

Instructions manual

# BOLEX

400 ft magazine



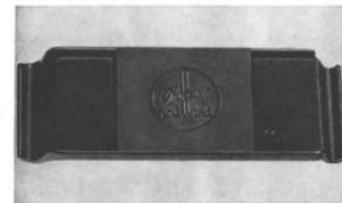
The 400 ft magazine can be used with Bolex H16 RX-5, M-5 and SBM movie-cameras fitted with an auxiliary electric motor, as well as with the EBM Electric model with built-in motor.

The illustrations in these Instructions for Use refer mainly to the H16 RX-5 camera but naturally also apply to the other models.

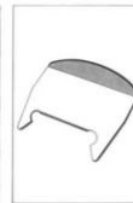
#### After-sales service

Through our world-wide organization, we can offer efficient and reliable after-sales service in practically every part of the world. If service is required, return your camera to a Bolex dealer or directly to the Bolex service center. Please quote the serial number in any correspondence with your Bolex dealer or distributor.

## Short description of a Bolex H 16 RX-5



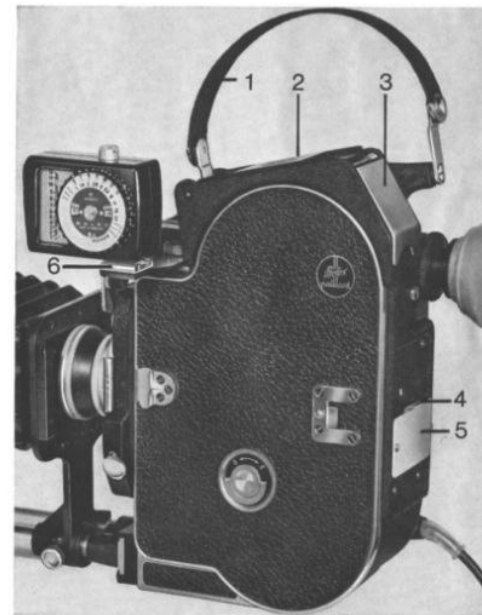
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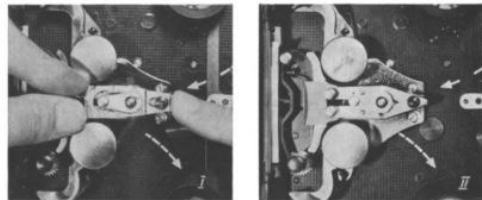
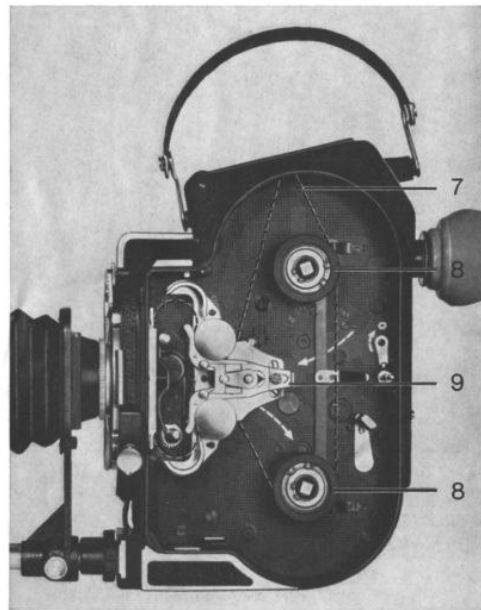


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Carrying handle

- 2 Light-tight cover plate (picture above)
- 3 Retaining clamp for the magazine or cover plate 2
- 4 Fork for opening the sprocket guides for cameras not fitted with a slide (drawing above)
- 5 Jotter
- 6 Adapter bracket for the Bolex exposure meter



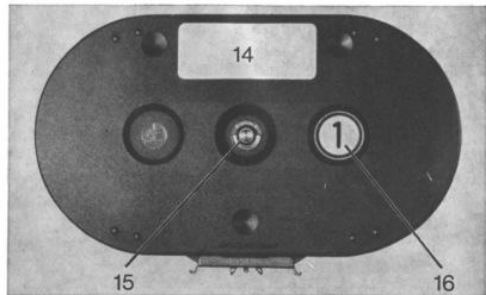
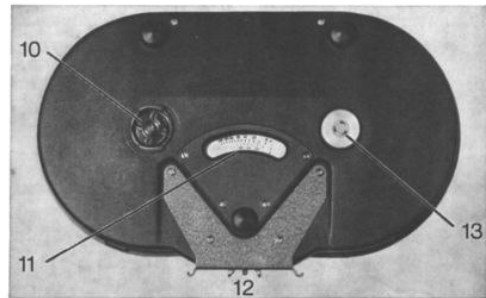


- 7 Film path when using the 400 ft magazine
- 8 Film rollers (supplied with the magazine)
- 9 Slide for opening the sprocket guides

Some cameras are fitted with the slide 9 which is used to keep the sprocket guides open — if the film is to be loaded or unloaded by hand. In this case, it is necessary to open the sprocket guides and keep them in the open position by pushing the slide towards the front of the camera (Fig. I). The small fork 4 has the same function but operates from the front (see Fig. II above).

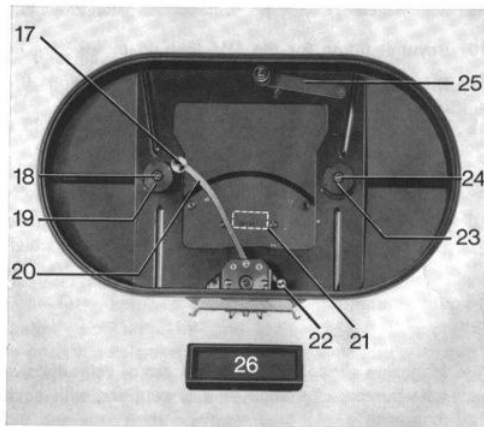
## Description of the 400 ft magazine

- 10 Bayonet fitting for the MM take-up motor
- 11 Dual-scale film footage counter indicating the length of unexposed film remaining  
— in black : for 400 ft of film on cores  
— in red : for 200 ft spools
- 12 Light-trap
- 13 Knurled knob for tensioning the film on the feed spindle. The arrows indicate the direction in which the knob must be turned to tension the film
- 14 Jotter
- 15 Magazine cover catch
- 16 Magazine sequence number. A set of self-adhesive tabs numbered from 2 — 4 is supplied with each magazine



- 17 Interchangeable guide roller with wide flanges for the 400 ft cores
- 18 Feed spindle. The push-button will release the core or the spool
- 19 Hub for the 400 ft roll of film
- 20 Feeling lever of counter 11
- 21 Serial number to be referred to in all correspondence
- 22 Chromium-plated guide roller in place for 200 ft spool  
Takes the place of 17 in this instance
- 23 Hub for the 400 ft roll of film
- 24 Take-up spindle, also fitted with a push-button for releasing the hub or the spool
- 25 Spring-loaded lever fitted with a flanged guide roller to control the film as it is taken-up onto the 400 ft core
- 26 Cover plate for the film entry aperture (to protect it from damage and prevent dust from entering)

The 400 ft magazine is made from re-inforced plastic ; it is light-tight even without the cover plate 26 : a baffle-type light trap is fitted inside the film entry aperture to prevent light entering the magazine. The magazine should be handled with care and, in particular, it should not be knocked or dropped.

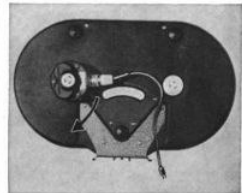
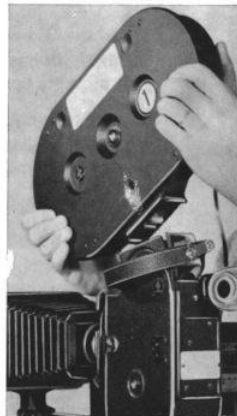


## Method of fixing the magazine onto the camera

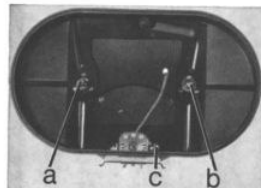
1. Lift the clamp and remove the light-tight cover plate from the camera.
2. Remove the cover plate from the magazine film entry aperture and then position this aperture over the camera as shown in the first illustration opposite.
3. Slip the front lug of the magazine under the front retaining bar of the support. The magazine will then clip into place in the housing on the camera.
4. Lower the clamp.

**N. B. The carrying handle can be positioned either to the right or the left of the magazine to suit the user.**

5. Attach the MM take-up motor to the bayonet fitting as shown in the illustration opposite. Press the motor into the fitting and turn it in the direction of the arrow until it locks fully home. The connector will then be pointing downwards.
6. Insert the plug on the feed cable for the MM take-up motor into its socket. (The illustration shows the socket on the ESM motor). To disconnect, press down the small button on the socket and pull the cable out.



## Loading the magazine and the camera (200 ft spool)



Spools of 200 ft, even of 100 ft if the camera is used without a magazine, can be loaded in daylight, providing sufficient care is taken to avoid direct sunlight when loading the film.

1. When the lids of the magazine and the camera have been taken off, remove the hubs from the magazine spindles by pressing down the push-buttons **a** and **b** on the spindles.
2. The footage-counter lever must be fitted with the guide roller with the chromium-plated flanges; raise the lever as far as it will go and it will remain locked in this position. Place the other guide roller in the clip **c**.
3. The spring-loaded lever **25** should remain in its disengaged position.
4. Place the spool of unexposed film on the spindle **a** making sure it is pressed fully home and locked in position by the retaining device on the spindle.  
**The motor drives the spool in a clockwise direction.**
5. Lower the footage-counter lever. The guide roller will now press against the film.
6. Insert the end of the film into the magazine aperture. Pull 8" of the film through into the camera and cut the end with the film cutter.

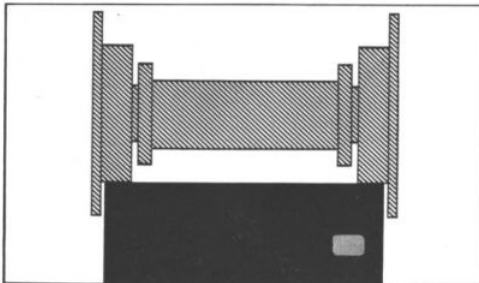
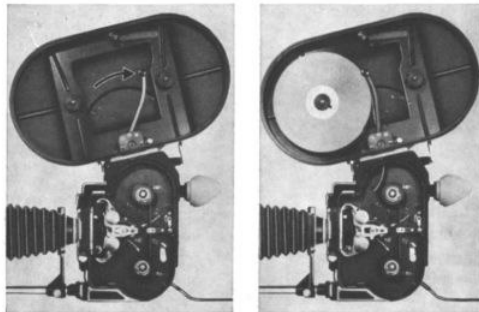


7. Close the loop formers and then proceed with the automatic loading as described in the instructions manual for the camera. Allow about 2 ft of film to run through the lower sprocket.
8. Insert the end of the film into the magazine aperture and draw the film into the magazine.
9. Holding the take-up spool in the right hand, insert the end of the film into the slot in the spool core. Wind the film around the core 2 or 3 times and place the spool on the take-up spindle making sure it is pressed fully home and locked on the spindle by the retaining device.
10. To tension the film, turn the knurled knobs on the feed spindle and the MM take-up motor in the direction indicated by the arrows.
11. Replace the magazine and camera lids and lock them carefully in place.
12. Briefly depress the front button of the ESM motor; if the knurled knobs turn, the film has been loaded correctly.

**NB.** As the coils of a fully exposed spool can work loose during transport, it is advisable to replace the spool in its original container immediately.



## 400 ft film on cores

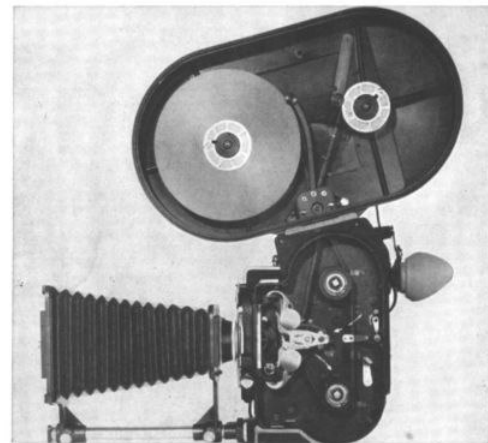


### N.B.

The operations described in paras 3, 4, 5, 6 and 9, 10, 11, 12 must be carried out in a darkroom.

1. Before starting, ensure that :
  - the 2 hubs of the magazine are in place on their spindles
  - the footage counter lever is fitted with the large-flanged guide roller
  - the two film rollers are in place on the camera spool spindles
2. Pull back the footage counter lever as far as it will go in the direction of the arrow ; it will remain locked in this position (see picture opposite).
3. Place the roll of unexposed film on the hub of the spindle, making sure not to disturb the layers of film in the roll. **The motor drives the roll in a clockwise direction.**
4. Lower the footage counter lever onto the film making sure that the guide roller fully straddles the film (see drawing opposite).
5. Insert the end of the film into the light-trap in the magazine aperture. Pull a few inches of film through into the camera.
6. Replace the lid of the magazine and lock it carefully.

7. Close the loop formers and then proceed with the automatic loading as described in the instructions manual for the camera. Allow about 2 ft of film to run through the lower sprocket.
8. Then insert the end of the film into the magazine aperture.
9. Place a standard 2" core on the take-up spindle as shown in the illustrations opposite.
10. Fold the film back about 1/4 from the end and insert it into the slot in the core. Turn the core by hand (in clockwise direction) until the film is tensioned. The take-up spindle is fitted with a clutch which prevents it from turning in the other direction ; consequently the film cannot unroll accidentally.
11. Unblock the spring-loaded lever by pulling it gently forward and bring it into contact with the film, at the same time ensuring that the guide roller straddles the film correctly.
12. Replace the lid of the magazine and lock it carefully.



## Loading the magazine independently



If you have a number of magazines, they can all be prepared ready for use by loading them in a darkroom.

The method of loading is basically the same, but the loop of film coming out of the magazine aperture should be taken in again; to do this, turn the knurled tensioning knob on the feed spindle in the direction of the arrow.

Once the magazine has been loaded, do not forget to replace the cover plate over the film entry aperture.

## Feeding the film into the camera by hand

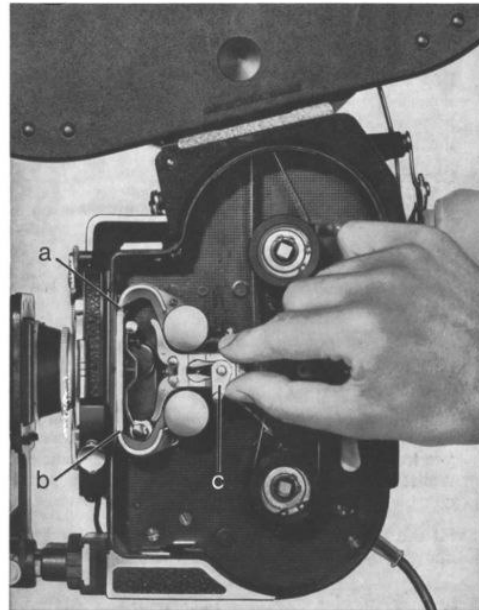


This is, of course, an operation which cannot be avoided when the magazine is changed between two series of exposures.

1. Remove the cover plate from the magazine aperture and draw out a small loop of film about 1" long.
2. Fix the magazine to the camera and remove the camera lid.
3. Open the sprocket guides and keep them open by pushing the slide forwards or by using the small fork fitted behind the jotter (for cameras not fitted with a slide, see page 2).

4. Open the pressure plate of the gate.
5. Draw out a loop of film about one and a half times the length of the camera.
6. Run the film beneath the upper sprocket then through the gate and then over the lower sprocket.
7. With the forefinger press the film against the gate at **a** and **b** and make the upper and lower loops as large as possible.
8. Close the pressure plate.
9. Close the loop formers with the aid of the lever **c**.
10. Hold the film as shown in the illustration and press lightly towards the front of the camera to ensure that the loop formers are well filled. At the same time withdraw the slide or the fork which is holding open the sprocket guides.
11. For a fraction of a second depress the front button on the ESM motor: the perforations on the film will engage with the teeth of the sprockets.
12. Open the loop formers and depress, for an instant, the front button of the ESM motor to ensure that the film is being transported correctly.

**Important ! To ensure that the camera is always loaded correctly, always follow these instructions carefully.**



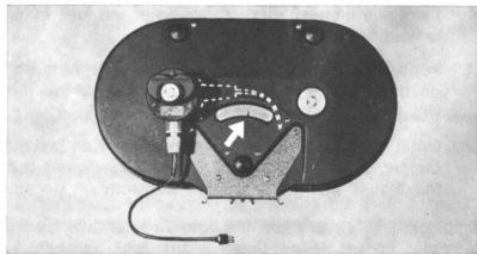
## Changing a partially exposed magazine

### If the exposed portion of the film is to remain in the magazine

1. Depress the front button of the ESM motor for about three seconds, so that the last exposed frame is transported into the magazine and protected from the light.
2. Remove the camera lid.
3. Open the sprocket guides and keep them open either with the slide or the small fork 4.
4. Open the pressure plate and remove the film from the gate, the upper sprocket and finally the lower sprocket.
5. Hold the film loop outside the camera and press the front button on the ESM motor to take up the loop.
6. Remove the MM take-up motor from the magazine: to do this press the motor into its housing and turn it in the direction of the arrow until it disengages from the bayonet fitting (see illustration above). Whilst the new magazine is being fitted, the motor can be left hanging from its supply cable.
7. Fit the new magazine in place and then load the camera by hand (see page 11).

### If the exposed portion of the film is to be removed from the magazine:

1. Proceed in the same manner as described above and, with the film cutter, cut the film in the middle of the loop situated outside the magazine.
2. Depress the front button of the ESM motor until the end of the film has been wound onto the take-up core.
3. Disengage the MM take-up motor from the magazine.
4. Remove the magazine from the camera. In a **dark-room** take out the exposed film and reload the magazine.



## Magazine maintenance

The inside of the magazine should be dusted at regular intervals with a fine antistatic brush. For camera maintenance see the instructions manual for the camera.

## Film running times at 24 f.p.s.

120 m (~ 400 ft)	10 min 56 sec.
110 m (~ 360 ft)	10 min. 1 sec.
100 m (~ 330 ft)	9 min. 7 sec.
90 m (~ 300 ft)	8 min. 12 sec.
80 m (~ 260 ft)	7 min. 17 sec.
70 m (~ 230 ft)	6 min. 23 sec.
60 m (~ 200 ft)	5 min. 28 sec.
50 m (~ 160 ft)	4 min. 33 sec.
40 m (~ 130 ft)	3 min. 39 sec.
30 m (~ 100 ft)	2 min. 44 sec.
20 m (~ 60 ft)	1 min. 49 sec.
10 m (~ 30 ft)	55 sec.



**Bolex International S.A., Yverdon (Switzerland)**

**BOLEX**

Hallmark of high quality

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