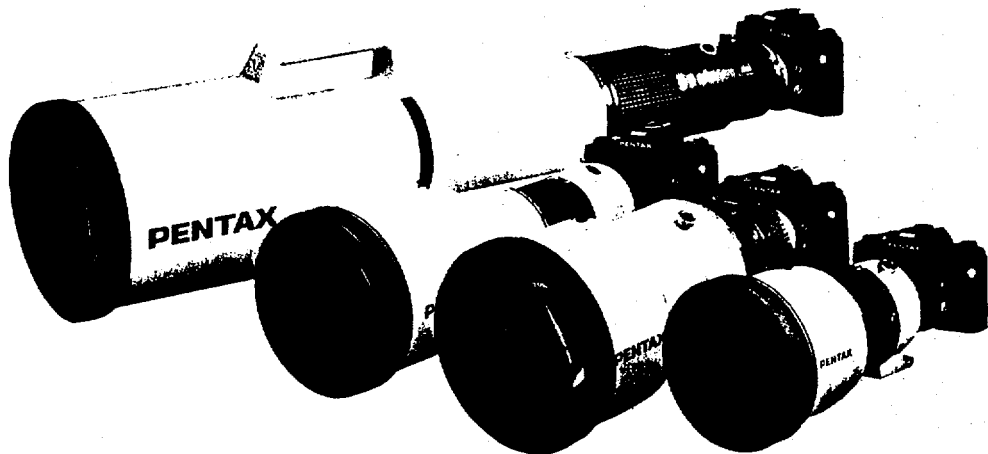
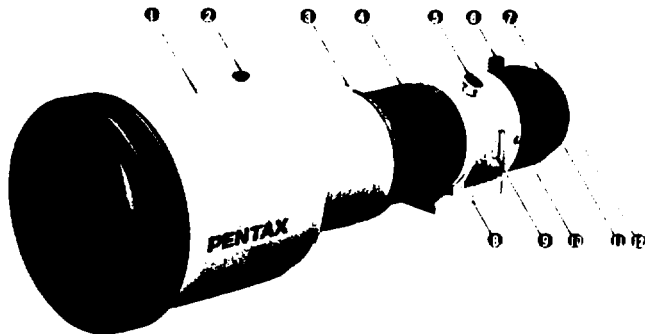


PENTAX

SMC PENTAX A 300mm f/2.8 ED(IF)
SMC PENTAX A 400mm f/2.8 ED(IF)
SMC PENTAX A 600mm f/5.6 ED(IF)
SMC PENTAX A 1200mm f/8 ED(IF)



DESCRIPTION OF PARTS



- ① Hood
- ② Hood lock screw
- ③ Focus-preset screw
- ④ Focusing ring
- ⑤ Lock screw for changing camera position vertically or horizontally
- ⑥ Filter holder knob
- ⑦ Aperture auto (A position) lock button
- ⑧ Built-in tripod mount
- ⑨ Strap ring
- ⑩ Strap eyelet
- ⑪ Aperture control ring
- ⑫ KAmount

- The three lenses described in this manual are operated almost in the same way. The photos used for illustration are of the 600mm f/5.6 lens.
- The 300mm f/2.8 and 1200mm f/8 lenses are not equipped with a strap ring or a strap eyelet. The 1200mm f/8 has a carrying handle.

SPECIFICATIONS

Extra Low Dispersion Glass and Inner Focus

As an example of the new technology in *A Series* lenses, look into the advanced design of the SMC Pentax A* lenses. These ultra-telephoto lenses reduce chromatic aberration with extra low dispersion (ED) optical elements. Extra low dispersion glass attains performance levels not possible with conventional optical glass.

Inner focus is another innovation in the A* lenses. The rear element group moves inside the barrel. The length and the balance of the lens do not change as you focus. This makes focusing smoother and faster.

• Lens	• Minimum Aperture	• Angle of View (Degree)	• Lens Construction (Group-Elements)	• m	• ft.	• Minimum Focusing Distance	• Maximum Diameter & Length (mm x mm)	• g.	• oz.	• Filter Size (mm)
SMC Pentax-A* 300mm f/2.8 ED (IF)	32	8.3	8-8 FA	3	9.8	133x236	2970	104.9	49(112)	
SMC Pentax-A* 400mm f/2.8 ED (IF)	32	6.2	8-8 FA	4.5	14.8	165x325	6000	211.7	49(145)	
SMC Pentax-A* 600mm f/5.6 ED (IF)	45	4.1	6-8 FA	5.5	18	133x386	3280	115.7	49(112)	
SMC Pentax-A* 1200mm f/8 ED (IF)	45	2.1	8-9 FA	8	26.2	170x684	8580	302.6	49(150)	

A* = Called A-star, High-performance, compact lens using special glass elements.

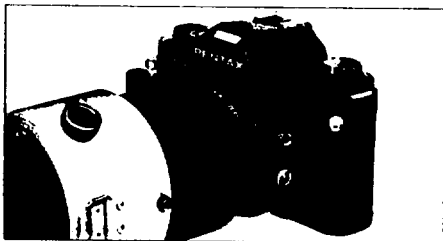
Accessories: Front cap and mount cap

ED = Short for Extra-low Dispersion glass element

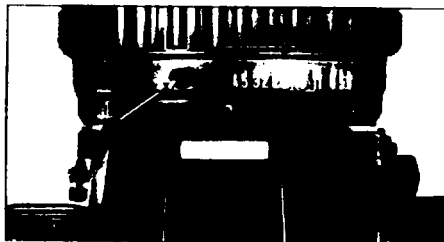
IF = Short for Inner Focus mechanism

Figures in () indicate the diameter of the front frame thread. When taking infrared photos with the 400mm or 600mm lens, there is no need for adjusting the distance scale.

MOUNTING AND SELECTING A (AUTO) POSITION



You can mount the lens on your camera in the same way as you do the other Pentax bayonet-mount lens.

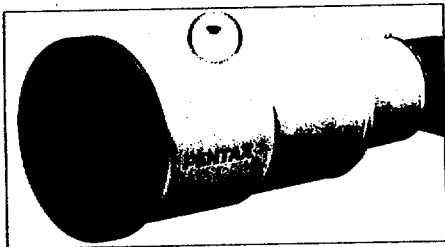


To set the aperture ring to the "A" position, align the green A (auto) position index with the index while pressing the Aperture auto lock button. This procedure automatically locks the lens in the Auto position.

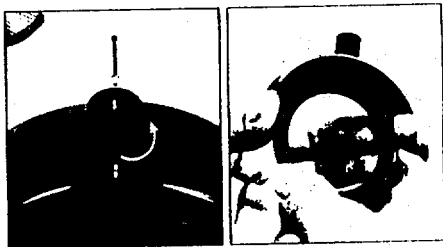
To disengage the lock, turn the aperture ring towards the ordinary f-stop scale while pressing the Aperture auto lock button.

When using other cameras (with K or Kf mounts), only the ordinary f-stops are effective. So the aperture ring must be set to the ordinary aperture stops.

HOOD AND FILTER



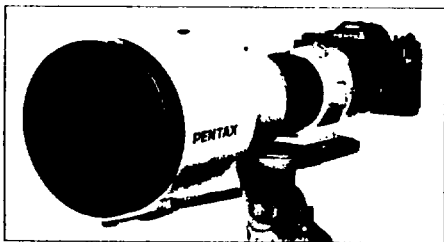
The built-in lens hood can be extended for use by first loosening the lock screw and then just pulling out the hood. If rather difficult to extend the hood, try rotating it gently while pulling it out. Only the hood for the 1200mm lens can be pulled out after turning it counter-clockwise. A further turn will lock the hood in place.



As illustrated, the filter holder can be drawn out from the lens barrel by turning the knob counter-clockwise until it stops while keeping it depressed. Screw a 49mm filter into the holder, return the holder to the original position, and turn the knob clockwise until the red lines are aligned, to lock it.

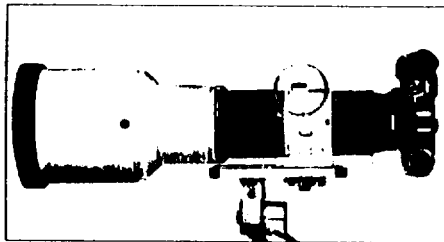
- The filter holder for the 300mm and 1200mm lenses can be inserted into the lens barrel, even with its inside out, but cannot be locked. As illustrated in the top left photo, insert the holder while aligning the indexes (red lines) and lock it.

BUILT-IN TRIPOD MOUNT AND CHANGING CAMERA POSITIONS



As illustrated above, the lens is equipped with the special tripod mount that directly accepts the tripod. The lenses are fairly big, so use as sturdy a tripod as possible. The 1200mm lens's tripod mount has four screws for the tripod; use any one of them that suits your tripod.

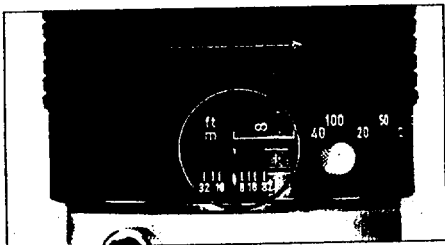
- The rotation of the focusing ring does not change the total length of the lens due to the employment of an Inner Focus mechanism. Because the length does not change, focusing does not affect the balance of the lens/camera combination on the tripod.



- To change camera position either vertically or horizontally, loosen the fastener screw, and revolve your camera/lens combination by 90° in any direction. Then tighten the screw to lock the camera in place. (In the case of the 1200mm lens, the tripod mount rotates.)

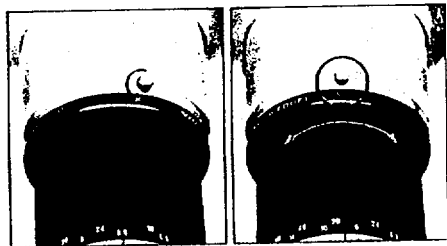
- When mounting the 300mm lens on a tripod, use the tripod adaptor (optionally available) to avoid hitting the tripod head.

FOCUSING AND FOCUS PRESET



Focus by turning the focusing ring until the subject appears sharp in the viewfinder. The focusing ring is designed to turn slightly beyond the ∞ position. The actual ∞ position may shift due to temperature conditions such as hot or cold weather. Be sure to focus precisely through the viewfinder even when taking pictures of distant subjects.

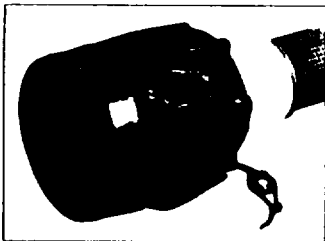
This lens has a unique Focus-preset feature. It is particularly efficient when you desire to shoot moving subjects, such as sporting events or animals, at two locations differing in distance, or to freeze focus at a particular position. To use the preset



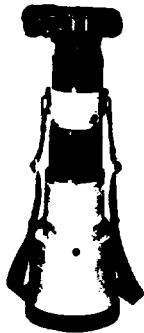
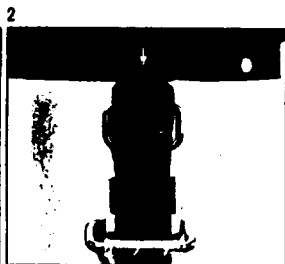
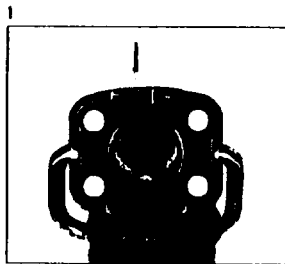
function, first loosen the preset screw. Then turn the focusing ring to focus on the subject and tighten the screw to preset the focus position. To return to the preset position, turn the focusing ring till it stops with a click.

- The photo on the above left is of a 300mm lens.

FRONT LENS CAP; STRAP C



The front lens cap is made to wrap up the front of the lens. Always put the cap on when not using the lens, to keep the front lens element free from scratch, dust, dirt, etc. Each front lens cap has a different shape.



The Strap C is available for the 400mm and 600mm lenses. Carried on your shoulder, it is very handy for carrying such a heavy lens around in outdoor photography.

1. As illustrated above, push the arrow-indicated portion of the fastener slightly with a coin or the like.
2. Pass the strap through the strap ring on the lens, then attach the fastener to the strap eyelet, and push the arrow-indicated metal piece back with a coin. Try pulling the strap hard to make sure that it has been secured in place.

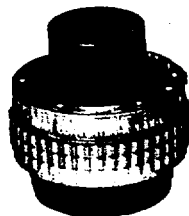
REAR CONVERTERS A

Lens \ R.C.	A·1.4X-L	A·2X-L	A·1.4-S	A·2X-S
A* 300mm F2.8ED(IF)	⊙	⊙	⊙	⊙
A* 400mm F2.8ED(IF)	⊙	⊙	△	
A* 600mm F5.6ED(IF)	⊙	⊙	△	
A* 1200mm F8ED(IF)	⊙ (*)	⊙	×	

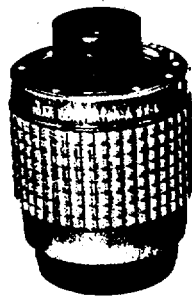
L-type Rear Converters are designed to offer optimum performance with such ED-type ultra-telephotos, even with the diaphragm fully open.

How to refer to the above chart:

- ⊙ Especially compatible
- Compatible
- △ Picture corners may become dark due to "vignetting."
- (*) Image quality is ○ but a slight light fall-off in the corners is inevitable.



1.4X-L



2X-L

LENS-FOCUSING SCREEN COMPATIBILITY

(1) LX Focusing Screens

Lens \ For LX	SA-26	SA-37	SC-26	SE-25	SA-21	SA-23	SB-21	SC-21	SD-21	SE-20	SG-20	SI-20
A* 300mm F2.8 E.D.(IF)	○	○	○	○	○	○	○	○	○	○	○	○
A* 400mm F2.8 E.D.(IF)	○	○	○	○	△	△	△	△	△	△	△	△
A* 600mm F5.6 E.D.(IF)	○	○	○	○	▲	▲	▲	▲	△	△	△	△
A* 1200mm F8 E.D.(IF)	○	○	○	○	▲	▲	▲	▲	△	△	△	△

(2) When Used With Rear Converters A

R.C. \ For LX	SA-26	SA-37	SC-26	SE-25	SA-21	SA-23	SB-21	SC-21	SD-21	SE-20	SG-20	SI-20
A-1 4x-L	8	○	8	○	4	2.8	4	4	△	△	△	△
A-2 x-L	5.6	○	5.6	○	2.8	▲	2.8	2.8	△	△	△	△
A-1 4x-S	8	○	8	○	4	2.8	4	4	○	○	○	○
A-2 x-S	5.6	○	5.6	○	2.8	▲	2.8	2.8	○	○	○	○

In the case of MX focusing screens not shown on this page, a combination of the 600mm f/5.6 lens and the SA-1 or SA-3 screen is ▲, while all the other combinations are ○.

When they are also used with the Rear Converter A, the SA-1 is equal to the SA-21 in the above table (2) and likewise, SA-3 to SA-23; SB-1 to SB-21; SC-1 to SC-21. The other combinations are ○.

○ Especially compatible

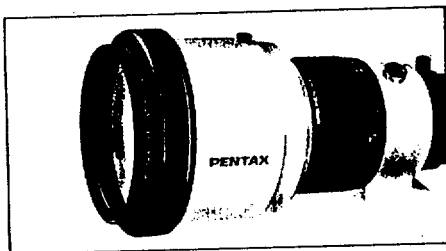
○ Compatible

△ The matte field becomes a little too dark to see the image.

▲ The split-image and microprism in the viewfinder become dark.

The numerals in the table (2) indicate the maximum apertures of the master lenses. With the lenses having the maximum aperture smaller than these, the microprism may become dark.

PF FILTERS



The PF filter can be screwed into the front frame of the telephoto lens to protect its front element from being accidentally damaged. Made of an SMC-coated, high-performance, parallel and flat optical glass, it does little affect the spectrum performance of a master lens. A built-in hood can be used with no problem. The filter is available in five sizes: 77mm, 112mm, 128mm, 145mm and 150mm, so choose one that suits your lens.



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