



NIGHT VISION

OWN THE NIGHT!

HOW DOES NIGHT VISION WORK?

"Night Vision" as we recognise it is generally based on the use of an Image Intensifier. An image intensifier effectively amplifies the available light to enhance what is perceivable to our eyes. The objective (front) lens of the NV device gathers all of the light available to it and projects it onto something called a "photocathode" of the image intensifier. The light causes electrons to be released from the cathode, which are electronically accelerated raising the amount of energy they have.

These electrons then pass through the device and are projected onto a phosphor screen which makes it glow making the image visible to the eye. Green phosphor is used because the human eye is more sensitive to tones of green than any other colour allowing for an increased level of detail in the image displayed. All night vision devices utilise a similar principle of image intensifier although technological advances over the years have yielded steadily improved results and greater sensitivity.



THE PULSAR CHALLENGER IS THIS THE NEW, AFFORDABLE NIGHT VISION OPTION WE'VE ALL BEEN WAITING SO LONG FOR?!



WHEN MOUNTED ONTO A HELMET THE PULSAR BECOMES A FAR MORE EFFECTIVE PIECE OF AGGRESSIVE TACTICAL EQUIPMENT. IT'S FAR MORE CQB-FRIENDLY THAN WHEN WEAPON MOUNTED

NIGHT VISION, THE ULTIMATE TOY. THE GREEN GLOW OF THE TARGET AND THE HIGH WHINE OF THE ACTIVATION SWITCH ARE SYNONYMOUS WITH NVGS AND THEIR ABILITY TO AVAIL THEIR WEARERS WITH GOD-LIKE VISION IN TOTAL DARKNESS. THIS HIGH TECH GEAR IS SO DESIRABLE BECAUSE WHO WOULDN'T WANT TO BE ABLE TO MOVE IN THE SHADOWS OF THE NIGHT, SILENTLY STALKING THEIR NEXT VICTIM AND MOVING UNDETECTED UNTIL YOU ARE SO CLOSE YOU COULD REACH OUT AND TOUCH THEM? NIGHT VISION REALLY IS A GAME-CHANGER BUT IT HAS, UNTIL RECENTLY BEEN PROHIBITIVELY EXPENSIVE OR JUST STRAIGHT UP PROHIBITED FOR CIVILIAN OWNERSHIP BUT AT A RELATIVELY AFFORDABLE £289, THE PULSAR CHALLENGER AVAILABLE FROM AIRSOFT WORLD REALTY DOES OPEN UP THE PLAYING FIELD A LITTLE.

Night Vision devices are very expensive. For a top-of-the-line piece of Gen. 3 gear you could easily sink £3,000 on a well-priced item and it's common to see them fetch even more. This puts them well outside the realms of most players, ourselves included. Getting that £300 AEG past the other half is usually a struggle enough, let alone ten times that. Fortunately, there are cheaper options and one of those is the Pulsar Challenger. At £289 from Airsoft World, the Pulsar Challenger is a Gen 1+ monocular. It's called Gen 1+ because it uses 1st generation technology with a couple of enhancements, this means it uses a 5 lens array to improve the edge to edge clarity of the image it produces and to complement the intensifier within the device, an IR illuminator casts light that is invisible to the naked eye onto the surroundings.

The Challenger consists of a lightweight, compact glass reinforced body with a 20mm objective lens. It has a 1x magnification meaning that there is no zoom when looking through it. A rubber eyecup limits the projection of light from the back of the device and it is operated by one, simple switch and requires a single CR123 battery for power. The outer body of the Pulsar Challenger is water and weather proofed meaning that regardless of the conditions, you are good to go. Tripod threads and a mount system are positioned on the top and the bottom of the device allowing for various mounting options and the ability to fit a secondary IR illuminator for greater spotting distance.

MOUNTING THE PULSAR CHALLENGER

The Pulsar Challenger is a monocular meaning you use just one eye to look through it. This isn't unusual and means you can use it in a couple of different ways. The simplest of which would be to simply hand-hold it up to your eye and peer through. Whilst this might be great for spotting birds or wildlife, it's hardly a "tactical" option so we need to find some way of mounting it.

THE DSA (DAY SCOPE ADAPTOR) £29.00

Pulsar produces a neat adaptor to compliment the Challenger monocular. It allows you to fit the device to the rear of your usual rifle scope and a wide range is supported thanks to an included set of diameter adaptors. It doesn't use rail mounts but instead clamps directly to your optic. The DSA itself is made from fiber-reinforced plastic and is tough enough to lock the device into place without it wobbling or shifting but it will slip if excessive pressure is placed on it. This is useful because it prevents anything from getting broken. There is also a standard picatinny rail built into the DSA to allow for fitment of upgraded or additional IR illuminators to cast invisible light beyond the range of the built in device. The DSA works with illuminated reticules but prolonged use will degrade the tube over time. This solution gives you a useable option for sharp-shooting or sniping with the standard illuminator casting light out to around 40-50m

When laying prone or static in wait for a target, the rifle mount option is at its best. A stabilised weapon

will give you a good position to see into the darkness from but as soon as you are moving it becomes next to useless. If you are tasked with reconnaissance or observation of an objective, this will be a great way to watch in the darkness.

HEAD MOUNT KIT £79.99

The Pulsar Challenger head mount kit does exactly as you would expect and allows you to mount the monocular on your head with a flip-up arm to lower the device in front of the right or left eye, depending upon your personal preference. This gives a much more dynamic and "tactical" solution. The head mount itself consists of a system of nylon head straps that fit to the wearer's head and a fiber-reinforced plastic arm that screws in the tripod threads on the Challenger unit itself.

The head mount allows the user to observe their surroundings much more dynamically in the darkness but is a little uncomfortable. Fortunately, being resourceful types we simply unscrewed the mount arm from the head mount itself and found that it roughly matched up with the NCG mount on our Ops Core FAST Bump replica. Some eye-balling and a little drilling later, we managed to mount the arm directly to the helmet giving you a much more "military" look and feel to the Pulsar Challenger. At £79.99, using just the arm of the head mount kit might seem a bit steep, but if you already have a replica helmet, as many do, it's a great way to bridge the gap. Most replica NVG mounts will not fit accessible NVG technology as they are copies of high-end Mil-Spec equipment.

When mounted on a helmet the Pulsar becomes a far more effective piece of aggressive tactical equipment. It's far more CQB-friendly than when weapon mounted. The only additional consideration is aiming. Because the arm and NVG unit project some way ahead of the eye, it's impossible to get on the sights of any weapon, if you do you'll find they are blurry and unusable. The preferred method is of course to use a laser mounted to your weapon's rail and an IR one at that.

USING THE PULSAR CHALLENGER

When using NVG in a tactical situation you can find yourself falling into the trap of thinking you are invisible. The fact is you will not be invisible at all and it's essential to maintain the same discipline you usually would when playing at night. NVG is only a useful and effective tool if you use it properly, just like a ghillie suit won't hide you if you are running around like a maniac. Using Gen 1 night vision also comes with a number of other considerations. The IR illuminator that is required to peer into the darkness casts light that is all but completely invisible to the naked eye, but to other NV users, it's like a beacon in the night. They will be able to see the light projected by your device as if you were shining a visible torch. It's also worth noting that the illuminator built into the Pulsar Challenger emits a fairly bright red glow when activated. It's only really visible when looking directly from the front as it's shielded by a built-in shroud, but it could be a giveaway in the wrong situation.

The saving grace of the Pulsar Challenger is the fact that the intensifier and the IR light are activated separately with the same switch. As you rotate it first the tube is activated then another click turns on the illuminator. This, combined with an effective helmet or weapon mounted torch with a remote pressure switch would give you the ability to independently illuminate areas of interest.

For more info please visit www.airsoftworld.net.

AVAILABILITY

The Pulsar Challenger is available from Airsoft World and costs £289.99 and comes complete with a textile carrying case. The DSA is an additional £29 and comes complete with a wide selection of adaptor rings to ensure that it will fit all riflescopes. The Head Mount kit costs an additional £79 and allows for left or right eye mounting of the Pulsar Challenger and other NV devices in the range. For more information and to buy online, visit www.airsoftworld.net.

