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**Nikon**  
**EXTENSION**  
**RING**  
**Model** F2

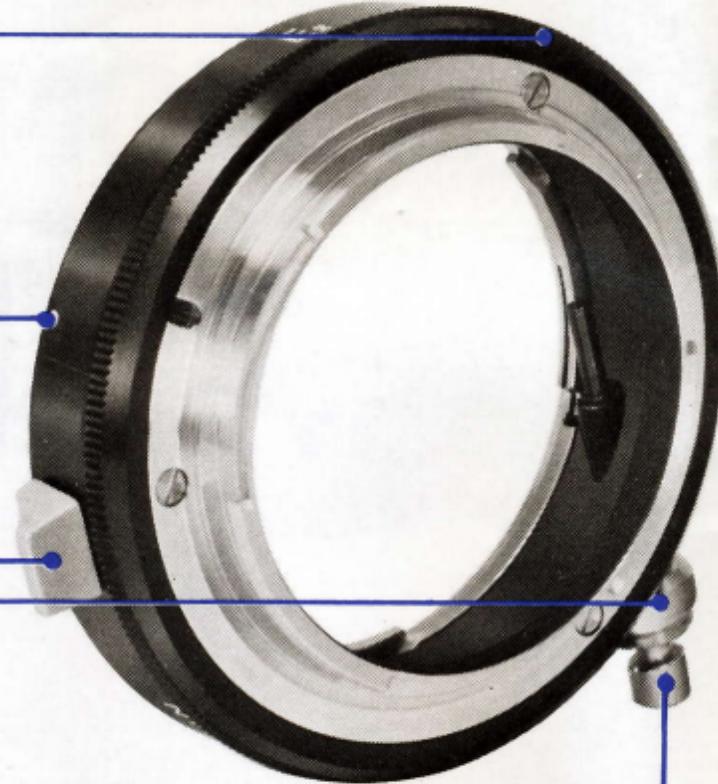
A896

INSTRUCTION MANUAL

# Nomenclature

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Index for attaching camera



Index for attaching lens

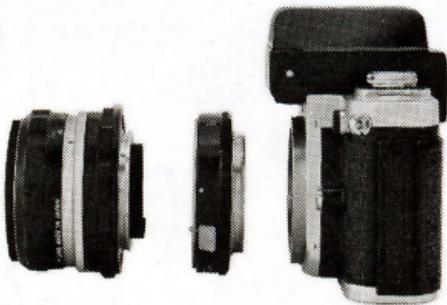
Lens release button

Cable release socket

Semi-automatic diaphragm plunger

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## Foreword

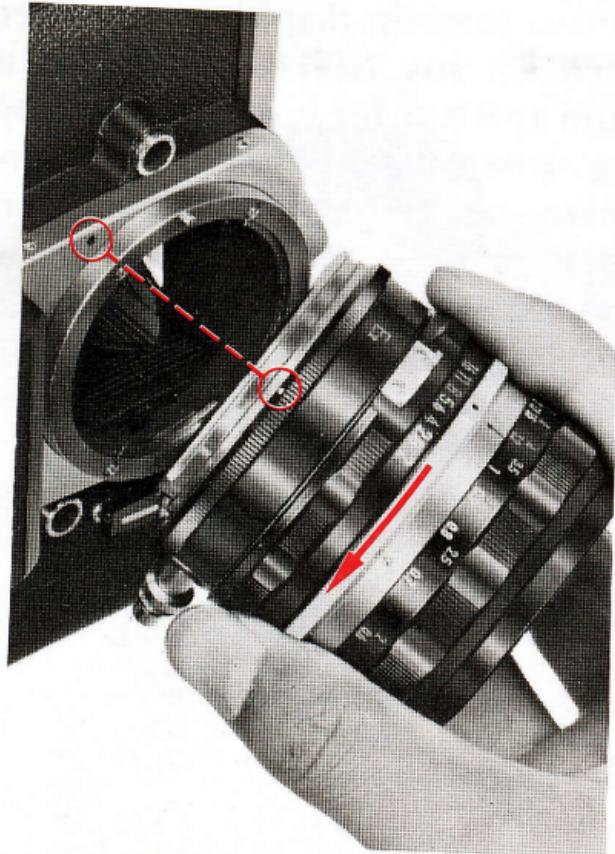
The Extension Ring E2 fits between the camera and lens to give an extra 14mm of lens extension so the lens can focus closer than its normal close focusing distance for closeup shots. A semi-automatic diaphragm plunger permits focusing at full aperture for the brightest possible viewfinder images for composing and focusing, and the ring can be combined with additional rings or with other closeup equipment for greater reproduction ratios.

## Mounting the E2 Ring



To mount the ring on the lens, line up the white dot at the front edge of the ring with the black dot on the lens. Twist the lens counterclockwise until it clicks into place. To mount the lens/ring assembly on the camera, line up the white dot next to the E2 mark with the black dot on the camera and turn the ring counterclockwise until it clicks into place. To remove, press the lens release button on the camera and twist the ring clockwise.

To remove the ring from the lens, push the spring catch on the ring and twist the lens clockwise.

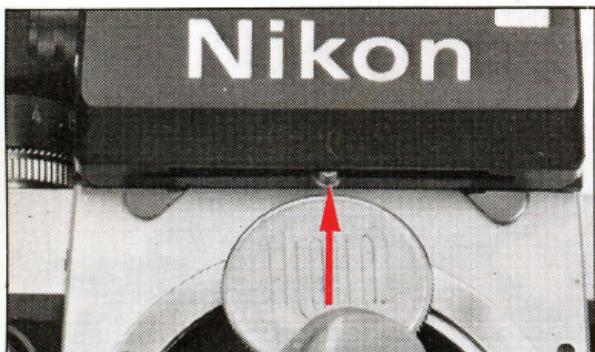


## Semi-Automatic Diaphragm Control

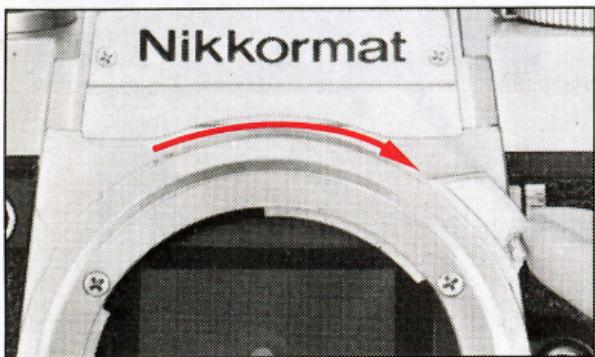
The semi-automatic diaphragm plunger lets you open up any Nikkor Auto lens to its maximum aperture for bright composing and focusing. When the plunger is pushed in, the lens opens up to its maximum aperture; when it is released the lens closes down to the preselected aperture for making the exposure. The plunger is threaded to accept a Nikon cable release.



# Exposure Determination



Nikon F or F2-series cameras



Nikkormat cameras

## With Built-In TTL Meter

The insertion of the E2 ring between the lens and the camera breaks the linkage of the lens diaphragm to the thru-the-lens meters of the Photomic-series finders or Nikkormat cameras. However, these meters can still be used to measure via the stop-down method.

With the Photomic finders, first push the coupling pin up into the Photomic finder with a coin or similar object. With the Nikkormat FT<sub>N</sub> or the Nikkormat EL camera, push the camera's coupling pin to the right as far as it will go. Mount the lens/ring combination on the camera and switch on the meter in the usual way. The next procedure for each camera is as follows:

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## **Nikon F2 Photomic and Nikkormat FTn cameras**

Select the desired shutter speed and stop down the lens manually until the meter needle in the viewfinder is centered.

## **Nikon F2S Photomic camera**

Select the desired shutter speed and stop down the lens manually until the two signal lights glow.

## **Nikkormat EL camera**

Set the shutter speed dial at "A" (Automatic) and turn the aperture ring until the black needle in the viewfinder indicates a shutter speed appropriate to the subject.

## **With Non-TTL Meters**

If a separate light meter is used exposure compensation is necessary at reproduction ratios greater than 1:10. The graphs on the enclosed sheet show exposure factors and exposure correction in f-stops for any Nikkor lens at any aperture. To calculate exposure compensation in terms of shutter speed rather than f-stop, find the exposure factor from the graphs and multiply it by the exposure time.

## Reproduction Ratio Range

The E2 Ring can be used with any Nikkor lens, but the shorter the focal length of the lens, the greater the reproduction ratio. The tables on pages 14 to 22 show the ranges of reproduction ratio, focusing distance and subject field possible with any lens.

Since the E2 Ring produces a single, fixed lens-to-film extension, reproduction ratio is determined by the focusing movement of the lens. Lower ratios are obtained when the lens is focused on infinity and higher ones when it is focused at its closest focusing distance.

### Reproduction Ratio

Reproduction ratio is the ratio of the image size recorded on film to the actual size of the subject. At life-size reproduction, for example, it is 1 : 1. Furthermore, the subject and image sizes are proportional to their respective distances from the lens. If lens-to-film distance increases, lens-to-subject distance decreases.

# Increasing Reproduction Ratio

## Combining E2 Rings

For higher reproduction ratios, two or three rings may be combined. Use the diaphragm control plunger on the ring nearest the lens to open the lens diaphragm. Do not use more than three rings as this may result in image deterioration or vignetting.

The combined use of two E2 rings leaves a certain gap between the two focusing ranges. However, this gap may be bridged by using the Nos. 0, 1 and 2 closeup attachment lenses in conjunction with one E2 ring. The range of reproduction ratios can be extended further if the closeup lenses are used with two or three E2 rings. The tables on pages 14 to 22 also list the ranges of reproduction ratios possible with any lens/ring/closeup lens assembly.

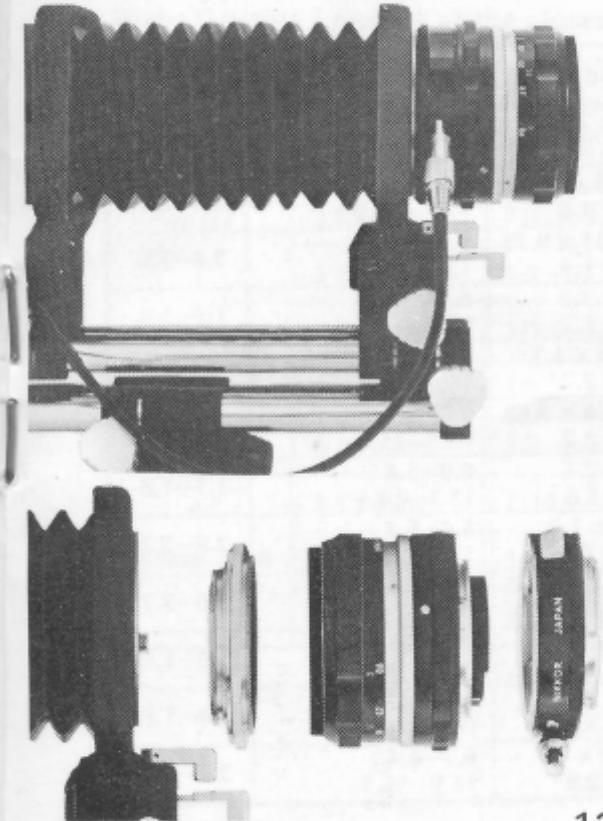
## Increasing Reproduction Ratio—continued

### Using with Other Accessories

The E2 Ring can be used in combination with closeup accessories for higher reproduction ratios. With the K Ring set or Bellows Attachment it not only provides extra extension but also permits semi-automatic diaphragm control.

Set up the entire assembly so that the lens bayonets to the ring's bayonet mount.

When the lens is mounted in reverse position by means of the BR-2 Macro Ring, attach the E2 ring to the rear of the lens mount. This permits semi-automatic diaphragm control and also serves as a hooding device.



### Tips for Better Closeups

- In closeup and macrophotography every camera vibration is magnified many times. Even the slightest camera movement results in blurred images. For best results, mount the whole setup on a rigid tripod or support and use a cable release to trip the shutter.
- For critical work, stop down the lens. to at least f/8 for better depth of field.

# Nikon Auto 24mm f/2.8, 28mm f/2, 28mm f/3.5, 35mm f/1.4

Left figures: Lens set at  $\infty$

Right figures: Lens set at the closest focusing distance

Lens	Close-up attachments	Reproduction ratio	Subject field in. cm	Focusing in. distance cm	Exposure factor
24mm f/2.8	1 E2 Ring	1/1.7X-1/1.4X	1.6 x 2.4-1.4 x 2.1 4.1 x 6.2-3.5 x 5.2	5.3-5.2 13.5-13.1	1.5-1.6
	2 E2 Rings	1.2-1.3	0.83 x 1.2-0.75 x 1.1 2.1 x 3.1-1.9 x 2.8	5.1-5.1 12.9-13.0	2.1-2.2
	3 E2 Rings	1.8-1.9	0.55 x 0.83-0.51 x 0.75 1.4 x 2.1-1.3 x 1.9	5.4-5.4 13.6-13.8	2.8-2.9
28mm f/2	1 E2 Ring	1/2.0-1/1.6	1.9 x 2.9-1.5 x 2.3 4.9 x 7.4-3.8 x 5.7	6.5-5.9 16.4-15.1	1.5-1.6
	2 E2 Rings	1.0-1.1	0.96 x 1.4-0.85 x 1.3 2.5 x 3.7-2.2 x 3.2	5.9-5.7 14.9-14.5	2.0-2.2
	3 E2 Rings	1.5-1.6	0.64 x 0.96-0.58 x 0.88 1.6 x 2.5-1.5 x 2.2	6.0-6.0 15.3-15.1	2.6-2.8
28mm f/3.5	1 E2 Ring	1/2-1/1.8	1.9 x 2.9-1.7 x 2.6 4.9 x 7.4-4.4 x 6.6	6.0-5.8 15.1-14.6	1.7-1.8
	2 E2 Rings	1-1	1.0 x 1.5-0.91 x 1.3 2.5 x 3.7-2.3 x 3.4	5.4-5.4 13.6-13.6	2.6-2.7
	3 E2 Rings	1.5-1.5	0.63 x 0.98-0.63 x 0.95 1.6 x 2.5-1.6 x 2.4	5.5-5.6 14.0-14.1	3.6-3.7
35mm f/1.4	1 E2 Ring	1/2.6-1/1.7	2.4 x 3.6-1.8 x 2.5 6.2 x 9.1-4.7 x 6.3	8.0-6.7 20.3-17.1	1.3-1.4
	2 E2 Rings	1/1.3-1.0	1.2 x 1.8-1.0 x 1.5 3.1 x 4.5-2.5 x 3.7	6.6-6.3 17.0-16.0	1.6-1.8
	3 E2 Rings	1.2-1.4	0.80 x 1.2-0.72 x 1.1 2.1 x 3.0-1.9 x 2.8	6.7-6.4 16.9-16.3	2.0-2.1

# Nikon Auto 35mm f/2, 35mm f/2.8, 180mm f/2.8

Left figures: Lens set at  $\infty$

Right figures: Lens set at the closest focusing distance

Lens	Close-up attachments	Reproduction ratio	Subject field in. cm	Focusing in. distance cm	Exposure factor
35mm f/2	1 E2 Ring	1/2.6–1/1.8	2.4 x 3.7–1.7 x 2.5 6.2 x 9.3–4.2 x 6.4	7.7–6.9 19.6–17.4	1.5–1.8
	2 E2 Rings	1/1.3–1	1.2 x 1.8–0.98 x 1.5 3.1 x 4.6–2.5 x 3.8	6.5–6.4 16.4–16.2	2.2–2.5
	3 E2 Rings	1.2–1.3	0.83 x 1.2–0.71 x 1.1 2.1 x 3.1–1.8 x 2.7	6.4–6.5 16.3–16.5	2.9–3.3
35mm f/2.8	1 E2 Ring	1/2.6–1/1.8	2.4 x 3.7–1.7 x 2.5 6.2 x 9.3–4.3 x 6.4	7.6–6.7 19.2–16.9	1.6–2.0
	2 E2 Rings	1/1.3–1/1.1	1.2 x 1.8–0.98 x 1.5 3.1 x 4.6–2.5 x 3.8	6.3–6.2 15.9–15.7	2.4–2.8
	3 E2 Rings	1.2–1.3	0.83 x 1.2–0.71 x 1.1 2.1 x 3.1–1.8 x 2.7	6.2–6.3 15.8–16.0	3.3–3.8
180mm f/2.8	1 E2 Ring	1/12.9–1/5.0	12.1 x 18.2–4.7 x 7.1 30.8 x 46.2–12.0 x 18.0	105–49.0 266–125	1.3–1.8
	2 E2 Rings	1/6.4–1/3.6	6.1 x 9.1–3.4 x 5.1 15.4 x 23.1–8.7 x 12.9	59.6–39.6 152–101	1.6–2.1
	3 E2 Rings	1/4.3–1/2.8	4.0 x 6.1–2.7 x 4.0 10.2 x 15.4–6.8 x 10.1	44.9–34.6 114–87.9	1.9–2.5

# Nikon Auto 50mm f/1.4

Left figures: Lens set at  $\infty$

Right figures: Lens set at the closest focusing distance

Close-up attachments	Reproduction ratio	Subject field in. cm	Focusing in. distance cm	Exposure factor
1 E2 Ring	1/3.7–1/2.7	3.5 x 5.2–2.5 x 3.8 8.8 x 13.3–6.4 x 9.6	11.6–9.8 29.4–24.7	1.3–1.5
1 E2 Ring + Close-up lens No. 0	1/3.3–1/2.5	3.1 x 4.7–2.3 x 3.5 7.8 x 11.8–5.9 x 8.8	10.8–9.4 27.4–23.7	
1 E2 Ring + No. 1	1/2.9–1/2.3	2.8 x 4.1–2.1 x 3.2 7.0 x 10.5–5.4 x 8.2	10.2–9.0 25.9–22.9	
1 E2 Ring + No. 2	1/2.4–1/2	2.3 x 3.4–1.9 x 2.8 5.8 x 8.7–4.7 x 7.0	9.2–8.5 23.4–21.4	
2 E2 Rings	1/1.8–1/1.6	1.7 x 2.6–1.5 x 2.2 4.4 x 6.6–3.7 x 5.6	8.4–8.0 21.2–20.3	1.7–1.9
2 E2 Rings + Close-up lens No. 0	1/1.7–1/1.5	1.7 x 2.5–1.4 x 2.1 4.2 x 6.3–3.5 x 5.3	8.2–7.9 20.8–20.0	
2 E2 Rings + No. 1	1/1.6–1/1.4	1.6 x 2.3–1.3 x 2.0 4.0 x 5.9–3.4 x 5.1	8.1–7.8 20.5–19.8	
2 E2 Rings + No. 2	1/1.5–1/1.3	1.4 x 2.1–1.2 x 1.9 3.6 x 5.3–3.1 x 4.7	7.8–7.6 19.8–19.3	
3 E2 Rings	1/1.2–1/1.1	1.1 x 1.7–1.0 x 1.5 2.9 x 4.4–2.6 x 3.9	7.7–7.6 19.5–19.3	2.1–2.3
3 E2 Rings + Close-up lens No. 0	1/1.2–1/1.1	1.1 x 1.7–0.98 x 1.5 2.8 x 4.3–2.5 x 3.8	7.7–7.6 19.4–19.2	
3 E2 Rings + No. 1	1/1.1–1	1.1 x 1.6–0.98 x 1.5 2.8 x 4.1–2.5 x 3.7	7.6–7.6 19.3–19.2	
3 E2 Rings + No. 2	1/1.1–1	1.0 x 1.5–0.91 x 1.4 2.6 x 3.9–2.3 x 3.5	7.5–7.5 19.0–18.9	

# Nikon Auto 50mm f/2

Left figures: Lens set at  $\infty$

Right figures: Lens set at the closest focusing distance

Close-up attachments	Reproduction ratio	Subject field in. cm	Focusing in. distance cm	Exposure factor
1 E2 Ring	1/3.7-1/2.7	3.5 x 5.3-2.5 x 3.8· 8.8 x 13.3-6.4 x 9.6	11.8-10.0 30.0-25.3	1.5-1.8
1 E2 Ring + Close-up lens No. 0	1/3.2-1/2.4	3.1 x 4.6-2.3 x 3.4 7.8 x 11.6-5.8 x 8.7	10.8-9.5 27.6-24.0	
1 E2 Ring + No. 1	1/2.9-1/2.2	2.7 x 4.1-2.1 x 3.1 6.9 x 10.3-5.3 x 8.0	10.1-9.1 25.8-23.0	
1 E2 Ring + No. 2	1/2.3-1/1.9	2.2 x 3.3-1.8 x 2.7 5.6 x 8.4-4.5 x 6.8	9.1-8.4 23.0-21.2	
2 E2 Rings	1/1.8-1/1.5	1.7 x 2.6-1.5 x 2.2 4.4 x 6.6-3.7 x 5.6	8.6-8.2 21.8-20.8	2.2-2.4
2 E2 Rings + Close-up Lens No. 0	1/1.7-1/1.5	1.6 x 2.4-1.4 x 2.0 4.1 x 6.2-3.5 x 5.2	8.4-8.1 21.2-20.4	
2 E2 Rings + No. 1	1/1.6-1/1.4	1.5 x 2.3-1.3 x 2.0 3.9 x 5.8-3.3 x 5.0	8.2-7.9 20.7-20.1	
2 E2 Rings + No. 2	1/1.4-1/1.2	1.3 x 2.0-1.2 x 1.8 3.4 x 5.1-3.0 x 4.5	7.8-7.6 19.7-19.3	
3 E2 Rings	1/1.2-1/1.1	1.1 x 1.7-1.0 x 1.5 2.9 x 4.4-2.6 x 3.9	7.9-7.9 20.1-19.9	2.9-3.2
3 E2 Rings + Close-up lens No. 0	1/1.2-1	1.1 x 1.7-0.98 x 1.5 2.8 x 4.2-2.5 x 3.8	7.8-7.8 19.8-19.7	
3 E2 Rings + No. 1	1/1.1-1	1.1 x 1.6-0.94 x 1.4 2.7 x 4.0-2.4 x 3.6	7.7-7.7 19.6-19.5	
3 E2 Rings + No. 2	1-1.1	0.98 x 1.5-0.87 x 1.3 2.5 x 3.7-2.2 x 3.3	7.5-7.5 19.1-19.1	

# Nikon Auto 55mm f/1.2

Left figures: Lens set at  $\infty$

Right figures: Lens set at the closest focusing distance

Close-up attachments	Reproduction ratio	Subject field in. cm	Focusing in. distance cm	Exposure factor
1 E2 Ring	1/4–1/2.8	3.7 x 5.6–2.7 x 3.9 9.5 x 14.3–6.6 x 9.9	12.9–10.5 32.7–26.6	
1 E2 Ring + Close-up lens No. 0	1/3.4–1/2.5	3.3 x 4.9–2.4 x 3.5 8.3 x 12.4–6.0 x 9.0	11.8–16.0 30.0–25.3	1.4–1.5
1 E2 Ring + No. 1	1/3–1/2.3	2.9 x 4.3–2.2 x 3.2 7.3 x 10.9–5.5 x 8.2	11.0–9.6 28.0–24.3	
1 E2 Ring + No. 2	1/2.5–1/1.9	2.3 x 3.5–1.9 x 2.8 5.9 x 8.8–4.7 x 7.0	9.8–8.9 24.9–22.6	
2 E2 Rings	1/2–1/1.6	1.8 x 2.8–1.5 x 2.3 4.6 x 7.1–3.9 x 5.9	9.1–8.6 23.1 – 21.8	
2 E2 Rings + Close-up lens No. 0	1/1.8–1/1.5	1.7 x 2.6–1.5 x 2.2 4.4 x 6.6–3.7 x 5.5	8.9 – 8.4 22.5–21.4	1.8–2
2 E2 Rings + No. 1	1/1.7–1/1.5	1.7 x 2.4–1.4 x 2.1 4.2 x 6.2–3.5 x 5.3	8.7–8.3 22.0–21.1	
2 E2 Rings + No. 2	1/1.5–1/1.3	1.5 x 2.2–1.3 x 1.9 3.7 x 5.5–3.2 x 4.7	8.3–8.0 21.0–20.4	
3 E2 Rings	1/1.3–1/1.2	1.3 x 1.9–1.1 x 1.7 3.2 x 4.8–2.8 x 4.2	8.2–8.1 20.9–20.5	2.2–2.5
3 E2 Rings + Close-up lens No. 0	1/1.3–1/1.1	1.2 x 1.8–1.1 x 1.6 3.0 x 4.5–2.7 x 4.0	8.2–8.0 20.7–20.4	
3 E2 Rings + No. 1	1/1.2–1/1.1	1.1 x 1.7–1.0 x 1.5 2.9 x 4.4–2.6 x 3.9	8.1–8.0 20.5–20.3	
3 E2 Rings + No. 2	1.1–1	1.1 x 1.6–0.94 x 1.4 2.7 x 4.0–2.4 x 3.6	7.9–7.9 20.0–20.0	

# Nikkor Auto 85mm f/1.8

Left figures: Lens set at  $\infty$

Right figures: Lens set at the closest focusing distance

Close-up attachments	Reproduction ratio	Subject field in. cm	Focusing in. distance cm	Exposure factor
1 E2 Ring	1/6.1–1/3.7	5.7 x 8.6–3.5 x 5.3 14.6 x 21.9–9.0 x 13.5	27.1–19.6 68.9–50.0	1.5–1.8
1 E2 Ring + Close-up lens No. 0	1/4.3–1/3	4.1 x 6.6–2.8 x 4.2 10.4 x 15.6–7.1 x 10.7	21.0–16.8 53.0–42.6	
1 E2 Ring + No. 1	1/3.3–1/2.4	3.1 x 4.7–2.3 x 3.5 8.0 x 12.0–5.9 x 8.8	17.3–14.9 43.9–37.7	
1 E2 Ring + No. 2	1/2.3–1/1.8	2.2 x 3.3–1.7 x 2.6 5.5 x 8.3–4.4 x 6.5	13.5–12.4 34.3–31.8	
2 E2 Rings	1/3–1/2.3	2.9 x 4.3–2.2 x 3.3 7.3 x 10.9–5.6 x 8.3	17.5–15.5 44.5–39.3	2–2.3
2 E2 Rings + Close-up lens No. 0	1/2.5–1/2	2.4 x 3.5–1.9 x 2.8 6.0 x 9.0–4.7 x 7.1	15.4–14.1 39.2–35.8	
2 E2 Rings + No. 1	1/2.1–1/1.7	2.0 x 3.0–1.6 x 2.4 5.1 x 7.6–4.1 x 6.2	14.0–13.1 35.5–33.2	
2 E2 Rings + No. 2	1/1.6–1/1.4	1.5 x 2.3–1.3 x 1.9 3.9 x 5.8–3.3 x 4.9	12.0–11.6 30.6–29.5	
3 E2 Rings	1/2–1/1.7	1.9 x 2.9–1.6 x 2.4 4.9 x 7.3–4.0 x 6.0	14.7–13.9 37.3–35.2	2.6–3
3 E2 Rings + Close-up lens No. 0	1/1.8–1/1.5	1.7 x 2.5–1.4 x 2.1 4.2 x 6.3–3.5 x 5.3	13.6–13.0 34.5–33.1	
3 E2 Rings + No. 1	1/1.5–1/1.3	1.5 x 2.2–1.3 x 1.9 3.7 x 5.5–3.2 x 4.8	12.8–12.4 32.4–31.5	
3 E2 Rings + No. 2	1/1.2–1/1.1	1.2 x 1.8–1.0 x 1.5 3.0 x 4.5–2.6 x 3.9	11.5–11.4 29.2–28.9	

# Nikon Auto 105mm f/2.5

Left figures: Lens set at  $\infty$

Right figures: Lens set at the closest focusing distance

Close-up attachments	Reproduction ratio	Subject field in. cm	Focusing in. distance cm	Exposure factor
1 E2 Ring	1/7.5–1/4.1	7.1 x 11–3.9 x 5.9 18.0 x 27.0–9.9 x 14.9	38.4–25.0 97.5–63.3	1.5–2
1 E2 Ring + Close-up lens No. 0	1/4.6–1/3	4.4 x 6.5–2.8 x 4.3 11.1 x 16.6–7.2 x 10.8	26.6–20.9 67.5–53.0	
1 E2 Ring + No. 1	1/3.2–1/2.3	3.1 x 4.6–2.2 x 3.3 7.8 x 11.7–5.6 x 84	20.5–17.5 51.9–44.5	
1 E2 Ring + No. 2	1/2.1–1/1.6	2.0 x 3.0–1.5 x 2.3 5.0 x 7.5–3.9 x 5.8	15.0–14.0 38.0–35.4	
2 E2 Rings	1/3.8–1/2.7	3.5 x 5.3–2.5 x 3.8 9.0 x 13.5–6.4 x 9.6	23.5–19.4 59.5–49.2	2.1–2.6
2 E2 Rings + Close-up lens No. 0	1/2.8–1/2.1	2.6 x 3.9–2.0 x 3.0 6.7 x 10.0–5.0 x 7.6	20.0–17.9 51.0–45.5	
2 E2 Rings + No. 1	1/2.2–1/1.7	2.0 x 3.1–1.6 x 2.4 5.2 x 7.8–4.1 x 6.2	17.1–15.9 43.4–40.3	
2 E2 Rings + No. 2	1/1.5–1/1.3	1.5 x 2.2–1.2 x 1.8 3.7 x 5.5–3.0 x 4.6	13.8–13.4 35.0–33.9	
3 E2 Rings	1/2.5–1/2	2.4 x 3.5–1.9 x 2.8 6.0 x 9.0–4.7 x 7.1	18.8–17.0 47.8–43.3	2.8–3.4
3 E2 Rings + Close-up lens No. 0	1/2–1/1.6	1.9 x 2.8–1.5 x 2.3 4.8 x 7.2–3.9 x 5.8	17.6–16.6 44.7–42.2	
3 E2 Rings + No. 1	1/1.6–1/1.4	1.5 x 2.3–1.3 x 1.9 3.9 x 5.9–3.3 x 4.9	15.7–15.1 39.8–38.4	
3 E2 Rings + No. 2	1/1.2–1	1.1 x 1.7–0.98 x 1.5 2.9 x 4.4–2.5 x 3.7	13.3–13.1 33.7–33.4	

# Nikkor Auto 135mm f/2.8

Left figures: Lens set at  $\infty$

Right figures: Lens set at the closest focusing distance

Close-up attachments	Reproduction ratio	Subject field in. cm	Focusing in. distance cm	Exposure factor
1 E2 Ring	1/9.6–1/4.7	$9.1 \times 13.6$ – $4.4 \times 6.6$ $23.1 \times 34.7$ – $11.2 \times 16.8$	62.2–36.5 158–92.4	1.3–1.7
1 E2 Ring + Close-up lens No. 0	1/4.8–1/3	$4.5 \times 6.7$ – $2.9 \times 4.3$ $11.5 \times 17.0$ – $7.3 \times 11.0$	34.3–26.3 87.0–66.6	
1 E2 Ring + No. 1	1/3.1–1/2.2	$3.0 \times 4.5$ – $2.1 \times 3.1$ $7.5 \times 11.2$ – $5.3 \times 8.0$	24.6–21.1 62.5–53.6	
1 E2 Ring + No. 2	1/1.9–1/1.5	$1.8 \times 2.6$ – $1.4 \times 2.1$ $4.5 \times 6.7$ – $3.5 \times 5.3$	17.3–16.3 44.0–41.4	
2 E2 Rings	1/4.8–1/3.1	$4.6 \times 6.9$ – $3.0 \times 4.5$ $11.6 \times 17.4$ – $7.5 \times 11.3$	37.3–27.9 94.5–73.3	
2 E2 Rings + Close-up lens No. 0	1/3.1–1/2.3	$3.0 \times 4.5$ – $2.1 \times 3.2$ $7.5 \times 11.2$ – $5.4 \times 8.2$	26.5–23.0 67.4–58.3	
2 E2 Rings + No. 1	1/2.3–1/1.7	$2.1 \times 3.2$ – $1.7 \times 2.5$ $5.4 \times 8.1$ – $4.2 \times 6.3$	21.2–19.5 54.0–49.6	
2 E2 Rings + No. 2	1/1.5–1/1.2	$1.4 \times 2.1$ – $1.1 \times 1.7$ $3.5 \times 5.3$ – $2.9 \times 4.4$	16.4–15.9 41.5–40.4	
3 E2 Rings	1/3.2–1/2.4	$3.0 \times 4.6$ – $2.2 \times 3.3$ $7.7 \times 11.6$ – $5.7 \times 8.5$	29.2–25.4 74.1–64.3	
3 E2 Rings + Close-up lens No. 0	1/2.3–1/1.8	$2.2 \times 3.3$ – $1.7 \times 2.6$ $5.5 \times 8.3$ – $4.3 \times 6.5$	23.1–21.2 58.7–53.9	
3 E2 Rings + No. 1	1/1.8–1/1.4	$1.7 \times 2.5$ – $1.4 \times 2.0$ $4.3 \times 6.4$ – $3.5 \times 5.2$	19.6–18.7 49.8–47.5	
3 E2 Rings + No. 2	1/1.2–1	$1.1 \times 1.7$ – $0.98 \times 1.5$ $2.9 \times 4.4$ – $2.5 \times 3.7$	15.9–15.7 40.4–40.0	

# Nikkor Auto 200mm f/4

Left figures: Lens set at  $\infty$

Right figures: Lens set at the closest focusing distance

Close-up attachments	Reproduction ratio	Subject field in. cm	Focusing in. distance cm	Exposure factor
1 E2 Ring	1/14–1/6.6	13.5 x 20.2–6.2 x 9.3 34.3 x 51.4–15.8 x 23.7	1.34–74.4 341–189	1.4–2
1 E2 Ring + Close-up lens No. 0	1/4.4–1/3	4.1 x 6.2–2.9 x 4.3 10.5 x 15.8–7.3 x 10.9	47.3–39.3 120–99.8	
1 E2 Ring + No. 1	1/2.5–1/1.9	2.4 x 3.5–1.8 x 2.7 6.0 x 9.0–4.6 x 6.9	30.8–28.4 78.2–72.1	
1 E2 Ring + No. 2	1/1.4–1/1.1	1.3 x 1.9–1.1 x 1.6 3.3 x 4.9–2.7 x 4.0	20.8–20.5 53.0–52.1	
2 E2 Rings	1/7.1–1/4.5	6.7 x 10.1–4.3 x 6.4 17.1 x 25.7–10.8 x 16.2	78.8–58.7 200–149	1.9–2.5
2 E2 Rings + Close-up lens No. 0	1/3.2–1/2.4	3.0 x 4.5–2.3 x 3.4 7.6 x 11.4–5.8 x 8.6	40.2–35.8 102–91.0	
2 E2 Rings + No. 1	1/2–1/1.6	1.9 x 3.0–1.5 x 2.2 4.7 x 7.1–3.8 x 5.7	28.6–27.3 72.7–69.2	
2 E2 Rings + No. 2	1/1.2–1	1.1 x 1.6–0.91 x 1.4 2.8 x 4.1–2.3 x 3.5	20.6–20.5 52.2–52.1	
3 E2 Rings	1/4.8–1/3.4	4.5 x 6.7–3.2 x 4.8 11.4 x 17.1–8.2 x 12.3	60.7–50.8 154–129	2.4–3.2
3 E2 Rings + Close-up lens No. 0	1/2.5–1/2	2.4 x 3.5–1.9 x 2.8 6.0 x 8.9–4.8 x 7.1	36.3–33.8 92.2–85.8	
3 E2 Rings + No. 1	1/1.6–1/1.4	1.5 x 2.3–1.3 x 1.9 3.9 x 5.9–3.3 x 4.9	27.4–26.6 69.6–67.6	
3 E2 Rings + No. 2	1–1.2	0.94 x 1.4–0.79 x 1.2 2.4 x 3.6–2.0 x 3.1	20.5–20.6 52.0–52.3	

## Features/Specifications

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Camera to be used	Nikon F, F2 or Nikkormat
Lens to be used	Any Nikkor interchangeable lens
Lens extension	14mm
Reproduction ratio	1 : 3.7 to 1 : 2.7 (with Nikkor Auto 50mm f/2)
Weight	Approx. 2.3 oz (65g)