

This manual is for reference and historical purposes, all rights reserved.

This creation is copyright© by M. Butkus, NJ, U.S.A.

These creations may not be sold or distributed without the expressed permission of the producer

I have no connection with any camera company

On-line camera manual library

If you find this manual useful, how about a donation of \$2 to:

M. Butkus, 29 Lake Ave., High Bridge, NJ 08829-1701

and send your e-mail address so I can thank you.

Most other places would charge you \$7.50 for a electronic copy or

\$18.00 for a hard to read Xerox copy.

This will allow me to continue this site, buy new manuals and pay their shipping costs.

It'll make you feel better, won't it?

If you use Pay Pal, go to my web site

www.orphancameras.com and choose the secure PayPal donation icon.

Power Drive

for Mamiya M645

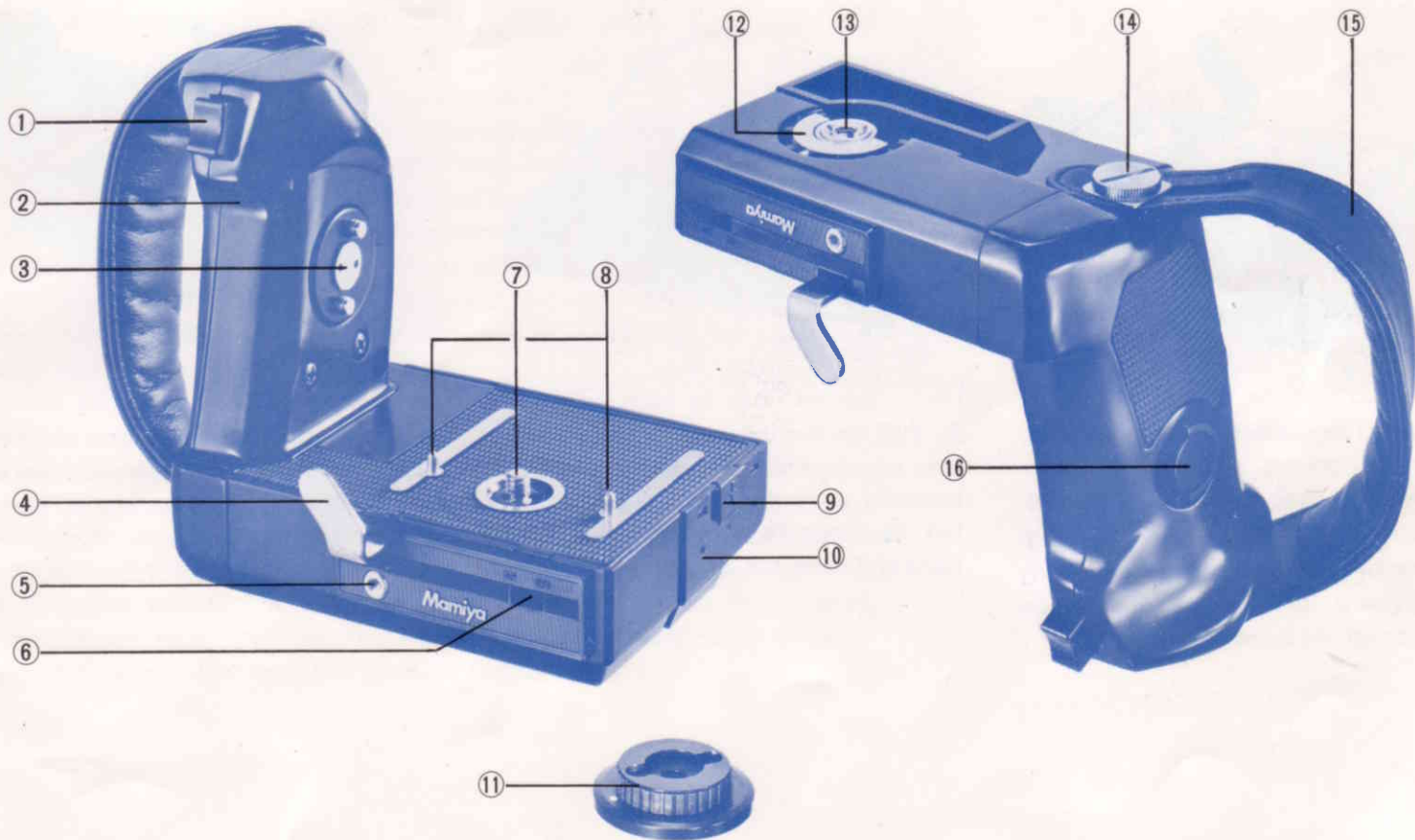
Instructions



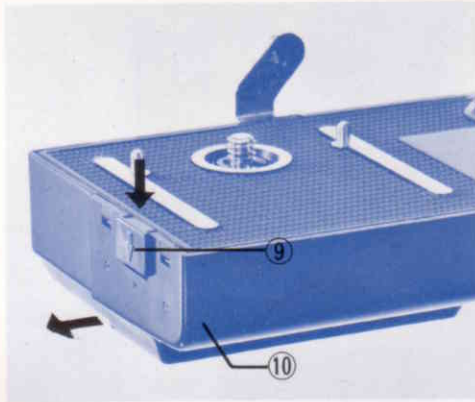
Names of Parts



1. Shutter release button
2. Grip
3. Coupler
4. Shutter release lever
5. Cable release socket
6. Power switch (ON/OFF)
7. Mounting screw
8. Guide pins
9. Battery case lock
10. Battery case
11. Winding attachment
12. Locking key
13. Tripod socket
14. Wrist strap adjustment screw
15. Wrist strap
16. Coupler knob

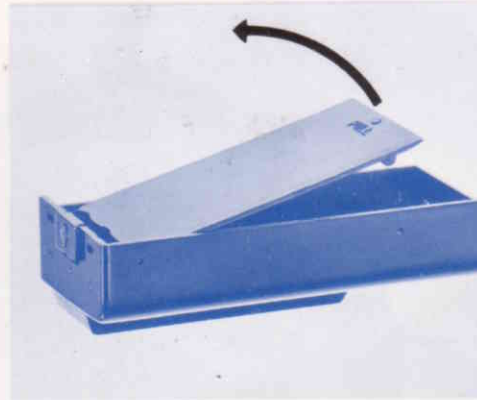


How to Load the Batteries

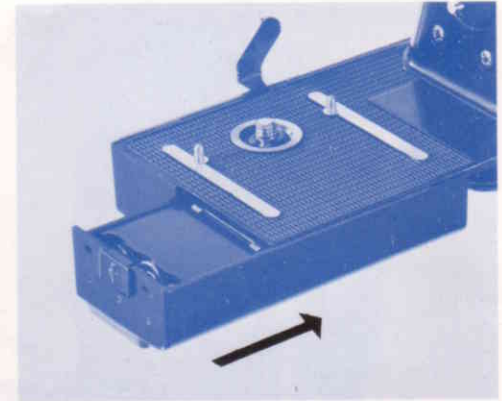


Six AA size batteries are required. Either manganese, alkaline or nickel-cadmium (Nicad) types may be used.

1. Remove the battery case (10) from the grip by pulling it out while pressing the battery case lock (9) in the direction of the arrow.



2. Pull up on the end of the battery case cover marked "PULL", insert the batteries with the plus (+) and minus (-) terminals in the designated positions and close the battery cover.



3. Slide the battery case into position on the bottom of the grip and press so that it clicks into place.

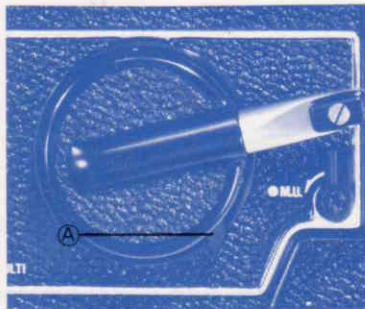
Battery Care

- Turn the power switch off when not using the Power Drive. The batteries should be removed from the battery case and stored when the Power Drive is not to be used for a long time.
- The Power Drive may fail to operate due to lowering of battery performance in cold weather. In this case, immediately turn the power switch off. The situation can be remedied by fully charging Nicad batteries or by keeping manganese or alkaline batteries warm.
- One of the characteristics of Nicad batteries is that the voltage drops suddenly when the capacity is exhausted, which may cause the Power Drive to stop operating during use. This can be avoided by fully charging these batteries before each use.
- All six batteries should be replaced with new ones as soon as the winding function begins to slow down.
- Do not mix various types of batteries or old and new ones. This may cause leakage which could result in damage to circuits, etc.
- The Power Drive will not operate if the batteries are not loaded with their plus (+) and minus (—) terminals in the designated positions.
- Effective battery life may vary greatly depending on the brand, type, time elapsed since manufacture, usage conditions (continually or occasionally), type of film used and ambient temperature.

Attaching the Power Drive

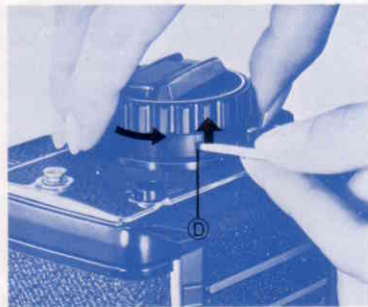
1. Remove the film advance crank or knob from the camera.

● Removing the crank



Rotate the film advance crank until it stops. Next, press in on release lever (A) and rotate the crank approximately 20° counterclockwise to remove.

● Removing the knob



Rotate the film advance knob until it stops. Next, insert a small screwdriver or other suitable tool into the slot of the release lever (D) and press it away from the camera body; then rotate the knob counterclockwise to remove.



2. Rotate the winding attachment (11) counterclockwise to remove it from the mounting screw (7). Next, align the red dot on the winding attachment with the red dot on the camera body, press the winding attachment against the camera and rotate it clockwise approximately 20° until it locks in place.

• With camera bodies that have no red mark, place the red dot of the winding attachment at the position shown by the arrow in the photo and then proceed as described above.



3. Pull out the coupler knob (16) and mount the Power Drive by inserting the guide pins into the two holes in the bottom of the camera body.

4. Turn the locking key (12) clockwise to lock the Power Drive to the camera and then push in the coupler knob (16).

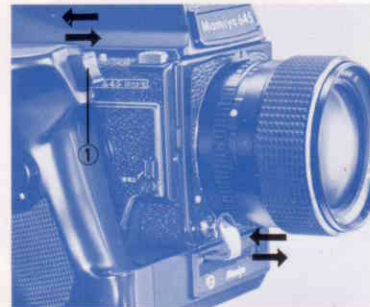
Using the Power Drive

Load the film into the film insert in the normal manner, set it to the start mark, place the loaded film insert into the camera, close and lock the back cover.

(When testing the Power Drive unit on an unloaded camera, either insert an empty film spool into the take-up side of the film insert, or set the multiple-exposure lever of the camera to MULTI. Then advance the crank (or knob) to cock the shutter.)



1. Turn the power switch on.



2. Press the shutter release button, release your finger and the film will be advanced automatically to the first frame. Now, the camera is ready for the first exposure.

3. Fifteen exposures with 120 film or thirty exposures with 220 film can be made merely by pressing the shutter release button for each frame; the film will be advanced automatically each time the finger is released from the button.

- Be sure to continue pressing the shutter release button until the shutter is released and the sound of the mirror operation is heard. If it is released before this, the film will not be advanced. If this should be done accidentally, just press the shutter release button again; the exposed frame will be advanced when the finger is again released. Use care in making exposures of 1/8 second or longer as pictures may be blurred if the finger is released before the exposure is completed.

- Light pressure on the shutter release button may cause the coupler to rotate slightly even though the

shutter may not be released. There is no problem as the coupler will return to its original position without advancing the film.

4. The film leader paper will be automatically wound up when the last frame of the film has been exposed.

5. Winding up of the film leader paper requires only about 5 seconds; after that, turn the power switch off to stop the winding.

- When using the shutter release button on the top of the camera body or the self-timer of the M645 1000S, the shutter will release but the film will not be advanced. In this case, press and release the Power Drive shutter release button after making the exposure to advance the film.

- When using a cable release or separate self-timer, connect them to the cable release socket on the Power Drive. The film will be advanced automatically.

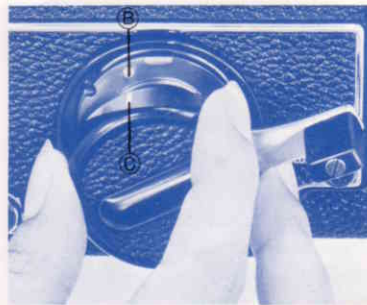
Removing the Power Drive



1. Pull out the coupler knob (16).
2. Rotate the locking key (12) counterclockwise to detach the Power Drive from the camera.
3. Remove the winding attachment from the camera body by rotating it counterclockwise. To prevent loss, screw the winding attachment onto the mounting screw (7).

Attaching the film advance crank or knob to the camera

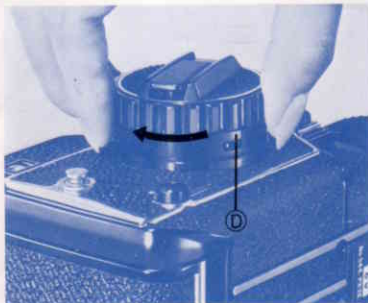
If there is film in the camera, advance the crank (or knob) to cock the shutter. If the camera is unloaded, either insert an empty film spool into the take-up side of the film insert, or set the multiple-exposure lever of the camera to MULTI. Then advance the crank (or knob) to cock the shutter.



● Attaching the crank

Align the index line (C) of the film advance crank with the red dot on the camera body (B). Next, press the crank into the receptor and rotate it approximately 20° clockwise while pushing in on the release lever, and it will lock into place. (When attaching to a camera body that has no red mark, align the index mark (C) with the position (B) shown in the photo and then proceed as described above.

Specifications



● Attaching the knob

With the release lever (D) of the knob pointed toward the bottom of the camera, press the knob against the receptor and rotate it clockwise approximately 20° until it locks into place.

● Both the film advance crank and knob are held to the camera at three points. After attaching, make sure that all three points are firmly engaged.

Power source:

Six AA size batteries: manganese, alkaline or nickel-cadmium (not included).

Operation mode:

Single frame with each operation of the shutter release.

Wind time:

Approximately 1 second.

No. of rolls of film per set of batteries:

(normal temperature, Mamiya test conditions)

Manganese batteries: approx. 40 rolls.

Alkaline batteries: approx. 100 rolls.

Nickel-cadmium batteries: approx. 80 rolls.

Starting feed:

Set the film to the start mark and press the shutter release button; the film will automatically advance to the first frame when the finger is released.

Film wind-up:

The film leader is automatically wound up when the designated number of frames have been exposed.

Miscellaneous:

Tripod socket and cable release socket provided.

Dimensions:

6" x 4-23/32" x 3-3/8" (152mm x 120mm x 86mm)

Weight:

Approx. 23 oz. (650g) without batteries.

★ Due to a modification of the product, design and specifications are subject to change without notice.