

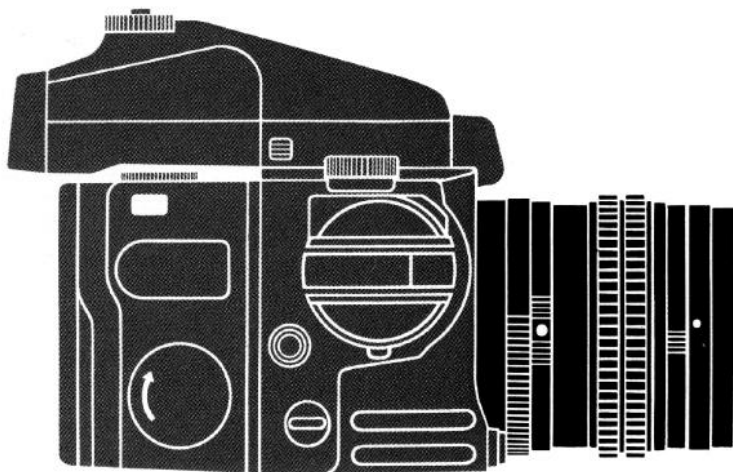
# Mamiya 645

Mamiya

## 80mm F4N

Mamiya -Sekor Macro C

## 80mm f/4 Lens



English Instructions

## How to Use the Lens

### (1) Using the lens alone

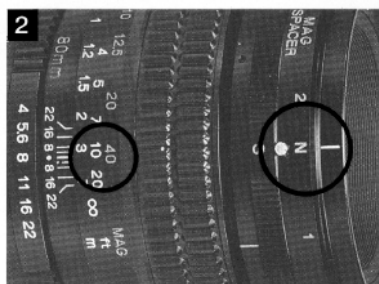
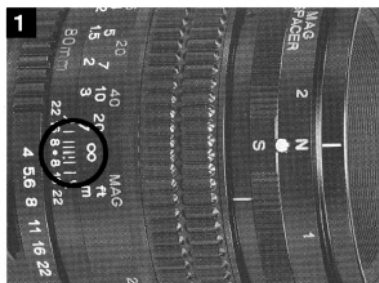
1. When you are using the lens alone without the Auto Macro Spacer and when taking photographs up to 1/2 size magnification, set the distance scale ④ to infinity ( $\infty$ ). (Photo. **1**)

2. Press down on the magnification selector button ②, rotate 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 ( $\infty$ ) 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. For example, 40 is an abbreviation of 1/40. (Photo. **2**)



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

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

1. Set the lens distance scale ④ to infinity ( $\infty$ ). (Photo. 3)

2. 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.

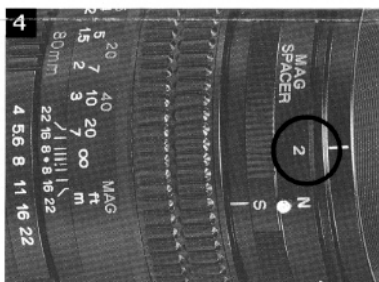
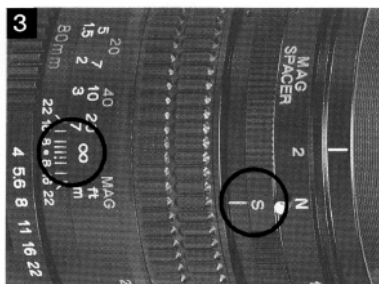
★When aligning the alignment line with the S mark, always make sure that you have set the distance scale to infinity ( $\infty$ ) first. otherwise you may not be able to lock the magnification

selector ring at the proper position.

3. Focus through the finder as you do normally.

★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.

4. The image magnification is indicated at the front end of the magnification selector ring. Magnification units from 2 life-size to life-size are marked. For example, 2 is an abbreviation of 1/2. (Photo. 4)



## Close-up Table:when using the lens alone

Magnification	Lens-to subject distance	Area to be covered	Exposure compensation value (Step)
1/40	336.0cm	166.0×224.0cm	0
1/20	165.6cm	83.0×112.0cm	0
1/12.5	103.5cm	51.9×70.0cm	0
1/10	83.1cm	41.5×56.0cm	0
1/8	66.7cm	33.2×44.8cm	0
1/7	58.6cm	29.1×39.2cm	0.5
1/6	50.7cm	24.9×33.6cm	0.5
1/5	42.4cm	20.8×28.0cm	0.5
1/4	34.4cm	16.6×22.4cm	0.5
1/3	26.3cm	12.5×16.8cm	0.5
1/2.5	22.3cm	10.5×14.1cm	1.0
1/2	18.3cm	8.3×11.2cm	1.0

**If exposure is measured by the AE Prism Finder, exposure compensation is unnecessary.**

## Attaching the Auto Macro Spacer

1. Rotate the aperture ring and set it to the widest aperture (f/4). (Photo. **1** )

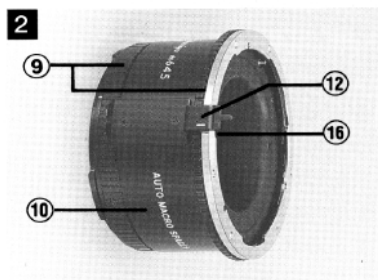
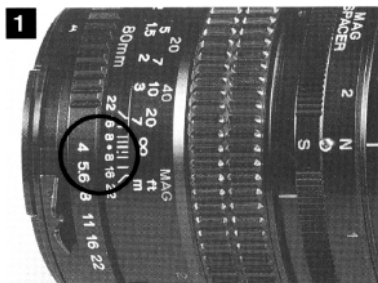
2. Grip the knurled ring **9** of the Macro Spacer in one hand and rotate the coupler ring **10** with the other hand. Align the red line on the aperture ring coupler **12** with the alignment line **16** as shown in the photograph. (Photo. **2** )

3. When the macro Spacer and the lens are fitted after aligning the alignment dot **6** of the lens with the alignment dot **15** of the macro spacer, the couplers of the macro Spacer and the lens will also be seen simultaneously. (The role of this coupler is to interlock with the exposure meter when the AE prism finder is employed, when the AE 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. (Photo. **3** )



## 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 ⑧ on the camera body. (Photo. 5 )

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. (Photo. 6 )

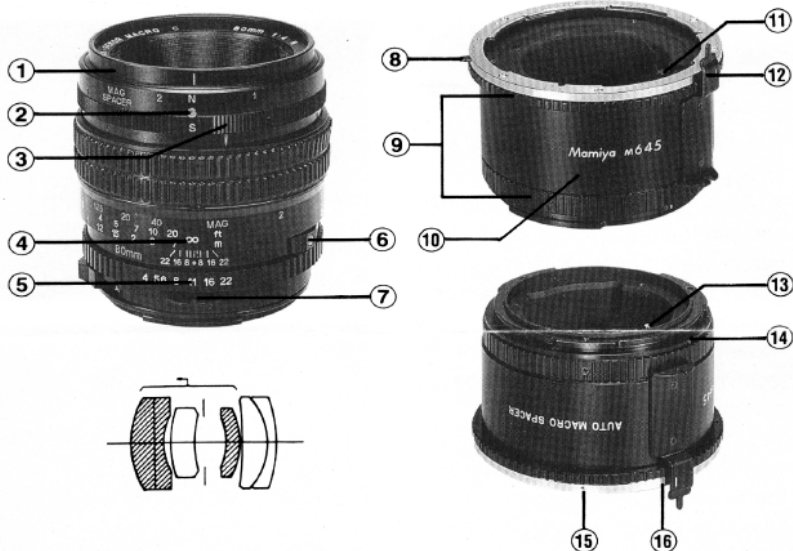


## Close-up Table:when using with Auto Macro Spacer

Magnification	Lens-to subject distance	Area to be covered	Exposure compensation value (Step)
1/2	18.1cm	8.3×11.2cm	1.0
1/1.7	15.7cm	6.9×9.3cm	1.0
1/1.5	14.1cm	5.9×8.0cm	1.5
1/1.25	12.1cm	5.2×7.0cm	1.5
1/1.1	11.0cm	4.6×6.2cm	1.5
1/1	10.1cm	4.2×5.6cm	2.0

### 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 handheld 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 AE Prism Finder.





## Special Features

The Macro C 80mm f/4N 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/4N 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/1.9N lenses (67mm  $\varnothing$  screw-in type).

## Name of Parts

### Lens

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

### 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

## 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)



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Specifications and appearance are subject to change without notice.

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