Using the retro-labels for making modern cells/batteries look like period 1940s batteries

12-16-2022 Paul Schmidt

NOTE: In this document, the term "cell" refers to a single "A", "AA" or "C" cell, which many people casually refer to as "batteries". The term "battery" refers to any assembly of two or more "cells", usually connected in series with each other.

This document provides information on using four newly created labels, with the filenames:

Eveready_750_dual_AA_battery_label.pdf

Eveready_C_size_label.pdf

Burgess_No_1_C_size_label.pdf

Burgess_422_dual_AA_battery_label.pdf

These were created in December 2022 as a means to disguise modern cells or battery packs to look like 1940s vintage cells and batteries such as would be used with certain electronic equipment of that period, specifically for the original Simpson 260-1 VOM/multimeter.

The Simpson 260-1 VOM/multimeter used a single "cell" (1.5V) and two "battery" packs (3V each). Simpson recommended using the "Burgess No. 1" cell (1.5V), which is similar to a modern "C" size cell, and a "Burgess 422 battery" (3V). Also commonly used were the equivalent Eveready "C" cell and 750 battery, respectively. These four new labels approximate the appearance of those vintage products when applied as follows.

For the "C" size cell, use either the 'Burgess_No_1_C_size_label.pdf ' or 'Eveready_C_size_label.pdf ' labels.

For the 3V battery, use either the 'Burgess_422_dual_AA_battery_label.pdf ' or 'Eveready_750_dual_AA_battery_label.pdf '.

Print the PDF(s) to paper using a color inkjet or color laser printer. Make sure to make the appropriate selection in your printer's driver so that it prints **full size**, rather than it trying to adjust the size to fit the paper. This setting my be expressed as printing at 100% size.

Each PDF contains two copies of the associated label artwork. Cut out one or both of the images, as desired.

Test fit the label to your battery or cell. In most cases, the label will be too tall by a small amount; some overrun was added to make sure that the label would never be too short for

whatever brand of cell or battery you might choose to use. Simply trim the top and bottom edges as required to exactly fit your chosen cells or batteries.

NOTE: Fitting the "C" size labels to modern "C" cells is simple, and the leading edge of the label can be affixed anywhere around the circumference of the cell. Use adhesive or clear tape to tack the leading edge (this is the label's left edge) to the cell, then wrap the label around and affix the trailing edge; for best appearance, make sure to affix the entire edge, not just part of it. Note that the label is slightly too long, so there will be a small amount of overlap at the trailing edge.

NOTE: Fitting the Burgess 422 or Eveready 750 battery labels requires a bit more effort. As these types originally used two "A" size cells (now obsolete 'unobtainium'), laid side by side but in opposite directions, and then connected in series on one end, some equivalent scheme will be required for making new battery packs. Also, because the "A" cells were slightly longer and also larger in diameter than modern "AA" cells, the resulting battery pack will be too small, both for proper label fit, and also because the pack will be too loose in the Simson 260-1 battery holder/clips. Before assembling the two required battery packs, each of them comprised of two "AA" cells, first fabricate spacer blocks to fit between the two "AA" cells. The length of these spacers should be the same as the length of the bodies of the cells (i.e. not including the extra length of the contacts at the ends), the spacer width should be the same as the diameter of the cells, and the spacer thickness should be such that when the spacer is held between the two cells, the overall width of the assembly should be 1-5/16" (33mm). Once the two cells have been assembled with the spacer (with the cells pointing in opposite directions), use some method to join them together, such as hot melt glue, wrapping with tape, or using heat shrink wrapping; if using glue, it is still recommended to wrap them around with masking tape, etc; to give flat sides to the assembly. Make sure to connect the two cells together at one end of the assembly, so that they are connected in series; it is best to micro-weld a thin metal strap between them, or if that is not possible, then solder a wire between them, taking care to avoid overheating the cells. Finally, attach the label, first trimming to height as necessary for a good fit and appearance. As with the "C" cell label, start by affixing the leading edge (left edge) of the label to the wrapping tape or heatshrink around the battery pack. Unlike with the "C" cells, it is important to affix the leading edge of the label to the center of the NARROW SIDE of the battery pack, and doing this should result in the main body of the artwork image being centered on the battery pack's WIDE SIDE(s). Affix the trailing edge to the battery pack along its entire width; there will be some overrun to the label's length, but on most battery assemblies, there will be no need to trim the length.

If using the cells or battery packs on a Simpson 260-1, the factory did not use any kind of battery connectors or sockets, instead providing just the bare ends of six wires (two for the "C" cell and two on each battery pack). Originally, the bare ends of the wires were simply soldered to the ends of the cell (or cells comprising the battery packs); this can still be done, but it is recommended to micro-weld small solder tabs to the ends of the cells so that soldering can be done to THEM rather than to the cells themselves.

For more information on identifying WHICH of the size wires should be connected WHERE for the Simpson 260-1 battery wiring, refer to descriptive note on the newly CAD-drawn schematic diagram, which is available for download from the same fileshare website where THIS document, and the PDF label files, were obtained:

https://www.serpentwebsite.com/fileshare.htm