

Minolta's full range of quality flash equipment can take you anywhere you want to go in the world of flash photography. Freeze droplets of water as they hit a flat surface... spot light a pretty girl as she walks along a dark street... create a one-of-a-kind kaleidoscope of color and frozen movement. So welcome to the magic of flash photography through the use of Minolta quality flash equipment. Take your pick... and soon you'll be tripping the light fantastic with Minolta!



Want to freeze the action? Minolta Auto Electroflash units deliver up to 1/40,000 of a second!

Two frame-per-second winder synchronization lets you experiment with all sorts of freeze-frame effects... and come up with a prize winner!



Highlighting a particular subject is a snap with the spotlighting technique and your versatile Minolta flash unit.

Specifications

	Auto Electroflash 450	Auto Electroflash 280	Auto Electroflash 132X	Auto Electroflash 128	Auto Electroflash 200X	Auto Electroflash 25	Electroflash 20
Type	Bracket	Clip-on	Clip-on	Clip-on	Clip-on	Clip-on	Clip-on
Auto circuitry	Series-thyristor	Series-thyristor	Bypass	Bypass	Series-thyristor	Bypass	—
Max. G. No. (ASA 100) (ASA 25)	45 in meters 74 in feet	28 in meters 46 in feet	32 in meters 52 in feet	28 in meters 46 in feet	20 in meters 33 in feet	25 in meters 41 in feet	20 in meters 32 in feet
Auto working range	16—0.5 m (52' to 1.7')	7—0.7 m (23' to 2.3')	8—0.7 m (26.3' to 2.3')	5—0.7 m (16.5' to 2.3')	7—0.7 m (23' to 2.3')	4.5—0.7 m (14.5' to 2.3')	—
Flash duration (Automatic)	1/20,000— 1/600 sec.	1/20,000 1/1,000 sec.	1/40,000— 1/1,000 sec.	1/40,000— 1/1,000 sec.	1/40,000— 1/1,000 sec.	1/40,000— 1/2,000 sec.	—
(Manual)	Fixed at 1/600 sec.	Fixed at 1/1,000 sec.	Fixed at 1/1,000 sec.	Fixed at 1/1,000 sec.	Fixed at 1/1,000 sec.	Fixed at 1/2,000 sec.	Fixed at 1/2,000 sec.
Selectable apertures	f/2.8—f/11 at ASA 100	f/4—f/11 at ASA 100	f/4 and f/8 at ASA 100	f/5.6 at ASA 100	f/2.8 and f/5.6 at ASA 100	f/5.6 at ASA 100	—
Acceptable film speed	ASA 25—400 (DIN 15—27)	ASA 25—400 (DIN 15—27)	ASA 25—400 (DIN 15—27)	ASA 25—400 (DIN 15—27)	ASA 25—400 (DIN 15—27)	ASA 25—400 (DIN 15—27)	ASA 25—400 (DIN 15—27)
Power sources	6 alkaline- manganese or nickel-cadmium AA cells 510v battery	4 alkaline- manganese or nickel-cadmium AA cells	4 alkaline- manganese or nickel-cadmium AA cells	4 alkaline- manganese, sealed carbon-zinc or nickel-cadmium AA cells	4 alkaline- manganese, sealed carbon-zinc or nickel-cadmium AA cells	4 alkaline- manganese or sealed carbon- zinc AA cells	2 alkaline- manganese or sealed carbon- zinc AA cells
Recycling time	0.33—2.3 sec.*	0.5—1.1 sec.*	8 sec. or 5 sec.*	8 sec., 7 sec. or 4 sec.*	0.3—6 sec.*	7 sec. or 6 sec.*	10 sec.*
Number of flashes	50—2,000*	70—1,200*	70—180*	40—200*	70—2,200*	70—210*	40—170*
Color temperature	Balanced for daylight- type color film	Balanced for daylight- type color film	Balanced for daylight- type color film	Balanced for daylight- type color film	Balanced for daylight- type color film	Balanced for daylight- type color film	Balanced for daylight- type color film
Angle of coverage	50 mm or longer focal length Down to 24 mm lens with wide- angle diffuser	35 mm or longer focal length	35 mm or longer focal length Down to 25 mm lens with wide- angle diffuser	35 mm or longer focal length Down to 25 mm lens with wide- angle diffuser	35 mm or longer focal length Down to 25 mm lens with wide- angle diffuser	35 mm or longer focal length	38 mm or longer focal length
Automatic bounce flash	Possible with separate sensor	Possible with adjustable head	Possible with adjustable head	Possible with adjustable head	—	—	—
Camera control contact	—	—	Incorporated	—	Incorporated	—	—
Flash distance checker	—	—	Incorporated	Incorporated	—	—	—
Dimensions (width) (depth) (height)	98 mm (3.78") 123 mm (4.11") 230 mm (9.11")	72 mm (2.13") 54 mm (2.18") 153 mm (6")	65 mm (2.6") 65 mm (2.6") 119 mm (4.11")	65 mm (2.6") 65 mm (2.6") 119 mm (4.11")	56 mm (2.31") 70 mm (2.34") 90 mm (3.54")	55 mm (2.31") 61 mm (2.38") 105 mm (4.18")	32 mm (1.14") 65 mm (2.6") 65 mm (2.6")
Weight	780 g (27.716 oz.)	325 g (11.716 oz.)	238 g (8.576 oz.)	220 g (7.34 oz.)	210 g (7.38 oz.)	155 g (5.716 oz.)	90 g (3.18 oz.)
Optional Accessories	510v battery pack** Ni-Cd battery cartridge & charger** Separate Sensor with sensor sync cord	Ni-Cd batteries & charger 280	Color-filter set (red, green, blue, yellow, tungsten-conversion, ND 2X, ND 4X). Wide-angle diffuser for coverage with lenses down to 24 mm. Ni-Cd charger NC-2 with batteries	Color-filter set (red, green, blue, yellow, tungsten-conversion, ND 2X, ND 4X). Wide-angle diffuser for coverage with lenses down to 24 mm. Ni-Cd charger NC-2 with batteries	Ni-Cd charger NC-2 with batteries	—	—

*Depending upon power source and/or subject distance
**Not available in some areas
specifications subject to change without notice

Minolta

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MINOLTA AUTO ELECTROFLASH

450/280/132X/128/200X/25
ELECTROFLASH 20



Tripping The Light Fantastic



Get that "professional look" in portrait photography, using a variety of daylight fill-in techniques.



Now you can capture the excitement and mood-of-the-moment with strobe effects from the open flash technique... and your imagination!

MINOLTA FLASH UNITS for a variety of uses, effects and techniques.

With any single Minolta flash unit detailed below, you can obtain a wide variety of special effects, using different flash techniques. You don't have to be a seasoned professional: Minolta does all the work!
With Minolta you're assured of good results, time after time. Precision-crafted, long-life components... lightweight, smart styling... dependable performance under all conditions, these are the hallmarks of any quality-built Minolta flash unit you choose!

AUTOMATIC FLASH

Minolta offers a wide selection of automatic flash units that are easy to operate and virtually foolproof. Simply attach and set, focus your camera, and shoot. An automatic Minolta flash unit does all the rest. The results will speak for themselves! Minolta's power and automatic control system give you the best results imaginable.

BOUNCE FLASH

Using this technique gives you a soft lighting effect, free from harsh shadows and high contrast. The flash heads on the Minolta 450, 280, 132X and 128 can be tilted back so as to reflect emitted light from an overhead surface or side wall. Most units feature several positions of tilt, by means of fixed stops. It's really simple! Just choose the angle best suited for your subject, focus and presto! You'll be amazed at the results: softer, more natural photos



with just the right lighting effect... courtesy of Minolta!

THE SERIES THYRISTOR CIRCUIT

Minolta's Auto Electroflash 450, 280 and 200X units feature special circuitry to cut power recycling time to a minimum. And as you know, this is a very important feature on any high-quality piece of flash equipment. Minolta's series thyristor circuit reduces power recycling time to 1/3 second with the 450 and 200X models, and to 1/2 second with the model 280. This gives more flashes per set of batteries—plus no more standing around looking at your wristwatch, waiting for your unit to recharge! The series thyristor circuit discharges only the required amount of power in the flash circuit; so only the amount of power actually used needs replenishing. The Auto Electroflash lets you shoot wherever and whenever you need.

SPECIAL CAMERA CONTROL

This Minolta feature is yours with the models 200X and 132X. It virtually guarantees precisely-exposed flash photographs, time after time. When the unit is fully charged, an LED in the viewfinder of the XD/XG blinks to indicate that the flash is ready to fire. When the shutter is released, it electronically sets the XD/XG shutter speed for X sync. If the flash capacitor is not fully charged or the unit is switched off, the camera works in the automatic or manual mode you selected. That's Minolta for you! Foolproof flash photography... automatically!

FLASH DISTANCE CHECKER(FDC)

This special feature is found on the Auto Electroflash 132X and 128 units, and is of great help when using bounce flash techniques. Basically, the Flash Distance Checker confirms that your subject is within the proper range for good flash photography results. After your flash has fired in the automatic mode, a green lamp on the back of the unit will light, indicating proper exposure. It's just that simple! Modern Minolta technology takes the guesswork out of flash photography!



(In case of XD)



AUTO ELECTROFLASH 450

The versatile and powerful energy-saving Auto Electroflash

The versatile Auto Electroflash 450 is a bracket type model that will meet the demands of the most exacting photographer. The 450 is the most powerful model in the Minolta flash line with a guide number of 45 (in meters) for ASA 100, but you can use the 450 on or off the camera to get any of the special effects you want. The 450 is powerful yet energy-saving.



Five apertures to choose from

A key factor with the 450 is the wide range of apertures available with every setting, which allows you to enjoy maximum creative freedom. Whether you wish to have the fullest depth of field, highlight the subject or just fill-in, the 450 gives you creative use of depth of field.



Wideangle coverage

The 450 has a built-in wideangle diffuser that is stored in the flash head, so it is always handy when you need it. Coverage is sufficient for lenses down to 24mm wideangle. Now you won't feel like you are always in quarters that are too close for the right shots, the 450 will have you covered.

Bounce flash

Bounce flash lets you bring a greater amount of individual expression to your photography, and the 450 can be used automatically both on and off the camera. For bounce flash the 450 has an adjustable bracket. For off camera and bounce flash use there is a remote sensor.



Quickest recycling

With the Auto Electroflash 450 you won't miss out on the action shots. It offers the quickest recycling in the Auto Electroflash line—as fast as 1/3 sec., which means flash synchronization with motor drive operation is also possible. This rapid recycling with the energy-saving series thyristor circuit enables you to capture a moving subject for a stroboscopic-like effect.

Optional accessories

A 510v battery pack* provides a maximum of 3,000 shots and gives top speed recycling. Ni-Cd charger* and cartridge* can be quickly recharged. A separate sensor for auto bounce both on and off camera is available, together with a sensor sync. cord for cameras without hot shoes.

* Not available in some areas

AUTO ELECTROFLASH 280

With power to spare this cord and cordless unit handles any flash requirement with ease.

With the 280 you get a compact unit that will handle any shooting condition indoors or out. The guide number of the 280 is 28, that's in meters, at ASA 100. This powerful unit saves time and energy plus it's easy to handle.



Four apertures to choose from

With continuous settings over a 4 aperture range, the 280 gives you a natural fill-in to balance any unevenly lit areas. Any one of the four apertures is available at every setting to let you control the depth of field and create just the feeling you want. This means you also have more control over subject and background lighting.



Rapid recycling

The 280 gives you a minimum recycling time of 1/2 sec., just to make sure you can catch the fastest action. The series thyristor circuit maximizes energy saving because only the amount of energy discharged by the flash circuit has to be recharged, making rapid recycling possible.

Versatile bounce flash

Bounce flash is simplified with the 280. The Flash head swivels 60° horizontally and 180° from left to right. Another very useful capability of the 280 is that it can cover fully a 35mm wideangle lens.

Optional accessories

A Ni-Cd charger 280, is available, which can fully charge the Ni-Cd batteries in 3-1/2 hours without removing from the unit.



AUTO ELECTROFLASH 132X&128

These all-purpose compact flash units have a host of power packed features.

The compact easy-to-handle 132X and 128 models offer many versatile features. Both are cordless units which can be used with a sync. cord if the camera has no hot shoe. And the powerful output is sufficient enough to cover the largest number of subjects indoors or outdoors. The 132X offers a choice of two apertures at each setting. Also, a special check (FDC) lamp on both units confirms autoflash brightness for correct exposure. These models have maximum reach to handle the width of coverage of a 24mm lens.



Special camera control

Model 132X has a specially designed camera control that will automatically set the camera's shutter to the proper X-sync. for XD and XG cameras, when the Electroflash is fully charged and the shutter is released. Flash ready is confirmed by LED display. Now when you use your flash you should never make an exposure mistake.

Flash Distance Checker

Now you can confirm the exposure to your subject for near foolproof flash effectiveness, before you shoot. After the flash has fired a green FDC lamp on the back of the flash will light if flash brightness is sufficient for proper exposure.

Bounce flash and wideangle coverage

Bounce flash can be used to give natural soft lighting effects on the subject. And the flash heads on both models can move to vertical with click stop positions at 50°, 65°, and 90° to achieve this. Both the 132X and 128 come with a snap-on wideangle diffuser allowing the use of 28mm lens.

Lighted computer dial and LED readout

The 132X incorporates a green illuminated control dial to facilitate using the unit in dark places. LED's behind the dial light indicate appropriate autoflash f-numbers for added convenience.

Optional accessories

As optional equipment you can get our color filter set that includes red, green, blue, yellow, tungsten-coverage, ND 2X, and ND 4X filters, a wideangle diffuser for coverage with lenses down to 24mm, and Ni-Cd charger NC-2 with batteries.



AUTO ELECTROFLASH 200X

This special unit electronically sets XD and XG cameras to the proper sync. speed.

The Auto Electroflash 200X is a cordless unit for use with Minolta's XD and XG cameras and electronically solves various flash problems. With a maximum guide number of 20 (in meters) at ASA 100, it is easy-to-use, versatile and fool-proof. It saves time and gives exact control over unusual conditions and subjects.



Special camera control

When the unit is fully charged, an LED in the finder of the XD/XG blinks to indicate that the flash is ready to fire. When the shutter is released, it electronically sets the XD/XG shutter speed for X sync. If the flash capacitor is not fully charged or the unit is switched off, the camera works in the automatic or manual mode you selected.

Versatile flash power

The 200X has two operating settings for both "Auto" and "Manual" modes. The mode selector lets you choose the type of flash you need. In manual, the Low setting gives you winder sync. flashes up to 2 frames per second. The High setting is for conventional flash photography at its maximum flash intensities. Or, set the Auto Electroflash 200X to auto setting and get perfectly exposed flash photographs at either of two apertures, automatically.

Wideangle coverage

Wideangle coverage is also easy with the 200X. Thanks to the wideangle diffuser included with this compact, lightweight unit, there is sufficient coverage for a 28mm lens. Even in tight locations the 200X will give plenty of latitude so there's no gradual falling off of light around the edges. You get the light you need for the shots you want.

Optional accessories

The compact Ni-Cd charger NC-2 with batteries is available. With it the Ni-Cd batteries that power the 200X can be recharged in 8 hours.



AUTO ELECTROFLASH 25

Lightweight, economy model

The model 25 succeeds in wrapping up economy and convenience in one compact unit; the Auto Electroflash 25 weighing only 155g (5-7/16 oz.) is the most compact unit in the Auto Electroflash line. Yet, this little flash gives you the foolproof accuracy of Auto Electroflash in the smallest package. It is cordless and can be used with a sync. cord for cameras without hot shoe. The model 25 is the smallest of the Minolta Auto Electroflash units but it performs like units costing much more.



ELECTROFLASH 20



Super compact non-automatic

The Electroflash 20 is a non-automatic unit that connects cordlessly to the hot shoe of any camera, and is powered by two AA-size batteries. You get up to 170 flashes with alkaline batteries and up to 40 with sealed carbon-zinc batteries. Its easy-to-read computer dial makes setting the exposure fast and easy. It is color balanced for use with daylight film.