

PENTAX

**PENTAX**



# THE LX SYSTEM

## EXPANDING THE SCOPE OF YOUR PHOTOGRAPHY







## **IDM LIGHT MEASUREMENT**

The heart of the Pentax LX 35mm SLR is its Integrated Direct Metering (IDM) system. Incorporating a new-generation Silicon Photo Diode situated at the base of the mirror box, this system performs integrated light metering functions for both automatic and TTL flash exposures directly off the film plane and provides center-weighted readings for manual exposures as well. The result is superb exposure accuracy under the most challenging lighting conditions. Moreover, with the integrated system, viewfinder indication and automation are available with all viewfinders without special couplings, thus permitting greater compactness and overall balance, and eliminating the need for exposure compensation no matter which viewfinder or focusing screen is used.

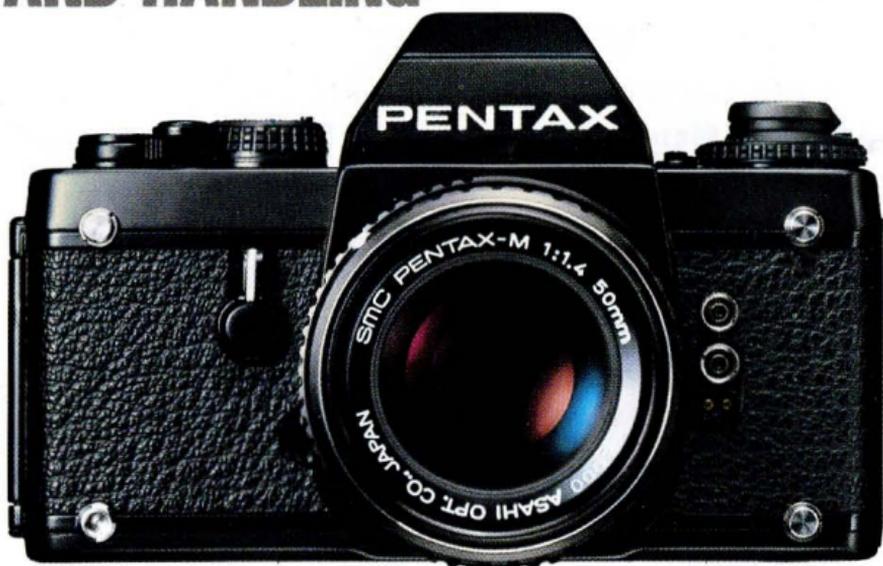
## **ELECTRO-MECHANICAL SHUTTER/WIDE "BATTERY-LESS" OPERATING RANGE**

The LX's unique titanium electro-mechanical shutter delivers electronically controlled stepless speeds from an ultra-fast 1/2000th second all the way down to 125 seconds in the automatic mode, and offers a full range of manual speeds from 1/2000th to 4 seconds. Moreover, its special design permits use of all dial settings from 1/2000th second to "X" without batteries in virtually all temperatures.

## **A COMPLETE PROFESSIONAL SYSTEM**

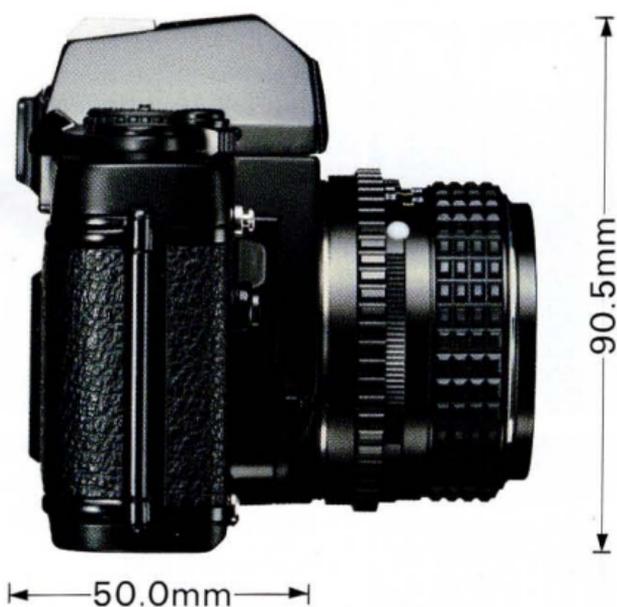
The LX system includes a wide array of interchangeable viewfinders and nine different focusing screens to meet the challenge of almost any photographic situation. The unique FB-1 System Finder features optional eyepieces while the standard FA-1 Finder provides built-in diopter correction and hotshoe sync, including contacts for TTL Auto electronic flash. There's also a handle-mount TTL flash unit that synchronizes via the "X" terminal on the camera body. Hundreds of other precision accessories makes that LX *one of the most complete professional-use SLR systems ever.*

# NEW LEVELS OF DURABILITY AND HANDLING



144.5mm





Never before has a professional system camera been so small, so lightweight yet so rugged.

Weighing a mere 803 grams (28 ounces) with standard FA-1 viewfinder and 50mm f/1.4 lens, the Pentax LX opens up a whole new dimension in precision 35mm SLR photography.

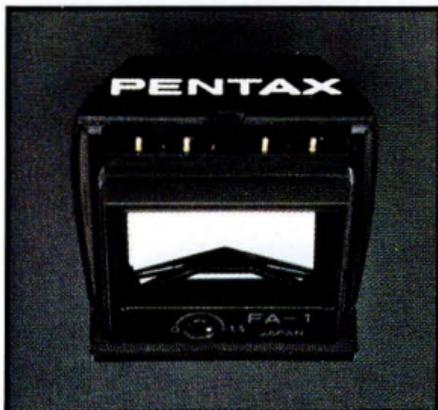
Designed to meet the most demanding requirements of the photographer in the studio or on the go, the LX is specially constructed. Its highly durable body allows it to take even the toughest assignments, from capturing climbers atop a freezing mountain to close-ups in the scorching sands of the desert.

Special sealings and gaskets have been used in all key parts of the camera body and interchangeable finders for added resistance to moisture and dust. Even the film advance mechanism uses sealed ball bearings to provide smooth, trouble-free film transport under the most adverse conditions.

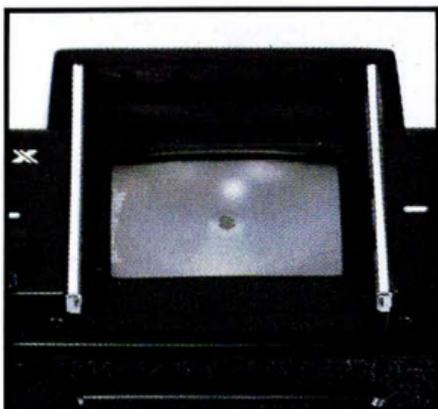
The LX has also achieved a new level in human engineering design with all the controls positioned for maximum ease of operation and convenience. Moreover, because the exposure measurement system is in the body, the need for special finder couplings and bulky accessories has been eliminated, thereby providing superb balance and handling ease with both eye-level and waist-level viewfinders.



Gaskets along the camera base and back provide added resistance to moisture and dust even when using the Winder LX.



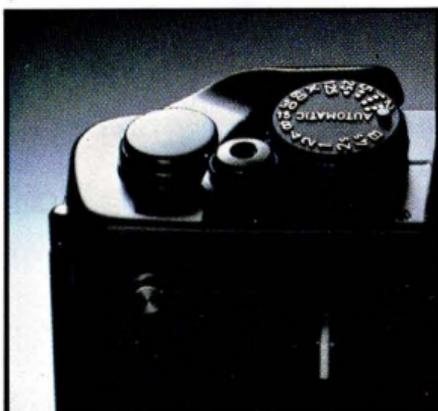
Linings at the back and along the base of each LX Finder protect against dust and grit entering into the body.



Additional linings in the finder mount provide a tight sealing when the finder is mounted.

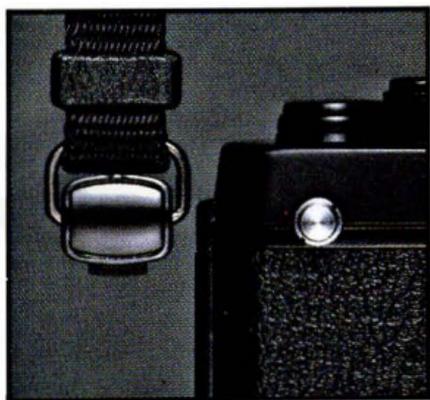


Special foam seals are used under the Shutter Dial and Exposure Compensation Dial clusters.

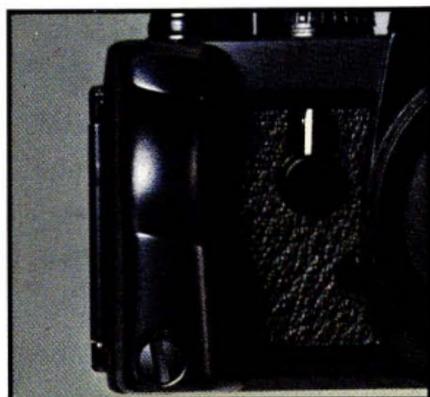


Sealed ball bearings have been incorporated in the Film Advance for smooth, reliable operation.

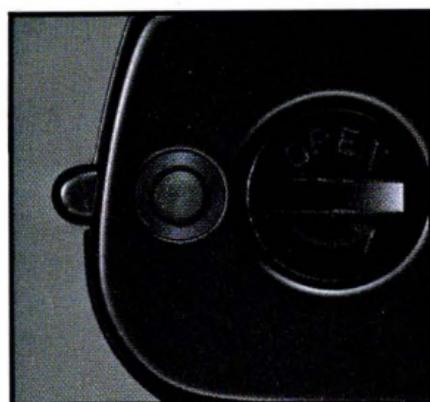




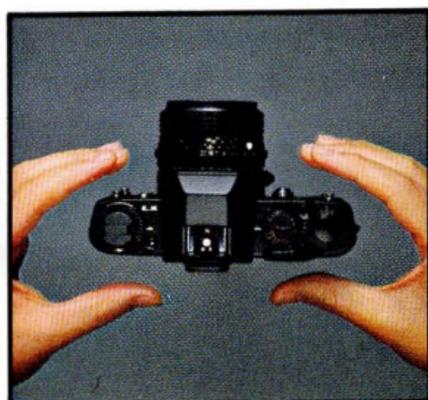
Accessory lugs at the front top and bottom of the camera body permit the option of carrying the camera either horizontally or vertically.



The lugs also accept accessory grips for added versatility in handling.



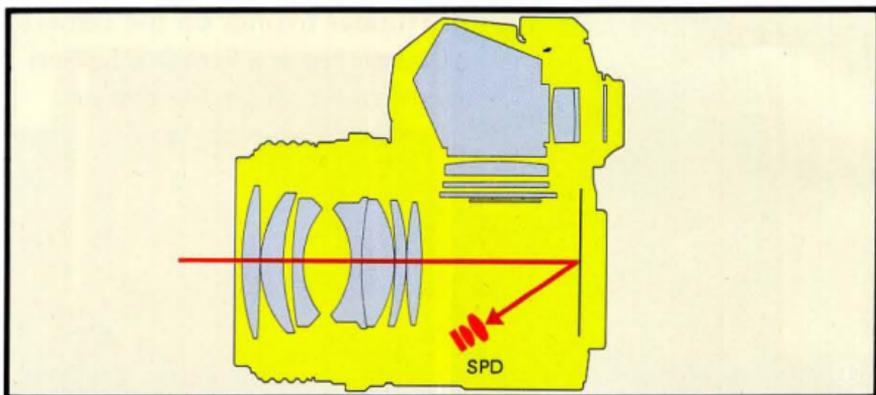
Rubber fittings on the camera base ensure a firm hold when shooting on a table top or other smooth surface.



Human engineering lets the camera rest comfortably in your hand, with all the controls always at the ready.

# IDM AUTOMATIC EXPOSURE CONTROL

No matter how suddenly or subtly the lighting may change, the superbly accurate Integrated Direct Metering (IDM) system of the Pentax LX measures light reflected directly off the film plane to ensure precise automatic exposure measurement even as the image is being captured on film. From the simplicity and ease of automatic flash photography with Pentax TTL Electronic Flash Units to the precision of IDM measured exposures in photomicrography, macro-photography or astrophotography... from the instant response and depth of field control provided by LX aperture-preferred automatic operation to the convenience and accuracy of high speed remote controlled automatic exposures with motor drive... the Pentax LX gives you the freedom and flexibility to concentrate completely on the infinite images of the photographic challenge while the camera does the work.



## The IDM System

As you activate the LX metering system by pressing lightly on the shutter release, light transmitted through the unique dual-system instant return mirror reflects off a secondary mirror into an ultrasensitive Silicon Photo Diode (SPD). The SPD cell transmits the information to the LX "brain" which computes the approximate shutter speed and displays it in the full information display while you focus and compose

your image in the large, exceptionally bright viewfinder. As you release the shutter, the mirror system swings up and out of the way allowing the light to strike either the specially designed fixed pattern on the first shutter curtain (at higher speeds) or the film itself (at mid-range and slower speeds). This light reflects directly into the SPD cell, providing the LX "brain" with the information it needs to compute the precise speed required for an accurate exposure from the camera's continuously variable range of an ultra-fast 1/2000th second all the way down to 125 seconds (at f/1.2 in normal temperatures and humidity). Because the SPD measurement cell is seated in the body beneath the mirror, no exposure compensation is required with accessory viewfinders or focusing screens, and no blind is required for long time exposures or remote-control photography.

- ① IDM system of light measurement at the film plane assures unsurpassed accuracy with each exposure.
- ② First curtain and SPD housing.

### Added Precision in Difficult Lighting

You're always in complete control with auto exposures even in difficult lighting, thanks to the LX exposure compensation dial. Whether it's a special effect or just compensation for strong back-or frontlighting, the exposure compensation dial lets you override the automatic exposure setting by a full  $\pm 2$  EV in 1/3 increments for precise control. A special warning in the viewfinder lets you know you're off the "1X" normal exposure setting.



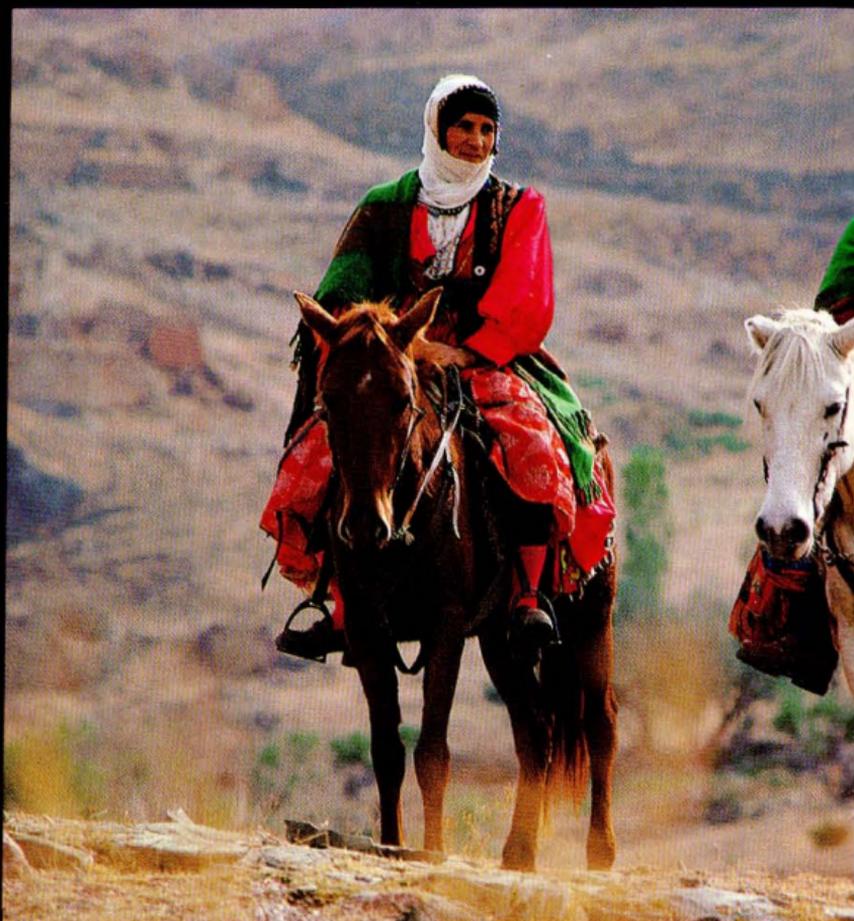
# FULL MANUAL EXPOSURE CONTROL

When the hectic pace slows and your photographic sixth sense tells you manual exposure control will add something special to the final image, the Pentax LX delivers. Simply activate the meter with a light touch of the shutter release and the exclusive dualsystem mirror transmits significantly more light to the ultra-sensitive SPD for metering accuracy. The LX "brain" will display its center-weighted reading in the viewfinder while you just align the pointer by changing shutter speed or aperture. Quick. Easy. Accurate. And you're in control.

## FULL INFORMATION VIEWFINDER

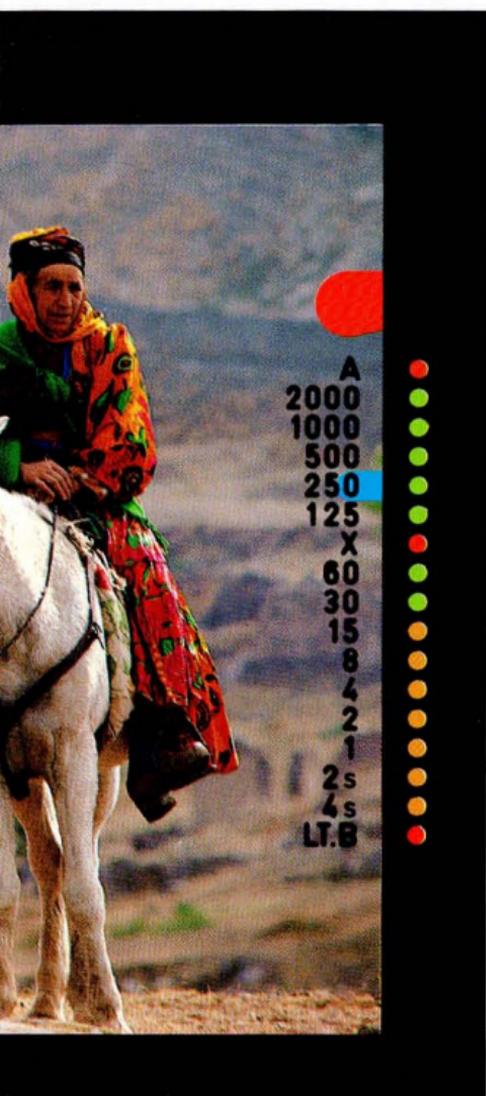
Whether you've elected full automatic exposure control or manual, exposure information and a great deal more is always at hand in the full information LX viewfinder.

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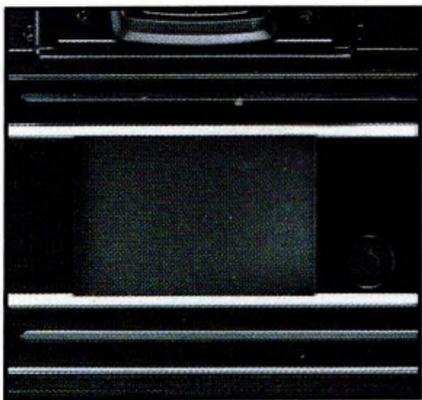




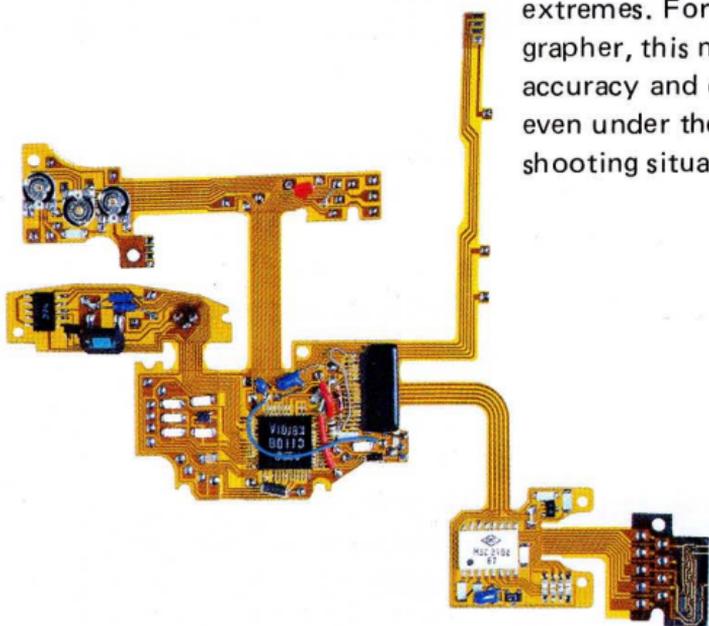
- **Aperture Window** displays f/stop set on camera lens (not visible with FE-1 and FF-1 Finder models)
- **Red Flag** Exposure compensation warning
- **Blue Flag** indicates position of Shutter Dial
- **Red LED** indicates over-exposure
- **A** indicates automatic exposure selected
- **Shutter Speed Scale** represents indexed range of shutter speeds from 4 to 1/2000th second.
- **Green LED's** glow to indicate meter selection of hand holdable speeds from 1/2000th to 1/30th second.
- **"X"** Electronic flash synchronization. Red LED glows to indicate automatic flash sync and flash ready with Pentax dedicated flash units, flickers as an auto flash exposure check with TTL integrated units.
- **Yellow LED's** glow to indicate meter selection of speeds slower than 1/15th second as reminder to open lens, use tripod or flash.
- **"LT, B"** In manual, indicates "B" shutter setting; Red LED glows to indicate long time exposure in automatic.



# A LOOK INSIDE THE LX



**Titanium Electro-Mechanical Shutter** In designing the LX, Pentax engineering craftsmen opted for a horizontally-run metal focal plane shutter to aid in keeping internal vibration at an absolute minimum. Titanium was selected as the material for the shutter curtains because of its greater durability and resistance to temperature extremes. For you, the photographer, this means reliability, accuracy and dependability even under the most difficult shooting situations.



**Stepless Speeds in Auto** — When you set it for automatic exposure operation, the LX delivers electronically-controlled shutter accuracy from a stepless range of speeds between an ultra-fast 1/2000th second all the way down to 125 seconds. You get the precise speed required for a proper exposure ... even if its 1/895th second!



**Failsafe Manual Speeds** — In manual, the LX provides a full range of shutter speeds from 4 full seconds to 1/2000th second. Not only that, because of its electromechanical shutter design, you can use all speeds from 1/2000th second to "X" even if the camera batteries fail! You get battery-less flexibility unparalleled in any other 35mm system SLR.

# FUNCTIONAL VERSATILITY



know when the film can be removed with a portion of the leader still out of the cassette.

## Multi-Function Lever

With this one conveniently located lever, you have a wealth of flexibility at hand.

**Self-Timer** — Move the lever counter-clockwise and you have a full 4 to 12 second delay self-timer which can be set anywhere within the range. Before releasing the shutter, you can interrupt the timer at point by simply returning it to its original position.

**Depth of Field Preview** — When moved clockwise, the lever lets you stop the lens down to shooting aperture. Selective focus control becomes quick and easy because you preview the scene's depth of field right in the viewfinder.

## Random Access Multiple Exposure

When the assignment calls for the unique effect only a multiple exposure can deliver, the LX meets the challenge. A quick press of the Film Rewind/Multiple Exposure Button at the base of the camera disengages both the film advance mechanism and exposure counter so all you have to do is cock the shutter, adjust your exposure and shoot. A special random access feature of the LX two-way exposure counter even lets you produce multiple exposures on any frame in the roll, as long as the film has not been wound off the take-up spool. It's fast, easy and sure!



## Two-Way Exposure Counter

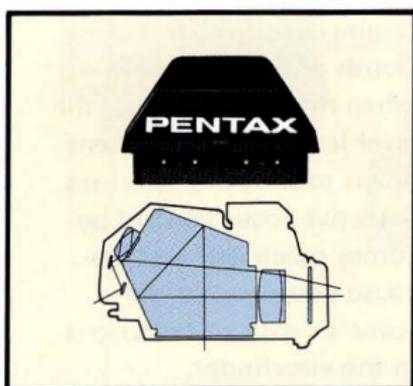
Even the exposure counter of the Pentax LX is special. Its two-way action not only counts up sequentially from "0" to "36", but it also works in reverse when rewinding the film to keep you informed of the exact frame location for multiple exposures or just to let you



**Mirror Lock** — A quick press of the release button, and the lever moves towards the lens mount to lock the mirror in the up position. Vibration is minimized for sharp, crisp images in precision applications, such as macrophotography and photomicrography.

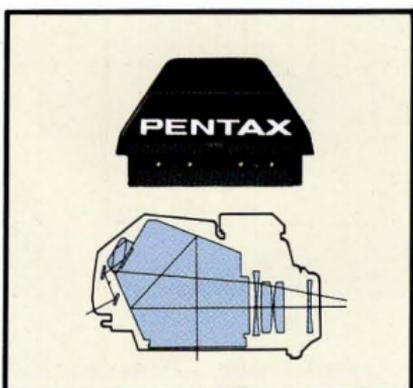
# INTERCHANGEABLE FINDERS

The Pentax LX System lets you select just the right viewfinder to meet your specific photographic requirements. Viewfinders can be interchanged quickly and easily in seconds for incredible composition and focusing versatility. Each Finder provides special gaskets along the base for added resistance to dust and moisture. And because the LX Integrated Direct Metering System measures light in the body, automation is always available and no exposure compensation is required regardless of the viewfinder used.



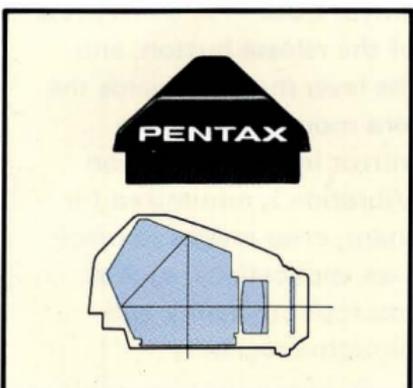
## **FA-1 Eye-Level Finder**

Here's the ideal choice for your standard LX viewfinder. The FA-1 combines bright eye-level pentaprism viewing with built-in diopter correction, a full data viewfinder display and a TTL-coupled "X" sync hot shoe for the ultimate in Finder convenience. Built-in diopter correction covers the -1.5 to 0 range.



## **FA-1W Eye-Level Finder**

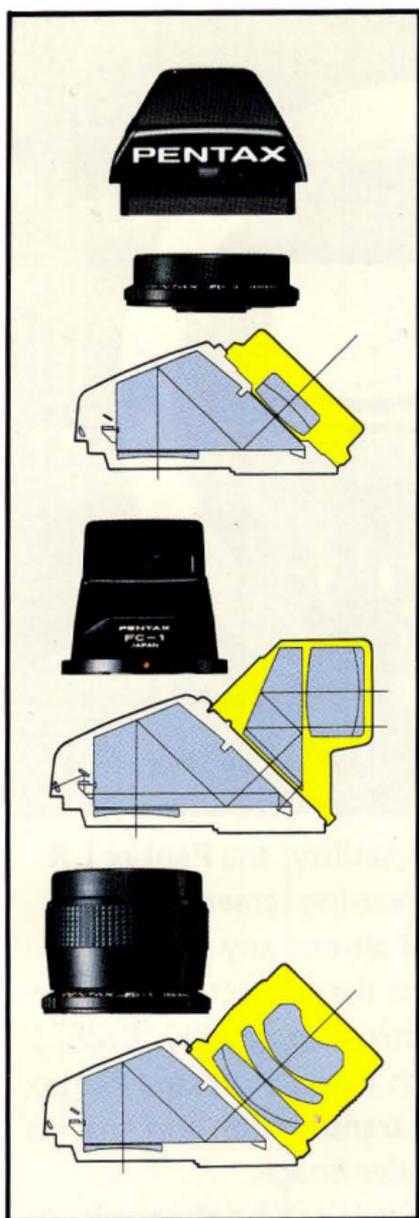
The same features as the FA-1 Finder with an extended diopter correction range from -3 to +1 inclusive.



## **FA-2 Eye-Level Finder \***

When you need the versatility of the FA-1 Finder without the built-in hot shoe for electronic flash, the FA-2 is the ideal choice. You get the same bright eye-level pentaprism viewing and full data viewfinder display plus built-in diopter correction for the -1.5 to 0 range.





### FB-1 System Finder

A virtual viewing system with- in a system, this Pentax ex- clusive accepts any of three optional viewing eyepieces for the ultimate in view- finder versatility. Each eyepiece bayonet mounts quickly and easily and displays exposure information in the viewfinder.

### FD-2 Standard Eyepiece

Provides a convenient 45° viewing angle ideal for micro- scope use, copy work or general photography.

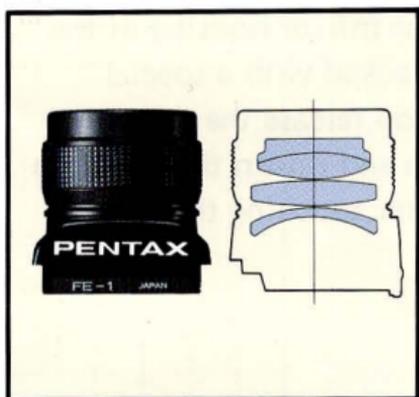
### FC-1 Action Eyepiece —

Rotates a full 180° for total flexibility in the viewing angle from waist level to eye level.

### FD-1 Magni-Eyepiece\* A

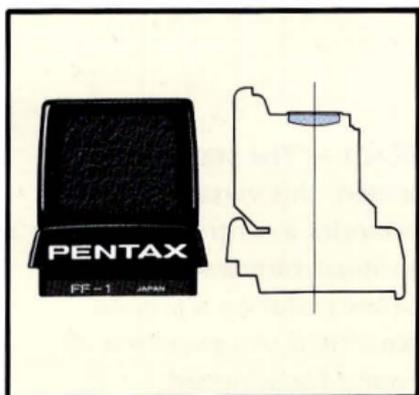
magnifier eyepiece with built-in diopter correction from -4.5 to +3.5 inclusive plus a convenient 45° viewing angle.

\* f/stop is not visible in the finder



### FE-1 Magni-Finder

The FE-1 combines the bene- fits of waist-level viewing with high image magnification mak- ing it ideal for close-up photo- graphy or any situation where critical focusing is important. Adjustable diopter correction from -5 to +4 inclusive is built- in. All data except the aper- ture setting is visible in the viewfinder.

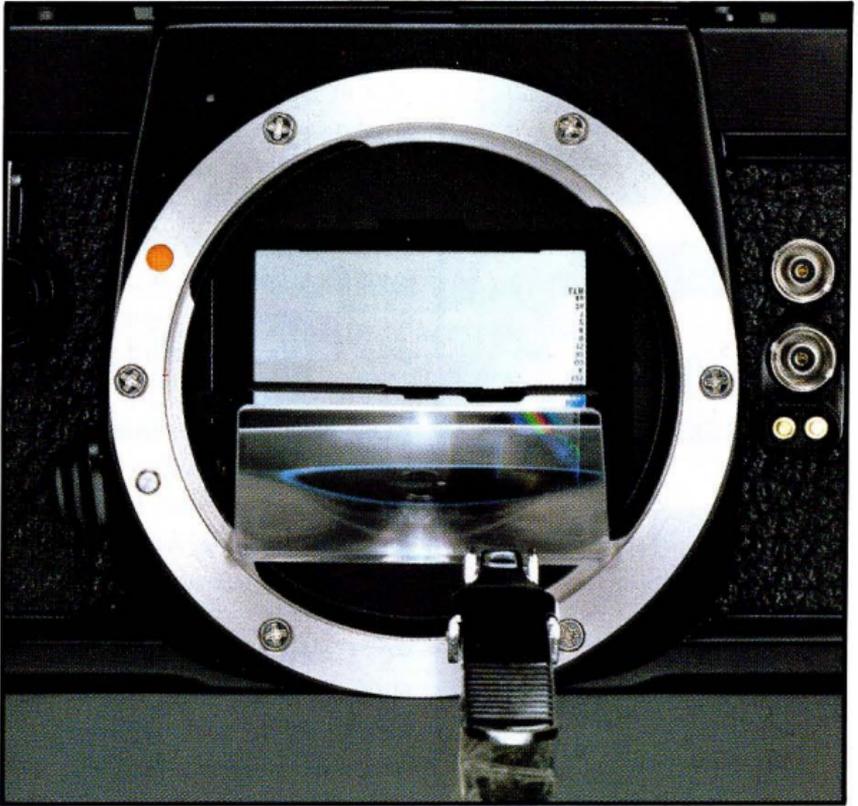


### FF-1 Waist-Level Finder

This space saving Finder folds almost flat yet pops up in an instant to provide bright, clear waist-level viewing. All view- finder data except aperture is visible in the reversed position.

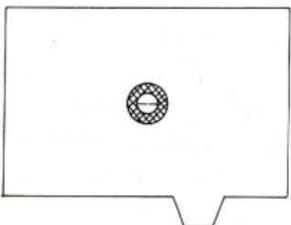
Availability to be announced

# INTERCHANGEABLE FOCUSING SCREENS

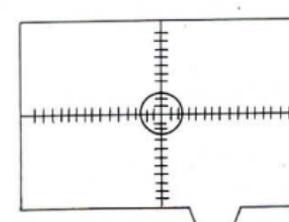
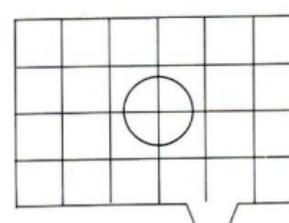
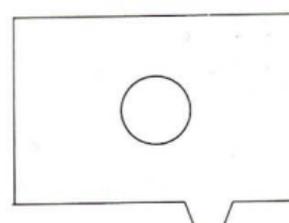
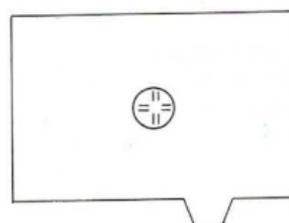
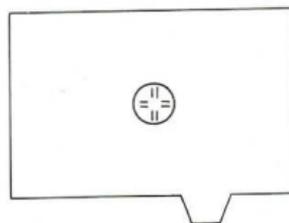
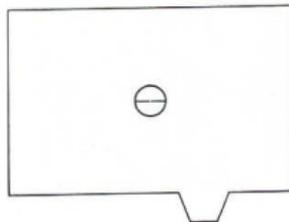
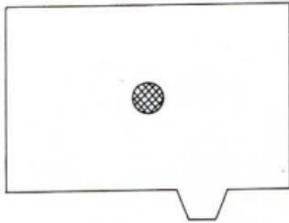
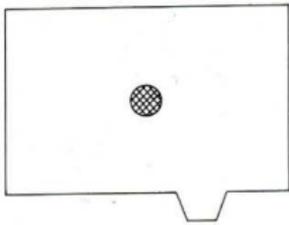


When it comes to focusing versatility, the Pentax LX delivers with nine different focusing screen models available to meet the needs of almost any type of photographic assignment from the fast action of sports to the demanding world of astrophotography. Each screen is specially treated with a newly created Pentax coating which enhances light transmission and ensures the brightest possible viewfinder image.

Interchangeable Focusing Screens can be changed quickly and easily through the mirror housing of the camera. Each screen comes packed with a special pincer-type tool which lets you release the screen frame, interchange the screen and return the frame to its original position while never touching the screen surface.



SC-21 — The standard LX screen, this versatile model provides a central split-image spot surrounded by a micro-prism collar on a ground glass field. An excellent all round focusing aid.



SA-21 — Here's a highly versatile yet simple screen comprised of a center microprism grid on a ground glass field. Ideal for general applications with most lenses.

SA-23 — Similar to the SA-21, the SA-23 provides sharper microprism angles to simplify focusing with relatively high speed lenses (f/1.2 to f/2.8).

SB-21 — For the photographer who prefers a relatively plain screen, this model provides the accuracy of a split-image center spot on a ground glass field.

SD-21 — An excellent choice for photomicrography or astrophotography, this screen provides central cross hairs on an all matte field. Also suitable for macrophotography where lighting is dim.

SD-11 — The same flexibility as the SD-21, this model eliminates the matte field and provides central cross hairs on a ground glass background for focusing ease.

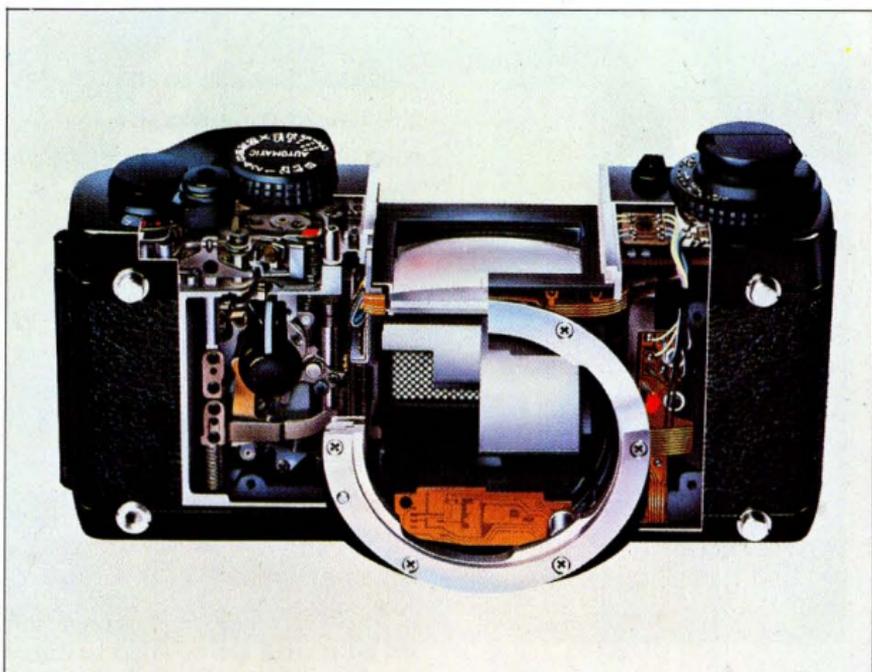
SE-20 — This all matte ground glass screen is especially well suited for focusing with super telephoto lenses having apertures of f/5.6 or smaller, macrophotography and general applications where composition without distraction is of primary concern.

SG-20 — Designed to provide a focusing aid which allows aligning architectural subjects or multiple exposures, this model is similar to the SE-20 but provides etched cross-lines in 6mm squares.

SI-20 — In high magnification photography with bellows and microscopes, this screen with its engraved scales allows the photographer to determine image magnification and subject size while viewing through the finder.

# SPECIFICATIONS

**Type:** 35mm full-frame single lens reflex camera, with IDM off-the-film plane aperture-preferred automatic or full manual exposure measurement, TTL integrated flash control with Pentax "T"-type flash units.



**Lens Mount:** Pentax Bayonet Mount with fully automatic diaphragm coupling.

**Standard Lenses:** SMC Pentax 50mm f/1.2, SMC Pentax-M 50mm f/1.4, 50mm f/1.7, 50mm f/2, 40mm f/2.8.

**Shutter:** Electro-mechanical horizontally-run titanium focal plane shutter; manual speeds mechanically controlled from 1/2000th second to "X" (1/75th second) and electronically controlled from 1/60th second to 4 seconds; mechanical speeds and "B" operational without batteries; automatic exposures electronically controlled in stepless range from 1/2000th second down to 125 seconds; shutter lock provided; shutter dial locks at "automatic" with push-button release; built-in curtain blind for use with Watch Data LX.

**Flash Control:** TTL measurement of ambient and electronic flash lighting directly off film plane with "T"-type Pentax flash models providing auto flash synch at "X" and visible ready light/exposure check in viewfinder when flash reaches full charge; automatic flash synch and visible viewfinder ready light with other Pentax dedicated flash models.

**Flash Synchronization:** FP terminal and X terminal, plus contacts for TTL integrated automatic flash control at camera front; FA-1 standard Finder features built-in X-synch hotshoe with TTL contacts.

**Self-Timer/Preview:** Multi-Function Lever provides 4 to 12 second delay manually activated self-timer, depth of field preview and mirror-lock capability.

**Exposure Measurement:** Open aperture, center-weighted, through-the-lens light metering for both automatic and manual modes. Integrated Direct Metering (IDM) system measures light at the film plane via Silicon Photo Diode (SPD): high speed measurements for automatic operation are made off fixed pattern on front shutter curtain, slow speed measurements off curtain and film automatic electronic flash/ambient light measurement with TTL "T"-type flash models. Manual exposure range

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from EV 1 to EV 19 (ASA 100, f/1.4); stepless automatic exposure range extends to EV -6.5 ~ EV 20 (125 second at f/1.2 to 1/2000th second at f/22 at ASA 100 under normal temperatures and humidity). Meter activated by light pressure on shutter release with automatic shut off after 25 seconds. ASA film speed range: ASA 6 ~ 3200.

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**Exposure Compensation:** Up to  $\pm 2$  EV automatic exposure compensation in automatic mode by dial control; dial indexed at 1/4X, 1/2X, 1X, 2X and 4X with click stops at 1/3 EV positions; red flag appears in viewfinder to indicate dial is off "1X" normal exposure position; dial lock provided at "1X" with push button release.

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**Viewfinder:** Standard FA-1 Interchangeable Eye-Level Pentaprism Finder features silver-coating and shows 98% vertical, 95% horizontal of picture area plus full data viewfinder display; built-in diopter correction by adjustment screw. Finder removable by release lever.

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**Viewfinder Display:** Tri-color display for TTL measured shutter speeds with green LEDs indicating hand-holdable speeds from 1/2000th second to 1/30th second, yellow LEDs as slow speed warning from 1/15th second to 4 seconds, and red LEDs to indicate overexposure or long time and X synch ready light with TTL and dedicated flash units; blue flag indicates automatic at "A" and manually selected shutter speeds; aperture visible in standard FA-1 finder model.

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**Focusing Screen:** SC-21 standard with center split-image spot surrounded by micropism collar on ground glass field; fully interchangeable with 8 other focusing screen models through the lens mount.

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**Film Transport:** Pentax Magic Needle Loading System. Single-stroke, rapid wind lever with 120° throw and 25° standoff angle; built-in shutter cocked indicator. Accepts Winder LX and Motor Drive LX for automatic film advance and automatic rewind capability.

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**Exposure Counter:** Additive two-way exposure counter moves from loading indicator to "36" with color-coded indexes at "0", "20", "24" and "36"; operates in reverse to indicate precise film location for rewind or tracking of multiple exposures.

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**Film Rewind:** Crank type: Film Rewind Button doubles as multiple exposure button to disengage film advance mechanism. Automatic rewind with Winder LX and Motor Drive LX.

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**Power Source:** Two 1.5-volt alkaline or silver oxide mini-batteries power all electronic systems in both automatic and manual modes; LED flickers in viewfinder to indicate low battery condition; mirror locks when batteries fail.

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**Mirror:** Large back-swing type, instant-return mirror to virtually eliminate image cutoff with most lenses; lock provision.

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**Back Cover:** Standard camera back with spring catch, built-in film memo holder. Back is fully interchangeable with Dial Data LX, Watch Data LX and LX Bulk Film Magazine.

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**Body Size:** 144.5mm x 90.5mm x 50mm (5.7" x 3.6" x 1.9") with standard FA-1 Finder attached.

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**Body Weight:** 565 grams (19.9 ounces) with standard FA-1 Finder.

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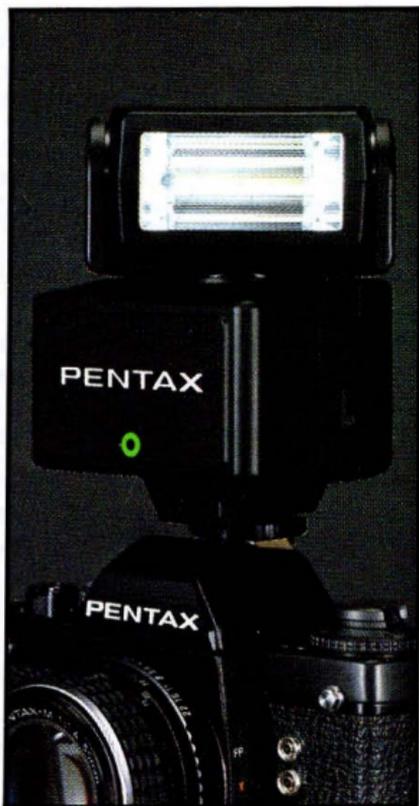
**Other Features:** Optional hand grips, special gaskets to minimize entry of dust and moisture, rubber fittings at base for stability on flat surfaces, interchangeable strap fasteners, Tripod Spacer Ring for use with very compact or large diameter lenses, neck strap with shoulder pad.

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# TTL INTEGRATED AUTOMATIC FLASH CONTROL

When used with the versatile new Pentax AF-280T or powerful AF-400T Automatic Electronic Flash units, the Pentax LX provides you with a new dimension in operating ease and electronic flash exposure versatility. Because they fully integrate with the camera's IDM light measurement system, the electronic "brain" of the LX reads both ambient lighting and electronic flash at the film plane to control the flash output for a proper exposure of any subject in the flash unit's range... regardless of the f/stop set on the lens!

No more exposure compensation when using flash with filters, close-up accessories or special tele/wide flash adapters! No more bothersome calculations to determine the best exposure setting for bounce flash or reflected lighting! Just precise automatic flash exposures...and a whole lot more!

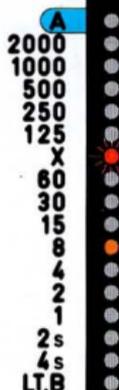
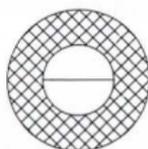


## "Failsafe" Flash Exposures

Simply attach the AF-280T or AF-400T to the Pentax LX and watch what happens. When the flash reaches full charge, the red "X" LED will glow as a viewfinder flash ready signal that you're ready to shoot. At the same time, the LX is automatically synchronized for electronic flash at the "X" (1/75th second) setting to protect against those "synchronization blues." Of course, if there's sufficient light for an available light photo...at 1/60th second or faster...the LX overrides the flash to put you into full control!

Both of these TTL flash units provide another extra... a visible automatic exposure check right in the LX viewfinder. That's right, you never have to take your eye from the camera. Just focus on your subject and take the picture. The red "X" LED will flicker on and off as your indication that there was sufficient light for a proper exposure... easily,

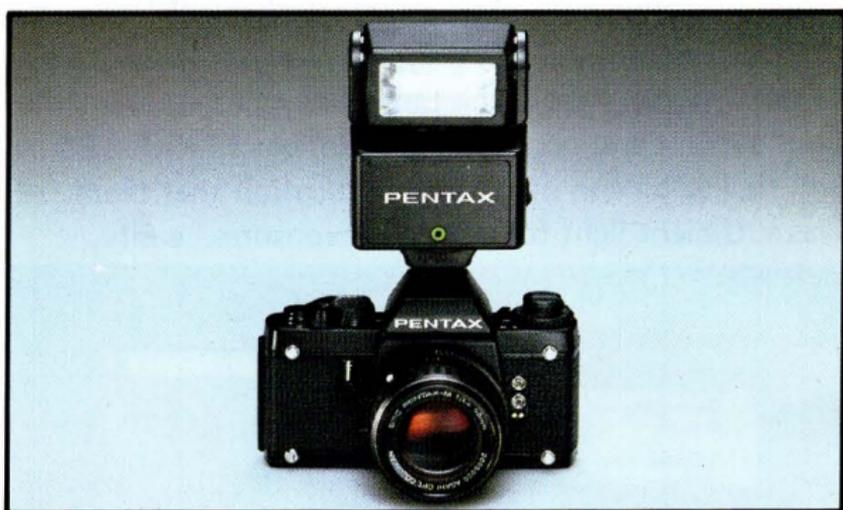
5.6



automatically, accurately. Of course, the Pentax LX is fully compatible with all Pentax "dedicated" electronic flash units such as the AF-200S and AF-160. With these units you also get automatic flash synch on charging as well as "X" flash ready indication in the viewfinder (auto flash check not provided).

## TWO NEW TTL AUTOMATIC FLASH UNITS

Representing the latest in electronic flash design and engineering technology, these two exciting new automatic flash units from Pentax have a host of features for the LX photographer. TTL automatic flash control capability. Multi-mode automatic and manual operation. Power-saving thyristor circuitry. Viewfinder ready light and auto exposure check. A complete system of accessories. The Pentax AF-280T and AF-400T are designed to provide the professional photographer with the power and features needed for any assignment.





SPECIFICATIONS	AF-280T	AF-400T
Guide No. (ASA 100/m.)	28	40
TTL Integrated Auto Operation	YES	YES
Non-TTL Auto Ranges @f/4 @f/8 @f/11	1 ~ 7m (3.5 ~ 24 ft.) 0.5 ~ 3.5m (1.5 ~ 12 ft.)	0.45 ~ 10m (1.5 ~ 30 ft.) 0.45 ~ 5m (1.5 ~ 15 ft.) 0.45 ~ 3.5m (1.5 ~ 12 ft.)
Manual Operation	High/Low Auto. Sync. w/override	Full; 1/2, 1/4, 1/8 Auto Sync. w/over- ride
Mounting	Hot Shoe	Bracket w/TTL cord
Recycle Times*	0.5 ~ 10 sec.	0.2 ~ 12 sec.
No. of Flashes*	Up to 550+	Up to 800+
Power Sources	Four 1.5v AA Alkaline or NiCad batteries	Six 1.5V AA Alkaline or NiCad batteries in Grip Battery Pack; "C" cell TR (trans- istor) Power Pack; High Voltage Battery Pack (510V or 270/ 240V); AC Adapter
Bounce Capability	Head rotates a full 180° with detents at each 45° position; vertical adjustment to 105° with detnets indexed at -15°, 0°, 45°, 60° and 90°	
Dimensions	80mm x 68mm x 116mm 3.1" x 2.7" x 4.5"	86mm x 92mm x 260mm 3.4" x 3.6" x 10" (less Grip Batt. Pack)
Weight (less batteries)	300 gr. (10.6 oz)	715 gr. (25.2 oz)
Accessory Included	Case	Case
Optional Accessories	AFW-1 Wide Angle Adapter, AFT-1 Tele Adapter.	Bracket Mount, Sync. Cord 4P, AFW-2 Wide Angle Adapter, AFT-2 Tele Adapter, Ni-cad battery Case, Multi-Flash Cord, Grip Battery Pack, TR Power Pack, 510V High Voltage Power Pack. 270V/ 240V High Voltage Power Pack, AC Adapter.

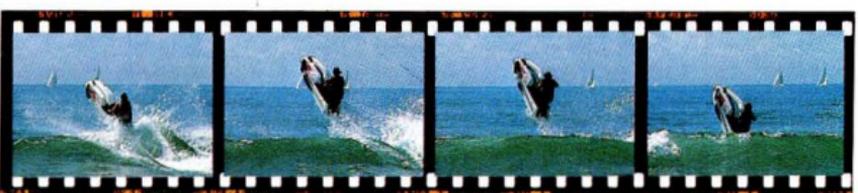
\*Note: Recycle times and number of flashes are given as approximations only. They depend on the power source used condition of the batteries and distance between flash and subject.

# MOTOR DRIVE SYSTEM



Whether you're involved in the world of sports or capturing the hectic pace of a political campaign, you'll enjoy the versatility and compact styling of the Motor Drive LX. With this precision unit you can select from single frame operation or take sequential photographs at speeds up to 5 frames per second in "High" or as slow as 0.5 frames per second in "Low." Even film rewind has been automated, allowing you to rewind a full 36-exposure film cassette at the touch of a button in less than 8 seconds! Of course, the Motor Drive LX is fully synchronized with the Pentax LX at all shutter speeds (except "B") and provides an LED end of film warning/battery check. The Motor Drive LX mounts quickly and easily to the base of the camera via the tripod socket. The shutter can be triggered by the camera Shutter Release Button, the release on the optional Battery Grip M or by remote control with the optional Remote Control Accessories.

As power, you have the options to meet your particular needs. For maximum portability and convenience, there's the Battery Grip M which carries 12 penlight



batteries. For the ultimate in compactness, choose the Ni-Cad Battery Pack M with its optional 6-hour Charger Pack M. Or for the laboratory or studio, take advantage of standard AC current with the Power Pack M. The LX Motor Drive System also includes a 250 Exposure Bulk Film Back which interchanges quickly and easily with the standard back on the camera to give you flexibility on the sports field or in the science lab.

# WINDER IL X



Powered by only four 1.5-volt AA penlight batteries, the Winder LX can record the action at speeds up to 2 frames per second while retaining full synchronization with all shutter speeds (except "B"). For added convenience, the Winder LX also provides single frame capability with automatic film advance plus a special auto rewind feature that lets you rewind a full 36-exposure cassette in about 15 seconds. Attaching quickly to the tripod socket on the camera base, special gaskets enhance resistance to moisture and dust for added durability. Other features include an LED which flashes when the film stops automatically at the end of the cassette, and optional remote control capability.

# DATA BACKS

By taking advantage of the fully interchangeable back of the LX, the camera can be easily converted into a sophisticated data recording device capable of including valuable information directly on the finished photograph. This can be extremely important in scientific and biomedical photography, in architectural and industrial applications to record project progress, in government and evidentiary photography, or simply for recording the growth of the family as years pass by.

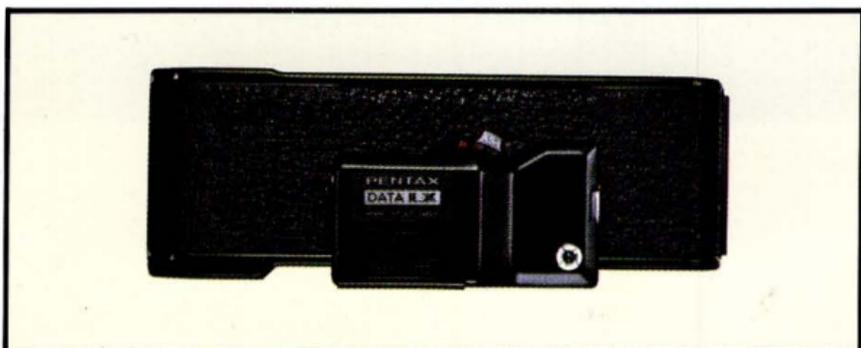
## Dial Data LX

Providing 3 alpha-numeric wheels indexed in numbers from "0" to "36" and in letters from "A" to "0", this back is particularly good for recording the year-month-day a photograph is taken as well as for recording exposure information such as shutter speed, aperture or frame number. It is powered by the three 1.5-volt Alkaline or Silver Oxide battery and can be set for two ASA ranges for color film as well as for all black & white films. A built-in battery check and confirmation LED are also provided.



## Data LX

The unique Data LX allows you to record the face of a time-piece directly in the corner of the photograph to display the day of the month, hour, minute and second the picture is taken. Additional information can be included on the central ground glass portion of the watch. Three settings are provided for black & white films and one color setting. Powered by a single 6-volt Alkaline or Silver Oxide battery, the Data LX features a built-in confirmation LED and battery check for added convenience. A film Blind to block the corner of the frame is built-directly into the shutter mechanism on the LX so no further accessories are required.



# THE SMC PENTAX LENS SYSTEM



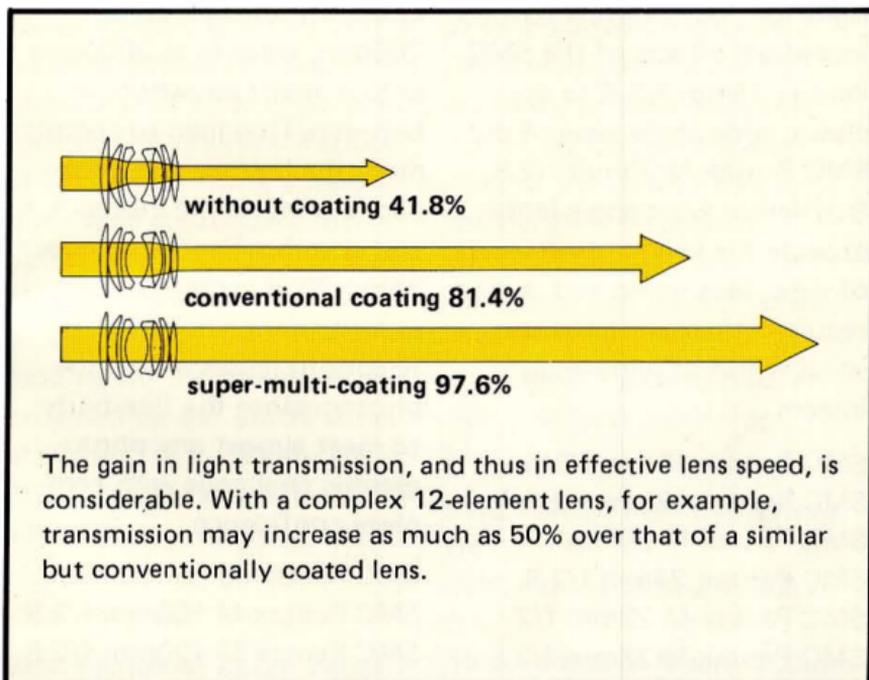
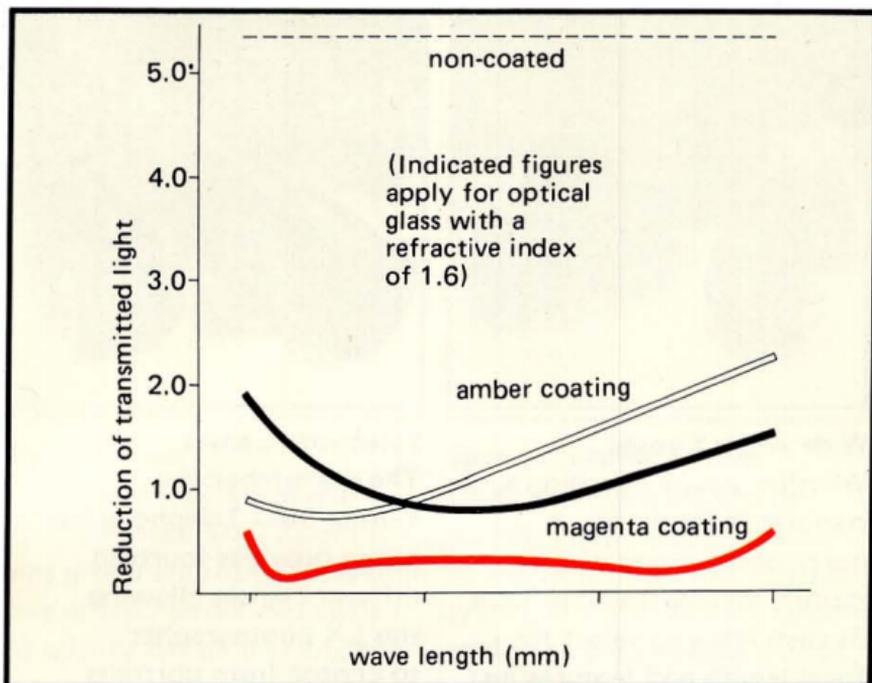


With lenses ranging in focal length all the way from 15mm Ultra Wide Angle to 2000mm Super Telephoto, the LX photographer can select the exact lens or lenses needed to capture the world's fleeting images and be assured of superb resolution, contrast and color balance. The extensive Pentax SMC System of over 40 different optics now consists of a 17mm Fish-Eye, 8 Zooms, 10 Wide Angles, 14 Telephotos, 5 Standard Lenses and an assortment of special purpose optics including those for bellows, macro and shift applications. What makes them so outstanding in design and performance? The difference made by over 60 years experience as a leader in design innovation and manufacturing craftsmanship.

### **The SMC Difference**

SMC stands for Super-Multi-Coating, our unique technological breakthrough in lens coating which first came on the scene in 1972. Since that time, multi-coating has become commonplace on many lenses produced by both camera manufacturers and independent lens companies but with varying degrees of quality. SMC Pentax optics are designed to deliver optimum quality and unparalleled consistency in color balance from one lens to another, a goal that's easily attained for the originator and world's most experienced manufacturer of multi-coated optics. On the average, between four and eight percent of light rays passing perpendicularly through a glass surface are lost due to surface reflection. With conventional lens coating it is possible to reduce the amount of light lost in transmission to one or two percent. But because of the complex optical designs used in today's photographic lenses, there is still a 10 to 20% loss of transmitted light in conventionally coated lenses causing most to suffer from inherent problems of flare and the ghost images most evident in backlit photographs. The exceptionally effective seven-layer Super-Multi-Coating from Pentax optical engineers reduces loss of light transmitted through the lens to a mere 0.2%. And whether it's applied to an optical glass of high refractive indices or low, its effectiveness remains consistent. Flare and ghost images are reduced significantly. Contrast and color rendition, the reproduction of black tones and detail, all are improved by this exclusive Pentax process.







### Wide Angle Lenses

Whether you're shooting a panoramic landscape, a party or the cover of an annual report, the Pentax SMC Lens System lets you select the focal length and features just right for your needs. From the incredible effects of the SMC Pentax 15mm f/3.5 to the classic wide angle view of the SMC Pentax-M 35mm f/2.8, 9 different wide angle lenses provide the versatility in angle of view, lens speed and styling required to capture the unusual world of wide angle images.

- SMC Pentax 15mm f/3.5
- SMC Pentax 18mm f/3.5
- SMC Pentax-M 20mm f/4
- SMC Pentax 24mm f/2.8
- SMC Pentax-M 28mm f/2
- SMC Pentax-M 28mm f/2.8
- SMC Pentax 30mm f/2.8
- SMC Pentax-M 35mm f/2
- SMC Pentax-M 35mm f/2.8



### Telephoto Lenses

The comprehensive Pentax SMC Telephoto lens group provides fourteen different lenses allowing the LX photographer to choose from portraits at 85mm, candid at 200mm, wildlife at 2000mm or just about anywhere in between. Designed to complement the lightweight, compact styling of the Pentax LX and all other Pentax compact 35mm SLR cameras, these superb telephoto and ultra telephoto lenses afford the photographer the flexibility to meet almost any photographic challenge with complete confidence.

- SMC Pentax-M 85mm f/2
- SMC Pentax-M 100mm f/2.8
- SMC Pentax-M 120mm f/2.8
- SMC Pentax 135mm f/2.5
- SMC Pentax-M 135mm f/3.5
- SMC Pentax-M 150mm f/3.5
- SMC Pentax 200mm f/2.5
- SMC Pentax-M 200mm f/4
- SMC Pentax 300mm f/4
- SMC Pentax-M 400mm f/5.6
- SMC Pentax 500mm f/4.5
- SMC Pentax 1000mm f/8
- SMC Pentax Reflex 1000mm f/11
- SMC Pentax Reflex 2000mm f/13.5



### Zoom Lenses

The nine lenses which make up the Pentax SMC Zoom lens group are truly representative of the Pentax dedication to quality design and engineering, optical versatility and handling ease. Whether you're an architectural photographer requiring the wide angle perspectives of the SMC Pentax-M 24-35mm f/3.5, a nature lover who appreciates the power of the SMC Pentax 135-600mm f/6.7 or just an all-around photographer looking for the flexibility provided by the SMC Pentax-M 40mm f/2.8-80mm f/4 Close Focusing Zoom, there's a Pentax zoom lens with a focal length range that's ideal for you.

- SMC Pentax-M Zoom 24mm-35mm f/3.5
- SMC Pentax-M Zoom 24mm-50mm f/4
- SMC Pentax-M Zoom 28mm f/3.5-50mm f/4.5
- SMC Pentax-M Zoom 35mm f/2.8-70mm f/3.5
- SMC Pentax-M Zoom 40mm f/2.8-80mm f/4
- SMC Pentax Zoom 45mm-125mm f/4
- SMC Pentax-M Zoom 75mm-150mm f/4
- SMC Pentax-M Zoom 80mm-200mm f/4.5
- SMC Pentax Zoom 135mm-600mm f/6.7

### Special Purpose Lenses

When unusual calls and demands require a special kind of handling, the SMC Pentax system is there. Whether you're exploring the canyons etched in the face of a grain of sand with a bellows, capturing a life-size image of a cherry blossom, or taking advantage of the unique perspectives of the fisheye lens or the perspective control provided by the 28mm Shift Lens, you can be confident that the images will be recorded with superb resolution, contrast and color balance.

- SMC Pentax Fish-Eye 17mm f/4
- SMC Pentax-M Macro 50mm f/4
- SMC Pentax-M Macro 100mm f/4
- SMC Pentax Bellows 100mm f/4
- SMC Pentax Shift 28mm f/3.5

# THE SMC PENTAX LENS SPECIFICATIONS

● Type	● Name of Lens	● Minimum Aperture	● Angle of View (Degrees)	
<b>FISH-EYE</b>	SMC Pentax Fish-Eye 17mm f/4	22	180	
<b>ULTRA-WIDE-ANGLE</b>	SMC Pentax 15mm f/3.5	22	111	
	SMC Pentax 18mm f/3.5	22	100	
	● SMC Pentax-M 20mm f/4	22	94	
	SMC Pentax 24mm f/2.8	22	84	
<b>WIDE-ANGLE</b>	● SMC Pentax-M 28mm f/2	22	75	
	● SMC Pentax-M 28mm f/2.8	22	75	
	SMC Pentax 30mm f/2.8	22	72	
	● SMC Pentax-M 35mm f/2	22	62	
	● SMC Pentax-M 35mm f/2.8	22	62	
<b>STANDARD</b>	● SMC Pentax-M 40mm f/2.8	22	56	
	SMC Pentax 50mm f/1.2	22	46	
	● SMC Pentax-M 50mm f/1.4	22	46	
	● SMC Pentax-M 50mm f/1.7	22	46	
	● SMC Pentax-M 50mm f/2	22	46	
<b>TELEPHOTO</b>	● SMC Pentax-M 85mm f/2	22	29	
	● SMC Pentax-M 100mm f/2.8	22	24.5	
	● SMC Pentax-M 120mm f/2.8	32	21	
	SMC Pentax 135mm f/2.5	32	18	
	● SMC Pentax-M 135mm f/3.5	32	18	
	● SMC Pentax-M 150mm f/3.5	32	17	
	SMC Pentax 200mm f/2.5	32	12	
	● SMC Pentax-M 200mm f/4	32	12	
	<b>ULTRA TELEPHOTO</b>	SMC Pentax 300mm f/4	32	8
		● SMC Pentax-M 400mm f/5.6	45	6
SMC Pentax 500mm f/4.5		45	5	
SMC Pentax 1000mm f/8		45	2.5	
SMC Pentax Reflex 1000mm f/11		—	2.5	
SMC Pentax Reflex 2000mm f/13.5		—	1.3	
<b>ZOOM</b>	● SMC Pentax-M Zoom 24mm~35mm f/3.5	22	82.5-64.5	
	● SMC Pentax-M Zoom 24mm~50mm f/4	22	84-46	
	● SMC Pentax-M Zoom 28mm f/3.5~50mm f/4.5	22	75-46	
	● SMC Pentax-M Zoom 35mm f/2.8~70mm f/3.5	22	62-34.5	
	● SMC Pentax-M Zoom 40mm f/2.8~80mm f/4	22	57.2-30.9	
	SMC Pentax Zoom 45mm~125mm f/4	22	50.5-20	
	● SMC Pentax-M Zoom 75mm~150mm f/4	32	32.1-16.5	
	● SMC Pentax-M Zoom 80mm~200mm f/4.5	32	30-12	
	SMC Pentax Zoom 135mm~600mm f/6.7	45	18-4	
<b>MACRO</b>	● SMC Pentax-M Macro 50mm f/4	32	46	
	● SMC Pentax-M Macro 100mm f/4	32	24.5	
	SMC Pentax Bellows 100mm f/4	32	24.5	
<b>SHIFT</b>	SMC Pentax Shift 28mm f/3.5	32	75	

BI .... Filters built-in FA .... Fully automatic M .... Manual  
 Note: Lens length does not include mount portion.

● Lens Construction (Groups-Elements)	● Diaphragm	● Minimum Focusing Distance		● Maximum Diameter & Length (φmm x mm)	● Weight		● Filter Size (mm)
		● m.	● ft.		● gr.	● oz.	
7-11	FA	0.2	0.66	64.5 x 34	234	8.19	BI
12-13	FA	0.3	1.0	80 x 81.5	550	19.25	BI
11-12	FA	0.25	0.79	63 x 61.5	328	11.48	BI
8-8	FA	0.25	0.9	63 x 29.5	150	5.29	49
8-9	FA	0.25	0.79	63 x 41.5	195	6.88	52
7-8	FA	0.30	1.0	63 x 41.5	215	7.58	49
7-7	FA	0.30	1.0	63 x 31	156	5.50	49
7-7	FA	0.30	1.0	63 x 39.5	215	7.52	52
7-7	FA	0.30	1.0	63 x 42	206	7.27	49
6-6	FA	0.30	1.0	63 x 35.5	174	6.14	49
4-5	FA	0.60	2.0	63 x 18	111	3.91	49
6-7	FA	0.45	1.5	65 x 48.5	391	13.79	52
6-7	FA	0.45	1.5	63 x 37	238	8.4	49
5-6	FA	0.45	1.5	63 x 31	185	6.53	49
5-5	FA	0.45	1.5	63 x 31	165	6.0	49
4-5	FA	0.85	2.8	62.5 x 46	250	8.82	49
5-5	FA	1.0	3.3	62.5 x 55.7	224	7.90	49
5-5	FA	1.2	4	62.5 x 63	275	9.52	49
6-6	FA	1.5	5	67.5 x 85.9	483	17.04	58
5-5	FA	1.5	5	62.5 x 65.7	276	9.74	49
5-5	FA	1.8	6	62.5 x 75	290	10.23	49
6-6	FA	2.0	6.5	89 x 145	950	33.51	77
5-6	FA	2	6.5	63.5x111	400	14.11	52
5-7	FA	4	13	85 x 188	1,020	35.98	77
5-5	FA	5	17	85 x 276.5	1,220	43.0	77
4-4	M	10	35	126.5 x 440	3,366	118.72	52
5-5	M	30	100	143 x 738	5,294	186.72	52
4-6	ND	8	27	119 x 248	2,300	80.5	BI/52
4-6	ND	20	66	180 x 530	8,000	282.2	BI/52
9-9	FA	0.5	2	64 x 48	290	10.23	58
10-12	FA	0.4	1.4	64 x 66.5	380	13.4	58
10-10	FA	0.6	2.1	65 x 52	315	11.11	52
7-7	FA	1	3.5	67 x 76	470	16.58	67
7-7	FA	1.2	4	65.5 x 76	395	13.93	49
11-14	FA	1.5	5	69 x 127	612	21.42	67
9-12	FA	1.2	4	63.5 x 111	465	16.40	49
12-15	FA	1.6	5.5	65 x 141.5	555	19.57	52
12-15	M	6	20	105 x 582	4,070	142.5	52
3-4	FA	0.234	0.77	63 x 42.5	167	5.89	49
3-5	FA	0.45	1.48	64.6 x 77.5	357	12.59	49
3-5	FA/M	—	—	60 x 40	186	6.51	52
11-12	M	0.3	1.0	80 x 92.5	611	21.39	BI

ND .... ND filters built-in ●.....Compact lens

# LX SYSTEM ACCESSORIES



## PLUS, OVER 200 PENTAX GENERAL ACCESSORIES

Whether it's close-ups, macrophotography, photomicrography, scientific or industrial photography, the photographer working with the LX System has the benefit of compatibility with a full range of over 200 general accessories in the Pentax system. For close-up and copy work, a full array of precision accessories is available including a choice of auto bellows or standard bellows units, slide copiers, auto, manual or helicoid extension tubes, along with macrophoto and copy stands, copipods, fine-focus adjustors and close-up attachment lenses.

In addition, a wide selection of viewfinder attachment lenses is available for critical focusing including magnifiers, eyecups, refconverter/right-angle finders and diopter correction lenses, with a complete range of diopters for eyeglass wearers.

In the lens accessory department a full line up of converter and adaptor units is featured including a microscope adaptor for attaching the camera to a microscope, Lens Mount Adaptor K permitting use of bayonet-mounting SMC Pentax lenses with screw-mount



mount Takumar lenses and the 6x7 Lens Mount Adaptor permitting use of the LX with lenses in the Pentax 6x7 camera system. There's also a precision telephoto adaptor for doubling the focal length of telephoto lenses up to 300mm and special purpose adaptors such as the 90° Mirror Adaptor for candid shooting, and the Stereo Adaptor for producing three-dimensional slides.

A versatile line up of filters is available also, including a special SMC Pentax line, and a line of special effects filters for producing multiple images and varying color tones.

### **Cases and Grips**

For housing the camera system and lenses along with the various accessories, the LX system provides a wide selection of cases and bags, including full system cases. A choice of custom grips is available as well which includes Accessory Grip B offering a built-in hand contour for added balance, and the unique Accessory Grip A which can be shaped to meet the requirements of the individual photographer. Both grips attach directly to the accessory lugs on the front of the camera.



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