

PENTAX BINOCULARS MONOCULARS

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A Panoramic View of Pentax Binoculars and Monoculars

When you look at competing brands of binoculars, it's pretty hard to tell them apart. When you look through their lenses, the difference is clear. The exceptionally vivid, crisply-focused view through Pentax binoculars is the result of the impeccable lens craftsmanship that has made Pentax a world-renowned name in cameras.

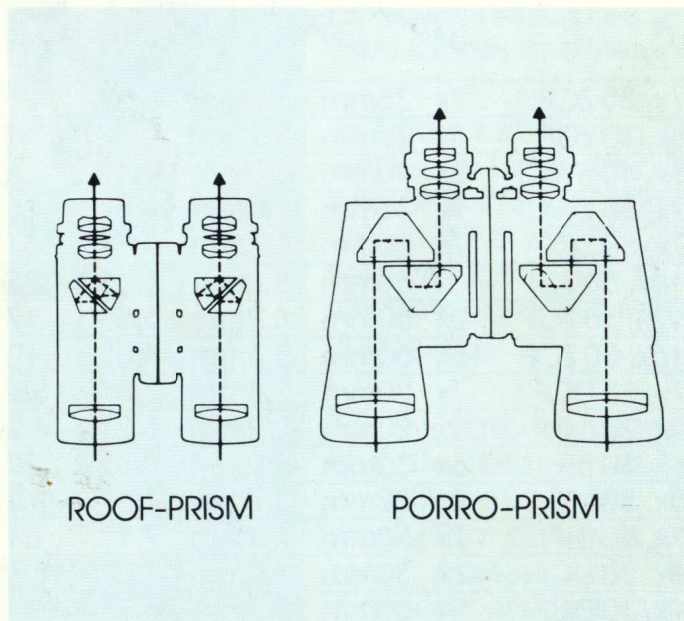
Standard "Porro-Prism" Binoculars

Pentax makes two types of binoculars: the conventional porro-prism type with its familiar "hump-backed" shape, and the new roof-prism type with its compact, straight-line design.

Advanced "Roof-Prism" Binoculars

Roof-prism binoculars give you the added advantages of lightness and easy-handling because of their space-saving system. (Light

enters the objective lens and travels in a straight line out through the eyepiece.) This results in high power and streamlined design without any sacrifice of optical quality.





7x, 35ZCF A popular model that excels in every viewing category.



7x, 35BWCF Extra-wide field of vision for watching fast-moving objects.



10x, 50ZCF Brings images close enough to touch, even under poor lighting conditions.



7x, 50ZCF Designed for night use. Bright, clear image, even under poor lighting.



8x, 30ZCF Light and compact, but with extra magnifying power.



8x, 40BWCF Wide angle of view, high power and good night vision.



12x, 50ZCF A professional model with plenty of power (to watch a lion's whiskers twitch from a very safe distance).

Specifications



TYPE	MAGNIFICATION	DIAMETER OF OBJECTIVE LENS	DIAMETER OF EXIT PUPIL	ANGLE OF VIEW	RELATIVE BRIGHTNESS	FIELD OF VIEW at 1000 yards		HEIGHT & WIDTH		WEIGHT	
						inch	cm	inch	cm	oz.	g.
7x, 35 ZCF	7x	35mm	5.0mm	6.5°	25	341ft	134m	5.9x6.7	15.0x17.0	17.6	500
8x, 30 ZCF	8x	30mm	3.7mm	7.5°	14	394ft	131m	4.4x6.4	11.1x16.2	17.9	510
8x, 40 BWCF	8x	40mm	5.0mm	9.5°	25	499ft	166m	5.7x7.2	14.4x18.2	34.5	980
7x, 35 BWCF	7x	35mm	5.0mm	11.0°	25	578ft	193m	4.9x7.2	12.4x18.2	31.7	900
7x, 50 ZCF	7x	50mm	7.1mm	7.1°	51	372ft	124m	7.0x7.9	17.8x20.0	35.2	1000
10x, 50 ZCF	10x	50mm	5.0mm	5.5°	25	289ft	96m	6.8x7.9	17.3x20.0	35.2	1000
12x, 50 ZCF	12x	50mm	4.2mm	5.5°	17	289ft	96m	6.6x7.9	16.7x20.0	35.2	1000
16x, 50 ZCF	16x	50mm	3.1mm	4.0°	10	210ft	70m	6.7x7.9	17.0x20.0	35.2	1000
7x, 20 DCF	7x	20mm	2.8mm	7.5°	8.2	394ft	131m	3.8x3.9	9.7x10.0	6.4	182
9x, 20 DCF	9x	20mm	2.2mm	6.2°	4.9	324ft	108m	3.6x3.9	9.1x10.0	6.7	190
6x, 30 BIF	6x	30mm	5.0mm	8.3°	25	435ft	145m	5.0x6.9	12.8x17.5	21.2	600
8x, 30 BIF	8x	30mm	3.7mm	8.5°	14	446ft	149m	5.0x6.8	12.5x17.2	22.2	630
7x, 50 BIF	7x	50mm	7.1mm	7.1°	51	372ft	124m	7.2x8.5	18.3x21.5	52.9	1500
8x, 30 DCF	8x	30mm	3.7mm	7.0°	14.1	371ft	122m	4.8x4.7	12.3x11.9	16.8	480
9x, 30 DCF	9x	30mm	3.3mm	6.7°	11.1	356ft	117m	5.6x4.7	14.2x11.9	18.2	520



16x, 50ZCF Among the most powerful of all Pentax binoculars. Designed for extreme distance viewing.



7x, 50BIF Designed for night use. The captain's choice for scanning the high seas.



6x, 30BIF Lightweight, water-resistant. A high quality, all-around model.



8x, 30BIF General purpose binoculars with plenty of power for viewing sports, wildlife, even marine activities.



Zoom Binoculars Each Pentax Zoom Binocular functions like a whole range of conventional glasses. Light and easy to handle, they offer finger-tip control of lens settings from 6x viewing to 20x close-ups.



6-15x, 35ZCF Instant zoom. Magnification from 6x all the way to 15x.



9-20x, 35ZCF Similar to model 6-15x, but offering more powerful zooming range.

Remarks

- *6x, 30BIF and 8x, 30BIF binoculars are available with special rubberized coating for maximum protection against rough seas or foul weather.
- *6x, 30BIF, 8x, 30BIF and 7x, 50BIF binoculars can be ordered with a size/distance scale in the eyepiece.
- *BIF water-resistance specifications: After 5 minutes under 0.2kg per sq cm air-pressure, water leakage into the binoculars will be less than 5% without moving the eyepiece.

6-15x, 35 ZCF	Width-195mm			Height-143mm			Thickness-65mm			Weight-1,080g		
Magnification	6x	7x	8x	9x	10x	11x	12x	13x	14x	15x		
Effective diameter of objective lens	35	35	35	35	35	35	35	35	35	35		
Diameter of eyepiece lens	15	15	15	15	15	15	15	15	15	15		
Diameter of exit pupil	5.83	5.00	4.37	3.88	3.50	3.18	2.91	2.61	2.50	2.33		
Angle of view	6.0°	5.8°	5.5°	5.2°	5.0°	4.8°	4.5°	4.4°	4.2°	4.0°		
View at 1000 yards	314	306	288	271	262	253	236	230	219	210		
View at 1000 meters	105	102	96.11	90.2	87.3	84.4	78.6	76.5	73.0	69.8		

9-20x, 35 ZCF	Width-195mm			Height-143mm			Thickness-65mm			Weight-1,080g		
Magnification	9x	10x	11x	12x	13x	14x	15x	16x	17x	18x	19x	20
Effective diameter of objective lens	35	35	35	35	35	35	35	35	35	35	35	35
Diameter of eyepiece lens	16	16	16	16	16	16	16	16	16	16	16	16
Diameter of exit pupil	3.88	3.50	3.18	2.91	2.69	2.50	2.33	2.18	2.05	1.94	1.84	1.77
Angle of view	4.7°	4.5°	4.3°	4.1°	4.0°	3.8°	3.7°	3.6°	3.5°	3.4°	3.3°	3.3°
View at 1000 yards	245	236	224	213	210	201	192	189	183	178	173	173
View at 1000 meters	81.5	78.6	74.8	71.0	69.8	66.9	64.0	63.1	61.1	59.1	57.7	57.7



9x, 30DCF The top of the line. Offers precision viewing even under poor lighting.



9x, 20DCF For the spectator who really wants to see it all. And for the pro who can't afford to miss a thing.



8x, 30DCF The twilight zone is no mystery to this model. A unique combination of power, night vision and portability.



7x, 20DCF All-purpose, ultra-portable. Cuts focusing time in half with a central focus knob (featured on all Pentax roof-prism binoculars).



Polarizing
Filters out reflected light rays. Gives your eyes a break when scanning bright bodies of water, or snowfields on a sunny day.

Brown
Like a pair of sunglasses for your binoculars. Gives you cool, precise viewing even in the full glare of the sun.

Light yellow
For the London fog, the LA smog, or anytime you want clear vision on a misty day. Also improves contrast when viewing distant objects.

Note: All Pentax binoculars come complete with fitted carrying case, as well as shoulder and neck straps.

Monocular 8x30

Magnification	8X
Effective Diameter of Objective Lens	30mm
Angle of View	6.2°
View at 1000 Meters	108m
Diameter of Exit Pupil	3.7mm
Relative Brightness	14.1
Height (monocular only)	124mm
Weight (monocular only)	220g
Focal Length of Objective	112-104mm
With Close-Up Lens	
Magnification	25X
Height (with stand)	213mm
Angle of View	8mm
Weight (with stand)	260g
Height (with stand)	213mm
Scale Range	0.1mm-4mm (1 gradation=0.1mm)

Monocular 7x21

Magnification	7X
Diameter of Objective Lens	21mm
Angle of View	7.5°
Diameter of Exit Pupil	3mm
Relative Brightness	9
Dimensions	91.3x31mm
Height (monocular only)	91.3mm
Weight (monocular only)	90g
Focal Length of Objective	77.476mm
Close-Up Lens	
Magnification	22X (attached to monocular)
Magnification	3X (used without monocular)
Height (with stand)	174mm
Weight (with stand)	127g



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What Determines Binocular Quality?

Binoculars are precision, high-technology products, but the features that determine their quality are relatively easy to understand.

Basically, binoculars consist of two optical systems (one for each eye) and a mechanical system. The quality of the optical system is determined by the lenses—their composition, grinding, coating and matching.

The lenses used in Pentax roof-prism binoculars (8x, 30 DCF and 9x, 30 DCF only) are Super-Multi-Coated. This special coating

lets more light pass through the lens while dramatically cutting down glare. The image is sharper and brighter. And because SMC also filters out potentially harmful ultraviolet and infrared rays, you can use your Pentax binoculars all day without eyestrain.

Pentax binoculars are quality-crafted for smooth, worry-free operation. The barrels are tough and scratch-resistant, designed for years of rugged use. BIF models are particularly well-suited to marine applications because of their added protection against damage from shock or salt-water corrosion.

Anyway you look at it, one of the most far-sighted decisions you can make is to invest in Pentax binoculars. The pair you buy today is almost certain to scan the 21st century.



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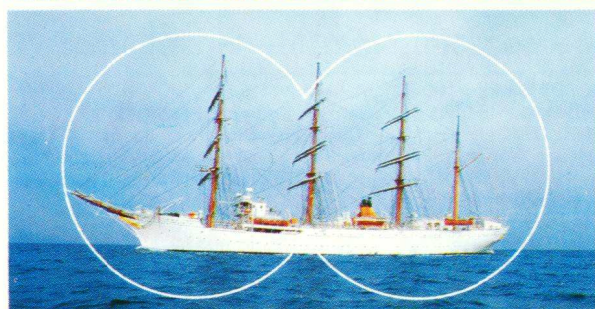
Which Binoculars Are Right for You?

A good pair of binoculars will last a lifetime. So it's important to choose wisely, and a little knowledge of binocular specs will help you find the pair ideally suited to your needs.

The general hobbyist, who might watch anything from a football game to a bird on the wing, will probably get the best combination of versatility and viewing power from a pair of 7x, 50 glasses.

The 7x means that the glasses will make an object seem seven times larger (or closer) than it appears to the naked eye. The 50 means that the diameter of the front lens (the objective) is 50mm.

The ability to produce bright images in dim light is determined by the relation between magnification and lens diameter. A pair of 7x, 50 glasses can "see" much better at night or through haze than 7x, 35 binoculars which are best used for daytime viewing.



To follow fast-moving objects, such as horses in the backstretch, you should use glasses with a wide field of vision, i.e., 11.0° which equals 577.5 feet at 1000 yards.

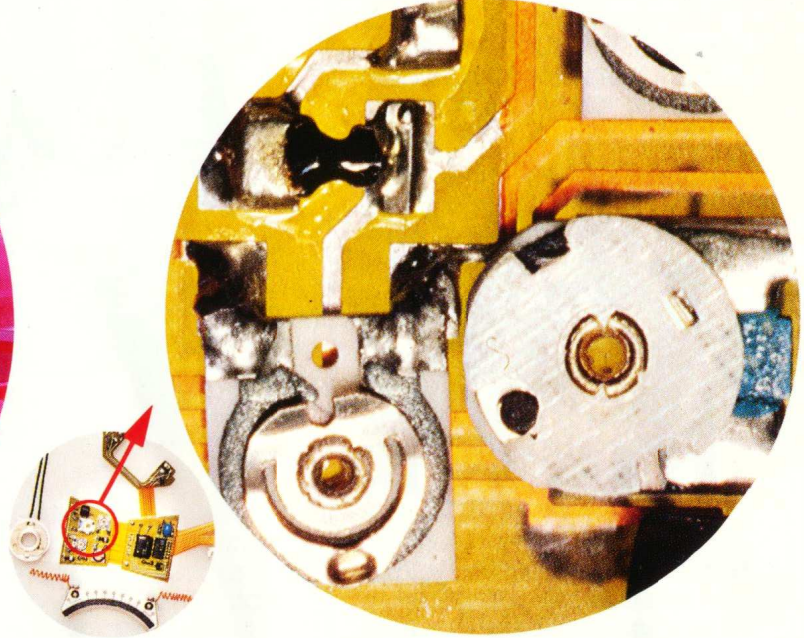
To view stationary objects, a smaller field such as 7.5° is sufficient. Select the model that puts your personal interests into the sharpest possible focus.

The All-New, All-Purpose Monoculars

(7 x 21 and 8 x 30)

For even greater convenience and compactness, consider the Pentax roof-prism monocular—a versatile optical instrument that combines

the functions of a telescope and a microscope in an easily pocketable package. Without the close-up lens attached, the monocular works



just like a pair of high-powered binoculars, with 7x or 8x magnification ideal for watching sports, theater, or wildlife on the move. And it's small enough to be used even in active pursuits like mountain climbing, surveillance or construction work. By attaching the close-up lens, you convert the monocular into a microscope that makes objects appear up to 25 times larger than their actual size. A detachable plastic stand holds the monocular up-



right at precisely the right distance for examining precious gems, checks, electrical wiring...or performing hundreds of other tasks too demanding for the naked eye.