

PENTAX

645N



The world's first autofocus medium-format SLR camera.

- **6cm 4.5cm medium-format image quality:** Because of its large image size (2.7 times larger than the 35mm format), the 645N's 6cm x 4.5cm format is far superior in image quality to 35mm, producing true-to-life pictures with finer details, higher resolution and better color fidelity.
- **Compact, lightweight body with extra-rugged design and low-noise operation:** The 645N's body is made of rigid aluminum diecast and protected with a glass-fiber reinforced polycarbonate coating approximately 1.7 times thicker than a normal coating. As a result, the 645N is extremely durable and resistant to shock and wear. In addition, special mechanisms are incorporated in the 645N to ensure low-noise, low-shock operation – a particularly important feature in wildlife photography.
- **Effortless eye-level shooting:** The 645N has perfected the renowned optical system – originally developed for and made famous by the Pentax 645 – by adding a high-performance viewfinder lupe. As a result, the camera assures comfortable, fatigue-free eye-level shooting over long periods in the field.
- **High-precision autofocus system with SAFOX IV:** The 645N incorporates the Pentax developed SAFOX IV phase-matching autofocus system to ensure accurate focusing not only on subjects with vertical orientation but also on those with horizontal orientation – even under such poor lighting conditions as EV-1.
- **Selectable focus frame:** The choice of the wider “3-Point AF” frame and the pinpoint “Spot AF” frame allows the photographer to use the most suitable focus frame for each subject and in every situation.
- **Three focus modes:** The 645N offers three focus modes to choose from: “AF Single” activates the shutter only when the subject comes into focus; “AF Servo” lets the user release the shutter at any time; and “Manual Focus” lets the user adjust the focus manually using the focus ring of the lens. In the manual-focus mode, the focus indicator in the viewfinder provides the focus status.
- **Predictive AF:** In the AF Servo mode, the 645N's AF system detects the subject's movement (toward or away from the camera) and “predicts” the optimum focusing point at shutter release for pinpoint focus on the subject on the move.
- **Multi-mode exposure system:** The 645N's four distinctive exposure modes allow the user to react effortlessly and efficiently to every situation and create the desired visual effect with ease. “Programmed AE” for adjustment-free shooting; “Aperture-Priority AE” to emphasize the depth of field; “Shutter-Priority AE” for sports and action photography; and “Metered Manual” for maximum control over exposure settings.

PENTAX

645N

- **Sophisticated metering system:** The 645N incorporates a newly developed “Dual Six-Segment” multi-pattern metering system. Two sensors positioned at both sides of the viewfinder measure the subject’s lighting condition of two different areas: the wide sensor covers the entire image field, while the narrow sensor monitors the light reaching the central area of the image field. As a result, the 645N can measure the subject’s lighting condition with exceptional accuracy and efficiency. In addition to the Dual Six-segment metering, the 645N also offers the pinpoint “Spot Metering” and conventional “Center-Weighted Metering” modes.
- **Auto bracketing:** With a single shutter release, this function automatically takes three pictures of the same subject in the order of normal, under- and overexposure. The desired exposure level can be easily selected using the auto bracketing lever.
- **Exposure compensation:** The function allows the photographer to make minute exposure adjustment with ease in 1/3 steps within a range of $\pm 3EV$.
- **Memory lock:** This function memorizes the subject’s lighting condition for 10 seconds with a single push on the button, allowing the photographer to re-compose the image freely without changing the exposure level on the most important element of the picture.
- **Interchangeable focusing screens:** The 645N incorporates an acclaimed Natural-Bright-Matte focusing screen to provide a sharp, bright viewfinder image. In addition to the standard Center Spot Matte screen, the photographer can also select the AF Split-Image, AF Microprism or Cross-Lined Matte screen, depending on the purpose or application.
- **On-the-film data recording:** To keep accurate track of photographic data, the 645N lets the user imprint valuable data (exposure frame number, exposure mode, shutter speed, aperture, exposure compensation value, metering mode, and lens focal length) at the bottom of the film just outside the image area.
- **High-speed motor drive:** The 645N’s built-in motor drive advances the film at the speed of 2.0 frames per second. Thanks to the high-precision pulse-count film transport mechanism, 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 from the 120 film and 33 frames from the 220 film). This motordrive also offers two film advance modes: “Single Advance” to advance one frame for each release of the shutter button and “Consecutive Advance” to successively advance the film as long as the shutter release button is depressed. In addition, the motor drive automatically loads the film and advances it to the first frame, and winds the film into the film holder to avoid accidental exposure during film changes.
- **Interchangeable film holders:** The 645N uses exclusive film holders compatible with those of the 645. So, by carrying several film holders loaded with film, the photographer can save a considerable amount of time for film changes.
- **Simple-to-operate dial control system:** Two large dials located on both sides of the prism housing facilitate swift, mistake-free operation, while other levers and switches are ergonomically positioned for maximum ease of operation.
- **Large LCD data panel:** Located at the camera’s right shoulder, the LCD data panel provides the photographer with useful operational data at a glance in easy-to-understand letters, digits and symbols.
- **Full information viewfinder display:** An LCD data panel located at the bottom of the viewfinder indicates a full range of photographic data. Its bar-graph indicator is especially useful for checking exposure status in the Metered Manual mode. The brightness of the indication is automatically adjusted according to the subject’s illumination level.
- **Depth-of-field preview:** This function allows the photographer to check the depth of field before taking a picture, thus making it possible to create the desired visual effect without failure.
- **Multi-exposure:** This function enables the photographer to produce a unique, eye-catching image by making the desired number of exposures on a single frame.
- **Built-in diopter adjuster:** The 645N’s viewfinder eyepiece comes equipped with a built-in diopter adjuster to adjust the viewfinder image for near - and far-sightedness within a range between -3.5 and +1 diopters.
- **Lithium battery compatibility:** The 645N’s battery holder takes six AA-size batteries. In addition to alkaline batteries, lithium batteries, which offer a longer battery life and a stable power supply at low temperatures, can also be used. The Battery Pack 645 is available as an optional accessory to keep batteries warm at freezing temperatures.
- **Self-timer:** The built-in self-timer delays shutter release by 12 seconds, allowing the photographer to become part of memorable pictures. This is also useful for avoiding camera shake in slow-shutter and bulb applications.
- **New 645 autofocus lenses:** For the 645N, Pentax developed five SMC-Pentax FA autofocus lenses to assure fast, stable autofocus operation. These lenses are all treated with Pentax’s original Super-Multi-Coating and incorporate a host of advanced mechanisms to offer outstanding optical performance and assure superb handling in the field. They also feature new autofocus/manual-focus switching mechanisms to improve manual-focus accuracy and efficiency.
- **Compatibility with conventional 645 lenses and accessories:** All existing SMC Pentax-A 645 lenses can be used with the new 645N without any modifications (except for autofocus operation). A wide variety of optional accessories are also available to satisfy the photographer’s need for special applications.

PENTAX

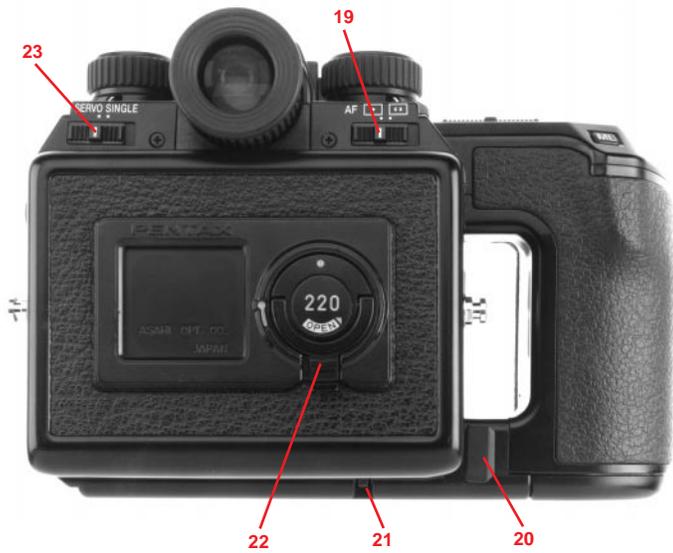
645N



1. Depth-of-field Preview
2. Pentax 645 AF Mount
3. Lens Lock Button
4. Shutter Release Button
5. Drive Mode Selector
6. Up Button
7. Down Button
8. ML (Memory Lock) Button
9. Main Switch
10. Metering Mode Selector
11. Metering Mode Index
12. Shutter Dial
13. Shutter Dial Lock Button
14. Auto Bracketing Index
15. Exposure Compensation Dial
16. Exposure Compensation Dial Lock Button
17. Auto Bracketing Lever
18. Hot Shoe

PENTAX

645N



- 19. AF Frame Selector
- 20. Release Socket
- 21. Mid-roll Wind-up Button
- 22. Film Holder Release Knob
- 23. AF Mode Selector
- 24. Tripod-Socket
- 25. External Power Supply Socket
- 26. Battery Holder Release Knob
- 27. Battery Holder
- 28. Diopter Adjustment Ring
- 29. X-sync Socket
- 30. Multi-exposure Switch
- 31. Vertical Tripod Socket

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 41.5mm

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 (useable in manual-focus mode only).

Exposure Control

- Metering system: TTL open-aperture multi-pattern metering.
- Metering mode: (1) Dual six-segment metering; (2) Center-weighted metering; (3) Spot metering.
- Metering range: EV2~EV21 (at ISO100 with 75mm f/2.8 lens). Electronic timer with holding time of 12 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 (1/3EV 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 dedication 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-matrix data imprinting system. Data imprinted out of image area.

- Recordable 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).

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.

Ordering Information:

15722 645N Black Body
26121 SMC-FA 645 75mm f/2.8

UPC Codes:

027075042506
027075042513