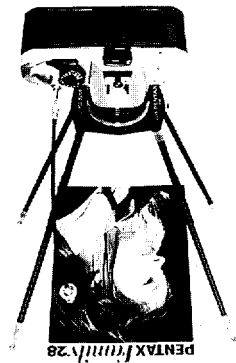
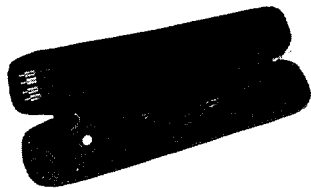
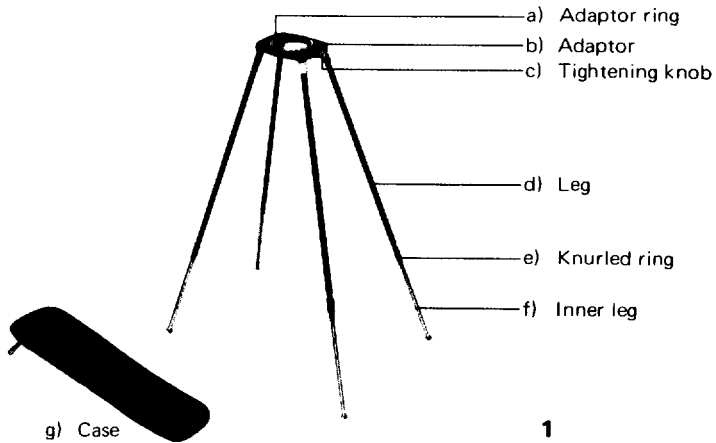


ASAHI  
**PENTAX**

**52mm & 49mm COIPIODS**



COIPOD 52mm  
COIPOD 49mm



## Features and Performance

The Copipod is a convenient, portable accessory which can be attached to your Pentax camera for copying documents or books. A simple adjustment of its four legs allows subjects of A4 format up to B6 format to be copied with ease. Yet, the entire attachment can be carried in a case less than 3 cm thick and less than 40 cm long. For easy copying, even on-the-move, the Copipod is an ideal addition to your Asahi Pentax camera.

### Subject Area

50mm lens: 16.8 x 25.2 – 25.9 x 38.8cm

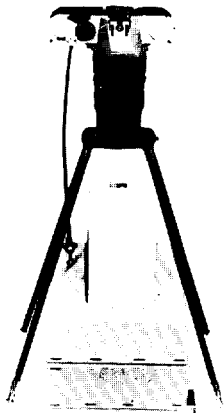
55mm lens: 14.3 x 21.5 – 22.5 x 33.7cm

When the subject to be copied is placed on a support as illustrated on page 4, photographs up to 1x magnification are possible by the use of a close-up ring.

### Leg Extension

The legs are constructed in two sections. The legs have four calibration marks to ensure equal extension of all four legs.

2



### 52mm and 49mm Copipods

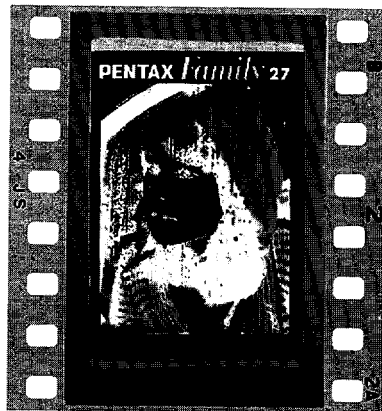
The 52mm Copipod should be used with lenses equipped with a 52mm diameter, screw-in type front frame: the SMC Pentax 50mm f/1.2 and f/1.4, the 55mm f/1.8 or the Macro 50mm f/4.

The 49mm Copipod is to be used with lenses equipped with a 49mm diameter, screw-in type front frame: the SMC Takumar and Super Takumar 50mm f/1.4, 55mm f/1.8 or the Macro 50mm f/4. The difference between the two is the size of the adaptor ring, shown in Fig. 1 (a).

When a 49–52mm or 52–49mm Adaptor (optional accessory) is used, either Copipod may be used with any of the lenses mentioned above.

Size: 9(W) x 40(L) x 2.8(D) cm, in the case

Weight: 683 grams



50mm lens, legs extended

## Assembly

Fig. 3 – Screw the four legs (2) into the holes on the underside of the adaptor (1).

Fig. 4 – The telescopic legs (4) can be pulled out by loosening the knurled rings (3). Adjust the legs according to the calibration marks, and tighten the rings (3). With the 50mm f/1.4 lens, the subject area varies according to the length of the legs. From the fully extended

position:

1st mark	16.8 x 25.2 cm
2nd mark	18.6 x 27.9 cm
3rd mark	22.7 x 34.0 cm
4th mark	25.9 x 38.8 cm

When a 55mm lens is used, the subject area becomes 13~15% smaller at each calibration mark.

3



4

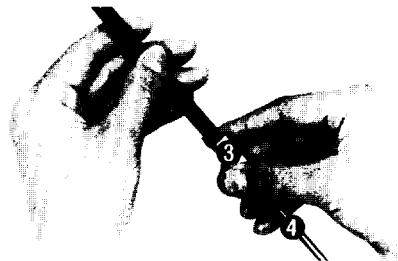
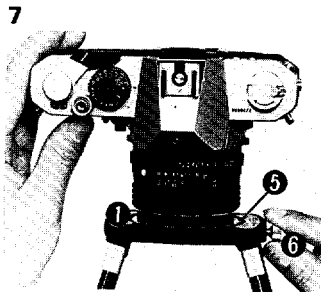
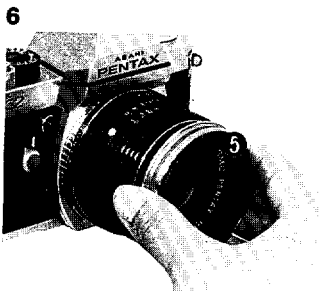
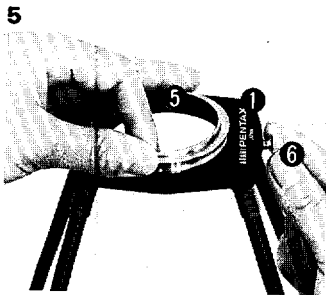


Fig. 5 — The adaptor (1) comes with its adaptor ring (5) attached. Remove the ring by loosening the tightening knob (6).

Fig. 6 — Screw the adaptor ring (5) into the front frame of the Pentax lens.

Fig. 7 — Screw the adaptor ring (5), now attached to the lens, into the adaptor (1). Center the material to be copied in the viewfinder, then tighten the knob (6). Attach a cable release as illustrated in Fig. 2 and you are ready to start. To disassemble the Copi-pod, follow the same procedure in reverse.



## To Photograph

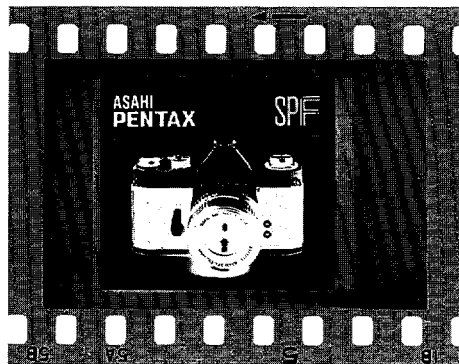
### Films

When you want high-contrast copies, use a slow-speed, high-contrast film. In using this film, however, there are two points to consider. A low ASA film is extremely sensitive to tungsten light when developed in high-contrast chemicals. Therefore, if you are shooting with natural fluorescent light and developing normally, using D76 for 6 ~ 8 minutes at 20 degrees C., set the ASA at 12 ~ 20.

The other point that must be considered is the limited exposure latitude of this type of film: within half an f-stop over or under the correct exposure value as in color reversal films. Therefore, it is recommended that you take a picture half an f-stop over and under the indicated exposure as a precaution. When copying a photograph or picture where you want normal contrast, use a fine-grain film with high resolving power.



Since the object being copied is stationary, there is no problem with using slow shutter speeds, and the use of finer grain films with lower sensitivity often brings you better copy results.

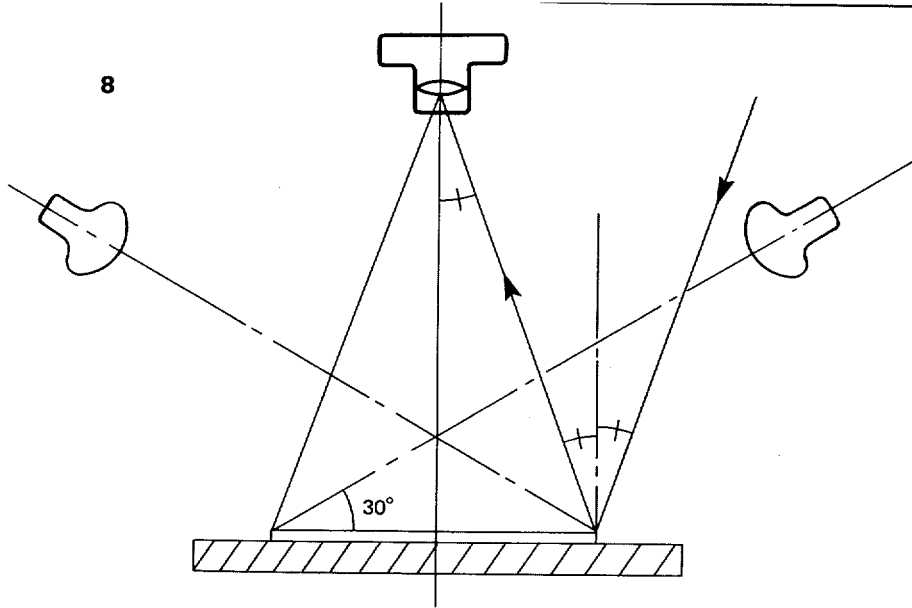


**50mm lens, legs at minimum extension**

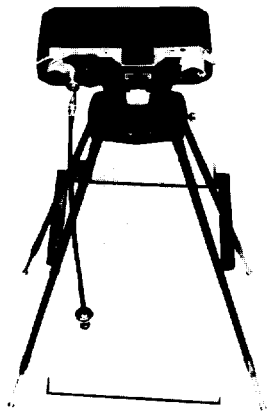
### Lighting

In copying, the important thing is to provide even lighting over the entire subject area, with reflections kept to a minimum. To do this, position the lights diagonally to the subject and at some distance from it as illustrated in Fig. 8. When copying a glossy surface, such as art paper, you must take care that the light arrangement does not produce polarized reflections. Indirect sunlight provides even illumination without requiring additional light sources.

When making black and white copies, the easiest form of illumination is to use a fluorescent lamp, about 15W, placed on each side. For color copies, use a 500W reflector lamp. In doing any copying work with the Copipod, be sure that the shadows of the legs do not fall across the subject area.



9



### Focusing

Focusing is done in the usual way by rotating the focusing ring. When you want even finer accuracy, use a magnifier accessory. If the Macro 50mm f/4 lens is used and the subject is flat, the lens provides excellent edge-to-edge sharpness even when fully opened to f/4.

In copying a book, use a support as shown in Fig. 9, so that the subject will be as flat as possible. Even when the aperture is closed down to f/5.6 or f/8, it will still be within the depth-of-field capability of the lens.

Among standard Pentax lenses, the most suitable one for use with the Copipod is the 50mm f/1.8, followed by the f/1.4 and the f/1.2. No matter which lens is used, if the aperture is closed down to f/11, a good copy with

sharply focused edges is assured. However, if the aperture is closed down further to f/16 or f/22, the resolving power of the lens will tend to be reduced due to the diffraction of the light.

### Exposure Setting

Pentax K Series cameras (K2, KX and KM) as well as Pentax S Series cameras are all single lens reflex cameras equipped with built-in TTL exposure meters. However, the meter is calibrated to reproduce the same tone as the original when you use a Standard Reflection Plate which reflects 18% of the light. When photographing documents, where large areas of the subject are light, using the exposure value determined by the built-in TTL

meter will create an under-exposure. In such case, it is advisable to slow down the shutter speed by two stops. In the case of a document yellowed with age, slowing the shutter speed by only one stop should be sufficient. When copying a picture or a photograph, the exposure value shown on the meter will provide the best results.

## Use of Filters

### Black & White Films

By using a colored filter, additional control over the contrast can be obtained. To reproduce clearer letter distortion from old, yellowed documents, use a Cloudy, Y2, O2 or R2 filter. Red, green and blue are reproduced as similar greys on B & W film. For instance, red letters on blue paper will appear as a similar tone of grey and will be almost impossible to read. In order to darken the blue, use either a Y2, O2 or R2 filter. To darken the red, use a grey filter, and to brighten the green, use a YG filter.

### Color Film Filters

When using negative color film and natural light or when using color film and color photo flood lamps for color, no filter is required. Color balance distortions can be corrected during the printing process by using CC or CP color compensation filters. (However, whenever you use white flood lamps, use a Pentax Flood filter.) When using color reversal film, if you want a "warmer" picture, use a Cloudy filter. If you want a "cooler" picture, use a Morning & Evening filter. For delicate color adjustment, using a light color CC filter is usually effective.



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