

Mamiya-Sekor Macro C

80mm f/4

for Mamiya M645

Instructions



Names of Parts

The Macro C 80mm f/4 lens is designed to provide a high resolving power not only in ordinary picture taking but particularly in close-up photograph and copying.

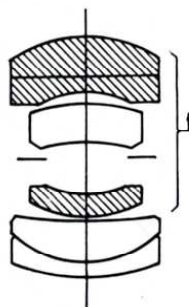
You can focus up to 1/2 life-size with this lens without using an accessory. By applying the optional Auto Macro Spacer which is especially designed for this Macro C 80mm f/4 lens, however, you can go up to life-size from 1/2 life-size magnification. The Macro Spacer is coupled to the automatic diaphragm mechanism so that you can take pictures in exactly the same way as you would with a standard lens.

This lens contains a built-in floating system which is designed to automatically compensate for increasing typical aberrations with close focusing distances to obtain sharp resolution down to the edges of the pictures. In this floating system, a portion of lens elements moves back and forth in accordance with the photographing distance to obtain the optimum lens performance.

Although this lens does not feature a hood, it provides a sufficient hood effect. Nevertheless, if it is absolutely necessary to use a hood, you can use one which is designed for 80mm f/1.9 lenses (67mm ϕ screw-in type).

Specifications

Focal length:	80mm
Lens construction:	6 elements in 4 groups
Angle of view:	47°
Aperture range:	f/4 to f/22
Filter size:	67mm dia. screw-in
Lens hood:	Not required
Length:	2-15/16 in. (75mm)
Weight:	20.6 oz. (585g)



Lens

1. Filter mounting ring
2. Magnification selector button
3. Magnification selector ring
4. Distance scale
5. Aperture ring
6. Exposure meter coupler
7. Alignment dot for lens mounting

Auto Macro Spacer (option)

8. Lens release button
9. Knurled ring
10. Coupler ring
11. Diaphragm actuating lever
12. Aperture ring coupler
13. Diaphragm actuating pin
14. Alignment red line for camera body
15. Alignment dot for lens
16. Alignment red lines for coupler

How to Use the Lens

(1) Using the lens alone

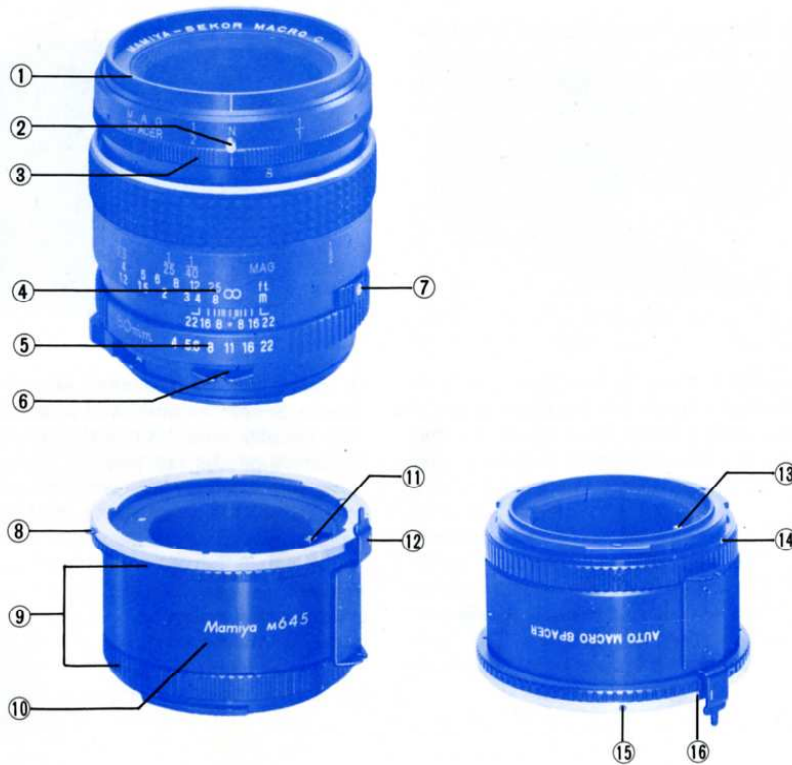
1. When you are using the lens alone without the Auto Macro Spacer and when taking photographs up to 1/2 size magnification, set the distance scale (4) to infinity (∞).

2. Press down on the magnification selector button (2), rotate the magnification selector ring (3), and align the N mark in front of the selector button with the red line on the filter mounting ring (1). Then the magnification selector ring locks at the proper position automatically.

★ When aligning the N mark with the red line, always make sure that you have set the distance scale to infinity (∞) first. Otherwise you may not be able to lock the magnification selector ring at the proper position.

3. Focus through the finder as you do normally.

4. The image magnification is indicated on the focusing ring right in front of distance scale.



Attaching the Auto Macro

(2) Macro photography from 1/2 life-size to life-size magnification

1. Attach the optional Auto Macro Spacer between the camera and the lens. (Refer to the following section for details on how to attach it.)

2. Set the lens distance scale (4) to infinity (∞).

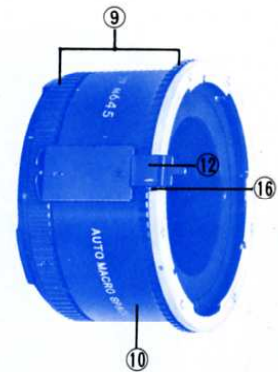
3. Press down on the magnification selector button (2), rotate the magnification selector ring (3), and align the green alignment line at the rear of the selector button with the S mark (green). Then the magnification selector ring locks at the proper position automatically.

★ When aligning the alignment line with the S mark, always make sure that you have set the distance scale to infinity (∞) first. Otherwise you may not be able to lock the magnification selector ring at the proper position.

4. Focus through the finder as you do normally.

★ Do not use the selector ring to adjust the focus. If you do not notice that the ring has been rotated while you are pushing down on the selector button, the position of the S mark which you have already set may be thrown out of alignment.

5. The image magnification is indicated at the front end of the magnification selector ring. (Magnification units from 1/2 life-size to life-size are marked.)



1. Grip the knurled ring (9) of the Macro Spacer in one hand and rotate the coupler ring (10) with the other hand. Align the red line on the aperture ring coupler (12) with the alignment line (16) as shown in the photograph.

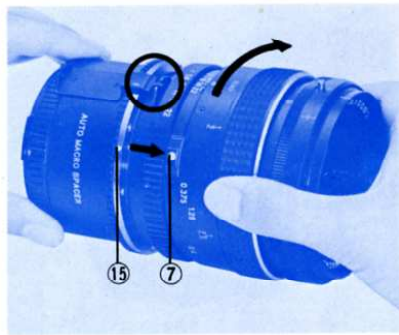
Macro Spacer



2. Rotate the aperture ring and set it to the widest aperture (f/4).

3. When the Macro Spacer and the lens are fitted after aligning the alignment dot (7) of the lens with the alignment dot (15) of the Macro Spacer, the couplers of the Macro Spacer and the lens will also be set simultaneously.

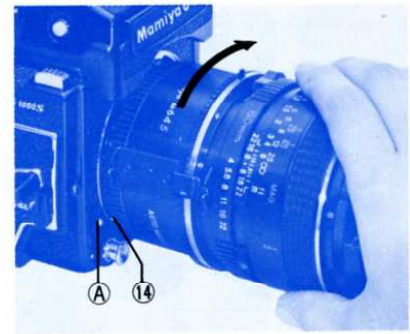
(The role of this coupler is to interlock with the exposure meter when the PD or CdS prism finder is employed. When the PD or CdS prism finder is not employed, connecting the coupler is not necessary.)



4. When the Macro Spacer and the lens have been aligned and fitted, rotate the lens clockwise until it stops. When the lens is rotated up to the stop position, the lens release button (8) pops out to lock it.

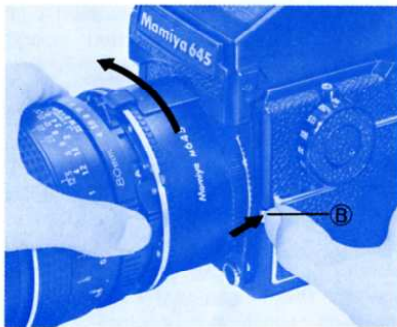
Caution

When rotating the lens, always grip either side of the knurled ring (9) of the Macro Spacer. Should the coupler ring (10) also be gripped simultaneously, the lens cannot be rotated.

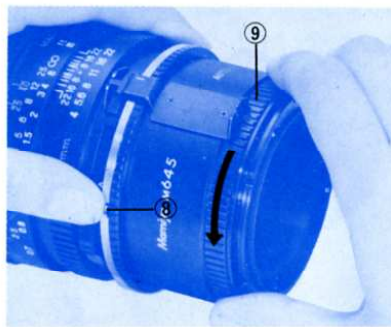


5. When attaching the Macro Spacer combined with the lens to the camera body, attach them after aligning the alignment line (14) with the alignment dot (A) of the camera body, and rotate the lens clockwise until it stops.

Removing the Macro Spacer



1. When removing the lens, initially remove the Macro Spacer from the camera body combined with the lens. To remove the Macro Spacer, rotate it counterclockwise until it stops, while depressing the release button (B) on the camera body.



2. The lens can be removed from the Macro Spacer by rotating the Macro Spacer counterclockwise until it stops, while gripping the knurled ring (9) of the Macro Spacer and depressing the lens release button (8).

How to Read the Close-Up Photography Table

1. The distances shown in the close-up photography table indicate the distance from the front edge of the lens barrel to the subject.

2. The exposure compensation values are indicated by the numbers corresponding to the steps in the shutter speed or aperture calibrations. When the lens is extended for close-up photography, and the distance between the lens and the film plane increases beyond normal, the image brightness on the film plane decreases, requiring an increase in exposure. When metering with a hand-held exposure meter, adjust the exposure by referring to the exposure compensation values in the close-up photography table. The exposure compensation is not necessary when using through-the-lens metering with the PD or CdS Prism Finder.

Close-Up Photography Table

When using the lens alone

Magnification	Lens-to-subject distance	Area to be covered	Exposure compensation value (Step)
1/40	11' 9/32" (336.0cm)	5' 5-11/32" x 7' 4-3/16" (166.0 x 224.0cm)	0
1/25	6' 9-23/32" (207.6cm)	3' 4-7/8" x 4' 7-1/8" (103.8 x 140.0cm)	0
1/20	5' 5-3/16" (165.6cm)	2' 8-11/16" x 3' 8-3/32" (83.0 x 112.0cm)	0
1/12.5	3' 4-3/4" (103.5cm)	1' 8-7/16" x 2' 3-9/16" (51.9 x 70.0cm)	0
1/10	2' 8-23/32" (83.1cm)	1' 4-11/32" x 1' 10-1/16" (41.5 x 56.0cm)	0
1/8	2' 2-1/4" (66.7cm)	1' 1-1/16" x 1' 5-5/8" (33.2 x 44.8cm)	0
1/7	1' 11-1/16" (58.6cm)	11-15/32" x 1' 3-7/16" (29.1 x 39.2cm)	0.5
1/6	1' 7-31/32" (50.7cm)	9-13/16" x 1' 1-7/32" (24.9 x 33.6cm)	0.5
1/5	1' 4-11/16" (42.4cm)	8-3/16" x 11-1/32" (20.8 x 28.0cm)	0.5
1/4	1' 1-17/32" (34.4cm)	6-17/32" x 8-13/16" (16.6 x 22.4cm)	0.5
1/3	10-11/32" (26.3cm)	4-29/32" x 6-5/8" (12.5 x 16.8cm)	0.5
1/2.5	8-25/32" (22.3cm)	4-1/8" x 5-9/16" (10.5 x 14.1cm)	1.0
1/2	7-7/32" (18.3cm)	3-9/32" x 4-13/32" (8.3 x 11.2cm)	1.0

When using with the Auto Macro Spacer

Magnification	Lens-to-subject distance	Area to be covered	Exposure compensation value (Step)
1/2	7-1/8" (18.1cm)	3-9/32" x 4-13/32" (8.3 x 11.2cm)	1.0
1/1.7	6-3/16" (15.7cm)	2-23/32" x 3-21/32" (6.9 x 9.3cm)	1.0
1/1.5	5-9/16" (14.1cm)	2-5/16" x 3-5/32" (5.9 x 8.0cm)	1.5
1/1.25	4-3/4" (12.1cm)	2-1/16" x 2-3/4" (5.2 x 7.0cm)	1.5
1/1.1	4-11/32" (11.0cm)	1-13/16" x 2-7/16" (4.6 x 6.2cm)	1.5
1/1	3-31/32" (10.1cm)	1-21/32" x 2-7/32" (4.2 x 5.6cm)	2.0


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