cell phone batteries.



Some examples of rechargeable batteries:

- Nickel-cadmium: commonly used in many applications. Uses older technology and suffers from the so-called “memory-effect”.
- Lithium-ion: commonly used in laptops, modern camera phones, MP3 players and other portable digital equipment.



Wet-cell:

Electrolyte is the liquid lead-acid, (**dangerous!**). These batteries are rechargeable and are used, for example, in car batteries.



Why recharge & recycle batteries?

Batteries are hazardous to human health and the environment when disposed of improperly! They contain acids and metals such as cadmium, mercury, copper, zinc, lead, manganese, nickel, and lithium. The consequences of improper handling and disposal are:



- **Damaged batteries can get very hot—risk of burning.**
- **Batteries are harmful or fatal if swallowed.**
- **Their corrosive acids irritate or damage eyes and skin when contact is made.**
- **Metals are released into the air when batteries are burned and are washed down in the rain polluting streams and lakes.**



Recycling of batteries

All batteries can be recycled!

- **Dry-cell batteries:** Recycling of the ferrous materials, zinc, manganese (re-used in the production of electronic components):
- **Button dry-batteries:** Recycling of mercury and the ferrous materials;
- **Rechargeable dry cell batteries:** recycling of cadmium (in metal form) and nickel (as iron-nickel alloy);
- **Rechargeable wet-cell batteries:** Lead is

- **Use rechargeable batteries whenever possible!**
- **Never dispose of batteries as or with regular trash!**
- **Collect used batteries and bring them to the designated locations where you can find special containers for battery collection.**

Battery Recycling Containers

Bring your batteries to these containers, the recycling centers or building # 147!



Ledward Barracks:

- Bldg. # 251—Stairwell Main Entrance
- Bldg. # 252 Self Help issue point
- Bldg. # 228 PX Main Entrance outside left
- Bldg. # 235 Recycling Center

Askren Manor:

- Bldg. # 505 Elementary School Main Entrance Hallway
- Bldg. # 560 Recycling Center

Yorktown Village:

- Bldg. # 458 Middle School Main Entrance
- Recycling Center Yorktown near Bldg. # 449

Conn Barracks:

- Bldg. # 64 Main Entrance Hallway

DPW—ENVIRONMENTAL DIVISION
USAG SCHWEINFURT

Household & Vehicle Battery Recycling Guide



**Help the US Army to
protect the Environment**

**Directorate of Public Works
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