

*Achieve the impossible
with the impossible achievement:
the Asahi Pentax MX*



ASAHI
PENTAX

MXC

TOUGH TWINS

These twins are tough. They are made to take beatings.
To perform flawlessly time after time again.

They are also tough to beat when it comes to price and quality features. Born at the same time, these twins look alike, feel alike, and even cost about the same. But like human twins, each has a personality of its own. To discover which tough twin is the camera for you, be sure to read the brochures for both models: the Asahi Pentax ME and MX.



ASAHI PENTAX MX PROFESSIONAL MOTOR DRIVE CAMERA

DYNAMITE !

Like a stick of dynamite, the Asahi Pentax MX is small, but packs a powerful wallop! The most explosive thing to happen to photography in a decade, the MX destroys all the myths claiming that a rugged camera must be bulky and weighty. Turn the pages to discover why the world's featherweight, the MX, is the world's heavyweight!



Despite its through-the-lens viewing and metering, interchangeable focusing screens and backs, as well as provision for auto winder and motor drive, the Asahi Pentax MX is smaller than a well-known (German) 35mm rangefinder camera!

WHY ALL THE FUSS ?

The announcement of another high quality camera from Asahi Optical Company can hardly come as a surprise. After all, Asahi Optical has been manufacturing incomparable cameras for the past 25 years. With 6,000,000 Asahi Pentaxes already sold, there isn't anyone who hasn't heard of a Pentax camera. So why all the fuss about another one?

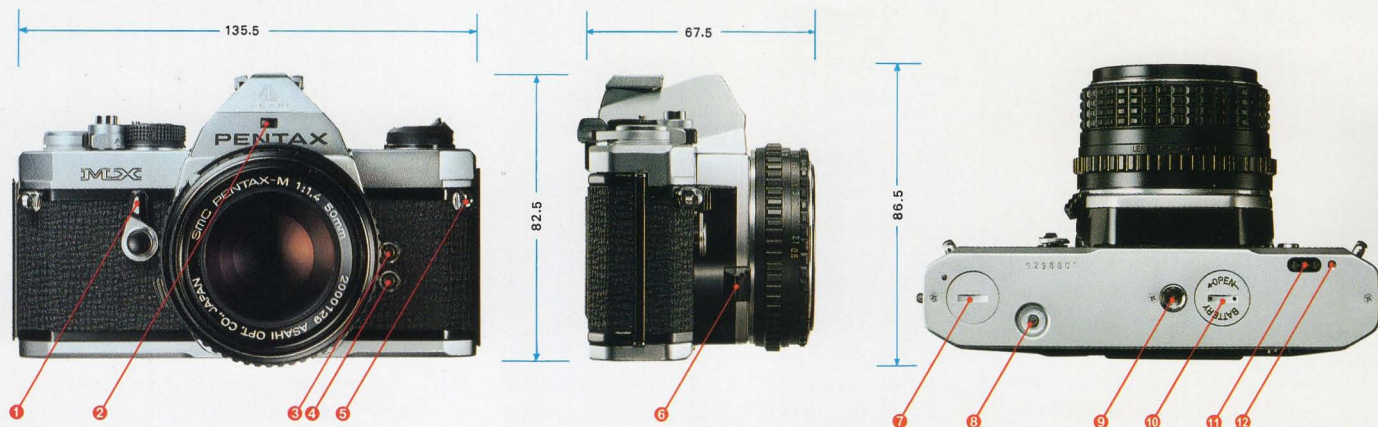
Well, a revolution is always exciting. Take the time Asahi Optical introduced the world's first through-the-lens metering system, there was a lot of excitement created then, and you have to admit the excitement was justified. The same is true for the time Asahi unveiled the first quick-return mirror, or the first aperture-priority automatic exposure 35mm single lens reflex.

What specifically, then, is so exciting about the very latest Asahi Pentax, the MX? The big fuss is doubtlessly due to the fact that never before have so many revolutionary features been simultaneously incorporated into a single camera, features such as the following:

- World's smallest 35mm SLR motor drive camera.
- World's lightest 35mm SLR motor drive camera.
- Absence of mirror shock.
- World's first camera with Gallium Arsenide Phosphide Photo Diodes.

- World's first professional ultra compact camera with full-information viewfinder.
- World's first "magic needle" loading system.
- 8 interchangeable focusing screens.
- Choice of auto winder (2 fps) or motor drive (5 fps).
- Interchangeable data back.
- 250 exposure Bulk Film Magazine Back available.
- Extensive range of SMC Pentax lenses to choose from.
- Smaller camera, but bigger, brighter viewfinder.
- Smaller camera, but bigger, stronger parts.
- Tri-color LED exposure read-out.
- Three-way focusing.
- Hot Shoe with built-in circuit breaker.
- Memo Holder.
- Self-Timer.
- FP and X synchronization.
- Depth of Field Preview.
- Unique meter switch.
- Shutter Release Button Lock.
- Shutter Cocked Indicator.
- Extensive ASA range of 25-1600.
- ASA Dial safety lock.
- Broad exposure measurement range of EV 1-19 (100 ASA, f/1.4).

SIZING UP THE PENTAX MX



● Length

Measuring merely 135.5mm in length, the MX is shorter than 99% of all other 35mm SLR's, offering just enough room for the perfect grip.

● Shoulder Height

Matched by none, the shoulder height of the MX is an incredible 60.5mm, or approximately the same height as a box of 35mm film!

● Maximum Height

With a maximum height of 82.5mm, the MX is no taller than the average pack of cigarettes.

● Depth

Regardless of the standard lens mounted on the MX, it is unbelievably slim. Just take a look at the figures below:

w/40mm f/2.8 lens	67.5mm
w/50mm f/1.7 lens	80.5mm

w/50mm f/1.4 lens 86.5mm

w/50mm f/1.2 lens 98mm

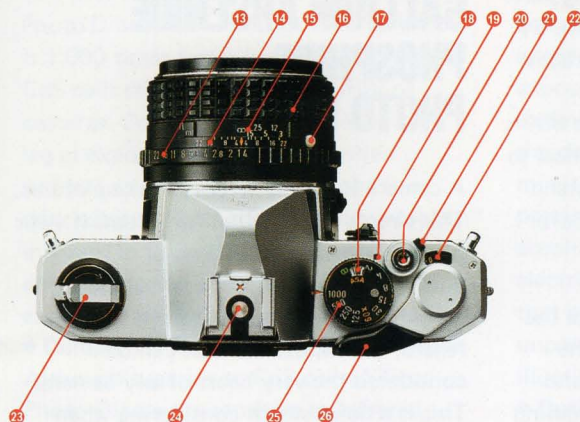
● Weight

As the Pentax ME is the only 35mm SLR lighter in weight than the MX, the MX is unquestionably the world's lightest motor drive 35mm SLR. See for yourself in the table below.

Body only	495g
w/40mm f/2.8 lens	605g
w/50mm f/1.7 lens	685g
w/50mm f/1.4 lens	735g
w/50mm f/1.2 lens	880g

The MX, then, sizes up to be the world's smallest and lightest professional motor drive 35mm SLR. Its minute size and light weight make it the paragon of portability, rapid handling, and operating ease.

NOMENCLATURE



- | | |
|---|--------------------------------------|
| ① Self-timer lever/Depth-of-field preview lever | ⑩ Depth-of-field scale |
| ② Aperture read-out prism window | ⑪ Distance scale |
| ③ FP-sync terminal | ⑫ Focusing ring |
| ④ X-sync terminal | ⑬ Upraised alignment dot |
| ⑤ Neck strap ring lug | ⑭ ASA window |
| ⑥ Lens release lever | ⑮ "Cocked" indicator |
| ⑦ Film transport coupler | ⑯ Shutter release button |
| ⑧ Film rewind button | ⑰ Shutter button lock lever |
| ⑨ Motor Drive/Tripod receptacle | ⑱ Exposure counter |
| ⑩ Battery chamber | ⑲ Film rewind knob/Back cover opener |
| ⑪ Winder/Motor Drive direct contact terminal | ⑳ Hot shoe X contact |
| ⑫ Guide pin channel | ㉑ Shutter speed dial |
| ⑬ Aperture ring | ㉒ Film advance lever |

SPECIFICATIONS

Type 35mm full-frame SLR camera with open-aperture center-weighted Through-The-Lens meter.

Lens mount Pentax K bayonet.

Standard lenses SMC Pentax 50mm f/1.2 SMC Pentax-M 50mm f/1.7
SMC Pentax-M 50mm f/1.4 SMC Pentax-M 40mm f/2.8

Shutter Horizontal-run, rubberized silk focal-plane shutter; speeds from 1/1000 to 1 sec. plus B; shutter lock and "Cocked" indicator.

Flash synchronization FP and X-sync terminals, plus hot shoe; 1/60 sec. X synchronization.

Self-timer Delays shutter release by 4 - 12 seconds; self-timer start button provided.

Viewfinder Silver-coated pentaprism finder; split-image micropism focusing screen (8 interchangeable screens); 95% of picture-taking area visible and 0.97x magnification with 50mm lens at infinity; -0.5 diopter eyepiece. Information viewfinder shows f/stop, shutter speed and tri-colored LED read-out dots. Correction Lens Adaptor M, Magnifier M and Refconverter M fit the viewfinder frame.

Mirror and diaphragm Instant return mirror and automatic diaphragm. Depth-of-field preview with self-timer lever.

Film wind and rewind Ratchet-type rapid wind lever, plastic-tipped for

winding comfort. 162° throw with a stand-off angle of 20°. Rewind crank for speedy film rewind.

Film loading New magic-needle quick/sure loading.

Automatic winder MX body accepts Winder MX for up to approx. 2 frames-per-second (single-frame and consecutive exposure possible) and Motor Drive MX for up to approx. 5 frames-per-second (single-frame and consecutive exposure operation possible), for automatic, speedy film wind and shutter cocking.

Exposure counter Automatic reset type.

Exposure meter Open-aperture, center-weighted Through-The-Lens meter, with GPD cells for fast light response, with tri-colored LED exposure read-out, rapid wind lever and shutter release button acting as meter switch. Exposure range: EV 1 - 19 (ASA 100, f/1.4), Film speed range: ASA 25 - 1600.

Power source Two 1.5V silver oxide batteries (G13); LED's double as battery check lamp.

Back cover Standard back with memo holder, interchangeable with Magazine Back MX, Dial Data MX for data recording on film.

Body size 135.5mm x 82.5mm x 49.5mm.

Body weight 495g.

SMALLER, BUT BIGGER

● Bigger, Brighter Viewfinder

As difficult as it is to believe, the viewfinder of the MX is actually bigger and brighter than those of the larger, heavier cameras. Focusing even in dim light is child's play when working with the brilliant, Pentax Panoramic Viewfinder. Image magnification is large, too. The nearly life-size image (.97x with 50mm lens at infinity) makes it possible to work with both eyes open, adding considerably to viewing comfort.

The percentage of visibility is also large. Because 95% of the picture-taking area is visible, you can compose accurately, knowing exactly what will appear on the film. The small 5% loss of visibility compensates for an equal loss of the actual picture area which is due to the slide mount, negative carrier, or printing easel.

Thus, the Pentax MX offers a huge, brilliant viewfinder, with a large image magnification, and a big percentage of the picture-taking area visible. All of this, in the smallest camera of its type. It all boils down to a camera that handles as well as it feels.

● Bigger Parts

Also amazing is the fact that moving parts have been strengthened and enlarged. By reducing the number of moving parts, it has been possible to enlarge those remaining. The die cast body of the MX is the toughest designed by Asahi Optical to date. No wonder it can easily withstand the punishment of 5 fps with the motor drive unit.

● Bigger in Terms of Reliability

Every effort has been made to make the MX the most reliable camera yet, the pinnacle of accuracy, consistency, and ruggedness. Take the method of coupling the ASA, aperture, and shutter speed settings, for instance. Although other cameras make use of nylon cords, minute metal chains, small cables, or gears for coupling, the MX utilizes indestructible variable resistors for electrical, not mechanical, coupling. Because of this, the coupling of the MX cannot disengage, get clogged, wear out, or break. This is only one example of why the MX is bigger in terms of reliability; you will discover other reasons as you read on.

● Biggest in Features and Performance

The nice thing about owning an MX is the fact that you can get acquainted with the world's smallest motor drive 35mm SLR and the world's most feature-laden camera at the same time. Only Pentax, for example, has features such as the new Gallium Arsenide Phosphide Photo Diodes.

ANOTHER PENTAX FIRST! GALLIUM ARSENIDE PHOSPHIDE PHOTO DIODES

A camera is merely a tool to take pictures. This simple fact is often forgotten. If your pictures are constantly over or underexposed, your camera cannot be considered a very good tool. In this regard, the exposure meter can be considered the very heart of any camera. This is a point worth considering when selecting your next camera.

As the first maker to put the exposure meter where it belongs, behind the lens of the camera, Asahi Optical Company is the acknowledged leader in the field of exposure measurement. Thus, it comes as no surprise that Asahi Optical is responsible for the latest development in photo diodes. While most manufacturers are still in the process of switching from CdS cells to the superior Silicon Photo Diodes, Asahi has introduced a revolutionary new type of light sensor, the Gallium Arsenide Phosphide Photo Diode, and the Pentax ME and MX are the world's first cameras to utilize these new super sensitive diodes.

- **1,000 Times Faster in Response**

The new Gallium Arsenide Phosphide Photo Diode, GaAsP-PD or GPD for short, is 1,000 times faster in response than the CdS cells still used in the majority of cameras. Consequently, there is no time lag in exposure measurement when suddenly switching from a bright to a dark subject. Since the "memory problem" inherent in CdS cells has been entirely eliminated, you are assured of perfect exposures every time.

- **Completely Insensitive to Infrared Rays**

Although superior to CdS cells, Silicon Photo Diodes are sensitive to infrared rays. For example, when photographing a snow covered landscape painted red by the evening sun. Silicon Photo Diodes respond to the infrared rays causing underexposure. To eliminate the above problem, SPD's are fitted with a special filter to absorb the unwanted rays. However, the filter is not entirely successful, as a small portion of infrared rays still find their way through the filter. However, the new GPD's developed by Asahi Optical are entirely insensitive to infrared, thereby guaranteeing the ultimate in exposure measurement accuracy.

- **Low Light Level Accuracy**

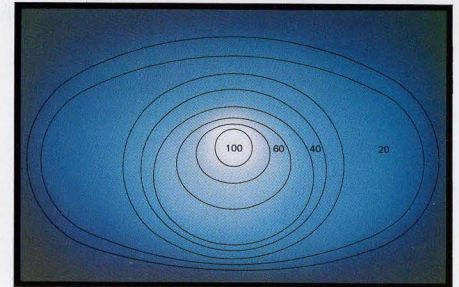
Photo Diodes work on the principle of converting light energy into electrical energy. Ideally, when conducting an exposure measurement in absolute darkness, no current should flow through the metering system. Nevertheless, a minute flow of current is inevitable with present-day materials. Significantly, in absolute darkness, GPD's have an electrical flow varying from 1/10 to 1/100 that of SPD's. Thus, GPD's offer unprecedented accuracy in low levels of illumination.

- **Optimum Reliability**

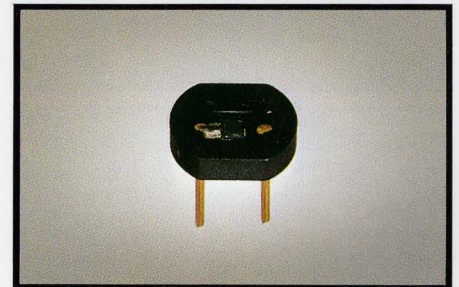
An inherent weakness of SPD's is their sensitivity to temperature changes. In temperature extremes, whether high or low, their reliability falters, resulting in imperfect exposure measurement. To overcome this obstacle, Asahi Optical developed the GPD's which exhibit a level of reliability never before attained. Moreover, to further enhance their already stable characteristics, a Temperature Compensation Circuit is employed to ensure Pentax MX users can take pictures with confidence in summer and winter, as well as spring, and in the tropics and frigid zones as well as in temperate climates.

- **Center-Weighted Exposure Measurement**

Two GPD's are used, one on each side of the eyepiece, to make an exposure measurement with primary emphasis upon the central portion of the focusing screen. As you can see by the diagram below, little importance is attached to the four corners of the focusing screen. Therefore, regardless of how the camera is held, horizontally or vertically, the GPD's concentrate on the most important area of your picture for optimum exposure each time.



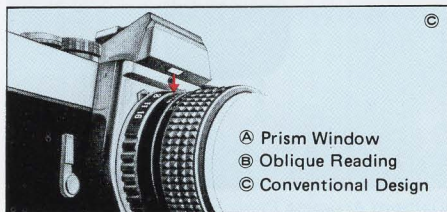
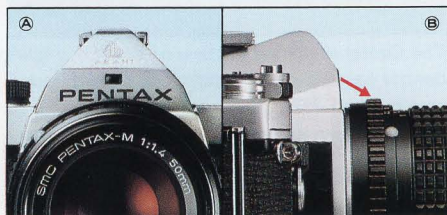
The Center-Weighted pattern of the MX. Figures denote percentage of importance placed upon area by the GPD's.



Gallium Arsenide Phosphide Photo Diode

CAPTAIN OF ONE'S DESTINY

Granted, the MX is not for everyone. But it is for the one who demands to be the captain of his destiny, for the one who wishes to control all decisions governing the outcome of each and every photograph. The MX is for the decisive photographer who wishes to have all the information available at a glance for last-minute reference before releasing the shutter. The full-information viewfinder of the MX allows the photographer to control the final result of each photograph without the necessity of removing the camera from his eye. This factor, coupled with the compact size and light weight of the MX, means rapid handling and uninterrupted shooting capabilities.



● Aperture Read-Out

Found on the face of the pentaprism housing and centered above the name "PENTAX" is the small Aperture Read-Out Prism Window. The aperture in use is read directly off the Aperture Ring, appearing in the viewfinder centered above the focusing screen. Although other cameras employing a prism for direct reading of the Aperture Ring have the Prism Window located in a pentaprism extension which lies immediately above the Aperture Ring, the MX utilizes a unique design in which the pentaprism—despite the inclusion of the Prism Window—is amazingly compact. This incredible feat has been accomplished by having the Prism Window read OBLIQUELY. Thus, the Pentax design solves the problem of overhead light being prevented from reaching the Aperture Ring because of a pentaprism extension. As a result, the Aperture Read-Out of the MX is always brightly illuminated for maximum visibility.



● Choice of Aperture

Since the aperture in use is indicated in the viewfinder of the MX, the photographer can always ascertain that depth of field will meet his requirements. He may shoot wide open, for example, for minimum depth of field to isolate his subject from a distracting background or to create an ethereal atmosphere. On the other hand, he may decide to shoot at a moderate aperture for optimum resolution and balanced depth of field, or he may select a small aperture for extensive depth of field to add a fantastic sense of depth to his photographs. Of course, the photographer not only KNOWS the aperture, thanks to the Aperture Read-Out in the viewfinder, but he can actually SEE depth of field as well, merely by pushing in on the Self-Timer Lever which doubles as the Depth of Field Preview Lever.





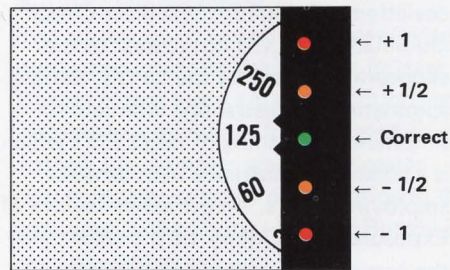
● Shutter Speed Read-Out

Centrally located on the right side of the focusing screen is the Shutter Speed Read-Out which, in addition to the shutter speed in use, also displays the two adjacent speeds for instant reference. As the shutter speed is displayed, the photographer can always ascertain at the last moment whether or not he is using a shutter speed of sufficiently short duration to ensure sharp results when handholding the camera. He is also free to select a very short speed, such as 1/1000 sec., to "freeze" a passing moment of time into an eternity of stillness. Moreover, he may choose a long shutter speed, such as 1/4 sec., to emphasize motion or create anonymity. Regardless of whether the photographer is preoccupied with shutter speed or depth of field, all the information is visible at a glance so that he may place the emphasis where he wishes at any time.



● Exposure Read-Out

The Exposure Read-Out is five dot LED panel which lies outside of the focusing screen area and alongside the Shutter Speed Read-Out. For correct exposure under normal circumstances, the Aperture Ring or Shutter Speed Dial is rotated until the central green LED illuminates (fig. 3 above).

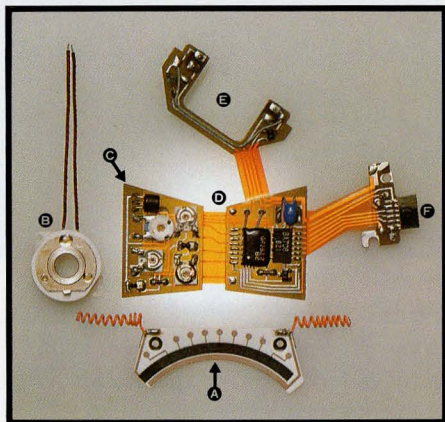


The four additional LED's not only inform the photographer when he is approaching the correct exposure or going beyond the coupling range of the meter, but also allow him to make subtle exposure compensation. $\pm 1/2$ stop over and underexposure are indicated by



yellow LED's, and red LED's are used to indicate ± 1 stop (or more) compensation. In the strongly backlit scene shown in fig. 1, for example, exposure has been compensated by +1 full stop for correct rendering of the subject. Fig. 2 depicts a sidelighted scene which has been compensated by +1/2 stop to brighten up the shadows. On the other hand, since the dark background in the scene shown in fig. 4 can cause slight overexposure of the subject, exposure has been compensated by -1/2 stop, and because the scene in fig. 5 has a much darker background, -1 stop exposure compensation has been made.

SUPERLATIVE DESIGN



- A Aperture information variable resistor
- B Shutter speed and ASA information variable resistors
- C Flexible circuit board
- D IC's
- E GPD's
- F LED's

● Designed for Durability

By replacing the traditional exposure meter and coil with solid-state electronics, Asahi Optical has added a new dimension to the meanings of durability, reliability, accuracy, and rapid response. The LED's and related circuits are shockproof, jamproof, foolproof, and unaffected by temperature and humidity extremes. Moreover, two IC's (each of which is the equivalent of hundreds of individual electronic components) and the two GPD's are joined together in a flexible

circuit board, replacing complicated, costly, and fallible wiring. As a matter of fact, only four wire leads are used in the MX! The four leads are used to connect the variable resistors which feed the aperture, ASA, and shutter speed inputs to the Computation Circuit.

● Designed for Handling Ease

For maximum handling ease, the Exposure Read-Out LED's are color coded, making instant exposure adjustment possible. And for the ultimate in precise exposure control, the super sensitive GPD's and LED's work together as a team indicating deviations from correct exposure in 1/2 stop increments. No other camera offers such "fine-tuning" exposure accuracy. Moreover, when exposure lies midway between two of the LED dots (a 1/4 stop deviation), the built-in Stabilizer Circuit illuminates the LED dot closest to the exposure indicated by the GPD's, thereby eliminating the distracting alternate or simultaneous flashing of two LED's which is a common occurrence with cameras employing LED's. An attractive feature of Exposure Read-Out by LED's rather than the conventional meter and indicator needle is the superior visibility, for whether working in brilliant surroundings or dim quarters, the LED's are always prominently visible.

● Perfect Composition

For accurate framing and perfect composition, 95% of the picture-taking

area is visible in the viewfinder. Importantly, the Aperture and Exposure Read-Out lie outside of the focusing screen area for unobstructed viewing. Additionally, the Shutter Speed Read-Out is displayed on a transparent disc so that the subject is visible to the very edge of the field. Furthermore, because the Aperture, Shutter Speed, and correct Exposure Read-Out always appear at the same position in the viewfinder, there is no need for the eye to scan across the field in search of the desired information as is necessary with cameras utilizing moving needles or brackets. Thus, the MX offers comfortable viewing in addition to perfect composition capabilities.

● Focusing Ease

For pin-point focusing accuracy, the standard Split-Micro Focusing Screen (SC 1) of the MX offers three-way focusing. You can focus with the central split-image circle, surrounding micro-prism collar, or outer ground glass field, depending upon your preference or requirement at the time. And because the focusing screen is interchangeable with seven other screens, precise focusing is always assured, whether working with fish-eye, shift, macro, or ultra telephoto lenses. It is clear, then, that the superlative design of the MX leaves nothing to be desired. In the following pages, additional characteristics of the MX's superior design are revealed.

DUAL-FUNCTION METER SWITCH

● Unique Meter Switch

Most 35mm SLR's have the Meter Switch incorporated into the Shutter Release Button, Shutter Button Lock Lever, or Film Advance Lever. Moreover, the Meter Switch of virtually all cameras can be classified into two groups: Those which stay on after being turned on, and those which go on and off as pressure is applied to or removed from the Shutter Release Button.

Only Pentax cameras have the Meter Switch integrated into all three mechanisms: Shutter Release Button, its Lock Lever, and Film Advance Lever. And only Pentax utilizes a dual-function Meter Switch which functions either as the switch on and stay on type, or automatically switch on and off type.

● Advantages of Constant Metering

There are two basic disadvantages of having the Meter Switch built into the Shutter Release Button. Firstly, there is a slight possibility of accidentally releasing the shutter when attempting to take a reading. Secondly, it is extremely awkward to adjust for exposure with the Shutter Speed Dial because one cannot simultaneously rotate it and apply pressure to the Shutter Release Button (meter switch) at the same time. Consequently, whenever the Shutter Speed Dial is

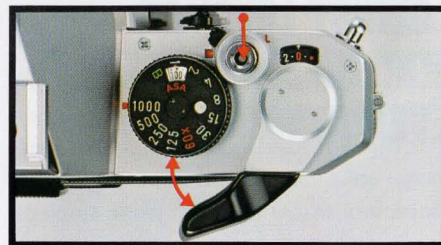
rotated, the Meter Switch turns off. As the Meter Switch of the MX can be left in the "ON" position, the above problems have been entirely eliminated.

Here is how the unique dual-function Meter Switch of the MX works. First, pull the Film Advance Lever out to the ready position (it will click into place when extended 20°). Next, depress the Shutter Release Button halfway and the meter will switch on and stay on, even after releasing pressure from the Release Button. Because the above step can be carried out before cocking the shutter, there is never danger of accidental release of the shutter. And because the meter stays on, exposure can be adjusted by rotating the Shutter Speed Dial just as easily as by rotating the Aperture Ring.

● Automatic Switching

The advantage of having the Meter Switch controlled solely by the Shutter Release Button is that electrical consumption can be kept to a minimum for extended battery life. In other words, the meter automatically switches on just prior to the exposure as the Shutter Release Button is partially depressed, and then automatically switches off after the exposure as pressure is removed from the Shutter Release Button.

To have the Meter Switch of the MX function in the above manner, merely push the Film Advance Lever flush with the top of the camera to turn off the



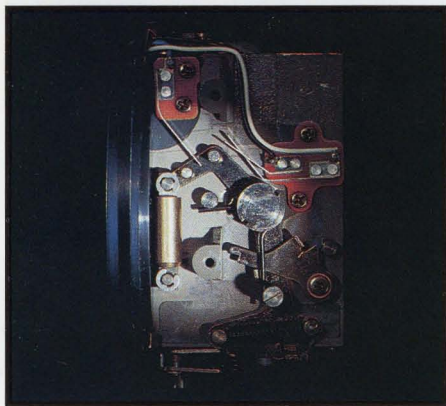
meter. The Meter Switch will then be automatically activated whenever pressure is applied to the Shutter Release Button and deactivated as pressure is terminated.

● Triple-Purpose Shutter Release Button Lock

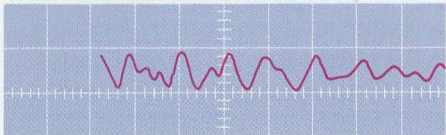
Simply rotating the Lock Lever of the Shutter Release Button 90° counter-clockwise will prevent accidental release of the cocked shutter. Secondly, even when the Film Advance Lever is extended and the meter is on, locking the Shutter Release Button will automatically turn off the metering circuit. And, finally, as inadvertent pressure applied to the Shutter Release Button turns on the meter, accidental and needless electrical consumption is prevented by locking it, as the meter cannot be turned on when the Shutter Release Button is locked.



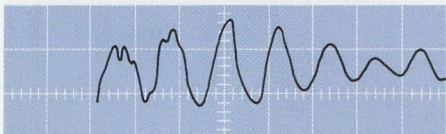
LOWEST LEVEL OF MIRROR SHOCK EVER ATTAINED !



• The air damper used by the MX to reduce mirror shock to a minimal level.



• Vibrations of the MX.



• Typical vibrations of other high quality cameras.

The MX employs a specially designed air damper which reduces mirror shock to a level never before attained, and completely does away with the need for mirror lock-up provision. Tests of the MX with 50mm, 135mm, and 200mm lenses indicate that mirror shock has been virtually entirely eliminated.

• Make This Test

See for yourself how the MX extinguishes all traces of mirror shock. Pick up an MX and set its Shutter Speed Dial to B (Bulb). Next, cock the shutter, and depress the Shutter Release Button while maintaining pressure for a moment. Then, remove pressure from the Shutter Release Button, allowing the shutter to close and mirror to return to its normal position. Note that the only vibration that can be detected is that of the mirror as it returns to its normal position. In other words, a small amount of vibration occurs **ONLY AFTER THE SHUTTER CLOSES**. During the upward swing of the mirror, just prior to the opening of the shutter, there is absolutely no distinguishable vibration. Consequently, there is no loss of sharpness due to vibrations, whether working with a macro lens at high magnification or an extra powerful telephoto lens. Of course, no matter what lens is used, all of your photographs taken with the MX handheld will be sharper.

NINE ADDITIONAL REASONS WHY PICTURES TAKEN WITH THE **MX** ARE SHARPER

1. Pentax Panoramic Viewfinder

The image seen through the viewfinder is **BIGGER**; hence, accurate focusing is assured. Furthermore, the image is **BRIGHTER**, guaranteeing pin-point focusing accuracy even in the dimmest surroundings.

2. Multiple Focusing Aids

Some users like split-image focusing. Others are fond of micro-prism aids. Still others prefer to focus on a ground glass. The standard focusing screen of the MX offers all three: split-image circle surrounded by a micro-prism collar centrally located in a ground glass field. No matter how you view it, focusing was never easier.

3. Lightest 35mm SLR

Not all vibration is due to mirror shock. Part of it stems from unsteady hands. After prolonged use, the weight of the camera tires the arms, making it difficult to hold the cameras steady during the exposure. For this reason, the owner of the world's lightest professional motor

drive 35mm SLR, the MX, will have steadier hands and sharper pictures.

4. Human Engineering

A steady grip is just as dependent upon the shape and balance of a camera as it is upon its size and weight. With rounded corners, contoured edges, and ideal positioning of the controls, the Pentax MX is designed to perfectly match the configuration of human hands. This is your assurance of a sure grip, and pictures of upmost sharpness.

5. Ideal Shutter Release Button

Another source of camera shake and unsharp pictures is the Shutter Release Button itself. If it is located in an awkward position, it hinders smooth operation. A Release Button which requires excessive force to operate is also a cause of camera movement during the exposure. On the other hand, the Shutter Release Button of the MX is unrivaled in location, located just at the position the forefinger naturally comes to rest. Its silky-smoothness and feather-touch are synonymous with smooth, uninterrupted performance for scalpel sharp pictures every time.

6. Shutter Speed Read-Out

Another factor leading to unsharp pictures is the use of a shutter speed which is too long ("slow") to guarantee sharp results when handholding the camera. For constant success, use the shutter speed most closely matching the focal length of

the lens as the minimum shutter speed when handholding the camera. To give a few examples, when using a *50mm* standard lens, use at least *1/60* sec. (*1/60* - *1/1000* sec.); with a *135mm* telephoto, *1/125* sec.; and with a *500mm* lens, *1/500* sec. (*1/500* - *1/1000*). Since the shutter speed is always prominently displayed in the viewfinder of the MX, you are always sure of obtaining sharp pictures.

7. Superb Pentax Lenses

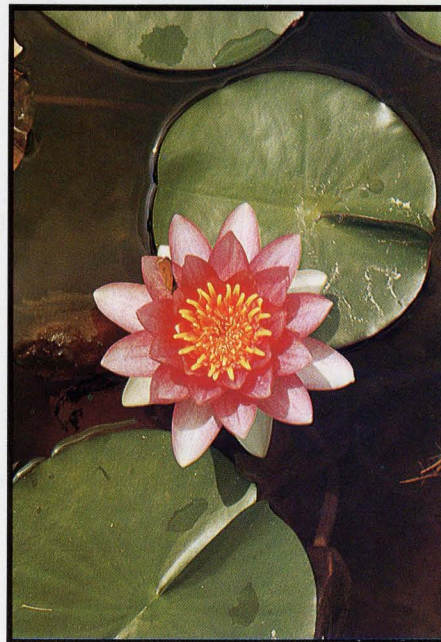
When all is said and done, a camera is only as good as its lens. All SMC Pentax lenses are manufactured by the world renowned Asahi Optical Company. This is one of the reasons why Pentax cameras, whether 35mm or 6 x 7cm, are among the select few chosen by professional photographers around the world. For sharp pictures, sharp lenses are a prerequisite. When you select a Pentax lens, you are choosing the very finest.

8. Super-Multi-Coating

The sharpness of even the best of lenses deteriorates when subjected to flare. For this reason Asahi Optical developed the widely-acclaimed SMC Multi-Coating which squelches flare and retains sharpness in all lighting conditions. It goes without saying, that for optimum sharpness one must work with the sharpest of lenses to which the finest of multi-coating has been applied. Lenses meeting this description proudly bear the name, SMC PENTAX.

9. Pentax Precision

Sharpness is also heavily dependent upon flatness of the film plane, as well as accuracy of the distance and flatness of the lens mount, accuracy of the mirror angle and levelness of the focusing screen, to name a few. In other words, precision is of the greatest importance. Asahi Optical Company is internationally recognized as a leading manufacturer of precision instruments for industry, science and the photographic field. Choose Pentax for the pinnacle in precision cameras.



FEATURE-LADEN

PEERLESS PENTAX SHUTTER

The new Pentax compact focal plane shutter developed exclusively for the MX is peerless in performance. The surface of the all silk shutter which faces the lens is rubberized for added strength. Because of its light weight and durability, it can easily withstand the harsh treatment of five frame-per-second bursts with the motor drive unit. In terms of accuracy and consistency of performance, this shutter is unrivaled, representing the ultimate in shutter design for professional motor drive photography. The standard range of shutter speeds (1/1000 - 1 sec., B) is provided, with the emphasis on maintaining the highest level of accuracy, rather than extending its range. Moreover, since the shutter is completely mechanical, it will function without batteries, so that the pro who finds himself on the top of the Andes or in the middle of the Sahara, or in the depths of the Amazon without a supply of fresh batteries can still get his assignment done.

● Shutter Cocked Indicator

A glance at the small window found to the left of the Shutter Release Button is all that is required to tell whether or not the shutter is cocked. When cocked, the indicator changes from black to red, as a warning to lock the Shutter Release

Button in order to prevent accidental release of the shutter when the camera is being carried, but not used. Moreover, since it is undesirable to store the camera for long periods of time with the shutter cocked, it also serves as a reminder to release the shutter before storage.



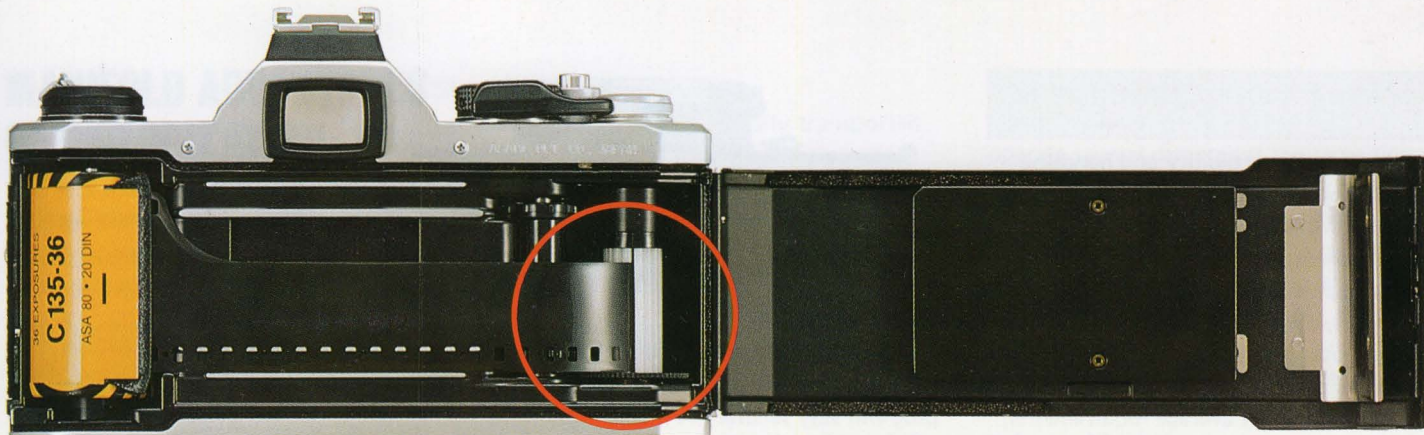
● Shutter Speed & ASA Dials

The Shutter Speed Dial is provided with precise click-stops for instant and accurate alignment. The "feel" of a Pentax Shutter Speed Dial has long been praised, and still remains unmatched. The knurled rim of the Shutter Speed Dial doubles as the ASA Dial which locks in place for foolproof operation. To reset the ASA value, merely push down on the silver Lock Button (found between 15 and 8 on the Shutter Speed Dial) with the index finger of the left hand, and rotate the knurled rim with the fingers of the right hand until the correct ASA value appears in the window (there is no need to pull up on the rim). Finally, release pressure on the Lock Button, and the ASA value will lock in place. Both the ASA range (25 - 1600) and exposure measurement range (EV 1 - 19, ASA 100, f/1.4) are broad, offering the photographer optimum versatility.

INTERCHANGEABLE BACKS

The Standard Back Cover of the MX is instantly removable and interchangeable with the 250 exposure bulk film Magazine Back and Dial Data MX which allows one to imprint data upon the film. The MX, then, is a camera which knows no limits. For with a choice of interchangeable backs, 8 interchangeable focusing screens, nearly 40 interchangeable lenses and motor drive or auto winder, there is nothing the MX cannot do.





MEMO HOLDER

Just tear off the top of the film box and slip it into the Memo Holder and it will serve as a film reminder. A glimpse is all that will be required to ascertain the type of film loaded in the camera. The Memo Holder is especially useful when simultaneously working with two or more camera bodies as it is then possible to instantly distinguish between them. Additionally, by reversing the film box



top and inserting it into the Memo Holder printed-side down, the blank surface can be used to record pertinent data.

"MAGIC NEEDLE" LOADING

"Magic Needle" Loading is a new instant-grip safe loading system developed by Asahi Optical Company. The Film Take-Up Spool of the MX consists of 16 "Magic Needles": white, semi-flexible, indestructible, plastic rods. To load film, simply insert the tip of the film leader between any two "Magic Needles," advance film until the perforations engage with the upper and lower sprockets, and close the back cover. When inserting the tip of the film leader, the "Magic Needles" instantly grasp the film regardless of the angle at which it is held and inserted. As the film leader is advanced, the "Magic Needles" automatically take up all of the slack, so

that the film snugly and evenly hugs the needles. When the film is rewound, the film leader tip freely disengages from the "Magic Needles" for trouble-free operation.

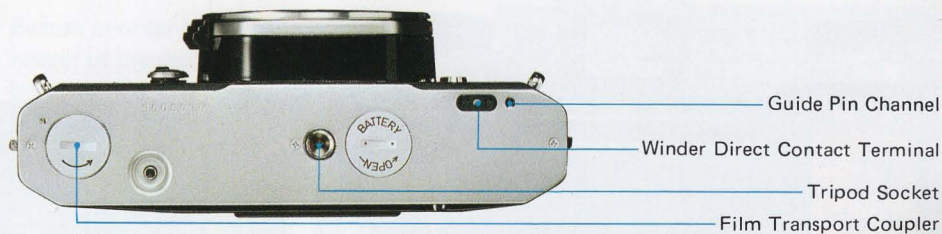
For rapid, sure, and smooth loading, there is nothing quite like the new Pentax "Magic Needle" loading system.

READILY ACCEPTS MOTOR DRIVE OR AUTO WINDER

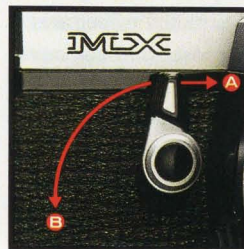
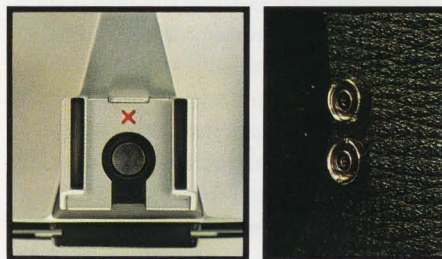
For optimum portability and handling ease, a compact and lightweight auto winder, Winder MX is available. It attaches in a moment, and offers a choice of single-frame exposure for automatic film transport, one frame at a time, or consecutive exposures at about 2 fps. Although the 2 fps rate provided by Winder MX is sufficient to meet average requirements, the professional specializing in sports photography, for example, often requires automatic film transport at a rate up to 3-1/2 fps, or possibly higher. To assure that the most stringent demands of the professional photographer can be met, Motor Drive MX is also available. It offers a rapid-fire rate of as high as 5 fps, a feat which cannot be equalled by most of the larger, heavier cameras. Additionally, even at the sizzling 5 fps rate, there is no need to lock the mirror in the up position. The MX, then, is designed for the pro seeking the highest level of performance coupled with hitherto unknown handling ease.

HOT SHOE

The built-on Hot Shoe allows one to use a flash unit without need of plugging in a cord. Of course, for flash units without direct contact terminals, FP and X-Sync Terminals are provided on the camera body to accept the plug of the unit. The



synchronization terminals are provided with standard threads, assuring that the plug will stay securely in place. Furthermore, even if the Hot Shoe is inadvertently touched, a built-in circuit breaker completely eliminates the possibility of receiving an electric shock when using off-camera flash. Thus, nothing was overlooked for the flash enthusiast.



- A Depth of field preview
- B Self-Timer

SELF-TIMER/DEPTH-OF-FIELD PREVIEW

The Self-Timer can be used when desiring to appear in the picture. It can also be used in lieu of a cable release in emergencies, as it will trip the shutter without vibrating the camera. To cock the Self-Timer Lever, simply rotate it 90° – 180° for a variable time delay of 4-12 seconds. Once cocked, it can be by-passed as often as desired by releasing the shutter with the Release Button. When ready to use the cocked Self-Timer, just give a slight push on the Start Button and it will immediately begin to operate. When the Self-Timer Lever is in its normal, vertical position, it is up and out-of-the-way, offering the right hand an unobstructed grip on the camera body. The Self-Timer also functions as the Depth of Field Preview Lever and is ideally located for smooth operation. A short, quick push (toward the lens) on the lever by the index finger of the right hand instantly stops the lens down to the preselected aperture, making it possible to view the actual depth of field.

MANIFOLD ADVANTAGES OF MOTORIZATION

The fact that interchangeable lenses increase picture-taking opportunities is lucidly apparent, but when it comes to other accessories, such as an auto winder or motor drive unit, the relationship between better pictures and the accessory in question is less clearly understood. Just how do these accessories unleash new photographic possibilities and enhance existing opportunities? The eight examples given below will help to answer this question.

● Ready for the Spontaneous Moment

With Winder MX or Motor Drive MX attached to your Asahi Pentax MX, it is always cocked, ready for action. When set for single-frame exposure, the film is automatically advanced and the shutter cocked the instant you release your finger from the Trigger Release Button, leaving you prepared to respond to any photographic situation at once.

● Action Photography

When the subject is moving rapidly, there often is no time to advance the film fast enough by hand. Thus, on occasions such as when attempting to photograph a baseball player sliding into home plate, or a flock of geese flying overhead, the need for motorized film transport is strongly felt.

● Uninterrupted Viewing

As the film is automatically transported, there is no need to remove the camera from your eye, for even an instant. Consequently, you are free to concentrate exclusively upon the subject, wasting no time with minor details such as film advance.

● Sequence Photography

At times, a series of photographs taken in sequence are of much more value than just one or two photographs taken of the same subject. When photographing a trapeze artist soaring through the air, a golf player completing his swing, or a ballet dancer doing a pirouette, an auto winder or motor drive unit will allow you to take a sequence in rapid succession, enabling you to tell the full story in a series of photographs.

● Remote Control

The hazardous nature of some photo assignments, such as when the camera is mounted to the dome of a cathedral or the wing of aircraft in flight, makes it necessary for the photographer to operate the camera remotely.

Wildlife and candid photography are other examples of when the photographer cannot, at times, remain in the immediate vicinity of the camera and operate it directly. Remote control photography is only possible because of the motorized film transport which automatically advances the film after each exposure.

● Multiple Coverage

Motorization also makes it possible to operate several cameras at the same time for complete coverage. All three rings of a three ring circus, for example, can be photographed during the same moment, or a sports event may be covered simultaneously with wide-angle, standard, and telephoto lenses mounted on cameras at strategic locations and operated remotely.

● Assured Success

A pro may be on assignment to photograph an athlete as he crosses the finish line of a race. Needless to say, the photographer will not have the opportunity to rephotograph the race if he fails to capture the moment his editors are interested in. Thus, he must be assured of success from the very beginning. Only an auto winder or motor drive unit can offer this assurance. This fact explains why motor drive systems are widely used by pros, as they cannot afford to fail.

● Industrial and Scientific Applications

The Asahi Pentax MX and Motor Drive MX serve science and industry in a variety of applications such as remote control photography, time lapse photography, and large scale copying. Moreover, when used with the data back, data is automatically imprinted upon each frame of the film.

WINDER MX

Winder MX is designed specifically for the Pentax MX, attaching to the Tripod Socket in the base plate of the camera in a matter of seconds. A Guide Pin assures perfect registration between camera and auto winder, and both are electrically connected automatically for cordless operation. The large grip of compact and lightweight Winder MX affords a sure hold for the right hand, and its Trigger Release Button is readily accessible to the index finger for rapid operation.

WINDER MX SPECIFICATIONS

Type: Auto winder designed for exclusive use with the Asahi Pentax MX.

C/S Dial: Set three-position C/S Dial to C for consecutive exposure operation up to 2 fps; set dial to S for single-frame exposure operation (automatic transport, one frame at a time); set to OFF to extinguish power.

Usable Shutter Speeds: All shutter speeds, but B (Bulb).

Power Source: 4 penlight batteries.

Shutter Release: Shutter is released with the built-in Trigger Release Button of the Winder MX Grip.

Confirmation of Proper Functioning: An LED found to the left of the C/S Dial flashes whenever Winder MX functions properly.

Attachment Method: Attaches to the Tripod Socket in the base plate of the camera; Guide Pin assures correct alignment.

Tripod Socket: Built-in Tripod Socket allows Winder MX to be attached to a tripod.

Dimensions: 144mm L x 84mm H x 67mm D

Weight: 230g

Additional: Built-in receptor to store Film Transport Coupler Cap of camera body.



1 Trigger Release Button

2 Winder Film Transport Coupler

3 Camera Body Film Transport Coupler Cap

4 Electrical Contact for Cordless Connection

5 Guide Pin

6 Confirmation LED

7 C/S Dial

8 Tripod Socket Screw

9 Film Rewind Lever

10 Grip

MOTOR DRIVE JMC-2



MOTOR DRIVE MX

The Ultimate in Professional Motor Drive Systems

Motor Drive MX is part of a vast motor drive system designed to answer every requirement of the professional photographer.

Compactness and Light Weight.

The Motor Drive MX unit + Ni-Cd Battery Pack M combination form an incredibly small package for the photographer on the move.

Rapid-Fire Consecutive Exposures.

Regardless of the power source used, Motor Drive MX offers a choice of single-frame exposure (automatic transport, one frame at a time) or consecutive exposures in a steplessly variable range of 1-5 fps.

Choice of Power Source.

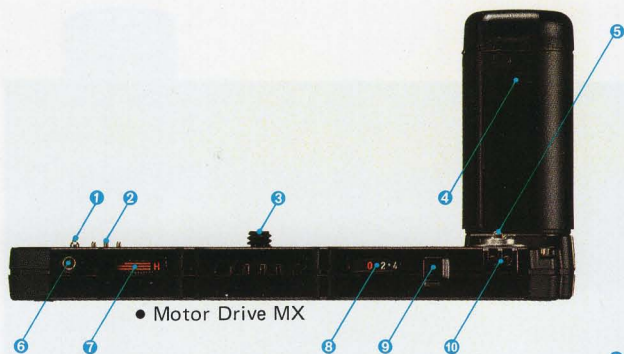
For compactness, the 15V rechargeable Ni-Cd Battery Pack M is ideal, while the 18V Battery Grip M offers the convenience of replaceable penlight (12) batteries. For the laboratory, Power Pack M, which utilizes ordinary AC current, is invaluable.

Remote Control.

All of the power sources accept a power cable for remote control time-lapse photography.

Bulk Film Magazine.

The standard Back Cover of the MX is interchangeable with the bulk film Magazine Back MX which allows up to 250 exposures with bulk film.



• Motor Drive MX



• Ni-Cd Battery Pack M



• Battery Grip M

- 1 Guide Pin
- 2 Electrical Contact for Cordless Connection
- 3 Tripod Socket Screw
- 4 Grip
- 5 Film Transport Coupler
- 6 Confirmation LED
- 7 C/S Dial
- 8 Exposure Counter Dial

- 9 Film Rewind Lever
- 10 Electrical Contact for Magazine Back MX
- 11 Release Button
- 12 C/S Dial
- 13 Remote Control Socket
- 14 Electrical Contact
- 15 C/S Dial
- 16 Remote Control Socket

MOTOR DRIVE MX SPECIFICATIONS

Type: Designed for exclusive use with the Asahi Pentax MX.

C/S Dial: Choice of single-frame exposure (automatic transport, one frame at a time) or consecutive exposures in a steplessly variable range of 1-5 fps.

Usable Shutter Speeds: All shutter speeds, but B (Bulb).

Power Source: 15V DC Ni-Cd Battery Pack M, 18V DC Battery Grip M (12 penlight batteries), AC Power Pack M.

Bulk Film Magazine: Magazine Back MX quickly interchanges with Back Cover of MX for cordless connection, providing up to 250 exposures with bulk film.

Remote Control: 3m and 10m long Power Cables available for remote control, single-frame or consecutive exposures possible in conjunction with the Remote Trigger Connector.

Exposure Counter: Subtractive type with Automatic Stop when counter reaches zero.

Shutter Release: By the Trigger Release Button built into the Grip of Motor Drive MX, or by the remote control release button.

Dimensions: 143mm W x 71mm H x 64mm D

Weight: 225.5g.

Additional: LED flashes for confirmation of proper functioning, built in receptor for storage of Camera Body Film Transport Coupler Cap.

Ni-Cd BATTERY PACK M SPECIFICATIONS

Type: Designed for exclusive use with Motor Drive MX (for Pentax MX) or Motor Drive MD (for Pentax K2 DMD).

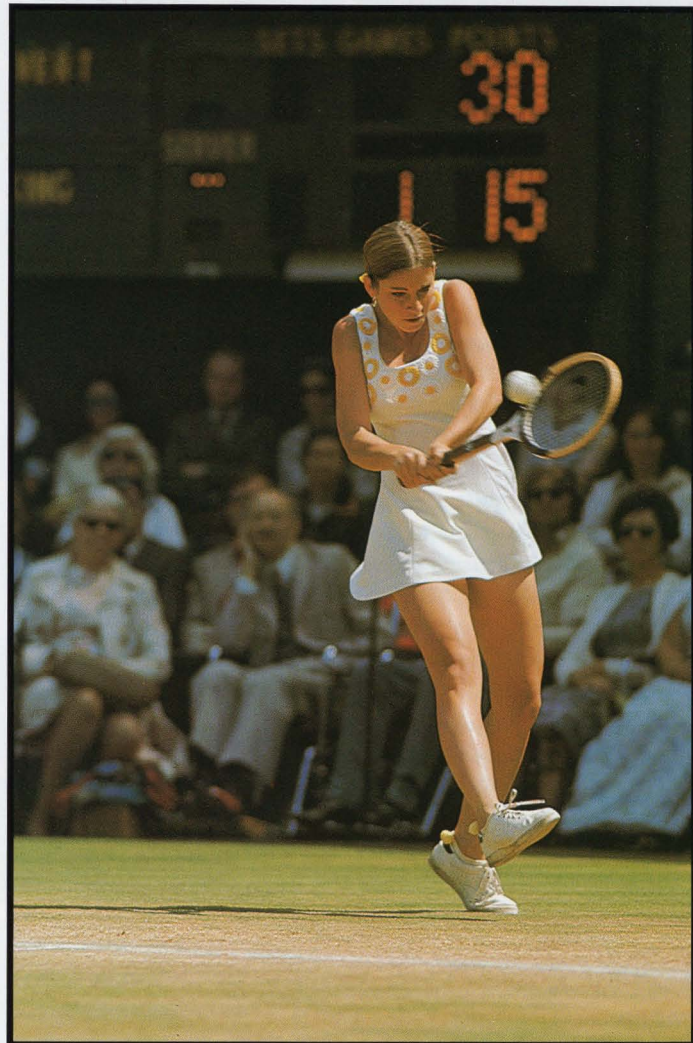
C/S Dial: Settings for OFF, single-frame exposure and consecutive exposures, dial used in conjunction with C/S Dial of Motor Drive MX (or MD).

Remote Control: 3m or 10mm long Power Cable M is attached between Motor Drive MX and Ni-Cd Battery Pack M, Release Button of Battery Pack M is used to release the shutter.

Attachment Method: Attaches to Tripod Socket of Motor Drive MX.

Additional: Provided with built-on Tripod Socket to attach Battery Pack to tripod.

Power Source: Rechargeable 15V Ni-Cd battery which can be recharged in approximately 6 hours with the accessory Charger Pack M.

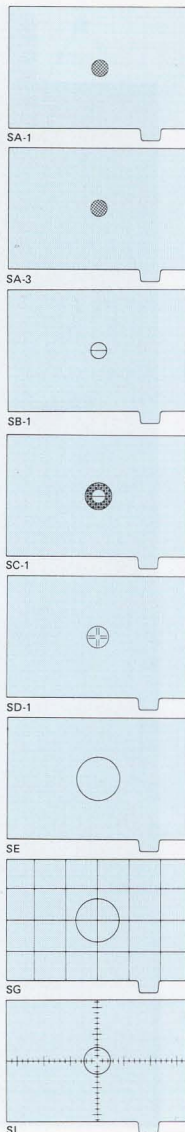


• Photo Kishimoto

EIGHT INTERCHANGEABLE FOCUSING SCREENS



The SMC Pentax family of lenses has grown over a relatively short period of time from a group of modest size to the complete system of almost 40 lenses that it is today. Because it is comprised of a large variety of lenses, including fish-eye, ultra-wide, high speed, shift, macro, and ultra telephoto, it is desirable to have a set of interchangeable focusing screens available to assist the photographer in coping with the problems of trying to attain the highest degree of focusing accuracy with an extremely wide range of lenses. As the interchangeable focusing screens are specifically designed for use with SMC Pentax lenses, the photographer is assured of the ultimate in focusing ease. Moreover, the performance of the high quality focusing screens is considerably enhanced by the exceptionally large and brilliant viewfinder of the MX. The focusing screens are easily inserted in, or removed from, the mirror chamber. Furthermore, each screen is packed with a tool to simplify replacement.



• Focusing Screen Types

SA-1 The same screen as the SC-1, but with the split-image circle removed and the micro-prism collar appearing as a central micro-prism grid. It satisfies the needs of the photographer who finds the range-finder distracting and desires a relatively plain screen with the emphasis upon a large ground glass area. The versatility of the screen nearly equals that of the SC-1, and it can be used with an equal number of lenses.

SA-3 Similar to SA-1, but the angle formed by the prisms in the micro-prism grid is greater to simplify focusing with high speed ($f/1.2 - f/2.8$) lenses.

SB-1 Like the SA-1 screen, this focusing screen is designed for the photographer who desires a relatively plain screen. But a split-image circle is used instead of a micro-prism grid. Since it is the same as SC-1, minus the micro-prism collar, it is nearly as versatile and can be used with an equal number of lenses.

SC-1 This is the standard screen of the MX which is equipped with a central range-finder circle surrounded by a micro-prism collar in a ground glass field. Its three-way focusing capabilities make it the most versatile of the available screens.

SD-1 An all mat focusing screen with central cross hairs. Ideal for photomicrography and astrophotography. Also suitable

for macrophotography when working with a dark viewfinder because of the large magnification.

SE Equipped with an all mat ground glass. Because of the absence of a split-image or micro-prism focusing aid which blacks out at small apertures, this screen is ideally suited for focusing with ultra telephoto lenses having apertures of $f/5.6$ or smaller. It is also well suited for work with macro lenses, or even for general purpose work when the photographer favors a plain focusing screen to concentrate on composition without distraction.

SG The same as the SE screen, but with etched lines forming 6mm squares. In addition to serving the same purpose as an SE screen, it is useful in architectural photography, especially when working with the SMC Pentax shift lens, as the etched lines serve as guide lines to assure that the lines of the subject appear parallel and perpendicular. The points of the grid are also useful as a compositional aid as well as an aid for the alignment of images when creating double exposures.

SI An all mat screen, the same as SE, but with the addition of engraved scales. Designed for use with bellows and microscopes, as the scales can be used to learn the subject size and image magnification.

INSTANT CONVERSION TO A DATA CAMERA

Not only is the standard Back Cover of the Pentax MX interchangeable with the Bulk Film Magazine Back, but it accepts the Dial Data MX back as well. The Dial Data MX back attaches in an instant, converting your MX into a data camera. In other words, each time a photograph is taken, the data of your choice is imprinted upon a corner of the film. The year, month, and day, for example, can be imprinted to date all of your photographs, making it a simple matter to keep an accurate record of progress, whether it be a record of your family over the years, or a record of the progress at a construction site, school laboratory, or art studio. Dial Data MX is also a valuable tool for the government (e.g. police departments and the military), as well as science and industry. In place of the date, the three dials of Dial Data MX can be used to imprint technical data: aperture, shutter speed, and frame number (0-36). Furthermore, letters of the alphabet (A-M) can be added to the numerals (0-36) to provide a useful aid for classification.

For those occasions when the recording of the time is of great importance, another data back is available. This second data back, Data MX, is used exclusively on a slightly modified MX camera: Asahi Pentax MX Data. The Data MX back has a built-in clock which is recorded in the corner of the frame and indicates the date, hour, minute, and second. Additionally, there is provision for adding additional information to the central portion of the clock. Moreover, a memo plate, upon which data of any type may be inscribed, can be substituted for the built-in clock.



DIAL DATA MX SPECIFICATIONS

Type: Designed for exclusive use with the Asahi Pentax MX.

Attachment: Instantly interchangeable with standard Back Cover of Pentax MX.

Available Data: Data selected from three dials of which the left dial is used to imprint the year (77-78) or aperture, the central dial for the month (1-12), shutter speed, or letters of the alphabet (A-O), and the right dial for the day of the month (1-31) or frame number (0-36).

ASA Range: Two settings available for black and white or color film, ASA 25-50 and ASA 64-400.

Confirmation: Confirmation of the imprinting of data is possible by observing an LED which flashes during the moment the data is imprinted.

Battery Check: B.C. LED flashes upon depressing B.C. Button if battery voltage is sufficient.

Power Source: Three 1.5V silver oxide batteries.

Additional: Imprinting of data when using Winder MX or Motor Drive MX is possible.

DATA MX SPECIFICATIONS

Type: Designed for exclusive use with Asahi Pentax MX Data (slight modification of Pentax MX).

Attachment: Instantly interchangeable with Back Cover of Pentax MX Data.

Available Data: Built-in clock indicates day of the month, hour, minute, second, and the central portion of the clock has a ground glass surface for pencilling in additional data. Clock is interchangeable with Memo Plate which can be used to indicate any type of data desired.

ASA Range: Three settings provided for black and white film (ASA 100, 200, 400) and one setting for color film (ASA 64-160).

Confirmation: Confirmation of the imprinting of data is possible by observing an LED which flashes during the moment the data is imprinted.

Battery Check: B.C. LED flashes upon depressing B.C. Button if battery voltage is sufficient.

Power Source: One 6V silver oxide battery.

A PIANO WITH BUT ONE KEY

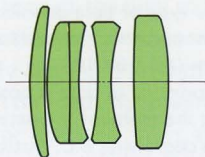
To the concert pianist, a piano with but one key is unthinkable, and to the photoartist, a camera with but one lens is equally unimaginable. The SMC Pentax family of lenses represents the keyboard in our musical analogy, and what a keyboard it is! Each SMC Pentax lens is a precision instrument designed to reproduce your subject faithfully. No hue or shade is too faint or subtle to escape capture by an SMC Pentax Lens. Moreover, a new compact series of lenses is now available.



Ultra compact standard lens.



All surfaces protected by Super-Multi-Coating

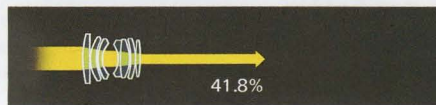


Lens construction of the SMC Pentax-M 40mm f/2.8 standard lens.



A sparkling example of the compactness exhibited by the new series of SMC Pentax-M lenses can be found in the 40mm f/2.8 standard lens which is a mere 18mm deep and a barely perceptible 110g in weight!

• Only Pentax Lenses are Super-Multi-Coated.



Uncoated standard lens



Conventionally coated standard lens



Super-Multi-Coated standard lens

As the developer of lens multi-coating technology, Asahi Optical is the undisputed leader in this field. In its latest refined form, Super-Multi-Coating is unsurpassed in performance. By reducing light loss due to reflection to an absolute minimum, a Super-Multi-Coated standard lens actually transmits almost 20% more light than a conventionally coated model. Moreover, in lenses composed of more elements, the gain in effective lens speed increases. For example, increase in transmission through a lens of 12 elements may soar to 50% over that of a similar lens which has conventional coating. Of course, increased transmission is only part of the story. The other part is impeccable color rendition, crisp contrast, and the suppression of flare and ghost images. Simply stated, the above merely means **BETTER PICTURES.**

ONE KEY TO SUCCESS, SMC PENTAX LENSES!

Here is a full range of superb optics to extend one's reach into the fantastic world of fish-eye, ultra-wide, shift control, zoom, ultra-tele, and reflex (mirror) lens photography. SMC Pentax-M lenses represent a new series in which size and weight are in keeping with that of the Pentax ME and MX cameras. Since the same Pentax K mount is utilized, these ultra compact and lightweight lenses may be used with equal advantage on any Pentax K camera as well.

● Type	● Name of Lens	● Minimum Aperture	● Angle of View (Degrees)	● Lens Construction (Groups/Elements)	● Diaphragm	● Minimum Focusing Distance		● Maximum Diameter & Length (mm x mm)	● Weight		● Filter Size (mm)	● Recommended Focusing Screens					
						● m.	● ft.		● gr.	● oz.		● SC-1	● SA-1	● SD-1	● SE	● SI	
Fish-eye	SMC Pentax Fish-Eye 17mm f/4	22	180	7-11	FA	0.2	0.66	64.5 x 34	234	8.19	81	●	●	●			
Ultra-wide-angle	SMC Pentax 15mm f/3.5	22	111	12-13	FA	0.3	1.0	80 x 81.5	550	19.25	81	●	●	●			
	SMC Pentax 18mm f/3.5	22	100	11-12	FA	0.25	0.79	63 x 61.5	328	11.48	81	●	●	●			
	● SMC Pentax-M 20mm f/4	22	94	8-8	FA	0.25	0.9	63 x 29.5	150	5.29	49	●	●	●			
	SMC Pentax 24mm f/2.8	22	84	8-9	FA	0.25	0.79	63 x 41.5	194	6.79	52	●	●	●			
Wide-angle	SMC Pentax 28mm f/2	22	75	8-9	FA	0.30	1.0	62.5 x 69	423	14.8	52	●	●	●			
	● SMC Pentax-M 28mm f/2.8	22	75	7-7	FA	0.30	1.0	63 x 31	156	5.50	49	●	●	●			
	● SMC Pentax-M 28mm f/3.5	22	75	6-6	FA	0.30	1.0	63 x 31.5	180	6.35	49	●	●	●			
	SMC Pentax 30mm f/2.8	22	72	7-7	FA	0.30	1.0	63 x 39.5	215	7.52	52	●	●	●			
	● SMC Pentax-M 35mm f/2	22	62	7-7	FA	0.30	1.0	63 x 42	205	7.18	49	●	●	●			
	● SMC Pentax-M 35mm f/2.8	22	62	6-6	FA	0.30	1.0	63 x 35.5	174	6.14	49	●	●	●			
Standard	● SMC Pentax-M 40mm f/2.8	22	56	4-5	FA	0.60	2.0	63 x 18	110	3.88	49	●	●	●			
	SMC Pentax 50mm f/1.2	22	46	6-7	FA	0.45	1.5	65 x 48.5	385	13.48	52	●	●	●			
	● SMC Pentax-M 50mm f/1.4	22	46	6-7	FA	0.45	1.5	63 x 37	238	8.4	49	●	●	●			
	● SMC Pentax-M 50mm f/1.7	22	46	5-6	FA	0.45	1.5	63 x 31	185	6.53	49	●	●	●			
	● SMC Pentax-M 50mm f/2	22	46	5-5	FA	0.45	1.5	63 x 31	170	6.0	49	●	●	●			
Telephoto	● SMC Pentax-M 85mm f/2	22	29	4-5	FA	0.85	2.8	62.5 x 46	250	8.82	49	●	●	●			
	● SMC Pentax-M 100mm f/2.8	22	24.5	5-5	FA	1.0	3.3	62.5 x 55.7	225	7.88	49	●	●	●			
	SMC Pentax 120mm f/2.8	32	21	4-5	FA	1.2	4	62.5 x 74.5	355	12.43	52	●	●	●			
	SMC Pentax 135mm f/2.5	32	18	6-6	FA	1.5	5	67.5 x 85.9	470	16.45	58	●	●	●			
	● SMC Pentax-M 135mm f/3.5	32	18	5-5	FA	1.5	5	62.5 x 65.7	276	9.74	49	●	●	●			
	● SMC Pentax-M 150mm f/3.5	32	17	5-5	FA	1.8	6	62.5 x 75	290	10.23	49	●	●	●			
	SMC Pentax 200mm f/2.5	32	12	6-6	FA	2.0	6.5	89 x 145	1019	35.9	77	●	●	●			
	● SMC Pentax-M 200mm f/4	32	12	5-6	FA	2	6.5	63.5 x 111.0	405	14.18	52	●	●	●			
Ultra telephoto	SMC Pentax 300mm f/4	32	8	5-7	FA	4	13	85 x 188	942	32.97	77	●	●	●			
	SMC Pentax 400mm f/5.6	45	6	5-5	M	8	27	85 x 277	1,240	43.4	77						●
	SMC Pentax 500mm f/4.5	45	5	4-4	M	10	35	126.5 x 440	3,330	116.6	52	●	●	●			
	SMC Pentax 1000mm f/8	45	2.5	5-5	M	30	100	143 x 738	5,250	183.8	52						●
	SMC Pentax Reflex 1000mm f/11	—	2.5	4-6	ND	8	26.24	119 x 248	2,300	80.5	BI/52						●
Zoom	SMC Pentax Zoom 28mm f/3.5 ~50mm f/4.5	22	75-46	10-10	FA	0.55	2	65x60(28mm) 65x52(50mm)	315	11.11	52	●	●	●			
	SMC Pentax Zoom 45-125mm f/4	22	50.5-20	11-14	FA	1.5	5	69 x 127	612	21.42	67	●	●	●			
	SMC Pentax Zoom 80-200mm f/4.5	32	30-12	12-15	FA	1.6	5.5	65 x 141.5	555	19.57	52	●	●	●			
	SMC Pentax Zoom 135-600mm f/6.7	45	18-4	12-15	M	6	20	105 x 582	4,070	142.5	52						●
Macro	● SMC Pentax-M Macro 50mm f/4	32	46	3-4	FA	0.234	0.77	63 x 42.5	160	5.6	49	●	●	●			●
	● SMC Pentax-M Macro 100mm f/4	32	24.5	3-5	FA	0.45	1.48	64.6 x 77.5	355	12.43	49	●	●	●			●
	SMC Pentax Bellows 100mm f/4	32	24.5	3-5	FA/M	—	—	60 x 40	186	6.51	52	●	●	●			●
Shift	SMC Pentax Shift 28mm f/3.5	22	75	11-12	M	0.3	1.0	80 x 92.5	611	21.39	81						●

BI Filters built-in FA Fully automatic M Manual ND ND filters built-in ● Compact lens ● Supplied only with K 1000
 ●SD-1 For astrophotography, photomicrography, and similar applications.

PART OF A LIMITLESS SYSTEM

The army of accessories awaiting the MX user complements the outstanding SMC Pentax family of lenses by helping to give the photographer a new view on life. A close-up view, for example, with the help of Extension Tubes K, Helicoid Extension Tube K, Reverse Adaptor M, Auto-Bellows K, Microscope Adaptor K, Slide Copier K, Copy Stand III, or Copipod (4-legged copy pod). And a worm's eye view with Refconverter M. Or an enlarged view with

Magnifier M. To add some color to your view, a full range of filters is also available. Additional accessories include Eyepiece Correction Lenses, 49-52mm and 52-49mm Adaptor Rings, Adaptor K for 6 x 7 lenses, Adaptor K for S lenses, Lens Hoods, Lens Caps, Cable Releases, Electronic Flash, Table Clamp, Stereo Adaptor Set, camera and lens cases, and Spacer Ring for mounting the MX (equipped with a large diameter lens) on a tripod. No matter how you wish to view the world about you, the MX will help you see things your way.







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