

## Using the VI Light for VIE and VI Alpha



During operation, the VI Light radiates intense violet light. Do not look directly into the VI Light. Exposure to the VI Light can cause eye damage to humans and animals. Keep out of the reach of children.

Cuando están encendidos, la 'VI Light' proyecta una intensa luz violeta. No mire directamente a la 'VI Light' cuando el dispositivo esté encendido. La exposición a la 'VI Light' puede causar daños oculares en seres humanos y animales. Manténgase fuera del alcance de los niños.

All VI Alpha and red, pink, yellow, blue, orange, and green VIE tags are fluorescent. When fluoresced, a small spot of elastomer can be seen at considerable distance and in the dark, tags obscured by pigmentation are often detectable, and VI Alpha tags are easier to read.



The VI Light (above) is used to fluoresce VIE and VI Alpha Tags. It has a nearly invisible, regulated, deep-violet beam. Deep violet (405 nm) is the optimum wavelength for fluorescing our tags.

The VI Light is quite different from an ordinary flashlight. To hold detection efficiency constant, the VI Light maintains constant brightness and color right up until its battery fails completely. It provides a beam of uniform intensity, then begins flashing when the batteries near exhaustion. The VI Light is immersion-proof to a depth of 150 m.

### Using the VI Light

Our VI Lights are very bright, but you can hardly see their light. They do not trigger the eye's normal defense mechanisms against bright light. **Never stare directly into any light used for fluorescing VI Tags, and keep these lights out of the reach of children.** It may be acceptable to glance briefly at one from the side to judge whether it is on or off, but it is safer to instead

shine the light on a tag sample, and see if the tag fluoresces.

Shine the light on the area where the tag is, or is thought to be. Don't try to fluoresce tags in direct sunlight. Rather, you should work in a little shade – even the shade of your body is probably enough for most tags. Very faint tags are best seen when fluoresced in darkness.

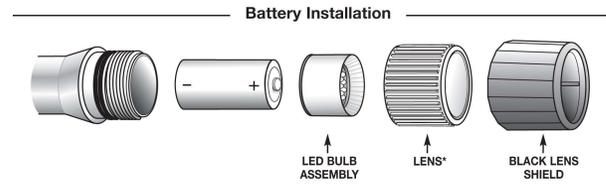
To maximize tag identification:

- Proper color selection is a vital part of good experimental design. Please see our website ([www.nmt.us](http://www.nmt.us)) for more details.
- Place tags in clear tissue whenever possible.
- Train your samplers – let them practice with the tag colors they will encounter before they start collecting data.
- Fluoresce poor or obscured tags with the VI Light, working out of direct sunlight.
  - Use the VIE Color Standard with the VI Light to correctly identify colors. The Color Standard presents the ten colors on a clear card. The sampler can place the color sample beside a tag for comparison, either under or over the tagged tissue.

## Batteries

The VI Light uses three C-cells. It will begin flashing when they need changing. The light will operate after it begins flashing, but it is best to replace the batteries immediately. When

operated at moderate temperatures you can expect high-quality alkaline cells to provide about 36 hours of battery life.



The flashlight will work with rechargeable cells, but it may damage them by discharging them too deeply. They are not recommended, but if they are used, you should replace them immediately when flashing begins.

## Maintenance

Occasionally clean and lubricate the threads and O-rings with silicone grease. Never use spray lubricants. Remove batteries from the flashlight for long-term storage.

## Contact NMT

Please call us at +1-360-764-8850 or email [office@nmt.us](mailto:office@nmt.us).