

MINOLTA 85MM F2.8 VARISOFT ROKKOR ROKKOR-X

Your 85mm f/2.8 Varisoft Rokkor (Rokkor-X) Lens incorporates a special control system which enables you to vary images continuously from critical sharpness to hazy softness. This exceptional design allows the ideal amount of diffusion to be introduced while retaining the ability of the lens to record fine detail. Coating is by Minolta's exclusive process utilizing latest techniques. Besides being perfect for standard and "soft-focus" portraits, landscapes and other subjects, this unique Rokkor (-X) lens can also be used as a general-purpose short-telephoto.

NAMES OF PARTS

Focusing grip
 Distance scale
 Depth-of-field scale with infrared focusing index
 Softness control ring
 Meter coupling lug
 Aperture ring
 Mounting bead
 Diaphragm control pin



ATTACHING AND REMOVING

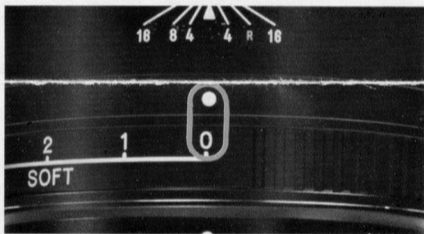
Like all Minolta SLR interchangeable lenses, the 85mm f/2.8 Varisoft Rokkor (Rokkor-X) is attached to the camera by aligning the red mounting bead on the lens with the red mounting index on the camera body, inserting the bayonet into the mount, and turning the lens clockwise until it locks with a click.

Removal is by pushing the lens-release button, turning the lens counterclockwise until the bead and index are aligned again, and lifting it out of the mount.



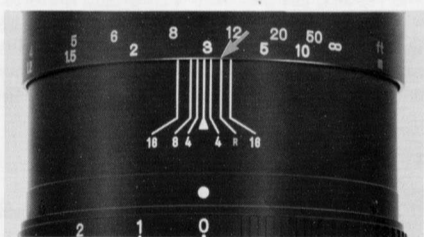
CONVENTIONAL SHORT-TELEPHOTO USE

With the softness control ring set so that "0" is opposite the index, your Rokkor varisoft lens can be used as a conventional short-telephoto lens. Operation and results in this case will be the similar as with the 85mm f/1.7 MD Rokkor (-X) lens.



Infrared index

For proper focus when making black and white pictures with infrared radiation, first focus your subject with visible light. Then attach a red filter and turn the focusing ring to the right to align the point of proper focus on the distance scale with the index designated with small red "R" in the depth-of-field scale. When making color pictures, follow the manufacture's recommendations to set focus.



VARISOFT OPERATION

Your Varisoft Rokkor (Rokkor-X) lens diffuses light passing through it by intentionally introducing a controlled amount of spherical aberration. This causes every point on the subject to be imaged as a sharp point surrounded by a diffuse halo. The diameter of the halo controls the degree of diffusion and varies in accordance with the softness control and aperture settings. The effect of diffusion can be observed through the camera's viewfinder as the softness control ring is turned.

Softness control is greatest with the lens set at f/2.8. Turning the softness control ring to the next higher setting i.e., "0" to "1," "1" to "2," or "2" to "3," at this aperture will approximately double the effect until the maximum amount of diffusion is produced at "3." The softness control ring may be set at one of these positions or at any point between for an easily repeatable amount of diffusion.

At any given combination of softness setting and f-number near maximum aperture, closing the diaphragm a half stop to the next smaller aperture or moving the softness-control ring to the next smaller graduation will reduce the diffusion effect by approximately the same degree. However, as seen in the examples on the back of this sheet, the appearance of the effect will be slightly altered by the increased depth of field. For this reason, you may want to try different combinations, observing each through the viewfinder, to determine the best settings for the most pleasing effect. The diffusion effect will be at its least between f/2.8 and f/4 at a softness control setting of "1," f/4 at "2," or between f/4 and f/5.6 at "3."

When the diaphragm is set for apertures of f/5.6 or smaller, the diffusion-causing spherical aberration will be eliminated regardless of the softness setting and turning the softness control ring will not effect the image. Thus, it is advisable to judge the effect at taking aperture when making softness settings and diffused exposures. This can be done by pushing the stop-down button at apertures other than f/2.8.

For easiest focusing, set the softness-control ring to "0." Then turn the textured rubber focusing grip until the subject appears sharpest in the viewfinder.

As you look through the finder while the softness-control ring is turned from "0" to "3," you will notice a slight widening of the viewfield. Also, the introduced spherical aberration will cause the split-image and microprism focusing aids to appear to be out of focus. A change in focal length is normal for this type of lens but as the Varisoft compensates for any shift in focus, it's unnecessary to refocus after making softness settings. To focus the lens after softness settings are made, use the focusing screen's mat field.

NOTE

- If your camera does not have a depth-of-field preview button, see the example photos for the approximate softness degree at each aperture and softness control setting and set your lens accordingly.
- To preserve the full range of softness settings, use a neutral-density (ND) filter when the light volume from a scene or subject calls for aperture settings above f/2.8.

NOTE

When using the Varisoft lens with the XM (XK) or XM (XK) Motor cameras and the screen-finder combinations indicated in the table, be sure to set the compensation-factor selector to the applicable meter compensation factor for accurate exposure.

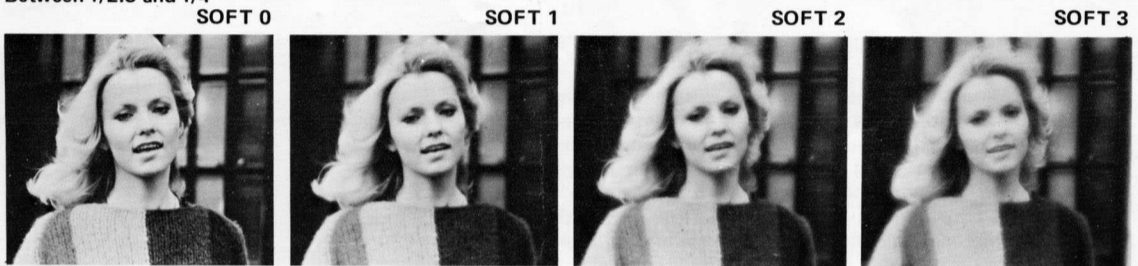
Focusing screen \ Finder	C1	C2	C3	S	AP
AE-S Finder	—	2.5	2.5	—	1.5
AE Finder	—	2.5	2.0	—	1.0

DEGREES OF SOFTNESS AT VARIOUS APERTURE AND SOFTNESS CONTROL SETTINGS

f/2.8



Between f/2.8 and f/4



f/4



CARE AND STORAGE

Never touch a glass lens surface with the fingers. Should one become dirty, gently whisk loose, dry matter off it with a bellows lens brush. If necessary, the glass surface may then be wiped gently with a circular motion from the center outward with a soft, clean cotton cloth or special photographic lens tissue. Liquid lens cleaner should be used only when fingerprints or other matter cannot be removed with a dry cloth or lens tissue. *Never drop lens cleaning fluid directly on lens surfaces.* Instead, apply only one drop of fluid to the cloth or tissue and wipe the glass surface gently from center to edge. The lens barrel and other metal parts may be wiped with a silicone-treated cloth. For all service and repairs, contact your authorized Minolta repair facility.

When not in use, glass surfaces should be protected by attaching front and rear caps and the lens stored in its case. Do not store where temperature or humidity is high or near corrosive chemicals or gases. If lens is to be stored for an extended period, it is best to place it in its case in an airtight container (such as a heavy or double plastic bag) along with a small bag of a drying agent (such as silica gel).

TECHNICAL INFORMATION

- Type: Short telephoto lens with variable softness control
- Construction: 6 elements in 5 groups
- Angle of view: 29°
- Coating: Minolta Achromatic
- Minimum focusing distance: 0.8m (2.62 ft.)
- Aperture scale: 2.8, 4, 5.6, 8, 11, 16 with full and half click stops
- Focusing: Double-helicoid system
- Softness control: Ring for manually varying image softness continuously by introducing controlled amount of spherical aberration to lens; numbered graduations with detents indicate degree of softness
- Filter thread diameter: 55mm
- Dimensions: 70 x 80mm (2-3/4 x 3-1/8 in.)
- Weight: 430g (15-3/16 oz.)

Specifications subject to change without notice

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