

Spectra Regular 8mm Loading Instructions

Inside the Camera

The film chamber of the camera accommodates standard 25 ft. daylight-loading spools of double run 8 mm. film. To open the camera turn the lid fastener in the middle of the left side anti-clockwise, in the direction of the letter "O".

The lid then hinges open.

With the lid open, the principal components revealed are, reading from top to bottom: the *feed spindle*, which accepts the reel of unexposed film; the *gate*, through which the film is drawn by the spring-operated claw mechanism, and where the exposure takes place; and the *take-up spindle*. On this will normally be found an empty spool to the core of which the free end of film is secured.

Both spindles are fitted with sleeves; that on the feed spindle is free to revolve with its spool as the film unwinds; the other is friction-driven and has a spring-loaded lug at the base. The lug engages with one of the slots in the take-up spool flange. The purpose of the friction drive is to maintain constant tension on the film throughout the run.

The Film Gate

In front of the two spindles is the gate. It consists of a fixed aperture plate, and a hinged pressure-pad which can be opened by moving a plated metal lever in the direction of the feed spindle. When the gate is open the pressure-pad can be taken out by pulling gently upwards. The aperture plate can then be cleaned with a soft brush or fluffless cloth. Never use a bare metal object for this purpose.

How the Double Run Works

The film is propelled through the gate by a claw which is synchronized with the movement of the shutter. When the latter is open, the claw is withdrawn from the film, which is held stationary during the exposure by the pressure-pad. As soon as the shutter closes, the claw emerges and pulls the

film down through 3.81 mm., whereupon the cycle of events is repeated and another exposure made. At normal running speed, sixteen such exposures are made each second.

However, the picture aperture (which you can see from the front by removing the lens and running the mechanism) only extends half-way across the film; consequently the exposures are made down one side only. When the film has been completely exposed down one side, the reels are exchanged and the film run through again so that the other side now passes the aperture. The film is then sent to the processing station and, after development, it is split down the centre, and the two parts joined end to end to make 50 ft., 8 mm. wide with perforations down one side.

The Same Take-up Spool

It follows from the foregoing that the same take-up spool is used again and again, as it is always left empty when the film has completed both runs. Conversely, whenever the film is wound on to the take-up spool, it can only have been half exposed. If it were to be sent for processing at this stage, the entire second half would be wasted.

To distinguish the take-up spool from the feed spool it is marked with the Roman figure I (first run) on one flange and II (second run) on the other.

Loading

The daylight-loading spools that the camera accepts are supplied with an extra length of film at each end over and above the nominal 25 ft. to protect the remainder from accidental exposure or "fogging" when loading or unloading. These lengths are known as "leader" at the beginning and "trailer" at the end, and are each usually about 4 ft. long. The actual total length of film on a spool is therefore about 33 ft. The surplus film is removed during processing.

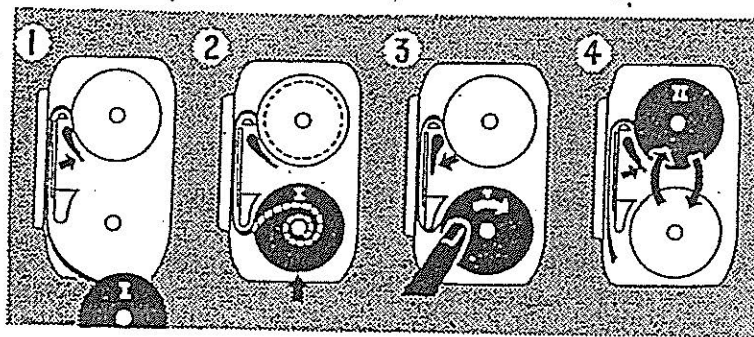
Always load the camera in subdued light.

Loading Drill

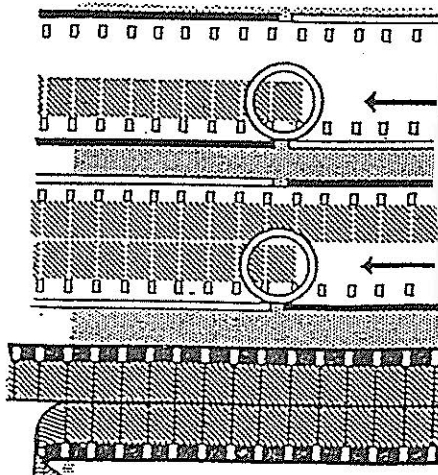
Loading for the First Run

1. Wind the motor, then open the film chamber by turning the door lock anti-clockwise. Lay the open camera down with the open door towards you and lens facing away.
2. Remove the empty spool from the take-up spindle, open the gate by swinging back the plated metal lever and dust out the film chamber and gate with a camel-hair brush.
3. Remove the unexposed film from its can. Keep the can and carton. Remove the paper strip from round the film. Holding the reel firmly in the right hand to prevent the film uncoiling, unwind about 10 in. of film.
4. Hold the spool so that the three-notched flange is down and drop it over the right-hand (feed) spindle.
5. Thread the leader into the gate following the path indicated by the dotted line engraved in the film chamber. The film must pass over the spring-loaded roller at the right-hand (feed) end of the gate and round the rubber buffer at the left-hand (take-up) end.
6. Hold the take-up spool with the flange marked I uppermost and insert the film leader in the slit in the core. Wind the spool clockwise to pull the film taut, then place it on the left-hand (take-up) spindle.
7. Close the gate by pressing the lever downwards.
8. Run the camera for two to three seconds to ensure that the film runs correctly along the indicated path.
9. Close the lid of the film chamber and lock by turning the ring clockwise. On the latest models set the loading indicator (p. 13).
10. Run the mechanism until the figure "0" coincides with the setting dot or line in the footage indicator window.

LOADING



1. Open pressure pad, place full spool on feed spindle, and thread film through gate. 2. Secure film to take-up spool and place in position. 3. Tighten film, close pressure pad, and check mechanism by running camera. 4. After first run-through, remove full lower spool, turn over, and reload.



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The double-run principle means that the film is run through the camera twice. Each run exposes a row of images down one side of the film. After the film has been processed it is slit lengthwise and the two ends joined together. In this way, a film that starts life 16 mm. wide and 25 ft. long becomes 8 mm. wide, and 50 ft. long.