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PENTAX®

67

OPERATING MANUAL

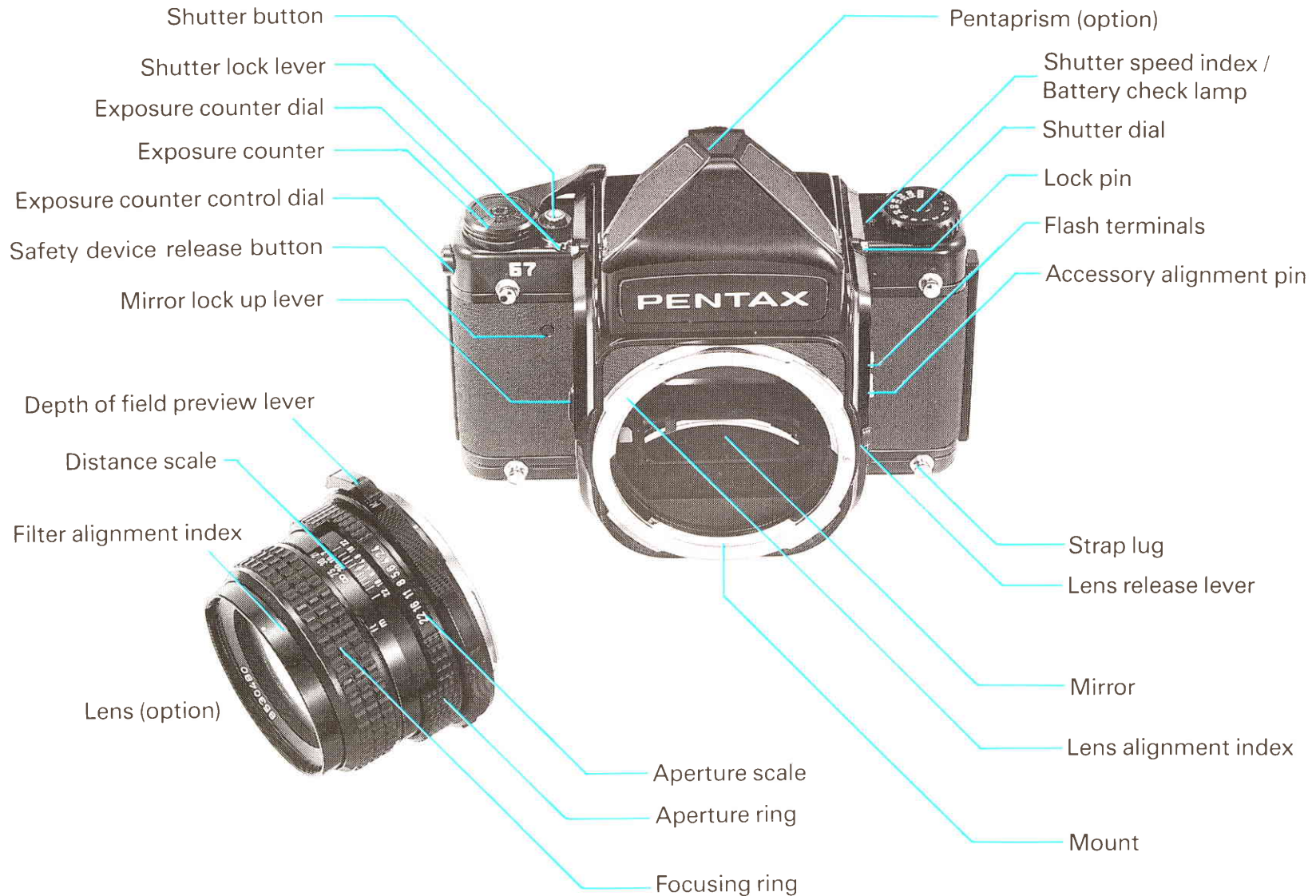
Welcome to the world of Pentax Medium Format Photography. The 67's picture format gives an image area four times larger than that of the 35mm SLR camera, assuring the photographer of finegrained, superior quality image definition on enlargements.

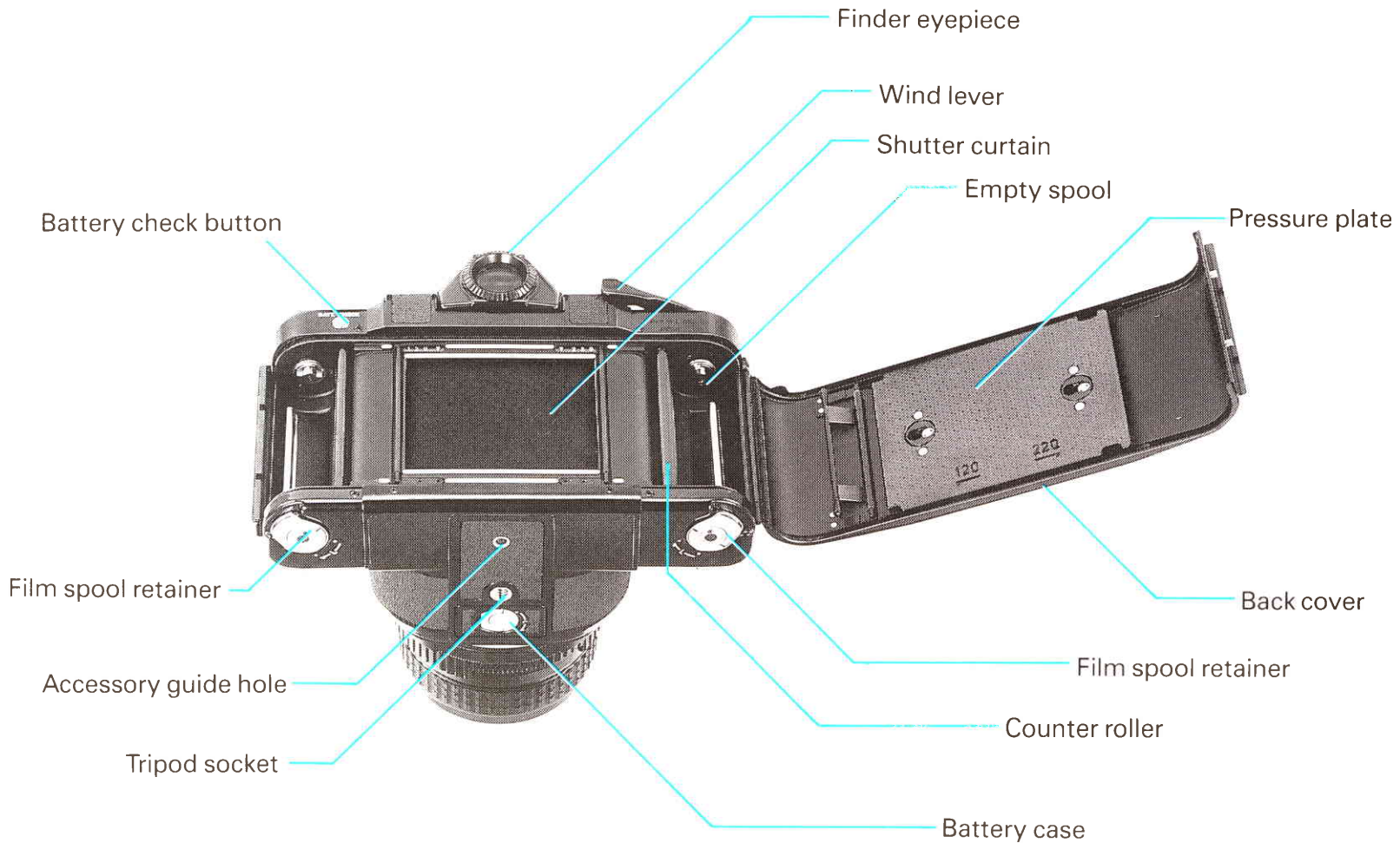
Careful reading of this operating manual will help you take advantages of all the photographic capacities this equipment has to offer. Please be on the look out for the special directions with a "●" mark in the colored column.



The names of the camera's working parts are listed in the nomenclature section inside the front and back flaps. Please keep the flaps unfolded for quick reference while you read this manual.







SPECIFICATIONS

Type:

6x7 format Single-Lens-Reflex camera

Film:

120 type roll film (10 exposures)

220 type roll film (20 exposures)

Picture Size:

55mm x 70mm

Lens Mount:

Pentax 67 double bayonet mount system
(Inner bayonet and Outer bayonet)

Shutter:

Electronically controlled focal plane shutter

Viewfinder:

Four types interchangeable viewfinders
(Option) Field of view: Body — 100%, Eye-level type (TTL Pentaprism, Pentaprism) — Approx. 90%, Magnification — 1.0 X, Diopter — -1D

Focusing Screen:

Microprism type (Interchangeable)

Mirror:

Swing-up-and-back instant return mirror, with lock-up device

Film Winding:

With rapid wind lever (180° angle)

Exposure Counter:

Automatic reset exposure counter

Flash Synchronization:

FP and X terminals

Electronic flash at 1/30 ~ 1 sec., B

Power Source:

6V Alkaline or Silver-oxide battery
(4LR44/A544, 4SR44/544/PX28)

Size and Weight:

Body only — 177(W) x 101(H) x 91(D)mm
(7.0" x 4.0" x 3.6") 1.29 kg (2.8 lb)

With TTL Pentaprism — 177(W) x 150(H) x 91(D)mm (7.0" x 5.9" x 3.6") 1.81 kg (4.0 lb)

Accessories:

Body mount cap, Finder cap, Strap, Spool, Shutter cocking key and battery

SPECIFICATIONS ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTIFICATION OR ANY OBLIGATION ON THE PART OF THE MANUFACTURER.

Notes to Users

Commercially available lenses and accessories produced by other manufacturers are not made to our precise specifications and therefore, may cause difficulties with — or actual damage to — your Pentax camera. We do not assume any responsibility or liability for difficulties resulting from the use of lenses and accessories made by other manufacturers with Pentax cameras and photographic products.

Photographs and/or illustrations of the products in this operating manual may differ from the actual product in its details.

- As the shutter is electronically controlled, the camera will not operate without a battery. Please use one of the following battery types; (Refer to Page 3)
6V ALKALINE Battery (4LR44, A544)
6V SILVER-OXIDE Battery (4SR44, 544, PX28)
- New battery is packed at the time of shipment, but because of inherent self-discharging, performance gradually deteriorates and the battery may be in marginal or dead condition by the time you purchase the product. In such a case, replace the packed battery with a new one.
- Whenever loading film, make sure to set the pressure plate and exposure counter control dial according to the film type you are using. (Refer to Page 13~14)
- Load the film correctly according to the procedure mentioned hereafter. (Refer to Page 15~19)

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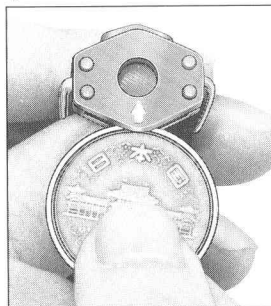
SPECIFICATIONS51

ATTACHING SHOULDER STRAP

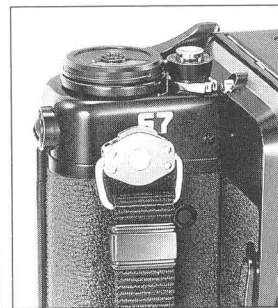
PREPARATION

The shoulder strap can be attached to any pair of the four strap lugs on the 67 camera body.

1

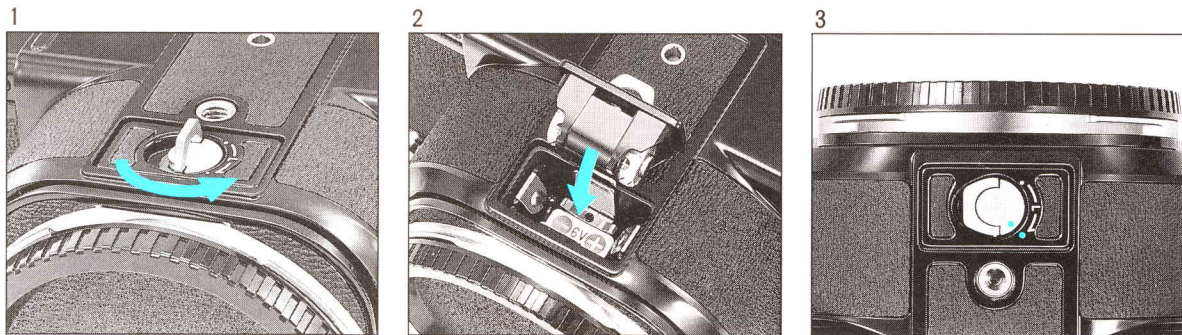


2



1. Open the clasp by inserting a coin or the Shutter cocking key in the direction of the arrow.
 2. Put the clasp onto the strap lug and press the lock.
 3. Adjust the length of the strap by changing the position of the strap clasp.
- After fitting the strap and adjusting the length, pull the strap hard to see if the strap has securely attached to the camera.

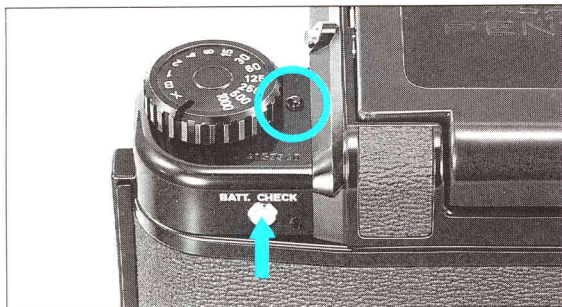
INSERTING BATTERY



Use one of the battery types mentioned below;
 6V Alkaline battery (4LR44, A544)
 6V Silver-oxide battery (4SR44, 544, PX28)

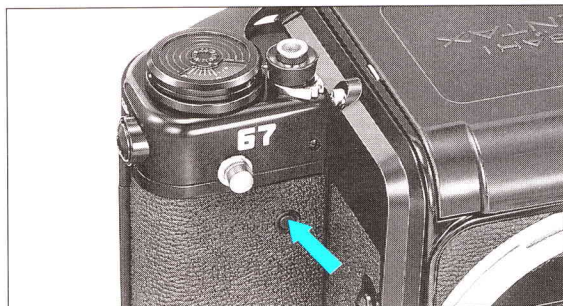
- If the shutter is operated without a battery or the battery is installed incorrectly, the safety device will be activated and the mirror will stop partway up.
- Insert a new battery when the mirror is in the normal position, not when it is partway up, as it will shorten the battery life.

1. Lift up the crank on the bottom of the camera and turn it counterclockwise, and take out the battery case.
2. Put a new battery into the battery case and reinsert the battery case making sure that the (+) and (−) marks on the battery correspond with the (+) and (−) marks inside the battery chamber.
3. To secure the battery case, turn the crank in the direction of the arrow until the red dots align.



Battery Check

Press the battery check button at the back of the camera. If the battery check lamp does not light, the battery power is insufficient. In such a case, replace the battery immediately.



To Reset the Mirror

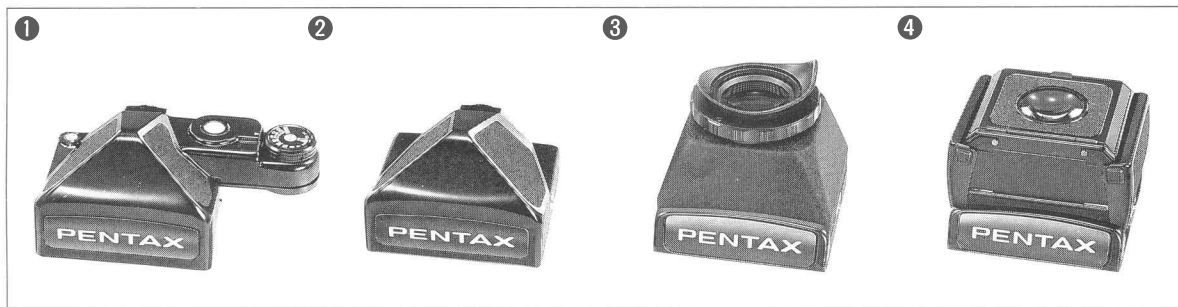
Press the safety device release button with a pointed object, and press the shutter button for one blank exposure. The mirror will then return to its original down position.

- When the battery power becomes insufficient, the mirror will stop partway up blocking the viewfinder.
- It will shorten the battery life if the battery check button is pressed too frequently.
- The shutter may work for a while even if the battery lamp does not light. However, the shutter speeds may be inaccurate.

- Use the Alkaline battery (4LR44, A544) or the Silver-Oxide battery (4SR44, 544, PX28) aligning the polarities correctly.
- Always keep batteries out of the reach of children.
- The misuse of batteries may cause hazards such as leakage, over heating, explosions, etc.
- To prevent explosion:
 - never try to break a part,
 - never recharge the battery,
 - never throw into fire,
 - never expose to excessive heat.
- The Alkaline battery should last about 6 months, while the Silver-Oxide battery about one year with average use at normal temperature. However, when the TTL pentaprism is used, the battery will last less as it also activates the TTL meter.
- At temperature below 0°C (32°F), battery performance may temporarily decrease. One way to avoid this is to use the 67 remote battery cord (optional) for keeping the battery warm under your clothing.
- Keep a spare battery on hand for convenience when shooting outdoors or traveling.
- Make sure to remove the battery when the camera is not in use for an extended period of time, as the battery may deteriorate and cause damage to the contact points.



INTERCHANGEABLE FINDERS



There are four types of interchangeable finders (Optional) for the 67 camera as mentioned below;

Eyelevel viewfinder:

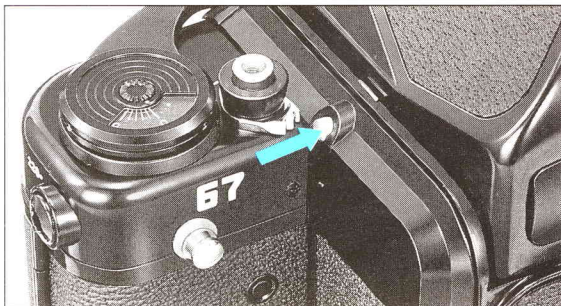
- ① TTL Pentaprism
- ② Pentaprism

Waist-level viewfinder:

- ③ Rigid Magnifying Hood
- ④ Folding Focusing Hood

Grasp the finder on the top from both sides and fit it into the finder mount until it locks in place with a click heard from both side of the finder mount.

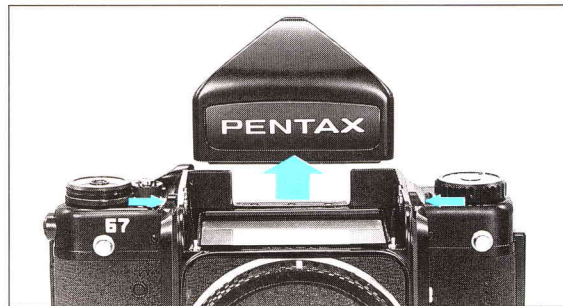
Once attached, jiggle it back and forth to confirm that it is securely locked.



Dismounting Finder

Press the lock pins on both sides of the finder and lift it straight up.

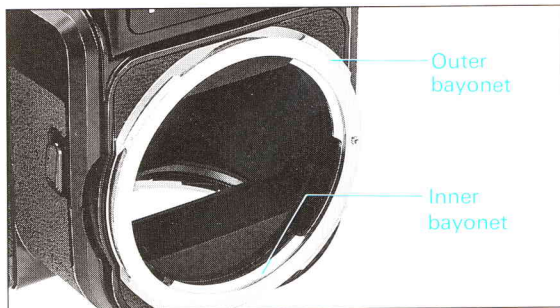
- In a bright environment, film may be accidentally exposed if the finder is detached while the shutter is open for an extended period.
- To prevent an accidental exposure, protect the finder eyepiece from strong light such as direct sun light.



Field of View

With the TTL pentaprism or Pentaprism, approximately 90% of the total area is visible. With the Rigid Magnifying hood or Folding focusing hood, 100% of the image area is visible, but the image is laterally reversed.

MOUNTING LENS



The 67 camera's lens mount has two types of bayonet, inner bayonet and outer bayonet. Except SMCP 67 Shift 75mm f/4.5 and SMCP 67 Soft 120mm f/3.5, the inner bayonet lenses are equipped with automatic diaphragm.

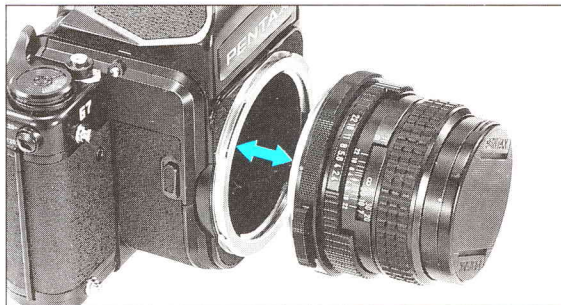
1



1. Detach the mount caps on both the camera and lens by turning counterclockwise.

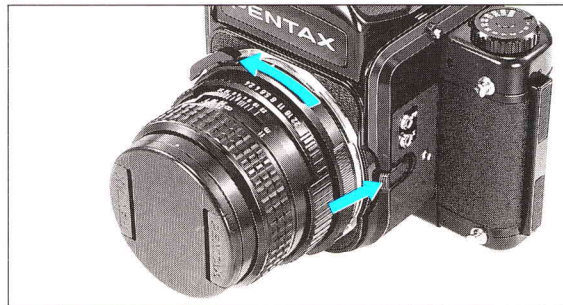
- For the outer bayonet lenses, please refer to the operating manual, 67 INTERCHANGEABLE LENSES.

2



2. Align the red indexes on the camera and lens, and turn the lens clockwise. The lens will be locked in place with a click.

3



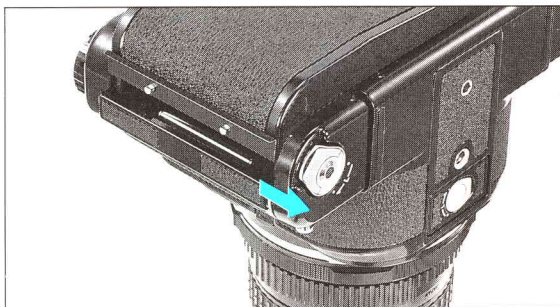
3. To detach the lens, turn the lens counter-clockwise while pressing the lens release lever.

- When an automatic diaphragm lens has been attached on the camera before mounting the TTL pentaprism, remove the lens and remount it. This is for setting the coupling pin of the TTL pentaprism with the camera's diaphragm coupling slide.

- When the lens is dismounted, attach the caps onto the lens and camera to prevent dirt from getting in the mechanism.

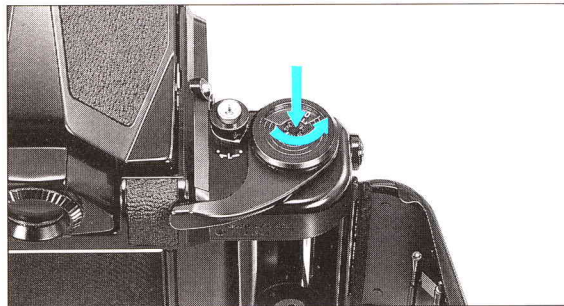
SHUTTER RELEASE WITHOUT FILM

1



The shutter mechanism of the 67 camera is designed to be disengaged when a film is not loaded. Should you need to release the shutter without loading film, follow either one of the following methods.

2

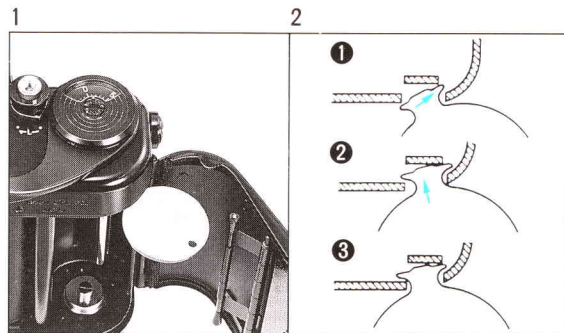


A] Release the shutter with the back closed

1. Open the camera back by sliding the release tab.
2. Turn the exposure counter dial counter-clockwise until the counter indicates "1" or more.



3. Close the camera back while keeping your finger on the exposure counter dial. Turn the wind lever until the shutter is cocked.



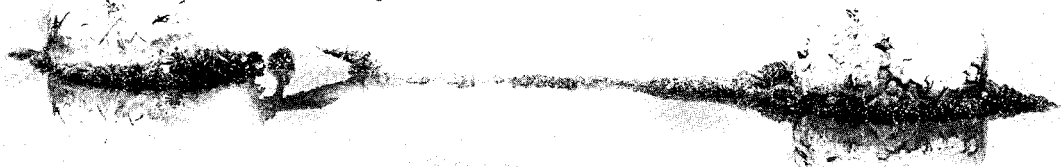
B] Release the shutter with the back open

1. Cock the shutter as described in the procedure A].
2. Open the camera back and insert the shutter cocking key into the slot below the wind lever as illustrated. Then, the shutter can be released without closing the camera back.

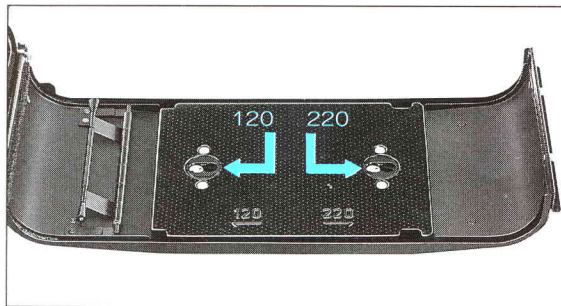
- To prevent damage to the inside mechanism, never touch the shutter curtain or counter roller.

LOADING FILM

(Please go through "BASIC OPERATION" before actually loading a film.)

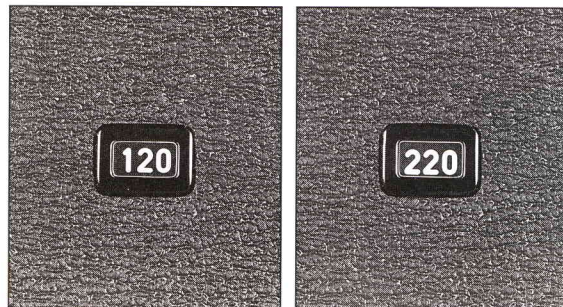


SETTING FILM TYPE



The 67 camera accommodates two types of film: 120 type (10 exposures) and 220 type (20 exposures).

Whenever changing film types, the following two adjustments must be made.



1. Pressure Plate

The plate position can be confirmed through the 120/220 film indicator on the camera back. As shown in the photo, press and shift the pressure plate according to the film type you are using.

- The thickness of the film differs between the 120 type and 220 type (120 type: With back paper, 220 type: Without back paper). Film drag and imprecise focusing will occur, if the pressure plate is not set correctly.

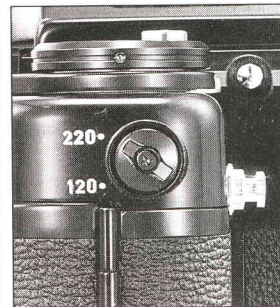
2



120 type



220 type



2. Exposure Counter Control Dial

With a coin or the shutter cocking key, set the exposure counter control dial to correspond with the type of film you are using. The number of exposure will be set by this dial (120 type: 10 exposures, 220 type: 20 exposures).

- Should you have the dial set in the wrong position, it can be corrected as long as you have not gone past the 9th frame of the film.

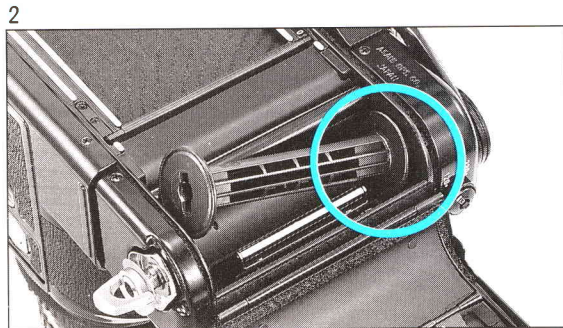
- When the 120 type 6-exposure film is used (5 exposures can be made by the 67), please make 5 blank exposures after the 5th frame.

LOADING FILM (Avoid direct sunlight when loading or unloading film.)



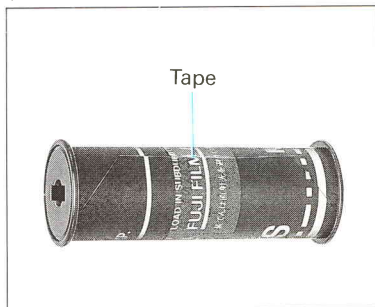
To avoid film jams, load the film correctly according to the procedure mentioned hereafter.

1. Open the back cover by sliding the release tab.

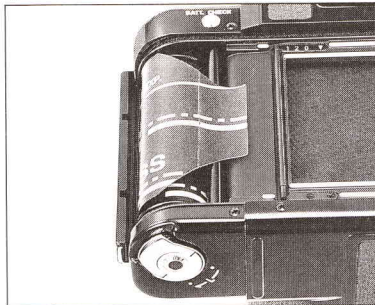


2. Unfold the crank of the film spool retainer knob, turn the knob counterclockwise and pull down. Engaging the hole of the spool to the upper film retainer, put an empty spool into the film chamber below the wind lever. Then, push in the retainer knob and turn it clockwise to lock in place.

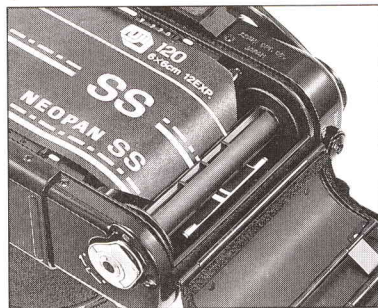
3



4



5



3. Remove the tape completely from a new film to be put in the camera.
4. Place the new film in the film chamber below the shutter dial in the same manner as the empty spool.

5. Turn the wind lever until the slot of the empty spool faces upward. Then, pull out the film's leader and thread it into the slot.

- To prevent damage, never touch the shutter curtain.

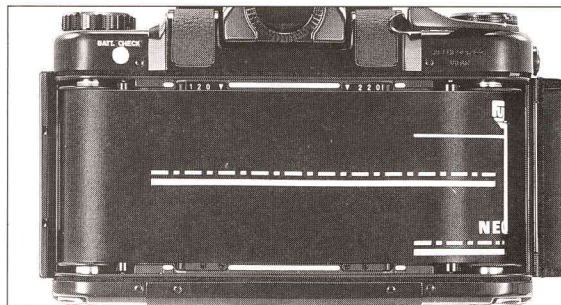
- To avoid film jam, roll the film leader firmly and evenly.

6



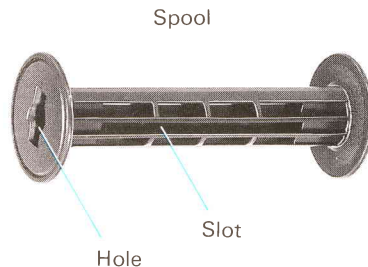
6. Turn the wind lever until the spool has made one revolution, while pressing the film leader as shown in the photo.

7

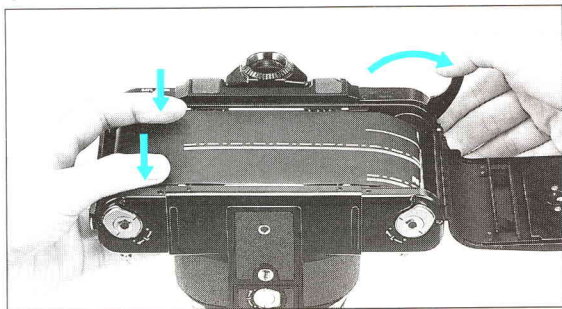


7. Make sure the leader is evenly rolled onto the spool. If not, repeat the procedure 5 and 6 until the film leader is set correctly.

- Never turn the spool in the opposite direction. It may damage the wind mechanism.

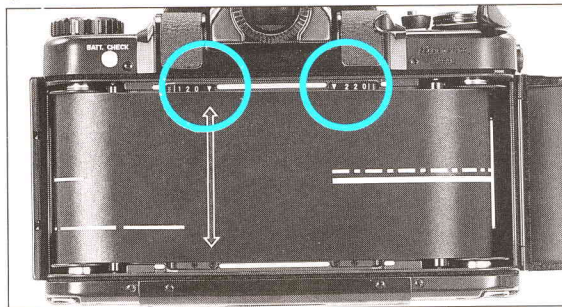


8

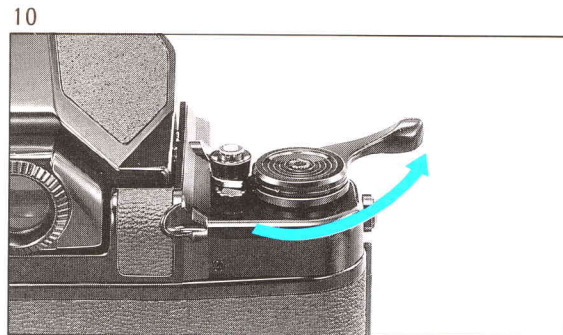
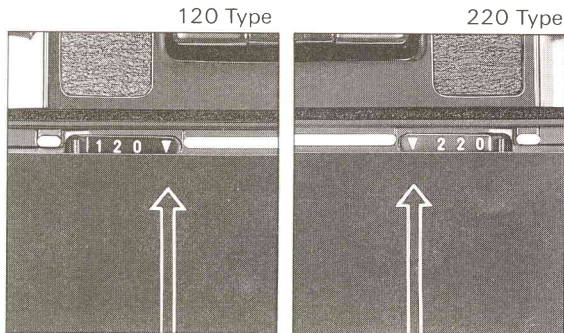


8. Press on the film as shown in the photo while turning the wind lever so that the leader is wound tightly onto the spool. Be sure not to press the shutter curtain.

9



9. Keep turning the lever until the arrow mark (Film mark) aligns with the index of the film type you are using.



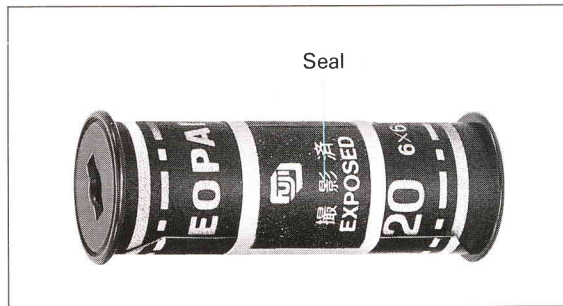
10. Close the camera back. Keep turning the wind lever until the counter indicates "1". The shutter is cocked and the camera is now ready for the first exposure.

- Make sure to set the film mark correctly. Otherwise, the first frame or last frame may be cut off.
- In some films, a dotted line appears before the film mark. Make sure not to be misled by this marking.

UNLOADING FILM



After you have exposed the proper number of frames of the type of film you are using, the shutter will be disengaged to allow turning of the wind lever continuously. Keep turning the lever until there is little resistance, and open the camera back. After pulling out the film retainer knob, press down on the rim at the top of the spool. Take out the film and seal the roll.



- Handle the exposed film carefully. Should the roll of film loosen, accidental exposure to light may happen damaging your photographs. Also, do not tighten the roll too much as this may cause a damage to the film.
- Do not force the wind lever when it becomes taut. It may damage the shutter and/or wind mechanism.

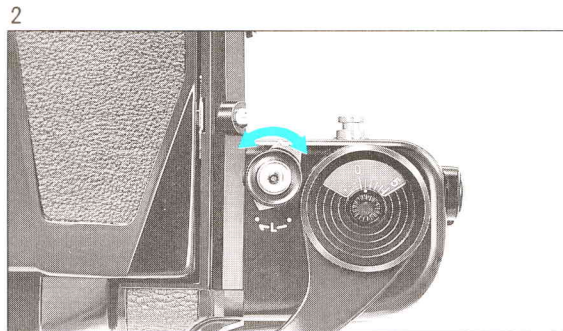
BASIC OPERATION

SHUTTER DIAL/BUTTON



1. Shutter Button

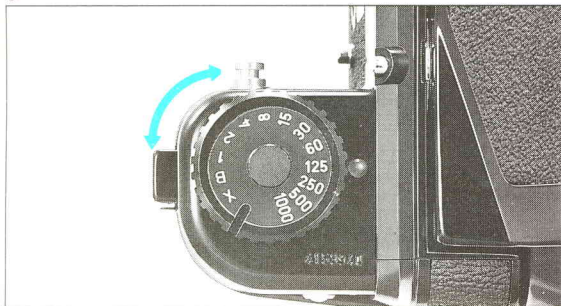
To prevent camera shake, please press the shutter button gently, while holding the camera securely. Please practice releasing the shutter to capture the moment as you desire without causing camera shake.



2. Shutter Lock Lever

When the shutter lock lever is aligned to the red dot, the shutter is locked. This is helpful to prevent accidental shooting.

3



3. Shutter Dial

To set the desired shutter speed, rotate the shutter dial in either direction until the shutter speed indicated on the dial matches the shutter speed index (Battery check lamp). Speeds from 1 to 1/1000, X and B can be set.

- If you set the dial anywhere between the dial's indicated settings, such as "1000" and "X", the shutter will remain open until one of the indicated speeds is set.
- If the camera is left for an extended period of time after cocking the shutter, the shutter speeds will become inaccurate.

SETTING THE APERTURE



F-Number

The aperture can be set by rotating the aperture ring until the desired F-number is aligned with the index [◇]. An intermediate F-number can be set as well. The values of F-number and intermediate F-number are basically as follows;

2, 2.8, 4, 5.6, 8, 11, 16, 22, 32, 45
2.4, 3.4, 4.8, 6.7, 9.5, 13.5, 19, 26, 38



Automatic Diaphragm

Almost all the SMC PENTAX/TAKUMAR 67 lenses with inner bayonet are equipped with the automatic diaphragm. The diaphragm stays fully open until the moment the shutter is released.

- For lens details, please refer to the operating manual, 67 INTER-CHANGEABLE LENSES.