

Night Vision

Night Vision is an optical device consisting of high-quality image intensifier tubes and optics that amplify existing light. The Night Vision gives you the ability to see in conditions that are too dark for a naked eye. Every Night Vision product has an Infrared Illuminator. The Infrared Illuminator provides a light source for the system to amplify the images. It can give you the enhanced images in very low light conditions, such as caves, where no ambient light is available for amplification of the objects inside.

The working principle of a Night Vision is simple as well as interesting. In very dark conditions, the available light, like starlight, moonlight or infra-red light is gathered by the front Objective Lens of the Night Vision. The objective lens then transmits it through a set of optical lenses to the Electronic Intensifier Tube (EIT.). The high levels of energy that is produced by the device's intricate power supply rap out electrons from the Photocathode Screen, located on the front of the Electronic Intensifier Tube.

The same energy from the EIT generates a highly static field, pushing the electrons to the Phosphorescent Screen, which is a very sensitive layer at the back of the EIT. These electrons strike the Phosphorescent Screen with immense speed and allow it to illuminate. This whole procedure produces an image, which is then magnified by the Ocular Lens located at the back of the Night Vision. By looking through the ocular lens of the Night Vision, you will see the image as you see in a normal optical device.

The image that you get in the Night Vision will not be clear at the first instance. It will appear in an indistinct green color. Finally, the Ocular Lens gives the adjustment that is fit for your particular eyesight. The Objective Lens of a Night Vision gives you the choice of adjusting the focus according to the distance of the object you are viewing.

There are different types of Night Vision glasses. Some of the popular Night Vision glasses are Generation1, Advanced Night Vision, Night Vision Monocular, Night Vision Binocular and the Audio Monocular. The Generation 1 doesn't need an active infra red light source. Instead it amplifies the existing light several thousand times to let you see in the dark. It is currently the most popular type of Night Vision in the world. These units provide a bright and sharp image at a low cost, which is perfect, for all your adventures, exploration and voyages.

The other versions of Night Vision are used for specific purposes only. For instance, the Monocular and the Binocular with different lens powers are used for close range viewing and short range viewing. Night Visions of various types are put into use for fishing, boating, wild life observation and security purposes. Unlike Generation 1, the other types of Night Visions are pretty expensive.

About the Author

Author provides great information at <http://www.anightvision.com>- Night Vision resources.

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