

ASAHI
PENTAX K series **LENSES AND ACCESSORIES**



COMPLETE SYSTEM OF PHOTOGRAPHY

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THE NEW FAMILY OF 26 SMC PENTAX LENSES



THE ADVANTAGES OF INTERCHANGEABLE LENSES

THE UNIQUE BAYONET MOUNT OF THE PENTAX K2, KX AND KM ALLOWS INSTANT AND PRECISE LENS INTERCHANGEABILITY.

Today, the single-lens reflex (SLR) offers maximum versatility and handling ease, for focusing is done directly on the large, bright focusing screen of the viewfinder which shows exactly what will be recorded by the film.

Among the many benefits of an SLR are the facts that ultra-close-up (macro) photography and accurate through-the-lens metering are readily accomplished. But the most notable advantage of all is that the lenses are freely interchangeable. It is for this very reason that SLR's are now widely used throughout the world.

INTERCHANGEABLE LENSES ARE ECONOMICAL.

If you were to purchase a wide-angle and a telephoto lens in addition to the standard lens of your camera, you would effectively own three cameras: a wide-angle lens camera, a standard lens camera, and a telephoto lens camera. Each additional lens you purchase is equivalent to purchasing an additional camera. Thus, inter-

changeable lenses offer the user considerable savings. Not only are interchangeable lenses economical, but they permit one to instantly change from wide-angle to telephoto, for example, on the same roll of film.

This is not to imply, however, that you should purchase as many lenses as possible. It is only to help you realize and take advantage of the enormous capabilities of your Pentax camera. The purpose of this booklet is to assist you in selecting the SMC Pentax lenses best suited to your needs.

SUPER-MULTI-COATING: WHY SMC PENTAX LENSES ARE THE FINEST IN THE WORLD

A lens is an amazing device for capturing light rays. However, even under normal conditions a significant percentage of those rays may be lost through internal reflection — reflections within the lens that cause ghosts, flares and an overall dulling of the picture.

To combat this, Asahi Pentax applies a 7-layer chemical coating to most glass surface of every SMC Pentax lens. Thanks to this Super-Multi-Coating, internal reflection is reduced to less than 0.2%. Contrast is heightened, details are brightened, colors are truer — and flares and ghost images are practically eliminated. No wonder SMC Pentax lenses are now recognized by professional photographers as being among the finest in the world.

CHOOSING YOUR SMC PENTAX LENSES

1. POINTS FOR CONSIDERATION

The four points most frequently considered when choosing lenses are the following:

- Focal length/angle of view
- Maximum aperture
- Dimensions and weight
- Price

2. THE RELATIONSHIP BETWEEN IMAGE SIZE AND FOCAL LENGTH

When camera-to-subject distance remains constant, image size (magnification) is dependent upon focal length.

For example, when a 135mm lens is used, the image will appear 2.7x larger than that of a 50mm standard lens used at the same distance. Long focal length lenses (longer than app. 50mm) are referred to as TELEPHOTO LENSES.

When a 28mm lens is compared to a 50mm lens, image size or magnification is 0.56x that of the standard lens. In other words, the image will appear slightly larger than 1/2 the image produced by the 50mm lens. The reason for using a 28mm lens is not to deliberately shrink image size, but (as explained later) to increase the angle of view. It is for this reason that lenses with a focal length shorter than app. 50mm are called WIDE-ANGLE LENSES.

3. CAMERA-TO-SUBJECT DISTANCE, FOCAL LENGTH AND IMAGE SIZE

When the camera-to-subject distance is changed in proportion to the focal length, image size remains constant. For example, when the same subject is photographed from 10 meters with a 50mm lens, 27 meters with a 135mm lens, and 5.6 meters with a 28mm lens, image size will be the same.

4. THE RELATIONSHIP BETWEEN FOCAL LENGTH AND ANGLE OF VIEW

The shorter the focal length of a lens, the wider the angle of view; the longer the focal length of a lens, the narrower the angle of view.

For example, a 28mm wide-angle lens has an angle of view of 75° while a 24mm wide-angle lens has an angle of view of 84°. The angle of view is 18° for a 135mm telephoto lens, but it is 12° for a 200mm telephoto lens.

5. THE NEED FOR TELEPHOTO LENSES

At times, it is impossible to approach the subject close enough to obtain a satisfactory image size. Of course, the negative can be cropped and greatly enlarged, but it is an unsatisfactory solution because of the resultant loss of sharpness and increase in grain. It is at just such a time that the need for a telephoto lens most clearly manifests itself.

6. THE NEED FOR WIDE-ANGLE LENSES

When photographing a group of people indoors, it is sometimes impossible to include everyone, even if you stand in the furthest corner of the room. Similarly, it is often impossible to photograph a large church, for example, or a panoramic scene with the 50mm standard lens. On such an occasion the need for a wide-angle lens is strongly felt.

7. WHICH SHOULD I PURCHASE FIRST, A WIDE-ANGLE OR A TELEPHOTO LENS?

Before attempting to make the above decision, it is necessary to use the 50mm or 55mm standard lens for about three months. After this period, it will become clear to you which need is greater by simply asking yourself which type of situation you most frequently encounter, No. 5 or No. 6 mentioned before.

8. WHAT FOCAL LENGTH LENS SHOULD I PURCHASE FIRST?

It would be inadvisable for a beginner, who is accustomed to using only the standard lens, to suddenly purchase an ultra-wide-angle or ultra-telephoto lens, for the enormous difference in angle of view would most likely confuse him. The key to success, in any field, is to advance a step at a time.

Those lenses considered to be ultra-wide-angle are the 24mm, 20mm, and 15mm; we can also include the 17mm Fish-eye. Lenses representing ultra-telephoto are the 400mm, 500mm, and 1000mm focal lengths.

Thus, the clever beginner will select the 28 or 35 mm as his first wide-angle and the 85, 105, 120, or 135mm as his first telephoto lens.

9. WHAT ABOUT LENS SPEED?

The maximum aperture of a lens is often referred to as the "speed" of a lens. An $f/2$ lens, for example, is said to be "faster" than an $f/4$ lens since faster shutter speeds are usually used at larger lens openings; just how much more or less light enters the lens, when $f/2$ is compared to other maximum apertures, is indicated in the chart below. For example, if a picture is taken with an $f/2$ lens at $f/2$ (diaphragm completely open), and the same picture is taken with an $f/4$ lens at $f/4$, only $1/4$ of the amount of light will reach the film with the $f/4$ lens. Therefore, the shutter speed must be 4x longer to compensate for the loss of light. Of course, if both of the above lenses are used at the same aperture, for example $f/8$, the amount of light reaching the film will be exactly the same.

f	1.2	1.4	2	2.5	2.8	3.5	4	4.5	5.6	8
Maximum Aperture	2.8x	2x	1	Approx. 2/3x	1/2x	Approx. 1/3x	1/4x	1/5x	1/8x	1/16x

Generally speaking, if one desires to take pictures indoors, with the camera handheld and without the use of a flash unit, an $f/2$ or "faster" ($f/1.4$, $f/1.2$) lens will be required. For brightly-lit interiors, an $f/2.5$ or $f/2.8$ lens should suffice. If the lens is just to be used outdoors, a maximum aperture of $f/3.5$, $f/4$, or $f/4.5$ will be sufficient. Thus, if you wish to purchase an SMC Pentax 35mm lens, you have a choice of an $f/2$ or $f/3.5$. Similarly, if you wish to buy a 135mm lens, you can select from the $f/2.5$ and $f/3.5$ lenses.

10. DIMENSIONS AND WEIGHT

Eighteen of the SMC Pentax lenses are so compact and lightweight that they do not require the use of a tripod. For handheld lenses, you can choose from the 17mm Fish-eye to the 200mm telephoto. Also included is the 45 ~ 125mm zoom lens.

11. PURCHASING TWO LENSES SIMULTANEOUSLY

- a. **Wide-angle and telephoto.** If two lenses are to be purchased simultaneously, the most common choice is that of a wide-angle and a telephoto. However, depending upon the needs of the individual, some users prefer to select two wide-angle or two telephoto lenses. Among those selecting a wide and tele, the most usual procedure is to select a focal length

that is relatively close to the standard lens (and consequently easy to handle). Thus, for the wide-angle, the 35mm is most popular, and for the telephoto lens, the 85, 105, or 120mm is usually chosen.

For those wishing to travel light, the 85mm and 35mm are often used while the standard lens is left at home.

Although we can not say it is the best choice for everyone, those seeking optimum flexibility often choose to use a 28mm and 135mm lens along with their standard lens.

- b. **Two wide-angles.** The most frequently selected pair of wide-angle lenses is the 35 and 28mm set, although a new trend exhibited by camera enthusiasts favoring wide-angle lenses is to select the 28 and 24mm focal lengths.
- c. **Two telephotos.** For those who favor telephoto lenses, the 135 and 200mm combination proves to be most popular. For maximum versatility the following combinations are recommended (they are listed in order of usefulness for the average amateur): 85 & 135mm, 105 & 150mm, 120 & 200mm. Not only is the 85mm moderate telephoto lens ideal for portraits, but it also excels as a lens for scenics whenever the angle of view of the standard lens proves too wide.

- d. Whatever your choice, a wide and tele, two wide-angles, or two telephotos, it would be a good idea to first purchase the focal lengths that are relatively close to the standard lens. Extreme (ultra) wide and tele lenses are much more difficult for the beginner to master than are their moderate focal length cousins.

12. SPECIAL NEEDS.

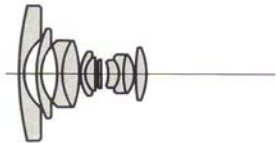
- a. **Macro photography.** For those who are chiefly interested in macro (close-up) photography there are the 50 and 100mm macro lenses.
- b. **Versatility with a single lens.** For versatility without the need to change lenses, the 45 ~ 125mm and 85 ~ 210mm zoom lenses are ideal.
- c. **When traveling abroad.** When going abroad and desiring to keep weight down to an absolute minimum, the 28mm lens is ideal as it can encompass picturesque buildings and panoramic landscapes.
- d. **For sports events.** The 135 and 150mm lenses are very useful at sports events.

who wish to capture dramatic "close-ups" of wild life, or fill the frame with the slowly sinking sun; for those seeking new and fantastic perspective; in a word, for those who wish to be introduced to new worlds of photographic expression, there are the SMC Pentax 300, 400, 500, and 1000mm ultra-telephotos, as well as the 17mm Fish-eye, 135 ~ 600mm telephoto zoom, and 15 and 20mm ultra-wide-angle lenses to choose from.

13. THE WORLD OF INTERCHANGEABLE LENSES

For those who have mastered the standard, moderate wide, and moderate tele lenses; for those

FISH-EYE LENS



SMC PENTAX FISH-EYE 17mm f/4

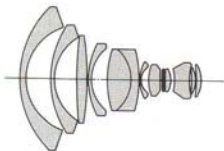
The world's most efficient fish-eye lens with a maximum brightness of f/4. The angle of vision is approx. 180°, enabling you to view and focus through the viewfinder without keeping the reflex mirror flipped up.



SUPER-WIDE-ANGLE LENSES

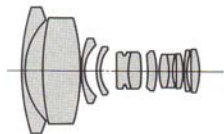
SMC PENTAX 15mm f/3.5

An aspherical ultra-wide-angle lens, compactly designed and free of distortion. Provides excellent contrast, and permits full aperture metering without loss of clarity. Four filters are built in: UV, Skylight, Y2 and O2.



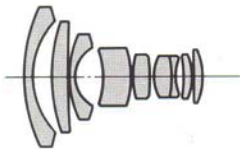
SMC PENTAX 20mm f/4

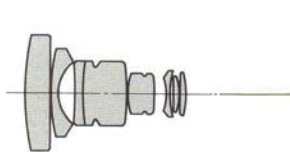
Relatively small-sized ultra-wide-angle lens, with a 58mm screw-in filter diameter. Useful for almost every kind of wide-angle photography, especially landscape shooting where the emphasis is on perspective effect.



SMC PENTAX 24mm f/3.5

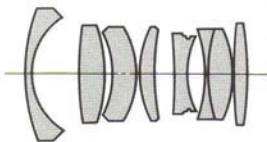
An ultra-wide-angle lens that adds to the versatility of every Pentax K Series camera. Compact and light in weight, it enables you to view and focus at an 84° angle of vision without keeping the reflex mirror flipped up.





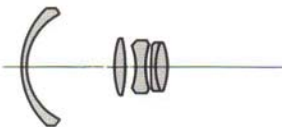
SMC PENTAX 28mm f/3.5

A wide-angle lens, designed to meet the most exacting professional requirements. Ideal for architecture, fast-action and artistic photography.



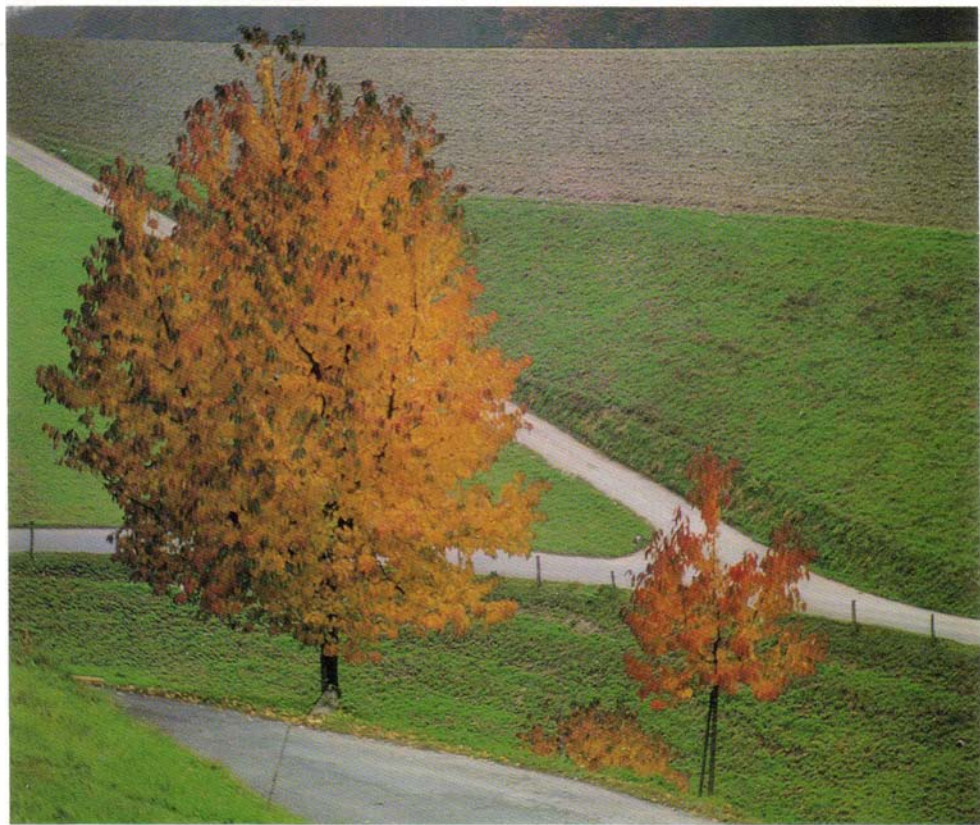
SMC PENTAX 35mm f/2

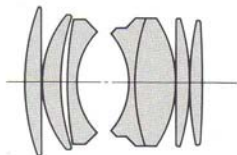
One of the fastest wide-angle lenses ever produced. It provides edge-to-edge sharp resolution at full aperture, making it the perfect lens for photographing large groups, buildings, sports events and other large spectacles.



SMC PENTAX 35mm f/3.5

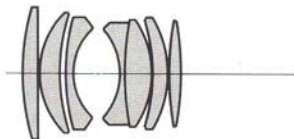
A medium speed lens with unusually high resolution. Extremely useful for scenic, industrial and architectural photography. Compact and light in weight.





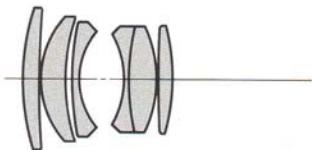
SMC PENTAX 50mm f/1.2

A superlative standard lens, created out of Asahi Pentax's rich experience in the field of optical technology. Excellent in contrast and resolution, and suited for almost all picture-taking needs.



SMC PENTAX 50mm f/1.4

A high-speed 7-element optic with higher light transmission for higher-contrast and clearer color pictures. With a brightness of f/1.4, it is especially effective for night scenes and interiors where brightness is a "must".



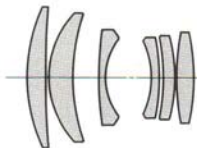
SMC PENTAX 55mm f/1.8

A high-performance, all-round lens for both color and black-and-white photography. It reduces flare and boosts contrast to a degree beyond what has previously been possible in optical technology.

TELEPHOTO LENSES

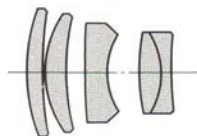
SMC PENTAX 85mm f/1.8

Creates a soft-focus effect in the areas just beyond the depth-of-field. Ideal for portraiture, indoors or out. The moderate distance required between the photographer and the subject makes this lens particularly excellent for pictures of children, animals, night time street scenes, illuminated buildings, and for theater and ceremonial pictures.



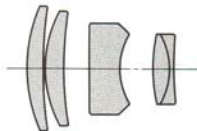
SMC PENTAX 105mm f/2.8

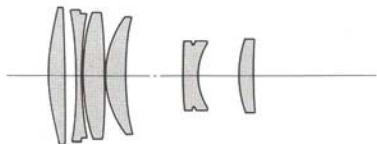
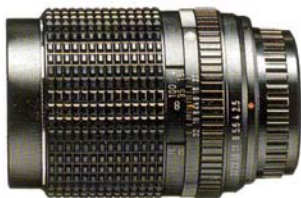
A medium-length telephoto lens, with well-corrected aberrations. Light in weight and easy to carry and operate. Recommended for scenery, portraiture, news photos and other moderate telephoto effects.



SMC PENTAX 120mm f/2.8

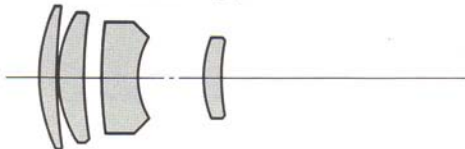
Extremely versatile, light-weight and compactly designed. Useful for snapshots, portraiture and other kinds of telephotography.





SMC PENTAX 135mm f/2.5

One of the fastest of the SMC Pentax telephoto lenses. Well-balanced and light-weight with an unusually short lens barrel. Ideal for night scenes, theater shooting, sports and snapshot portraits. Highly effective for color photography.

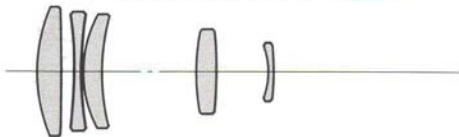


SMC PENTAX 135mm f/3.5

Produces a brilliant image over the entire picture area even with the diaphragm fully open. As this lens allows the camera to be hand-held, it is ideal for close-ups of inaccessible animals, plants, architectural details, etc. which must be taken from a distance. Recommended as an excellent choice for your first telephoto lens.

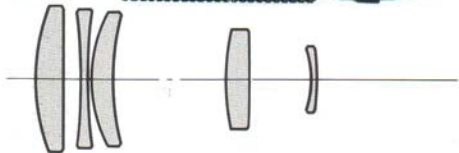
SMC PENTAX 150mm f/4

Having three times the focal length of the standard lens, this lens is particularly suitable for shooting subjects which require an intermediate angle between the 135mm and 200mm lenses. Compact and light-weight, this lens looks and handles like a 135mm lens, and is only 7mm longer. Excellent for candid shots, scenics, sports, news events, stage photographs, nature, etc.



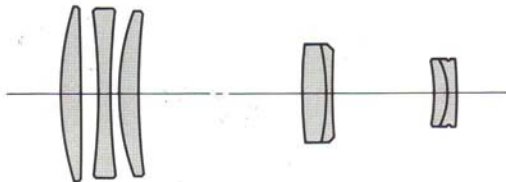
SMC PENTAX 200mm f/4

Very light-weight, suitable for hand-held picture taking, compact and easy to use. Excellent for wild-life, sports and action photography.



SMC PENTAX 300mm f/4

Light enough for hand-held shooting, this lens provides spectacular telephotographic effects. Even with the diaphragm fully open, aberrations are reduced to a minimum. Gives needle-sharp resolution to every picture.

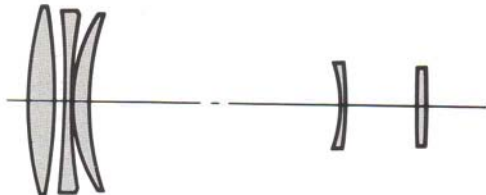






SMC PENTAX 400mm f/5.6

Ideal for professionals especially for outdoor sports, news and night-life photography. For a lens with a focal length of 400mm, it is extremely compact and light in weight.



SMC PENTAX 500mm f/4.5

Compact, light-weight and small-sized for such a high-performance lens, this powerful long-focus lens brings the inaccessible within reach. The image is bright enough to make composing and focusing easy, and produces edge-to-edge coverage with very high resolution.





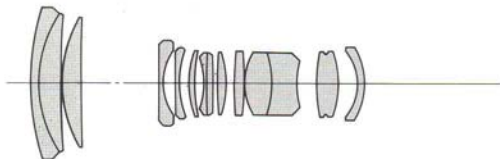
SMC PENTAX 1000mm f/8

Pulls in subjects which are too far away even to be seen by the naked eye. The ultimate in fine optics for the photographer who specializes in news, sports, scientific and wild-life photography. Fast, accurate focusing with manual diaphragm. Furnished with built-on lenshood and rigid wooden tripod.



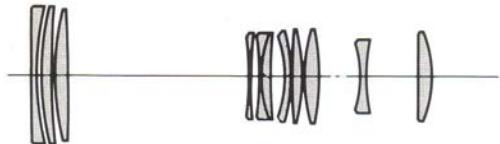
SMC PENTAX ZOOM 45 ~ 125mm f/4

A multi-purpose lens capable of doing the work of half a dozen lenses: 50mm standard, 55mm standard, 45mm semi-wide-angle, 125mm telephoto, etc. Zooming ratio is up to 3:1, and a broad focal length of 45mm to 125mm can be achieved in spite of its relatively short barrel. Useful for a wide scope of photographic assignments: landscapes, action shots, portraiture, travel shots, etc.



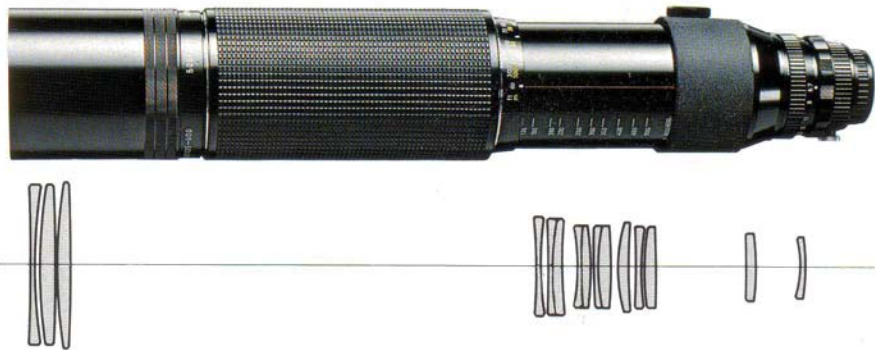
SMC PENTAX ZOOM 85 ~ 210mm f/4.5

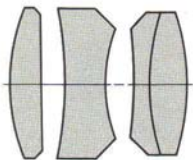
Zooming and focusing are done in one action, so you get the kind of speed that's so essential to zoom shooting. Offers a zoom ratio of 2.5 and focal calibrations of 85, 100, 120, 135, 150, 180, 210 with optional positioning at any point within this range. This lens alone takes the place of an entire group of interchangeable lenses which are most commonly used.



SMC PENTAX ZOOM 135 ~ 600mm f/6.7

Provides remarkable sharpness and contrast for its zooming ratio. The single action zooming of this lens makes it highly useful for professional sports, press and wild-life photographers.





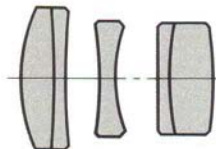
SMC PENTAX MACRO 50mm f/4

Designed originally for excellence in macrophotographic work, this highly versatile lens can also be used as a standard focal length lens. In combination with a Reverse Adaptor K, it can also provide greater-than-life-size magnification.



SMC PENTAX MACRO 100mm f/4

Suitable for close-up and macrophotography, as well as normal shooting. Especially useful for shooting nature pictures, for reproduction work and for portraiture. Because of its longer focal length, this lens provides greater magnification than the Macro 50mm f/4.



● Type	● Name of Lens	● Focal Length & Maximum Aperture	● Minimum Aperture	● Lens Elements	● Diaphragm	● m	● ft.	● Angle of View (degrees)	● Maximum Diameter & Length (mm x mm)	● g	● ozs.	● Filter Size (mm)
Fish-eye	● SMC Pentax Fish-Eye	17mm f/4	22	11	FA	0.2	0.66	180	64.5×34	234	8.19	81
Super-wide-angle	● SMC Pentax	15mm f/3.5	22	13	FA	0.3	1.0	111	80×81.5	550	19.25	81
	● SMC Pentax	20mm f/4	22	12	FA	0.25	0.8	84	63×57	300	10.5	58
	● SMC Pentax	24mm f/3.5	22	9	FA	0.25	0.8	84	63×46.5	248	8.68	58
Wide-angle	● SMC Pentax	28mm f/3.5	22	8	FA	0.3	1.0	75	63×47	261	9.14	52
	● SMC Pentax	35mm f/2	22	8	FA	0.35	1.2	62	63×56	283	9.9	52
	● SMC Pentax	35mm f/3.5	22	5	FA	0.35	1.2	62	63×35.5	161	5.64	52
Standard	● SMC Pentax	50mm f/1.2	22	7	FA	0.45	1.5	46	65×48.5	385	13.48	52
	● SMC Pentax	50mm f/1.4	22	7	FA	0.45	1.5	46	63×41.5	265	9.28	52
	● SMC Pentax	55mm f/1.8	22	6	FA	0.45	1.5	43	63×39	221	7.74	52
Telephoto	● SMC Pentax	85mm f/1.8	22	6	FA	0.85	2.75	29	64×56	331	11.59	52
	● SMC Pentax	105mm f/2.8	32	5	FA	1.2	4	23	62.5×63	294	10.29	52
	● SMC Pentax	120mm f/2.8	32	5	FA	1.2	4	21	62.5×74.5	355	12.43	52
	● SMC Pentax	135mm f/2.5	32	6	FA	1.5	5	18	67.5×85.9	470	16.45	58
	● SMC Pentax	135mm f/3.5	32	4	FA	1.5	5	18	62.5×87.5	325	11.38	52
	● SMC Pentax	150mm f/4	32	5	FA	1.8	6	17	62.5×96	338	11.83	52
Super-telephoto	● SMC Pentax	200mm f/4	32	5	FA	2	6.5	12	65×137	516	18.06	58
	● SMC Pentax	300mm f/4	32	7	FA	4	13	8	85×188	942	32.97	77
	● SMC Pentax	400mm f/5.6	45	5	M	8	27	6	85×277	1240	43.4	77
	● SMC Pentax	500mm f/4.5	45	4	M	10	35	5	126.5×440	3330	116.6	52
	● SMC Pentax	1000mm f/8	45	5	M	30	100	2.5	143×738	6250	183.8	52
Zoom	● SMC Pentax	45~125mm f/4	22	14	FA	1.5	5	50.5~20	69×127	612	21.42	67
	● SMC Pentax	85~210mm f/4.5	32	11	FA	3.5	12	29~11	67.5×217.5	739	25.87	58
	● SMC Pentax	135~600mm f/6.7	45	15	M	6	20	18~4	105×582	4070	142.5	52
Macro	● SMC Pentax Macro	50mm f/4	32	4	FA	0.234	0.77	46	63×54	241	8.44	52
	● SMC Pentax Macro	100mm f/4	32	5	FA	0.45	1.48	24.5	65×81.5	370	12.95	52

● = Open-aperture metering lenses. ● = Stop-down metering lenses. FA = Fully-automatic. M = Manual. BI = 4 filters built-in.





ASAHI PENTAX ACCESSORIES: TO BROADEN YOUR PHOTOGRAPHIC HORIZONS

To help you get the most out of the Asahi Pentax camera you've just bought, on the following pages you will find descriptions of the broad range of accessories Pentax offers. By selecting various items from these pages, you can actually tailor an entire "Pentax System" to your own particular photographic needs. And naturally if you have any questions or problems, your Asahi Pentax dealer is always ready to help.



FILTERS

Filters have an important function in photography. They affect some of the light rays which pass through to the film so that the color or nature of this light is changed.

Filters may be classified roughly into three groups: (1) filters for black-and-white films, (2) filters for color reversal films, and (3) filters for all color (reversal and negative) films.

The principal filters for black-and-white films are: UV, Y2, O2, R2, and YG. Principal filters for color reversal work are: Skylight, Cloudy, and Morning and Evening. Available for all color films are: filters for flash and filters for photoflood.

Applications —

- UV (ultra-violet) filter — absorbs (or holds back) ultraviolet light rays (invisible to the human eye) and reduces distant haze in the picture. This filter is often kept on the lens constantly for protection.
- Y1 (pale yellow) filter — slightly absorbs blue, emphasizing the contrast between the blue sky and white clouds.
- Y2 (medium yellow) filter — has a stronger effect than Y1, bringing out the white of the clouds.
- O2 (orange) filter & R2 (red) filter — have stronger correction of blue than the Y2, giving the maximum sky/cloud contrast.

The R2 filter is absolutely necessary for infra-red photography.





	COLOR					BLACK & WHITE					
	Skylight	Cloudy	Morning & Evening	Flash	Flood	UV	Y1	O2	R2	YG	
52mm Standard	●	●	●	●	●	●	●	●	●	●	
" SMC	●	●				●		●	●	●	
58mm Standard	●					●	●	●			
" SMC	●	●				●		●	●	●	
67mm Standard	●					●	●	●			
" SMC	●	●				●		●	●	●	
77mm Standard	●					●	●	●			
" SMC	●	●				●		●	●	●	

- YG (yellow green) filter — slightly darkens the sky and all red tones. Recommended for outdoor portraits as this filter darkens flesh tones slightly.

Of the above filters, the Y2 and O2 are a “must” for landscape photography.

- Skylight filter — absorbs blue and ultra-violet light rays. Preferable for landscape photography when the bright sky is to be toned down while the foreground requires no correction. Note: The Skylight filter may be very useful for color photography. But remember that the color rendering abilities of a film vary according to its brand.
- Cloudy — suitable for use on cloudy days to lighten excess blue.
- Morning & Evening — suitable for use at sunset and sunrise to lighten excess red.
- Filter for flash — used to bring light from a flash into balance with daylight film. It should not be used with a color flash bulb, sealed in blue glass.
- Filter for photoflood — used to bring photoflood lighting into balance with daylight film. It should not be used with a color photoflood or photospot.

SMC Filters

SMC filters are multi-layer coated as precisely as are SMC Pentax lenses themselves. They never impair the performance of these lenses, nor do they ever cause a loss of sharpness or contrast. They are very useful aids for photography.

SMC filters are available in four sizes: 52mm (UV, Y2, O2, R2, Skylight, Cloudy), 58mm (UV, Y2, O2, Skylight), 67mm (UV, Y2, O2, Skylight) and 77mm (UV, Y2, O2, Skylight).



Polarizing Filter

Light is "polarized" when it is reflected from the surface of glass, water or any other high-gloss medium. The light from the sky, particularly at an angle of 60° – 90° to the position of the sun, is also polarized. A polarizing filter reduces or eliminates surface reflections when photographing subjects behind glass, under the sea, etc.; it also darkens blue skies without affecting the rest of the scene. This type of filter can be used very effectively for color photography. (You can examine the actual effect of a polarizing filter by attaching one to a Pentax camera and looking through the viewfinder as you adjust the filter.)





LENSHOOD K

The main purpose of a lenshood is to shield the lens from the light outside the picture area, which might otherwise cause unwanted reflections inside the lens.

In addition, a lenshood protects the lens against dust, dirt and finger marks; it even helps keep out rain. Therefore, this lens accessory is often used simply for lens protection.

Using a spring mechanism, Pentax lenshoods fit directly onto the rim of the lens. They will not slip off easily, even if the camera is handled roughly.

Type	Lens
Round lenshood	Standard lenses
Square lenshood	Standard lenses
Square lenshood	20mm f/4, 24mm f/3.5
Square lenshood	28mm f/3.5, 35mm f/2, 35mm f/3.5
Round lenshood	85mm f/1.8, Macro 100mm f/4, 105mm f/2.8
Round lenshood	120mm f/2.8, 135mm f/3.5, 150mm f/4
Round lenshood	Zoom 45 ~ 125mm f/4
Round lenshood	135mm f/2.5, 200mm f/4, Zoom 85 ~ 210mm f/4.5

CLOSE-UP ACCESSORIES

CLOSE-UP LENSES

An SMC Close-Up Lens can be threaded into the front lens frame of an SMC Pentax lens for crisp macrophotography. The entire range gives you the convenience of automatic diaphragm setting and open-aperture metering.

These attachment lenses are available in the following types:

Type	SMC Pentax Lens	Lens-to-subject distance range	Magnification
S40	50mm f/1.4	49.5 ~ 29cm	1/7.9 ~ 1/3.7
S25	50mm f/1.4	34 ~ 24.5cm	1/4.9 ~ 1/2.8
T80	85mm f/1.8	91.6 ~ 50.5cm	1/9.4 ~ 1/4.2
T160	135mm f/3.5	175 ~ 89.5cm	1/11.9 ~ 1/4.9
T95	200mm f/4	114 ~ 84cm	1/4.8 ~ 1/2.6



AUTO EXTENSION TUBE SET K

The Auto Extension Tube Set K consists of three different rings, which can be used either individually or in combination. Magnifications up to life-size can be provided by attaching the #3 ring to the SMC Pentax Macro 50mm f/4 lens. This set allows you the convenience of automatic diaphragm setting and open-aperture metering.





MANUAL EXTENSION TUBE SET K

The Manual Extension Tube Set K is identical with the automatic one except that it provides manual diaphragm settings and stop-down metering.



HELICOID EXTENSION TUBE K

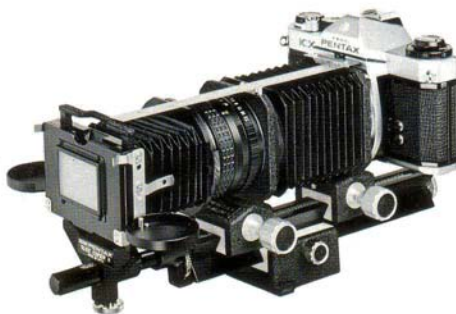
The Helicoid Extension Tube K provides variable tube extension for close-up work. Magnification is 0.3x to 0.7x with the 55mm lens.



52mm REVERSE ADAPTOR K

The 52mm Reverse Adaptor K is used to put the 52mm lens into reverse position. (Reversing the lens is advisable for copying, especially when life size or greater magnifications are required.) This unit is designed so that one side fits onto the front frame of a 52mm lens and the other side fits onto the bayonet mount of a Pentax K2, KX or KM. It permits manual diaphragm setting and stop-down metering. (This set is not useful for low magnifications.)





AUTO BELLOWS K & SLIDE COPIER K

The Auto Bellows K can be extended from 38mm to 170mm. This unit has a lens-reversing system, double cable release for operating the automatic diaphragm and a measuring scale that indicates how far the bellows has been drawn out.

The tripod receptacle is movable. The Auto Bellows K has a minimum extension of 38mm; the minimum magnification is 0.67 with a 55mm lens.

The Slide Copier K attaches to the Auto Bellows for quick, accurate slide duplication and partial slide magnification.



Bellows Unit K

Compactly designed, the Bellows Unit K can be extended from 32mm to 130mm. This unit does not permit automatic diaphragm setting, nor is it used with the Slide Copier K. The tripod receptacle is movable. With a 55mm lens this unit provides a minimum magnification of 0.56x.

Slide Holder 1x, K

The slide holder 1x, K serves the same purpose as the Slide Copier K of the Auto Bellows K. When used with an Auto Extension Tube K or Extension Tube K, this unit allows the standard lens or Macro 50mm f/4 lens to make slide duplication with 1x magnification. The cost of such slide duplication is less than that of copying the original picture onto transparency film.



MICRO-MOVING ATTACHMENT

When close-ups are to be made with a large magnification (e.g., 5x or more), focusing can easily be done by using the Micro-moving Attachment for precisely setting the position of the lens, or extension tube. This device is also useful for making close-ups with a pre-determined magnification. (If the lens alone is moved for focusing, it causes a change in magnification.) Provided with a tripod receptacle.





AUTOROBO

An automatic electronic flash unit with hot-shoe contact. This unit has an electronic 'eye' which measures the light reflected from the subject and automatically controls flash brilliance for perfect exposure. Guide number is 24 for ASA 100 (manual setting). Angular spread is 50° vertically and 65° horizontally. Other features of this unit include the automatic light output stabilizer, open flash button and 2-step pilot lamp indication.



COPY STAND III & III P

The Copy Stand aligns the camera quickly and accurately for copy work. It is equipped with a fine adjustment device which facilitates accurate focusing.

Model III is a fixed type. Model III P is portable, its base serving as a carrying case when the unit is disassembled. Each model has an 18° standard reflector which facilitates exposure measurement.

TABLE CLAMP

The table clamp is useful for fixing the Copy Stand III's leg to a table top less than 6cm thick.

52mm COPIPOD

The Copipod is a portable copy stand for a Pentax camera. It comes with a lens board with 4 calibrated, telescoping legs. Also with pouch case.

CABLE RELEASES

A cable release is a "must" for preventing camera movement, especially when the camera is being used on a tripod, copy stand or copipod. This unit has a locking collar to allow time exposures.

Available in the following three types:

- Type I For time exposures, release the shutter at the speed of B and then lock the release by screwing in the stopper.
- Type II Loosen the stopper and release the shutter at B speed; the time exposure is made automatically.
- Long Type 50cm long, convenient for releasing the shutter from a distance.





CORRECTION LENS ADAPTOR •

A clip-on prescription eyepiece designed to offer a convenience for eyeglass wearers. Specially ground corrective lens is available in 8 diopters: -5 , -4 , -3 , -2 , -1 , $+1$, $+2$ and $+3$.

MAGNIFIER •

The Magnifier affords added convenience in critical focusing for close-ups, copying, macrophotography, etc. It slides easily into the grooves behind the eyepiece. Magnification is 2x.

RIGHT-ANGLE FINDERS •

The Right-Angle Finder allows the camera to be used at low angles, for close-ups, on copy stands or in other positions where it is inconvenient to view and focus directly through the ordinary eye-level finder.

Type II is a deluxe right-angle finder, producing a brilliant image for horizontal and vertical shots. It is convenient especially for candid photography, since you can face in one direction and take pictures in another.

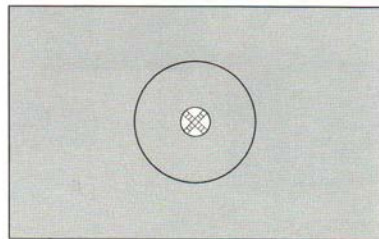
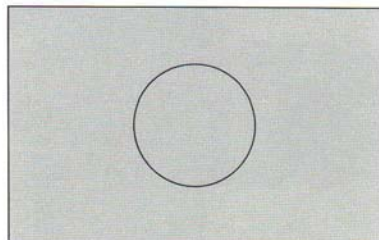
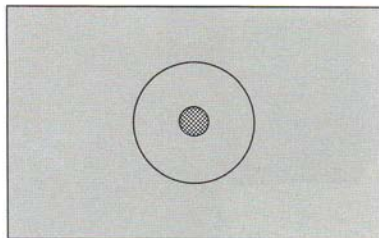
EYECUP II •

When viewing through the finder, this small rubber eyecup prevents the light from entering from the rear, enabling you to view a clearer image.

INTERCHANGEABLE FOCUSING SCREENS

In addition to the microprism and split-image focusing screens, the following three types are available for the Pentax K2, KX and KM:

- The cross-microprism type is to be used with a high-speed lens. When used with a relatively fast lens, $f/1.2$ to $f/2.8$, this type of focusing screen improves focusing accuracy. (It is not suited for use with $f/4$ or $f/4.5$ lenses.)
- The matte screen has neither cross-microprism nor split-image focusing spot. It is suitable for lenses slower than $f/5.6$.
- The photomicrographic type has a cross-microprism spot surrounded by a Fresnel lens on the ground glass. The cross-microprism area is used for normal focusing. But when the image is dark and the depth of field is relatively small, the spot surrounding the central microprism is used.



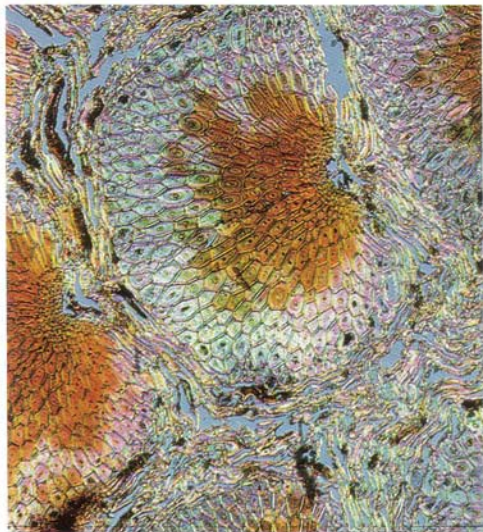


SPOTMETER III

A highly versatile tool for advanced amateurs and professionals, the Spotmeter measures a hair-splitting 1° in the center of a 21° viewing field. It's unsurpassed for selectivity, giving you complete exposure control under any conditions and at any distance. Also equipped with IRE scale useful for television filming.

MICROSCOPE ADAPTOR K

This adaptor is designed to fit the camera body directly onto a microscope. It can be used with any microscope having a 25mm diameter tube.





52mm STEREO ADAPTOR & STEREO VIEWER TYPE II

The Pentax stereo adaptor consists of a stereo adaptor and a stereo viewer. The stereo adaptor fits onto the front of a standard lens and splits the 24 x 36mm format into a horizontal-plane stereo pair of single frame images. The two images can be lined up and viewed in the stereo viewer. The Stereo Viewer Type II has adjustable eyepiece.

MIRROR ADAPTOR

The Mirror Adaptor consists of a 45° reflex mirror which enables the user to take candid or clandestine shots through a window in the side of the adaptor. (The front of the adaptor has a dummy lens.) This Adaptor fits the SMC Pentax 200mm f/4 lens.

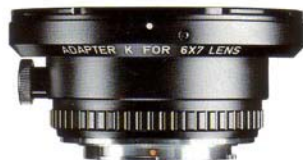
MOUNT ADAPTOR K

The Mount Adaptor K fits the new Pentax cameras and permits screw-mount Takumar lenses to be used on them. When used with this adaptor, a screw-mount lens will focus to infinity but it cannot be used for automatic diaphragm setting or open-aperture metering.



6 x 7 LENS MOUNT ADAPTOR K

This Adaptor fits the new Pentax cameras and permits a 6 x 7 camera lens to be used with them. With this adaptor, the lens will focus to infinity but can only be used for manual diaphragm setting and stop-down metering. When used with a super-telephoto lens, this Adaptor allows the camera to change its position vertically or horizontally while the lens remains on the tripod.





SOFT EVEREADY CASE ●

This soft camera case is intended to provide the best protection for the camera, and can easily be opened for picture-taking. It is available in two sizes: one for the K2 and one for the KX or KM.



TELEPHOTO LENS CASE FRONT ●

This detachable lens case front is a large-sized top half for the soft leather camera case. It is designed to hold a Pentax camera together with a telephoto lens, and is available in two sizes: one for 85mm to 105mm lenses and one for 120mm to 150mm lenses.



SHORT SOFT CASE ●

The short soft case, which fits around rather than over the lens, allows you to use the camera without removing it from the case. It acts to make the shutter "click" practically inaudible, so it is very useful for shooting on-stage performers. Thanks to its unique style, this case also protects the camera against rain and snow and even against cold temperatures.

In addition, this case allows you to focus, advance film or change lenses without removing the camera from the case. It comes complete with an exclusive short cable release.



STANDARD LENS CASE

The standard case affords great protection for a standard lens while it is not in use.

SOFT LENS CASE

This black, soft lens case is spacious enough to hold two or three telephoto lenses. It is available in two sizes:

- 80mm (dia.) x 200mm; holds lenses 200mm or smaller
- 80mm (dia.) x 180mm; holds lenses 135mm or smaller



SPEED BAG

This deluxe equipment bag is especially convenient for travelling. It holds two camera bodies, additional lenses, filters, film cassettes and other small accessories. Comes with a removable inside partition, shoulder strap and pad.

Size: 310mm x 230mm x 145mm.



KIT BAG III

The Kit Bag III is an easy-to-carry bag, spacious enough to contain a Pentax camera, spot meter, a few interchangeable lenses, filters and films. It has a removable partition inside, and is supplied with a shoulder strap. Size: 285mm x 230mm x 165mm.



**LENS CAP K**

Front lens caps should be taken off only when you are ready to shoot. They can be fitted onto and removed from the lens just as easily as lens-hoods. In order to prevent them from slipping off easily, lens caps use a spring. The only exceptions to this are: the SMC Pentax 17mm Fish-eye, 500mm f/4.5, 1000mm f/8, and Zoom 135 ~ 600 mm f/6.7. Lens caps — one furnished with each SMC Pentax lens — are available in the following sizes: 52mm (for standard lenses, 28mm f/3.5, 35mm f/2, 35mm f/3.5, 85mm f/3.5, 85mm f/1.8, 105mm f/2.8, 120mm f/2.8, 135mm f/3.6, 150mm f/4, Macro 50mm f/4 and Macro 100mm f/4); 58mm (for 20mm f/4, 24mm f/3.5, 135mm f/2.5, 200 mm f/4, Zoom 45 ~ 125mm f/4 and Zoom 85 ~ 210mm f/4.5); and 77mm (for 300mm f/4. and 400mm f/5.6).

**LENS MOUNT CAP K**

Whenever the lens is not attached to the camera body, a lens mount cap should be fitted onto it so that dust, dirt or other foreign matter will not get in. A lens mount cap is furnished with each SMC Pentax lens.

BODY CAP K

A body cap should be fitted onto the camera body whenever the lens has been removed so that dust, dirt and other foreign matter cannot get in. A body cap is furnished with each SMC Pentax camera body.



49mm → 52mm ADAPTOR

This adaptor permits the use of a 52mm diameter SMC Pentax filter where normally you would use a 49mm diameter Takumar lens filter.



52mm → 49mm ADAPTOR

This adaptor permits the use of a 49mm diameter Takumar lens filter where normally you would use a 52mm diameter SMC Pentax lens filter. Note that this adaptor cannot be used for the SMC Pentax 85mm f/1.8 lens.



FILM MAGAZINE

The film magazine is designed to load bulk film into the Pentax camera.





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