

**PENTAX<sup>®</sup>**  
**645**

**SMC PENTAX 645 LS 75mm f/2.8  
AND 135mm f/4 LENSES**



## DESCRIPTION OF PARTS



- Most of the operating instructions described in this manual automatically apply to both lenses, although the photos of the 75mm f/2.8 lens are only used for illustration.

## SPECIFICATIONS AND FEATURES

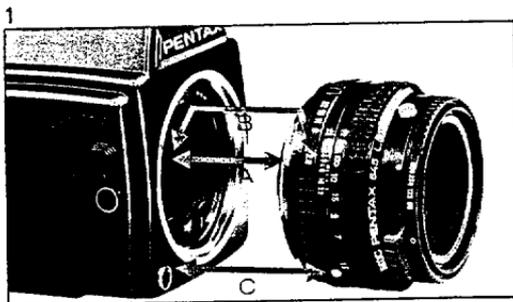
● Type	● Lens	● Minimum Aperture ● Angle of View ● Lens Construction (Groups-Elements) ● Diaphragm ● m ● ft ● Minimum Focusing Distance ● Maximum Diameter & Length (ømm x mm) ● gr. ● oz. ● Filter Size (mm)										
STANDARD	SMC Pentax 645 LS 75mm f/2.8	22	50°	5-6	FA	0.75	2.46	76x49.5	365	12.9	58	
MEDIUM TELEPHOTO	SMC Pentax 645 LS 135mm f/4	32	29°	5-5	FA	1.25	4.10	76x69	467	16.5	58	

- To obtain the focal lengths of these lenses in terms of 35mm format, multiply them by 0.6.
- The lens hood for the 75mm f/2.8 is the type RH-A 58mm, while the case is HG-100.
- The lens hood for the 135mm f/4 is the same as above, while the case is HG-115.

These two lenses have a built-in leaf shutter. Its specially designed mechanism makes daylight-sync flash photography possible, which until now has been considered a drawback of the focal-plane-shutter camera, without losing any of the SLR advantages. They can be operated in the following two ways:

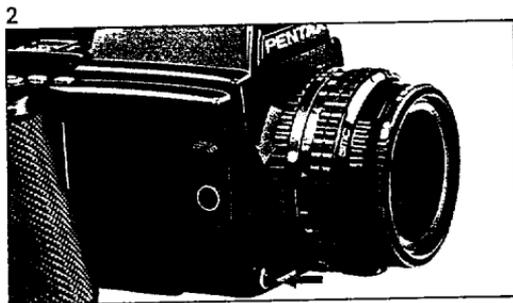
- 1) By using the camera's focal-plane shutter, just as you operate ordinary lenses without the leaf shutter.
  - 2) By using the lens's own leaf shutter. (Combined use of the lens's leaf shutter and the camera's.)
- The two lenses do not have an "A" (Auto) aperture setting.

## MOUNTING/EXCHANGING LENS



(Read this instruction even if the lens has already been attached.)

1. Remove the front cap and lens mount cap. Mount the lens while aligning the red index on the lens with that on the camera body (A, B). Rotate the lens clockwise until it locks into position with a click. As illustrated in C it can be utilized conveniently in a dim place as lens mounting can be made simply by finger touch alone. Focusing and aperture control are performed in the same way as you would with other ordinary lenses.



2. To remove the lens, rotate the lens counter-clockwise until the bayonet is released, while depressing the lens lock release button toward the body.

Note:

Lens information contacts for transferring signals are found inside the lens mount. Be careful not to damage or smudge the contact points. If smudged, clean carefully with a clean, soft, dry cloth.

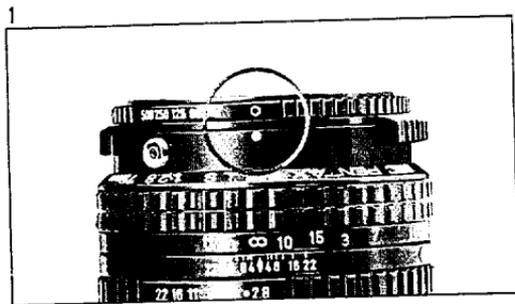


## USING IN FOCAL-PLANE-SHUTTER MODE

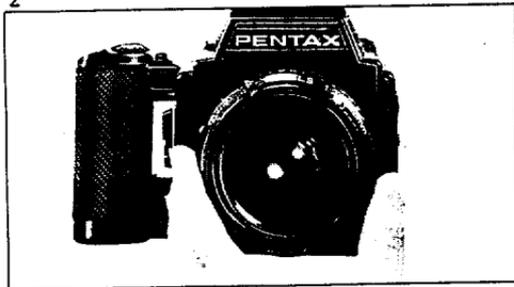
Using the lens with the camera's focal plane shutter: When not using the lens shutter, the lens functions just in the same manner as other general purpose lenses with an automatic diaphragm.

Since the "A" (Auto) position is not provided on this lens, aperture control is made by selecting respective f-stops. The photographic modes compatible with this lens are Aperture-priority, Metered manual, 60 (1/60 sec.) and B (Bulb). The same modes are also applicable when 645 accessories are utilized in combination.

Caution: When using an accessory such as Helicoid Extension Tube 645 which has no lens information contacts, be sure to first match the "o" and "•" (white) marks on the lens, and then attach the lens to the accessory. If the white mark is aligned with any of the lens shutter speeds, the lens shutter will be closed and you cannot see the viewfinder image.



2

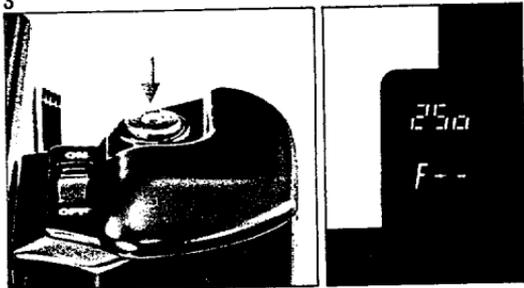


2. When using the lens in focal plane shutter mode, the viewfinder image is not visible unless the lens shutter is cocked. Cock the lens shutter by turning the shutter cocking lever as illustrated in the photo, and the image becomes visible in the viewfinder.

Note:

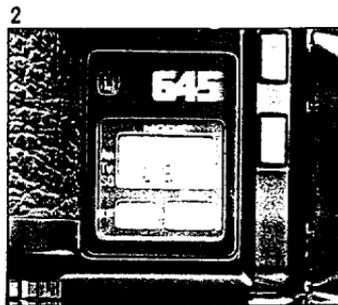
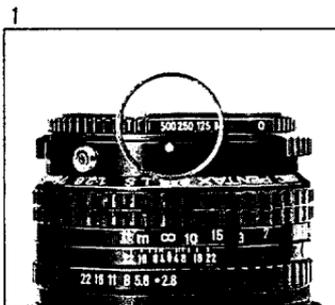
Even if you release the shutter while the viewfinder is blacked out, the film is not exposed as the lens' leaf shutter is closed.

3



3. Select your desired photographic mode and set it on the Pentax 645 camera. Turn the main switch on and slightly depress the shutter release button. The selected mode will be displayed in the viewfinder LED. A further depressing on the shutter button releases the shutter.

## USING IN LEAF SHUTTER MODE



Utilize the lens by engaging the camera's focal plane shutter and the lens' leaf shutter.

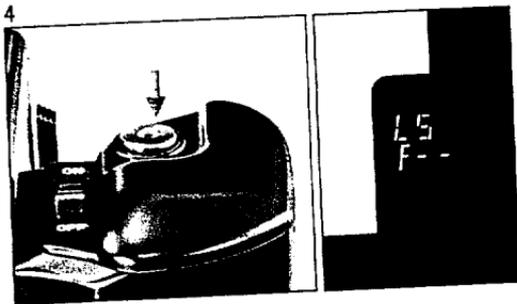
1. Set the desired shutter speed to the index ● (white dot) by turning the shutter speed ring. Set the appropriate f-stop.
2. When the shutter speed ring is turned toward the shutter speed scales, the external LCD display on the camera body changes to LS (Lens Shutter), and the camera's focal plane shutter is set to 1/8 sec. automatically.
3. The finder image is not visible unless the lens shutter is cocked.  
Cock the lens shutter by turning the shutter cocking lever.

(Selected shutter speed and aperture setting can be also changed after cocking the leaf shutter.)

4. With the main switch turned on, depress the shutter release button slightly. The viewfinder LED display will indicate "LS" and "F--". Further depressing releases the shutter for actual photography.  
Before you proceed to your next frame, be certain to cock the lens shutter.

Note:

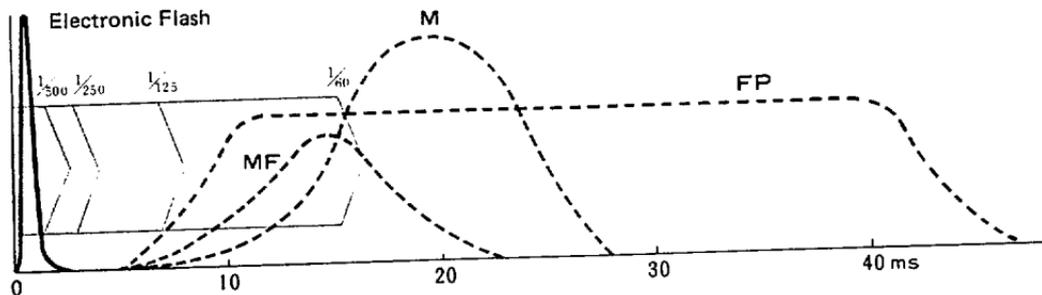
In consecutive photography, repeat steps 3 and 4.



#### Precautions

- No subject image is visible in the viewfinder unless the lens shutter is cocked with the shutter cocking lever. Even if you release the shutter as it is, only the camera's focal plane shutter is released. The leaf shutter is left closed. The film will not be exposed.
- The depth-of-field cannot be used after cocking the lens shutter. If you pull down the preview lever, the shutter cocking will be cancelled. In this case, it will be necessary to reset the shutter cocking lever to activate the lens shutter.
- The C/S switch on the camera body should be set to S (Single frame shooting). If the switch is set to C (Consecutive shooting), the first frame can be exposed, but subsequent frames remain unexposed.
- Automatic exposure is not available when using this lens in the leaf-shutter mode. Therefore, set the shutter speed by measuring the light in the focal-plane-shutter mode or with an independent exposure meter.
- When multiple exposure operation is required, use the multi-exposure ring on the camera body.
- When using this lens with any 645 close-up accessory other than Auto Extension Tubes, the leaf shutter cannot be used.
- Flash photography in the leaf-shutter mode with a clip-on type electronic flash attached to the camera's hot shoe is not possible. Refer to page 8.

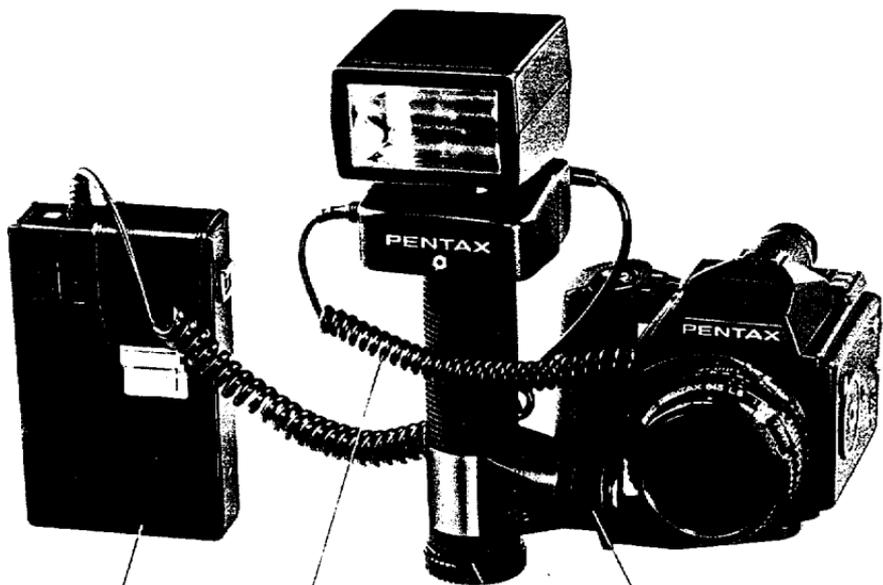
## FLASH PHOTOGRAPHY WITH LENS SHUTTER



- All the available shutter speeds from 1/60 to 1/500 sec. are usable for flash synchronization, but TTL auto flash mode is not applicable.
- When using any type of flash bulbs (M, MF or FP class), synchronize it by activating the camera's focal plane shutter. For details, refer to the Pentax 645 instruction manual.

Precautions on flash photography using X sync socket:

When an electronic flash is used in the lens shutter mode, connect the cord to the X sync socket. When using a dedicated Pentax clip-on type electronic flash, utilize Hot-shoe Grip, 4P sync cord C, etc. available as optional accessories. When you use an electronic flash with this LS lens in the focal-plane-shutter mode, use the hot-shoe or X sync socket on the camera body.



TR Power Pack

4P Sync Cord C

AF400T

Bracket 645 for AF400T



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