Flashlight and Battery Lantern Repair

Replacement Antique-Style Batteries

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**Flashlight Repairs**

When a flashlight or lantern stops working, they can often been repaired. Sometimes the problem is electrical, such as corrosion or oxidation, or mechanical, such as a broken part, wire, switch, contact or lead. I have been repairing these devices for over ten years and have developed a reputation for being able to restore functionality to most lights. I do have a limited stock of replacement parts and bulbs available, and can also custom-cut new flat glass lenses to replace broken ones.

Generally, it is best to call me so that we can discuss the problem and the possible fix. I may also ask you to e-mail photos of the outside and inside of the light. Sometimes the problem can be diagnosed using your photos, and an estimate can be given over the phone or via email. In other instances, I may ask you to mail the light to me for closer examination.

I will be able to tell you if the light is repairable. Unfortunately, some lights are beyond repair and may only be suitable for the parts bin. This generally includes lights damaged by heavy corrosion from battery leakage or rust, or extensive mechanical damage causing breakage. Most lights can, however, be restored to working condition.

There is no cost to you for a preliminary telephone or e-mail diagnoses, when possible. I will also let you know if it makes economic sense to have the light repaired. For example, a common light that is readily available on eBay for $15.00 should probably be replaced rather than repaired. On the other hand, should the light be a special family heirloom, repair may make sense.

Should it become necessary for you to mail the light to me, there is a 20.00 fee for inspection and diagnoses of the problem. I will let you know what the problem is, if the light is repairable, the approximate length of time required to do the repair and the cost involved. Labor is charged at $25.00 per hour with a one-hour minimum charge, and the inspection fee will be waived should you decide to proceed with the repair. Should you decide against repair, you will be charged the $20.00 inspection fee plus return postage.

In the rare case where the repair is attempted but is unsuccessful, there will be no charge to you whatsoever, other than return postage.

Other than labor, a standard charge of $5.00 applies for most replacement bulbs, and $10.00 for a replacement flat glass lens. Other parts are extra. Return postage will also apply, of course.

Please note that repair may include cleaning to remove oxidation or corrosion, polishing of contacts and springs, and restoration of the reflector to its’ best possible condition. Restoration does not include cosmetic polishing, painting or replating, as it is best to preserve the patina of the light as much as possible. Dent removal is also not included unless required to restore the functionality of the light.

I have successfully repaired the following battery-operated and dynamo lights, and can most likely repair yours to your complete satisfaction:

* Tubular flashlights, with metal casings, plastic, fiber, cardboard or vulcanite
* Vest and coat pocket lights
* Penlights
* Bicycle lamps
* Electric candles
* Wooden-cased lanterns
* Metal and plastic lanterns
* Novelty lights
* Dynamo or generator lights
* European style lanterns
* Illuminated clocks (electrical only)
* Flashlight canes
* Military lights, including signal lamps
* Miner’s lamps
* Etc.

**Replacement Batteries**

Batteries are very important to flashlight collectors, because without them, all you have is a nice display piece doesn’t that doesn’t do anything. A lot of collectors and would-be collectors are discouraged because the old-style batteries are no longer made or available. Or, some sellers and collectors may assume something is missing from a flashlight, lantern, or novelty light that has no “insides”; in reality, it takes a custom battery or battery pack. What originally went into the light was generally simple; a battery was made to fit perfectly into the device.

Batteries originally came in packs, or were rechargeable wet cells (filled with acid), not the individual cells we see today. Tubular flashlights used packs of 2, 3, or 5 AA, B, C, and D cells, configured end-to-end. Imagine placing several batteries end-to-end in a paper towel tube, and you’ll get the idea. Not until the 1920’s were individual or “unit” cells available. These packs can be replaced with modern batteries with little problem using individual AA, C, and D cells

Some early tubular lights used battery packs made from B, C and D cells of different lengths than the modern ones. Those packs can be custom-built with modern batteries. Likewise, lanterns using wet cell batteries can also be replaced with custom-built packs.

Other old-style batteries came in flat packs, with 2 or 3 (or more) AAA, AA, B, C, and D cells laid side-by-side or in other configurations. There were usually two brass contacts on the top or the side, one of which made contact with the directly base of the bulb or a contact leading to a switch, and the other with the case or other contact.

For most applications, we can use modern AAA, AA, C and D cells, or a 6 volt lantern battery. However, many lights had no switch at all; the “switch” was really only a simple contact that touched up against the contacts of the old style flat pack or other specialized battery pack. A vest pocket light, pistol light, most wooden-cased lanterns and candles will not work without a properly configured battery pack. There is nothing inside the empty battery compartment, and the light won’t work if you attempt to insert an ordinary battery or batteries.

**Most Common Battery Packs** (Eveready reference number)

700 two AAA cells 4.5 volts

750 two AA cells 3.0 volts

751 three AA cells 4.5 volts

703 three B cells 4.5 volts

734 three E cells 4.5 volts

#8 European Bijou battery, two B cells 3.0 volts

#800 European bicycle lamp, two E cells 3.0 volts

#6 dry cell 1.5 volts

Of the above, only three are still available today. The 703 style is still popular in Europe. It is made in alkaline and carbon-zinc styles by Duracell, Energizer, Varta, and others. The Duracell pack is readily available in the US at sporting goods and battery stores and internet battery suppliers under the reference number 3LR12. The cost is typically under 10.00 each.

The #8 (2R10) is still made in Germany but is very difficult to get in the US. These were used mostly in European lights. This odd-sized battery fits tubular lights where two AA cells are too narrow and too long, and two C cells are too wide and too long. Your best source for these batteries is eBay UK.

The old, round, standby #6 dry cell (remember starting your model airplane with those?) is still being made but is very hard to find. Energizer made the EN6 industrial Alkaline 1.5 volt dry cell, and discontinued them in 2007. The replacement HO6 is still available on some internet battery sites. Beware-they are expensive.

Other than the three listed above, I can provide you with custom-made battery pack that are prototypical of the original battery in size, voltage, and configuration. These packs are made using modern alkaline AAA, AA, C, D or other cells. Spacers may be used to ensure the packs are the correct size. The packs are built using black electrical tape as a covering and brass contacts. Labels unfortunately are not available.

Most lights and lanterns use the packs mentioned above, and it is not necessary to send me the light to custom build a pack, though I may ask you to send photos in order to ensure a proper match. In some cases, such as mining lanterns and military lights or lights that require an unusual battery configuration, I may need to light to properly build the battery pack. I can, however, build a battery pack that will fit any battery light or lantern that had been made from 1898 through present day, including fluorescent lanterns and battery operated cigarette lighters.

I do keep a stock of the following batteries on hand and can ship them to you promptly. Please note each battery takes about one hour or longer to build:

Battery Price

700 two AAA cells 20.00

750 two AA cells 25.00

751 three AA cells 27.50

734 three E cells 35.00

#800 European bicycle lamp, two E cells 35.00

Other applications require custom built packs, sometimes requiring external cases and/or multiple cells to achieve the required voltage. Prices will be quoted depending on the size and complexity of building the pack, based upon $25.00 per hour plus materials.

There is no charge for quotation of the cost of a battery pack, even if the light is mailed to me for inspection.

Please feel free to call or e-mail me with any additional questions.

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