



A shot in the dark

Hunting at night is getting ever more popular, indeed in some instances it is the only way that some hunters can get to grips with the vermin population. Lamping is the traditional method, but the use of Night Vision (NV) equipment is increasing rapidly.

There's a lot NV equipment out there, yet not necessarily of the same standard - despite having similar specifications - which is why purchases from a bona fide distributor with solid warranties such as Thomas Jacks is highly recommended.

With regard to choice of kit you can opt for a dedicated NV sight, a day/night option or a quick detachable NV unit that fits to your existing telescopic sight. Typically these detachable units fit to the rear of your scope. This can cause problems with eye

relief; i.e. your head is positioned very far back on the rifle's stock to view the image correctly.

The solution is to fit a NV device to the front of the scope or in front of the objective lens, in this way you can use your existing scope as normal and it also does away with the annoying issues of parallax problems with rear mounted devices. The only negative is the added weight to the end of the scope, but let's see how these devices work in real life situations.

The Cobra Orion Pro

Thomas Jacks supplied me with a Cobra Orion Pro Gen 2+, a front mounted night vision device built in Belarus. This is a basic Russian Gen 2+ which typically has 40 line pairs for a good resolution image and can be purchased with increased resolution and brightness "tubes"

dependent on your applications and budget. You can then up the sensitivity and image quality by going to a Russian Gen 2+ Pro tube (57 line pairs) and then a Photonis Gen 2+ or Super Gen tube. Price difference here is Gen 2+ is £4199.95, Gen2 + Pro is £4639.95.

For the best images the XD-4 and XR5 tubes are recommended and there are various levels of sensitivity within these two tube varieties but the price of the Photonis XR5 model is £6779.95. Best advice is to call Ashley Beard at Thomas Jacks on 01789 264100 to discuss your needs, he is an NV expert with decades of experience.

The Orion Pro is a neat alternative to having a dedicated NV unit especially when you can just attach it to your existing scope. But it's best to fit it to a quality scope such as Kahles,

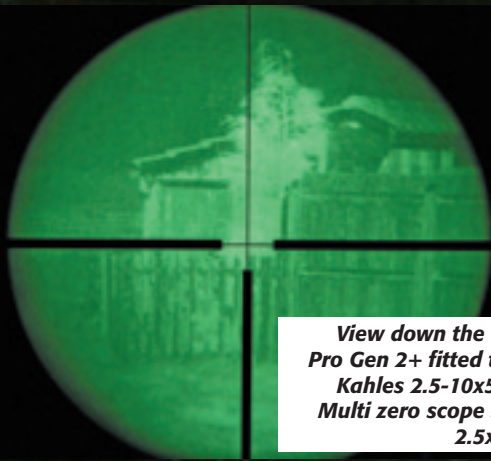
Zeiss, NightForce, Schmidt and Bender, Swarovski or similar.

At 202mm long and 62mmx80mm deep the Orion Pro is actually a very compact unit that weighs in at 630 grams. You attach the Orion via a split ring clamp that fits over your scopes objective lens and is secured in place by a thumbwheel. This split ring clamp has inserts (£159.95) for varying scope objective diameters, I borrowed a 42mm, 50mm and 56mm set. One very important issue is correct fitment over the objective lens. You have an inch of clamping area but protruding from the Orion's body is the rear lens or element and this must not come close to your scopes objective lens otherwise damage under recoil may occur.

I fitted the Orion to a Kahles 2.5-10x50mm, NightForce 3.5-15x56mm, S&B 4-16x50mm, Nikon

Fitted to the excellent Lynx 94 straight pull rifle in 6.5 x47 Lapua the Orion Pro could reach out to foxes at 150 yards if need be with total precision.

Bruce Potts cuts through the gloom with an Orion Pro Gen 2+ front mounted night vision device



View down the Orion Pro Gen 2+ fitted to the Kahles 2.5-10x50mm Multi zero scope set at 2.5x mag

2.5-10x50mm, Swarovski 6-24x50mm and Zeiss 7x50mm scope. The Kahles has an objective lens very close to the end of the scopes body so I had to wrap extra tape around the end of the scope to stop the Orion slipping down my Kahles to avoid the problem mentioned above. The other scopes (except the Zeiss) had sunshades fitted and so this was not an issue other than it added length to the scope and could cause more of a cantilever affect when the Orion is fitted. We will see later.

Operation

Because the Orion Pro does not affect your own scopes capabilities at all, the adjustments and operations are minimal. The lens cover is a flip up variety which is so much better than rubber units and with a three position switch to the right top of the Orion's body

to turn it on. Click once and the unit is switched on, click twice and the in built 75 mW Infra red illuminator is switch on 1/2 power and the third and last click gives full IR illumination. There is an optional remote switch (£44.95) that can be attached to your rifle with Velcro for easier switching on and off.

Powered by a single CR123A the Orion Pro has a very low power consumption and I tested it over 2-3 weeks (not continuously) and the battery was still working. All that's left is the focus wheel sited on top of the Orion's body which is easily accessed.

There is no magnification so all mag is achieved by your scope and because the Orion is mounted to your scope's front, parallax problems are totally avoided. Also you can use an illuminated reticule if your scope has one, as it



Venom .20BR and Orion bag a good sized fox.



The Lynx 94 and the second fox harvested

will not damage the Gen 2+ tube - as it would if positioned to the rear of the scope.

A Weaver type rail is fitted to the left side of the unit so an additional IR illuminator can be fitted if desired. I used this to fit the superb Laserluch eye safe 50 mW illuminator, also available from Thomas Jacks.

Field testing

As stated a variety of scopes were used mounted on .223, .22-250, .20BR, 6mm PPC, 6.5x47 Lapua and 30-47 Lapua rifles. Mounting on each was simplicity itself, slip on and tighten clamp, that's it and you are ready to rock. The Kahles had a low 2.5 mag as did the Nikon so I could increase the magnification in steps to see how the image varied at differing mag settings, eventually too high a mag will cause the image to degrade.

Firstly you need some ambient light for the Gen 2+ tube to amplify, so realistically star light and a quarter moon at least is best, failing this the image is boosted by the IR illumination from the built in unit or from the extra Laserluch illuminator.

At 2.5x you have a typically green image but I have to say with little "fizz" to it, that's with moon light, turn on the IR illuminator and the image is much brighter and the range increases but the contrast goes down. So you have a balance between detection and range here. At 2.5x mag without IR, 125 yards is max for detection but add the IR and a five bar gate at 200 yards is clearly visible.

However 2.5x mag will not please most hunters, so turning up the mag dims the image and increases the "fizz" or pixels viewed. At 4x no problems at all at 5x its getting noticeable and



This time fitted to a Venom Sako custom in .20 BR and Schmidt and Bender 4-16x50mm scope – this was an awesome kit for fox



Built in IR illuminator on the right side with the focus wheel visible on top of the body at the front. An optional LaserLuch illuminator is fitted to the left on the Weaver rail

at 7x - even with IR illumination - the image is clear and bright still but it's difficult to get a precise aiming mark. However if you turn the Laser Luchs beam to a tight spot, i.e. covering only half the view image and thus concentrating the illumination you can at a pinch get away with 8x mag but I would restrict the shots to 150 yards max.

So a rabbit to 100 yards is fine, a fox can be observed at 200 yards but I would not shoot past 150 absolute maximum with IR illumination. If you only use the built in IR illuminator reduce those ranges to 80 yards rabbit and 100 yards fox in my view.

What is nice is that the Kahles had q/d mounts, so if set at 2.5x mag I could take it off the rifle, use it as a viewing device to spot a fox and then reattach to the rifle - very handy. Or you can buy a monocular viewer £119.95 that attaches to the rear of the Orion for 'off rifle' viewing purposes.

This level of viewing and detection goes for all the scopes I tested and those with illuminated reticules did help give

a good aiming mark, although the black reticule against the light green image of the Orion Pro stood out very well any way.

Zero and group test

Viewing and achieving good clear images is one thing, but shot placement is more important. All the rifles used shot less than MOA at 100 yards and many shot 0.25 MOA regularly. First of all when the Orion is fitted there is obviously extra weight on the front end which could cause a scope to flex and thus cause problems. I have to say I had no such problems, group sizes did increase at night when reshot over the same range with the Orion fitted due to not such a precise image as in daylight but all rifles still shot less than 1 inch at 100 yards and the 6mm PPC gave 0.75 inch maximum groups so no issues there.

The Kahles, Nikon, and Zeiss scopes zero only altered by a maximum of 0.75 inches over 100 yards with the Orion fitted. However the S&B and Swarovski with their long sunshades gave good protection to the objective lens but the extra leverage on



The Orion is compact and really not that heavy. It fits directly to your scopes objective lens



On the Kahles scope I had to pad the objective lens to stop it moving backward

the front end meant I had 1-1.5 inch zero shift, down and right. So you need to check with your own scope if any shift occurs and then just compensate accordingly as the group size still remains good so as long as you know the shift. The NightForce with sunshade interestingly shifted less than an inch so check your own scopes.

Out in the field it all came together when I harvested two foxes, one with a Venom Sako custom .20BR rifle and Schmidt and Bender scope fitted at just 95 yards whilst the second fell to the superb Lynx 94 straight pull rifle in 6.5x47 Lapua at 60 yards. Not great distances but I spotted them both at 150 plus yards and let them come on in, as I was down wind and let's be honest they couldn't see me!

Conclusions

At £4199.95 pounds the Orion Pro is not cheap - and this is the entry level configuration - but it does completely do away with all the hassle of night vision

use by using your own scope and being so easy to use.

In the field it really added no great weight to the rifle, so you could shoot without really noticing it being there, the image quality was very good but needed starlight, obviously, and IR illumination for best results. Group sizes and zero shift which were my major concern when tested were not a real issue at all, making the Orion very user friendly although probably a bit over the top on a .22lr rimfire rifle!

You can observe foxes at 200 yards but you cannot see much beyond this, so be sensible and shoot them closer and use the extra range as a safe ground so any bullet fragments will not injure people, livestock or property.

Image quality was good and if this is how the Russian gen 2+ tube performs then I would love to see a XD-4 or XR5 tube as they are seriously good.

For more details on the Orion Pro Gen 2+ contact Thomas Jacks on 01789 264100 or www.thomasjacks.co.uk. **GM**