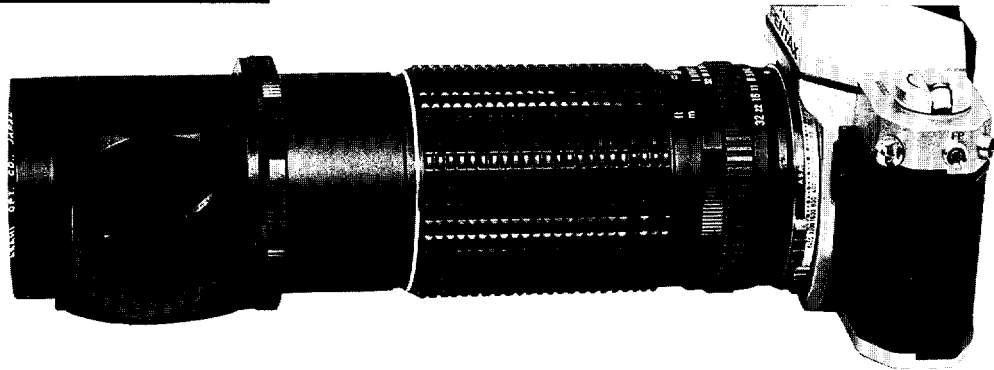
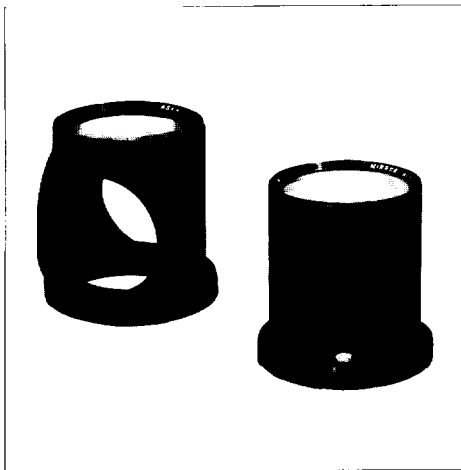


**ASAHI
PENTAX**

90° MIRROR ADAPTOR



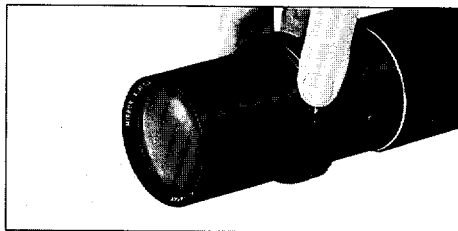
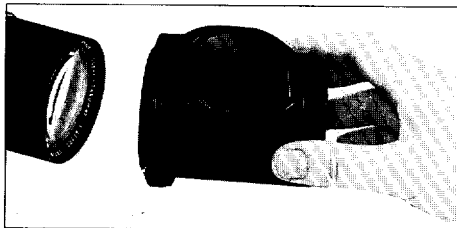


Candid or Clandestine Photography

The Pentax 90° Mirror Adaptor works by means of the 45° reflex mirror which is inside it. This mirror directs the image which enters through a round window on the side of the adaptor onto the front of the master lens on the camera. Thus what is at a 90° angle to the front of the camera is actually what is seen in the viewfinder. (On the front of the Adaptor is a dummy lens front to give a realistic appearance to the camera.) Since the camera is never directed toward the subject, he is naturally never aware he is being photographed. The Adaptor has a clamp screw for exact positioning of the round window.

Mounting the Mirror Adaptor

The Adaptor can be screwed onto the front part of the following lenses: SMC Pentax 200mm f/4, SMC Takumar 200mm f/4, Super Takumar 200mm f/4, Takumar 200mm f/3.5 and Tele-Takumar 300mm f/6.3. To attach the Mirror Adaptor, screw it into the 58mm diameter filter thread of the lens. The 58–67mm diameter auxiliary ring (shown in the picture) is required when attaching the Adaptor to lenses with larger filter-thread diameters, such as the Takumar 200mm f/3.5.





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Exposure Determination

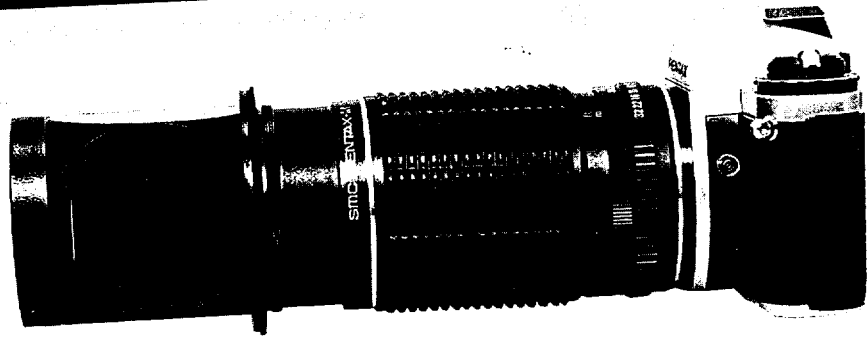
Although the image seen through the viewfinder of your Pentax camera, when outfitted with this Adaptor, is vertically correct, it is reversed left-to-right as in the case of the twin-lens reflex camera. When using this Adaptor, the maximum aperture of the lens becomes $f/5.6$. Even when the diaphragm is set at $f/3.5$ or $f/4$, its actual aperture stays at $f/5.6$. However, when you use any Pentax camera

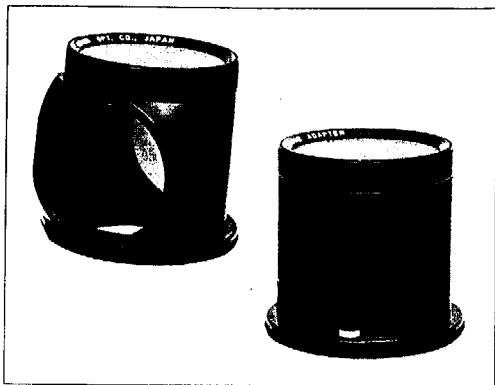
provided with Through-The-Lens metering capability (including the entire K Series and S Series), you need not worry about exposure determination. The camera will provide accurate information in spite of any variations caused by the Adaptor.

If you wish to use a filter, screw it onto the lens before attaching the Adaptor. The Mirror Adaptor serves as its own lens shade.

PENTAX

三ツ星アダプターIII
90° MIRROR ADAPTOR III

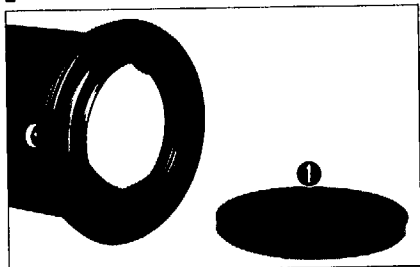




Pointers for Effective Use

1. When a 200mm F4 lens is used with the adaptor, the effective maximum f-number is F5.6, even though the lens specifies F4. However, always make it a point to stop the lens down manually to at least F5.6 with this particular lens to avoid depth-of-field loss.
2. When you use any Pentax camera provided with Through-The-Lens metering capability, you need not worry about exposure determination. The camera will provide accurate information in spite of any variations caused by the Adaptor.
3. With the exception of the polarizing filter, filters are screwed directly onto the master lens between the lens and the adaptor.
4. Locating the subject will be somewhat difficult at first when using the Mirror Adaptor because the image is laterally reversed. With a little practice, however, this will become easy.
5. The adaptor may also be used with lenses produced by other manufacturers, provided these meet with the focal length, filter size and f-number specifications of the Pentax and Takumar lenses listed in this booklet.

2



Mounting

Fig. 2 Remove the rear cap ① of the adaptor. With lenses having 58mm and 49mm filter threads, match the appropriate threads of the adaptor with the threads in the lens, and screw it into place.

3

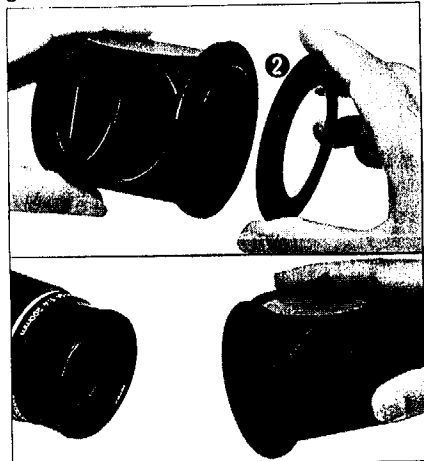


Fig. 3 With lenses having 52mm filter threads, remove the accessory ring ② of the adaptor by unscrewing it counterclockwise, as illustrated. Then, screw the newly exposed 52mm threads of the adaptor into the lens. (Keep the ring nearby when detached to avoid losing it; be sure to screw it back into place after using the adaptor.)

4

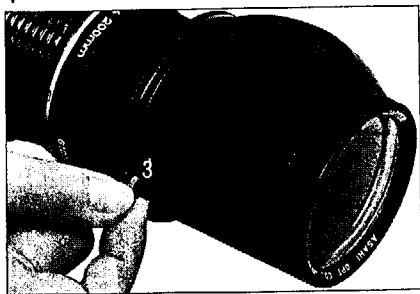


Fig. 4 Loosen the adaptor clamp screw ③ as shown in order to position the porthole at the desired shooting angle. Retighten the screw after the porthole has been adjusted as desired.

90° Mirror Adaptor II is a handy adaptor unit which was designed to enable candid photography with Pentax and Takumar lenses in the 135mm — 200mm telephoto range. It screws into the front filter threads of the lens in use and is equipped for use with 49mm, 52mm and 58mm filter sizes.

At the front of the adaptor is a dummy lens which gives the outward appearance that the photographer is shooting in the normal manner. However, the actual image being photographed is located at a 90° angle to the front of the camera and is relayed to the master lens through a porthole on the side of the adaptor via a 45° reflex mirror which is housed inside it. As the porthole also rotates on a full 360° arch, it not only enables the photographer to shoot subjects to his right and left, but also above and below him. The image appears vertically correct in the viewfinder and at the film plane, but it is reversed from left to right. This is corrected by reverse printing at the time of enlarging.

Specifications:

Size: 70mm (max. dia.) x 74.5mm length
(excluding mount)

Weight: 202 grams: (7 ozs.)

Specified Lenses:

SMC PENTAX M 200mm F4
SMC PENTAX 200mm F4
SMC TAKUMAR 200mm F4
SUPER TAKUMAR 200mm F4
SMC PENTAX M 150mm F3.5
SMC PENTAX 150mm F4
SMC TAKUMAR 150mm F4
SUPER TAKUMAR 150mm F4
SMC PENTAX M 135mm F3.5
SMC PENTAX 135mm F3.5
SMC TAKUMAR 135mm F3.5
SUPER TAKUMAR 135mm F3.5



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