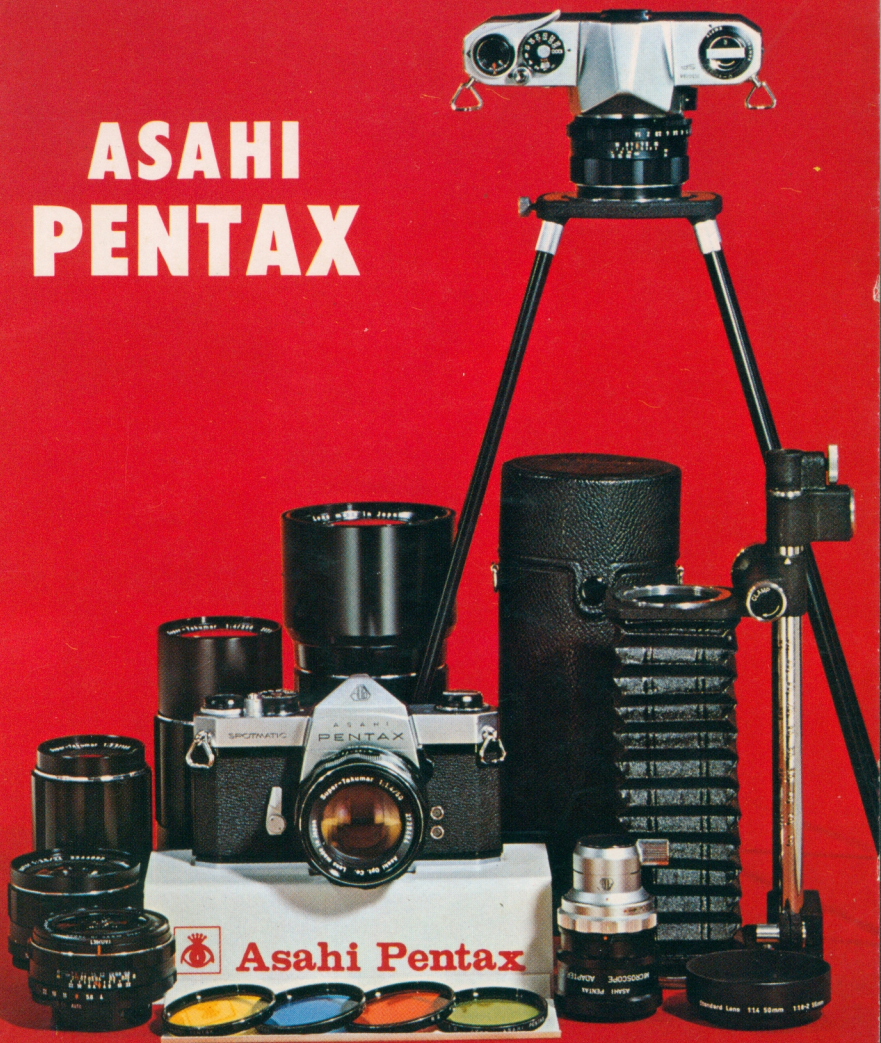


ASAHI PENTAX



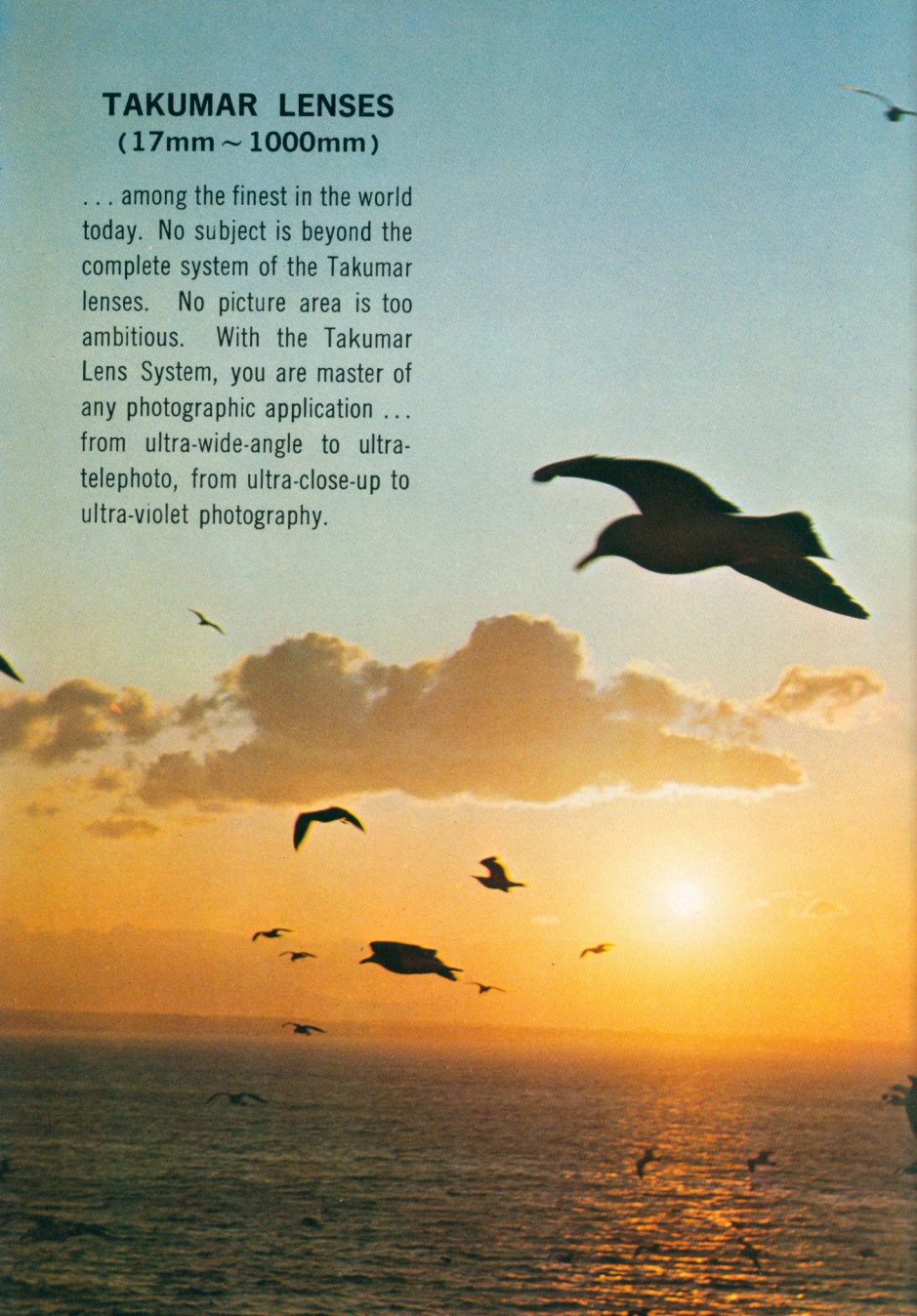
Asahi Pentax

Lenses & Accessories – Complete System of Photography

TAKUMAR LENSES

(17mm ~ 1000mm)

... among the finest in the world today. No subject is beyond the complete system of the Takumar lenses. No picture area is too ambitious. With the Takumar Lens System, you are master of any photographic application ... from ultra-wide-angle to ultra-telephoto, from ultra-close-up to ultra-violet photography.



Super-Takumar Fish-Eye 17mm f/4

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



Super-Takumar 24mm f/3.5
The new Super-Takumar 24mm f/3.5 is an ultra-wide-angle lens that increases even further the versatility of your Asahi Pentax. Compact in size and light in weight, it enables you to view and focus at an 84° angle of vision without keeping the reflex mirror flipped up. A wonderful lens to create pictures with dramatic impact.



Super-Takumar 28mm f/3.5

A new super-wide-angle lens of 7 elements, designed and produced to meet the most exacting of the professional requirements, this is *the* lens you professionals and advanced amateurs need to shoot more artistic photographs. Equipped with fully automatic diaphragm; ideal for architecture, fast-action and artistic photography.



Super-Takumar 35mm f/2

The new Super-Takumar 35mm f/2 lens now comes out with new optical design in more compact and light-weight construction. It weighs only 242 grams ... more than 150 grams lighter than the previous 35mm f/2 lens. Add this new lens of higher optical capability to your Asahi Pentax system and enjoy its versatility. The tremendous depth of field and broad coverage make it perfect for pictures of large groups, buildings, sports events and many other spectacles.

Super-Takumar 35mm f/3.5

A medium speed lens with extremely high resolving power, this is an excellent general purpose wide-angle optic extremely useful for scenic, industrial, and architectural photography. Compact and light in weight.



Super-Takumar 50mm f/1.4

Newest high-speed 7-element lens, utilizing latest optical glass advances. High resolving power combines with outstanding brightness for easiest focusing. An ideal all-around lens. Equipped with fully automatic diaphragm.



Super-Macro-Takumar 50mm f/4

The new Super-Macro-Takumar 50mm f/4 lens is equipped with a fully automatic diaphragm to further increase its high performance. The magnification range is from 1/2 to infinity, but by applying the Auto Extension Tubes, you can shoot from life size to infinity. The automatic diaphragm enables you to shoot such difficult subjects as moving insects, while holding your camera and looking through the viewfinder.



Macro-Takumar 50mm f/4

For photography from life size to infinity without any close-up accessory, especially designed for close-up and macrophotography.

Super-Takumar 55mm

f/1.8 & f/2

Razor-sharp, fully corrected, high-speed standard lenses, using rare-earth glass, designed by top lens designers. Bright f/1.8 or f/2 aperture makes viewing and focusing extremely easy. Their extremely fine resolving power is widely acclaimed by professionals and discriminating amateurs alike. Equipped with fully automatic diaphragm.



Super-Takumar 85mm f/1.9

A new, ultra-fast 5-element lens which produces an image slightly larger than the standard lens. Perfect for available light portraiture, nature studies, and sport coverage. Used as a standard, general purpose lens by many photographers. Equipped with fully automatic diaphragm; supplied with special lenshood.



Bellows-Takumar 100mm f/4

Used with the standard Bellows Unit, this short-barrel lens enables you to photograph from life size to infinity. Extremely convenient for close-ups from a distance.

Super-Takumar 105mm f/2.8

A quality medium telephoto lens of 5 elements, with well corrected aberrations. Light-weight design for portability and easy handling. Recommended for scenery, portrait, news photos, other moderate telephoto effects. Equipped with fully automatic diaphragm; supplied with special lenshood.

Super-Takumar 135mm f/3.5

Produces a brilliant image in all corners of the picture even with the diaphragm fully open. Indispensable for distant subject matter and for portrait. Ideal for close-ups of animals or plants even at a distance. Recommended as the ideal long telephoto lens for handheld camera operation. Equipped with fully automatic diaphragm; supplied with special lenshood.



Super-Takumar 135mm f/2.5

A faster f/2.5 lens has joined the superb Takumar 135mm lens family. Well balanced, its total length is rather short so it is light in weight. Most suitable for shooting night scenes, stage, indoors, sports and snap portraits. An excellent lens also for colour photography.



Super-Takumar 150mm f/4

This new fully automatic 150mm Super-Takumar with a focal length three times as long as the standard lens has been designed and produced to suit the purpose of photographing subjects requiring an intermediate angle between the 135mm and 200 mm lenses. So compact, so light-weight, it looks like a 135mm lens, yet it is only 7mm longer. New-type, all-purpose telephoto lens ... for telephoto snaps, sceneries, sports, news events, stage photographs, nature life, etc.



Super-Takumar-Zoom 70mm~150mm f/4.5

Proven by an impartial and authoritative test to be the best zoom lens for 35mm single-lens reflex. Extremely versatile zooming range from 70mm to 150mm for fast action shooting.

Super-Takumar 200mm f/4

A new member to the superb Takumar telephoto lens family. Equipped with a fully automatic diaphragm. Compact, light, and elegantly designed for fast handleability.



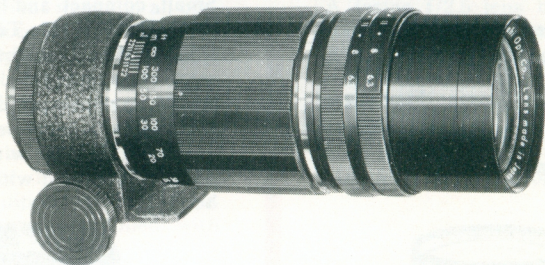
Tele-Takumar 200mm f/5.6

Small, compact and light-weight ... that's the new Tele-Takumar 200mm f/5.6 lens. It weighs only slightly more than Super-Takumar 135mm. Still it produces professional quality resolution in hand-held telephotography. Equipped with pre-set diaphragm; supplied with special lens-hood.



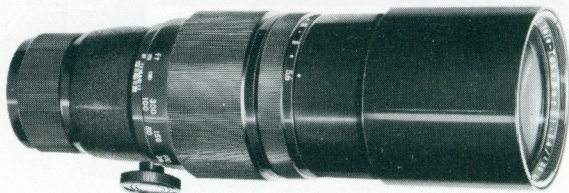
Super-Takumar 300mm f/4

Light enough for hand-held picture taking, this lens is the most ideal for spectacular telephotographic effects. Even with the diaphragm fully open, the aberrations are corrected to the greatest extent possible. Gives needle-sharp resolution to every corner of the picture. Equipped with fully automatic diaphragm; supplied with special lenshood.



Tele-Takumar 300mm f/6.3

More compact and much lighter than the f/4, this lens is extremely suitable for hand-held outdoor telephotography. Features smooth helicoidal focusing and built-on lenshood. Also represents an exceptional value in long-focus lenses and is the choice of many professionals and advanced amateurs who require an extremely versatile telephoto lens. Equipped with manual diaphragm.



Tele-Takumar 400mm f/5.6

Especially designed for those professionals who specialize in outdoor sports, news and nature-life photography. Because of its f/5.6 aperture, this tele-lens is extremely compact and light for its focal length of 400mm. Also because of its portability; it can be easily hand-held for fast and successive shooting, depending upon the shutter speed to be used. Equipped with click-stop manual diaphragm; supplied with special lenshood.



Takumar 500mm f/4.5

Comparatively light and small for its performance, this powerful long-focus lens brings the inaccessible within reach. Its bright f/4.5 image simplifies composition and focusing, and it produces edge-to-edge coverage of high resolution. Equipped with manual diaphragm; supplied with special lenshood.



Tele-Takumar 1000mm f/8

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

DIFFERENCE OF ANGLE OF TAKUMAR LENSES



35mm

55mm

85mm



105mm

135mm

200mm



300mm

500mm

1000mm

(All photographs were taken from the same location and distance from the subject.)

Complete System of Superb Takumar Lenses

NAME OF LENSES	FOCAL LENGTH & MAXIMUM APERTURE	MINIMUM APERTURE	LENS ELEMENT	DIAPHRAGM	MINIMUM FOCUSING DISTANCE		ANGLE OF VIEW	WEIGHT		FILTER SIZE	LENSHOOD SIZE	LENS CAP SIZE
					m.	ft.		gr.	ozs.			
Super-Takumar Fish-Eye	17mm f/4	22	11	FA	0.2	0.66	180 ^①	228	7.98	BI	—	60
Super-Takumar	24mm f/3.5	16	9	FA	0.25	0.8	84	247	8.71	58	60*	60
Super-Takumar	28mm f/3.5	16	7	FA	0.4	1.3	75	218	7.6	49	51*	51
Super-Takumar	35mm f/2	16	8	FA	0.4	1.25	62	242	8.53	49	49*	51
Super-Takumar	35mm f/3.5	16	5	FA	0.45	1.5	63	152	5.4	49	49	51
Super-Takumar	50mm f/1.4 ^②	16	7	FA	0.45	1.5	46	230	8.1	49	49	51
Macro-Takumar	50mm f/4	22	4	PS	0.208	0.68	46	265	9.3	49	—	51
Super-Macro-Takumar	50mm f/4	22	4	FA	0.234	0.77	47	248	8.74	49	—	51
Super-Takumar	55mm f/2	16	6	FA	0.45	1.5	43	215	7.5	49	49	51
Super-Takumar	55mm f/1.8 ^②	16	6	FA	0.45	1.5	43	215	7.5	49	49	51
Super-Takumar-Zoom	70~150mm f/4.5	22	14	FA	3.5	11.5	16~35	1209	42.6	67	67*	70
Super-Takumar	85mm f/1.9	16	5	FA	0.85	2.75	28	350	12.3	58	58*	60
Bellows-Takumar	100mm f/4	22	5	PS	—	—	24	139	4.9	49	49*	51
Super-Takumar	105mm f/2.8	22	5	FA	1.2	4	23	290	10.2	49	49*	51
Super-Takumar	135mm f/3.5	22	4	FA	1.5	5	18	343	12.1	49	49*	51
Super-Takumar	135mm f/2.5	22	5	FA	1.5	5	18	444	15.5	58	58*	60
Super-Takumar	150mm f/4	22	5	FA	1.8	6	16.5	324	11.3	49	49*	51
Super-Takumar	200mm f/4	22	5	FA	2.5	8.2	12.5	550	19.3	58	58*	60
Tele-Takumar	200mm f/5.6	22	5	PS	2.5	8.2	12	370	13.1	49	49*	51
Tele-Takumar	300mm f/6.3	22	5	PS	5.5	18	8	729	25.7	58	58*	60
Super-Takumar	300mm f/4	22	5	FA	5.5	18	8	946	33.1	77	*	85
Tele-Takumar	400mm f/5.6	45	5	M	8	27	6	1300	45	77	*	85
Takumar	500mm f/4.5	45	4	M	10	32.8	5	3500	122.5	49	*	127
Tele-Takumar	1000mm f/8 ^③	45	5	M	30	98	2.5	5500	192.5	49	*	143

All these lenses fit any Pentax model which has a 42mm threaded lens mount.

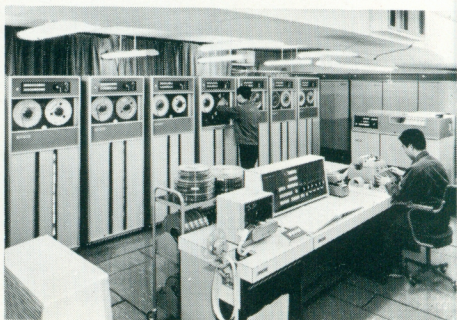
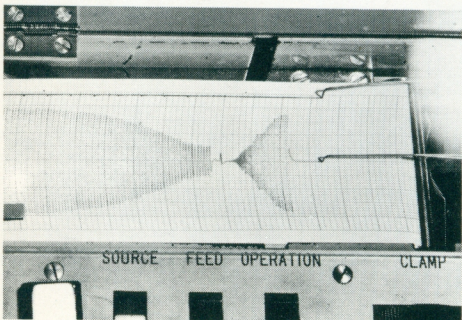
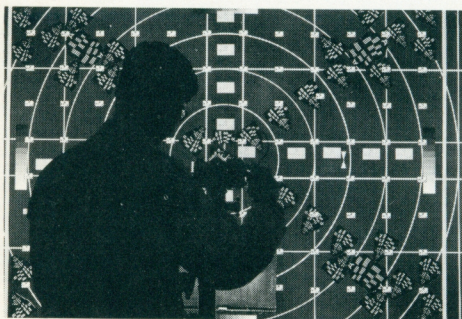
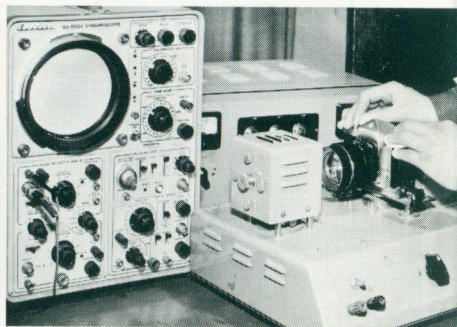
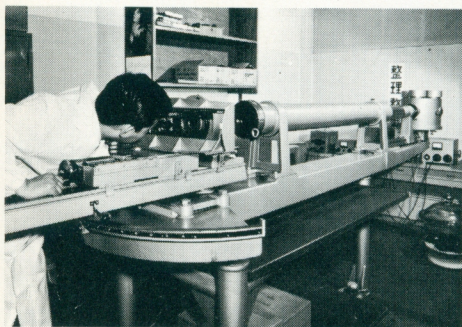
BI=3 filters built-in. M=Manual. FA=Fully Automatic. PS=Preset. ①=Diagonal coverage.
②=Standard lens for Spotmatic and SL. ③=Supplied with wooden tripod and carrying cases.
All lenses, including standard lenses purchased separately, are supplied with leather case, straps,
front and rear caps. All filters and lenshoods are screw-in type unless otherwise indicated.

(*Lenshood supplied with lens. *Clip-on type)





Part of Takumar lens production process from design to final inspection

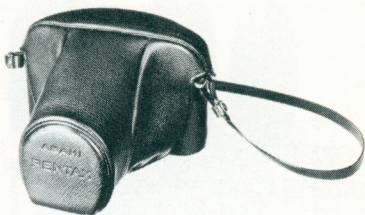




SHORT SOFT CASE

Especially designed soft case without a nose for the lens. This allows you to take pictures with the camera in the case for quieter operation.

For use with SV and S1a only.



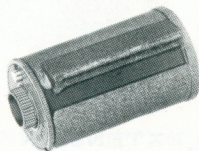
SOFT CASE JUMBO FRONT

Jumbo-size front for the soft camera case to contain an Asahi Pentax with a 135mm, 105mm or 85mm telephoto lens.



LEATHER CASE FOR STANDARD LENSES

When the standard Takumar lens is removed from your Asahi Pentax camera body, protect it in this leather case, available as a separate accessory.



FILM MAGAZINE

For bulk film loading.



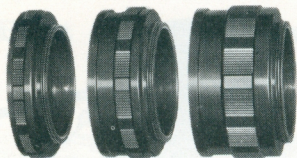
GADGET BAG

A deluxe Asahi Pentax Gadget Bag for an assortment of Asahi Pentax camera, lenses and accessories with inside partition and strong shoulder strap and front clasp.



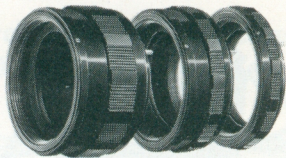
3-FILTER CASE

A special leather case with plastic compartments to contain a combination of three filters. It can be attached to the strap of your camera for carrying convenience.



EXTENSION TUBE SET

A set of 3 rings, #1, #2 and #3 of 9.5mm, 19mm and 28.5mm respectively. They may be used singly or in combination as desired. When all three are used simultaneously with the 55mm Super-Takumar lens, the subject is enlarged on film to a magnification of 1.17 life size.



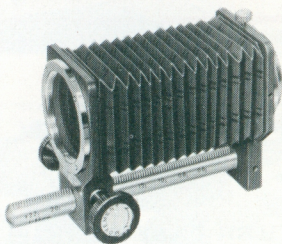
AUTO EXTENSION TUBE SET

New extension tube set of 3 rings, 9.5mm (#1), 19mm (#2) and 28.5mm (#3), with coupled automatic diaphragm release pins. Mounted singly or in combination between an Asahi Pentax and a 55mm automatic diaphragm lens, this set of Auto Extension Tubes permits focusing at magnification from 1.17 \times to 0.17 and operation of the automatic diaphragm.



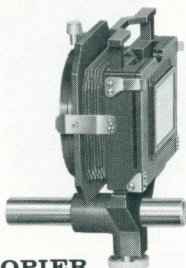
HELICOID EXTENSION TUBE

Like the lens helicoid, the new Asahi Pentax Helicoid Extension Tube extends from 16.8mm to 30.6mm. It serves the purposes of the Asahi Pentax Extension Tubes #2 and #3. Mounted between an Asahi Pentax and a 55mm lens, it permits photography at magnification from 0.30 \times to 0.7 \times . It is extremely versatile variable extension ring.



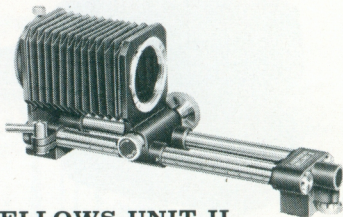
BELLOWS UNIT I

Extremely flexible for ultra-close-up photography, the Bellows Unit I permits use of the camera's own lens. Provided with a special precision-calibrated gear shaft for reading continuous magnification from 0.62 to 2.45 with the standard 55mm Super-Takumar lens.



SLIDE COPIER

Here is a real copying ease for duplicating slides. Slide stage raises or lowers for precise positioning, and a separate set of bellows shuts out all light between the slide and the lens, preventing lens flare from the light source. Used with Bellows Unit II.



BELLOWS UNIT II

This dual-track unit provides maximum stability, outstanding design and rugged reliability. With precise, firm control, it may be locked in any position. Has an oversized focusing knob for increased sensitivity and ease of focusing. 3.2 \times magnification at maximum extension with the standard 55mm Super-Takumar lens.

AUTO-BELLOWS & SLIDE COPIER

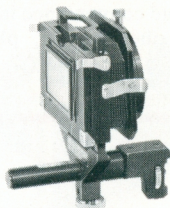
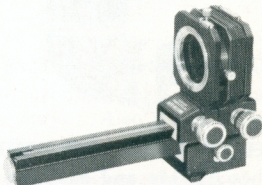
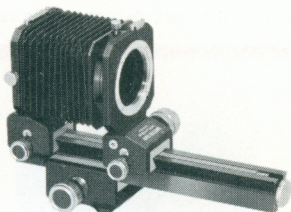
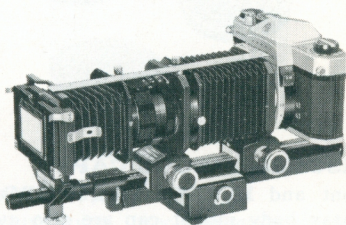
The Asahi Pentax Auto-Bellows is a highly flexible close-up and macro-photographic instrument. The bellows extension is longer than the extension of the standard Bellows Unit. The Auto-Bellows is more versatile. With the double cable release supplied with the Auto-Bellows, you release the shutter and activate the automatic diaphragm simultaneously if you use a fully-automatic diaphragm lens. With its lens reverse system, you can use a lens in reversed position for higher macro resolution.

The geared rail of the Auto-Bellows is meticulously engineered with high precision. The freely movable tripod seat underneath the rail rod maintains the whole equipment on tripod in complete balance. Micro-action extension knobs are equipped on the camera body and lens sides for precise bellows extension.

The Slide Copier attaches to the front end of the Auto-Bellows for easy duplication of colour films.

With the Bellows-Takumar 100mm f/4 lens, you can photograph from $1.32\times$ magnification to infinity (∞). You can easily obtain high magnification with a 28mm to 35mm lens. By adding the standard Bellows Unit or Extension Tubes to the front or back of the Auto-Bellows, you can reach $10\times$ to $20\times$ magnification.

The Asahi Pentax Auto-Bellows is a precisely designed close-up and macro equipment for professional photographers, research workers, scientists and specialists in close-up and macro works.





MISCELLANEOUS CAPS

Front and rear lens caps, and Asahi Pentax body mount cap are also available.



REVERSE ADAPTER

This allows 50mm or 55mm Takumar lenses to be used on bellows or extension tubes in reverse position for better macrophotographic results.



RIGHT ANGLE FINDER

Attaches quickly and easily to the viewfinder of all Asahi Pentax models. Designed for added convenience in low angle and close-up photography, photomicrography, etc.



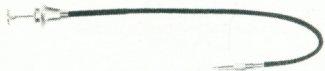
CLOSE-UP LENS

Ground and polished to the superb Takumar lens standards and has screw-in mount for lenses of 49mm thread. Magnification of 0.32 to 0.15 with the 55mm Super-Takumar lens.



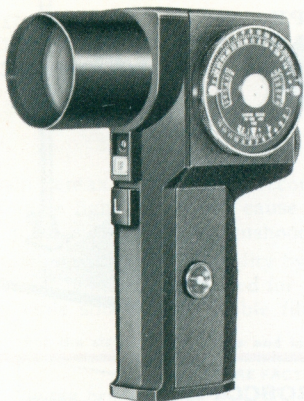
MIRROR ADAPTER

An interesting adapter for detective photographers, this allows you to take photographs by NOT pointing your camera and lens to your subjects. Fits the Takumar 200mm f/3.5, Super-Takumar 200mm f/4 and Tele-Takumar 300mm f/6.3 lenses only.



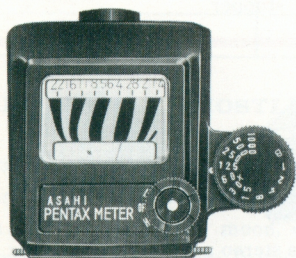
CABLE RELEASE

With floating collar, thread mounting and locking screw for time exposure.



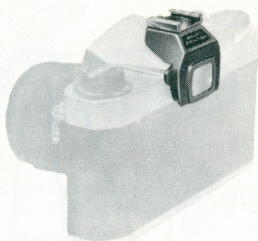
SPOTMETER III

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



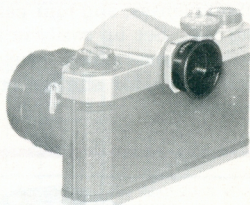
CLIP-ON METER

Highly sensitive CdS exposure meter which fits on top of your camera body and couples with the camera's shutter speed dial.



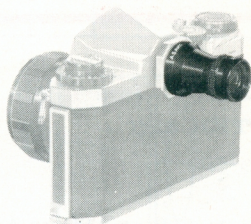
ACCESSORY CLIP II

Deluxe type, precision-made accessory clip model II fits the viewfinder frame of Asahi Pentax cameras.



CORRECTION LENS ADAPTER

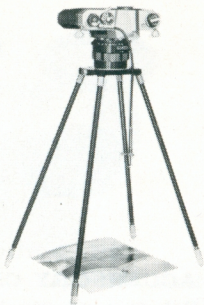
A clip-on eyepiece for prescription lens (*eyepiece only*). Also a convenient eyepiece for everyday photography.



CLIP-ON MAGNIFIER

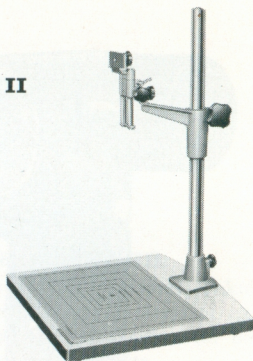
For added convenience in critical focusing for close-ups, copying, macro-photography, etc. This can be easily attached to the slotted frame of the viewfinder of your Asahi Pentax and enlarges your viewing image $2\times$.

COIPOD



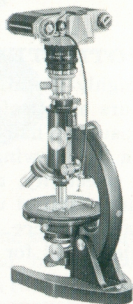
Light-weight, but extremely rigid and sturdy. This portable copying stand fits all models of the Asahi Pentax and can be used anywhere for copying documents, artwork, stamps, etc. Consists of a lens board complete with adapter rings for 46 mm and 49mm lenses, and four calibrated telescoping leg. Set up easily in seconds and is quickly disassembled. Supplied in small black pouch for storage or carrying convenience.

COPY STAND II



MICROSCOPE ADAPTER

Fitting between the Asahi Pentax camera body and the microscope tube, this adapter permits utilization of the microscope's optics in place of the camera's lens. It may be used with any microscope which has a tube of 25mm diameter. Complete set consists of an adapter tube, fastening knob, light sealing tube, and stopper.

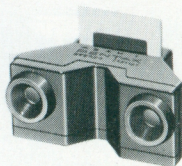
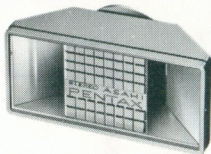


ASAHI MOUNT ADAPTER



For use of Asahiflex-mount Takumar lenses with your Asahi Pentax camera body.

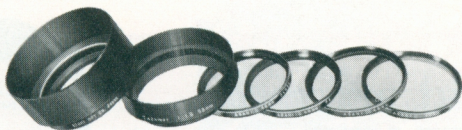
STEREO ADAPTER SET



The new Asahi Pentax Stereo Adapter consists of a stereo adapter and a viewer. The adapter is for taking stereo pictures (reversal colour pictures) and the viewer is for viewing stereo colour slides. The Stereo Adapter fits the front frame of the Takumar 55mm lens. The screw of the Stereo Adapter fastens itself onto the front frame of the lens after it is positioned in parallel with the camera body. Since the Stereo Adapter reduces the amount of light coming through the taking lens aperture, the diaphragm should be opened by a half f/stop for optimum exposure.

The new Asahi Pentax Stereo Adapter is a valuable accessory for making stereo pictures of "ikebana", hair dressing, architecture, sculpture, etc.

FILTERS AND LENSHOODS



Asahi Pentax lenshoods are recommended for use whenever possible to guard against off-angle light which will cause flare in your pictures. (Most Takumar lenses are supplied with a special lenshood.)

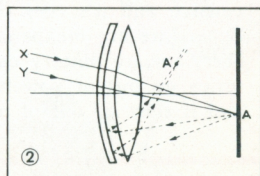
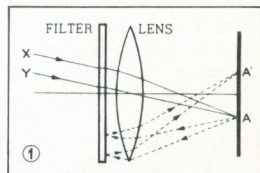
Improve your picture quality by using the Asahi Pentax filters that are precision-ground, polished and coated for your Asahi Pentax. (The black dots in the following table show the available filters.)

For the sizes of the filters and lenshoods, please refer to the inside table for Takumar lenses.

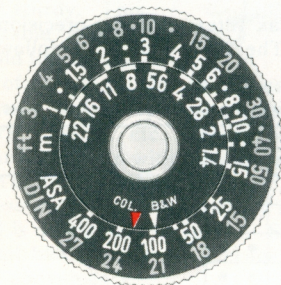
EXPOSURE FACTOR			FILTER SIZE IN MM								
FILTER DESCRIPTION			46	49	55	58	67	70	77	82	
FOR MONOCHROME FILMS	UV (Ultraviolet; haze-cutting)	1	●	●	●	●	●	●	●	●	
	Y1 (Light yellow)	1.5	●	●							
	Y2 (Medium yellow)	2	●	●	●	●	●	●	●	●	
	O2 (Light orange)	3	●	●	●	●	●	●	●	●	
	YG (Yellow green)	2	●	●							
	R2 (R-60; red)	6	●	●							
FOR DAYLIGHT TYPE REVERSAL COLOUR FILMS	SKYLIGHT	1	●	●	●	●	●	●	●	●	For sunlight & skylight.
	CLOUDY	1.5	●	●							For open shades, cloudy days and haze.
	MORNING & EVENING	1.5	●	●							For early morning and late afternoon sunlight.
	FLASH	2	●	●							For clear wire-filled flash bulbs.
	FLOOD	3	●	●							For photo studio floods.
CONVERSION A		2		●							Converts tungsten colour film for outdoor use.

ASAHI PENTAX GHOSTLESS FILTER

Diagram 1 shows how a ghost image (A') sometimes appears on film when pictures are taken against light (neon signs, street lights, moon, etc.) using a conventional filter. The Asahi Pentax Ghostless Filter is a breakthrough in filter design. With this curved U.V. filter, the image light reflected back to the lens forms a duplicate image in the air (A' in Diagram 2), thus eliminating a ghost image on film plane. It is available in 49mm size only.

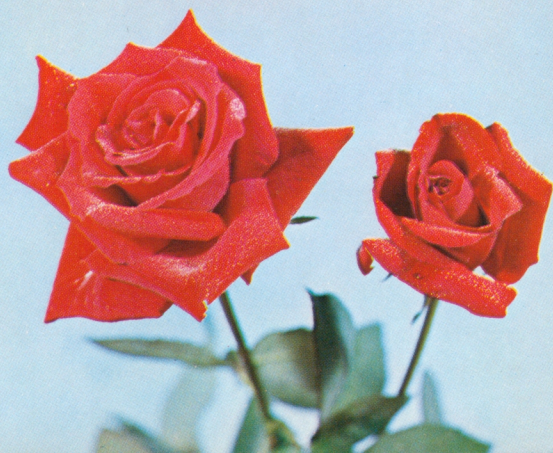


ASAHI PENTAX SUPER-LITE ELECTRONIC FLASH



The Asahi Pentax Super-Lite is a compact, easy-to-operate electronic flash unit produced with the same engineering skill that perfects the Asahi Pentax System of Photography. Light and compact, it simply attaches to your Asahi Pentax camera.

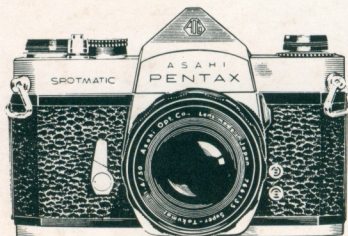
- The angle of light distribution of most flash guns is designed to match the angle of standard lenses. The Super-Lite is one of the widest-angle electronic flash units on the market today. Because of the specially designed curvature of the Super-Lite's reflector, its angle of light distribution practically covers the angle of a 28mm super-wide-angle lens.
 - The Super-Lite has a unique automatic light output stabilizer. The light output of many other electronic flash units considerably decreases as you keep flashing the units. This means you will have to open up your lens aperture. The light output of some units goes down to as much as one f/stop extent after 40 flashes. The light output stabilizer of the Super-Lite constantly maintains its output at its maximum at each flash.
 - Asahi Optical Company intentionally made the Super-Lite for use with non-rechargeable batteries. Because, rechargeable (NiCad) batteries are rather expensive and it's very time-consuming to recharge. Pen-light batteries for the Super-Lite are inexpensive... they are available almost everywhere. You just carry a spare battery case with fresh pen-light batteries in case the loaded batteries go out of power. (If you are using a unit with rechargeable batteries and if they go out of power, you will be in trouble on the spot.
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ASAHI PENTAX Prism Binoculars With Coated Interference Filter



The coated interference filter, another achievement of the Asahi Pentax engineering and unique with the Asahi Pentax prism binoculars, eliminates ultraviolet and infrared rays which may be harmful to the eye. Available in many sizes.



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