

**PENTAX**

**AF 100P**



**PENTAX**

**auto 110**

**PENTAX-110 1:2.8 24**

## WHEN TO USE THE FLASH

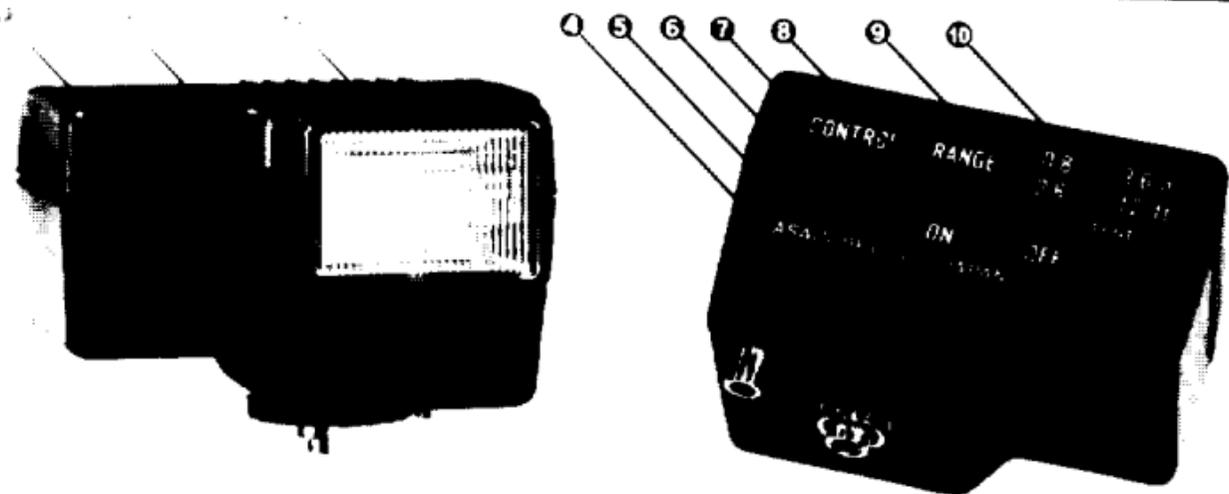
The AF 100P auto flash unit was designed exclusively for use with the Pentax AUTO 110 in situations where lighting is insufficient for satisfactory results without flash. As a rule, use either the AF 100P or a tripod when the yellow indicator in the camera viewfinder lights, indicating a low light reading. These occasions are principally outdoors at night or indoors in dim light. Use of flash is required less frequently with high-speed ASA 400 film than with ASA 100 or slower films. The flash beam has a wide spread permitting sufficient flash coverage for lenses all the way down to 18mm.

- Do not use the flash when the green LED indicator in the viewfinder lights, in which case overexposure will result.

## GROUP AUTO FLASH SPECIFICATIONS

<b>Type</b>	Direct Contact Auto Flash Unit.
<b>Guide Number</b>	10 (ASA 100 in meters).
<b>Effective Flash Range</b>	0.8 - 3.6 meters (2.6 - 12 ft.)
<b>Sensor Reception Angle</b>	Approx. 18 degrees
<b>Number of Flashes</b>	150 (with alkaline-manganese batteries)
<b>Recycling Time</b>	7 sec. (at full charge)
<b>Color Temperature</b>	Equivalent to daylight.
<b>Flash Coverage Angle</b>	45° vertical, 55° horizontal, (sufficient coverage for the 18mm f/2.8 wide-angle lens).
<b>Power Source</b>	Two AAA size (E92) alkaline-manganese batteries.
<b>Mounting</b>	Mounts to special contact on top of camera.
<b>Synchronization</b>	Automatically synchronizes with programmed shutter at 1/30 sec. at programmed aperture of f/2.8 (with ASA 100 film).
<b>Other Features</b>	Combined test button/ready lamp; power switch.
<b>Size</b>	63mm x 49mm x 48.5mm
<b>Weight</b>	100g/3.5 ozs. with batteries.

# AF 100P AUTO FLASH DESCRIPTION



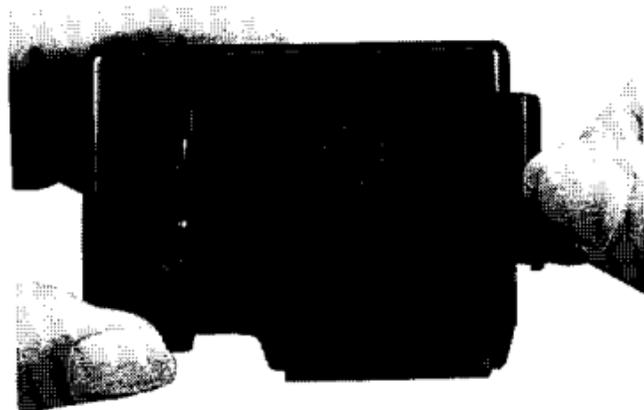
- ① Auto sensor
- ② Flash head
- ③ Battery compartment cover
- ④ Contact pin
- ⑤ Flash-synch shoe

- ⑥ Thumbscrew
- ⑦ Flash-synch-cap holder
- ⑧ Power switch
- ⑨ Test button/ready lamp
- ⑩ Flash range scale

- 1.** Slide the battery compartment cover in the direction of the arrow. Then, lift out from the top with your finger and remove the cover.
- 2.** Insert two AAA size batteries into the battery compartment in accordance



- with the (+) (-) markings inside the compartment. Then, replace the cover.
- Do not use rechargeable Nicad batteries in this unit. For battery replacement, use high-performance batteries.



## MOUNTING THE FLASH UNIT

Before mounting the flash unit, remove the flash-synch-shoe cap on the camera body and insert in the synch-cap holder at the base of the flash unit so that it does not get lost.

1. Hold the camera and the flash unit with their backsides facing you. Then, insert the flash synch contact **A** of

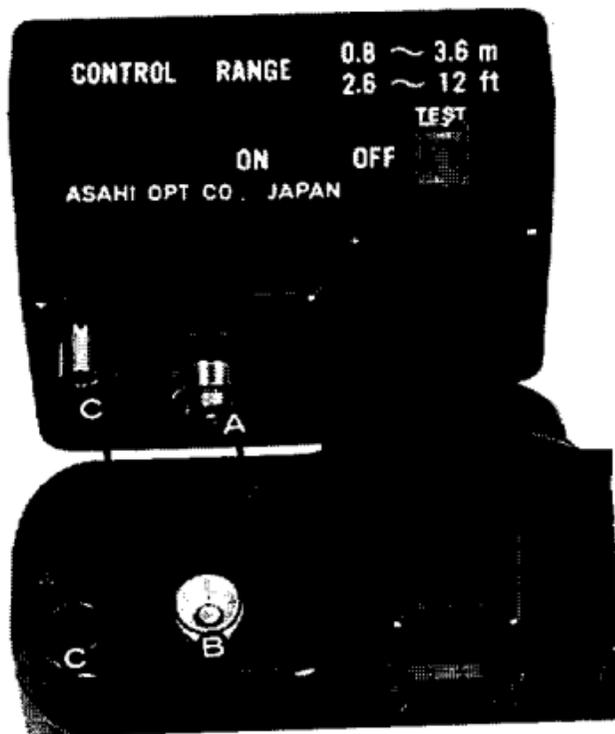


the flash unit into the flash-synch-shoe **B** on the top of the camera. At the same time, make sure that the small contact pins **C** line up properly for insertion.

2. Secure the flash unit to the camera by turning the knurled thumbscrew in the direction of the arrow.



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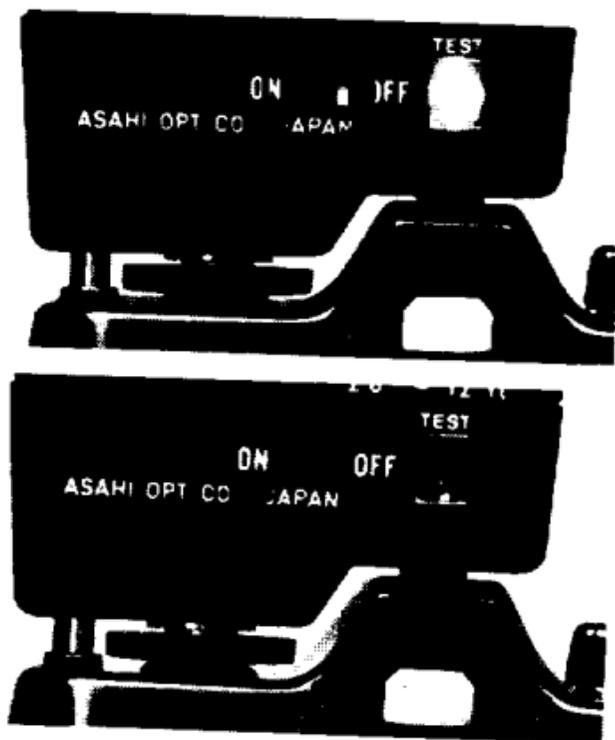


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## SHOOTING

Slide the flash unit's power switch to ON. (The flash unit synchronizes automatically with the camera's shutter system when the power is switched on.)

2. In approximately 5 to 10 seconds the yellow ready lamp on the back of the flash unit will light to indicate that the unit is fully charged. After ascertaining that the subject is in the effective auto flash range of the unit (See "Effective Flash Range," page 11), focus and shoot in the normal manner with the camera's film advance lever.





## TEST FLASH

Testing the Unit: After inserting new batteries, or when the flash unit has not been used for a long period of time, it is a good idea to test it to assure that it works properly.

1. Turn the power switch to ON.
2. When the ready lamp lights (which also doubles as the test button), press it for test flash.

\* Normally the flash unit will flash if it is working properly. The ready lamp will not light and the unit will not flash, however, if batteries are improperly inserted or worn down. If there is a problem, and neither of the above is the cause, the unit may require servicing.

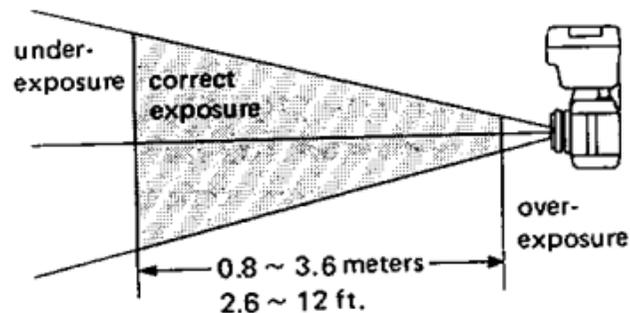
\* Always turn the flash unit off after use to avoid battery wastage.



## FLASH RANGE

The auto flash control range of the AF 100P is 0.8 - 3.6 meters (2.6 - 12 ft.) when using both ASA 100 and ASA 400 film. Underexposure will result if the subject is beyond this range; likewise, overexposure will result if the subject is too close.

\* With practice you will be able to easily estimate whether or not the subject is within effective flash range. If you are not sure, the quickest way to find out is to focus with the lens and read off the distance to the subject indicated on the lens' distance scale. Correct focus will be obtained if the subject is within the effective range.



## FLASH SYNCHRONIZATION & EX

The AF 100P synchronizes automatically when the power is switched on with currently available 110 films up to ASA 400. With ASA 100 film loaded in the camera, flash synchronization is at a shutter speed of 1/30 sec. and a lens aperture of f/2.8; with ASA 400 film shutter speed synchronization is 1/30 sec. while the preselected lens aperture is f/5.6.

- Although there are fewer occasions when use of flash is required with ASA 400 film in the camera, the smaller f/5.6 lens aperture preselected by the camera when ASA 400 film is used offers greater depth of field (the portion of the picture area in front of and

behind the subject that is in focus). Thus, ASA 400 film is useful when a wider focusing range is desired in flash photography. On the other hand, ASA 100 film requires more care in focusing because of the wider lens aperture. At the same time, however, the shallow depth of field at f/2.8 often produces a unique out-of-focus "highlighting" effect in the background and foreground.

- Only use the flash unit when the yellow LED indicator in the camera viewfinder lights. If flash is used when the green LED indicator lights, overexposure will most likely result.

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● The AF 100P may be conveniently left mounted on the camera even when use is not required. Be sure to switch the power off, however, or your pictures will most likely be overexposed, even if the flash does not discharge, because of automatic flash synchronization.

## SHOOTING POINTERS AND P

Do not shoot directly into glass and other highly reflective surfaces when using the flash; otherwise, the glare of the flash will rebound into the lens and ruin your picture. When your subject is positioned against a highly reflective surface, shoot at an angle to prevent the flash from rebounding into the lens.

- Remove batteries when not using the flash unit for long periods of time as a precaution against leakage.
- When the flash ready lamp no longer lights within 30 seconds after switching the flash unit on, replace both batteries (otherwise, insufficient flash may result).

- Batteries are highly sensitive to cold and performance will deteriorate at temperatures near freezing. Performance restores to normal when batteries are warmed. As a precaution against battery failure when shooting in freezing temperatures, keep batteries warm in your pocket, etc., or keep a spare set of warm batteries on hand to substitute in case the others fail.





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