

MINOLTA XD-11

The compact multi-mode 35mm single lens reflex camera.



Minolta

Minolta Camera Co., Ltd.

XDC 709E-A1

Printed in Japan

The XD-11 began fifty years ago.



Significant events in camera technology happen rarely. For they are the result of long, hard work and dedication. The Minolta XD-11 is a case in point. Its introduction coincides with Minolta's Golden Anniversary as a leader in the high precision world of photographic and optical equipment.

Just as it marks the end of Minolta's first fifty years, the XD-11 signifies the beginning of a new era in fine photography. It is the ultimate blending of electronics and optics: an infinitely versatile camera that frees you to capture the image in your mind's eye, without compromise.

For all its sophistication, the XD-11 is remarkably easy to use. Not only does it give you automatic exposure control, but it can make exposure corrections that you fail to make.

The XD-11 is compact and lightweight. But most important, it is comfortable. From the very first moment you experience the XD-11, it will seem to be almost a part of you, an extension of your hands, your eyes, your mind.

And the XD-11 is more than a camera. It is the heart of a system that offers the creative potential of an Auto Winder, an automatic electronic flash and an unparalleled array of lenses and accessories. Look into the future of photography with the Minolta XD-11. Only your imagination can hold you back.



Minolta XD-11

It defines the future of photography.



1 Multi-Mode Exposure Control Systems.

The XD-11 gives you unequalled ability to achieve perfect exposures with your choice of aperture or shutter priority automation or fully-metered manual exposure control.

2 Automatic exposure compensation.

In the shutter priority mode, the XD-11 will warn you when the lens has reached maximum or minimum aperture. If you don't adjust the shutter speed for correct exposure, the XD-11 will do it for you, automatically.

3 Fully Metered Manual.

The XD-11 offers you the option of manual control for creativity as you define it. The metering system continues to function and both shutter speed and aperture appear in the viewfinder.

4 High-speed, high accuracy SPD metering.

The central-zone weighted (overall) Silicon Photo Diode metering system is superbly sensitive to even the smallest changes in light. Yet it can react to the most drastic intensity changes with virtually no delay.

5 Compact, lightweight and easy to handle.

The XD-11 is one of the smallest, lightest SLR's in existence. It is contoured to fit your hands and is cushioned in glove-soft leather. Even with Auto Winder D and Auto Electroflash 200X attached, it's beautifully balanced.

6 Total-information Viewfinder.

All you need to know to compose, focus, monitor or adjust exposure in any mode is instantly available in an incredibly bright viewfinder. You never have to lose sight of your subject to make camera adjustments.

7 Lightweight Auto Winder/ synchronized Electronic Flash

You can shoot up to two frames per second with the Auto Winder D. The Auto Electroflash 200X provides accurate flash exposures and synchronizes with the Auto Winder at almost 2 frames per second.

8 The XD-11 accepts all Rokkor-X and Celtic lenses.

Every Minolta lens ever made for a Minolta SLR will provide aperture-priority automation with the XD-11, without modification. A new series of MD Rokkor-X lenses provide automation in both aperture and shutter priority modes.



Unlimited creative freedom with multi-mode operation.

No longer do you have to choose between aperture-priority or shutter-priority automation. The Minolta XD-11 gives you both, as well as metered-manual operation.



By simply setting the mode selector to "A", you can control lens aperture and the XD-11 will automatically provide the correct shutter speed.



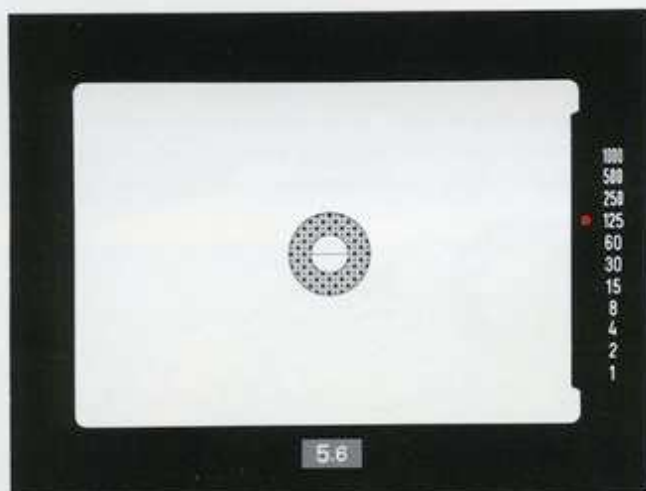
With the mode selector at "S", you set the shutter speed and the XD-11 will automatically choose the correct aperture.



Or you can use the "M" setting on the mode selector and maintain complete control over both aperture and shutter speed.



Aperture-priority for depth-of-field control and automatic exposure in close-up and mirror lens photography.



Aperture-priority lets you control depth-of-field with great precision while still enjoying the advantages of automatically accurate exposure control.

Simply move the XD-11's mode-selector to "A" and choose the lens aperture that will produce the desired area of sharp focus behind and in front of your subject. The smaller the aperture, the greater the zone of sharpness. The larger the aperture, the narrower the zone of sharpness. A built-in depth-of-field preview button lets you see exactly what part of your picture will be sharp at any given aperture.

And aperture priority automation is the only way to achieve automatic exposure control with long mirror lenses or close-up equipment.

Once you select the aperture, the XD-11 will automatically choose the correct shutter speed for the light conditions present. Shutter speeds are set steplessly from 1 to 1/1000th second. So if light conditions call for 1/367th or 1/625th of a second, that's what you'll get. Not the nearest round number. A special control lets you override the automatic setting up to ± 2 EV.

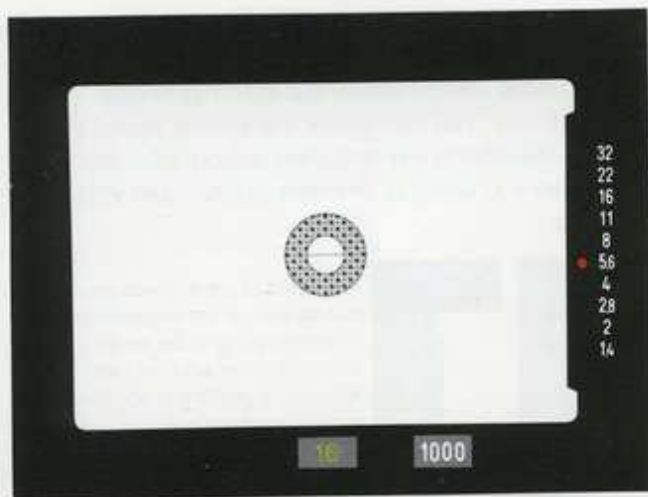
The aperture you select will appear at the bottom of the viewfinder. An LED indicator will light up in the finder to tell you what shutter speed the XD-11 is setting automatically. You can check the shutter speed by just slightly depressing the operating button. Warning LED's will signal you when to increase or decrease your lens opening.



In aperture priority mode red triangle lights in the viewfinder serve as exposure over/under range indicators. When either of these LEDs light, user should adjust aperture to obtain correct exposure.



Shutter-priority for control over speeds from 1 to 1/1000th second.



When shutter speed control is more important to your picture, just move the XD-11's mode selector to "S". Then you can select the shutter speed and the camera will automatically set the aperture for correct exposure. If you want to stop action, or emphasize action with intentional blur, the shutter-priority mode makes it easy to achieve your creative goal.

Just set the aperture on a Minolta MD Rokkor-X lens (see page 30) to its minimum aperture. That's the number marked in green. It corresponds to the green "S" on the mode selector. Then pick the shutter speed for the results you want. The XD-11 does the rest. It will pick the aperture that provides correct exposure in combination with the speed you have selected. If the lens reaches its widest or smallest opening and there is still not enough or too much light, LED's in the XD-11's viewfinder will warn you to change shutter speeds.

And even if you fail to heed these warnings, the XD-11 will on its own, make the necessary adjustment to automatically prevent an exposure error within the working range of the shutter.

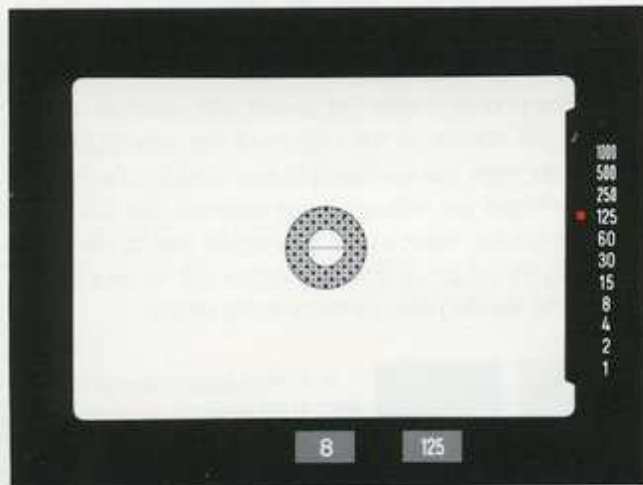
In shutter-priority mode, the speed and aperture you choose will appear at the bottom of the viewfinder. Slightly depress the operating button and LED's in the viewfinder will indicate what aperture the XD-11 is automatically selecting. If you would like to vary it as much as ± 2 EV, a special control will let you do so without leaving the shutter-priority mode.



In shutter priority mode, red triangle lights in the viewfinder serve as over/under range indicators. When either of these LEDs light, the camera automatically compensates to provide correct exposure, within the working range of the shutter.



Metered-manual control.



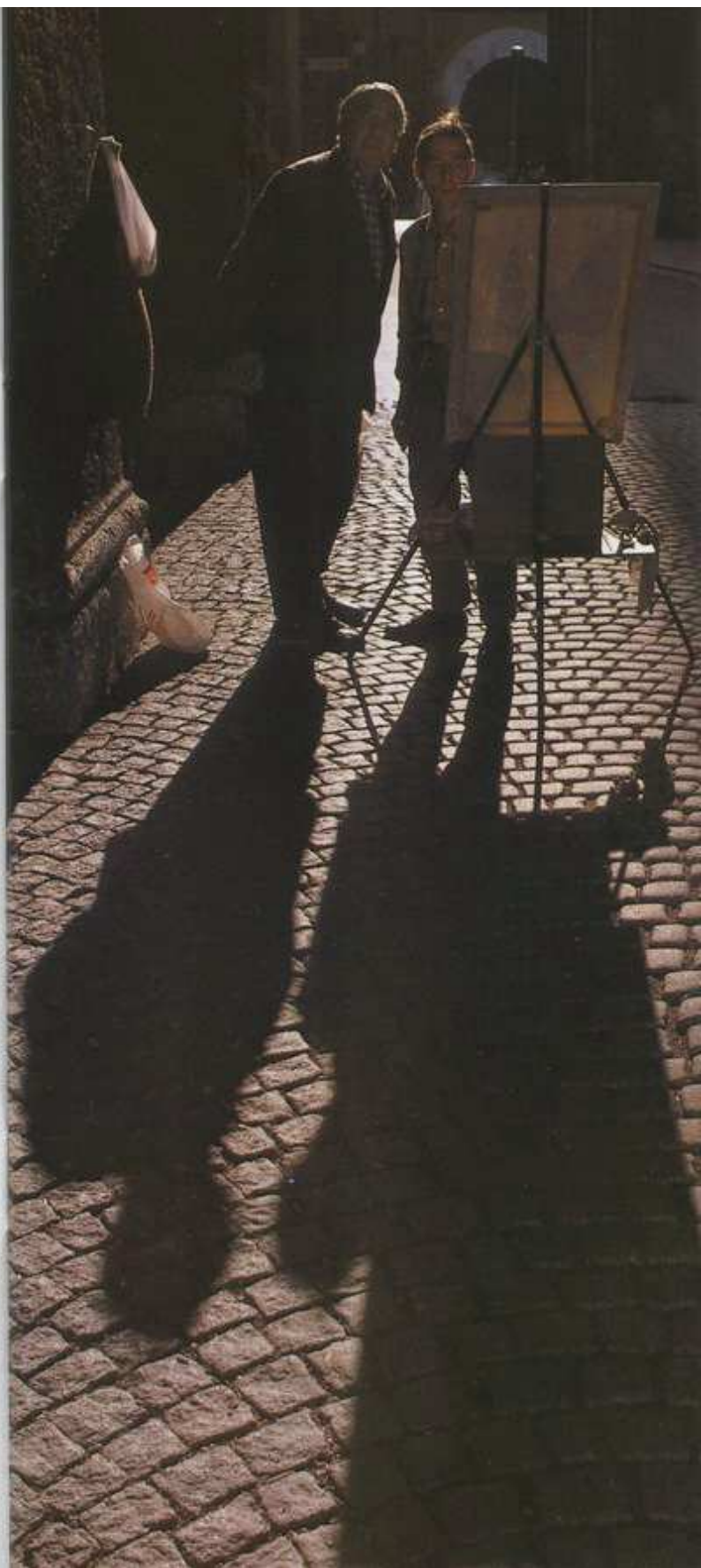
By setting the mode selector to "M", you can set both aperture and shutter speed yourself. Your setting will appear in windows at the bottom of the viewfinder.

As you change aperture, an LED indicates which shutter speed will provide correct exposure.

This information may be used as a guide by comparing with the shutter speed actually selected. Of course, you can deliberately under or over expose by ignoring the information provided by the XD-11's metering system.



In manual mode, the over/under range indicators may be disregarded and any aperture-shutter combination may be set for full manual control.



The Auto Winder D.
Smallest, lightest, quietest.



If you've ever missed a great shot simply because you couldn't advance the film fast enough, you'll appreciate our very fast, super-smooth Auto Winder D. It lets you shoot up to two frames per second, in any mode of operation, or single frame in the "O" position, if camera batteries fail.

The Auto Winder D was specifically designed for the XD-11. It is not an afterthought. This integral design approach is seen from the time you first attach it. There are no covers or caps to remove, store or lose. Just attach the Auto Winder to the bottom of the camera and turn it on. You're then ready to shoot sequences, individual exposures or even multi-image exposures.

Film can be loaded and rewound in the XD-11 with the Auto Winder in place. It has a blinking LED to tell you when you're running properly. The LED will glow steadily when you've completed a roll. And the Auto Winder turns itself off at this time so film can't be damaged.

The coreless micromotor that drives the Auto Winder was especially constructed to provide long service with a minimum of operating sound. It needs only four penlight batteries and, when equipped with nickel-cadmium batteries, will drive over 150 36-exposure rolls of film.



The Auto Electroflash 200X.
Electronic flash at Auto Winder speeds.



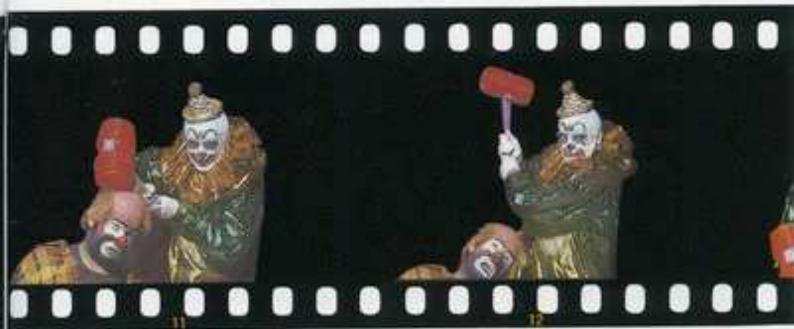
Slip the Auto Electroflash 200X into the hot shoe on top of the XD-11 pentaprism and turn it on. You're ready to take flash pictures. There's no need to re-adjust the shutter to "X" synchronization. The Auto Electroflash 200X automatically sets the shutter at a fast 1/100th of a second when fully recycled and shutter released.



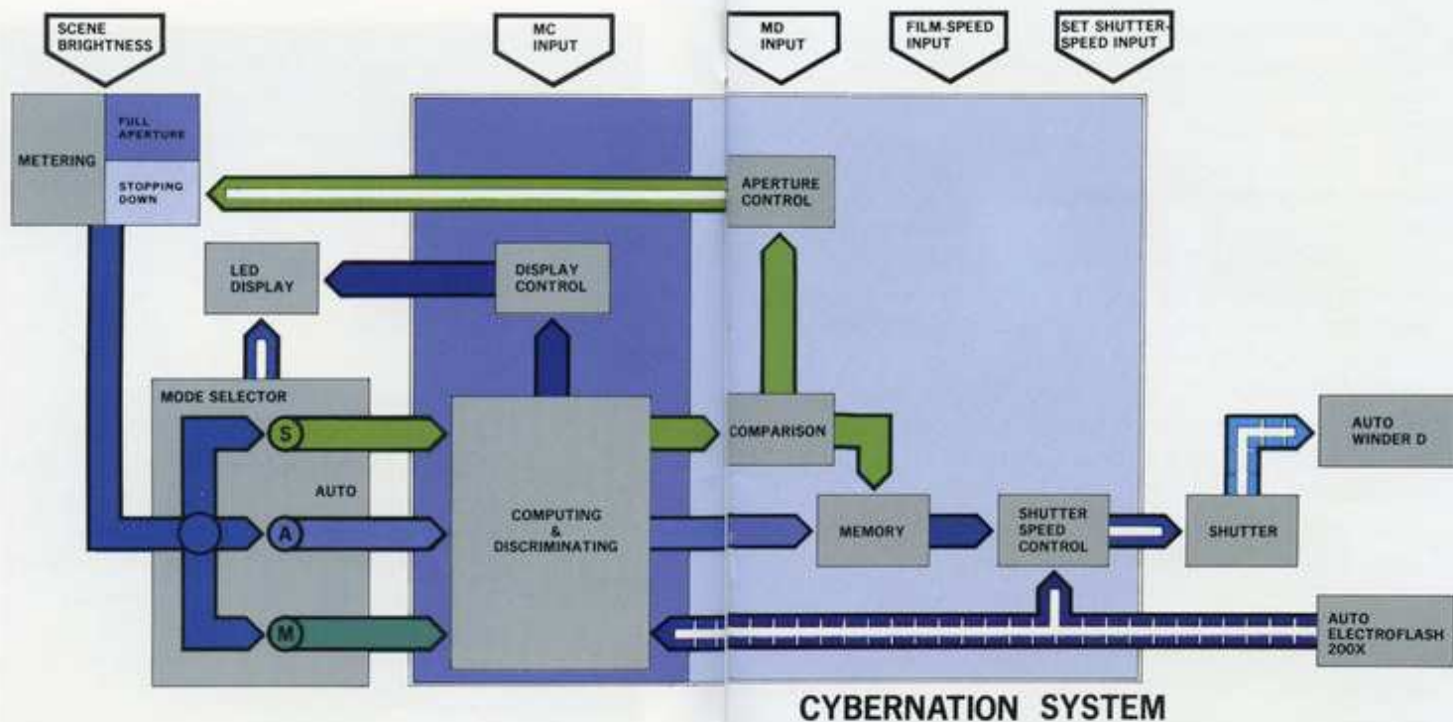
For maximum versatility, the Auto Electroflash can be used both automatically and manually. On "automatic" the 200X will provide the right amount of light for correct exposure. In manual operation, the 200X will recycle fast enough to fire almost two times per second in sync. with the Auto Winder. In both automatic and manual modes the 200X has high and low settings for maximum light output or to conserve battery power.

LED flash-ready monitor in the viewfinder.

When the 200X is fully recycled a red LED will blink in the viewfinder. But until the 200X is fully recycled, the XD-11 will function automatically in either aperture or shutter priority mode, or you may use it manually. When the flash is fully recycled, it will automatically set the shutter at 1/100 second. This makes it virtually impossible to miss a picture.



Electronics at work in the XD-11.



The Minolta XD-11 is the most completely automated 35mm SLR ever developed to provide all control options to the photographer.

The chart outlines the operational flow of the electronic systems. The following describes the major steps the XD-11 takes in creating your photograph.

Shutter-Priority Mode.

The electronic capabilities of the XD-11 analyze the pre-selected shutter speed in combination with the light values read by the Silicon Photo Diode. The MD Rokkor-X lens is then automatically adjusted to the aperture which will provide correct exposure at the pre-selected shutter speed. The viewfinder provides an LED read-out of the aperture being set automatically.

Aperture and Manual Modes.

In these modes, light values are read and interpreted in relation to the pre-selected aperture and displayed in the viewfinder in terms of shutter speeds. In aperture-priority automation, the XD-11 will automatically adjust the shutter to the correct speed. In manual, viewfinder LED's will read out the suggested speed for you to adjust at your discretion. In the manual mode, the viewfinder shows both the aperture and shutter speed selected.

Silicon Photo Diode (SPD)

Light values are read by this advanced system and relayed to the electronic processors in the XD-11 for exposure adjustments.

Electro-Magnetic Shutter Release.

This vibration free control is incredibly quiet and smooth. Depressing it slightly instantly activates the metering system and lights up the LED's in the viewfinder. A little more pressure and the shutter is released. The XD-11 will also operate on the mechanical speed "O" (which is 1/100th of a second and also the electronic flash speed) and "B" for time exposures. These two speeds allow the XD-11 to operate when battery power fails.

"Final Check" Metering.

In any mode, light for the actual exposure is metered with the lens stopped-down to the taking aperture just before the shutter opens for maximum fail-safe accuracy. If you have ignored an LED warning about over or under exposure, the camera's electronics will compensate automatically in the shutter-priority mode within the working range of the shutter.



Total Information Viewfinder: Brighter, more Informative.



In the aperture-priority mode :

1. Split-micro spot
2. Shutter speed scale
3. Over/under range indication
Over range indication also serves as flash ready signal
4. Pre-selected aperture



In the shutter-priority mode :

1. Split-micro spot
2. Aperture Scale
3. Over/under range indication
Over range indication also serves as flash ready signal
4. Pre-set aperture (minimum is green)
5. Pre-selected shutter speed



In the manual mode :

1. Split-micro spot
2. Shutter speed scale
3. Over/under range indication
Over range indication also serves as flash ready signal
4. Pre-selected aperture
5. Pre selected shutter speed

*Creative and convenient features for
uninterrupted reliability and lasting work*

The XD-11 incorporates a newly developed focusing screen which is unsurpassed for brightness. This revolutionary screen is made brighter by over 2,000,000 conical prisms. Instead of scattering the light as it comes through the screen, these lenses direct it to the top surface of the screen and thereby dramatically increase light transmission. The result is an edge-to-edge, top-to-bottom brightness and consistency not found in any other SLR. Focusing in low light, even with extremely long lenses is much easier, as is critical focusing out to the very edges of the screen. When you look through the XD-11's viewfinder, you'll see a split-image focusing spot in the center surrounded by microprism collar. On the right are light emitting diodes adjacent to the shutter speed or aperture scale. A glowing LED indicates the proper shutter speed in manual mode. It indicates the shutter speed being set automatically in aperture-priority mode. In shutter-priority mode, the shutter scale is replaced by an aperture scale and LED's indicate the aperture being set automatically.

Precise Multiple Exposure Registration.

Push the film rewind button on the bottom of the XD-11 and the film advance lever will only cock the shutter. The film won't move at all. The film rewind lever on the Auto Winder functions the same way. So any number of images can be exposed on the same frame without any loss in frame registration. Result: dramatically different multiple exposures with pushbutton ease.

Eyepiece shutter.

Especially useful for self-timed, close-up or tripod operation in an automatic mode. It opens or closes the viewfinder at the eyepiece to prevent light from entering the metering system and affecting the metering functions. A white dot tells you when it is in place.

XD-11 Standard Lenses.

Take your choice of two standard lenses. Each with a secure waffle-pattern focusing grip for faster, easier handling. The MD Rokkor-X 50mm f/1.4 lens is recommended for general purpose shooting. The MD Rokkor-X 50mm f/1.7 is a more economical alternative. They all have Minolta's exclusive Achromatic coating and are designed to operate in all the XD-11 modes. And like all Minolta lenses, they're made in our own factories—to insure optimum performance.

Hot Shoe.

This integral hot shoe on the XD-11 provides direct "X" (1/100th second) synchronization for electronic flash. It permits the Auto Electroflash 200X to automatically set the shutter speed at 1/100th sec. No cables are necessary. (A standard PC terminal is provided for off-camera flash operation.)



Specifications

XD-11

Type: Compact 35mm SLR with aperture-or shutter-priority automatic or metered/full-manual exposure control

Lens mount: Minolta SLR bayonet. Standard lenses: 50mm f/1.4 or f/1.7 MD Rokkor-X

Auto-exposure range: EV 1 to EV 18 at ASA 100 with f/1.4 lens

Shutter: Vertical-traverse metal-blade focal-plane type, with electromagnetic release

Electronic speeds: 1/1000 to 1 sec. steplessly or steps or at "X" (1/100 sec.). Mechanically settings: "0" (1/100 sec.), "B"

Metering: TTL averaging type with more influence from broad central zone of screen, by silicon photo diode. Film speed range: ASA 12 to 3200. Auto-exposure adjustment: Up to ± 2 EV

Mirror: Oversize quick-return type

Viewfinder: Eyelevel fixed pentaprism type. Fresnel-field focusing screen with an artificially regular-patterned focusing spot surrounded by microprism band.

Visible around frame: Shutter speed and f-number on "S" or "M" mode, f-number on "A" mode; LED indication of aperture on "S" or shutter speed on "A" or "M"; LED over-/under-range indicators

Flash contact: X contact: 1/100 sec. (X) and slower speeds PC terminal and hot shoe

Film advance: Motorized: With Auto Winder D. Manual: By lever

Power: Two 1.5v silver-oxide cells

Others: Self-timer, memo holder, safe load signal, ASA-DIN conversion scale, eyepiece shutter and multiple exposure

Size and weight: 51 x 86 x 136mm (2 x 3-3/8 x 5-3/8 in.) without lens, 560g (19-11/16oz.) without lens and power cells

Accessories: Auto Winder D, Auto Electroflash 200X, Remote Cord S & L

AUTO WINDER D

Type: Automatic film winder for Minolta XD

Winding time: Approx. 0.4 sec.

Winding speed: Up to 2fps

Power source: Four 1.5v AA-size (penlight) cells

Drive motor: Coreless-type micromotor

Winding capacity: Successive 36 exp. cartridges
Sealed carbon-zinc: Approx. 50*
Alkaline-manganese: Approx. 70*
Nickel cadmium: Approx. 150*

*as determined by Minolta's testing method

Size and weight: 35 x 37 x 136mm (1-3/8 x 1-7/16 x 5-3/8 in.), 205g (7-3/16oz.) without cells

AUTO ELECTROFLASH 200X

Type: Clip-on auto/manual series -SCR electronic flash unit with camera-control provision

Guide number:	Meters, ASA 100	Feet, ASA 25
Automatic:	Up to 20	Up to 33
Manual "Hi":	20	33
Manual "Lo":	7	12

Sync. contact: Hot shoe only

Power source: Four AA-size (penlight) cells

Recycling time/ No. of bursts:	1.5v sealed carbon-zinc	1.5v alkaline- manganese	1.2v 450mAh nickel cadmium
Auto operation:*	0.5-6 sec./ 70-600	0.5-5 sec./ 300-2200	0.3-3 sec./ 100-650
Manual operation:** "Hi":	6 sec./70	5 sec./300	3 sec./100
"Lo":	1 sec./400	1 sec./1600	0.5 sec./500

No. of bursts with winder:** "Lo": more than 40 at 2 pfs

* with fresh or fully charged cells (as determined by Minolta's testing method)

** depending upon subjects distance and flash setting

Aperture/

distance range:

	ASA	25	50	100	200	400	Subject distance
Red	1.4	2	2.8	4	5.6	1-7m (3'3"-23')	
Yellow	2.8	4	5.6	8	11	0.7-3.5m (2'3"-11')	

Flash duration: Auto: Approx. 1/40000 to 1/1000 sec.

Manual: "Hi": Approx. 1/1000 sec.

"Lo": Approx. 1/6000 sec.

Coverage: 45° vertically, 60° horizontally

Sensor angle acceptance: Approx. 20°

Size and weight: 56 x 70 x 90mm (2-3/16 x 2-3/4 x 3-9/16 in.), 210g (7-3/8 oz.) without cells

Perspective Conversion Photos



7.5mm



16mm



17mm



28mm



35mm



100mm



135mm



500mm(100-500mm ZOOM)



800mm



21mm



24mm



50mm



85mm



200mm



300mm



1600mm

Every Rokkor and Celtic lens can be used with the Minolta XD-11.

From 7.5mm fisheye to 1600mm mirror super-telephoto...every lens ever made by Minolta for a Minolta SLR will provide aperture-priority exposure automation operation without modification or additional expense. People who have already invested in Rokkor, Rokkor-X or Celtic lenses are thus assured that they are perfectly suited to the XD-11.

For use of the XD-11 in shutter-priority mode, Minolta offers a new series of "MD" Rokkor-X lenses. These feature an advanced linkage system, a dynamic action diaphragm and a special pin to activate the aperture readouts in the viewfinder. Only MD series lenses are designed for shutter priority operation. Minolta lenses without the MD designation and other brands with Minolta mounts are not suited for shutter-priority automation.

Minolta is one of only a few camera manufacturers in world to make its own lenses. We search the world for optical-grade sands and rare earths. Even the platinum crucibles in which the glass is melted are made by Minolta. We melt, grind and polish the materials, computer-designing, hand selecting and matching every lens element to assure optimum optical performance. And constantly inspecting to achieve the perfection which has made Minolta America's best-selling imported camera brand.



7.5 mm f/4 MD Fisheye Rokkor-X

Construction: 12 elements in 8 groups

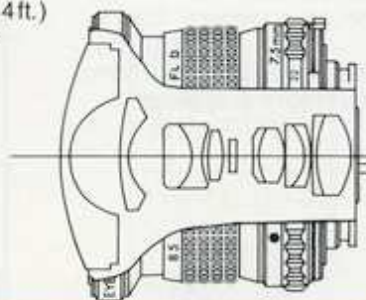
Angle of view: 180°

Focusing: Fixed at 1.2m (4ft.)

Covering 0.5m
(1.75ft.) to
infinity at full
aperture

Filters: Built-in

Diaphragm: Auto preset
f/4—f/22



16 mm f/2.8 MD Fisheye Rokkor-X

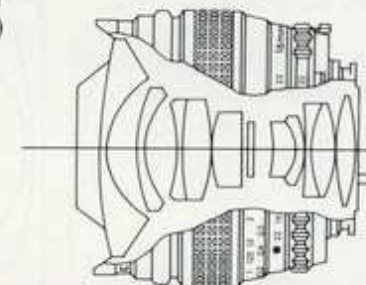
Construction: 11 elements in 8 groups

Angle of view: 180°

Min. focus distance: 0.3m
(1 ft.)

Filters: Built-in

Diaphragm: Auto preset
f/2.8—f/22



17 mm f/4 MC W Rokkor-X

Construction: 11 elements in 9 groups

Angle of view: 104°

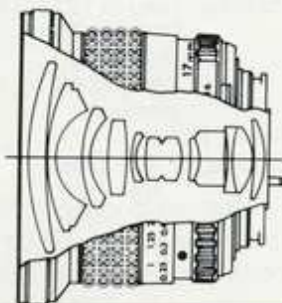
Min. focus distance: 0.25m

(0.8 ft.)

Filter thread diameter: 72mm

Diaphragm: Auto preset

f/4—f/16

**21 mm f/2.8 MC W Rokkor-X**

Construction: 12 elements in 9 groups

Angle of view: 91°

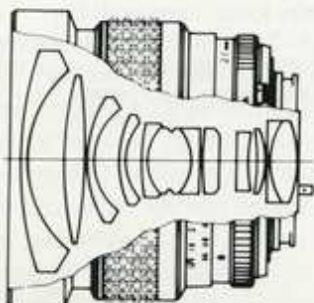
Min. focus distance: 0.25m

(0.8 ft.)

Filter thread diameter: 72mm

Diaphragm: Auto preset

f/2.8—f/16

**24 mm f/2.8 MD W Rokkor-X**

Construction: 9 elements in 7 groups

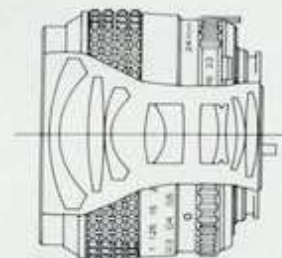
Angle of view: 84°

Min. focus distance: 0.3m (1 ft.)

Filter thread diameter: 55mm

Diaphragm: Auto preset

f/2.8—f/22

**28 mm f/2.8 MD W Rokkor-X**

Construction: 7 elements in 7 groups

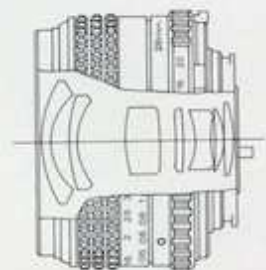
Angle of view: 76°

Min. focus distance: 0.3m (1 ft.)

Filter thread diameter: 55mm

Diaphragm: Auto preset

f/2.8—f/22

**28 mm f/2 MD W Rokkor-X**

Construction: 10 elements in 9 groups

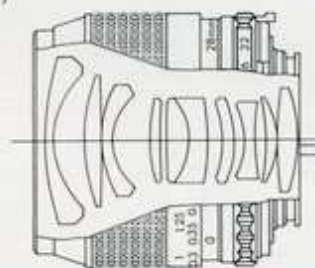
Angle of view: 76°

Min. focus distance: 0.3m (1 ft.)

Filter thread diameter: 55mm

Diaphragm: Auto preset

f/2—f/22

**35 mm f/2.8 MD W Rokkor-X**

Construction: 5 elements in 5 groups

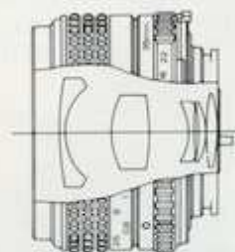
Angle of view: 64°

Min. focus distance: 0.3m (1 ft.)

Filter thread diameter: 55mm

Diaphragm: Auto preset

f/2.8—f/22



35 mm f/1.8 MC W Rokkor-X

Construction: 8 elements in 6 groups

Angle of view: 64°

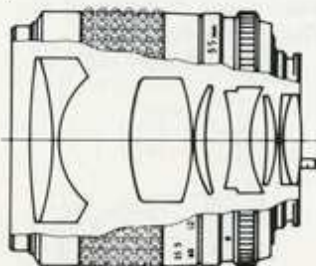
Min. focus distance: 0.3m (1 ft.)

Filter thread diameter:

55mm

Diaphragm: Auto preset

f/1.8—f/16



50 mm f/1.7 MD Rokkor-X

Construction: 6 elements in 5 groups

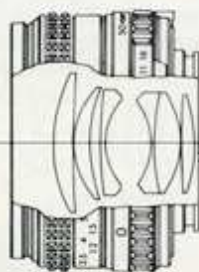
Angle of view: 47°

Min. focus distance: 0.45m (1.47ft.)

Filter thread diameter: 55mm

Diaphragm: Auto preset

f/1.7—f/16



50 mm f/1.4 MD Rokkor-X

Construction: 7 elements in 5 groups

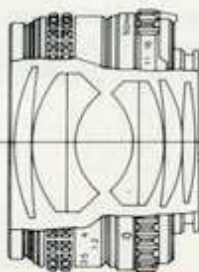
Angle of view: 47°

Min. focus distance: 0.45m (1.47 ft.)

Filter thread diameter: 55mm

Diaphragm: Auto preset

f/1.4—f/16



58 mm f/1.2 MC Rokkor-X

Construction: 7 elements in 5 groups

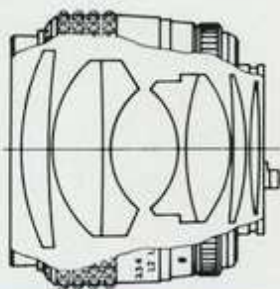
Angle of view: 41°

Min. focus distance: 0.6m (2ft.)

Filter thread diameter: 55mm

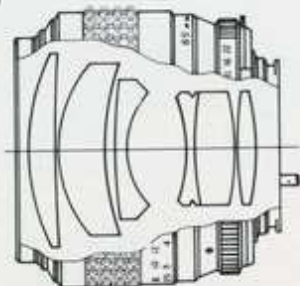
Diaphragm: Auto preset

f/1.2—f/16

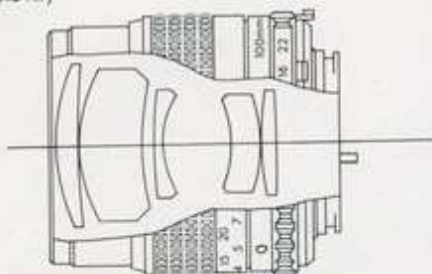


85 mm f/1.7 MC Rokkor-X

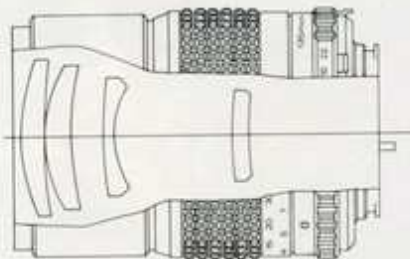
Construction: 6 elements in 5 groups
 Angle of view: 29°
 Min. focus distance: 1 m (3.3 ft.)
 Filter thread diameter: 55 mm
 Diaphragm: Auto preset
 f/1.7—f/22

**100 mm f/2.5 MD Tele Rokkor-X**

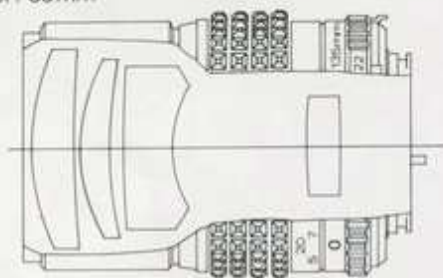
Construction: 5 elements in 5 groups
 Angle of view: 24°
 Min. focus distance: 1 m (3.3 ft.)
 Filter thread diameter:
 55 mm
 Diaphragm: Auto preset
 f/2.5—f/22

**135 mm f/3.5 MD Tele Rokkor-X**

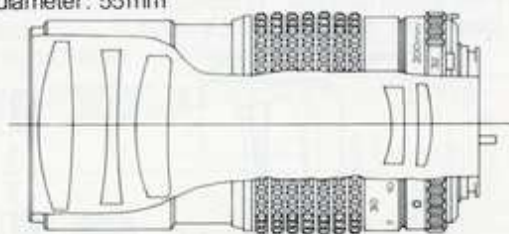
Construction: 4 elements in 4 groups
 Angle of view: 18° Min. focus distance: 1.5 m (5 ft.)
 Filter thread diameter: 55 mm
 Diaphragm:
 Auto preset
 f/3.5—f/22

**135 mm f/2.8 MD Tele Rokkor-X**

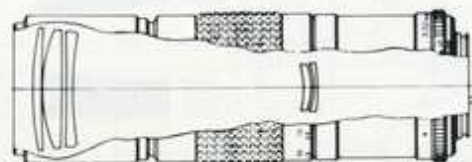
Construction: 4 elements in 4 groups
 Angle of view: 18° Min. focus distance: 1.5 m (5 ft.)
 Filter thread diameter: 55 mm
 Diaphragm:
 Auto preset
 f/2.8—f/22

**200 mm f/4 MD Tele Rokkor-X**

Construction: 5 elements in 5 groups
 Angle of view: 12°30'
 Min. focus distance: 2.5 m (8 ft.)
 Filter thread diameter: 55 mm
 Diaphragm:
 Auto preset
 f/4—f/32

**300 mm f/5.6 MC Tele Rokkor-X**

Construction: 5 elements in 5 groups
 Angle of view: 8°10'
 Min. focus distance: 4.5 m (15 ft.)
 Filter thread diameter: 55 mm
 Diaphragm: Auto preset f/5.6—f/22



300mm f/4.5 MC Tele Rokkor-X

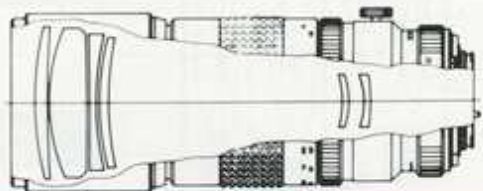
Construction: 6 elements in 6 groups

Angle of view: 8°10'

Min. focus distance: 4.5m (15ft.)

Filter thread diameter: 72mm

Diaphragm: Auto preset f/4.5—f/22



400mm f/5.6 MC Apo Tele Rokkor-X

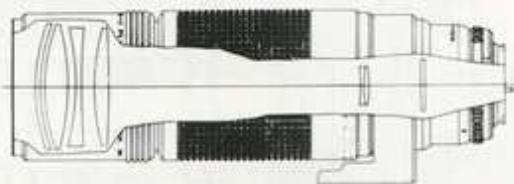
Construction: 7 elements in 6 groups

Angle of view: 6°10'

Min. focus distance: 5m (16ft.)

Filter thread diameter: 72mm

Diaphragm: Auto preset f/5.6—f/32



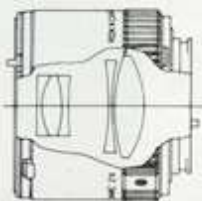
MC 2X Converter for 400mm f/5.6

MC Apo Tele Rokkor-X

Type: Coupled optical type for use between camera body and lens

Construction: 5 elements in 3 groups

With the 400mm f/5.6 MC Apo Tele Rokkor-X, the focal length of the lens and converter combination is 800mm and maximum aperture is f/11.



800mm f/8 RF Rokkor-X

Construction: 2 mirrors, 8 lens elements in 7 groups

Angle of view: 3°10'

Min. focus distance: 8m (26ft.)

Filters: Integral lens-element type

F-stops: f/8 and
f/16 by ND filters



1600mm f/11 RF Rokkor-X

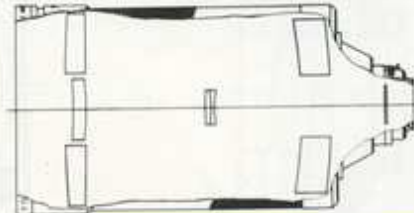
Construction: 2 mirrors, 6 lens elements in 5 groups

Angle of view: 1°30'

Min. focus distance: 20m (70ft.)

Filters: Integral lens-element type

F-stops: f/11 and f/22 by ND filters



40-80mm f/2.8 MC Zoom Rokkor-X

Construction: 12 elements in 12 groups

Angle of view: 57°—30°

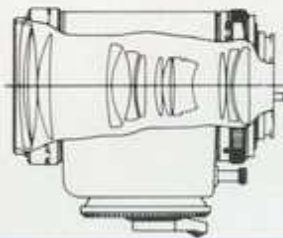
Min. focus distance: 1m (3.3ft.)

37cm (14.56in.) at close-up setting

Filter thread diameter: 55mm

Diaphragm: Auto preset

f/2.8—f/22



80-200mm f/4.5 MD Zoom Rokkor-X

Construction: 14 elements in 10 groups

Angle of view: 30°—12°30'

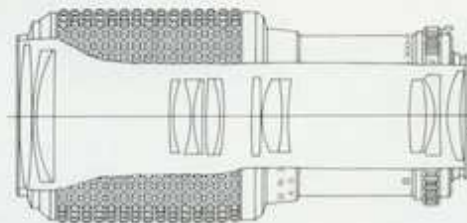
Min. focus distance: 1.8m (6ft.)

Filter thread diameter: 55mm

Diaphragm:

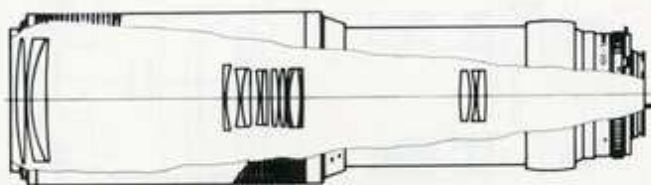
Auto preset

f/4.5—f/32



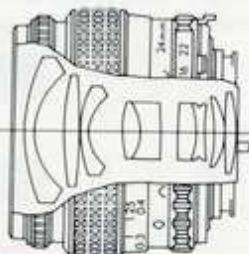
100-500mm f/8 MD Zoom Rokkor-X

Construction: 16 elements in 10 groups
Angle of view: 24°—5°
Min. focus distance: 2.5m (8ft.)
Filter thread diameter: 72mm
Diaphragm: Auto preset f/8—f/32



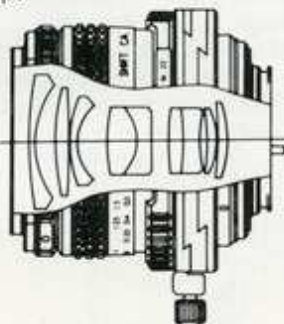
24mm f/2.8 MD VFC Rokkor-X

Construction: 9 elements in 7 groups
Angle of view: 84°
Min. focus distance: 0.3m (1ft.)
Filter thread diameter: 55mm
Diaphragm: Auto preset
f/2.8—f/22



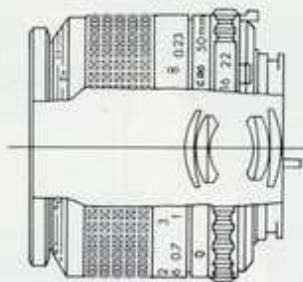
35mm f/2.8 Shift CA Rokkor-X

Construction: 9 elements in 7 groups
Angle of view: 63°
Min. focus distance: 0.3m (1ft.)
Filter thread diameter: 55mm
Diaphragm: Auto preset
f/2.8—f/22



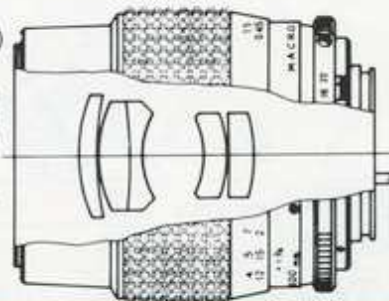
50mm f/3.5 MD Macro Rokkor-X

Construction: 6 elements in 4 groups
Angle of view: 47°
Min. focus distance: 0.23m (9in.)
Filter thread diameter: 55mm
Diaphragm: Auto preset
f/3.5—f/22
Accessories: Life-Size Adapter



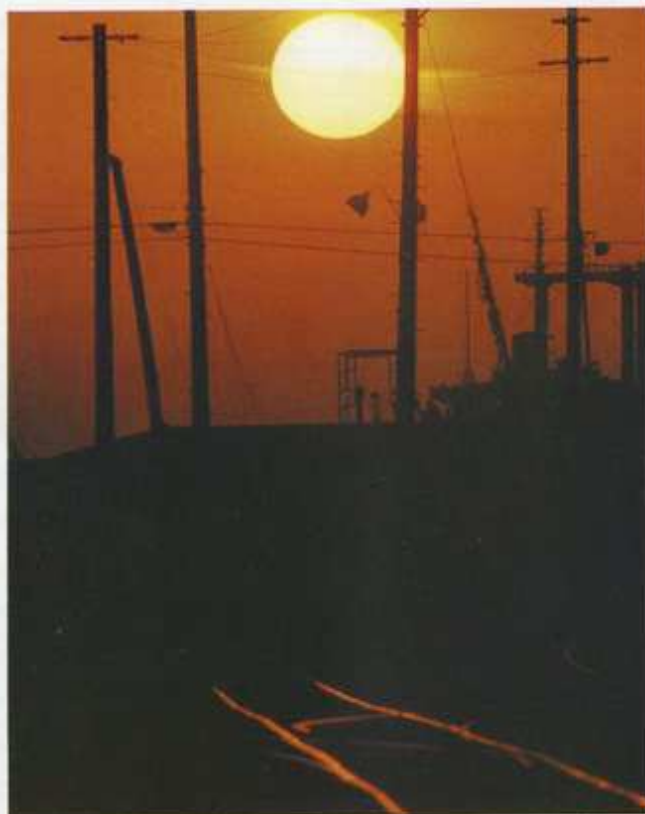
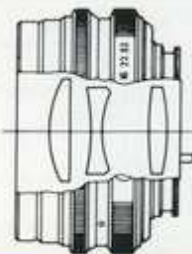
100mm f/3.5 MC Macro Rokkor-X

Construction: 5 elements in 4 groups
Angle of view: 24°
Min. focus distance:
0.45m (1.5ft.)
Filter thread diameter:
55mm
Diaphragm: Auto preset
f/3.5—f/22
Accessory: Life-Size
Adapter



100mm f/4 Auto Bellows Rokkor-X

Construction: 3 elements in 3 groups
Angle of view: 24°
Filter thread diameter: 55mm
Diaphragm: Auto preset f/4—f/32



Rokkor-X Lenses and Specifications

LENS	ELEMENTS GROUPS	GROUPS	METER COUPLED AUTO DIAPHRAGM	ANGLE OF VIEW
7.5 mm f/4 MD FISHEYE ROKKOR-X	12	8	Yes	180°
16 mm f/2.8 MD FISHEYE ROKKOR-X	11	8	Yes	180°
17 mm f/4 MC W ROKKOR-X	11	9	Yes	104°
21 mm f/2.8 MC W ROKKOR-X	12	9	Yes	91°
24 mm f/2.8 MD W ROKKOR-X	9	7	Yes	84°
28 mm f/2.8 MD W ROKKOR-X	7	7	Yes	75°
28 mm f/2 MD W ROKKOR-X	10	9	Yes	75°
35 mm f/2.8 MD W ROKKOR-X	5	5	Yes	63°
35 mm f/1.8 MC W ROKKOR-X	8	6	Yes	63°
50 mm f/1.7 MD ROKKOR-X	6	5	Yes	47°
50 mm f/1.4 MD ROKKOR-X	7	5	Yes	47°
58 mm f/1.2 MC ROKKOR-X	7	5	Yes	41°
85 mm f/1.7 MC ROKKOR-X	6	5	Yes	29°
100 mm f/2.5 MD TELE ROKKOR-X	5	5	Yes	24°
135 mm f/3.5 MD TELE ROKKOR-X	4	4	Yes	18°
135 mm f/2.8 MD TELE ROKKOR-X	4	4	Yes	18°
200 mm f/4 MD TELE ROKKOR-X	5	5	Yes	12°30'
300 mm f/5.6 MC TELE ROKKOR-X	5	5	Yes	8°
300 mm f/4.5 MC TELE ROKKOR-X	6	6	Yes	8°
400 mm f/5.6 MC APO TELE ROKKOR-X	7	6	Yes	6°
800 mm f/8 RF ROKKOR-X	8 2 mirrors	7	No	3°
1600 mm f/11 RF ROKKOR-X	6 2 mirrors	5	No	1°30'
40-80 mm f/2.8 MC ZOOM ROKKOR-X	12	12	Yes	57°-30°
80-200 mm f/4.5 MD ZOOM ROKKOR-X	14	10	Yes	30°-12°30'
100-500 mm f/8 MD ZOOM ROKKOR-X	16	10	Yes	24°-5°
24 mm f/2.8 MD VFC ROKKOR-X	9	7	Yes	84°
35 mm f/2.8 SHIFT CA ROKKOR-X	9	7	No	64°
50 mm f/3.5 MD MACRO ROKKOR-X	6	4	Yes	47°
100 mm f/3.5 MC MACRO ROKKOR-X	5	4	Yes	24°
100 mm f/4 AUTO BELLOWS ROKKOR-X	3	3	No	24°

MINIMUM FOCUS	MINIMUM F-STOP	FILTER MOUNT DIAMETER	DIMENSIONS	WEIGHT
1.75 ft.	f/22	Built-in	ø68 x 63 mm	360 g (12 1/16 oz.)
1 ft.	f/22	Built-in	ø70.5 x 63.5 mm	440 g (15 1/2 oz.)
0.8 ft.	f/16	72 mm	ø75 x 53 mm	330 g (11 1/8 oz.)
0.8 ft.	f/16	72 mm	ø75 x 66.5 mm	510 g (1 lb. 1 1/16 oz.)
1 ft.	f/22	55 mm	ø65 x 50 mm	275 g (9 1/16 oz.)
1 ft.	f/22	55 mm	ø64.5 x 43.5 mm	240 g (8 1/16 oz.)
1 ft.	f/22	55 mm	ø65.5 x 61 mm	340 g (12 oz.)
1 ft.	f/22	55 mm	ø64.5 x 41.5 mm	205 g (7 1/16 oz.)
1 ft.	f/16	55 mm	ø66 x 67.5 mm	415 g (14 1/8 oz.)
1.48 ft.	f/16	55 mm	ø64 x 40 mm	195 g (6 7/8 oz.)
1.48 ft.	f/16	55 mm	ø64 x 40 mm	245 g (8 1/2 oz.)
2 ft.	f/16	55 mm	ø70.5 x 54 mm	475 g (1 lb. 1/8 oz.)
3.3 ft.	f/22	55 mm	ø71 x 62 mm	455 g (1 lb.)
3.3 ft.	f/22	55 mm	ø64.5 x 64.5 mm	375 g (13 1/8 oz.)
5 ft.	f/22	55 mm	ø64.5 x 87 mm	420 g (14 1/16 oz.)
5 ft.	f/22	55 mm	ø64.5 x 89.5 mm	535 g (1 lb. 2 1/16 oz.)
8 ft.	f/32	55 mm	ø64.5 x 131 mm	520 g (1 lb. 2 1/16 oz.)
15 ft.	f/22	55 mm	ø65 x 186 mm	695 g (1 lb. 8 1/2 oz.)
15 ft.	f/22	72 mm	ø80 x 199.5 mm	1175 g (2 lb. 9 1/2 oz.)
16 ft.	f/32	72 mm	ø83 x 256.5 mm	1470 g (3 lb. 3 1/2 oz.)
26 ft.	f/16	Built-in	ø125 x 166.5 mm	2000 g (4 lb. 6 1/16 oz.)
70 ft.	f/22	Built-in	ø178 x 322.5 mm	6700 g (14 lb. 11 1/16 oz.)
3.3 ft.	f/22	55 mm	66 x 93.5 x 98.5 mm	560 g (1 lb. 3 1/16 oz.)
6 ft.	f/32	55 mm	ø74 x 156 mm	700 g (1 lb. 8 1/16 oz.)
8 ft.	f/32	72 mm	ø91 x 330 mm	2010 g (4 lb. 6 1/16 oz.)
1 ft.	f/16	55 mm	ø67 x 50.5 mm	340 g (12 oz.)
1 ft.	f/22	55 mm	ø83.5 x 71.5 mm	560 g (1 lb. 3 1/16 oz.)
9 in.	f/22	55 mm	ø64.5 x 55.5 mm	220 g (7 1/2 oz.)
1.5 ft.	f/22	55 mm	ø74.5 x 88.5 mm	600 g (1 lb. 5 1/16 oz.)
—	f/32	55 mm	ø63.5 x 35 mm	155 g (5 1/16 oz.)



Minolta/Celtic Lenses: Quality Optics at a Popular Price

LENS	ELEMENTS/GROUPS	ANGLE OF VIEW	MINIMUM FOCUS	MINIMUM F. STOP	DIMENSIONS	WEIGHT
28 mm f/2.8 MD MINOLTACELTIC	7/7	75°	1 ft.	1/22	ø64.5 x 43.5 mm	240 g (8 1/2 oz.)
35 mm f/2.8 MD MINOLTACELTIC	5/5	63°	1 ft.	1/22	ø64.5 x 41.5 mm	205 g (7 1/4 oz.)
135 mm f/3.5 MD MINOLTACELTIC	4/4	18°	5 ft.	1/22	ø64.5 x 88.5 mm	420 g (14 3/4 oz.)
135 mm f/2.8 MD MINOLTACELTIC	4/4	18°	5 ft.	1/22	ø64.5 x 89.5 mm	535 g (1 lb. 2 1/4 oz.)
200 mm f/4 MD MINOLTACELTIC	5/5	12°30'	8 ft.	1/22	ø64.5 x 130 mm	520 g (1 lb. 2 1/4 oz.)
100-200 mm f/5.6 MD ZOOM MINOLTACELTIC	8/5	24° - 12°30'	8 ft.	1/22	ø63.5 x 173 mm	575 g (1 lb. 4 1/4 oz.)
50 mm f/3.5 MD MACRO MINOLTACELTIC	6/4	46°	9 in.	1/22	ø66.5 x 55.5 mm	325 g (11 3/4 oz.)

28 mm f/2.8 MD Minolta/Celtic

Construction: 7 elements in 7 groups

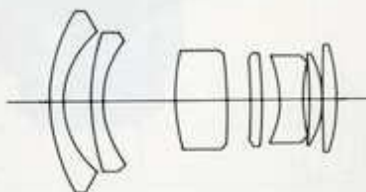
Angle of view: 75°

Min. focus distance: 1 ft.

Filter thread diameter: 55mm

Diaphragm: Auto preset

1/2.8—1/22



35 mm f/2.8 MD Minolta/Celtic

Construction: 5 elements in 5 groups

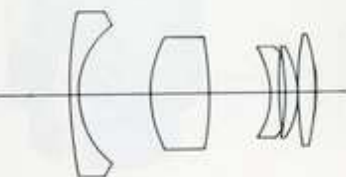
Angle of view: 63°

Min. focus distance: 1 ft.

Filter thread diameter: 55mm

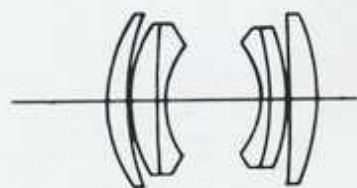
Diaphragm: Auto preset

1/2.8—1/22



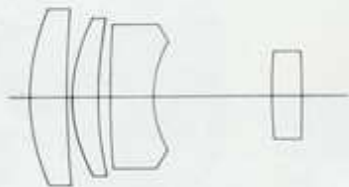
50 mm f/3.5 MC Marco Minolta/Celtic

Construction: 6 elements in 4 groups
Angle of view: 47°
Min. focus distance: 9 in.
Filter thread diameter: 55mm
Diaphragm: Auto preset
f/3.5—f/22



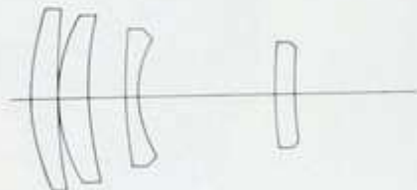
135 mm f/2.8 MD Minolta/Celtic

Construction: 4 elements in 4 groups
Angle of view: 18°
Min. focus distance: 5 ft.
Filter thread diameter: 55mm
Diaphragm: Auto preset
f/2.8—f/22



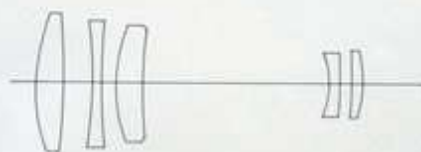
135 mm f/3.5 MD Minolta/Celtic

Construction: 4 elements in 4 groups
Angle of view: 18°
Min. focus distance: 5 ft.
Filter thread diameter: 55mm
Diaphragm: Auto preset
f/3.5—f/22



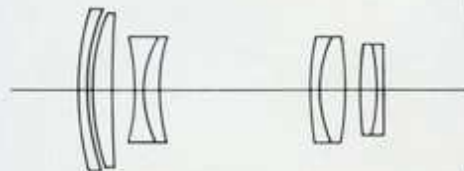
200 mm f/4 MD Minolta/Celtic

Construction: 5 elements in 5 groups
Angle of view: 12°
Min. focus distance: 8 ft.
Filter thread diameter: 55mm
Diaphragm: Auto preset
f/4.5—f/22



100-200 mm f/5.6 MD Zoom Minolta/Celtic

Construction: 8 elements in 5 groups
Angle of view: 24°—12°30'
Min. focus distance: 8 ft.
Filter thread diameter: 55mm
Diaphragm: Auto preset
f/5.6—f/22





**The Minolta system.
As advanced as the XD-11.**

The XD-11 is the heart of a total photographic system. Not only can it accept every Rokkor-X and Celtic lens, it accepts virtually every Minolta close-up, copying, flash and special purpose component and accessory made. To all this vast array of useful photographic equipment the XD-11 adds its own unique components: The Auto Winder D and the Auto Electroflash 200X. The XD-11. A camera. A system. A step into the future of photography where only your imagination can hold you back.



Auto Bellows I

Attached to a Minolta SLR 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 camera body in the same manner as a lens. Used with the standard 50mm Rokkor-X lens, the Auto Bellows I permits continuous magnification from 0.75X to 3.10X.



Bellows III

Reasonably priced, compact and lightweight, this Bellows performs many of the same functions as the Auto Bellows I. Magnifications between 0.70X and 3.14X can be obtained with the Bellows III and a 50mm lens.



Extension Tube Set II

This set of five separate tubes can be used in various combination for close-up photography with Minolta lenses. Function of the tubes is to increase magnification by lengthening the lens-to-film distance. When used with Minolta SLR cameras, no compensation for exposure is necessary since exposure readings may be taken through the tube and lens combination.



MC Auto Extension Tubes

Added versatility is the key feature of the MC Auto Extension Tubes. Full aperture meter coupling is automatic with all Minolta meter-coupled lenses.

Use of the tubes singly, or interlocked in various combinations of the 14mm, 21mm and 28mm lengths gives magnification of approximately 0.27X to 1.35X with a standard 50mm lens. Each tube has a Minolta bayonet mount on one end and a matching receptacle on the other. This all bayonet system makes for fast, easy attachment and change.



Close-up Lenses

These lenses screw onto Minolta lenses with 52mm or 55mm filter mount diameter 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 use on telephoto lenses.



Auto Electroflash 450

The versatile 450 yields a maximum guide number of 72 (feet at ASA 25; 45 meters, ASA 100). The wideangle diffuser covers the field of a 24mm lens. Perfect exposure is assured with choice of 5 apertures on any setting, and optional automatic bounce/off-camera flash. The 450 is powered by alkali-manganese batteries, or optional rechargeable Ni-Cd battery cartridges.



Auto Electroflash 280

The 280 yields a maximum guide number of 46 (feet at ASA 25; 28 meters, ASA 100). The series-thyristor circuit gives shortest recycling time and maximizes flash-use per battery.

Automatic direct/bounce flash exposure is featured in the 280, covering the field of a 35mm lens. Power sources are alkali-manganese or rechargeable Ni-Cd batteries.



Auto Electroflash 32 and 28

Compact cordless/corded units with guide number of 32 and 28 (in meters at ASA 100, 52 and 46 in feet at ASA 25). Both units provide automatic flash exposure even with bounce operation. Auto Electroflash 32 has an illuminated control dial and can select two different apertures. Optional Ni-Cd battery cartridge, Charger and AC adapter are available.



Auto Electroflash 25

This compact cordless/corded unit with max. guide number of 41 (feet, ASA 25; 25 for meters, ASA 100) slides into the hot shoe on Minolta SLR cameras and makes completely automatic electronic flash exposures by means of a built-in sensor or can be used as a conventional non-auto unit. Recycling is indicated by a monitor lamp.



Copy Standard II

This rigid camera support assures maximum stability in all photomacrography, and is highly recommended for copying flat or three-dimensional materials. It features a heavy duty $15\frac{1}{2} \times 17\frac{1}{4}$ inch baseboard and a 24-inch chrome tube to provide secure support for camera and macro equipment.



Microscope Adapter

This two-piece device is used to connect Minolta SLR cameras 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.



Magnifier V

This is a useful tool for precise focusing when making photomacrographs, copying and taking distant telephoto pictures. It features an adjustable eyepiece and a 2.5X magnification power, and can be focused for individual eyesight.



Angle Finder V

This eyepiece attachment permits viewing with the camera held below the eye. Focusing may be made from any position as the finder can be rotated in a full circle and a right-way-round image can be achieved. The eyepiece is adjustable for individual eyesight.



Panorama Head II

The Minolta Panorama Head II is specially designed to be attached between a Minolta single-lens-reflex camera and a tripod for photographing panoramic views up to full 360° in a sequence of photos that can be matched accurately.



Eye-piece Corrector Vn

Focusing aid for far- and near-sighted photographers is provided by these special lenses which snap into the frame of the eyepiece. Minolta makes nine difference diopter strengths, from -4 to +3.



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 screw into a Minolta lens in the same way as an ordinary filter. They may be used with any Minolta lens having a screw mount diameter of 52 or 55mm.

Solid Glass Filter

Minolta 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.

Filters available include L39, Y48, R60, 056, GO, ND, 80B, 85A and 1A.



Lens Mount Adapter

Minolta makes adapter for Praktica lenses, which will lock securely to Minolta SLR camera bodies with the use of a special key which is supplied. Any lens with Praktica mount can be used with Minolta SLR cameras and focused through their full range.



XB-7 Gadget Bag

This gadget bag holds your cameras, interchangeable lenses, film and accessories. You can choose the equipment you need for your picture taking needs.

For instance, it holds two Minolta SLRs, each with up to 200mm lens; two lenses up to 200mm, one 300mm lens, two or three wideangles, and other accessories as needed. Inside of bag can be divided in many ways by means of partitions provided.



M-Tag Promises Long-Term Satisfaction.

The "M" tag attached to our XD-11 stands for many extra benefits that will help you get more out of your camera.

Along with the Minolta U.S.A. and Minolta Camera (Canada), Inc. two-year warranty, it's your assurance that your Minolta 35mm SLR camera is warranted against defects in materials and workmanship for a two-year period. (That's one year longer than with most cameras.) When you send in your warranty certificate in the U.S., you become a member of the Minolta Club. This means you will receive a subscription to "The Contact Sheet," a newsletter especially for Minolta SLR camera owners. Among other things, it includes information on new equipment, question and answer columns, money saving coupons, photo contest announcements, gallery reports, famous Minolta photographer feature stories, plus a how-to-do-it corner. Look for the "M" tag. Another quality assurance from Minolta.



Specifications subject to change without notice.