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Mamiya
M 645
Roll-Film Insert
Instructions

Mamiya
CAMERA CO., LTD.

www.orphancameras.com
There are two types of roll-film inserts — one for 120 roll-film (15 exposures) and the other for 220 roll-film (30 exposures). The exposure counter of the camera automatically change over upon insertion of 120 or 220 film insert. Goes up to 15 with 120 film insert and up to 30 with 220 film insert. The operating method is the same for both film inserts.

**Names of Parts**

1. Start mark
2. Release latch
3. Spool clip
4. Leader paper guide marks
5. Film spool stud
6. Take-up spool stud
7. Film type index (120 or 220)
• Loading the Film

1. Place the film insert on a table making sure that the film type index (7) is not upside down. Then pull out and lower the spool clips found on the left-hand side.

2. Align the right-hand side of an empty spool with the lower spool stud (6). Then return the spool clip (3) to its former position, making sure that the left-hand side of the spool is properly held by the spool clip.

3. In the same manner insert a roll of film in the upper compartment.
4. Make sure that the black side of the leader paper faces up.

5. Gently pull out some of the leader paper, pulling it over and around the pressure plate. Then insert the tip of the leader paper into the slot of the take-up spool.

6. Gently rotate the take-up spool in the direction of the arrow until the start mark of the film is aligned with the start mark on the spool clip (1).

★ The above step is to be completed before the roll-film insert is placed into the camera.
Never load film in direct sunlight. Load it in the shade or in your own shadow.

Make absolutely sure to match the film insert with the film type being used. If the wrong insert is used, the correct film plane will not be maintained and optimum sharpness will not be achieved. Moreover, if 120 film is used in the 220 film insert, there is the danger of the leader paper getting caught in the shutter causing damage to the camera.

Before placing the film insert into the camera, make sure the leader paper on the take-up spool is flat and lies evenly between the two edges of the take-up spool. The take-up spool should be wound sufficiently tight to make it impossible for the leader paper to ride over the edge of the take-up spool.

Always align the start marks of the film and spool clip before placing the film insert into the camera. (If the start marks are aligned within the camera with the aid of the film advance knob, the first frame will not be correctly positioned.)
● Using Roll-Film Designed for Six Exposures

If you wish to use roll-film designed for six 6 x 6 cm exposures, follow the procedure outlined below.
1. Load the film in a 120 film insert and use in the normal way. The film will take 7 exposures.
2. After 7 exposures have been taken, set the shutter speed dial to 1/500 sec., wind the film advance knob and release the shutter 4 more times (the exposure counter will indicate “11”).
3. Wind the film advance knob once again so that the exposure counter indicates “12”, open the back cover, and remove the film insert. (Do not release the shutter when the exposure counter indicates “12”.)
4. Completely wind the remaining leader paper around the film take-up spool.
   ★ If the film in the camera is completely wound onto the take-up spool, there is the danger of the tip of the leader paper getting caught in the shutter curtain and damaging the camera.
• Insertion of the Film Insert

1. Grasp both sides of the release latch (2) of the film insert, making sure that the film type index (7) is not upside down, and place the film insert straight into the camera body. After the film insert has completely entered the camera body, let go of the release latch.

2. Press in on the outer edges of the release latch (indicated by the arrows in the photograph) and the roll-film insert will lock into place. (If the roll-film insert does not go all the way in on the right-hand side, turn the film advance knob slightly while pushing in on the right side of the film insert.)

3. After insertion has been completed, securely close the camera back cover.
If the film advance knob moves slightly from the time the film insert is placed into the camera to the time the back cover is closed, there will be no ill effects. However, if the film advance knob moves too much, the first frame will be fogged.

- Unloading Film

1. After the fixed number of exposures have been taken (15 for 120, 30 for 220), the shutter release button will lock. At that time, wind the film advance knob until the leader paper is completely wound onto the take-up spool. (When winding is complete, resistance will no longer be felt on the film advance knob.)
2. Open the back cover, remove the roll-film insert and the exposure counter will reset to S (Start).
   The exposure counter will not reset to S if the insert is not removed.
3. Remove the film from the film insert, exercising care that the film does not loosen, and seal it.