

K series

**ASAHI  
PENTAX**

**K2DMD**

• THE PINNACLE IN PRECISION MOTOR DRIVE CAMERAS



# ASAHI PENTAX

## An Introduction to the World of Motor Drive Photography

For more than 15 years, Asahi Pentax Motor Drive Systems have been utilized for industrial, scientific, and commercial applications. Whether used at below freezing temperatures with a telephoto lens to photograph the winter Olympic Games, or at a scorching launching pad with a fish-eye lens to photograph the take-off of spacecraft, they have proved themselves by offering flawless performance, time and time again.

### Vast avenue of photographic opportunities unleashed by the Asahi Pentax K2 DMD

#### • Ready for the Spontaneous Moment

With Motor Drive MD attached to the K2 DMD, it is always cocked, ready for action. When the unit is 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.

Moreover, by setting the unit for consecutive exposures and shooting a burst at two-frames per second, even the fleeting moment of a spontaneous smile, for example, is easily recorded.

#### • 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 a motor drive unit is strongly felt.

#### • Uninterrupted Viewing

As the motor drive unit transports the film for you, there is no need to remove the camera from your eye, for even an instant. Hence, you are free to concentrate exclusively upon the subject, wasting no time with minor details such as film transport.

#### • 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, a ballet dancer doing a pirouette, and similar subjects, a motor drive unit will allow you to take a sequence in rapid succession, thereby allowing 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 motor drive system which automatically transports the film after each exposure.

#### • Multiple Coverage

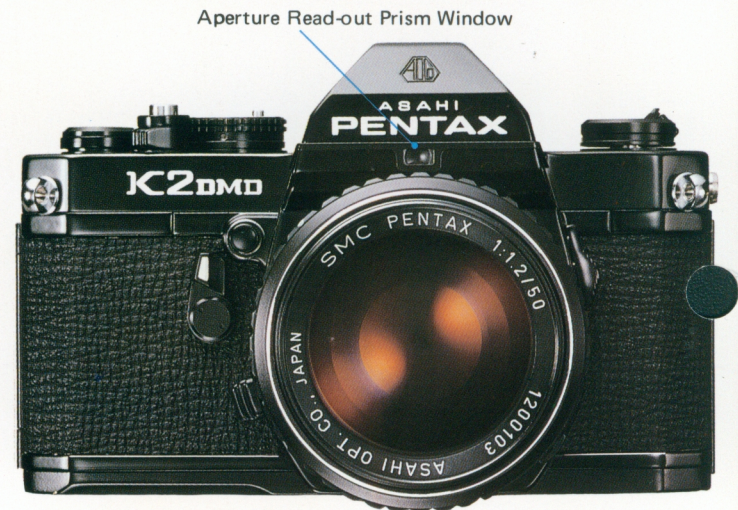
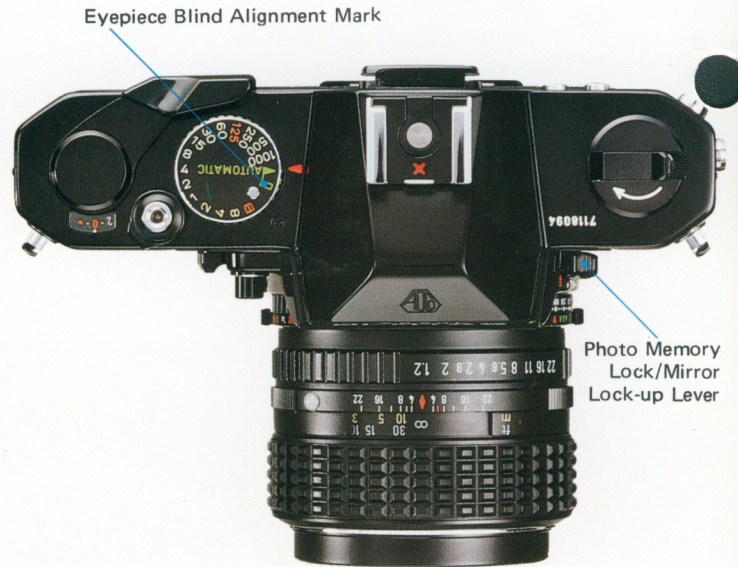
The motor drive system makes it possible to simultaneously operate several cameras for complete coverage. All three rings of a three ring circus, for example, can be photographed at the same time, or a sports event may be covered simultaneously with wide-angle, standard, and telephoto lenses mounted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

#### • Assured Success

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

#### • Industrial and Scientific Applications

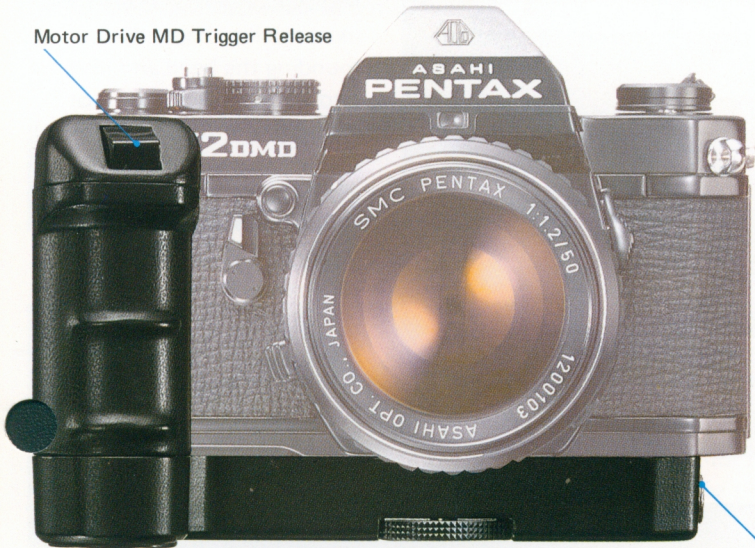
The Asahi Pentax K2 DMD Motor Drive System serves science and industry in a variety of applications such as remote control photography, time lapse photography, and large scale copying. Moreover, when used with the data back, Data MD, data is automatically imprinted upon each frame of the film.



The K2 DMD is first and foremost a precision camera designed for operating ease, accurate performance, durability, stability, and reliability. For unsurpassed handling ease it features two comfortable grips, dual trigger release buttons, and full exposure automation. Accuracy is assured by the utilization of the superb Seiko MF shutter and super sensitive silicon cells. The rugged K bayonet mount and 2 fps capability of the K2 DMD are ample evidence of durability, a characteristic long associated with Asahi Pentax cameras. All shutter speeds are electronically controlled for consistent performance; stability is maintained frame after frame. Most importantly, the more than 15 year experience of Asahi Optical Company in designing and manufacturing motor drive cameras and systems has made it possible to create the ultimate in reliability: the Asahi Pentax K2 DMD, which is the pinnacle in precision motor drive cameras.

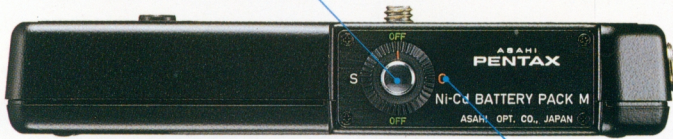
The powerful micro motor of the compact Motor Drive MD, the heart of the K2 DMD motor drive system, propels the film at a rate of 1/2 - 2 fps. Furthermore, a single touch is all that is required to changeover from consecutive to single-frame exposure operation. Also found on this unit are the exposure counter, trigger release, remote control socket, tripod socket, and rewind lever.

Motor Drive MD Trigger Release



Release Button

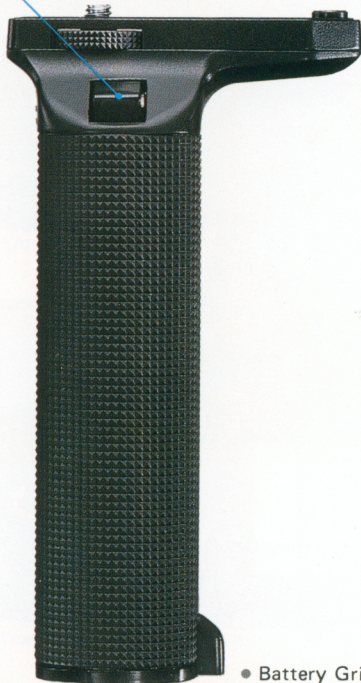
Remote Control Socket



• Ni-Cd Battery Pack M

Battery Grip M Trigger Release

C/S Dial



• Battery Grip M

### • Battery Grip M

In addition to serving as a solid support and secure grip for the combination of K2 DMD and Motor Drive MD, Battery Grip M also houses the 12 penlight batteries which serve as the power source. As the batteries are stored in a cassette-type battery holder, the battery grip can be instantly loaded, or used batteries can be immediately replaced with fresh ones which have been preloaded in an additional holder. For added versatility, the grip has its own trigger release. Furthermore, after quickly and easily removing the grip from Motor Drive MD, the two can be connected with the accessory 3 meter power cable for remote control operation.

### • Ni-Cd Battery Pack M

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.



### • Power Cable M

This 3 meter power cable is available as a standard accessory and, for remote control operation from extended distances, a 10 meter power cable is available as an optional accessory.



#### ● Consecutive Exposures

It is the combination of consecutive exposure capability of up to 2 fps with Motor Drive MD coupled with full exposure automation offered by the K2 DMD that make it possible for the photographer to capture the most elusive images. Horses rounding the bend and roaring into home stretch may race in and out of patches of shade, for example, but no matter, for the silicon sensors of the K2 DMD instantly respond to the subtlest fluctuation in light, resulting in perfect exposure, frame by frame, even at 2 fps.

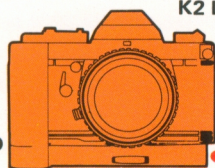


#### ● Remote Control

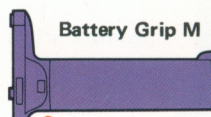
Connecting Battery Grip M to Motor Drive MD, as shown in the diagram, opens up new photographic opportunities. The camera can be concealed for wildlife or candid photography, or be fixed in a position normally inaccessible to the photographer, such as the tip of a flagpole on a tall building. Remote control also has a wide range of applications in industrial and scientific photography.

K2 DMD Body

Motor Drive MD



Battery Grip M



Power Cable M



## REACHING FOR THE STARS

The Asahi Pentax K2 DMD is designed for those reaching for the stars . . . . for those who want nothing less than the very best . . . . for those who have their heart set on the pinnacle of precision cameras, for there is no other camera like the K2 DMD. Just take a look at the partial list of features shown below.

● **Seiko MF Shutter.** Composed of five blades moving in a fan-line manner, this all metal focal plane shutter, which is exclusive to Asahi Pentax, is already world renowned for its stability in all temperature extremes. It is electronically timed, in both the auto and manual modes, for matchless accuracy, and synchronizes with electronic flash at 1/125 second, thereby alleviating the problem of ghost images in synchro-sunlight photography.

● **Viable Viewfinder.** The K2 DMD viewfinder is alive with information. A mere glance tells whether the camera is set to auto or manual, whether or not exposure compensation is being used,\* what aperture is being used,\* and what shutter speed is automatically being selected. Additionally, a match-needle is also indicated for manual exposure control. And for focusing ease, regardless of subject type, there is a central split-image rangefinder surrounded by a microprism collar and outer ground glass collar.\*

● **Full Exposure Control**

For perfect exposure control, the superb Seikosha shutter automatically sets the correct shutter speed, in stepless increments, over a range of 1/1,000 - 8 seconds. For subtle changes in mood, contrast, and effect, as well as for correction in unusual lighting, it is possible to compensate the automatic exposure by up to  $\pm 2$  stops. Another method of exposure control is utilization of the built-in Photo Memory Lock.\* During automatic operation, the camera can be slightly lowered to exclude the sun, for example, and after first locking the automatic exposure, the camera can be repositioned to include the sun without obtaining underexposure. And as a final option, the complete range of shutter speeds, 1/1,000 - 8 seconds, is also available manually.

● **Safety Devices**

There is a Shutter Release Button Lock to prevent accidental tripping of the shutter, a Shutter Speed Dial Lock to prevent it from being inadvertently moved off AUTO, a Battery Check Lamp to assure that batteries are replaced in time (and in the event that the batteries are not replaced when they should be, there is automatic "Shutter Lock" \* which prevents the photographer from attempting to use the camera with bad batteries), Mirror Lock-Up provision to totally eliminate mirror shock at critical times, and when the motor drive unit is used, Automatic Stop occurs at the last frame, warning the photographer to replace film.

● **Additional Features**

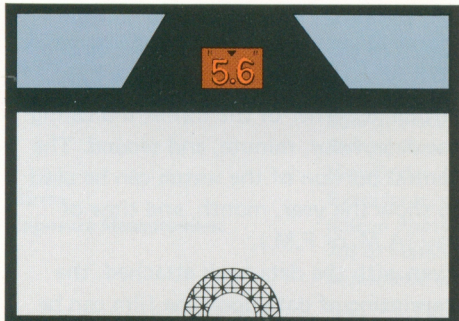
Additional features include an extra-large mirror to prevent mirror cut-off, built-on Hot Shoe with a built-in circuit breaker to eliminate the possibility of shock, a Self-Timer which can be interrupted and by-passed, a Depth of Field Preview Button, a silver-coated pentaprism for brilliant viewing, lenses that can be instantly and correctly aligned with the K bayonet mount even in the dark, a Film Advance Lever with a short throw of  $135^\circ$ , a built-in Eyepiece Blind\* to prevent extraneous light from entering the eyepiece when the camera is used in the auto mode and away from one's eye, and most importantly, interchangeable backs\* and provision for motor drive.\*

\* Features not shared by the Asahi Pentax K2, but found exclusively on the K2 DMD.

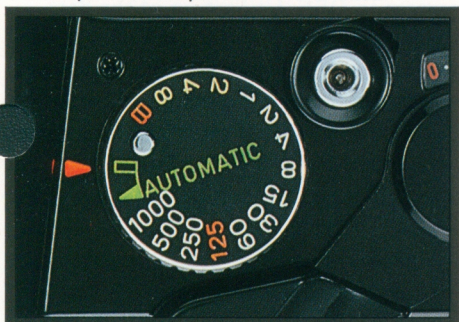


● **The Viable Viewfinder.** In the above example, the following information is available at a glance:

The aperture is f/5.6, no compensation is being used (cf. fig. below), the camera is set to AUTO, the automatic exposure is approximately 1/125, and the subject is properly composed and focused.



● As a warning and reminder, the aperture read-out changes from white to orange whenever exposure compensation is utilized.



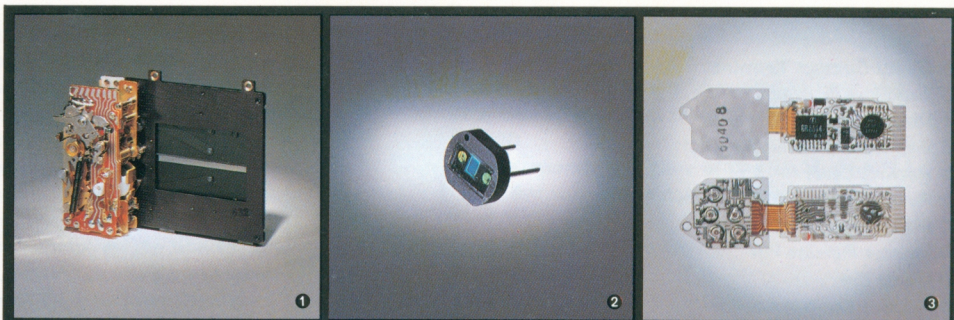
● Setting the Shutter Speed Dial to this position closes the built-in Eyepiece Blind.



● The Mirror Lock-Up and Photo Memory Lock Lever.

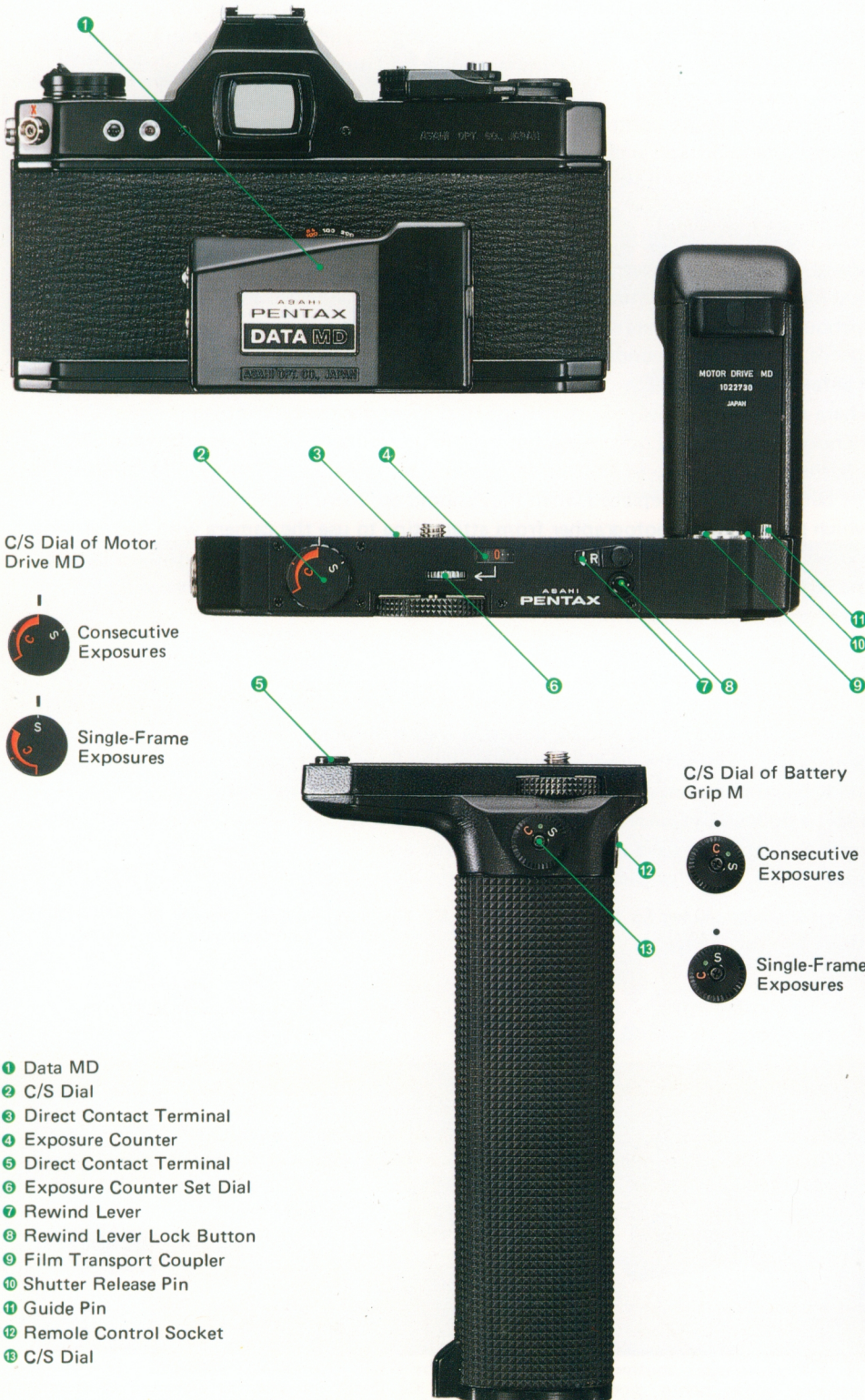


● Battery Check Button and Battery Check Lamp (LED).



① The remarkable shutter jointly developed by Asahi Optical and Seikoshi. ② The super sensitive silicon photo diode utilized by the K2 DMD for peerless exposure measurement accuracy. ③ High performance circuit board with integrated circuit.

Merely replacing the standard back cover of the K2 DMD with the data back, Data MD, instantly converts it into a data camera. Upon attaching Data MD to the K2 DMD, direct and immediate electrical contact is automatically made for safe and foolproof operation. The built-in watch of the data back is automatically photographed and appears in the upper left-hand corner of the frame, indicating the date, hour, minute, and second. The central portion of the watch can be used to show the year, month, and time of day (A.M. or P.M.). Even with the data back attached, the imprinting of data upon the film can be terminated at any time by setting the Data Switch on the bottom of the camera to OFF. Utilization of the data back can be applied to numerous fields such as the study of progress in or at construction sites, shipyards, art studios, sports events, and research laboratories.



● The built-in watch of Data MD is shown below. The central ground glass portion is used for penciling in additional data which can later be easily erased.



## ASAHI PENTAX K2 DMD

<b>Camera Type</b>	Aperture-Priority AE 35mm SLR with manual override and provision for motor drive.
<b>Shutter</b>	Electronically controlled Seiko MF vertically moving, metal focal plane shutter. Auto: Stepless range of 1/1,000 - 8 seconds. Manual: 1/1,000 - 8 seconds & B. Mechanical Shutter: B, 1/125 sec. (no batteries and dial set to 1/125 - 1 sec.), 1/1,000 sec. (no batteries and dial set to 1/1,000 - 1/250 sec.).
<b>Synchronization</b>	Hot Shoe with built-in circuit breaker, FP and X threaded terminals, X-sync at 1/125 sec.
<b>Self-Timer</b>	5 - 9 sec. delay, starts with Shutter Release Button, can be stopped while operating and by-passed.
<b>Viewfinder</b>	Silvered pentaprism for brilliant viewing, Split-Micro focusing aid, magnification of .88x with 50mm lens at infinity, 95% of picture taking area visible, eyepiece of -.8 diopter, built-in Eyepiece Blind. Auto/Manual Indicator, aperture, Shutter Speed Indicator for both auto and manual operation, and Exposure Compensation Warning visible in Viewfinder. Match-Needle operation possible for manual exposure control.
<b>Mirror</b>	Extra-large, swing back mirror for elimination of mirror cut-off and with provision for Mirror Lock-up.
<b>Exposure Measurement</b>	Silicon Photo Diode open-aperture, center-weighted through-the-lens exposure measurement for aperture-priority AE or match-needle manual exposure control. $\pm 2$ EV exposure compensation provision, Photo Memory Lock (automatic exposure temporarily memorized when Mirror Lock-Up Lever is held downward or memorized approximately 10 minutes when mirror is locked in the upraised position), exposure measurement range of EV 1 - 18 (f/1.4 lens, 100 ASA) ASA range of 8 - 6400, meter switch incorporated into Film Advance Lever and Shutter Release Button.
<b>Film Advance Lever</b>	Plastic thumb grip, single stroke 135° throw with stand-off angle of 25°.
<b>Exposure Counter</b>	Additive type with automatic reset.
<b>Film Rewind</b>	Rapid Rewind Crank built into Rewind Knob.
<b>Lens Mount</b>	Pentax K Bayonet Mount.
<b>Power Source</b>	Two 1.5V silver oxide batteries which last approximately one year with normal use, Battery Check Lamp (LED) to test battery condition, automatic "Shutter-Lock" when attempting to use camera with batteries of insufficient voltage, serving as warning to replace batteries.
<b>Back Cover</b>	Back Cover has built-on film tab holder and is interchangeable with data back, opens by pulling up Rewind Knob.
<b>Built-in Coupling</b>	Shutter Release Pin, Film Transport Coupler, and direct contact terminals which couple to motor drive. Built-in Data Light Shield which couples to Data Switch, and direct contact terminal which couples to data back.
<b>Dimensions</b>	144mm(L) x 92mm(H) x 90.4mm(D) (with 50mm f/1.4 lens).
<b>Weight</b>	953g (with 50mm f/1.4 lens), 688g (without lens and batteries).
<b>Additional Features</b>	Built-on Tripod Socket, Depth of Field Preview Button, lenses provided with upraised dots for instant matching and mounting to camera body, reinforced neck strap lugs, all back body, texturized body surface for sure grip.

## MOTOR DRIVE MD

<b>Design</b>	Designed for exclusive use with Asahi Pentax K2 DMD.
<b>Motor</b>	High performance 15V DC micro motor.
<b>Power Source</b>	12 1.5V penlight batteries housed in battery grip provide up to 1,400 exposures.
<b>Film Transport Rate</b>	Steplessly variable within a range of 1/2 - 2 fps for consecutive exposures during which time the Quick Return Mirror functions as usual.
<b>Usable Shutter Speeds</b>	<b>Single-Frame Exposures:</b> A stepless range of 1/1,000 - 8 sec. for AUTO and a range of 1/1,000 - 8 sec., B for MANUAL operation. <b>Consecutive Exposures:</b> 1/1,000 - 1/60 sec. (AUTO or MANUAL) at 2 fps, 1/1,000 - 1/2 sec. (AUTO or MANUAL) at 1 fps, 1/1,000 - 1 sec. (AUTO or MANUAL) at 1/2 fps, all AUTO and MANUAL speeds (except B) at longer intervals.
<b>Exposure Rate</b>	Maximum number of 36 exposures possible. Exposure Counter is of subtractive type with automatic stop at zero.
<b>Dimensions</b>	148.5mm(L) x 253mm(H) x 90.4mm(D) with K2 DMD body, 50mm f/1.4 lens, and Battery Grip M attached.
<b>Weight</b>	1,501g with K2 DMD body, 50mm f/1.4 lens, and Battery Grip M (without batteries) attached.

## DATA MD

<b>Design</b>	Designed for exclusive use with Asahi Pentax K2 DMD.
<b>ASA Range</b>	Three positions for 100, 200, and 400 ASA black and white film upon which the data is imprinted in black and white, and one position for 64 - 100 ASA color film upon which the data is imprinted in black and orange.
<b>Coupling</b>	Cordless attachment to K2 DMD body and coupling to Motor Drive MD.
<b>Data</b>	Day of month, hour, minute, second, and provision for addition of year, month, and time of day (A.M. or P.M.), all of which appear on face of watch. Accessory Memo Plate also provided to indicate any other form of data.
<b>Data Position</b>	Upper left-hand corner of film frame.
<b>Data Size</b>	A circle of 3.8mm diameter on the film surface.
<b>Battery Check</b>	Provision to check battery condition and ascertain that data is being imprinted.
<b>Dimensions</b>	144mm(L) x 92.2mm(H) x 123mm(D) when attached to K2 DMD body with 50mm f/1.4 lens.
<b>Weight</b>	1,045g (without batteries) when attached to K2 DMD with 50mm f/1.4 lens.



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