

The new Ultra is slimmer and lower it seems than previous NV kit and offers a compact and lightweight sight for any NV venture



Rimfire or centrefire the new Pulsar Ultra N450 with its large IR illuminator and HD sensors offer affordable NV capabilities

BETTER MOUSETRAP

Bruce Potts reckons Pulsar's new Digital is a bit of all right and very good money

As digital technology increases to evolve, so does the sensitivity and resolution of even the standard Night Vision (NV) optics available. It means better imagery through more sensitive CMOS sensors, which is then displayed on finer detailed AMOLED HD screens. Illustrating this, is Pulsar's Ultra N450, the next generation NV sight and, with its brother the N455, provides a highly competitively priced NV digital sight for all your normal vermin control duties.

Being a digital system, you can use the N450 both in daylight and night time without harming it and as it has a digital brain, so to speak, there are a myriad of options open to

use. Priced at not much over £1000, it offers performance that a few years ago would cost you twice as much. Smart marketing by the importers Thomas Jacks Ltd, as the Ultra compares well with other newer and similar units, like the Sightmark Wraith that graced these pages last month. In truth, it's getting harder and harder to keep up and to say the consumer is spoilt for choice would be a serious under statement!

SPEC

It's a quite nice and compact scope and its bodyshell is fully waterproof and mounts to the rifle via the universal Weaver system. It

is slimmer than the previous version in the body at 370x73x74mm and weighing 830 grams and mounts quite low to the rifle, so your neck is not strained upright. Again, it seems that the bigger manufacturers are learning that small design changes can mean more user-friendly equipment.

The base consists of twin, Weaver-style brackets attached to a single base, which can be altered in position to move the Ultra forward or backward for better eye relief, or to suit the base on the rifle you are fitting it to. Up front is the usual, integral, flip up plastic lens cover that has a small window in the centre for use in daylight if the light is too strong. When up, it reveals the 50mm



F1.2 objective lens that directs the available light to the large high sensitivity HD sensor, 1280x720 CMOS sensor. This allows really clear images to be processed by the digital system and then displayed on the viewing screen that is frost free, AMOLED HD of 1024x768 pixels.

BIG KNOB!

Focus is via a large, top mounted, finger-friendly rotating drum switch with slotted sides for grip in all conditions. Behind this, is a line of four control buttons. In the middle is the menu and either side of this is the up and down navigation controls, with the fourth being the record mode. On the right side of the body is the standardised Pulsar format of ON/OFF button, rubberised to protect from the weather and a top lever that allows the Lithium Ion ISP5 battery to be released or fitted from its compartment. This battery is excellent, and in fact same as on my Pulsar Trail and lasts for ages, so no problems for long night shooting sessions.

To the left side is the huge 850 nm LED IR illuminator that allows detection up to 600 metres. The N455 model differs only in it has an IR of 940nm, so is invisible to the

Fast focus knob to left, easy four button controls and big IR illuminator to bottom



naked eye. A concept that should appeal, as you are safe in the knowledge that your quarry cannot see the emission, as it potentially could with the earlier units. Either IR is quite large but has an easy to use and locate push button to increase or decrease a three step brightness setting. You also have a micro USB port for exporting pictures or WIFI streaming and video, if that's your thing.

PIP AND ALL THAT

Finally, the long eyepiece houses the screen focus and rubberised eye shield which is essential for a clear view of the AMOLED display from extraneous light. Features include its very useful 4.5-18x magnification zoom facility; so, more than enough for close

up barn rats or longer-range foxes. This offers a smooth transition as you increase the magnification, or you can elect the faster step up system from 2x or 4x mag. It does affect the reticle or zero adjustment, as set at 4.5x mag you have a 10mm adjustment per "click" or finer 2.5mm at 18x magnification.

Good features are Picture in Picture (PIP) viewing, where a small additional magnified view of the target is inset into the main view, aiding in aiming. It has a long-lasting IPS5 battery pack with live streaming, picture and video capture. Like all digital systems, it allows multiple reticle options, for colour, size, zero in ranges and viewing controls. I have found that the different patterns and shapes on offer suit different conditions, so it's just a matter of finding what works best at the time. It switches ON in 3 seconds and has a display OFF mode, so instant start up from rest.

CAN'T SEE THE CANT OR CAN

Pressing the menu button briefly toggles through, contrast, brightness, and stadia lined range finder options and you can also see a cant mode indicator to both

► sides of the screen. If you cant the Ultra, arrows show how much the sight is tilted, so in darkness it is always level and the bullets trajectory is perfect.

Hold the menu button down and you have the zero settings and press again allows five different profiles i.e. zeroed in with different rifles, sights etc. By using the up and down buttons, you can access the icon brightness, reticle setup, zeroing the sight, WIFI settings general settings accelerometer (cant0 and device info).

The zero in method is either using the windage and elevation method with the up/down buttons to alter the superimposed cross hairs to adjust the aim. Or, you can use the freeze mode, here a frozen image of the target is taken after the shot and then return to zero icon and adjust the red cross hairs to cover the bullet hole, instant zero in, nice! I get it now and actually have become quite used to using these digital devices; however, I still like the simplicity and surety of turrets though. Guess I'll never change!

You have ten different reticle styles; I liked the X50I and I changed the colour to black stadia and green central dot. Changing styles and colour allows the white or black hot views to work with most of the reticle alternatives. I like the dot, as you just rest that on the target and shoot instinctively.

IN THE FIELD

I fitted the Ultra to both rimfire and centrefire rifles and, as with all digital devices, be sensible at the ranges you use them at. Available light does make a difference and the IR LED illuminator is actually very good, giving a clearer beam and intensity for a markedly better more defined images. You will also notice the smoother image with very good detail from the larger CMOS sensor and the HD display is better giving you a clearer target to aim at.

Also, the Ultra does not lag when you move it and the image is also very well balanced. In that, I mean it stays well composed for brightness and exposure. Some sights when tilted to the sky or dark area take their time to re-adjust, the Ultra is very fast and so the image was always good. Yes, at the lower power magnification range the zero in has a cruder adjustment, but most people will use this model at 8x plus magnification, so no worries.

GOOD LIGHT

Dependent on the available ambient light, determines the ultimate range and image quality. But bear in mind the image will pixelate, but with the IR illuminator on it was not until 12x plus I started to see this. The ISP5 battery, like Pulsar's Trail and Helion thermal series, is brilliant and will last all



Although capable of detection to 600 yards, keep the ranges sensible, as digital systems are best with IR on



Good IXP7 waterproof casings and flip up lens cover keep out the weather



Typical Weaver type mounting, length-adjustable base makes it easy to fit and set up your eye relief

night with no worries, so just leave the sight on and get on with the hunting.

I observed several foxes walking along the fields and hedgerows some 150 to 200 yards with a good half moon and IR illuminator help crisp up the image. But I let them go and concentrated on rabbits and testing shooting the Ultra in differing lighting conditions and close up targets. Care is needed not to get flash back off close leaf converge that over exposes the image, but in dark gloomy barns with the IR on, the image was still very good.

LEARNING CURVES

I had several rabbits out to 60 yards and a few misses too, as is the way of it. Range estimation is still hard on flat, open fields and you could even see the Winchester 42-grain Sub-sonic Max bullets impact signature. Thermal is all the rage and it is very good, but expensive too and many shooters do not want to pay that sort of money. So, sights like the Pulsar Ultra N450s offer an excellent and highly cost-effective alternative for all levels of shooters on a budget. Or, even those that need half decent NV optics, but are perhaps not full-on night shooters, so overall a realistic and highly effective product and capable at sensible ranges.

CONCLUSIONS

Priced at £1199.95, it has to be considered somewhat of a bargain to be honest. Digital has come a long way and used correctly with the new larger IR LED illuminator really helps as does that larger CMOS sensor and HD display. I have even managed to fathom out the menu system, too old school, but I am getting there. Thomas Jacks always deliver a good product and this new Pulsar Ultra N450 will appeal to pest controllers, air gunners and fox shooters alike.

TECHNICAL SPECIFICATIONS

■ Name	Pulsar Digsight Ultra N450
■ Type	Digital
■ Weight	830 grams
■ Size	370x73x74mm
■ Magnification	4.5x
■ Digital Zoom	18x
■ Objective lens	50mm F1.2
■ Field of View	10.9m at 100 metres
■ IR Illumination	850nm LED
■ Sensor Resolution	CMOS 1280 x 720 pixels
■ Max detection range	600 yards
■ Screen Resolution	1024x768 AMOLED HD
■ Adjustment range	10mm per click at 4.5X or 2.5mm at 18x zoom
■ Power	IPS5 Lithium power pack
■ Price	£1199.95
■ Contact	Thomas Jacks Ltd; www.thomasjacks.co.uk

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