

A GUIDE  
A GUIDE TO  
A GUIDE TO THE MINOLTA SR SYSTEM  
THE MINOLTA SR SYSTEM  
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MINOLTA SR SYSTEM OF CREATIVE PHOTOGRAPHY  
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### The Minolta SR System of Creative Photography

Minolta makes a complete 35mm photographic system so that you can be a complete photographer. Now that you own one of the famous Minolta SR cameras, you also own the nucleus of one of the world's finest systems of 35mm photography. Your potential is at all times unlimited.

Judged by any standards of photographic excellence, Minolta SR cameras are totally professional instruments of uncompromised

quality. With their versatile complement of Rokkor Lenses and precision Minolta accessories, they become cameras capable of challenging—and mastering—any photographic situation imaginable.

Minolta builds more than 120 lenses, accessories and attachments for use with Minolta SR cameras. Included are interchangeable Rokkor Lenses from 18mm to 1000mm. Zoom lenses from 50mm to 500 mm. Plus all the vital accessories and attachments which are described in this booklet.

The object of the SR system is to give any photographer, no matter what his degree of skill, a creative choice in all areas of photography. Your Minolta dealer can demonstrate the full SR camera, lens and accessory line and help you choose the equipment that best suits your needs. See him for technical help, too. Your adventures in creative photography may very well begin in his store.



### How Minolta Makes a Rokkor Lens

Minolta is one of only two camera companies in Japan and one of very few in the world that manufactures its own optical glass and lenses for its cameras. This little known fact becomes very important when you consider that only through such rigid quality control can a camera company guarantee the precision optical and mechanical designing so vital to advanced photography.

Before a Rokkor Lens is mounted to a Minolta camera, it passes through a series of complex manufacturing steps that represent the highest lens-making standards in the camera industry. Each Rokkor Lens, in fact, is the end result of a long series of computations and tests aimed at eliminating the various aberrations which interfere with

theoretically perfect lens performance. How should the lens elements be spaced? What should be their diameter and curvature? What kind of glass should be used? Minolta lens designers investigate these and many other problems prior to the actual making of a lens, aided by Minolta's own computer.

#### The basic Ingredients

The "recipe" of glass-making ingredients varies with the type of glass to be made. Among the materials used are Silica, Sodium Carbonate, Barium Nitrate, Barium Carbonate, Alumina and Potassium Carbonate. Additionally, certain rare earth elements such as Lanthanum, Thorium and Zirconium may be added to create the high refractive glasses so vital to Rokkor Lens quality.

The finished mixture is brought to temperatures which often reach 1800°F, then

gradually lowered to room temperature by a controlled system that permits any gasses dissolved in the mix to be expelled. The glass is then broken into easily handled fragments, and lumps of high quality are hand-picked for re-melting in fire-proof, square clay molds. Resulting blocks are then subjected to inspection for bubbles and strains, and imperfect pieces are rejected. The selected blocks are put into an annealing oven for another week of temperature treatment, designed to dissipate any stresses and distortions. A final stress and strain check is conducted by passing light through the annealed blocks. Finally, remaining glass is checked for conformity to a specific refractive index on a spectrometer.

#### Grinding, Polishing and Achromatic Coating

Precision grinding takes place in a special

factory which is dust- and temperature-controlled. The rounded annealed glass discs are first given a rough polish, then shaped on a curve generator machine. The curves are cut by carborundum and diamond dust, then the rough lens elements are passed through a series of mechanized polishers that produce the precision final finish prior to cementing.

The basic lens coating material is a substance called magnesium fluoride, but Minolta, for purposes of color correction, has developed a special technique called "Achromatic Coating." This exclusive process utilizes a double coating of fluorides plus other ingredients to give superior color rendition as well as a very high rate of light transmission to all Rokkor Lenses. As a result, Rokkor Lenses give true, rich color tones—better than any other lens manufactured today. Minolta guarantees it.



### Some Information about "F" Stops

The aperture setting, of "F" stop number indicated on the Rokkor Lens barrel indicates the volume of light that will pass through the lens and reach the film. So when we refer to the "speed" of a lens, we are actually talking about its light-gathering properties. The first fact to remember is that the larger the lens diaphragm, the more light will pass to the film. And as the "F" number *decreases*, the volume of light passing through the lens *increases*.

Each "F" stop progressing to maximum aperture will expose the film to twice as much light. For example, at F1.4, the lens passes twice as much light as F2. And at F2.8, the lens is twice as "fast" as at F4.

### Focal Length and Its Relation to Angle of View

The focal length of a lens refers to the distance between the film plane and the center of the lens system when focused at infinity. Angle of view refers to the relative amount of the scene included in the picture. As the focal length decreases, angle of view increases. As an example, a 100mm lens, which is approximately twice as "long" as a standard 55mm lens, has an angle of view of approximately half that of the standard lens.

### Maintenance and Care of Lenses

When storing a lens, be sure to keep it where temperature, humidity and salt content of the air are relatively low. If dust or other foreign elements collect on the lens, they may be blown off or wiped with a soft clean cloth, or a silicon-treated cloth. When removing the lens from the camera body take care not to touch its glass surfaces. And for extra protection, always store the lens in its leather case when you're not using it.



## Rokkor Wide Angle Lenses

The group of Rokkor wide angle Lenses have a number of interesting applications for the professional or amateur photographer. The most important, of course, is their ability to take in a much greater part of the original scene at normal distances. Thus, typical wide angle lens applications include architectural photography, groups of persons in small rooms, and creative advertising and commercial photography.

The great depth-of-field inherent in wide angle lenses produces magnificently sharp photos at very close distances. In addition, this depth-of-field enables you to take an extremely sharp photo at the decisive moment without wasting precious time achieving critical focus. Wide angle lenses also provide exaggerated perspective effects quite different from the natural delineation of "standard" lenses.

**18mm UW-Rokkor: F9.5**  
 Lens elements: 7 elements in 5 groups  
 Angle of view: 180° diagonally  
 Focus: Fixed at 10 feet / 3 meters  
 Filter: Built-in  
 Diaphragm: Manual F9.5—F22



*This unique lens provides fields of view of 180° diagonally, 124° horizontally and 76° vertically, and can photograph any subject as near as 18 inches with brilliant clarity. This lens may be used with the through-the-lens viewing system of any Minolta 35mm single lens reflex camera, an important advantage since no special viewfinder is required nor is it necessary to lock up the quick-return mirror prior to mounting.*

**21mm W-Rokkor: F4**  
 Lens elements: 8 elements in 4 groups  
 Angle of view: 92°  
 Focus: to 3 feet / 0.9 meters  
 Filter screw diameter: 55mm  
 Diaphragm: Manual F4—F16



*Because the Rokkor 21mm is retrofocus in design and extends deep into the camera when mounted, the mirror must be locked up out of the way of the light path when the lens is used. Reflex viewing through-the-lens is not possible. However, a special auxiliary viewfinder is provided with each lens so that the photographer may have a range image of the field covered.*

**28mm MC W-Rokkor: F2.5**  
 Lens elements: 9 elements in 7 groups  
 Angle of view: 76°  
 Focus: to 1.75 feet / 0.5 meters  
 Filter screw diameter: 55mm  
 Diaphragm: Auto pre-set F2.5—F16





**28mm MC W-Rokkor: F3.5**  
 Lens elements: 7 elements in 7 groups  
 Angle of view: 76°  
 Focus: to 2 feet / 0.6 meters  
 Filter screw diameter: 55mm  
 Diaphragm: Auto pre-set F3.5—F16



**35mm MC W-Rokkor: F1.8**  
 Lens elements: 8 elements in 6 groups  
 Angle of view: 64°  
 Focus: to 1 foot / 0.3 meters  
 Filter screw diameter: 55mm  
 Diaphragm: Auto pre-set F1.8—F16



**35mm MC W-Rokkor: F2.8**  
 Lens elements: 7 elements in 6 groups  
 Angle of view: 64°  
 Focus: to 1.3 feet / 0.4 meters  
 Filter screw diameter: 52mm  
 Diaphragm: Auto pre-set F2.8—F16



**35mm W-Rokkor: F4**  
 Lens elements: 5 elements in 4 groups  
 Angle of view: 64°  
 Focus: to 1.3 feet / 0.4 meters  
 Filter screw diameter: 55mm  
 Diaphragm: Manual pre-set F4—F22







### Rokkor Standard Lenses

The Rokkor 55mm F1.7, and the faster Rokkor 58mm F1.2 and F1.4 Lenses, are widely known as the "normal" or "standard" lenses and are suited for almost all general photographic purposes.

All are ideal for available light photography indoors and for other low lighting situations.

Lightweight and extremely easy-to-handle, these lenses are equipped with free automatic diaphragms that are always open to a maximum aperture except at the instant of exposure.





55mm MC Rokkor: F1.7  
 Lens elements: 6 elements in 5 groups  
 Angle of view: 43°  
 Focus: to 1.75 feet / 0.5 meters  
 Filter screw diameter: 52mm  
 Diaphragm: Auto pre-set F1.7—F16



58mm MC Rokkor: F1.2  
 Lens elements: 7 elements in 5 groups  
 Angle of view: 41°  
 Focus: to 2 feet / 0.6 meters  
 Filter screw diameter: 55mm  
 Diaphragm: Auto pre-set F1.2—F16



58mm MC Rokkor: F1.4  
 Lens elements: 6 elements in 5 groups  
 Angle of view: 41°  
 Focus: to 2 feet / 0.6 meters  
 Filter screw diameter: 55mm  
 Diaphragm: Auto pre-set F1.4—F16





### Rokkor Telephoto Lenses

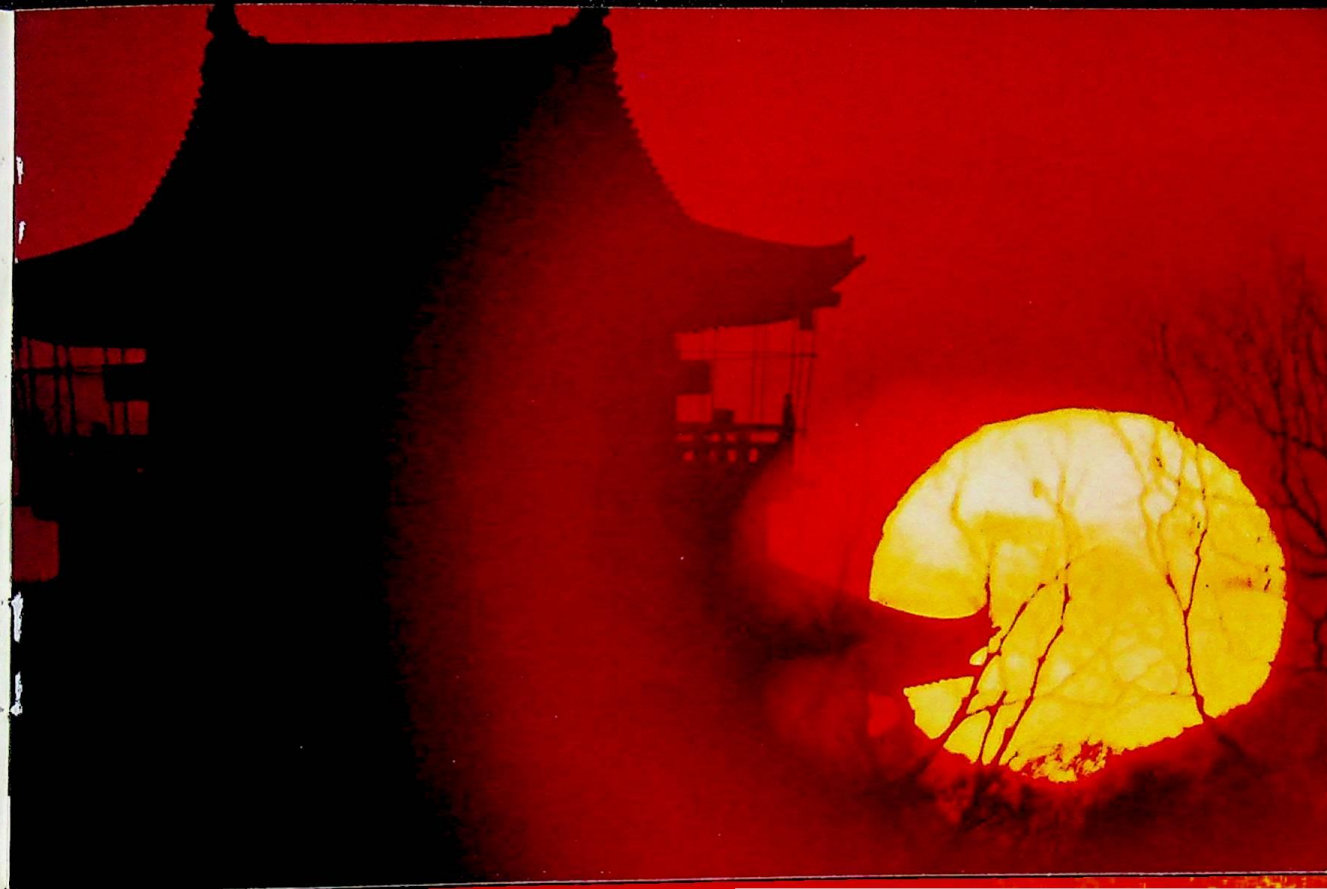
Rokkor telephoto Lenses include focal lengths from 100mm to 1000mm, and offer a choice of automatic or manual pre-set diaphragms.

The 100 and 135mm Rokkors have long been popular focal lengths among working photographers. Any of the six different Rokkor 100 or 135mm Lenses are ideal for candid and portrait photography, providing a longer working distance from the subject to compensate for features which are closest to the lens (nose, ears and chin).

The Rokkor 200 and 300mm telephotos offer even more optical "reach" for the sports or nature photographer. The 200mm Rokkors are lightweight and compact enough to be hand-held. The 300mm Rokkor is equipped with a tripod socket for mid-section support and perfect camera balance. This lens is invaluable for photographing unapproachable subjects such as distant landmarks, or to keep you a safe distance from dangerous objects and situations.

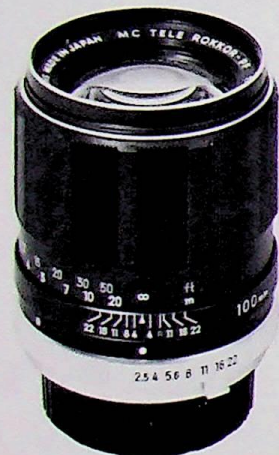
The 600mm Rokkor offers nearly 20 times the magnification of a standard lens and thus is ideal for sports, landscape and nature photography.

The catadioptric type 1000mm Rokkor super telephoto utilizes precision mirrors rather than the conventional lens elements in its design. Light travels through the lens three times, resulting in a folded optical path and a relatively compact optical system for such an enormous focal length. Aperture settings for this lens are controlled by three built-in neutral density filters set in a revolving turret.





100mm MC Tele Rokkor: F2.5  
 Lens elements: 6 elements in 5 groups  
 Angle of view: 24°  
 Focus: to 4 feet / 1.2 meters  
 Filter screw diameter: 55mm  
 Diaphragm: Auto pre-set F2.5—F22



100mm MC Tele Rokkor: F3.5  
 Lens elements: 5 elements in 4 groups  
 Angle of view: 24°  
 Focus: to 4 feet / 1.2 meters  
 Filter screw diameter: 52mm  
 Diaphragm: Auto pre-set F3.5—F22



100mm Tele Rokkor: F4  
 Lens elements: 3 elements in 3 groups  
 Angle of view: 24°  
 Focus: to 4 feet / 1.2 meters  
 Filter screw diameter: 46mm  
 Diaphragm: Manual pre-set F4—F22



135mm MC Tele Rokkor: F2.8  
 Lens elements: 6 elements in 5 groups  
 Angle of view: 18°  
 Focus: to 5 feet / 1.5 meters  
 Filter screw diameter: 55mm  
 Diaphragm: Auto pre-set F2.8—F22





**135mm MC Tele Rokkor: F3.5**  
 Lens elements: 4 elements in 4 groups  
 Angle of view: 18°  
 Focus: to 5 feet / 1.5 meters  
 Filter screw diameter: 52mm  
 Diaphragm: Auto pre-set F3.5—F22



**135mm Tele Rokkor: F4**  
 Lens elements: 3 elements in 3 groups  
 Angle of view: 18°  
 Focus: to 5 feet / 1.5 meters  
 Filter screw diameter: 46mm  
 Diaphragm: Manual pre-set F4—F22



**200mm MC Tele Rokkor: F3.5**  
 Lens elements: 6 elements in 4 groups  
 Angle of view: 12°  
 Focus: to 8 feet / 2.5 meters  
 Filter screw diameter: 62mm  
 Diaphragm: Auto pre-set F3.5—F22



**200mm MC Tele Rokkor: F4.5**  
 Lens elements: 5 elements in 5 groups  
 Angle of view: 12°  
 Focus: to 8 feet / 2.5 meters  
 Filter screw diameter: 52mm  
 Diaphragm: Auto pre-set F4.5—F22





**300mm MC Tele Rokkor: F4.5**  
 Lens elements: 6 elements in 6 groups  
 Angle of view: 8°  
 Focus: to 15 feet / 4.5 meters  
 Filter screw diameter: 72mm  
 Diaphragm: Auto pre-set F4.5—F22



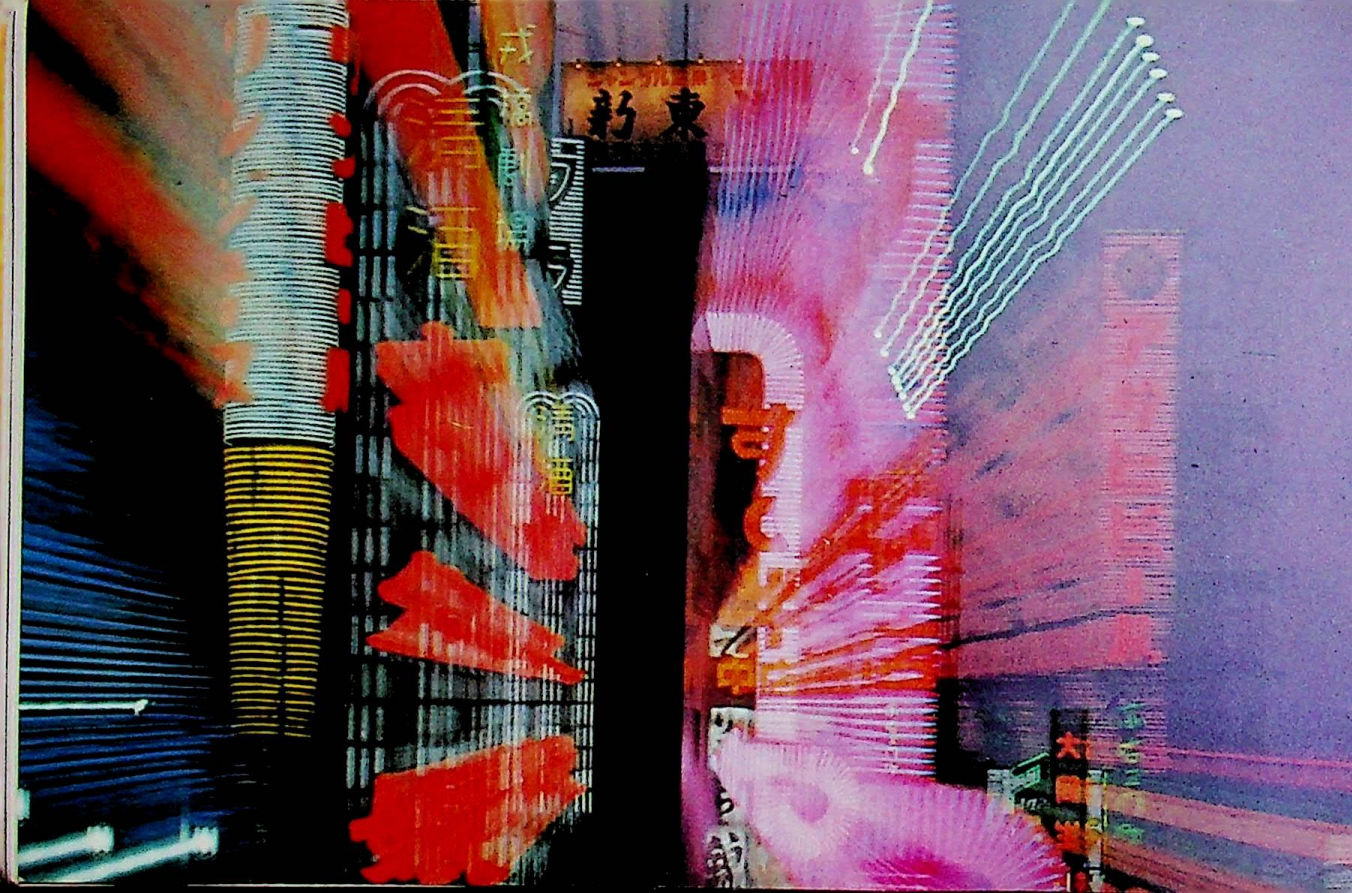
**600mm Tele Rokkor: F5.6**  
 Lens elements: 4 elements in 3 groups  
 Angle of view: 4°  
 Focus: to 33 feet / 10 meters  
 Filter screw diameter: 126mm  
 Diaphragm: Manual pre-set F5.6—F45



**1000mm Tele Rokkor: F6.3**  
 Angle of view: 2°30'  
 Focus: to 100 feet / 30 meters  
 Filter screw diameter: 49mm  
 Diaphragm: ND filters F6.3—F22







## Rokkor Zoom Lenses

The four Rokkor zoom Lenses offer unparalleled optical versatility to users of Minolta SR single lens reflex cameras—a choice of an infinite number of focal lengths from 50mm to 500mm.

The 50-100 Zoom Rokkor is particularly suitable for general and portrait photography, and is easily operated without the use of a tripod.

The 80-160mm and 100-200mm zooms provide maneuverability and quick action photography over a medium to long telephoto range, and are ideal for portrait, sports, even nature photography.

The highly complex 160-500mm lens has uses for the professional or serious amateur that are limited only by the photographer's imagination. Despite its optical complexity, however, operation of this zoom is very similar to standard lens operation.

50-100mm Auto Zoom Rokkor: F3.5  
 Lens elements: 15 elements in 9 groups  
 Widest angle of view: 46°  
 Narrowest angle of view: 24°  
 Focus: to 6.6 feet / 2 meters  
 Filter screw diameter: 77mm  
 Diaphragm: Auto pre-set F3.5—F22





**80-160mm Auto Zoom Rokkor: F3.5**  
 Lens elements: 15 elements in 10 groups  
 Widest angle of view: 30°  
 Narrowest angle of view: 15°  
 Focus: to 8 feet / 2.5 meters  
 Filter screw diameter: 77mm  
 Diaphragm: Auto pre-set F3.5—F22



**100-200mm Zoom Rokkor: F5.6**  
 Lens elements: 8 elements in 5 groups  
 Widest angle of view: 24°  
 Narrowest angle of view: 12°  
 Focus: to 7 feet / 2 meters  
 Filter screw diameter: 52mm  
 Diaphragm: Manual pre-set F5.6—F22



**160-500mm Auto Zoom Rokkor: F8**  
 Lens elements: 16 elements in 11 groups  
 Widest angle of view: 15°  
 Narrowest angle of view: 5°  
 Focus: to 15 feet / 4.5 meters  
 Filter screw diameter: 77mm  
 Diaphragm: Auto pre-set F8—F22





**Close-up and Photomacrography:**  
**Stunning new views of ordinary objects**

Of all the kinds of photography that are possible with the Minolta SR system, the two which probably provide the most consistently unusual pictures are close-up and photomacrography.

Even for the beginning photographer, the possibilities in this field are practically unlimited, and the results are almost always uncommonly exciting. Everyday objects

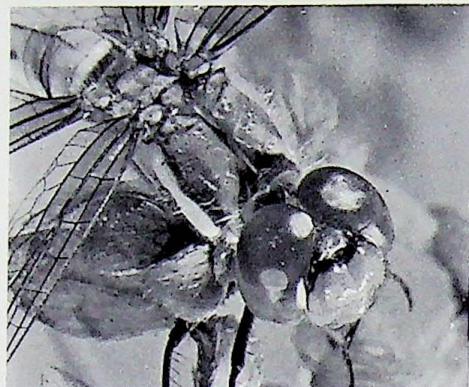
such as stamps or coins, mechanical objects (such as the movement and gears of a wrist-watch), insects, plants, much more, take on dimensions not always visible to the human eye. The commonplace becomes extraordinary through exaggeration. Best of all, the world of close-up and photomacrography provides a stimulating challenge for any photographer wishing to test his techniques and imagination. And today, use of the Minolta SR-T 101 with special attachments makes photomacrography easier, faster and more practical than ever before.

The major advantage of using the SR-T 101 with close-up and photomacrography accessories is that its through-the-lens metering system eliminates the need to calculate exposure factor or effective aperture. And, thus, it eliminates the most complex of all close-up or photomacrography tasks. Since light is measured through the lens, or through any other Minolta close-up devices being used, all adjustment for exposure is completely automatic, regardless of magnification ratio.





**50mm MC Macro Rokkor: F3.5**  
 Lens elements: 6 elements in 4 groups  
 Angle of view: 45°  
 Focus: to 9 inches / 0.23 meters  
 Filter screw diameter: 55mm  
 Diaphragm: Auto pre-set F3.5—F22  
 Life-size adapter  
 Reverse ring



Used with the Minolta SR-T 101, this Macro Rokkor makes photomacrography easier than ever before. All information required to determine magnification ratio and properly adjust exposure is engraved on the lens barrel. Once focused, the lens is set for correct exposure simply by turning its aperture ring until the "match-needles" are aligned in the SR-T 101's viewfinder. The lens attaches to any Minolta SR camera and provides magnification ratios between 1/2 life-size and life-size (1:1) when used with a life-size adapter. It may also be used for ordinary photography with surprisingly good results.

**100mm Auto Bellows Rokkor: F4**  
 Lens elements: 3 elements in 3 groups  
 Angle of view: 24°  
 Diaphragm: Auto pre-set F4—F32  
 Filter screw diameter: 55mm



This lens is designed for use with the Auto Bellows I (See page 34.) It comes in a short mount so that a large enlargement ratio from a greater distance can be achieved, and so that there is greater freedom for the placement of lighting equipment. Focusing range is from infinity (with bellows) to 1:1 image size (life-size) on the negative. As with other Rokkor Lenses, the 100mm Bellows Lens has a depth-of-field preview button.

**135mm Bellows Rokkor: F4**  
 Lens elements: 3 elements in 3 groups  
 Angle of view: 18°  
 Diaphragm: Manual pre-set F4—F22  
 Filter screw diameter: 46mm



Also designed specifically for use with the Auto Bellows I and Bellows III, this lens focuses from infinity to 0.7x image size on the negative, when used with the Bellows III. It is supplied in a Leica mount with an SR mount adapter ring and a flange tool.



LENS	ELEMENTS GROUPS			DIAPHRAGM	ANGLE OF VIEW	MINIMUM FOCUS	MINIMUM F-STOP	FILTER DIAMETER	SIZE	WEIGHT
18mm F9.5 UW Rokkor-PG	7	5	Manual	180°	Fixed focus	F22	—	60×48mm	240gr/8.5oz	
21mm F4 W Rokkor-QH	8	4	Manual	92°	0.9m/3ft	F16	55mm	60×20mm	166gr/5.8oz	
28mm F2.5 MC W Rokkor-SI	9	7	Automatic	76°	0.5m/1.75ft	F16	55mm	63×61mm	364gr/12.8oz	
28mm F3.5 MC W Rokkor-SG	7	7	Automatic	76°	0.6m/2ft	F16	55mm	63×45mm	245gr/8.6oz	
35mm F1.8 MC W Rokkor-HH	8	6	Automatic	64°	0.3m/1ft	F16	55mm	65×67mm	420gr/14.8oz	
35mm F2.8 MC W Rokkor-HG	7	6	Automatic	64°	0.4m/1.3ft	F16	52mm	63×45mm	215gr/7.6oz	
35mm F4 W Rokkor-QE	5	4	Manual	64°	0.4m/1.3ft	F22	55mm	60×34mm	182gr/6.4oz	
55mm F1.7 MC Rokkor-PF	6	5	Automatic	43°	0.5m/1.75ft	F16	52mm	63×37mm	225gr/7.9oz	
58mm F1.2 MC Rokkor-PG	7	5	Automatic	41°	0.6m/2ft	F16	55mm	69×54mm	455gr/16oz	
58mm F1.4 MC Rokkor-PF	6	5	Automatic	41°	0.6m/2ft	F16	55mm	65×41mm	275gr/9.7oz	
100mm F2.5 MC Tele Rokkor-PF	6	5	Automatic	24°	1.2m/4ft	F22	55mm	63×68mm	410gr/14.4oz	
100mm F3.5 MC Tele Rokkor-QE	5	4	Automatic	24°	1.2m/4ft	F22	52mm	63×54mm	240gr/8.4oz	
100mm F4 Tele Rokkor-TC	3	3	Manual	24°	1.2m/4ft	F22	46mm	56×80mm	240gr/8.4oz	
135mm F2.8 MC Tele Rokkor-PF	6	5	Automatic	18°	1.5m/5ft	F22	55mm	62×93mm	425gr/15oz	

LENS	ELEMENTS GROUPS			DIAPHRAGM	ANGLE OF VIEW	MINIMUM FOCUS	MINIMUM F-STOP	FILTER DIAMETER	SIZE	WEIGHT
135mm F3.5 MC Tele Rokkor-QD	4	4	Automatic	18°	1.5m/5ft	F22	52mm	63×88mm	400gr/14oz	
135mm F4 Tele Rokkor-TC	3	3	Manual	18°	1.5m/5ft	F22	46mm	56×115mm	375gr/13.7oz	
200mm F3.5 MC Tele Rokkor-QF	6	4	Automatic	12°	2.5m/8ft	F22	62mm	70×138mm	720gr/25.4oz	
200mm F4.5 MC Tele Rokkor-PE	5	5	Automatic	12°	2.5m/8ft	F22	52mm	63×130mm	500gr/17.6oz	
300mm F4.5 MC Tele Rokkor-HF	6	6	Automatic	8°	4.5m/15ft	F22	72mm	81×200mm	1150gr/40.5oz	
600mm F5.6 Tele Rokkor-TD	4	3	Manual	4°	10m/33ft	F45	126mm	132×530mm	4700gr/165oz	
1000mm F6.3 RF Tele Rokkor			Manual	2°30'	30m/100ft	F22	49mm	217×450mm	10.6kg/23.2lb	
100mm F4 Auto Bellows Rokkor-TC	3	3	Automatic	24°	—	F32	55mm	63×35mm	165gr/5.8oz	
135mm F4 Bellows Rokkor-TC	3	3	Manual	18°	—	F22	46mm	56×55mm	200gr/7.1oz	
50mm F3.5 MC Macro Rokkor-QF	6	4	Automatic	45°	0.23m/0.75ft	F22	55mm	68×55mm	330gr/11.6oz	
50-100mm F3.5 Auto Zoom Rokkor	15	9	Automatic	46°-24°	2m/6.6ft	F22	77mm	82×126mm	855gr/30oz	
80-160mm F3.5 Auto Zoom Rokkor	15	10	Automatic	30°-15°	2.5m/8ft	F22	77mm	84×207mm	1350gr/47.8oz	
100-200mm F5.6 Zoom Rokkor	8	5	Manual	24°-12°	2m/7ft	F22	52mm	58×175mm	535gr/19.5oz	
160-500mm F8 Auto Zoom Rokkor	16	11	Automatic	15°-5°	4.5m/15ft	F22	77mm	87×490mm	2750gr/97oz	





### The Tools of Close-up and Photomacrography

Even without accessories or attachments, the normal lenses on Minolta SR cameras permit a great variety of close-up photography. The Rokkor 58mm F1.4 Lens can take pictures as close as 1.97 feet. The Rokkor 55mm F1.7 Lens is sharp as close as 1.75 feet. But to get even more dramatic close-ups requires the use of special equipment that is designed to provide photographs much larger than life-size.

The simple combination of an SR-T 101, standard 55mm lens and screw-on supplementary close-up lens provides sufficient equipment, at a modest cost, for close-ups and copying. For more specialized work, additional equipment such as extension bellows, extension tubes, and special Rokkor

Lenses for use with extension bellows may be purchased for even additional versatility and maximum flexibility.

There are certain requirements for good close-up and photomacrography other than precision equipment and some patience. A solid tripod or base from which to photograph is highly recommended, since the smallest movement of the camera or the support is tremendously exaggerated. The Minolta Copy Stand, described on page 37, was designed to provide the maximum stability required for photomacrography.

Lighting techniques in photomacrography resemble in many ways normal portrait lighting. You may wish to experiment with basic lighting patterns such as rim or back-light for showing edge detail, front lighting, side lighting to bring out texture, diffused or shadowless lighting and trans-illumination for translucent subjects. Keep in mind the great heat generated by a number of spot-lights in a small area. Heat-sensitive objects and living things will rapidly die or wilt if kept under the lamps too long.

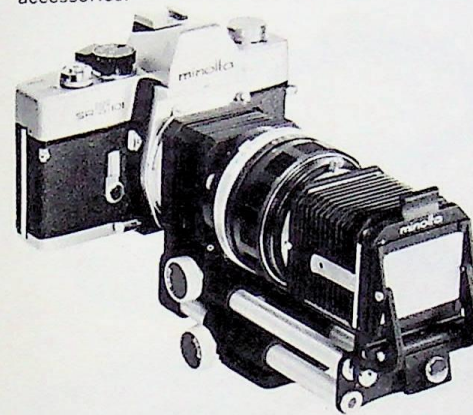


**Auto Bellows I**

Attached to an SR camera, this deluxe double track bellows provides calibrated extension between the lens and film. It features an automatic diaphragm coupling device and attaches to the SR camera body in the same manner as a lens. Used with the standard 55mm Rokkor Lens, the Auto Bellows I permits continuous magnification between 0.7x to 2.9x. The detachable focusing rail can be used separately for positioning or focusing the camera, when the camera is equipped with MC Rokkor Lens, extension tubes or a close-up lens.

**Auto Bellows II**

This less expensive version of the Auto Bellows I is very compact and lightweight yet is equipped with an automatic diaphragm coupling device. Magnification between 0.73x and 2.36x can be obtained with a 55mm standard lens. This unit has an extension scale engraved on the track. Slide copier and shade are available as optional accessories.

**Bellows III**

Reasonably priced, compact and lightweight, this Bellows performs many of the same functions as the Auto Bellows I. Magnifications between 0.65x and 2.92x can be obtained with the Bellows III and a 55mm lens. The unit also has magnification and extension distance scales for 55mm lenses engraved on its track.





#### Extension Tube Set II

This set of five separate tubes can be used in various combinations for close-up photography with Rokkor Lenses. Function of the tubes is to increase magnification by lengthening the lens-to-film distance. Selection of the proper extension tube depends on the area to be covered or the image size required. When used with the Minolta SR-T 101, no compensation for exposure is necessary since exposure readings may be taken through the tube and lens combination.



#### Close-up Lenses

These lenses screw into the filter mount of normal Rokkor Lenses to permit focusing at close-up distances. Lenses 1 and 2 may be used in combination to allow work as close as 9 inches from the subject. Lens 0 is for continuous magnification when telephoto lenses are used. With any of the close-up lenses, aperture is set as it would be for normal photography.

#### Copy Stand II

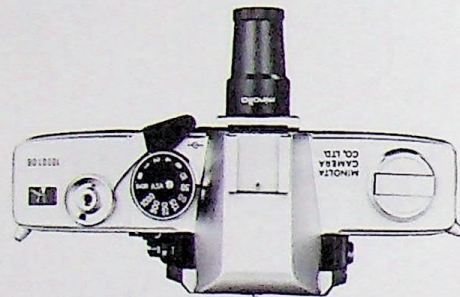
A rigid camera support that assures maximum stability in all photomacrography, and is highly recommended for copying flat or three-dimensional materials. Strong and sturdy, the stand features a heavy duty  $15\frac{1}{2} \times 17\frac{3}{4}$  inch baseboard and a 24 inch chrome tube (2 inches in diameter) to provide secure support for camera and macro equipment.



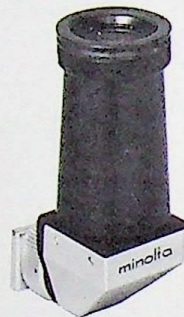


**Magnifier V**

This is a useful tool for precise focusing when making photomicrographs, copying and taking distant telephoto pictures. It features an adjustable eyepiece and a 2.5x magnification power. It fits into slots provided in the camera eyepiece, and can be focused for individual eyesight.

**Angle Finder V**

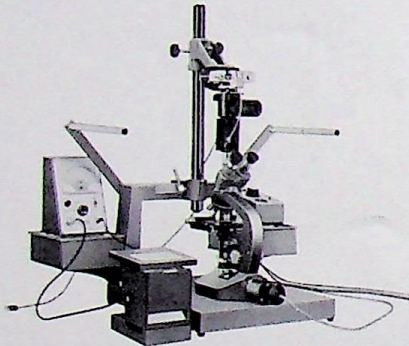
This device permits viewing with the camera held below the eye. It can be focused for individual eyesight, and thus is ideal for microscopic photography. It fits into slots provided in the camera eyepiece.





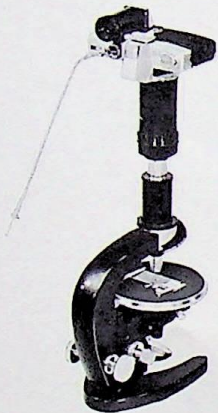
### Microscope Photo Unit II

This extremely versatile unit can be used with most interchangeable lens cameras and most microscopes. Viewing and focusing is provided by a 5.6x eyepiece with a sliding eyepoint clamp to hold the tube in best corner-to-corner viewing position. Exposure determination is by a half-mirror prism. A color temperature meter is built-in for precise color filtration. The bellows and exposure system are anti-vibration mounted. The through-the-lens exposure meter is of the semi-spot type and measures an area equivalent to 7x9mm in the center of the film coverage, either 16mm or 35mm.



### Microscope Adapter

This two-piece device is used to connect an SR camera to a microscope. One section bayonets into the camera body in place of the lens while the other end fits into the ocular adapter tube section of the microscope. Taking photomicrographs is easy with this adapter because you can follow moving specimens up to the precise moment of exposure. The adapter fits ocular tubes from 23mm to 29mm in diameter.



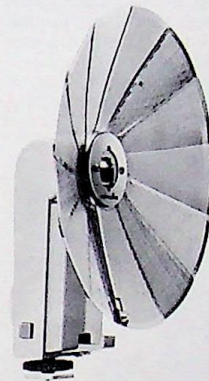
### Electroflash

New features make this compact electronic flash device perfect for both black-and-white and color flash photography. It is equipped with Hi and Lo neon lights to indicate precise Guide Numbers and to prevent under-exposure. When voltage of the battery subsides and light becomes weak, the Lo lamp warns that the camera aperture should be adjusted for correct exposure. Gives 370 flashes per load when used with alkaline batteries. Also works on AC, penlight and NiCd batteries.



### Deluxe Flash Unit III

This compact and powerful flash unit has a folded type reflector and swivels to any of 5 click-stop positions. It takes regular base, pinless base and AG type flash bulbs, and can be used either with or without a cord. The unit unfolds and installs on the camera body in seconds.





**Auto-Spot 1°**

This remarkable instrument is the world's only power-scale exposure meter with a 1° angle of acceptance for critical spot measurement. It works automatically as rapidly as you sight your subject, with motor driven scales reacting instantly in response to light changes. Total viewing area is 8° and exposure readings are taken through the lens as you view and focus your subject. ASA Range: 3 to 25,000. DIN Range: 8 to 45. EV Range: 2 to 18. Aperture Range: F1 to F45. Shutter Speed Range: 1/2000th second to 30 seconds. Cine Range: 8 to 128 frames per second. Hard leather carrying case and leather wrist strap supplied.

**Viewmeter 9**

A unique design and exclusive features make this cadmium sulphide exposure meter one of the most accurate reflected light meters ever made. You sight the subject through an eyelevel finder as with a camera viewfinder. An extremely narrow and exclusive 9-degree angle of acceptance eliminates the need to move in to the subject for close-ups, yet permits measurement of backlighted and distant objects with pinpoint accuracy. The CdS cell is color-corrected for changes in color temperature. ASA Range: 6 to 25,000. DIN Range: 9 to 45. EV Range: -3 to +25. Aperture Range: F1 to F64. Shutter Speed Range: 1/8000th second to 2 hours. Cine Range: 8 to 128 frames per second. Complete with case.





## Filter Sizes

UV	46mm	52mm	55mm	62mm	67mm	77mm	126mm
Yellow	46mm	52mm	55mm	62mm	67mm	77mm	126mm
Red		52mm	55mm				126mm
Orange		52mm	55mm				
Green		52mm	55mm				
Polarizing		52mm	55mm				
80 B		52mm	55mm				
85 A		52mm	55mm				
1 A		52mm	55mm				
ND		52mm	55mm				

## Solid Glass Filters

Minolta's solid glass filters are invaluable aids in heightening or diminishing specific kinds of photographic effects. They are made in Minolta's own factories to insure uniform quality, are ground optically flat to avoid distortion and mounted in satin-finished metal rings. Refer to the chart on this page to determine which filters are most appropriate for your photographic purpose, or consult your Minolta dealer.



## Polarizing Filters

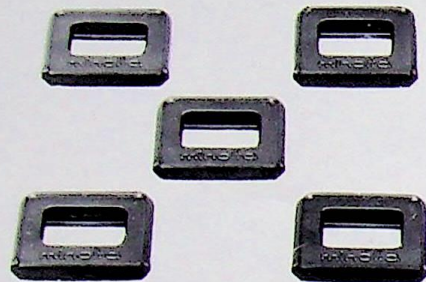
These special filters help eliminate or control reflections, and can also be used to darken skies to produce unusual and dramatic photographic effects. They are especially recommended when photographing water, glass, other reflecting surfaces, as well as polarizing light emanating from the sky. Polarizing filters screw into a Rokkor Lens in the same way as an ordinary filter. They may be used with any Rokkor Lens having a screw mount diameter of 52 or 55mm.



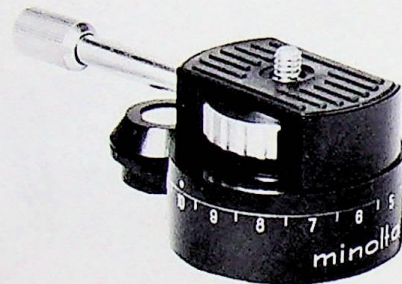


**Eyepiece Corrector**

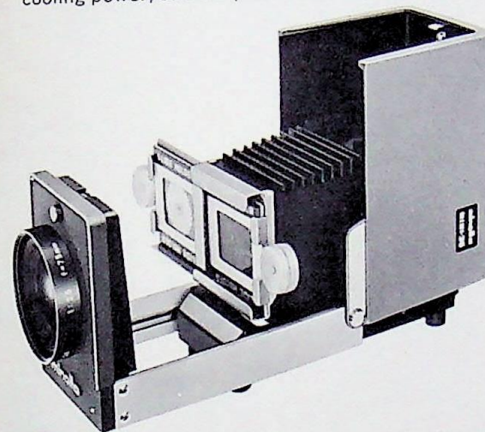
Focusing aid for far-and near-sighted photographers is provided by these special lenses which fit into slots provided in the camera eyepiece. Minolta makes nine different diopter strengths, from -4 to +3.

**Panorama Head**

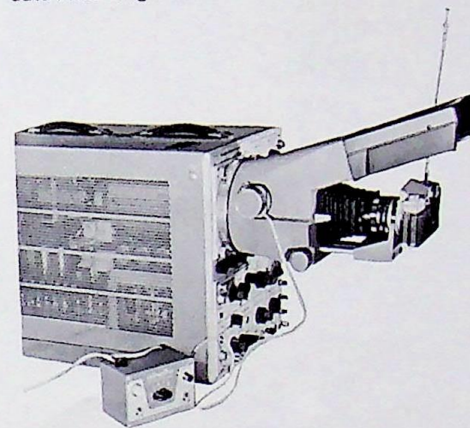
Fitted between a Minolta SR camera and tripod, the panorama head turns in a 360° circle at marked intervals of 12°. This allows the scenic photographer to shoot up to a 360° panorama view in overlapping sections of 24° click stops without fear of misjudging the camera's coverage of any single section. A built-in spirit level insures the camera will remain in perfect position. A chart provided with the panorama head shows the number of sectional pictures required when using various Rokkor Lenses, as well as the overlap between sections.

**Mini 35 II Slide Projector**

Deceptively small and lightweight, this 35mm slide projector carries like a camera and sets up in seconds. But it also completely fills a 35-inch screen from a distance of just 7 feet (2 meters). Optical features include a 75mm F2.5 Rokkor projection Lens, plus a triple condenser system for extra bright, evenly lighted images. Optional accessories include an auto-changer, tele/wide angle conversion lens, blower device for extra cooling power, and strip film carrier.

**Photo Oscilloscope Unit II**

Designed principally for academic and industrial research, this instrument accurately records the electric waves emitted from Braun tubes and oscilloscopes. Incorporated in the adapter are an oversized finder for ease-of-observation and a data recording device.





**Lens Mount Adapters**

Minolta makes adapters for Leica, Praktica and Exakta lenses, all of which lock securely to Minolta SR camera bodies with the use of a special key which is supplied. Any Exakta or Praktica mount lens can be used with the SR camera and can be focused through their full range. Leica mount lenses can be used only for close-ups and copying, since they have a different back focus.

**Cable Release**

This very flexible metal release threads directly into the shutter release button. It features a screw type lock which permits time exposures. Essential for steady tripod exposures, photomicrography, photomacrography and telephotography.





**Minolta**

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