PENTAX

645N

Professional-Standard Medium-Format Autofocus SLR Camera

PENTAX 645N

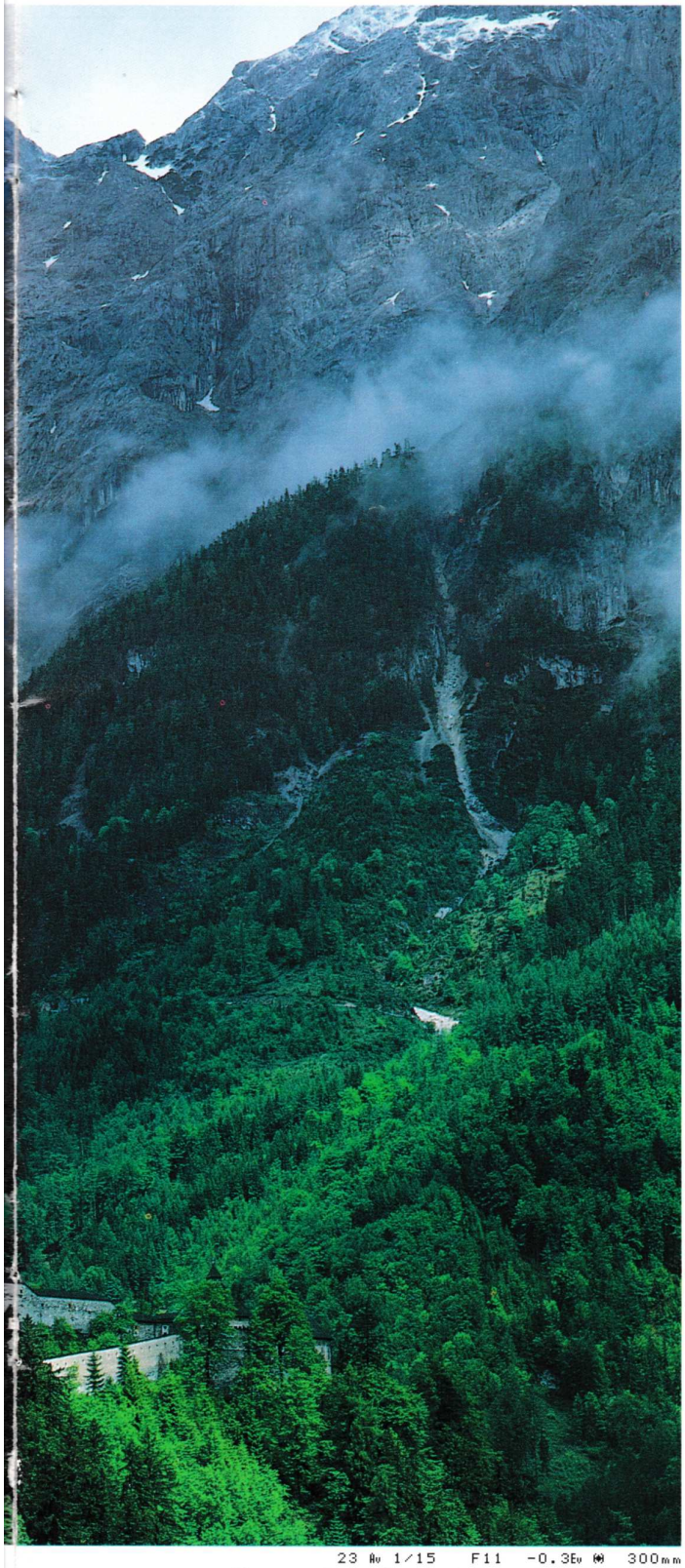
The Future of Medium-Format Field Photography

Pentax brings autofocus convenience to a medium-format SLR — for a world first!*

In 1984, Pentax first introduced the Pentax 645, an epoch-making camera, to field photographers.
Despite its medium-format design, it handled superbly and soon became the favorite of many photo enthusiasts.
Now Pentax introduces a new medium-format SLR that combines the proud tradition and technological excellence of the 645 with a host of new features, including a high-precision autofocus system, to make it even more maneuverable and responsive in the field.
The new Pentax 645N: A camera that defines the future of medium-format SLRs for active field photographers.

* The world's first autofocus medium-format SLR camera with interchangeable lenses, as of November 1, 1997.

Designed for Quality-Conscious Photographers



23 Av 1/15 F11 -0.3Ev 300mm

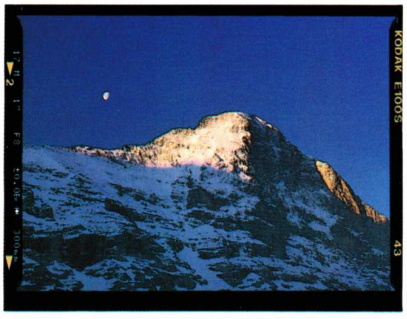
The photographic data of the example photos in this brochure is produced by the 645N's data imprinting function.
For details, please refer to page 13 of this brochure.

The Superb image definition of the 6x4.5 format is evident in every detail. The Pentax 645N's 6cmx 4.5cm format is far superior in image quality to the 35mm format, as can clearly be seen in the two example photos below. On the left is an enlargement from the 6x4.5 format; on the right an enlargement from the 35mm format. The fine details and high resolution of the 6x4.5 format can express subtle differences in your image more clearly and vividly. For instance, skin textures will appear more natural and healthy, while sunset skies show a beautiful, smooth gradation of colors.
This descriptive power is what makes the 645N the top choice of many discerning field photographers.

Enlarged from 6x4.5 format film

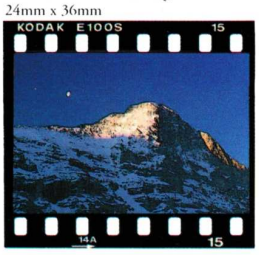
Enlarged from 35mm format film

The 645N assures professional standards in every respect. The actual image size of the 6x4.5 format is approximately 2.7 times larger than that of the 35mm format. This allows the 6x4.5 format to produce true-to-life images with subtler gradation, better color fidelity and finer resolution. Coupled with a compact, lightweight body, comfortable eye-level shooting, reliable autofocus and multi-mode exposure system, the 645N makes field photography a pure joy for every photographer.

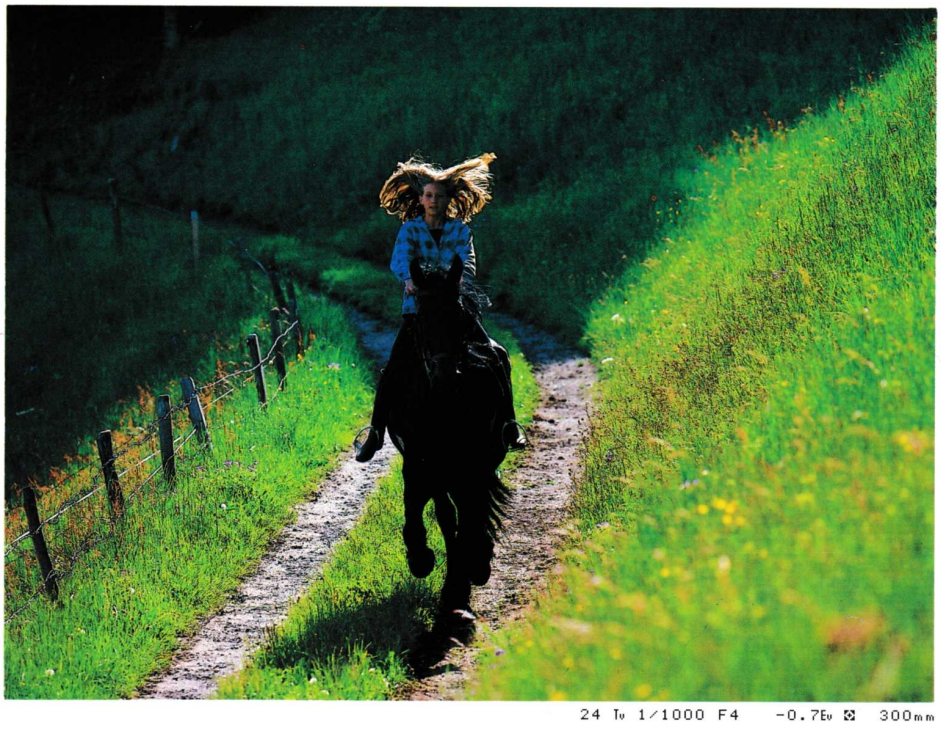


Actual 6x4.5-format image size:
56mm x 41.5mm

Actual 35mm-format image size:
24mm x 36mm

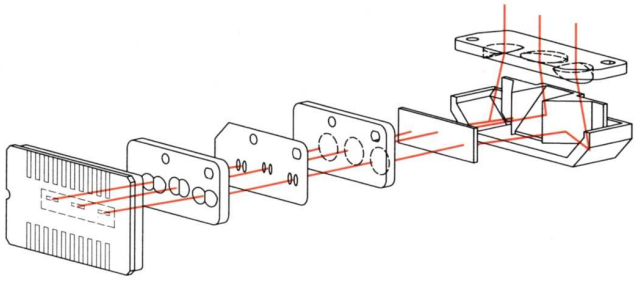


Optimum Focus on the Subject, Frame after Frame



High-precision autofocus with Pentax original SAFOX IV

The Pentax 645N incorporates the Pentax-developed SAFOX IV phase-matching autofocus system. The core of the SAFOX IV's AF module is high-quality image-forming lenses and highly sensitive CCD sensors. Light passing through the lens is directed by three slits positioned in the shape of H to three CCD sensors through a series of optiocal devices. This unique design ensures accurate focusing not only on subjects with vertical orientation but also those with horizontal orientation, giving you greater freedom of framing and image composition. The wide usable illumination range of EV-1 to EV18 (at ISO100) allows you to accurately focus on your subject, even under extremely poor lighting conditions.



Optical Path of SAFOX IV Phase-Matching Autofocus System

Selectable focus frame satisfies every situation

The 645N offers you a choice of two autofocus frames, depending on the situation and your creative intentions. The "3-point AF" mode focuses on a wider area in the image field and is ideal for landscapes and snapshots. In contrast, the "Spot AF" mode allows you to pinpoint the focus on a very small area, making it extremely useful for a small subject or in a situation where you wish to focus on a single element of the subject (such as the eye in a portrait). Switching between the AF frames is simple and effortless: just slide the AF frame selector to the desired mode with your thumb.

Focus mode selection guarantees great results

The 645N features a total of three focus modes to meet your needs. There are two autofocus modes: "AF Single" activates the shutter only when the subject comes into focus, while "AF Servo" keeps track of the subject as long as the shutter release button is half depressed and lets you release the shutter at any time. Finally, the manual-focus mode lets you adjust focus using the focus ring of the lens. All SMC Pentax-FA 645 autofocus lenses offer single-action switching between autofocus and manual-focus modes.

Focus indication assists manual-focus operation

If you prefer to focus manually or wish to use the non-AF 645 lenses you have become accustomed to over the years, the 645N has a special provision to assist you in focusing. The camera's AF system stays active even when you select the manual-focus mode. When the subject is captured in focus, the focus indicator in the viewfinder lights up to inform you that the subject is in focus. This feature is extremely convenient in situations where manual focusing becomes rather difficult, such as indoors and at night.

Predictive AF captures a moving subject in focus

The 645N's AF system comes with a "Predictive AF" function. When the camera's computer detects that the subject is on the move — either moving toward or away from the camera — in the AF Servo mode, it automatically activates this function to calculate the distance the subject will travel between the shutter release and the actual exposure on the film and then determines the optimal focusing point. When combined with the built-in motor drive's consecutive advance mode (approximately two frames per second), you can even take a series of images of a fast-moving subject.

Full compatibility assured with all Pentax 645 lenses

A wide selection of high-quality SMC Pentax 645 lenses is one of the reasons why the Pentax 645 — and now the 645N — is the favorite of many leading professionals, not only in the field but also in the studio. Existing non-AF 645 lenses can be used on the new 645N camera body without any modification. It means the valuable photographic data you have accumulated over the years on your lenses is still valid, and you enjoy the same image quality while benefitting from the convenient features and advanced functions which have been newly incorporated into the 645N. This compatibility is Pentax's way of expressing its appreciation to all the Pentax 645 and 645N fans past, present and future, all around the globe.

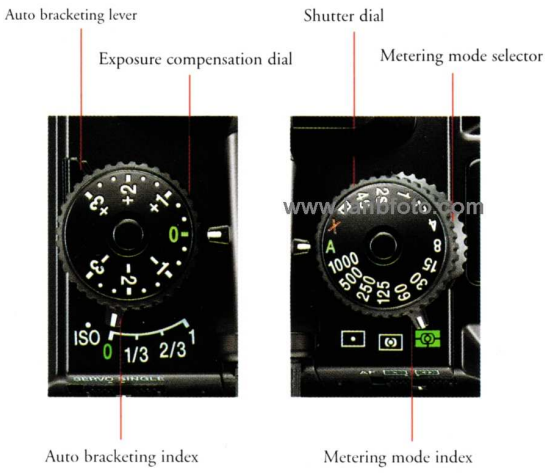
Dependable Pentax 645 AF mount

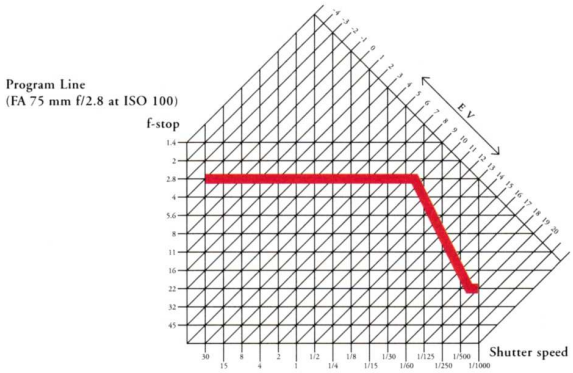
The 645N's bayonet-type lens mount is designed to be extra rugged and yet with high precision and also to make lens changes quick and effortless. Information about the currently mounted lens — such as autofocus status, maximum aperture, selected aperture and focal length — is accurately transmitted to the camera's computer via information contacts on the lens and the lens mount.

Maximizing Freedom of Photographic Creativity

Multi-mode exposure system helps create the desired visual expression

The 645N comes equipped with a multi-mode exposure system which is indispensable to professionals and experienced amateurs in faithfully reproducing their creative ideas in photographs. The switching of exposure modes can be done easily and swiftly using the shutter dial and the lens aperture ring. In any mode, you can make minute exposure adjustment with ease using the exposure compensation function.





Aperture-Priority AE: Set the shutter dial to the "A" (auto) position and select the desired aperture on the lens aperture ring. You can control the depth of field at will for landscapes and portraits.
Shutter-Priority AE: Set the lens aperture ring to the "A" (auto) position and select the desired shutter speed on the shutter dial. You can freeze split-second action or stretch the motion of a fast-moving subject across the image field.
Programmed AE: Set both the shutter dial and the lens aperture ring to the "A" (auto) position, and you can capture that once-in-a-life-time chance without being bothered by complicated exposure adjustments. With a 75mm standard lens, the 645N's program offers a shutter speed of 1/60 second or faster for a meter coupling range of EV9 to EV19, allowing you to handhold the camera in a variety of situations without worrying about camera shake.
Metered Manual & Bulb: While consulting the bar-graph indicator in the viewfinder, adjust the shutter dial and/or the lens aperture ring to create the desired visual effect. Or select "B" (bulb) position on the shutter dial for extended-time exposure.

Auto bracketing produces a set of three different exposures with ease

The 645N incorporates an auto bracketing function which is particularly useful when using transparency film with narrow latitude or trying to create different atmospheres for the same subject. Choose the desired compensation value in 1/3EV steps within a ±3EV range using the exposure compensation dial and release the shutter, and the 645N automatically takes three pictures in the order of normal, under- and overexposure. This convenient function can be used in any auto exposure mode (Programmed AE, Aperture-Priority AE or Shutter-Priority AE mode). In addition, the exposure status of each exposure is indicated by the bar-graph indicator in the viewfinder, so you can keep accurate track of the photographic data.

Normal -1/3EV +1/3EV

By combining auto bracketing with exposure compensation, you can take three different exposures of the same subject centered around the selected exposure compensation value. This means you can intentionally create high-key (washed-out) or low-key (subdued) images with three different exposures effortlessly.

1/3EV-step exposure compensation depicts subtle expression changes

The exposure compensation function can be used in any exposure mode except for Bulb and allows you to make minute exposure adjustments in 1/3 steps within a ±3EV range. When this function is in use, the exposure compensation mark appears in the viewfinder's LCD data panel, while the selected compensation value is indicated in the bar-graph indicator.

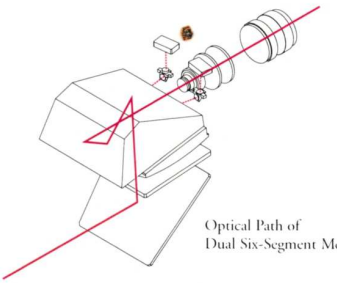
Memory lock preserves the correct exposure value

The memory lock function gives you greater freedom of picture framing while preserving the correct exposure on the important element of the subject. The ML (memory lock) button is conveniently located near the right thumb for easy access, so you can easily press it even when holding the camera in a vertical position.

Capturing the Light Accurately and Swiftly

New metering system provides accurate light metering in every situation

The 645N's new advanced metering system is designed to elevate the camera's light measuring accuracy to a whole new level. It has Pentax's acclaimed six-segment multi-pattern metering sensors at both sides of the viewfinder: one is a wide sensor which covers the entire image field; the other is a narrow sensor that thoroughly measures the light reaching the central area of the image field. These two sensors always operate simultaneously and, despite its large image area, can detect the subject's lighting condition with exceptional accuracy and efficiency. In addition, the 645N features the "Spot Metering" mode which covers a mere one percent of the entire image area to pinpoint metering on a very selective element of the subject.



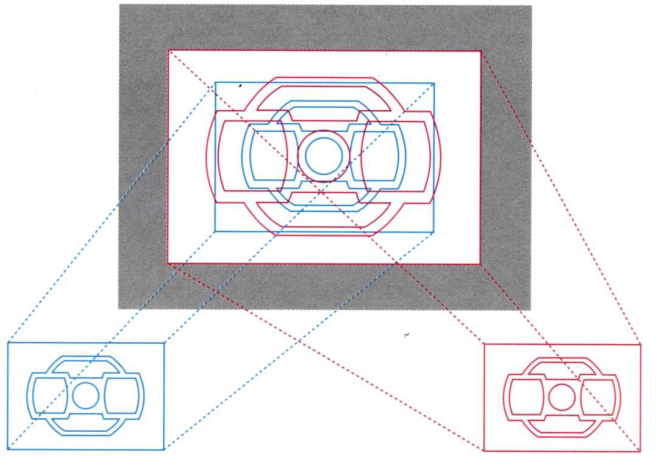
Optical Path of
Dual Six-Segment Metering System

Dual Six-Segment Metering: This metering mode produces an image most similar to that observed by naked eye as the two six-segment sensors cover the entire field. Even under backlighting conditions, the exposure is automatically compensated to allow the poorly illuminated central area to appear brighter in the resulting picture.

Spot Metering: This mode is particularly useful under extremely high-contrast or complicated lighting conditions since it measures only one percent of the image area* within the center circle of the spot metering frame.

Center-Weighted Metering: This mode emphasizes measurements taken on the central area of the image field, while still taking measurements made on the peripheral areas into consideration to a certain extent.

** When the AS-80 AF Center Spot Matte or AG-80 AF Cross-Lined Matte focusing screen is mounted on the 645N. With the optional AB-82 AF Split-Image Matte or AA-82 AF Microprism Matte focusing screen, it measures 1.7 percent of the image field.*



Metering Area of Narrow Sensor

Metering Area of Wide Sensor

Large LCD panel provides valuable data at a glance

Located on the right side of the camera's upper panel, the large LCD data panel uses large letters and digits and easy-to-understand symbols to provide a wealth of photographic and operational data at a quick glance. Even when the main switch is turned off, it continuously displays the ISO film speed and the exposure counter (when the film is loaded). As a result, you are always ready to react to great photographic opportunities.

Out-of-frame data imprinting mark:
Comes on when the data imprinting function is activated.

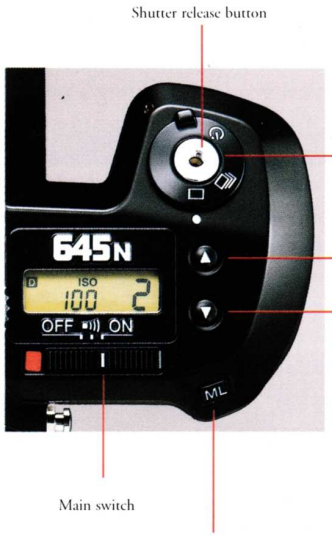
Exposure counter:
Indicates the film's frame number (when the film is loaded). It disappears when the film is unloaded.

Battery level indicator:
Indicates the level of battery consumption. A solidly lit battery mark indicates sufficient battery level, while a blinking mark shows low level (with shutter release locked).

ISO film speed indicator:
Continuously indicates the ISO film speed. During the film loading, it blinks to confirm proper operation. When setting the ISO film speed, you must set the auto bracketing selector at "ISO" position and adjust the speed using the up/down buttons while checking the setting with this indicator.

Dial control system assures simple and quick operation

The 645N's highly efficient, responsive control system is showcased in the two large dials located on both sides of the prism housing. While incorporating the latest technologies and most advanced features, the 645N offers simple, straightforward operation using these dials, levers and switches, all of which are ergonomically positioned for maximum ease of operation. Most are on the camera's upper panel — with more frequently used controls located close to the grip for easy access from the shooting position.

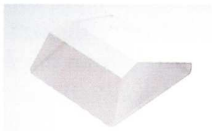


Built for Professional Standards in Every Detail

Viewfinder LCD Indication

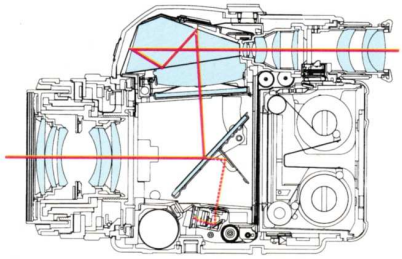
Long-proven optical system offers excellent maneuverability in the field

An erect-image eye-level viewfinder is indispensable in a field camera. That's why Pentax developed an ultra-thin trapezoid prism and a Keplerian telescope-type eyepiece for the Pentax 645.



Trapezoid Prism

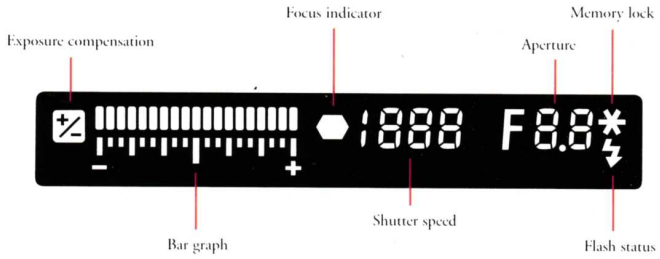
In the new 645N, Pentax has further perfected this high-performance optical system by adding a newly designed viewfinder lupe. Combining an easy-to-recognize erect-image viewfinder and comfortable, fatigue-free eye-level shooting with a compact, lightweight body, Pentax made no compromises in creating this remarkable medium-format field camera.

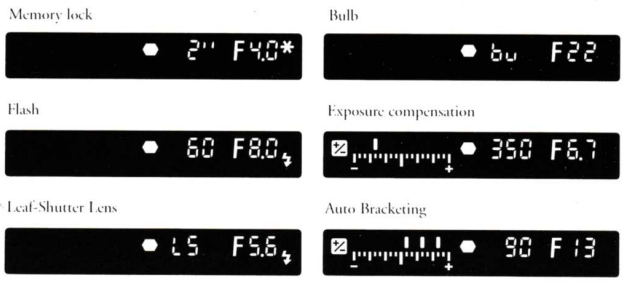


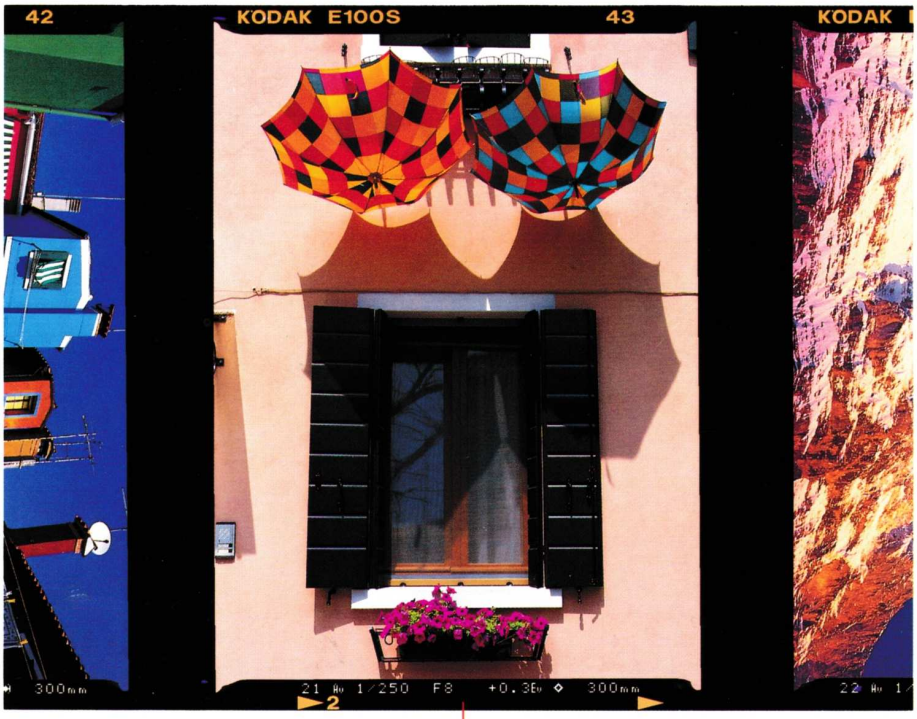
645N's Optical System with Trapezoid Prism and Keplerian Telescope-Type Finder

Viewfinder LCD indicator displays vital information during shooting

At the bottom of the viewfinder is an LCD data panel. The bar-graph indicator is especially useful in the Metered Manual mode because you can check exposure status without taking your eye from the viewfinder. The bright green letters, digits and symbols are easy to read and minimize eye strain. The brightness of the indication is automatically adjusted according to the subject's illumination level, so that you can quickly obtain vital operational data under all circumstances.



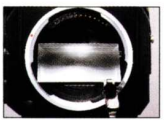




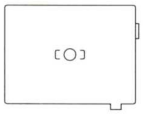
Photographic Data Imprinted on the Film

Interchangeable focusing screens satisfy the needs for specific applications

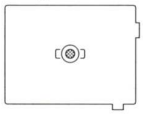
In addition to the standard AS-80 AF Center Spot Matte screen, Pentax offers three optional focusing screens to meet a wide range of applications. All of these focusing screens are high-performance Natural-Bright-Matte screens.



AS-80 AF Center Spot Matte:
This simple focusing screen is standard with the 645N. The AF frame is indicated at the center of the image field.

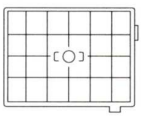


AA-82 AF Microprism Matte:
Focus status can be checked using the microprism circle at the center. This focusing screen makes manual focusing effortless.



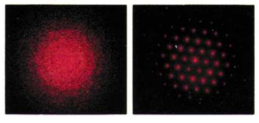
AB-82 AF Split-Image Matte:
Ideal for manual-focus operation, this focusing screen offers a split-image center circle where accurate focus is assured by aligning upper and lower images.

AG-80 Cross-Lined Matte:
Featuring 9mm squares across the entire image field, this focusing screen is useful for subjects that require accurate alignment of vertical and/or horizontal lines.



Natural-Bright-Matte focusing screen assures a clear view of the subject

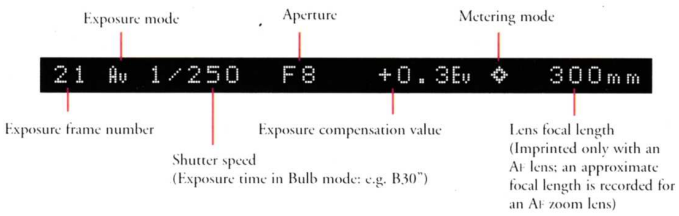
The 645N incorporates Pentax's original Natural-Bright-Matte focusing screen that produces outstanding color fidelity and beautiful definition of out-of-focus areas. Its matte surface guarantees uniform dispersion of light to produce a bright viewfinder image for easy focusing.



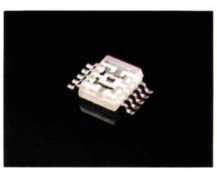
Natural-Bright-Matte Focusing Screen — Conventional Focusing Screen

Data imprinting function preserves photographic data permanently

Every photographer is well aware that the recording and filing of photographic data is critical in improving the results of future shootings. Unfortunately, keeping accurate track of photographic data is not always easy — especially when you are out in the field. Every photographer must at one time or another have wished for a built-in data recording system. The 645N's data imprinting function solves this long-standing problem: now, you can record a wide range of valuable data, including shutter speed and aperture, on the film's edge outside of the image area.

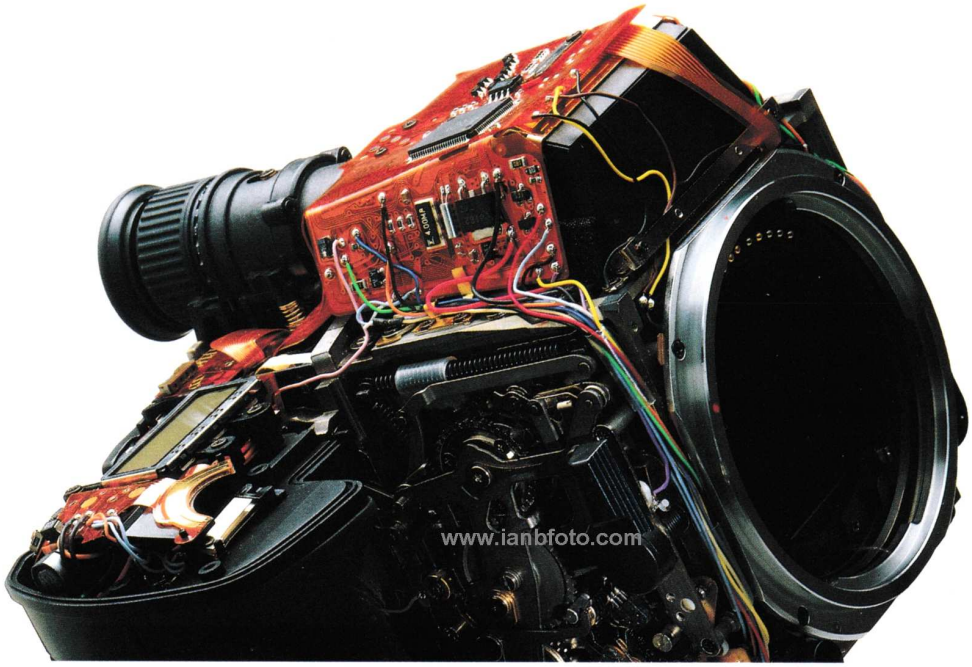


When you wish to withhold personal photographic data, you can always turn this function off. The operational status of this function can be confirmed in the LCD panel.



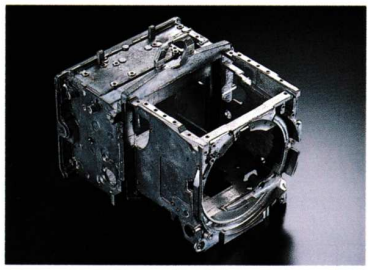
Data Imprinting IC

Functional and Responsive in the Field



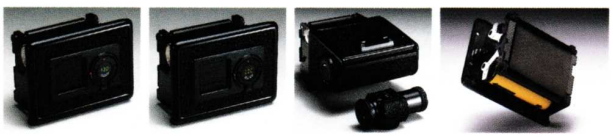
Compact, lightweight body is built extra-durable

The base of the camera body is made of rigid aluminum diecast. The entire body is then protected with a glass-fiber-mixed polycarbonate coating which is 1.7-times thicker than a normal coating. As a result, the 645N is built to be extremely durable against shock and wear without sacrificing outstanding maneuverability and handling ease.



Film holders minimize film change delay

The 645N uses exclusive film holders. By carrying several film holders loaded with film, you waste very little for film changes. These film holders can be used on the 645 without any modifications.



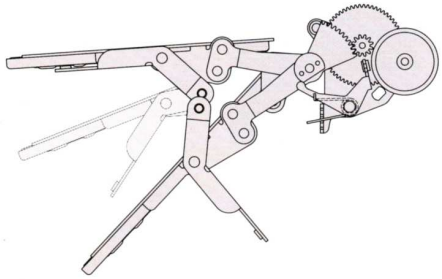
120 Film Holder 645 220 Film Holder 645 70mm Film Holder 645 with Finder Eyepiece for 70mm Film Holder

High-speed motor drive realizes two-frame-per-second continuous shooting

The 645N incorporates a new film transport system which employs a high-accuracy pulse-count mechanism using a high-precision photo sensor and a powerful coreless motor to assure accurate control of film transport. As a result, the spacing between frames is identical and the number of frames which can be taken from one roll of film has been increased from the 645 : 16 frames for the 120 film and 33 frames for the 220 film. The 645N's motor drive advances the film at the speed of two frames per second and offers a choice of two film advance modes: "Single Advance" to advance one frame for each shutter release, and "Consecutive Advance" to successively advance the film while the shutter release button is depressed. When the film holder is set in place, one push on the shutter release button automatically advances the film to the first frame. When the film reaches its end, it is automatically wound into the film holder to avoid accidental exposure during film changes.

Low-noise, low-shock design assures comfortable operation

Special care has been taken with the 645N to reduce its operational noise and shutter release shock to almost the same levels as those of a 35mm SLR — a particularly important feature in wildlife photography. The action of the instant-return mirror is carefully regulated by an original braking system when it moves upwards and by a motor when it swings back to the original position.
A unique six-axis focal-plane shutter and a timing belt in the film transport mechanism also contribute to low-noise, shock-free operation.



Instant depth-of-field preview

Usable when the lens aperture ring is set at any f-stop other than "A" (auto), this feature allows you to check the depth of field (in-focus area) effortlessly before taking a picture.

Simple-to-use multi-exposure mechanism

This feature lets you create interesting, eye-catching images effortlessly and with great precision by making the desired number of exposures on a single frame.

User-friendly diopter adjuster

The built-in diopter adjuster provides a clear view of the subject for near- or far-sighted users without the need to use eyeglasses. The adjustable diopter range is between -3.5 and +1.0 diopters.

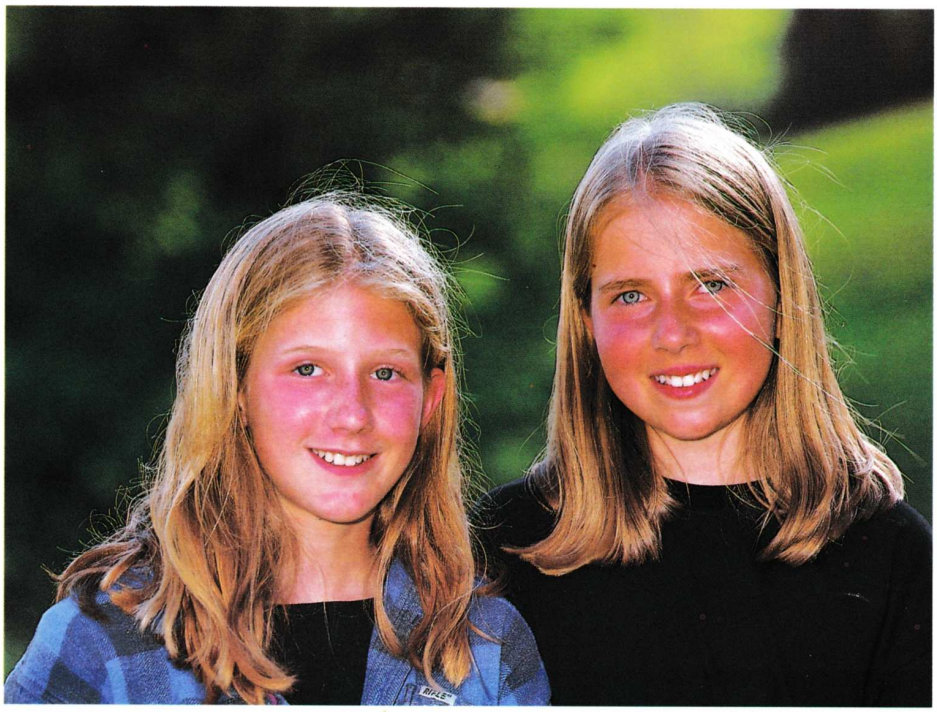
Lithium battery-compatible power source

The battery holder takes six alkaline AA-size batteries. You can also use lithium batteries, which have a longer battery life and are more stable at low temperatures.

Versatile electronic self-timer

The built-in self-timer delays shutter release by 12 seconds. Its operation is confirmed by PCV beep sound, which becomes faster during the final two seconds.

For Professional-Quality Flash Photography



AF500FTZ Auto Zoom Flash

With a large guide number of 36 (at ISO100/m with a 75mm standard lens), this powerful flash unit features an auto zoom function which changes the angle of discharge according to the lens focal length (35mm–120mm). It is also equipped to satisfy a diverse range of advanced applications such as bounce flash, trailing-shutter-curtain sync, multiple emission, and slave flash.

AF330FTZ Auto Zoom Flash

With a guide number of 24 (at ISO100/m with a 75mm standard lens) and powered by four AA-size batteries, this flash unit offers such features as an auto zoom function (45mm–120mm) and trailing-shutter-curtain sync.

AF400T Auto Flash

With a guide number of 29 (at ISO100/m with a 75mm standard lens), this grip-type series-control flash unit features an angle of discharge covering the field of a 55mm lens. In addition to TTL auto flash, it offers programmed auto flash and manual flash operations. Bounce and close-up flash applications are also possible.

AF500FTZ

AF330FTZ

AF400T

AF280T

AF280T Auto Flash

With a guide number of 20 (at ISO100/m with a 75mm standard lens) and powered by four AA-size batteries, this compact series-control flash unit offers such features as TTL auto flash operation, three-level manual flash control and bounce flash.

AF140C Macro Flash

Exclusively designed for shadowless macro flash photography, this flash unit has a guide number of 10 (at ISO100/m with a standard 75mm lens) and offers such features as TTL auto flash and manual flash operations and a modeling light that helps improve manual focusing accuracy.

In addition to these flash units, the AF400FTZ, AF220T and AF200T can also be used with the 645N.

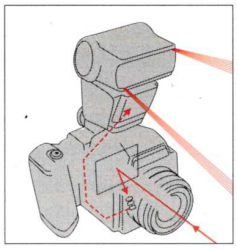
AF140C

Hotshoe Adapter LS

AF140C

TTL auto flash for high-accuracy flash exposure

The 645N features a TTL auto flash system which automatically controls the level of flash discharge by measuring the light passing through the lens and reaching the film plane simultaneously with exposure control. This advanced system is especially beneficial to users when using a filter and/or rear converter in flash photography or when employing a bounce flash technique. It also allows you to select any aperture randomly to expand the range of flash coverage.

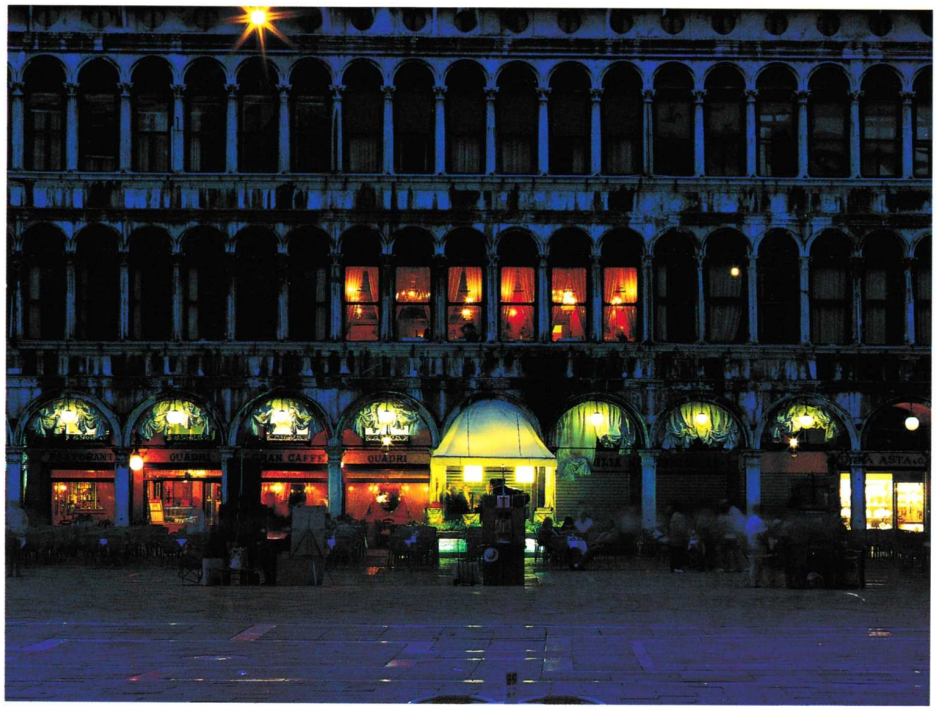


TTL Auto Flash System

Contrast-control flash for attractive portraits

By combining the 645N with two AF500FTZ or AF330FTZ flash units, you can take advantage of a sophisticated contrast-control flash technique with ease. The discharge levels of two flash units are automatically adjusted at a two-to-one ratio to create natural, three-dimensional images in flash portrait photography.

For Ultimate Visual Expression



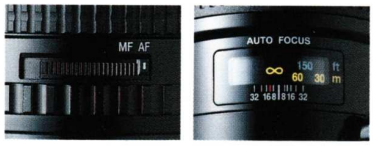
33 Av 30" F22 +0.3Ev ⊛ 200mm

SMC Pentax 645 lenses offer unrivaled optical performance

After undertaking in-depth research and analysis of numerous factors affecting lens performance, such as image-forming accuracy, various types of aberrations and color balance, Pentax designed all SMC Pentax 645 interchangeable lenses using the advanced "POLARIS" computer lens design technology to offer the highest level of optical performance. These lenses are then treated with Pentax's acclaimed Super-Multi-Coating to produce sharp, high-contrast images without flare and ghost images. As a result, the 645N reproduces high-quality images equal in resolution, contrast and color fidelity to those produced by large-format cameras.

Professional-standard SMC Pentax 645-FA lenses are the 645N's perfect partner

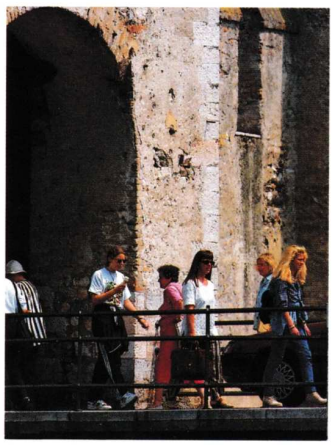
For 645N users, Pentax offers five new autofocus lenses, which harmonize the highly reputed optics of the Pentax 645-series lenses with an advanced autofocus mechanism. To improve manual-focus accuracy and efficiency, Pentax has designed two different AF/MF switching mechanisms to match the design of each individual lens.



High-precision diaphragm control system*

Both the new SMC Pentax-FA 645 lenses and the existing SMC Pentax-A 645 lenses incorporate a high-precision diaphragm control system. It accurately and flawlessly drives the lens' aperture blades to the optimum position with minimum delay, contributing to improved exposure control accuracy.

** This feature does not apply to the SMC Pentax 645 LS 75mm f/2.8 and SMC Pentax 645 LS 135mm f/4 lenses.*



600mm

300mm

FA* and A* ED [IF] lenses

All the FA* (FA-Star) and A* (A-Star) ED[IF] lenses feature special Extra-low Dispersion (ED) lens elements to produce sharp, crisp images with minimal chromatic aberration. They also incorporate an Inner Focus (IF) mechanism which moves only several lens elements during focusing to minimize lens extension, retain good weight balance and shorten the minimum focusing distance.

Leaf-shutter lenses

These lenses incorporate a leaf-shutter unit which offers fast flash synchronization speeds (1/500, 1/250, 1/125 and 1/60 second). In the leaf-shutter mode, the 645N's focal-plane shutter is automatically set at 1/8 second, and flash photography in the programmed auto flash or manual flash mode is possible via the X-sync terminal on the lens. It is also possible to use these lenses as normal lenses in the Aperture-Priority or Metered Manual mode.

Floating mechanism

In this mechanism, the lens elements are separated into front and rear groups, each of which moves independently during focusing. This improves the performance of macro lenses in long-distance applications and wide-angle lenses in close-up shooting and assures uniform image quality over the entire focal range. This mechanism is incorporated in the SMC Pentax-A 645 Macro 120mm f/4, SMC Pentax-A 645 35mm f/3.5, SMC Pentax-A 645 45mm f/2.8, and new SMC Pentax-FA 645 45mm f/2.8 lenses.

SMC PH Filter

Treated with Super-Multi-Coating, this special filter is mounted on a high-performance lens, such as the FA* or A* ED[IF] lens, to protect the front lens element without affecting the lens' optical performance.

75mm

35mm

A High-Quality Lens for Every Application

SMC Pentax-FA 645
45mm-85mm f/4.5

SMC Pentax-A 645
45mm-85mm f/4.5

SMC Pentax-FA* 645 300mm f/4 ED[IF]

SMC Pentax-A 645
80mm-160mm f/4.5

SMC Pentax-A 645
35mm f/3.5

SMC Pentax-FA 645
45mm f/2.8

SMC Pentax-A* 645 300mm f/4 ED[IF]

SMC Pentax-A 645
45mm f/2.8

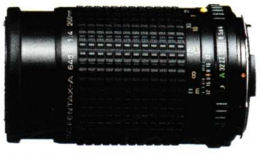
SMC Pentax-A 645
55mm f/2.8

SMC Pentax-FA 645
75mm f/2.8

SMC Pentax-FA 645 400mm f/5.6 ED[IF]

SMC Pentax-A 645
75mm f/2.8

SMC Pentax-A 645
150mm f/3.5



SMC Pentax-A 645
200mm f/4

SMC Pentax-A* 645 600mm f/5.6 ED[IF]

SMC Pentax-A 645
Macro 120mm f/4

SMC Pentax 645 LS 75mm
f/2.8 (leaf shutter built in)

SMC Pentax 645 LS 135mm
f/4 (leaf shutter built in)

SMC Pentax 645 Lenses

Lenses	Angle of View (Degrees)	Lens Construction (Groups-Elements)	Minimum Aperture (f)	Minimum Focusing Distance (m/ft.)	Filter Size (mm)	Maximum Diameter & Length (mm)	Weight (g/oz.)	Rear Converter (A645 1.4X)	Rear Converter (A645 2X)
SMC Pentax-FA 645 45mm-85mm f/4.5 AF	76 - 44.5	9-11	32	0.5 (1.6)	77	85 x 99.5	870 (30.7)		L
SMC Pentax - A 645 45mm-85mm f/4.5	76 - 44.5	9-11	32	0.5 (1.6)	77	80 x 99.5	805 (28.4)		L
SMC Pentax - A 645 80mm-160mm f/4.5	47 - 24.5	11-11	32	1 (3.3)	77	82.5 x 131	1,010 (35.6)		L
SMC Pentax - A 645 35mm f/3.5	90	8-9	22	0.3 (1.0)	77	80 x 67	470 (16.6)		L
SMC Pentax - FA 645 45mm f/2.8 AF	76	8-9	22	0.45 (1.5)	67	76.5 x 66.5	475 (16.8)		L
SMC Pentax - A 645 45mm f/2.8	76	8-9	22	0.45 (1.5)	67	74 x 66.5	400 (14.1)		L
SMC Pentax - A 645 55mm f/2.8	65	7-8	22	0.45 (1.5)	58	74 x 60.5	410 (14.5)		L
SMC Pentax - FA 645 75mm f/2.8 AF	50	5-6	22	0.6 (2.0)	58	74.5 x 37.5	215 (7.6)		L
SMC Pentax - A 645 75mm f/2.8	50	5-6	22	0.6 (2.0)	58	74 x 37.5	240 (8.5)		L
SMC Pentax - A 645 150mm f/3.5	26	4-4	32	1.4 (4.6)	58	74 x 71.5	435 (15.3)		L
SMC Pentax - A 645 200mm f/4	20	4-4	32	2 (6.6)	58	74 x 116	570 (20.1)	L	L
SMC Pentax - FA* 645 300mm f/4 ED[IF] AF	13.5	8-8	32	3 (9.8)	77	83 x 207.5	1,490 (52.6)	L	L
SMC Pentax - A* 645 300mm f/4 ED[IF]	13.5	8-8	32	3 (9.8)	77	93 x 208	1,360 (48.0)	L	L
SMC Pentax - FA 645 400mm f/5.6 ED[IF] AF	10	6-7	45	3 (9.8)	77	83 x 252	1,260 (44.4)	L	L
SMC Pentax - A* 645 600mm f/5.6 ED[IF]	6.6	11-12	45	5 (16.5)	49	155.5 x 352.5	4,800 (169.3)	L	L
SMC Pentax - A 645 Macro 120mm f/4	32.5	7-9	32	0.39 (1.3)	67	78.5 x 110	695 (24.5)	L	L
SMC Pentax - 645 LS 75mm f/2.8 (leaf shutter built in)	50	5-6	32	0.75 (2.5)	58	76 x 49.5	365 (12.9)		L
SMC Pentax - 645 LS 135mm f/4 (leaf shutter built in)	29	5-5	32	1.25 (4.1)	58	76 x 69	470 (16.6)		L
Rear Converter-A 645 1.4X	—	4-5	—	—	—	77 x 31	265 (9.3)	—	—
Rear Converter-A 645 2X	—	4-6	—	—	—	77 x 60	350 (12.3)	—	—

Note: The focal length of a 645 lens can be converted into that of a 35mm-format lens by multiplying it by 0.6. All the lenses listed above can be used with the Pentax 645N, but manual-focus lenses are not compatible with autofocus operation. The AF lenses can be used with the Pentax 645 body, but are usable only in the manual-focus mode. A focus indication function is not available when the SMC Pentax-A 645 Macro 120mm f/4 is used at the life-size magnification. Rear Converter-A 645 1.4X and 2X can be operated in all exposure modes, but are not compatible with autofocus operation.

Expanding the World of Creative Medium-Format Photography

Auto Extension Tube-A 645 Set

Helicoid Extension Tube 645


Adapter 645 for 67-System Lenses

Adapter K for 645-System Lenses

Reverse Attachment for 645-System Lenses


Reverse Adapter 645 (58mm)

Auto Bellows 645

SMC Close-Up Lenses


S33 (58mm) S56 (58mm)

Magnifier 645


Refconverter 645

Quick Shoe 645/67

Auto Bellows 645*: This bellows unit extends between 54mm and 180mm for magnifications of 1.0X–3.2X with the 55mm f/2.8 lens, 0.8X–2.3X with the 75mm f/2.8 lens, and 0.44X–2.7X with the macro 120mm lens. By mounting the 55mm f/2.8 lens in reverse, the maximum magnification can be improved to 4.3X.

Auto Extension Tube-A 645 Set*: A set of three tubes of different lengths is used independently or in any combination (13.3mm–79.8mm) for magnifications of 0.35X–1.22X with the 75mm f/2.8 lens or for a maximum magnification of 2.57X with the 55mm lens mounted in reverse.

Helicoid Extension Tube 645*: This tube has an extendible barrel (43.7mm–67.4mm) for a maximum magnification of 2.57X with the 55mm lens.

SMC Close-Up Lenses S33 & S56: Attached to the 75mm f/2.8 or LS 75mm f/2.8 lens, these lenses simplify close-up work. Magnification with the 75mm f/2.8 lens is 0.42X for S33 and 0.32X for S56.

Quick Shoe 645/67: A set of the quick shoe and the Adapter 645/67 provides quick mounting and removal of the 645N to and from the tripod.

Adapter 645 for 67-System Lenses**: This adapter is used to mount a 67-system lens on the 645N camera body.

Adapter K for 645-System Lenses***: This adapter is used to mount a 645-system lens on a Pentax K-mount 35mm SLR camera body.

Refconverter 645: This accessory makes confirmation of the viewfinder image easy in low-angle photography.

Magnifier 645: This accessory magnifies the viewfinder image by two times for accurate focusing in close-up and copying work.

Cable Switch F: Connected to the release socket, this accessory electronically releases the shutter.

Remote Battery Pack 645: Holding six AA-size batteries, this accessory keeps the batteries warm and maintain stable power supply under low-temperature conditions.

Other accessories: Gelatin Filter Holders; Circular Polarizing Filters; Lens Hoods; Soft Cases 645; System Trunk 645; Large Copy Stand II; Camera Mount (for telescope); Adapter Rings (58mm-77mm/58mm-49mm); Calbe Release 50.

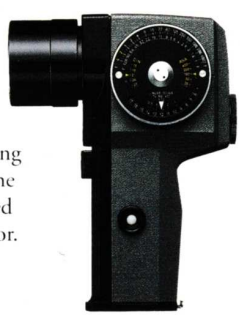
* *When mounting the lens in reserve on these accessories, the following accessories are required: Reverse Adapter 645 (58mm) for mounting a lens with 58mm filter size in reverse; and Reverse Attachment for 645-System Lenses for controlling the aperture using the aperture ring of a reverse- mounted lens.*

** *Close-Up Applications Using a 67-System Lens: When taking close-up pictures using a 67-system lens mounted on the 645N camera body, the lens must be mounted in normal position and an extension tube (or tubes) for the 645 system must be used.*

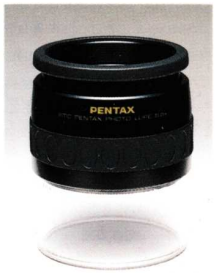
*** *Mounting of a 645-System Lens on a K-Mount Body: When taking close-up pictures using a 645-system lens mounted on a Pentax K-mount 35mm SLR camera body, close-up accessories for the 645 system must be used.*

Digital Spotmeter: Featuring an acute metering angle of one degree and a metering range of EV1–EV20, this compact spotmeter is useful in situations when extra-accurate light metering is required. The measurement is displayed in a digital readout in the viewfinder.

Spotmeter-V: This spotmeter provides accurate metering of the subject with an acute metering angle of one degree and a metering range of EV1–EV19. The measurement is displayed in a needle-type indicator.



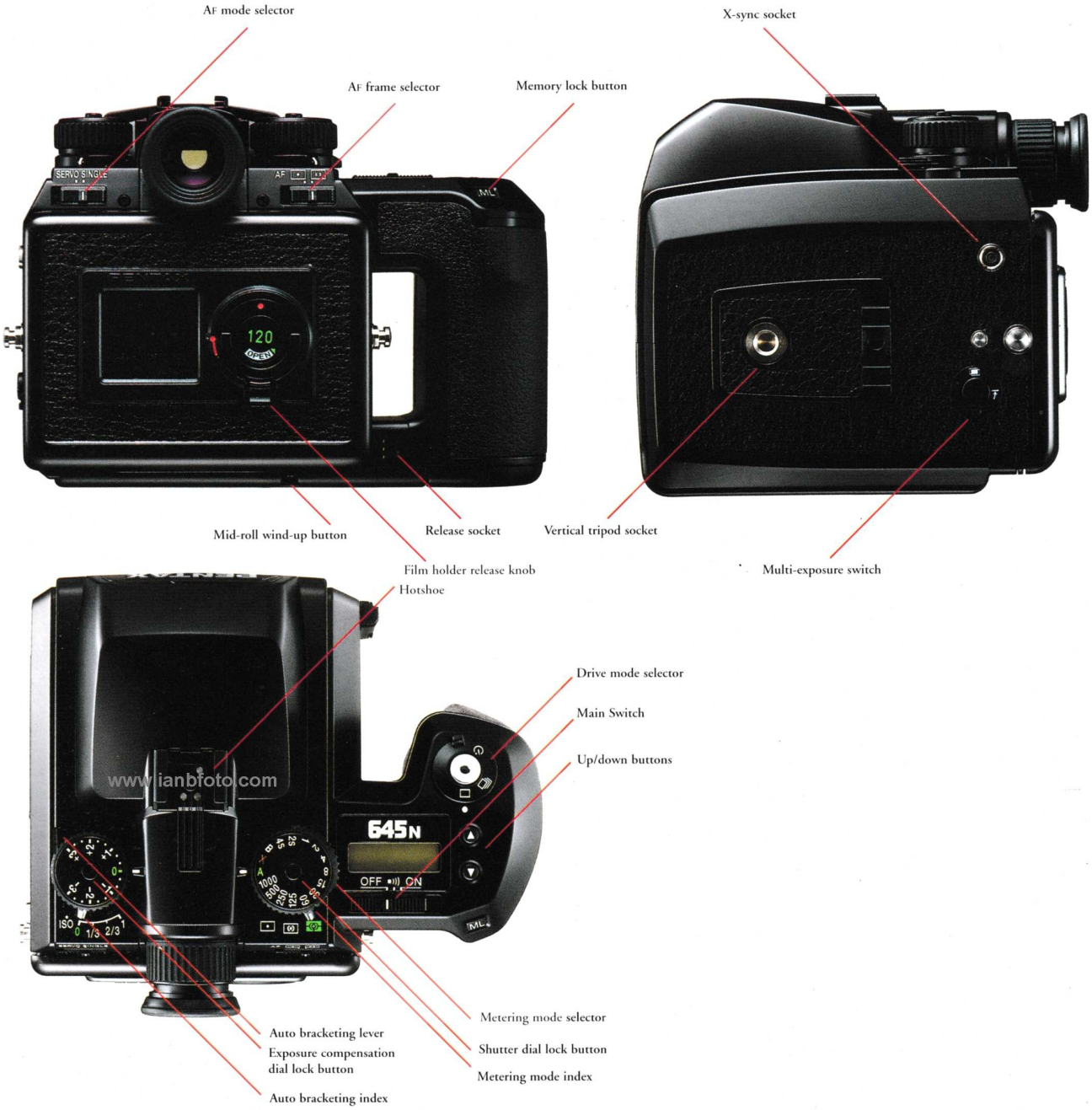
SMC Pentax Photo Lupe 5.5X: This large-diameter lupe features specially coated optical elements to produce a clear, high-constant image.



Utmost Attention to Every Detail

Pentax 645N Specifications

Type: 6X4.5-format autofocus single-lens-reflex camera with multi-mode TTL auto-exposure control.
Film: (1) 120 roll film (16 exposures); (2) 220 roll film (33 exposures); (3) 70mm film (approx. 95 exposures). Film loaded onto interchangeable film holder.
Image size: 56mm X 41.5 mm.
Lens mount: Pentax 645 AF mount (interchangeable with Pentax 645 A mount). Applicable lenses: (1) SMC Pentax 645-FA lenses; (2) SMC Pentax 645-A lenses (usable in manual-focus mode only).
Exposure Control: • Metering system: TTL open-aperture multi-pattern metering. • Metering mode: (1) Dual six-segment metering; (2) Centered-weighted metering; (3) Spot metering. • Metering range: EV2 ~ EV21 (at ISO 100 with 75mm f/2.8 lens). Electronic timer with holding time of 10 sec. • Exposure mode: (1) Programmed AE; (2) Shutter-Priority AE; (3) Aperture-Priority AE; (4) Metered Manual; (5) Bulb. • Memory lock: Activated with ML button. Exposure value memorized for approx. 10 sec. • Exposure compensation: ±3EV (1/3 EV steps). • Mirror & diaphragm control: Swing-up-type multi-coated quick return mirror. Position-controlled diaphragm coupling mechanism (except with leaf-shutter lenses). • Depth-of-field preview provided.
Shutter: • Type: Electronically controlled vertical-run cloth focal-plane shutter. • Speed: (1) Auto: 1/1000 sec. ~ 30 sec. stepless; (2) Manual: 1/1000 sec. ~ 4 sec.; (3) X-sync: 1/60 sec.; (4) Bulb; (5) Leaf-shutter lens: 1/8 sec. Shutter locked with main switch off.
Viewfinder: • Type: Keplerian telescope viewfinder with interchangeable Natural-Bright-Matter focusing screen (AF Center Spot Matte screen as standard). • Field of view: 92% vertical, 93% horizontal. • Magnification: 0.76X (with 75mm lens at infinity with-1 diopter). • Diopter adjustment range: -3.5 ~ +1.0 diopters.
Viewfinder LCD Indication: (1) Focus indicator; (2) Shutter speed; (3) Aperture; (4) Flash status; (5) Bar graph; (6) Memory lock; (7) Exposure compensation factor; (8) Out-of-exposure coupling range warning; (9) Over- and underexposure indication in Metered Manual.



External LCD Indication: (1) ISO film speed; (2) Exposure count; (3) Film transport status; (4) Battery level; (5) Photographic data imprinting.

Film Handling: Automatic film advance with built-in motor. • Loading: Automatic 1st frame positioning via shutter release button. • Advance mode: (1) Single-frame advance; (2) Consecutive advance (approx. 2 frames/sec.). • Automatic advance to film end after last frame (Mid-roll advance to film end possible via mid-roll advance button).

Autofocus: • Type: TTL phase-matching autofocus system with focus lock and predictive autofocus. • Effective illumination range: EV -1 ~ EV 18 (at ISO100). • AF frame: (1) 3-point AF; (2) Spot AF. • PCV beep sound for in-focus indication (cancellation possible).

Flash Synchronization: (1) Hotshoe (X-sync contact and dedicated flash contact); (2) X-sync socket. • X-sync speed: 1/60-sec. automatically set at recharge completion of dedicated flash unit (X-sync speeds slower than 1/60 sec. can be used in Shutter-Priority AE and Metered Manual).

Photographic Data Imprinting: 7-segment dot-motrix data imprinting system. Data imprinted out of image area. • Recordale data: (1) Exposure frame number; (2) Exposure mode; (3) Shutter speed (Exposure time in Bulb); (4) Aperture; (5) Exposure compensation value; (6) Metering mode; (7) Lens focal length (only with SMC Pentax-FA lenses; approximate value for zoom lenses). • Data imprinting cancellation (blank mode) available.

Self-timer: Electronically controlled self-timer with 12-second delay. Mid-operation cancellation possible.

Film Speed: ISO6 - ISO6400.

Power Source: 6 AA-size batteries (alkaline or lithium batteries). • Battery life: Approximately 130 rolls of 120 roll film; approximately 100 rolls of 220 roll film (under in-house test conditions using alkaline batteries).

Multiple Exposure: Via multi-exposure switch.

Dimensions & Weight: 150 (W) X 111 (H) X 117 (D) mm (5.9" X 4.4" X 4.6"); 1,280g (45.2 oz.) without batteries.

- Designs and specifications are subjects to change without notice.
- It is strongly recommended that you read the entire operation manual before operating this camera.
- Pentax and SMC are registered trademarks of Asahi Optical Co., Ltd.

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