

## Binocular Sky Review: Pentax SP 10x50 WP

### Manufacturer's Specification

Weight (g)	1060
Field of View (°)	5
Close Focus (m)	5.5
Eye Relief (mm)	20
IPD (mm)	57-72
Waterproof	Yes (JIS Class 6)
Prism Type	Porro
UK Guarantee	30 year
Origin	Japan
Body Material	Magnesium Alloy
Armour Type	Full
Nitrogen Gas Filled	Yes
Prism Material	BaK4
Prism Coating	Multi-coated
Lens Coating	Fully multi-coated with protective overcoat
Eyecup Type	Twist-up 3-stop



**Price: £149**

**Available from:** [First Light Optics](#)

### Initial Impressions

The binocular is of B&L-type construction, i.e. the objective tube is integral to the prism housing.

The binocular is covered in a substantial rubber armour, which has thumb recesses underneath the prism housings in order to give a secure and consistent way of holding it. The lockable centre-focus is perfectly smooth throughout its range with no initial “stiction”. The right eyepiece dioptre adjustment is similar and is easy to adjust, even with gloved fingers, owing to with two substantial knurled lugs on the adjuster ring. The hinge is smooth and sufficiently tight so as not to accidentally slip once it is adjusted. The three-position twist-up eyecups “click” into place and do not move under longitudinal pressure. They are tapered (like “volcano-top” astronomical eyepieces), which makes them comfortable against the eye sockets. The eyepiece bridge is internal and the eyepieces barely move under moderate pressure.

The coatings look evenly applied and reflect a minimal amount of light. There are proper light-baffles inside the objective tubes, suggesting that control of stray light should be very good. There are no cut-offs in the light path, suggesting that the prisms are adequately sized.

The soft, slightly padded case is sufficient to keep the binocular clean, but will only protect it against the lightest of knocks. It has no strap, but is designed so that the binocular straps can be used to carry the cased binocular (see image). The untethered objective covers are a reasonable fit, but tend

to come off when you take the binocular out of its case. The eyepieces have an untethered single-piece rainguard-type cover that falls off far too easily to be useful other than in the case when it is closed; it is likely to get lost. It is wide enough so as not to restrict the maximum IPD when it is in place.



### Testing the Specifications

As you would expect with a binocular of this quality, the aperture is the full 50mm and is not internally stopped. Examination of reflections when a bright light is shone down the objective end confirms the fully multi-coated spec. There are no grey segments in the exit pupil, confirming that the prisms are of high-index glass. The minimum interpupillary distance is the specified 57 mm. The eye cups are 48 mm diameter, tapering to 40mm. so there is a minimum 9 mm between them at their closest, widening to 17mm at their extremities; this should accommodate most noses. The objective lenses are recessed 9mm into their barrels. The full field of view is visible when observing with spectacles with the eyecups both fully down and in their half-way position; I found the half-way position to be preferable. With fully-corrected vision, the right eyepiece dioptre is set at zero, suggesting that it is properly adjusted. There is a sufficient “beyond infinity” focus to enable it to be used without spectacles by people with moderate myopia.

### Under the Stars

Collimation was, as far as I could ascertain, perfect. The view is extremely sharp and flat over the central 90% of the field, and only drops off very slightly outside this. I could detect only minimal vignetting towards the edge. Control of false colour (chromatic aberration) is very good on axis, but becomes noticeable on bright objects (e.g. the lunar limb) from about half-way to the periphery, although it is still well-controlled here; it was not noticeable on first magnitude stars except near the edge of the field of view. There is some pincushion distortion: it is unobtrusive, but is sufficient to eliminate the nauseating “rolling ball” effect that can occur without it. Control of stray light is nothing short of superb, a testament to properly applied multicoatings and well-designed baffling in the objective tubes: there was no light at all from the Moon when it was immediately outside the field of view. The colour rendition is excellent; during a lunar eclipse when the Moon was less than 10% eclipsed, it was easy to distinguish the copper colour of the eclipsed part when the bright part was kept out of view.

**“The control of stray light is exceptionally good”**

The focus can be locked by sliding the focus-wheel forward. This eliminates the possibility of accidentally defocussing the binocular once you have attained perfect focus.

The Dumbbell Nebula shows shape, but not structure. The Andromeda Galaxy showed shape and very good differentiation of the core; I could distinguish a sharper cut-off in brightness from the dust lane at the nearer edge. This binocular comfortable to use and seems well-balanced for hand-holding. I found the tapered, rubberised eye-cups to be comfortable in my eye sockets. It is also tripod-mountable, using a standard L-bracket.

## Conclusions

This is a very good binocular for someone who has exhausted the potential of a budget 10x50 and wants good value for money in a significantly better instrument of the same size.

The binocular is let-down only by its case and lens caps; I would have expected significantly better to protect an instrument of this quality.

The lockable focus is a very valuable feature for astronomical use. It is lighter than most other binoculars of a similar size, specification, quality and price, making it less tiring to hold. Combined with the superb control of stray light, the very sharp and flat field of view gives a very pleasing image which is ideal for astronomical purposes.

At its new price of £149, it is exceptional value for money.

Binocular Sky Ratings (/10)	
Sharpness of Image	10
Size of usable field	8
Colour Correction	9
Control of stray light	10
Eye relief	10
IPD	10
<b>Overall Optical Quality</b>	<b>9.5</b>
Focus mechanism	10
Right eyepiece adjustment	10
Eye cups	10
Hinge	10
Armour	10
Weight and Balance	8
<b>Overall Mechanical Quality</b>	<b>9.7</b>
Case	4
Neck-strap	8
Objective caps	6
Eyepiece caps	4
<b>Value for Money</b>	<b>10</b>
<b>Overall</b>	<b>9.3</b>

[Click here](#) to see the **Pentax SP 10x50 WP** on [First Light Optics](#) website

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