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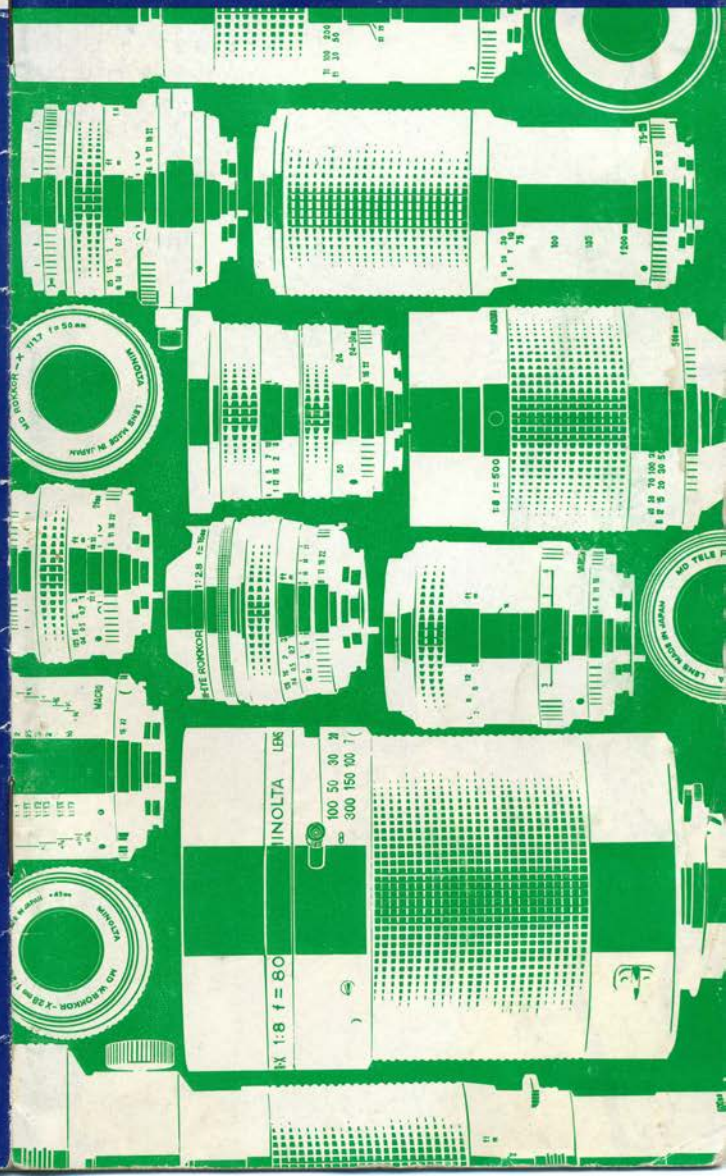
MINOLTA
LENSES

Vision for The Creative Photographer



Minolta

Minolta Camera Co., Ltd.
30, 2-Chome, Azuchi-Machi, Higashi-Ku, Osaka 541, Japan

Minolta Corporation	
Head Office	101 Williams Drive, Ramsey, New Jersey 07446, U.S.A.
Los Angeles Branch	3105 Lomita Boulevard, Torrance, CA 90505, U.S.A.
Chicago Branch	3000 Tollview Drive, Rolling Meadows, IL 60008, U.S.A.
Atlanta Branch	5904 Peachtree Corners East, Norcross, GA 30071, U.S.A.
Minolta Canada Inc.	
Head Office	1344 Fewster Drive, Missisauga, Ontario L4W 1A4, Canada
Montreal Branch	7575 Trans Canada Hwy., Montreal, Quebec, H4T 1V6, Canada
Vancouver Branch	1620 W. 6th Avenue, Vancouver, B.C., V6J 1R3, Canada
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Minolta Nederland B.V.	Groen van Prinstererlaan,1181 TS Amstelveen, Nederland
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Minolta Hong Kong Limited	49 Chatham Road, Kowloon, Hong Kong
Minolta Singapore (Pte) Ltd.	Chin Swee Tower, 52-E, Chin Swee Road, Singapore 3

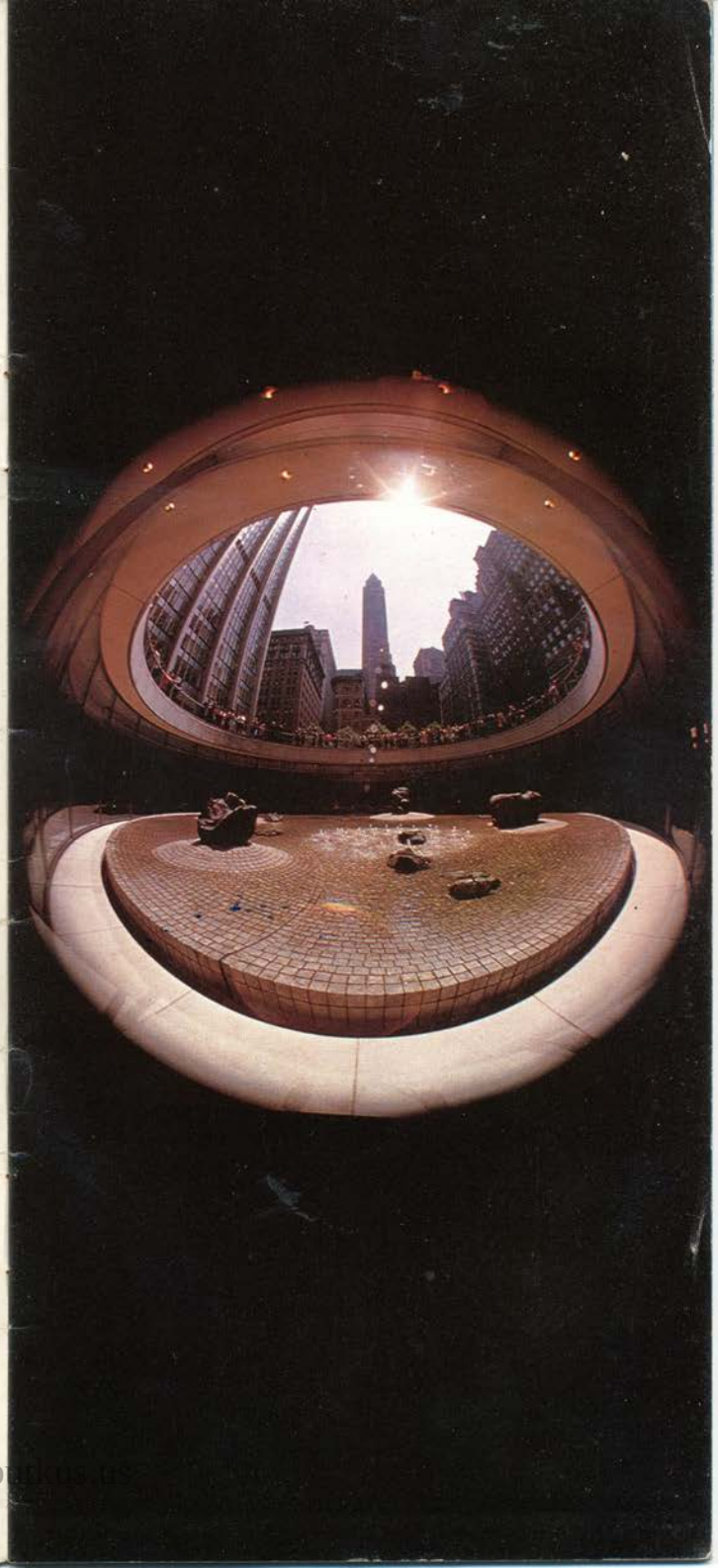
RXL910E-B1 Printed in Japan

FISHEYE

The fisheye lens is normally used for specialized purposes and unusual special effects in advertising; commercial, scientific, surveillance, meteorologic and astronomic photography. In the hands of a skillful photographer, the fisheye lens is a tool of unique capability. It provides the luxury of complete freedom, plus the valued flexibility of being able to compose, meter and create as with any other Minolta interchangeable lens. There are two fisheye lenses: the dramatic 7.5mm f/4 with 23mm-diameter 180° circular image; and the 16mm f/2.8, one of the fastest fisheye ever made, which gives a diagonal angle of view of 180° and delivers an image that fills the entire frame—corner-to-corner—with curvilinear images instead of the fisheye circle in the center of the frame. Both of these special lenses give optimum sharpness from center to edges, thanks to the use of extremely high- and low-index optical glasses.

16mm f/2.8 MD FISHEYE

7.5mm f/4 MD FISHEYE



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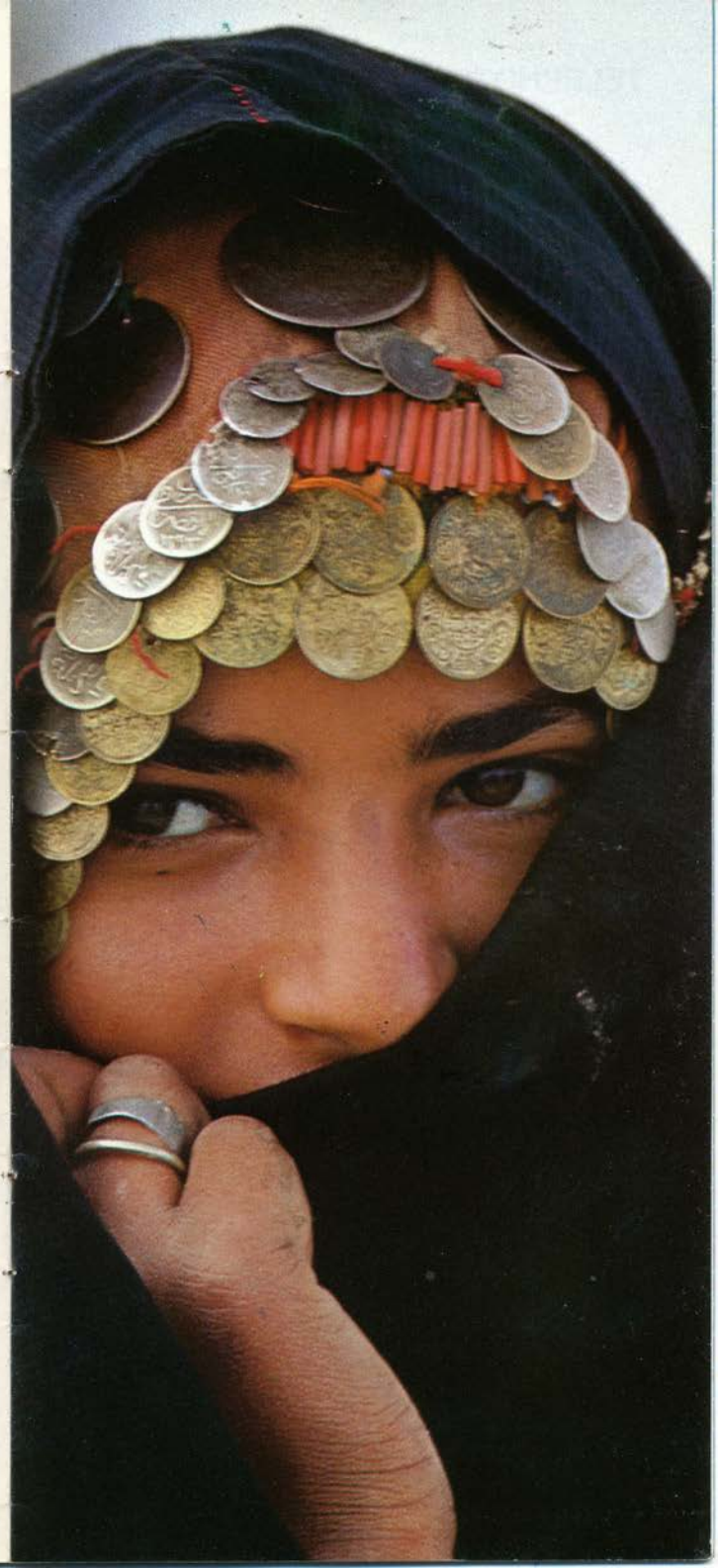
WIDEANGLE

The wideangle lenses are especially preferred for photography that must be done at close quarters, say, in a room full of people, or for architectural pictures, when there is a limited choice of vantage points. They are also the frequent choice for close-in sports photography and in children or animal photography, where movement may be hard-to-follow, or for documentary photography where it is important to establish the relationship of many components to a total scene. Wideangle lenses are also popular for creating special effects for advertising or editorial photography. The most important advantage of wideangle lenses is their ability to take in more of a scene at the same distance as a normal lens. Overall, the short focal length of wideangle lenses gives them considerable depth of field even at large apertures or short distances. In the Minolta complement of wideangle lenses, the photographer has a wide and highly creative choice. There are excellent choices for wideangle photography requiring minimal distortion but exaggerated perspective or dramatic effects, with all lenses giving moderately wide to "normal" perspective while including considerably more of the scene with more inherent depth of field.

STANDARD

The Minolta camera you buy will probably come equipped with a "standard" or "normal" lens, which traditionally has a focal length that is ideal for most general photographic purposes. The standard lens is especially suitable for available-light photography indoors and for other low-illumination situations because of the large maximum aperture, and thus the substantial light gathering properties. The area of coverage of the standard lens is not as great as a wideangle lens, nor will distant subjects appear as large or close as they do when photographed with a telephoto lens. The working photographer has a choice of four different standard lenses. In the 50mm focal length, there is a f/1.2, f/1.4 and f/1.7 maximum aperture. Minolta also makes a 45mm f/2 lens, one of the lightest and easiest to handle of all lenses. All of these lenses are styled with waffle-pattern rubber focusing grips, and have automatic iris diaphragms and meter-coupling lug rings.



TELEPHOTO

Telephoto lenses are used to get you optically "closer" to inaccessible subjects, and to modify perspectives for esthetic and practical purposes. Short telephoto lenses are especially favored for candid and portrait photography. Long telephotos, say, from 200 to 500mm, are the choice for sports, nature or human-interest photography, and for photographing unapproachable subjects such as wild animals. The telephoto lenses most often used are the 85mm, 100mm, and 135mm focal lengths, all of which allow the photographer to fill the frame with the subject at a greater-than-normal working distance, without risking exaggerated perspective. These lenses are also very fast—f/1.7 and f/2 for the 85mm, f/2.5 for the 100mm and both f/2.8 and f/3.5 for the 135mm. Minolta also makes a 200mm f/2.8 and f/4 and 300mm f/4.5 and f/5.6. The 400mm f/5.6 Apo lens and 600mm f/6.3 Apo lens are extremely lightweight, compact lenses, and naturals for sports, news, wildlife and other specialized photography that requires sharpest definition. These lenses use a special crystalline fluorite element to control virtually the entire spectrum of light to minimize the chromatic aberration and deliver an extraordinarily sharp image.

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MIRROR-TYPE

A different kind of telephoto lens is the catadioptric design, that folds the light path via high-quality-optical mirrors in combination with conventional refractive lens elements. Minolta makes four of these—the 250mm f/5.6 RF, 500mm f/8 RF, 800mm f/8 RF and 1600mm f/11 RF—and each is outstanding in terms of fantastic reach and a surprisingly lightweight design. These super telephoto lenses are indispensable for sports, nature and landscape photography. The 250mm f/5.6 RF is the world's first reflex-type medium telephoto lens, a beauty to handle. The 500mm f/8 RF is one of the smallest, lightest of its focal length available to the photographer today, and makes long-telephoto photography a hand-held situation. This superb Minolta lens weighs only 1 lb. 5⅛ oz. (600g) and is hardly larger than a conventional medium telephoto lens. The 800mm f/8 RF also features a compact size for such a long focal length, which contributes to convenient handling portability. The 1600mm f/11 RF is the longest Minolta lens of all, providing phenomenal telephoto capabilities. All of the mirror-type lenses have built-in filters that are rear-mounted for additional versatility. With the use of the built-in ND (Neutral Density) filter, for instance, the amount of light passing through each lens may be reduced.

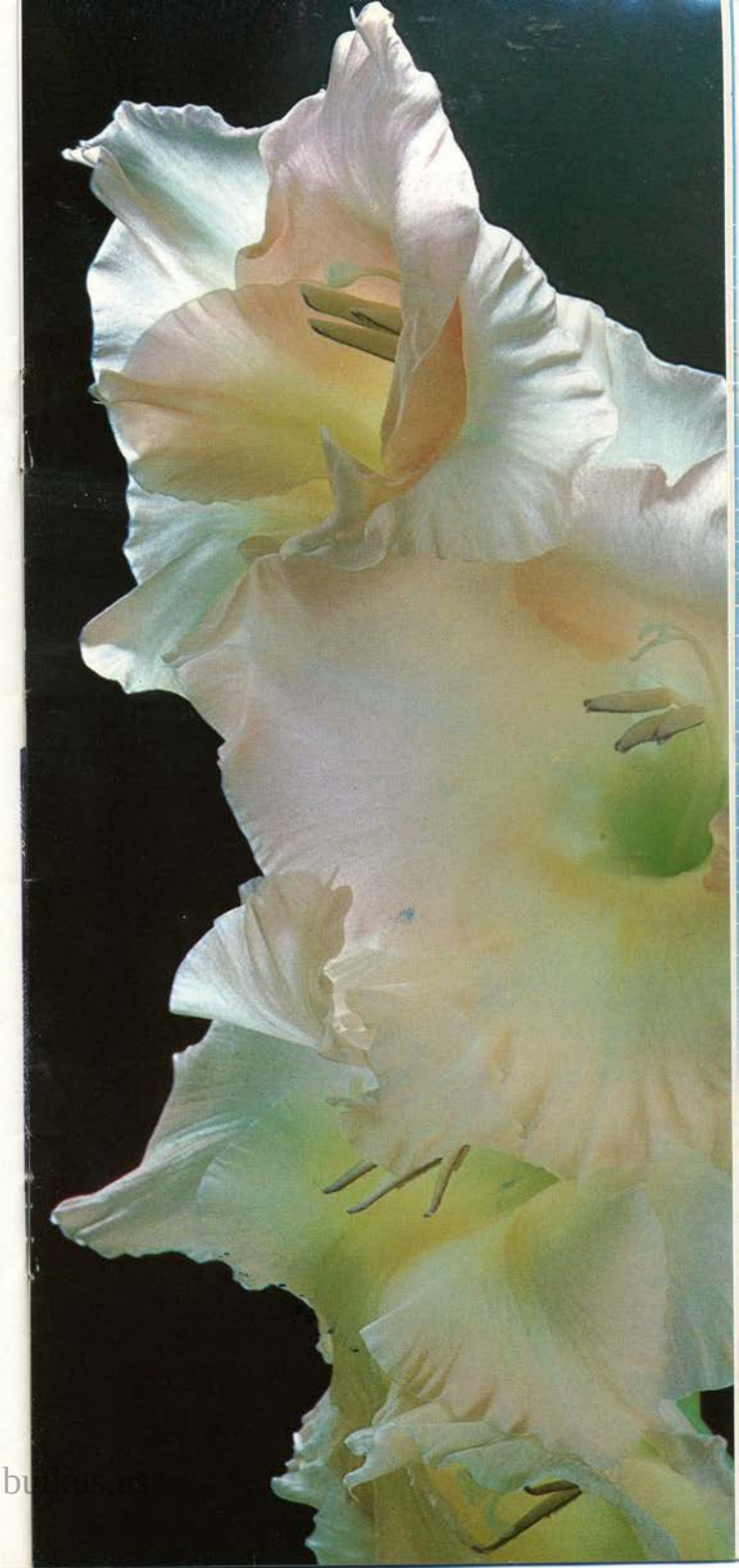
KZ
2302
KZ2302

ZOOM

The zoom lens continues to grow in popularity among all kinds of photographers. The advantages of using a zoom are incomparable: exceptional speed in covering fast action; continuously variable focal lengths; an instantly variable field of view; fast and proper framing of a subject; tremendous optical mobility; compactness and light weight. Most professionals agree that no other kind of lens is quite as versatile or convenient as a zoom. And now there are more Minolta Zoom lenses than ever before, with a range of coverage from 24mm to 500mm. The 24-50mm f/4 is the only wideangle lens which provides a zoom ratio of over two times magnification now available from a major optical manufacturer. The 35-70mm f/3.5 Zoom has similar handling advantages, a light weight, as well as razor sharp optics. Like the 24-50mm zoom, it employs the inverted-telephoto-type optical design. A very wide and interesting focal length range is the 50-135mm f/3.5 Zoom, which provides one-hand operation and is valuable for general photography, portraits, journalism and sports photography. The 75-200mm f/4.5 Zoom is one of the most popular zooms, useful for all kinds of general photography. A good buy is the 100-200mm f/5.6 Zoom, which offers speed in covering fast action and has multiple uses for photojournalism. Largest of the Zoom lenses is the 100-500mm f/8, which is surprisingly lightweight and compact despite its impressive focal range.

MACRO

The world of close-up photography and photomacrography is exciting even for the beginning photographer, simply because the commonplace becomes extraordinary through magnification. Simple objects such as stamps or coins, mechanical objects, such as the movement and gears of a wristwatch, insects, plants, much more, take on dimensions not always visible to the human eye. Best of all, the world of close-up and photomacrography provides a stimulating challenge for any photographer wishing to test his techniques and imagination. Close-up photography requires special equipment, but excellent results are not difficult to achieve since all adjustments for correct exposure on Minolta single-lens-reflex cameras are completely automatic. Minolta makes three special lenses for close-up photography. The 50mm f/3.5 Macro and 100mm f/4 Macro combine ease-of-operation with superior optics and versatility. The 50mm Macro produces critically sharp pictures at any distance between 230mm and infinity without attachments and provides magnifications up to one-half life-size unaided. The 100mm Macro produces sharp photos at any distance between 450mm and infinity. Both lenses are also ideally suited for standard photography. The 100mm f/4 Auto Bellows is designed to provide completely automatic lens diaphragm functions, permitting stop-down readings with through-the-lens metering systems.



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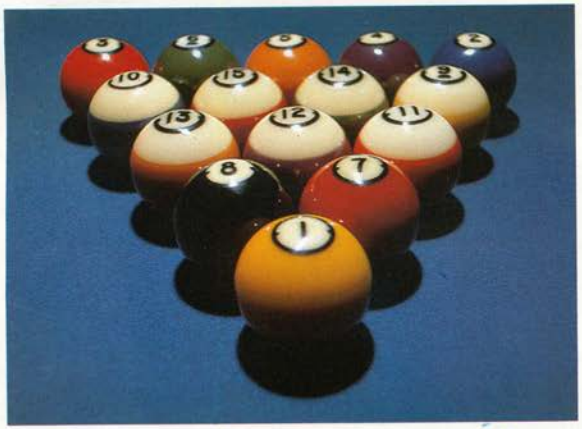

If distances from center and edges of objects to the film plane are too different to be covered by depth of field (particularly at close range and/or large apertures), sharp photos having excellent image quality can be obtained of many subjects by appropriately curving the focusing field with the VFC lens. Photo at top was taken with the VFC lens field curved in the "wrong" direction. Photo above, with the same focus and aperture setting, shows the result of curving it to conform to the subject.

VFC

Minolta is the only company to make a variable field curvature (VFC) lens. The 24mm f/2.8 VFC lens creates sharp photos with excellent image quality even if distances from center and edges of objects to the film plane are too different to be covered by depth of field (see photo). Its field of sharp focus can be varied continuously at will from concave through flat to convex by moving a control ring on the lens barrel. The VFC lens is aberrationally corrected to render a flat subject in the lens field sharp at the median setting. Furthermore, it is designed to allow varying the curvature of field so that rounded, recessed, or other three-dimensional subjects can be sharply focused without relying solely upon depth of field.

24mm f/2.8 MD VFC

SHIFT

The 35mm f/2.8 Shift CA lens is the only lens that combines full-circle shift without rotation, variable-field-curvature control, and automatic diaphragm operation. The advantages of this combination of features for architectural and general types of photography are unprecedented. Vertical shift lets the photographer include more of a subject without pointing the camera up or down. This avoids converging verticals (see photo), the visual phenomenon with conventional lenses that makes buildings appear as if they were falling over backwards. It also eliminates undesirable reflection, as on paintings or in mirrors, and helps obtain the necessary uniformity of perspective in panoramic exposures that are to be joined later. The exclusive versatility of this lens is unparalleled for unique effects.

35mm f/2.8 SHIFT CA

Tilting the ordinary lens up or down to include more of an object results in converging subject lines in the picture (top); the 35mm f/2.8 Shift CA lens's exclusive shift mechanism corrects this (above). This special lens also features VFC control and auto diaphragm for unique versatility, as well as lateral or diagonal shift for further visual advantages.

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Photographs above show the subject at the normal "0" setting and the maximum "3" setting. The softness of the image can be continuously and steplessly altered from "0" to "3" depending on the subject and the objective of your photography.

VARISOFT

The 85mm f/2.8 Varisoft lens is the perfect portrait and general use lens, the first 35mm SLR lens ever to offer continuous soft-focus adjustment control. The photographer controls the degree of optical softness by turning a softness control ring from sharp focus to soft focus, thus altering the spherical aberration of the lens to create soft-focus effects. These effects for portraits or other photographic situations are both distinctive and unfailingly appealing. Another important feature of this lens, especially for photographers working indoors with strobe, is that the consecutive softness level and aperture can be separately altered at will.

85mm f/2.8 VARISOFT

LENS ACCESSORIES

MINOLTA LENS/MONOCULAR CONVERTER

This special accessory, when attached to standard or telephoto Minolta SLR interchangeable lenses, converts them into quality spotting scopes and telescopes, which are hand-held in the normal manner of a telescope. Used with macro lenses, bellows or other close-up accessories, the converter provides highly-magnified views of small subjects. Attachment and operation are done with ease.

MINOLTA 2X TELE CONVERTER 200-L

This sophisticated optical accessory is designed to double the effective focal length of Minolta lenses of 200mm focal length or longer without deteriorating lens sharpness. It can also be used with focal lengths down to 85mm when their apertures are closed down one or two stops.

2X TELE CONVERTER 200-L

LENS/MONOCULAR CONVERTER

ANGLE OF VIEW

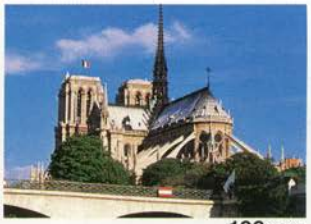
7.5mm

16mm

20mm

28mm

50mm



100mm

200mm

400mm

800mm

1600mm

These photographs of the same subject illustrate the capability of each particular lens in capturing the mood and the detail of an identical scene. Most 35mm SLR photographers carry several lenses: a wideangle, a standard and a telephoto, for example...to give them the capability of achieving markedly different results when shooting from the same location.

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MINOLTA LENSES

LENS	ELEMENTS	GROUPS	METER-COUPLED AUTO-DIAPHRAGM	ANGLE OF VIEW	MINIMUM FOCUS	MINIMUM F-STOP	FILTER-MOUNT DIAMETER	DIMENSIONS	WEIGHT
MINOLTA 7.5mm f/4 MD FISHEYE	12	8	YES	180°	1.6 ft.	f/22	BUILT-IN	ϕ68×63mm	12 3/16 oz.
MINOLTA 16mm f/2.8 MD FISHEYE	11	8	YES	180°	1 ft.	f/22	BUILT-IN	ϕ70.5×63.5mm	15 1/2 oz.
MINOLTA 17mm f/4 MD	11	9	YES	104°	0.8 ft.	f/22	72mm	ϕ75×53mm	11 7/16 oz.
MINOLTA 20mm f/2.8 MD	10	9	YES	94°	0.8 ft.	f/22	55mm	ϕ64.5×43.5mm	8 5/16 oz.
MINOLTA 24mm f/2.8 MD	9	7	YES	84°	1 ft.	f/22	55mm	ϕ64×49.5mm	7 3/16 oz.
MINOLTA 28mm f/2 MD	10	9	YES	75°	1 ft.	f/22	55mm	ϕ65.5×61mm	12 3/16 oz.
MINOLTA 28mm f/2.8 MD	7	7	YES	75°	1 ft.	f/22	49mm	ϕ64×43.5mm	6 3/8 oz.
MINOLTA 35mm f/1.8 MD	8	6	YES	63°	1 ft.	f/22	49mm	ϕ64×48mm	8 5/16 oz.
MINOLTA 35mm f/2.8 MD	5	5	YES	63°	1 ft.	f/22	49mm	ϕ64×38.5mm	5 13/16 oz.
MINOLTA 45mm f/2 MD	6	5	YES	51°	2 ft.	f/16	49mm	ϕ64×30.5mm	4 7/16 oz.
MINOLTA 50mm f/1.2 MD	7	6	YES	47°	1.5 ft.	f/16	55mm	ϕ65.5×46.5mm	11 1/8 oz.
MINOLTA 50mm f/1.4 MD	7	6	YES	47°	1.5 ft.	f/16	49mm	ϕ64×40mm	7 3/4 oz.
MINOLTA 50mm f/1.7 MD	6	5	YES	47°	1.5 ft.	f/16	49mm	ϕ64×36mm	5 5/8 oz.
MINOLTA 85mm f/1.7 MD	6	5	YES	29°	3.3 ft.	f/22	55mm	ϕ71×62mm	1 lb.
MINOLTA 85mm f/2 MD	6	5	YES	29°	2.8 ft.	f/22	49mm	ϕ64×53.5mm	9 7/8 oz.
MINOLTA 100mm f/2.5 MD	5	5	YES	24°	3.3 ft.	f/22	55mm	ϕ64.5×64.5mm	12 7/8 oz.
MINOLTA 135mm f/2.8 MD	5	5	YES	18°	4.9 ft.	f/22	55mm	ϕ64×82mm	12 7/8 oz.
MINOLTA 135mm f/3.5 MD	5	5	YES	18°	4.9 ft.	f/22	49mm	ϕ64×72.5mm	9 5/16 oz.
MINOLTA 200mm f/2.8 MD	5	5	YES	12°30′	6 ft.	f/32	72mm	ϕ78×133mm	1 lb. 8 11/16 oz.
MINOLTA 200mm f/4 MD	5	5	YES	12°30′	8.2 ft.	f/32	55mm	ϕ64.5×131mm	1 lb. 2 3/8 oz.
MINOLTA 300mm f/4.5 MD	7	6	YES	8°10′	9.8 ft.	f/32	72mm	ϕ77.5×177.5mm	1 lb. 9 oz.
MINOLTA 300mm f/5.6 MD	5	5	YES	8°10′	14.8 ft.	f/32	55mm	ϕ65×186mm	1 lb. 8 1/2 oz.
MINOLTA 400mm f/5.6 MD APO	7	6	YES	6°10′	16.4 ft.	f/32	72mm	ϕ83×256.5mm	3 lb. 2 13/16 oz.
MINOLTA 600mm f/6.3 MD APO	9	8	YES	4°10′	16.4 ft.	f/32	BUILT-IN	ϕ108.5×373.5mm	5 lb. 4 5/8 oz.
MINOLTA 250mm f/5.6 RF	6 2 MIRRORS	5	NO	10°	8.2 ft.	f/16	BUILT-IN	ϕ66.5×58mm	8 13/16 oz.
MINOLTA 500mm f/8 RF	6 2 MIRRORS	5	NO	5°	13.1 ft.	f/16	BUILT-IN	ϕ83×98.5mm	1 lb. 5 1/8 oz.
MINOLTA 800mm f/8 RF	8 2 MIRRORS	7	NO	3°10′	26.2 ft.	f/16	BUILT-IN	ϕ125×166.5mm	4 lb. 3 oz.
MINOLTA 1600mm f/11 RF	6 2 MIRRORS	5	NO	1°30′	65.6 ft.	f/22	BUILT-IN	ϕ178×322.5mm	15 lb. 1 5/8 oz.
MINOLTA 24–50mm f/4 MD ZOOM	13	11	YES	84°–47°	2.3 ft.	f/22	72mm	ϕ75×69.5mm	13 15/16 oz.
MINOLTA 35–70mm f/3.5 MD ZOOM	8	7	YES	63°–34°	3.3 ft.	f/22	55mm	ϕ67.5×65.5mm	12 7/8 oz.
MINOLTA 50–135mm f/3.5 MD ZOOM	12	10	YES	47°–18°	4.9 ft.	f/22	55mm	ϕ68.5×118mm	1 lb. 15/16 oz.
MINOLTA 75–200mm f/4.5 MD ZOOM	15	11	YES	32°–12°30′	3.9 ft.	f/22	55mm	ϕ69.5×155mm	1 lb. 6 1/4 oz.
MINOLTA 100–200mm f/5.6 MD ZOOM	8	5	YES	24°–12°30′	8.2 ft.	f/22	55mm	ϕ63.5×173mm	1 lb. 4 1/8 oz.
MINOLTA 100–500mm f/8 MD ZOOM	16	10	YES	24°–5°	8.2 ft.	f/32	72mm	ϕ91×330mm	4 lb. 7 5/8 oz.
MINOLTA 24mm f/2.8 MD VFC	9	7	YES	84°	1 ft.	f/22	55mm	ϕ67×50.5mm	12 oz.
MINOLTA 35mm f/2.8 SHIFT CA	9	7	NO*	63°	1 ft.	f/22	55mm	ϕ83.5×71.5mm	1 lb. 3 3/4 oz.
MINOLTA 85mm f/2.8 VARISOFT	6	5	YES	29°	2.6 ft.	f/16	55mm	ϕ70×80mm	15 3/16 oz.
MINOLTA 50mm f/3.5 MD MACRO	6	4	YES	47°	9 in.	f/22	55mm	ϕ64.5×55.5mm	7 1/4 oz.
MINOLTA 100mm f/4 MD MACRO	5	4	YES	24°	1.5 ft.	f/32	55mm	ϕ66.5×88.5mm	13 3/8 oz.
MINOLTA 100mm f/4 AUTO BELLOWS	3	3	NO*	24°	–	f/32	55mm	ϕ63.5×34.5mm	5 7/16 oz.

*AUTO–DIAPHRAGM