

DESCRIPTION OF A RAYOVAC WORKHORSE FLASHLIGHT

The Rayovac Workhorse is a hand-sized plastic flashlight, easily portable, which will fit into most automobile glove compartments. (See Figure 1.) The Workhorse's overall length is 6 inches, with a diameter of 2 inches at the head of the flashlight, tapering to 1-1/4 inches in diameter at the battery compartment. The body of the Workhorse, basically cylindrical in shape, is of matte black, high-impact plastic, ribbed for a secure handgrip. The Workhorse flashlight consists of two major parts: (a) the body, containing the battery compartment and the switch, and (b) the bulb assembly, containing the reflector, the bulb, and the connector. The flashlight is powered by two 1.5 volt size C batteries.

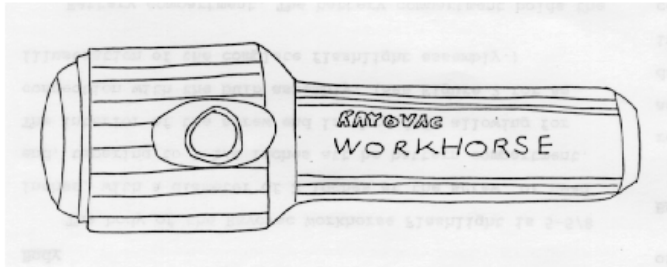


FIGURE 1. RAYOVAC WORKHORSE FLASHLIGHT

BODY

The body of the Rayovac Workhorse Flashlight is 5-5/8 inches, with a diameter of 2 inches at the screw, or head end, tapering to 1-1/4 inches at the battery compartment. The interior of the screw end is threaded, allowing for connection with the bulb assembly. (See Figure 2 for an illustration of the complete flashlight assembly.)

Battery compartment. The battery compartment holds the batteries, the power source for the flashlight. The compartment is cylindrical, 3-1/2 inches long and 1-1/4 inches in diameter, with a coiled metal spring on the interior of the closed end, and a 1/4-inch wide strip of gold-colored metal running along one interior side of the compartment. The compartment holds two 1.5-volt C batteries, in a stacked position, with the negative end of the lowermost battery in contact with the spring and the positive end of the lowermost battery supporting the negative end of the uppermost battery. The open end of the battery compartment closes with the insertion of the bulb assembly.

Switch. The switch turns the flashlight on and off. The flashlight switch is located on the body of the Workhorse 1-1/2 inches from the screw end. The switch is of round white plastic, designed to be activated with the thumb of the hand holding the flashlight. When the switch is pushed forward, towards the larger end of the flashlight, the light turns on. When the switch is returned to the original position, the light turns off.

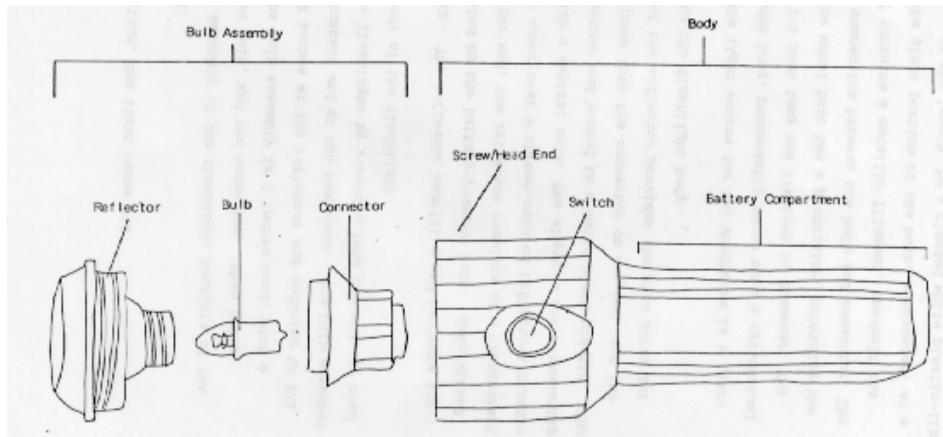


FIGURE 2. COMPONENTS OF THE RAYOVAC WORKHORSE FLASHLIGHT

BULB ASSEMBLY

The bulb assembly of the flashlight consists of the reflector, the bulb, and the connector. When fully assembled, the bulb assembly is 2 inches long, with a diameter of 2 inches at the reflector end reducing to 3/4 inch at the contact end of the connector. The bulb assembly completes the flashlight by screwing into the end, or head end of the body, of the flashlight.

Reflector. The reflector magnifies and projects the light generated by the battery-powered bulb. When viewed from the larger end, the reflector consists of a transparent flat plastic cover over a chrome-colored reflective plastic concavity with a central hole. The elements are permanently attached together and housed in a matte black plastic. The reflector screws into the connector on one end, and the midsection of the reflector provides the main screw for attachment to the flashlight body.

Bulb. The light source for the Workhorse is a glass bulb, 1/2 inch long, permanently fused onto a cylindrical metal base 1/2 inch long and 3/8 inch in diameter. The bottom of the metal base has a protrusion, providing the electrical connection between the bulb and connector. The bulb itself contains a metallic filament, one-half the length of the glass portion of the bulb, surrounded, at a point halfway up the length, by a clouded white plastic-like material.

Connector. The connector connects the reflector and bulb to the battery power source. The connector is of black plastic, ringed with a metallic collar 3/8 inch wide. The closed end of the connector is mounted with a 5/6 inch-square gold-colored metal strip. The metal strip facilitates the connection between the bulb and the batteries. The open end of the connector is threaded to allow joining with the bulb and reflector.

When fully assembled, the Rayovac Workhorse Flashlight is a sturdy easily held tool providing light sufficient for regular outdoor and emergency use. The compact size makes the flashlight easily portable, and batteries and bulb are readily accessible for replacement.