



MINOLTA

X-700

Minolta's fully-programmed automatic exposure SLR, complemented by exciting new accessories of the Minolta Program System.





"Why can't a 35mm SLR camera system be sophisticated and simple?"

Photography contains an inherent contradiction. In itself, it is a very complex art, a delicate balance of light and color to capture a wide range of feelings. And, thus, the tools a photographer uses have been traditionally complex themselves. But why couldn't a 35mm SLR camera system be made simpler to operate?

Minolta's answer is a highly sophisticated photographic system that is incredibly easy and foolproof to operate. And yet which enables anyone to achieve perfection in photography.

The X-700 is Minolta's fully programmed automatic exposure 35mm SLR.

"Fully programmed" because—like today's computers—it flawlessly performs a wide array of automatically sequenced functions that reduce the time, the effort and the possibility of making a mistake when picture-taking. Whether you're just starting off...or whether you make a living in photography.

"Automatic exposure" because the X-700 is a simple-to-operate automatic exposure camera, selecting both aperture and shutter-speed in P mode. So all you have to do is focus and shoot.

And "35mm SLR" because the X-700, along with its extensive Minolta Program System components and SLR lenses and accessories, is destined to be the 35mm single-lens-reflex camera you've always dreamed of owning.

On the following pages we'll introduce you to the X-700 and the Minolta Program System in more depth. Some of the main features include:

Programmed Automatic Exposure: a faster-speed-priority program that "freezes" fast action, that requires absolutely no manual setting of aperture or shutter speed and that lets you seize every photographic opportunity under any shooting condition.

Programmed Autoflash: utilizing Minolta Direct Autoflash Metering and the new Auto Electroflash 360PX or 280PX for automatic mastery of flash photography.

Aperture Priority Automatic Exposure: to enhance the most-used functions of a 35mm SLR, the taking of portraits, close-ups and landscapes.

Manual Exposure Control: what professionals use for startling results.

Motor Drive 1: for high-speed action photography up to 3.5 frames-per-second.

Multi-Function Back: timed, unmanned camera control (time-lapse, frames, and/or long exposures) plus data imprinting (date, coding, sequential numbering, or time) on each film frame.

Wireless Controller IR-1 Set: infrared signal-activated remote control use.

SLR Lenses and Accessories: expanding both the photographer's and the camera's capabilities.

**MINOLTA
PROGRAM
SYSTEM**

After you finish reading this booklet, you'll see that a camera and system can be both simple yet sophisticated.



The X-700's Program mode

Even in varying light conditions, Programmed Auto Exposure (P mode) delivers perfectly-balanced exposures while you just focus-and-shoot.





You can't find much more difficult shooting conditions than white-water kayaking. Bright, outdoor light. Dark, strong shadows. Water reflection. High-speed action.

What aperture to use? What shutter speed?

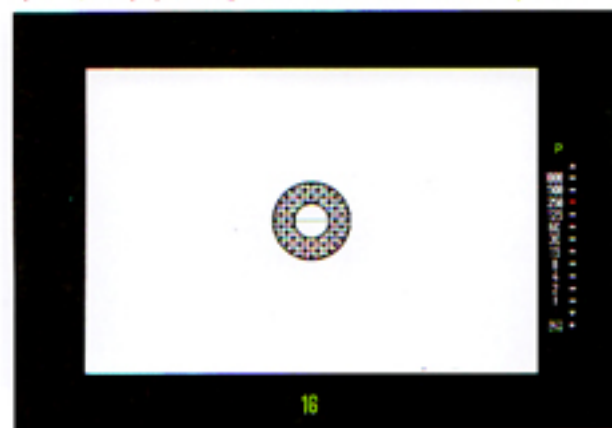
The X-700's P mode automatically solves these problems for you by selecting the optimum combination of aperture and a faster shutter speed in response to subject brightness. All you have to do is focus and shoot.

Set the camera's mode selector to the green P position. Set your new MD lens to its green minimum aperture, and lock it. Focus and shoot! Easy, isn't it?

The X-700's P mode combines the essence of simplicity with the utmost in sophistication. The photographer concentrates solely upon the creative moment, with no worry as to exposure selection. In any lighting conditions, changing or not. In any situation, high-speed or not...it's perfect for novice photographers as well as professionals!

And a faster-speed-priority program minimizes blur and allows handholding even in low light situations.

A green P reminds you that you're in P mode and blinks if you've not set your MD lens at its minimum aperture. The set aperture (not the taking aperture) is displayed, along with the camera's selected shutter speed.



135mm MD lens, P mode



The X-700's Programmed flash operation

Minolta Direct Autoflash Metering for perfect results under all conditions. Neither aperture nor shutter speed selection is required.

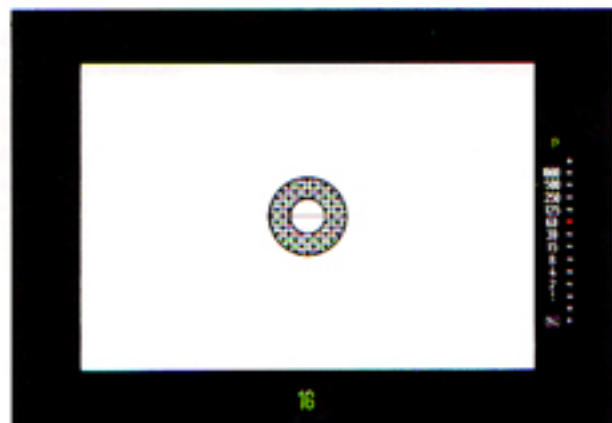




50mm MD lens. P mode. Auto Electroflash 280PX

The X-700's flash operation in P mode is as simple and foolproof as its non-flash operation in P mode. Mount the Minolta Auto Electroflash 360PX or 280PX on the X-700. Turn on the flash unit. Look through the viewfinder and when you see the blinking LED indicate flash-ready, fire! Extremely accurate Minolta Direct Autoflash Metering measures subject brightness and controls flash duration. And Flash Distance Checking Indicators on the flash and in the viewfinder will confirm proper exposure. That's all there is to it! No aperture selection. No shutter speed selection. No calculations. No chance for error!

In Programmed Autoflash mode, flash-ready is indicated and, after discharge, proper exposure is confirmed.





The X-700's Aperture-Priority mode

Aperture-Priority auto exposure (A mode) for professional-quality portrait, landscape, and close-up photography.



200mm MD lens at f/2.8. A mode

The X-700's Aperture Priority A mode is a tremendous creativity-enhancer. Most photographers capture their most cherished moments in this mode: portraits, landscapes, close-ups. And A mode also lets you best utilize mirror lenses, close-up equipment and other accessories for a spectrum of photography that shutter-speed priority cameras cannot offer.

Simply turn the X-700's mode selector to A. Set your preferred lens aperture. And click away! The X-700 automatically sets the

correct shutter speed for optimum exposure results.

Incidentally, this A mode works equally well in flash operation, too. Particularly in close-up situations where extremely tight control over a full aperture range is vital to your creative efforts.

A red A tells you that you're in A mode. The preset taking aperture is displayed along with the camera-selected matching shutter speed.





The X-700's Manual mode

Full-metered Manual exposure (M mode) to commit any special effects you wish to film.



300mm MD lens at f/11, 1/250 sec. M mode

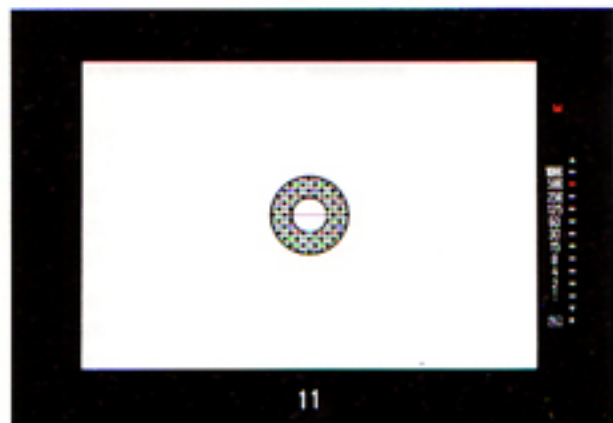
This photograph illustrates the advisability of using Manual exposure mode under unusual lighting conditions to achieve specific creative results.

With automatic exposure, the X-700 would have balanced the exposure values more evenly and there would not have been the same high contrast between the sun-dappled highlights and the blue-black hues of the water, for example.

The X-700's M mode allows you, the photographer, to control your exposure. Releasing the camera's

mode selector from either P mode or A mode allows you to select the shutter speed you desire. Now select your aperture. Look through the viewfinder and you'll see a metered shutter-speed indication which you may, or may not use. The creative choice is yours. The only thing left to do is shoot away!

A red M indicates M mode. The taking aperture is displayed and the corresponding optimum shutter speed is indicated, which you may manually select if you wish.



The X-700's full-information viewfinder

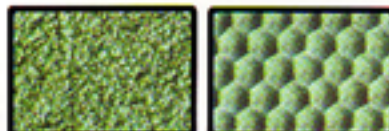
Your instantaneous "adviser" in all modes of shooting, to guide you under all conditions.

The viewfinder of the X-700 is like having your very own photographic expert with you at all times, advising you on the correct exposure, helping you focus faster and more accurately, reminding you of pertinent information to enhance your creative efforts. There's no need to look elsewhere; it's all there, right before your eyes, helping you concentrate on the more aesthetic values of what you are about to capture on film. Let's take and examine the X-700's viewfinder features and components, one by one.



Touch Switch and LED indication: placing your forefinger on the Touch Switch instantaneously starts metering and LED readouts in the viewfinder. These readouts continue for 15 seconds.

Acute-Matte Focusing Screen: this Minolta advancement in focusing technology is comprised of some 2,500,000 microscopic cells, each of which is a conical micro-lens shaped for better light dispersion and, consequently, a 50% brighter, clearer, higher-contrast image that is easier to focus. There are also eight additional, optional focusing screens which may be interchanged by a Minolta service facility, depending upon your needs.



Bright reflecting mirror: Minolta technology has improved the X-700's mirror reflection through use of a special multi-layered coating that increases viewfinder brightness by 11% over conventional types.

Slow shutter-speed warning device: if you have selected the ON position for camera operation, an audible warning sounds if—at any time and in any mode—the shutter speed falls to 1/30 second or below. This warning helps prevent subject blur.



- ① Split-image/microprism focusing spot.
- ② Under-range indication.

P mode viewfinder indicators: A green P to remind you you're in P mode. The P blinks if your MD lens is not set at its minimum aperture or if you're using any lens other than an MD.

The selected shutter speed (red bar). If two shutter speeds are simultaneously indicated, the selected stepless shutter speed falls between those indicated.

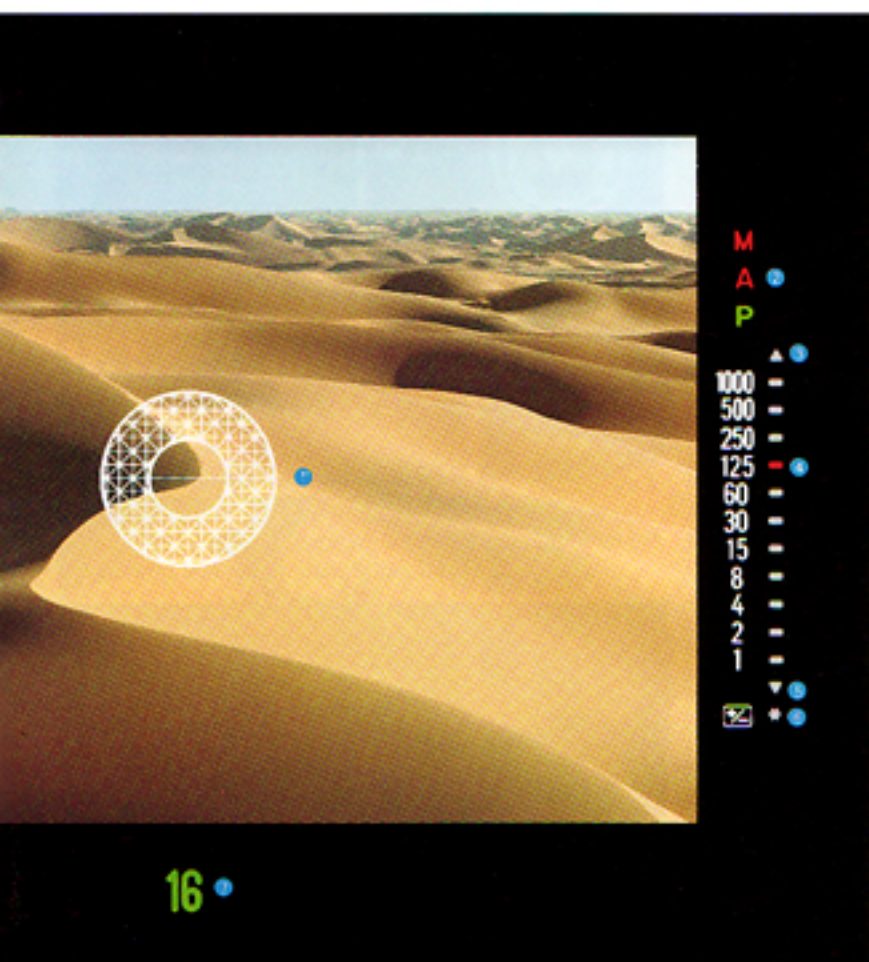
An over-range warning triangle (red). Blinks to warn you that the correct shutter speed exceeds 1/1000 sec.

An under-range warning triangle (red). Blinks to warn you that the correct shutter speed falls below 1 sec.

A $\pm 2EV$ exposure-adjustment indicator. The asterisk beside the $+/-$ indicator blinks to remind you that you've set in an exposure adjustment.

Beneath the viewfinder frame you'll see your set minimum aperture.

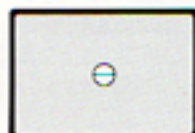




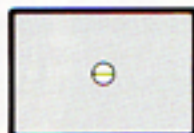
- Mode indication. ● Over-range indication. ● Shutter speed indication.
- Exposure-adjustment indication. ● F-number window.

Optional focusing screens

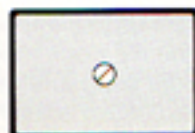
The X-700's standard Acute-Matte focusing screen can be replaced by any of eight optional Acute-Matte screens at an authorized Minolta service facility.



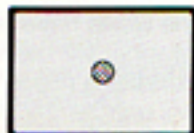
Horizontal split. For general photography.



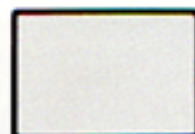
Horizontal split. For general photography with f/2.8 or larger maximum aperture lenses.



Diagonal split. For general photography.



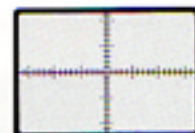
Microprism spot. For general photography.



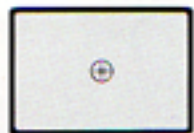
Matte field only. For general, close-up and telephoto photography.



Matte field with grid. For general photography.



Horizontal and vertical measuring scales. For general, macro, micro and astrophotography.



Clear spot with etched double hairlines. For macro, micro and astrophotography.

A-mode viewfinder indicators:

A red A to remind you you're in A mode. All other indicators are similar to the P mode's.

M-mode viewfinder indicators:

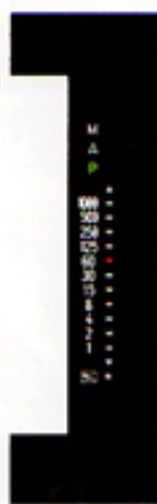
A red M to remind you you're in M mode. Indicated shutter speed is for reference only. You have already set your preferred shutter speed and the indication in the viewfinder shows you what your preselected aperture setting's matching shutter speed should be for optimum exposure.



Auto Electroflash 360PX/280PX mode indicators:

The green P indicates you are in P mode (there is no mode indication for A or M mode). A blinking red LED bar next to the 1/60 indication indicates flash-ready. This is a slow-speed (2Hz) blink.

The flashing red LED blinks at a higher rate (8Hz) after shutter release to indicate proper exposure has been made. Aperture selection appears below the frame.



The X-700's AE Lock and $\pm 2EV$ Exposure Override

For better creative control and more perfect picture results in unusual lighting conditions.

Every photographer realizes that, at one time or another, you're very likely to come up against a set of lighting conditions that defies conventional metering and that calls for some special measures to be taken to insure against over- or under-exposure. Your X-700 is well prepared to handle all situations. You will note that the X-700 is the only fully-programmed automatic exposure SLR that offers both Automatic Exposure Lock and $\pm 2EV$ exposure adjustment. Why have both features on the X-700 when they do essentially the same thing? The reason is quite simple. Many, many years of experience and photographic expertise from all over the world have taught us that the occasional photographer will utilize the AE Lock more often; it also handles a much wider exposure range. The "pros" will use the $\pm 2EV$ exposure adjustment more frequently, as they're more accustomed to their equipment (and as they're more likely to use slide film).

AE Lock. Subject under-exposure is a prevalent problem when encountering a subject in shade with strong backlighting in outdoor photography. Here's what to do: Activate metering with the Touch Switch, position the subject's face in the viewfinder as closely as possible and depress the AE Lock slide. With the AE lock pressed down, move back to compose your shot, and release the shutter. Instant success!



With AE lock



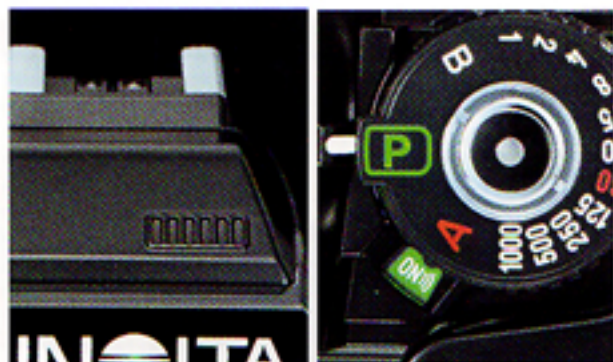
Without AE lock

$\pm 2EV$ Exposure Adjustment. For use when you cannot get close to the subject in order to use the AE Lock. Plus or minus 2EV may be set in half-stop increments to balance unusual lighting conditions. In the viewfinder, a blinking indicator will remind you that you have set an exposure adjustment.



Other X-700 features

Design advances and improvements that provide fail-safe operation and make your X-700 easier to handle.



Audible Warning An electronic "audible warning" takes place under two conditions when you operate the X-700 in the ON mode. One warns you that the shutter speed is 1/30 second or slower; subject blur may occur. The other is with self-timer operation. Either way, the audible warning can be shut off by turning the main switch to ON.



Bayonet Mount Minolta's bayonet mount allows you to use any Minolta SLR lens ever made. An improved stainless steel material has been lubricant impregnated by a special sintering process to produce a lens-to-camera fit of extremely high accuracy and smoothness.



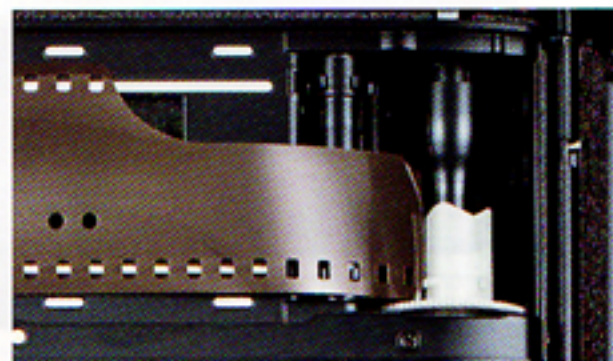
Easy-handling, Double Action Grip Really comfortable integral front and back grips aid in holding the X-700 easily and steadily during shooting. Grip placement allows stable vertical or horizontal handling.



Audible/visual Self-timer An electronically-controlled, 10-second self-timer is activated by lifting the self-timer lever and pressing the operating button. Release timing is indicated via a triple-rate blinking LED, accompanied by a cancellable audible signal.



Safe Load Signal This feature tells you that your film is loaded and advancing properly.



Easy Film Loading The X-700 features an improved film spool slit width and claw to facilitate faster and more accurate film loading.

The X-700's part names and specifications:



X-700

- 1 Frame counter
- 2 Safe Load Signal
- 3 Film-advance lever
- 4 P/A-lock release
- 5 Mode/shutter-speed selector
- 6 Operating button
- 7 Main switch
- 8 Flash/camera-control contacts
- 9 Accessory shoe
- 10 Sync contact
- 11 Exposure-adjustment lock release
- 12 Film-speed window
- 13 Rewind crank
- 14 Back-cover release knob
- 15 Film-speed ring
- 16 Front grip
- 17 AE lock/self-timer switch
- 18 Self-timer light
- 19 MD coupler
- 20 MC coupler
- 21 Mirror
- 22 Sync terminal
- 23 Bayonet lens mount
- 24 Lens-release button
- 25 Shutter-release socket
- 26 Preview button
- 27 Strap eyelet
- 28 Eyepiece frame
- 29 Eyepiece
- 30 Back cover
- 31 Memo holder
- 32 ASA/DIN conversion table
- 33 Back grip
- 34 Motor-drive guide socket
- 35 Motor-drive contacts
- 36 Battery-chamber cover
- 37 Winder contact
- 38 Tripod socket
- 39 Rewind release
- 40 Winder/motor-drive coupler
- 41 Winder/motor-drive guide socket

Type: Electronically governed 35mm single-lens reflex automatic exposure camera

Exposure-control modes: Fully programmed ("P"), aperture-priority automatic ("A"), and metered manual ("M")

Lens mount: Minolta SLR bayonet of lubricant-impregnated stainless steel (54° rotating angle); coupling for full-aperture metering, finder display input and automatic diaphragm control, providing programmed or aperture-priority auto operation with Minolta MD lenses, Aperture-priority auto operation with MC and other Minolta SLR interchangeable lenses or accessories, spring-return button for depth-of-field preview, or stop-down meter readings with other than MC or MD lenses (standard lenses: MD 50mm f/1.4, f/1.7, f/1.2 or f/2)

Exposure control and functions: Low-voltage, low-current computer circuit (incorporating quartz crystal for sequential control to 1/30,000-sec. accuracy, large-scale IC's, samarium-cobalt impulse-release magnets, and linear-resistance inputs) varies both aperture and shutter speed steplessly according to special "faster-speed" program in P mode, or varies shutter speed steplessly according to aperture set in A mode, to yield proper exposure for the film speed and exposure adjustment set; auto-exposure range: EV 1 to EV 18 (e.g., 1 sec. at f/1.4 to 1/1000 at f/16) at ASA/ISO 100 with f/1.4 lens; AE-lock device holds meter reading for exposure at that value regardless of subject-brightness changes.

Shutter: Horizontal-traverse focal-plane type; electronically controlled stepless speeds 1/1000 to 4 sec. set automatically with endlessly rotatable selector dial locked at "P" or "A" setting or fixed speeds 1 to 1/1000 sec. or "B" (bulb) set manually at detented dial indications; electromagnetic shutter release locks when voltage is too low for proper operation.

Metering: TTL center-weighted averaging type, by silicon photo cell mounted at rear of pentaprism for available light, measured full aperture for normal finder display, then at taking aperture for programmed/automatic-exposure setting/determination or stop-down display; by another SPC mounted with optic in side of mirror compartment for off-the-film light at taking aperture during exposure to control dedicated strobe duration.

Film-speed range: ASA/ISO 25 to 1600 set by dial that locks at 1/3-EV increments

Exposure-adjustment control: Up to ±2 EV continuous adjustment of P, A, or M exposure by dial that locks at zero position and each 1/2-EV setting

Mirror: Triple-coated oversize instant-return slide-up type

Viewfinder: Eye-level fixed pentaprism type showing 95% of 24x36mm film-frame area; magnification: 0.9x with 50mm standard lens focused at infinity; power: -1D, adjustable with accessory snap-on eyepiece lenses; Fresnel-field focusing screen having artificially regular-patterned matte ground plus central split-image horizontally oriented focusing aid surrounded by microprism band, interchangeable with Type P1, P2, Pd, M, G, L, S, or H screens at authorized Minolta service facilities; visible around frame: mode indication (P, A, or M); shutter-speed scale (1, 2, 4, 8, 15, 30, 60, 125, 250, 500, and 1000) with LED setting indication; triangular over-/under-range LED indicators blinking at 4Hz; flash-ready signal (LED next to "60" blinking at 2Hz); FDC signal ("60" LED blinking at 8Hz for 1 sec. after correct strobe exposure); mis-set lens warning (mode indication blinking at 4Hz) in P mode; battery check (by glowing of any LED when operating button touched or pressed slightly); f-number set with MD or MC lenses, and exposure-adjustment engaged indication (LED blinking at 4Hz); display and metering activated by normal finger contact or slight pressing of operating button and continue for 15 sec. or longer if contact not broken; remote shutter-release socket

Flash sync: PC terminal and hot shoe for X-sync (disconnected when no unit is installed); electronic flash ("strobe") synchronizes at 1/60 sec. and slower stepless or fixed speeds or "B" setting; Class MF, M, and FP flashbulbs, at 1/15 or slower settings; additional spring-loaded contacts on hot shoe for camera/strobe control and finder indication in programmed/automatic operation

Film advance: Manual, by lever with single 130° stroke after 30° unengaged movement; motorized; through built-in coupler key with accessory Motor Drive 1 or Auto Winder G; release button for rewind on camera bottom; advancing-type frame counter; Safe Load Signal indicates film loading and advancing condition.

Power: Two 1.5v alkaline-manganese (Eveready A-76 or equiv.) or 1.55v silver-oxide (Eveready S-76 or equiv.) cells contained in camera base power both programmed/auto exposure control and manual operation; three-position main switch with indication for off, on, or on with audible piezoelectric slow-speed warning and self-timer operating indication; battery check by touching or slightly pressing operation button (LED's dim or do not light when cells approach exhaustion); shutter will not release when voltage is too low for proper operation.

Self-timer: Electronic for 10-sec. delay, with operation indicated by camera-front LED that blinks at 2Hz for 8 sec., then 8Hz for 1 sec., then remains on until shutter release, plus simultaneous audible indication when main switch is in appropriate position; engaged by switch on body, cycle started by pushing operating button, cancellable anytime before release.

Other: Audible 4Hz piezoelectric warning when finder speed indication is 1/30 sec. or slower whenever finger contacts "Touch Switch" normally or presses operating button slightly with main switch appropriately set; integral front handgrip; detachable back with integral handgrip, memo holder, and ISO/ASA-DIN conversion table; positive 4-slot take-up spool.

Size and weight: 51.5x89x137mm (2x3½x5½ in.), 505g (17½ oz.) without lens and/or power cells.

Accessories: Exclusive Auto Electroflash 360PX and 280PX, Multi-Function Back, Quartz Data Back 1, Motor Drive 1, Auto Winder G, Power Grip 2, PX strobe cords, connectors, brackets, etc., Wireless Controller IR-1 Set; MD, MC, and other Minolta interchangeable lenses and applicable Minolta SLR system accessories.

PROGRAMMED
AUTOMATIC EXPOSURE

PROGRAMMED
AUTOFLASH

X-700

POWER GRIP 2

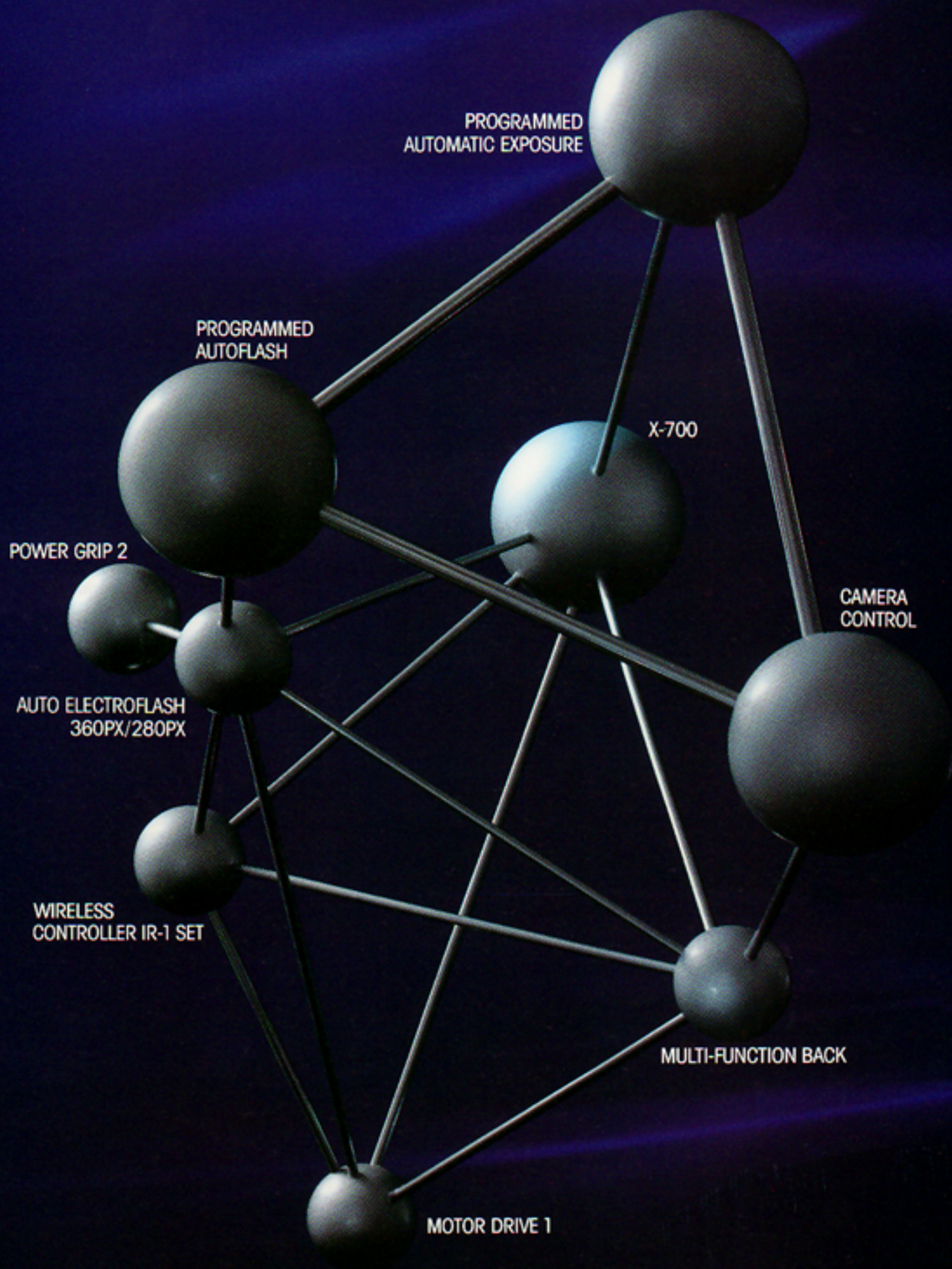
CAMERA
CONTROL

AUTO ELECTROFLASH
360PX/280PX

WIRELESS
CONTROLLER IR-1 SET

MULTI-FUNCTION BACK

MOTOR DRIVE 1



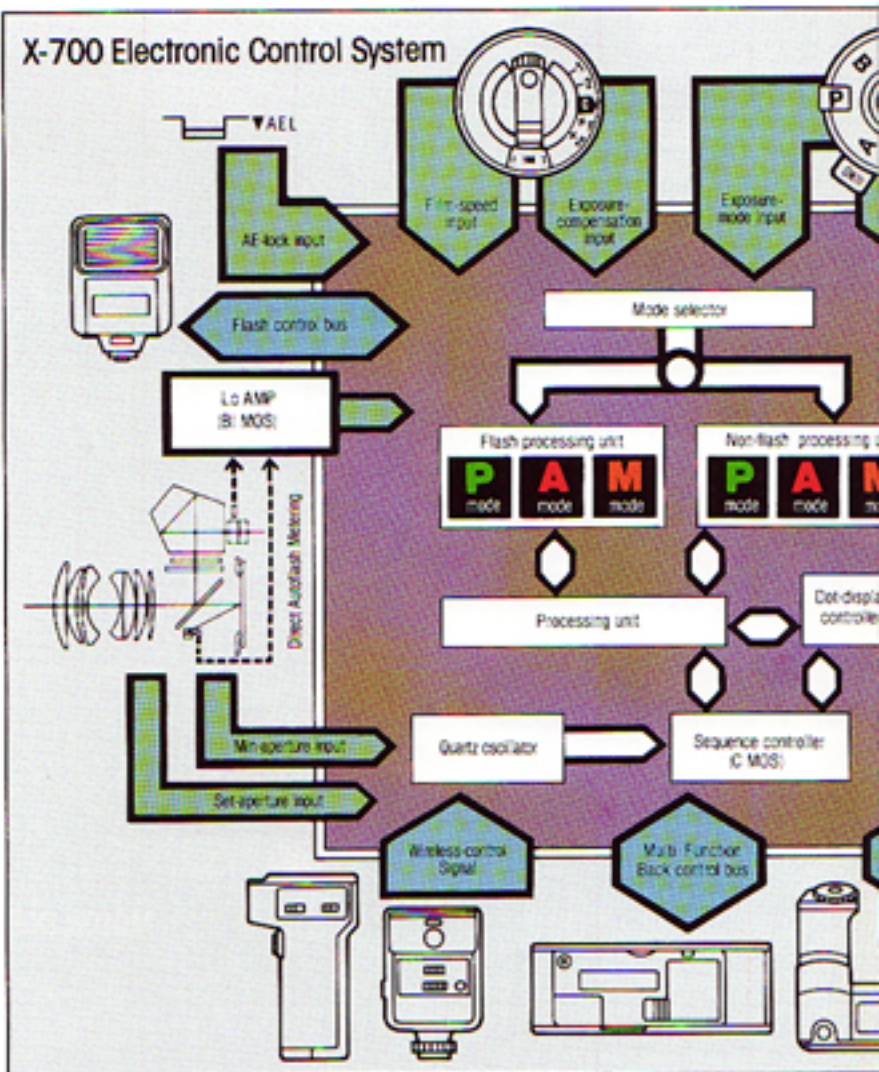
The heart of the Minolta Program System

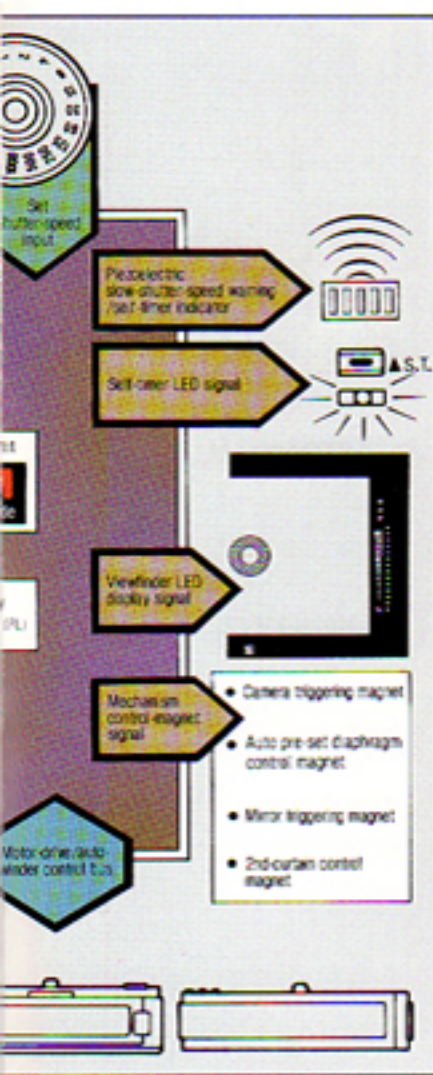
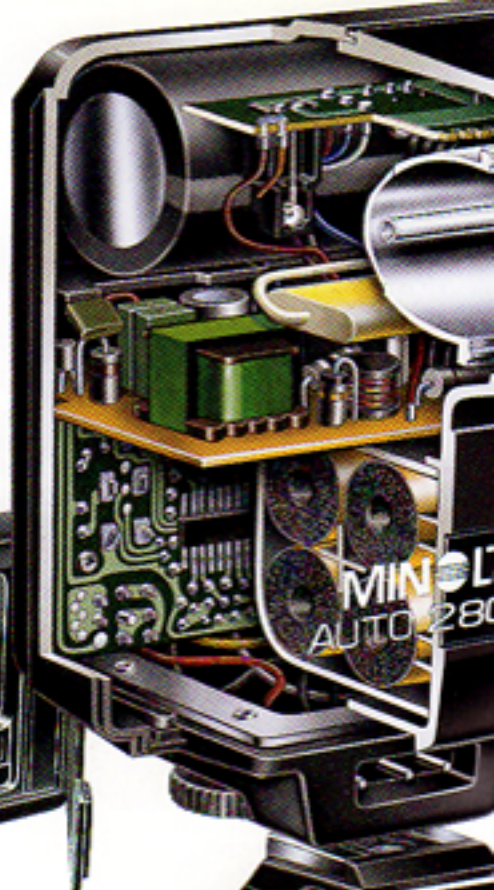
A sophisticated, fully-integrated electronic network of all system components for automated reliability and extended photographic capabilities.

The Minolta Program System is the realization of Minolta's efforts to achieve sophisticated photographic versatility with simple operation. It is an ideal brought to reality by Minolta's continuing commitment to improve what is already excellent...to incorporate the latest state-of-the-art advancements into the age-old art of photography...to help make everyone—whether you're a novice photographer or a seasoned professional—as good as he or she can be. Achieving these goals was not easy. It was accomplished by designing a truly remarkable

35mm SLR, the X-700, along with a series of sophisticated accessory components that allow you to build the exact photographic system you want now... and to expand it at a later date as your interests grow.

The Minolta Program System combines the X-700, the Auto Electroflash 360PX and 280PX, the Motor Drive 1, the Multi-Function Back, Quartz Data Back 1 and the Wireless Controller IR-1 Set into a fully-integrated electronic network of incredible sophistication and, yet at the same time, of utter simplicity to operate.





The "brains" of this incredibly sophisticated network is a complex circuit configuration within the X-700. It begins with a built-in quartz-crystal oscillator that controls many camera functions such as shutter release, aperture stop-down, and mirror lift. This tiny quartz crystal produces an exact 32,768 reference pulses per second...for the astounding 1/30,000-second accuracy of the X-700.

Five integrated circuits, too, are employed for solid-state reliability and longevity: a 42-pin BiMOS IC for metering, calculations and controls; a 42-pin Bipolar IC for mode selection and programmed operation; a 42-pin CMOS IC for timing controls; another Bipolar IC—including a 44-pin I²L—for display control; and a 12-pin Bipolar IC for electro-magnetic release and power control.

Add to this computer-age sophistication two silicon photo cells for prompt response and superb linearity (one on the pentaprism measures ambient light, the other adjacent to the mirror box controls the Minolta Direct Autoflash Metering), and you'll see why the X-700 is an amazing work of high-technology adaptation to insure superior photographic results.



The Minolta Program System

The X-700 combines with a number of highly advanced accessory systems to provide photographic capabilities that you may have only dreamed of until today.



X-700

AUTO
ELECTROFLASH
360PX



MULTI-FUNCTION BACK



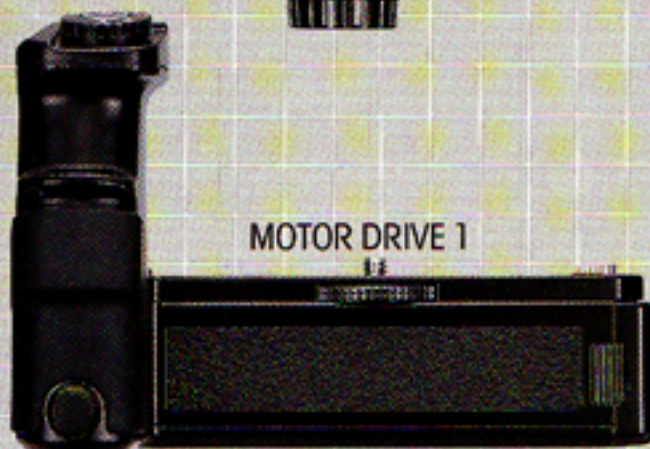
AUTO
ELECTROFLASH
280PX



MOTOR DRIVE 1



POWER GRIP 2



WIRELESS
CONTROLLER
IR-1 SET





In the P mode, this complex circuitry automatically and instantaneously sets both the X-700's aperture and shutter speed. These programmed combinations of shutter speed and aperture respond instantaneously to minute changes in lighting conditions, delivering the fastest practicable shutter speed for optimum exposure results. In bright sun and with an MD 50mm f/1.4 lens, for example, the X-700 can select up to f/16 and

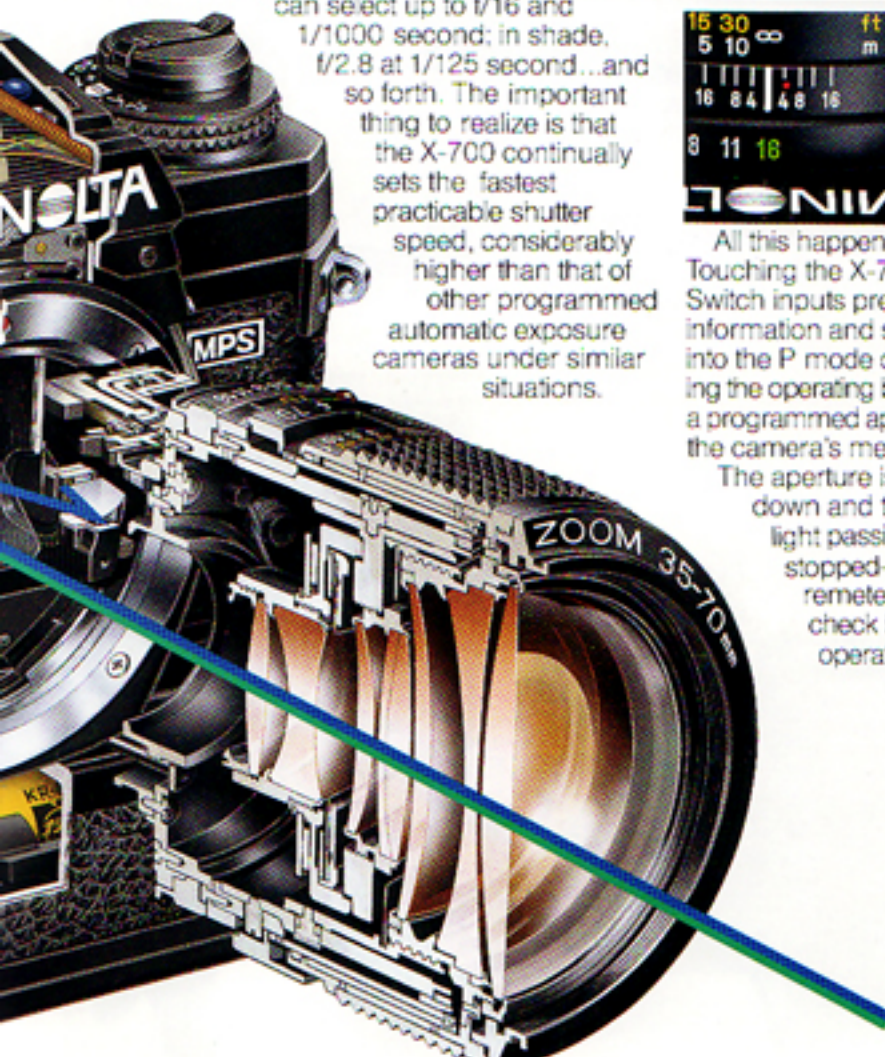
1/1000 second; in shade, f/2.8 at 1/125 second...and so forth. The important thing to realize is that the X-700 continually sets the fastest practicable shutter speed, considerably higher than that of other programmed automatic exposure cameras under similar situations.

And this faster-speed priority program means the X-700 will more often deliver a clearer, sharper image without subject blur caused by subject or camera motion.



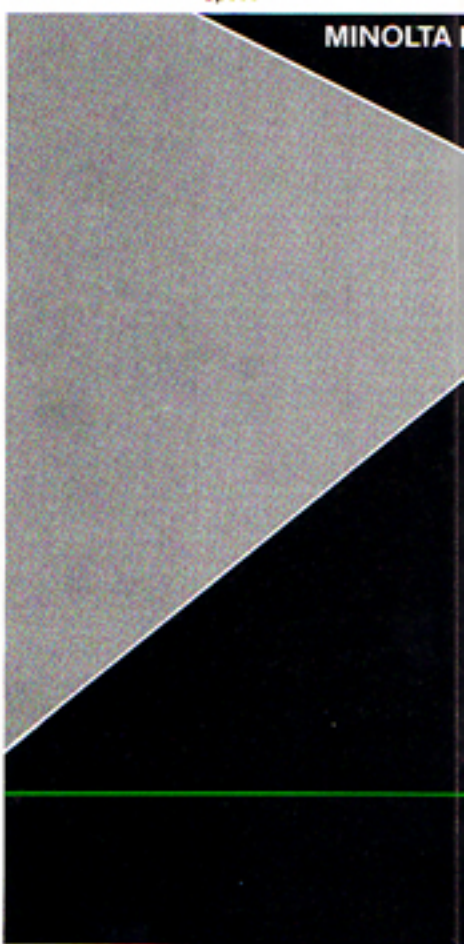
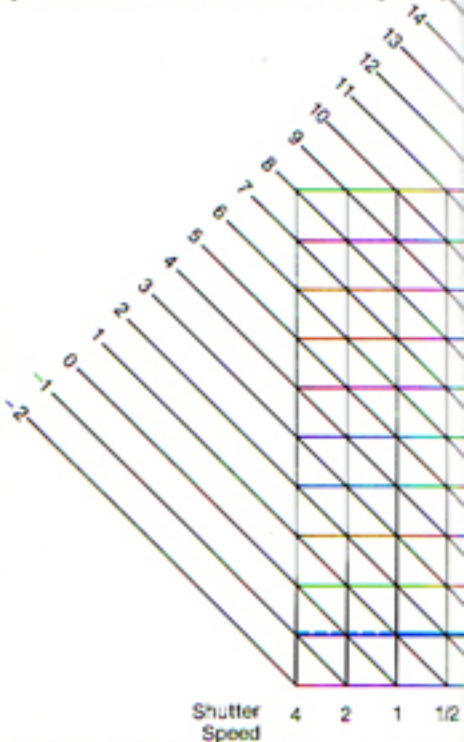
All this happens in milliseconds. Touching the X-700's Touch Switch inputs preset camera information and scene brightness into the P mode circuitry. Depressing the operating button determines a programmed aperture value from the camera's memory circuitry.

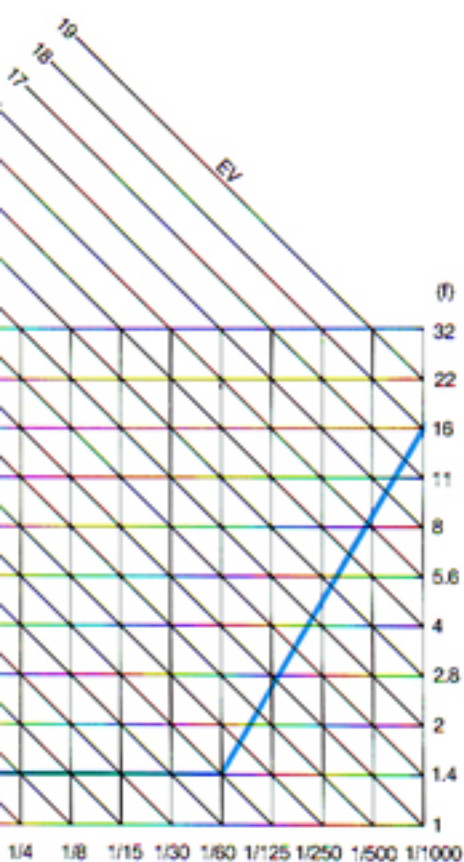
The aperture is then stopped down and the quantity of light passing through the stopped-down aperture is remetered for a final check before shutter operation.



Program graph

(at ASA/ISO 100 with f/1.4 lens)

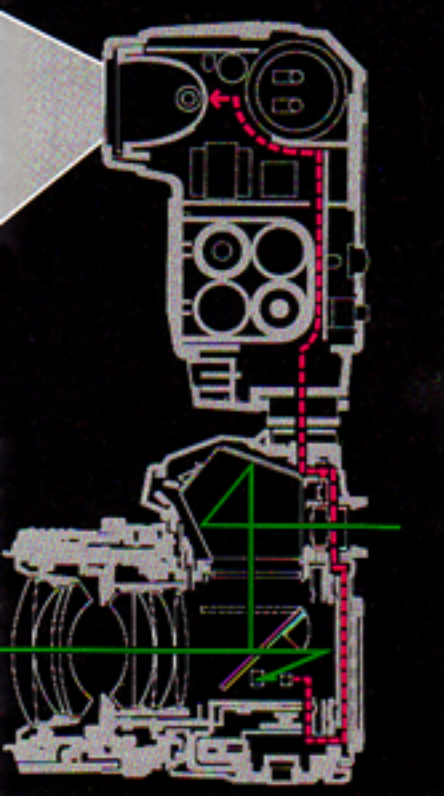




Flash photography, too, is programmed with the combination of the X-700 and the Auto Electroflash 360PX or 280PX. Upon completion of flash capacitor charging, a signal is fed to the camera from the flash unit. When the shutter is released, the shutter speed is automatically reset to 1/60 second and the aperture is determined. After the mirror lifts, the flash emits light simultaneously with full shutter opening so that light reflected from the subject strikes the film surface. A silicon photocell adjacent to the mirror box collects a sample of this light reflection and shuts off flash emission at the precise micro-second for ideal exposure. A feedback system indicates both in the X-700's viewfinder and on the back of the 360PX or 280PX if exposure was correct.

Input from the Motor Drive 1, the Multi-Function Back, Quartz Data Back 1 and the Wireless Controller IR-1 Set is likewise processed by the X-700 for fully-integrated system reliability and cross-functioning. These accessories integrate with the X-700 individually, and with each other when used in tandem. For example, data from the camera control mode of the Multi-Function Back teams with the Auto Electroflash 360PX or 280PX, the Motor Drive 1 and the Power Grip 2 to automatically turn on the flash unit one minute before an interval-timed delay photograph to fully charge the flash, trigger all the functions at the precise moment, shut the flash off after use and wind the film to the next frame!

DIRECT AUTOFLASH METERING



The Minolta Auto Electroflash 360PX/280PX

A tremendous range of flash versatility combined with ease-of-use.

The Minolta Auto Electroflash 360PX and 280PX are designed for exclusive use with the X-700. When mounted on the X-700, either Auto Electroflash automatically receives the film's ISO/ASA/DIN rating from the camera, necessitating no setting on the flash unit itself. When fully charged and ready to fire, it signals flash-ready both in the camera viewfinder and on the back of the flash unit. When the shutter is released, it automatically sets the X-700's shutter to the correct X-sync speed (1/60 sec.) and discharges; the X-700 controls flash duration

and confirms that the exposure was correct, again both in the viewfinder and on the back of the flash unit. In the X-700's P-mode, the aperture is automatically set. In A-mode, flash emission to the aperture is selected. Attach the Motor Drive 1 or Auto Winder G and you'll get action flash sequences up to 2 or 3.5 fps. Add the Multi-Function Back and you can achieve unmanned interval autoflash operation. Both the 360PX and 280PX mate with the optional Minolta Triple Connector, which allows versatile off-camera placement of interconnected electronic

flashes. The 360PX features variable guide number operation: in both autoflash and manual flash modes, up to nine guide numbers and operating range settings up to 1/16 can be selected in 0.5 EV increments. Additionally, its flash head can be rotated 90° both vertically and horizontally to allow bounce flash photography for effective portraits. And two kinds of autoflash controls, direct metering and flash metering, can be selected by switch according to photographic conditions.





The Minolta Multi-Function Back:

Unmanned camera control and automated data imprinting.

It took Minolta to develop the world's first Multi-Function Back, a product of the most sophisticated electronics technology and precision manufacture. This exclusive X-700 optional accessory quickly and simply interchanges with the camera's regular back: no special tools are required. A built-in quartz clock and micro-computer provide a variety of functions and LCD readouts.

Camera Control for unmanned operation

*Interval shooting in any time segment from 1 second to 99 hours/59 minutes/59 seconds when used with the Motor Drive 1 or Auto Winder G.

With the Auto Electroflash 360PX/280PX and Power Grip 2 combined with the Motor Drive 1 or Auto Winder G, interval flash photography is feasible. The Multi-Function Back automatically turns the flash unit power supply on and off, even allowing a 60-second warm-up time. There are unlimited uses for this mode, particularly in close-up photography. The number of frames used in unmanned interval photography can also be pre-selected.

*Long exposure control of up to several hours is possible.

*Interval, number of frames and long exposure modes can be used in combination.

*Imprinting and camera control functions can be used simultaneously.

Imprinting for identifying and/or classifying photographs

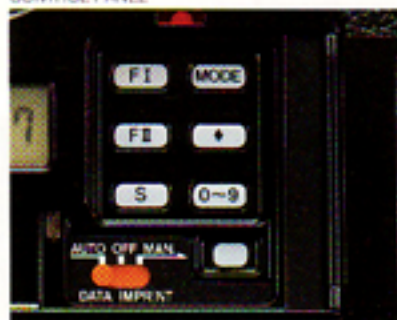
*Set the display mode to hour/minute/second and the imprint mode to the AUTO position. Each film frame will be imprinted with the precise moment of exposure, ideal for record-keeping photography or sequential photographs that entail a time progression.

*Imprint month/day/year in any of three ways, with a full auto-calendar from 1981 to 2099. Once set, the date automatically changes...with leap years and month lengths automatically compensated for. Use this function for dating weddings, graduations, birthdays and special events.

*Imprint any desired number up to 6 digits. This function can be employed for numeral-coding photographs according to your individual filing procedures.

*Imprint sequential camera- counts from 1 to 999,999. Each shutter release adds "1" to the previous total.

CONTROL PANEL



QUARTZ DATA BACK 1 Full data imprinting of the time, date, code number or sequential camera counts is possible with the Quartz Data Back 1, which easily replaces the X-700's standard Back.



** 15 37 08

TIME MODE Accurate hour/minute/second imprinting registers on each film frame to pinpoint the precise moment of action.



** 01 03 82

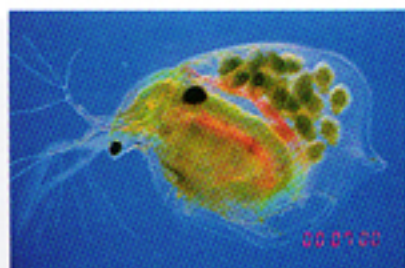
DATE MODE All combinations of month, day and year can be clearly imprinted on any film frame to memorialize a special occasion.



** COUNT 00 00 01

COUNT MODE Each film frame can automatically be sequentially numbered up to 999,999 beginning with any digit or digits you select.





** 00 07 00

CODING MODE You can set any numerical code up to 999,999 to encode photographs in any manner you may choose.



** 02 45 00

LONG EXPOSURE MODE
Long exposures are easily programmed with the Multi-Function Back for spectacular effects.



** 03 00 00

DAYLIGHT INTERVAL MODE
Set the Multi-Function Back to photograph any number of frames at predetermined time intervals.



** 00 30 00

FLASH INTERVAL MODE
It's easy to program flash interval photography, too. The flash will turn on, warm up, fire at the precise moment, shut off and the film will automatically wind to the next frame to repeat the process at set intervals.



The Minolta Motor Drive 1

You'll never lose a split second of exciting, high-speed action.

The Motor Drive 1 is an optional accessory that provides the X-700 with automatic film advance, allowing the photographer to concentrate on the aesthetics of photography while the camera and motor drive take care of the mechanics of photography. This high-speed capability is perfect for sports, news coverage, portraits, close-up and wildlife photography...among many other action opportunities.

There are three modes with the Motor Drive 1:

*Continuous shooting at Hi: up to 3.5 frames per second

*Continuous shooting at Lo: up to 2 fps

*Single-frame shooting at S:

The Motor Drive 1 has two Touch Switches, one with a lockable operating button control. These enable the user to hold and easily balance the X-700 in any position. For flash photography, the Motor Drive 1 combines with the Auto Electroflash 360PX or 280PX with the Power Grip 2, for continuous flash sequences up to 35 fps.

The Motor Drive 1 also mates with the Multi-Function Back for automatic interval photography, and with the Wireless Controller IR-1 Set for continuous remote-control photography.



The Minolta Wireless Controller IR-1 Set

For cordless remote operation of your X-700 in places you can't be.



The optional Minolta Wireless Controller IR-1 Set is another technological advance by Minolta that gives extended versatility to the uses of the X-700 by allowing cordless remote control photography with the operator up to 60 meters (about 200 feet) away. Equipped with three separate channels, Wireless Controller IR-1 Set components allow any number of cameras to be operated simultaneously or independently in up to three individual groups, by appropriately setting transmitter and receivers.

When mounted on the X-700, the receiver IR-1 is set for continuous (C) or single (S) frame operation, senses infrared pulses emitted from the transmitter IR-1 and sends a signal to trigger shutter

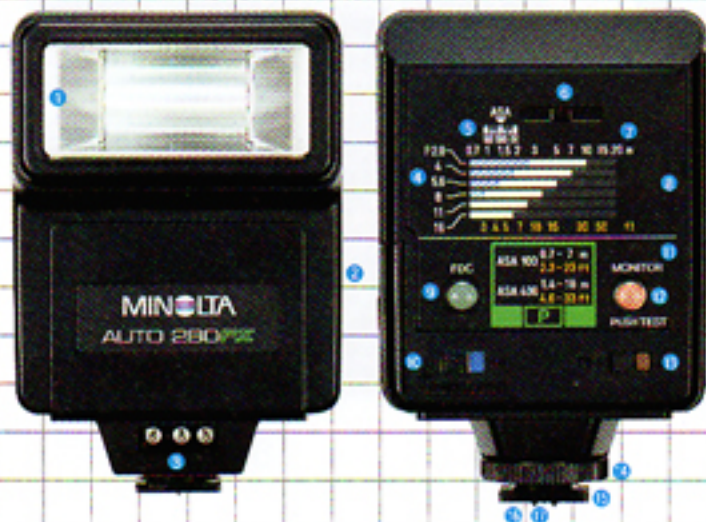
release. When used in combination with the Motor Drive 1, Auto Winder G, Auto Electroflash 360PX, 280PX and the Multi-Function Back, many modes of photography are made possible by remote control.

Auto Winder G The Minolta Auto Winder G quickly couples to the X-700 and automatically advances the film to the next frame to give the photographer up to 2 fps rate. The Auto Winder G can also be used with the Wireless Controller IR-1 Set or the Multi-Function Back for remote-controlled or unmanned photography.



Minolta Program System accessories' part names and specifications

AUTO ELECTROFLASH 280PX



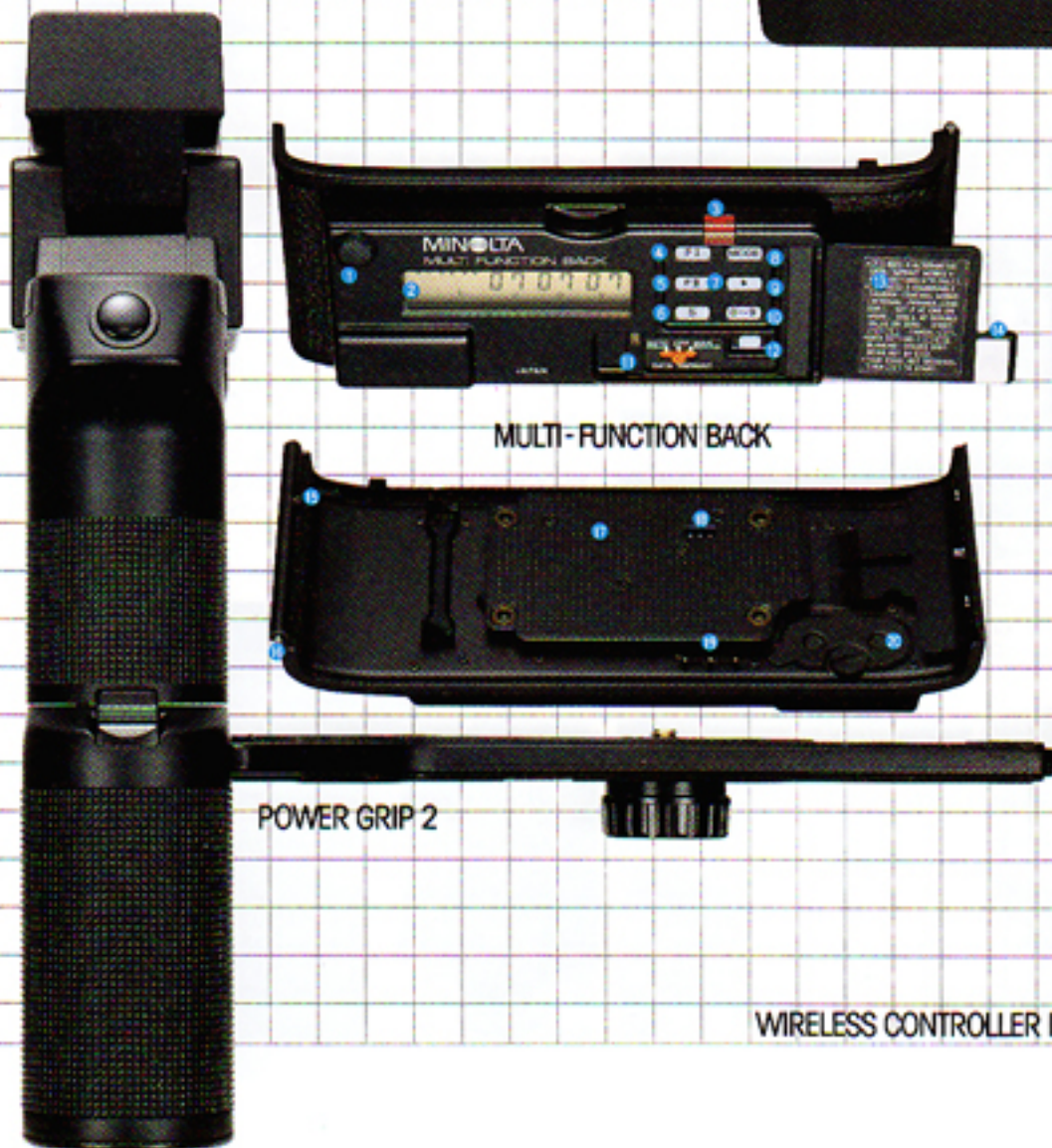
MOTOR DRIVE 1



MULTI-FUNCTION BACK



POWER GRIP 2



WIRELESS CONTROLLER IR-1 SET



AUTO ELECTROFLASH 280PX

- 1 Flashtube
- 2 Battery-chamber cover
- 3 Power Grip 2 connection
- 4 Aperture scale
- 5 Film-speed scale
- 6 Film-speed slide
- 7 Distance scales
- 8 A-mode range indicators
- 9 Flash-distance check light
- 10 Power-level selector
- 11 P-mode range guide
- 12 Monitor light and open-flash/test button
- 13 Power switch
- 14 Bracket clamp
- 15 Attaching bracket

Type: Clip-on programmed/automatic/manual electric flash unit with special contacts for both camera control and TTL off-the-film flash control with Minolta X-700.

Guide number: Adjustable at "Hi" or "Lo" levels

Wideangle diffuser	Without		With	
	Hi	Lo	Hi	Lo
Power level				
Meters, ASA 100	28	7	20	5
Feet, ASA 25	46	11	33	8
Meters, DIN 18	20	5	14	3.5

Autoflash control: By Direct (TTL off-the-film-plane) Autoflash Metering System with X-700 cameras.

Flash duration: Approx. 1/50,000 to 1/1,000 sec. in auto operation; approx. 1/1,000 sec. at "Hi"; and 1/10,000 at "Lo" in manual operation.

- 16 Camera/flash-control contacts
- 17 Sync contact

Flash coverage: For lenses down to 35mm focal length on full-frame 35mm cameras, down to 28mm with wideangle diffuser.

Power sources: Four self-contained AA-size (penlight) 1.5v sealed carbon-zinc, alkaline-manganese, or rechargeable 1.2v nickel-cadmium batteries, optional Power Grip 2.

Number of flashes/recycle time*:

	Hi	Lo
Sealed C-Zn cells	70/9	1000/1
AM cells	200/6	2000/0.5
Ni-Cd cells	100/3.5	600/0.3

*As determined by Minolta's standard testing method.

Exposure confirmation: FDC (Flash Distance Checker) light on back panel and rapid blinking of "60" LED in viewfinder after exposure indicate exposure was proper.

Dimensions: 60x70x102mm (2 3/8x2 3/4x4 1/8 in.)

Weight: 220g (7 3/4 oz.) without batteries.

Specifications subject to change without notice

MULTI-FUNCTION BACK

- 1 Flash-charge-control connection
- 2 Liquid-crystal display
- 3 Imprint indicator
- 4 Function I key
- 5 Function II key
- 6 Camera-control start key
- 7 Control panel
- 8 Mode-selector key
- 9 Film-setting/digit-selector key
- 10 Number-changing key
- 11 Data-imprint switch
- 12 Manual-imprint button
- 13 Recessed area for instruction label

- 14 Control-panel cover
- 15 Release pin
- 16 Hinge pins
- 17 Film pressure plate
- 18 Data imprinters
- 19 Camera-contact pins
- 20 Battery-chamber cover

Type: Quartz-crystal/microcomputer-controlled interchangeable back for data imprinting, and camera/strobe control with Minolta X-700.

Input and display: Data to be imprinted and camera-control commands set by 6 keys and displayed by liquid-crystal panel.

Data imprinting: By light-emitting diodes (LEDs), 6 figures in 3 pairs in lower right corner of frame; choice of 6 modes: 24-hour time (hours, minutes, seconds), date in year/month/day or month/day/year or day/month/year form, any selected number through 99 99 99, consecutive numbering of frames; data-imprint switch with positions for auto imprint, no imprint, or manual.

Camera control: Choice of 3 modes plus combinations; shutter release at intervals, number of frames, shutter opening and closing for long exposures; imprinting also possible simultaneously if desired.

Electronic-flash control: Connected with Power Grip 2, in interval mode automatically gives signal to turn Power Grip 2 on to charge Auto Electroflash 280PX 1 min. before exposure and off immediately after.

Power sources: Two 3v lithium batteries, four 1.55v silver-oxide, or 1.5v alkaline-manganese cells.

Dimensions: 28x53x138mm (1 1/8x2 1/8x5 1/2 in.)

Weight: 85g (3 oz.) without batteries.

Specifications subject to change without notice

MOTOR DRIVE 1

- 1 Selector-dial release
- 2 Selector dial ("S", "OFF", "Hi", and "Lo" indications)
- 3 Touch switch/operating button (for horizontal operation)
- 4 Film-advance coupler
- 5 Attaching screw
- 6 Connection terminals
- 7 Guide pin
- 8 Battery holder
- 9 Battery-holder releases
- 10 Grip
- 11 Accessory-cord terminal
- 12 Pilot light
- 13 Film-rewind slide
- 14 Rewind-slide release
- 15 Tripod socket
- 16 Touch switch/operating button (for vertical operation)
- 17 Lock switch

Type: Automatic film-advancing detachable motor drive for use with Minolta X-700 camera body.

Function: Operates camera's film-advance/shutter-cocking mechanism with four-position selector dial and two touch switch/operating buttons.

Film-advance rate: Three operating modes: "S" mode: single frame; "Lo" mode: up to 2fps; "Hi" mode: up to 3.5fps.

Film rewinding: Manual.

Power: Eight AA-size (penlight) cells.

Drive motor: Coreless-type micromotor.

Usable exposure-control modes: Automatic or manual.

Others: Tension-type switch to stop film advance at end of cartridge.

Dimensions: 72.5x98.5x149mm (2 7/8x3 7/8x5 7/8 in.)

Weight: 305g (10 3/4 oz.) without cells.

Specifications subject to change without notice

WIRELESS CONTROLLER IR-1 SET

- Receiver**
- 1 Operation-indicator light
 - 2 Sensor
 - 3 Channel selector
 - 4 Mode-selector/power switch
 - 5 Battery-check button
 - 6 Battery-chamber cover
 - 7 Bracket clamp
 - 8 Attaching bracket (360° rotation with click stops at every 30°)

- Transmitter**
- 1 Channel-selector
 - 2 Power switch
 - 3 Monitor light
 - 4 Battery-chamber cover

Type: Compact transmitter-receiver set for remote camera control by near-infrared radiation.

Max. range: Approx. 60m (200 ft.)

Operating channels: Three

Actuation modes: Continuous (C) and single-frame (S)

Transmitter unit: Transmission angle: 50° vertically, 70° horizontally

Receiver unit: Reception angle: 80° vertically and horizontally

Power sources: Transmitter: Two AA-size 1.5v sealed carbon-zinc, alkaline-manganese, or 1.2v nickel-cadmium cells. Receiver: One 9v battery, Eveready 216 or equivalent.

Dimensions: Transmitter: 34x70x116mm (1 3/8x2 3/4x4 5/8 in.)

Receiver: 43x60x94mm (1 5/8x2 3/8x3 3/8 in.)

Weights: Transmitter: 110g (3 3/4 oz.) without power cells.

Receiver: 100g (3 1/2 oz.) without battery.

Specifications subject to change without notice

Minolta lenses

A wide array of superior optics, each made from the glass on up with extreme precision.

A Minolta lens is a combination of the most sophisticated computer design, rare ingredients, precision manufacture and assembly, testing and retesting, finishing and inspection. From start to finish, this process blends the most modern, automated equipment with age-old craftsmanship and pride of accomplishment to produce about 50 uncommonly excellent lenses ranging from a 7.5mm Fisheye to a 1600mm Super Telephoto...each bearing the proud Minolta name. You can be sure that when you mount a Minolta lens to your X-700 that you're making a wise investment in photography: the perfect match of a superior camera with a superior lens.

MINIMUM-APERTURE LOCK The new Minolta MD lenses come with a convenient minimum aperture lock that helps insure your X-700's top performance when using the P mode.





Minolta SLR Accessories:

Add to your capabilities with these many specially designed Minolta photographic accessories.

Hundreds of custom Minolta SLR accessories give you virtually unlimited opportunities for ranging far and wide in the field of photography. Whether you're choosing something as simple as a color filter or something as complex as a sophisticated spot meter, you can depend upon your Minolta dealer's offering of fine Minolta SLR accessories. Each is made with care and precision to give you many, many years of value and performance. And each will multiply your X-700's usefulness and creativity manifold.





Minolta SLR System

1 MOTOR DRIVE EQUIPMENT FOR XM MOTOR

- 250-Frame Film Back
- Film Cartridge with Case
- Film Loader
- Battery Grip
- Standard Battery Pack
- Separate Battery Pack
- Remote-Control Cord S & L
- Intervalometer PM
- Connecting Cord S & L
- Leather Holding Strap

FINDERS AND FOCUSING SCREENS FOR XM MOTOR

- Focusing Screens (10 types)
- AE-S Finder
- Plain Finder
- High-Magnification Finder
- Waist-Lever Finder

FLASH UNITS & ACCESSORIES

- Ni-Cd Charger NC-2
- Off-Flash-Sensor
- AC Adapter 4
- Auto Electroflash 360PX
- Auto Electroflash 280PX
- Power Grip 2
- Ni-Cd Battery Pack NP-2
- Ni-Cd Charger QC-1
- Triple Connector
- Off Camera Shoe
- Auto Electroflash 200X
- Auto Electroflash 132X
- Auto Electroflash 118X
- Auto Electroflash 128

FINDER ACCESSORIES

- Eye-piece Corrector V_s (No. 1—No. 9)
- Rubber Eyecup
- Angle Finder V_s
- Magnifier V_s

VERSATILE ACCESSORIES

- Wireless Controller IR-1 Set
- Motor Drive 1
- Multi-Function Back
- Quartz Data Back 1
- Auto Winder G
- Remote Cord S & L
- Quartz Data Back G
- Quartz Data Back D
- Auto Winder D

CLOSE-UP ACCESSORIES

- Close-Up Lens (No. 0, 1, 2)
- Copy Stand II
- Extension Tube Set II
- MC Auto Extension Tubes
- Reverse Ring II
- Microscope Adapter
- Compact Bellows
- Auto Bellows II
- Bellows IV
- Focusing Rail AB-II
- Slide Copier AB-II
- Macro Stand AB-II

2 METER & ACCESSORIES

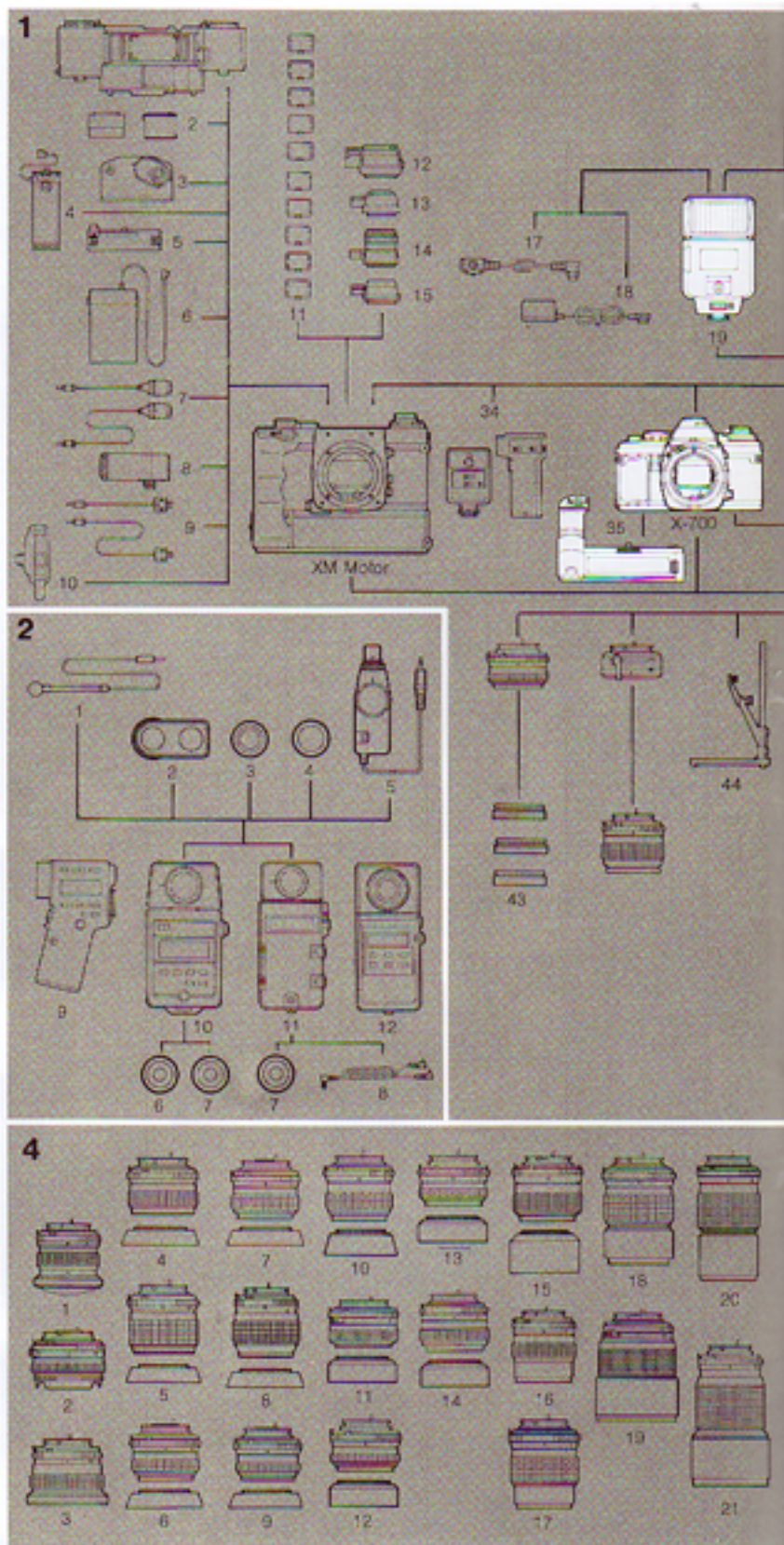
- Mini Receptor
- Viewfinder 10*
- 4X & 8X Spherical ND Diffuser
- Fiat Diffuser
- Booster II
- Spot Mask II
- Reflected-Light Attachment
- Sync. Cord II
- Spotmeter M
- Auto Meter III
- Flash Meter III
- Color Meter II

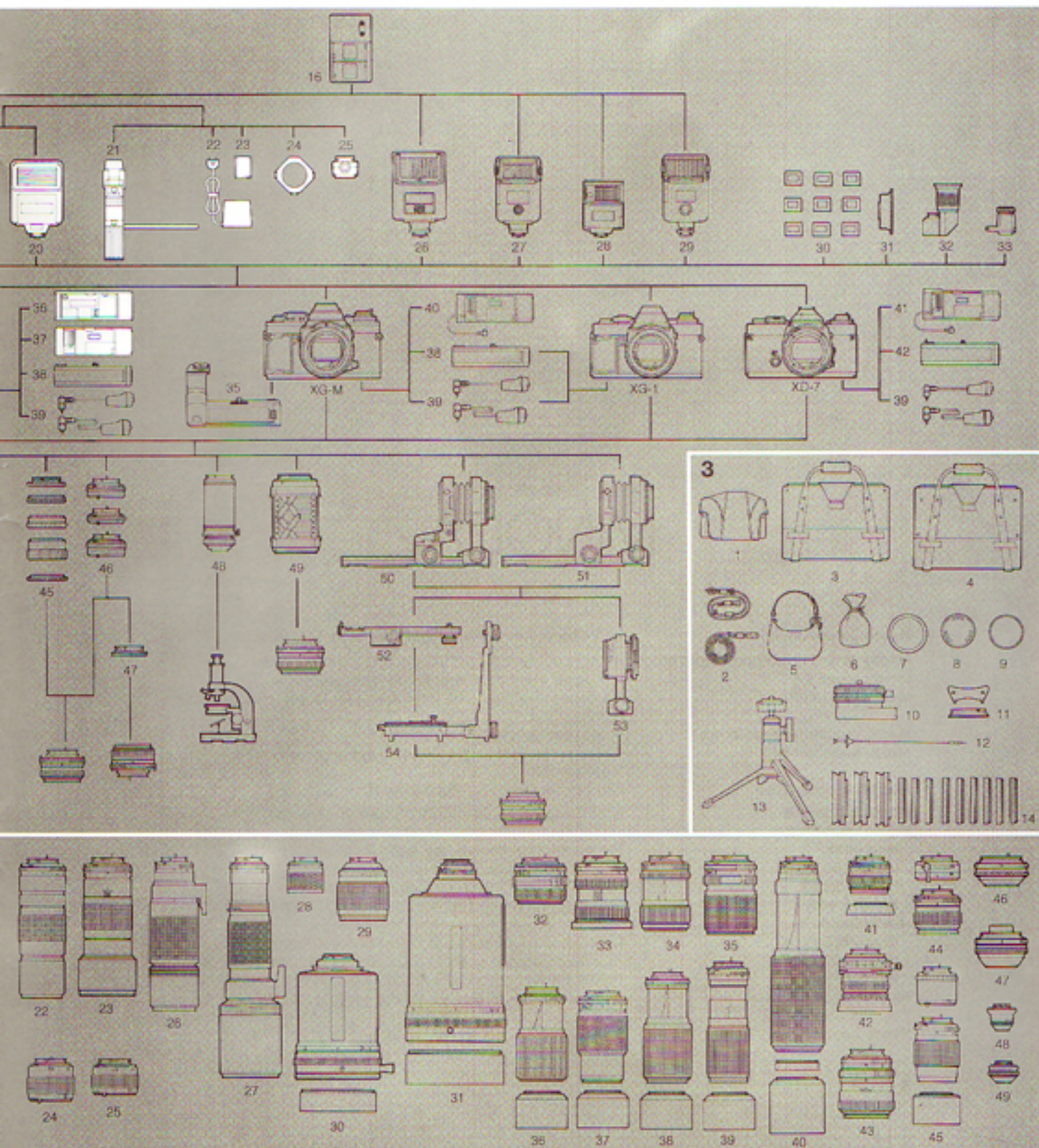
3 OTHER ACCESSORIES

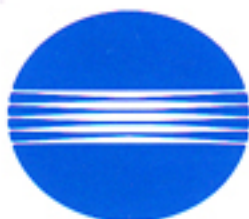
- Eveready Case
- Neck Strap
- Gadget Bag XB-5a
- Gadget Bag XB-7a
- Soft Bag Professional III
- Flexible Lens Pouch
- Lens Cap
- Lens Rear Cap
- Body Cap
- Panorama Head II
- Praktica-Mount Adapter
- Cable Release II
- Mini Tripod TR-1
- Filters

4 MINOLTA LENSES

- 7.5mm f/4 MD Fisheye
- 16mm f/2.8 MD Fisheye
- 17mm f/4 MD
- 20mm f/2.8 MD
- 24mm f/2.8 MD
- 28mm f/2.8 MD
- 28mm f/2 MD
- 35mm f/2.8 MD
- 35mm f/1.8 MD
- 50mm f/2 MD
- 50mm f/1.4 MD
- 50mm f/1.2 MD
- 85mm f/1.7 MD
- 85mm f/2 MD
- 85mm f/1.7 MD
- 100mm f/2.5 MD
- 135mm f/3.5 MD
- 135mm f/2.8 MD
- 135mm f/2 MD
- 200mm f/4 MD
- 200mm f/2.8 MD
- 300mm f/5.6 MD
- 300mm f/4.5 MD
- MD 2X Tele Converter 300-L
- MD 2X Tele Converter 300-S
- 400mm f/5.6 MD Apo
- 600mm f/6.3 MD Apo
- 250mm f/5.6 RF
- 500mm f/8 RF
- 800mm f/8 RF
- 1500mm f/11 RF
- 24—35mm f/3.5 MD Zoom
- 24—50mm f/4 MD Zoom
- 35—70mm f/3.5 MD Zoom
- 35—105mm f/3.5—4.5 MD Zoom
- 50—135mm f/3.5 MD Zoom
- 75—150mm f/4 MD Zoom
- 75—200mm f/4.5 MD Zoom
- 100—200mm f/5.6 MD Zoom
- 100—500mm f/8 MD Zoom
- 24mm f/2.8 MD VFC
- 35mm f/2.8 Shift CA
- 85mm f/2.8 Varisoft
- 50mm f/3.5 MD Macro
- 100mm f/4 MD Macro
- 50mm f/3.5 Auto Bellows Macro
- 100mm f/4 Auto Bellows Macro
- 12.5mm f/2 Bellows Micro
- 25mm f/2.5 Bellows Micro







MINOLTA

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Minolta (UK) Limited

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