



Information

PENTAX

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PENTAX RAISES THE STANDARD WITH THE K20D DSLR FEATURING 14.6 EFFECTIVE MEGAPIXEL CMOS SENSOR AND INTEGRATED SHAKE REDUCTION

The new semi-professional digital SLR for the ambitious photographer

The new K20D sets forth to build on the success of the acclaimed K10D which set new standards and established itself as a leading model in its class. A completely new camera concept has been developed for the K20D that clearly raises the standard for this class of digital SLR with its high performance features and extensive functions.

High performance precision

Outwardly it is immediately clear that the K20D meets professional standards with its dust and splash-proof body. At the heart of the camera is a CMOS sensor with an effective resolution of 14.6 megapixels with extremely low noise characteristics. A further new development is Pixel mapping that interpolates failed pixels, avoiding disturbing white spots in the final image. This function **is** completed automatically by the camera so that annoying and time-consuming retouching can be avoided.

An integrated dust shield prevents dust particles from contaminating the sensor. This is a two-step system that consists of an effective dust-rejecting special coating on the low-pass filter and a function that vibrates to shake the remaining dust off the sensor. The vibration system can be set to work automatically when the camera is switched on or can be activated manually as needed. The dust that is shaken off the image sensor falls onto an adhesive sheet positioned at the bottom of the SR unit, eliminating any possibility of its returning to the image sensor surface. As any such physical system is only effective while in actual use an additional warning system has been integrated. With the "Dust Alert" function a vertically and laterally correct image of the sensor is shown on the monitor to indicate exactly where any stubborn dust particles may be adhering to the sensor.

Professional detailing

Due to demand by photographers and the trade the K20D is equipped with finer compression stages. Now 4 JPEG compression levels are available providing for more highly detailed pictures. Most relevant for those in the know, the camera can store files as JPEG or as RAW or, depending upon user preference,

simultaneously as both JPEG and RAW. The RAW selection may be either the Pentax "PEF" standard or the Adobe Photoshop "DNG" format. By pressing the RAW button the file format can easily be changed and the sequence individually specified.

Like the K10D this new top-of-the-range Pentax model features the in-camera opto-magnetic 3D-Sensor image stabilisation system ("Shake Reduction" system). The clear advantage of this system is that there are no restrictions on the choice of lenses. This unique "Shake Reduction" is fully functional with all PENTAX K-mount lenses.

Data at a glance:

- New 15.1 Megapixel CMOS Sensor with dust protection (Dust Reduction)
- Shake Reduction (SR) of the opto-magnetic 3D-Sensor adds up to 4 stops to handheld shooting
- 11-point AF with 9 Cross-sensors and individual AF-point selection
- Sensitivity ISO 100 – ISO 6400
- 2.7" monitor with 230,000 dots
- Pentax K_{AF2} lens mount
- Free selection of white balance with the auto bracketing function
- 14 Bit DA converter
- File formats: JPEG in 4 compression steps, RAW (DNG or PEF formats selectable)
- Preview Function: Real Time, Optical and Digital Preview
- Optional: Battery Grip, interchangeable focusing screens
- SD and SDHC memory cards
- Dimensions: 141.5 (W) x 101 (H) x 70 (D) mm, Weight: 715g (without battery or memory card)
- Recommended Retail Price (body only) £899.99
- Body + 18-55mm lens £ 999.99
- Availability March 2008

Positioning:

Technologically advanced and particularly fast image processing (PRIME), discriminating functions and features, and the in-body Shake Reduction system make the K20D a genuine top class camera for ambitious photographers. It is durable, compact and easy to use. It has a dust and splash-proof body and is compatible with all Pentax K-mount lenses.

Modifications from previous model (K10D):

- 14.6 Megapixels (effective)
- 2.7" Monitor with a resolution of 230,000 dots
- Live View
- Sensitivity ISO 100 to ISO 6400
- Custom Image with 4 colour profiles
- 36 programmable Custom Functions
- X-sync socket for studio flash systems
- Continuous Burst Mode with 20 fps
- Finer steps in JPEG format
- White balance bracketing



PENTAX K20D

Further high resolution images of the camera can be found after the embargo date at:

https://ssl.pentax.de/pentax_network/pluginsV2/pressloungeuk/index.php?PHPSESSID=412a53ff9478f5b66a541649a0248fb3&new_todo=PLUGINV2_pressloungeuk

Professional detailing

The K20D works with a precision 11-point autofocus system with 9 cross sensors (SAFOX VIII) and the AF is freely adjustable. With the "AF Adjustment" function the focal point can be uniquely optimized for each lens, or, when desired, for all lenses around a freely adjustable, correction factor. Front or back focus problems are now a thing of the past.

The bright pentaprism viewfinder clearly displays a 95% field of view. The focusing screen is replaceable – additional focusing screens are optionally available.

On the large 2.7" monitor with 230,000 dots the resolution of the image quality can be reliably examined. A 32x magnification factor is provided to supplement more critical evaluation of the image. To provide for a better overview the display on the monitor can be divided for thumbnail image displays. Text size can be increased by 150%. The Preview option permits control of picture composition and exposure settings before the shutter is actually released, thus avoiding unnecessary test shots especially for night and series photographs. The K20D digital preview offers a marked improvement over the picture preview of the K10D. Now all photographic parameters can be changed on the basis of the electronic preview and the preview can be stored directly onto the memory card.

One of the most important innovations for SLR cameras is the Live View function, a feature that you know from compact cameras.

Professional detailing

Shooting conditions for a working photojournalist are not always optimal: they are often in situations where camera placement can be difficult, necessitating shots from extremely high or low angle. This is where the Live View function comes into its own, replacing the viewfinder. Coupled with the 160° viewing angle of the monitor getting the crucial shot has become easier.

Working photographers fully appreciate monitor calibration as the first important step of the digital workflow. This is where the K20D shows another of its hidden strengths. Not only can the brightness of the monitor be changed but the "LCD Colour Tuning" functions allows the on-screen colour reproduction to be varied through in 49 steps.

The luminous sensitivity of the K20D operates over an extended range of ISO 100 to ISO 6400. The dynamic range has also been extended by a full stop so you now have an additional 2EV to play with. The result; improved details in bright and shaded areas. Additionally the K20D offers five colour profiles and a B&W profile that can be individually adapted. The photographer now has the possibility of adapting the colour characteristic of his images to meet his needs and circumstances exactly.

Summary of the most important features

- 14.6 MP CMOS Sensor
- Fast image processing thanks to PRIME
- Dust Alert System for detecting dust on the sensor
- Pixel mapping
- 14 Bit Digital - Analogue converter
- ISO 100 – ISO 6400
- Dynamic Range Enlargement
- Low noise sensor construction
- Additional noise through the software
- Live View over the high resolution Monitor
- Digital Preview (storable after processing)
- Depth of Field Preview
- Histogram for each channel
- Pentaprism viewfinder
- Shake Reduction 4 EV
- 16 segment metering
- 11 point AF control - 9 cross sensors
- AF adjustment
- Custom Image with 4 colour profiles
- B&W image function
- RAW files in DNG Format - simultaneous RAW + JPEG
- Individual file names can be attached to images
- Interval timer
- X-Sync for studio use
- 3 step sensor cleaning system
- 2.7" Monitor
- Calibratable Monitor
- Text enlargement – up to 150%
- 4 metering programmes (Normal, High Speed, Depth, MTF)
- Bracketing simply by pressing the shutter release
- Programmable control wheel
- Wireless flash control
- Body housing sealed against moisture and dust
- Consecutive shots: unlimited in JPEG, 16 in RAW
- Fast 3fps shooting speed – Burst Mode up to 20 fps
- Auto bracketing for white balance, saturation, colour tone, contrast, focus
- Water and dust protected

K20D Specifications

Type		Digital SLR camera with interchangeable lenses, TTL metering and integrated P-TTL automatic
Image sensor		14.6 Megapixel effective 15.1 Megapixel total CMOS with primary colour filter Size: 23.4 mm x 15.6 mm
Recording pixels	JPEG	14.6M: 4672 x 3120, 10M: 3872 x 2592 pixels, 6M: 3008 x 2000 pixels, 2M: 1824 x 1216 pixels
	RAW	14.6M: 4688 x 3120
Sensitivity		Auto / manual ISO 100 to ISO 6400 (Bulb: ISO 1600)
File formats		RAW (PEF and DNG, JPEG (Exif 2.21), DCF (Design rule of Camera File System),
	Compressed:	JPEG Baseline with compression levels from **** (Premium Quality), *** (Highest quality), ** (High quality), * (Good quality), RAW (PEF)
	Uncompressed:	RAW (DNG)
	Colour depth:	8 Bit JPEG and 12 Bit RAW, 14 Bit internal
Memory cards		SD or SDHC
Digital filter		B&W (4x), Sepia (3x), Colour (18x), Soft (3 levels), Slim (+/- 8 levels), Brightness (in playback mode), Colour separation (6x), Magnification to 32x (scroll)
White balance		Automatic, Daylight, Cloudy, Shade, Tungsten, and Fluorescent (W, N, D), flash, manual, fine adjust possible
LCD Monitor		2.7" Low temperature Polysilicon TFT LCD Monitor (approx. 230,000 dots), backlighting, wide viewing angle, colour brightness adjustable
Monitor display		Single image / 9 image thumbnail, image magnification (up to 32x, scrolling possible), slide show, automatic image rotation, folder view, display of recording data (recording date, histogram, brightness warning), colour separation (6x)
Video output		Switchable between NTSC and PAL
Connectivity		USB 2.0 (HI-SPEED)
Lens mount		PENTAX K _{AF} bayonet mount compatible with PENTAX K _{AF2} -, K _{AF} -, K _A -mounts Power-Zoom Function K _M lenses usable with reduced function M42S mount or 67/645 medium format lenses with adapters usable with reduced function
Exposure control		Green, Programmed Automatic (AE), Aperture Priority Automatic, Shutter Priority Automatic, x-Sync, long exposure (Bulb)
Shutter		Electronically controlled vertical-run focal plane shutter 1/4000s to 30s and Bulb
Viewfinder		Pentaprism viewfinder with interchangeable focussing screen "Natural Bright II"
	Angle of view	95%
	Magnification	0.95x (with 50 mm lens at infinity, -1 m ⁻¹)
	Dioptrre adjusting range	-2.5 m to +1.5 m
Viewfinder display	Displayed outside of picture area	Shake Reduction, flash status, shutter speed, aperture, in-focus, manual focus, Scene program, manual white balance, focus display, exposure correction factor, bracketing display, AF Lock, SR information AF bracketing
	Displayed inside of picture area	AF frame with Spot AF mark, Focus display (displayed in red)

Mode dial		Green, Program Automatic (Hyper Program with Program Shift) , Aperture Priority, Shutter Priority, manual, x-Speed, Bulb, USER, ISO-Priority (Sv), ISO-Automatic (TAv)
External LCD display		Image compression steps, shutter speed, aperture value, exposure correction, frame number, exposure information, flash status (automatic, flash ON- OFF, Red Eye Reduction), Remote Control, Self Timer, drive Mode (single / continuous), automatic/ manual white balance, focus mode, battery status
Metering system		16 segment TTL aperture metering (with lens and AF information), Multi-field metering / Spot metering/ Centre-weighted metering, metering range (at ISO 100 with 50 mm F1.4 lens): EV 0 to EV 21
Exposure correction		±3.0 EV (in 1/2 EV), ±2.0 EV (in 1/3 EV steps)
Auto bracketing		3 or 5 images (normal/over/under) within the range from ± 0.5 EV, ± 1.0 EV, ± 1.5 EV, ± 2.0 EV (in ½ EV steps) or ± 0.3 EV, ± 0.7 EV, ± 1.0 EV, ± 1.3 EV, ± 1.7 EV, ± 2.0 EV (in 1/3 EV steps)
Drive modes		Single, Continuous (low and high), Burst (to 20fps), Self Timer (12 sec., 2 sec.), Automatic, Remote Control (0 sec., 3 sec., delay), multi-exposure (to 2.8fps.), Auto Bracket, Extended Bracket, Sequence: to maximum of memory card capacity (JPEG), max. 38 frames (JPEG), max.16 frames (RAW-DNG), max. 115 frames (Burst with 1.6M *** JPEG)
Autofocus		TTL Phase matching AF; 11-point AF system (SAFOX VIII), Single-AF (with Focus Lock), manual focus, continuous AF
	Focus Point AF assist lamp	Auto, Select, Centre Selectable (by built-in flash)
Built-in flash		Built-in P-TTL Flash (automatic, retractable)
	Power	GN: 13 (at ISO 100/m),
	Flash coverage	28 mm (in 35mm film format)
	Flash correction	- 2EV to + 1EV (in ½ EV steps)
	Flash synchronisation	External x-sync flash connection for studio flash, hot-shoe for external system flash Flash sync: 1/180 sec.; wireless flash control for system flashes
Shake Reduction Dust Removal		Image sensor shift mechanism, max. 4 EV steps Image vibration mechanism and SP Coating
Self Timer		2 seconds (mirror up function) or 12 seconds delay, cancellation possible
Special functions		36 individually set Custom Functions
Preview function		Digital / optical Preview, Live View
Main switch		(1) ON; (2) OFF; (3) Depth-of-Field Preview (usable as Preview switch)
Time display	World time function	Time display for 71 cities (28 time zones)
Languages		English, French, German, Spanish, Swedish, Dutch, Italian, Russian, Danish, Finnish, Polish, Czech, Hungarian, Turkish, Korean, Chinese (traditional/ simplified), Portuguese, Japanese
PictBridge	Printer Modes	"PictBridge" supported Print one/ Print All, DPOF Print, Paper size, Paper type, Paper quality, print range
	Paper size	Card, L, 2L, Postcard, 100x150, 4"x6", 8"x10", Letter, 11"x17", A4, A4, print selection
	Paper type Paper quality Print range	*** (Highest Quality), ** (High Quality), * (Good Quality) print selection *** (Highest Quality), ** (High Quality), * (Good Quality), print selection With, without print selection
Folder names		Standard (100 PENTX, 101 PENTX...), Date (100_MMDD...), user defined,
Power		Rechargeable DLI50 Lithium-Ion battery, AC Adapter optionally

available

Battery life

Approx. 740 images* (norm. recording, 530 images* (50% with flash)
Playback: 330 minutes*

Connections

USB/ Video, DC input, Cable Switch, flash x-sync

Dimensions

141.5 (W) x 101 (H) x 70 (D) mm

Weight

715g without batteries or memory card
800g operational with battery and memory card

* Corresponds to the results of CIPA standard tests. The actual figure may change according to conditions (with LCD monitor on and flash used for 50% of the photographs)

Technical data is current conditions at the time of printing. Manufacturer reserves the right to make changes without prior notification.

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