



Print Output: Alkaline Technical Bulletin

Chapter: 6 & 7

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6 Applications

DURACELL[®] alkaline batteries—with their superior drain rate characteristics, good shelf storage life, low internal resistance, and wide operating temperature range—are a popular choice for many portable power applications. The most common uses are found in the consumer market, in applications such as photographic equipment, remote control devices, toys, electronic games, flashlights, tape recorders, home health care devices, radios, shavers, clocks, calculators, and computers.

Alkaline cells also have significant application presence in the industrial and government sectors. Some industrial applications include portable medical and

industrial instrumentation, portable and emergency lighting products, communications equipment, and portable electrical measurement devices. Military applications include a variety of communication devices and general instrumentation.

Duracell is actively involved in the development of battery products that can power applications currently utilizing rechargeable batteries or AC power, such as notebook computers, handheld cellular phones, camcorders, power tools, and more. The goal of this development program is to provide customers with a primary battery option where needed.

7 Battery Care

7.1 Storage Conditions

Batteries should be stored at temperatures between 50°F (10°C) and 77°F (25°C), with relative humidity not exceeding 65 percent. Refrigeration of alkaline batteries is not necessary because of their very

good capacity retention. Excessive temperature cycling and storage at temperatures greater than 77°F (25°C) should be avoided to maximize shelf life.

7.2 Proper Usage and Handling

Discharged batteries should be removed from equipment to prevent possible damage. Batteries should be removed from a device when it is not expected to be in use for several months. Batteries should also be removed from equipment while it is being powered by household (AC) current. Always replace all batteries at the same time since batteries in series, in different states of discharge, may eventually drive the weakest battery into voltage reversal with progressive risk of leak age or rupture. Mixing battery systems, such as

alkaline with zinc-carbon, may also result in voltage reversal and should be avoided.

Always replace the battery or batteries in your equipment with the size and type of battery specified by the equipment manufacturer.

Keep batteries away from small children. If swallowed, consult a physician at once. (For information on treatment, telephone the National Capital Poison Center, Washington, D.C., at 202-625-3333 collect.)

7.3 Charging

All batteries listed in this bulletin are of the primary type and are not designed to be recharged. Attempts to recharge an alkaline battery may cause an

imbalance within the cell, leading to gassing and possibly explosion on either charge or discharge cycles.