

# SONY

## ILCE-6000L/B

### **α6000 Mirrorless Interchangeable-lens Camera w/ 16-50mm lens**

Test the limits of your creativity with ultrafast autofocus<sup>1</sup>. Every artistic shot you take - from fast-action to candid - benefits from 24.3MP detail and BIONZ X processor. For capturing crucial moments that go by in a blink, the α6000 can shoot 11 photos in one second. It's easy to use too, with two quick-access dials and custom buttons that let you change settings on the fly. Very intuitive.



### **Key Features**

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#### **The Power of Speed**

The Sony α6000 mirrorless interchangeable-lens camera features ultrafast autofocus (0.06 seconds), 179 AF tracking points and 11 frames per second-while capturing 24.3MP of rich, professional detail. The future of digital imaging is here.

#### **Fast Hybrid AF with 179 phase-detection points**

Enhanced Fast Hybrid AF (auto focus) combines speedy phase-detection AF with highly accurate contrast-detection AF. Accelerated through a new Spatial Object Detection algorithm, Fast Hybrid AF achieves among the fastest autofocusing performance of any camera (0.06 second).

#### **Ultra-fast response up to 11 fps**

Capture the perfect moment – the α6000 realizes 11 frames per second continuous shooting with AF (Auto Focus) tracking by making the most of the wide-area 179-point phase-detection AF sensor. Even when dealing with a moving subject the α6000's superb moving-subject tracking performance ensures you get the shot during still or video capture.

#### **High Resolution 24MP APS-C Sensor**

Get incredible detail and gorgeous enlargements thanks to the newly developed 24.3 megapixel Exmor™ APS HD CMOS sensor. It has higher resolution than most DSLRs in a body about half the size and weight. Moreover the α6000 adopts the same gapless on-chip lens structure as the award-winning a7 for ultimate image quality and light sensitivity.

#### **What you see is what you get with an OLED Viewfinder**

View every scene in rich detail on the high contrast 1.4M dot Tru-Finder™ OLED Electronic Viewfinder. Featuring a new optical system with four double aspherical lenses, it delivers 100% frame coverage with an approximately 33° viewing angle for corner-to-corner visibility. The advantage of an EVF over an OVF is that the electronic viewfinder displays what will appear in your recordings, including the effects of your camera settings so you can fine-tune exposure, color and focus in your preview before you take the picture.

#### **Frame at any angle with a tiltable 3" LCD**

The tiltable 3.0" (921k dots) Xtra Fine™ LCD display makes it easy to photograph over crowds or capture pets eye to eye at low angles. Swinging up approx. 90° and down approx. 45° makes it easy to frame at any angle. The large display delivers brilliant-quality still images and movies while WhiteMagic™ technology dramatically increases visibility in bright daylight.

#### **Smartphone remote control & sharing via NFC & Wi-Fi®**

Sharing your gorgeous photos with your family and social networks has never been easier. Wi-Fi™ connectivity allows you to control your camera with your compatible Smartphone or Tablet using the PlayMemories Mobile Apps™5. Use your device's LCD to frame your image and control the camera shutter. You can even transfer the images taken directly to your mobile device for quick editing and uploading - sharing has never been easier.

Connectivity has been simplified to one-touch utilizing NFC (near field communication). Connect by simply touch the camera to the compatible NFC enabled device.

#### **Enhance your creativity with PlayMemories Camera Apps™**

Personalize your camera by adding new features with PlayMemories Camera Apps™. Find apps to fit your shooting enhance your creativity from like; time lapse, motion shot light shaft and much more. Use apps that shoot, share and save photos using Wi-Fi® that make it easy to control and view your camera from smartphone, and post photos directly to Facebook or backup images to the cloud without connecting to a computer<sup>5</sup>. [www.playmemoriescameraapps.com](http://www.playmemoriescameraapps.com)

## Full HD 1080/24/60P video

Make movie magic with Full HD 1920 x 1080 video in cinematic 24p, or capture fast action at incredible 60p and 60i frame-rates.<sup>3</sup> Tracking moving subjects is not a problem, made even easier with the α6000's 179 point AF (auto focus) system -. Selectable in-camera – Blu-ray quality - AVCHD™ or simple and easier upload to the web - MP4 codecs are available. For serious videographers, uncompressed clean-screen video files to external recording devices is possible via the HDMI® connection

Capture Full 1920 x 1080 HD uncompressed clean-screen video files with external recording devices via an HDMI® connection in 60p and 60i frame rates. Selectable in-camera AVCHD™ codec frame rates include super-smooth 60p, standard 60i or cinematic 24p, while MP4 codec is also available for smaller files for easier upload to the web.

## Easy and intuitive controls help you shoot like a pro

Despite its small size, the α6000 gives you full DSLR control and immediate access to the functions you need to shoot like a pro. Two dials on top and a rear-mounted control wheel allow quick selection of shooting modes and camera settings. In addition to the Fn button, there's seven customizable buttons, which can be assigned any of 47<sup>4</sup> functions.

## Stunning low light photos with ISO range of 100-25600

With 20% higher sensitivity than the NEX-7 due to the newly developed Exmor® CMOS sensor and BIONZ® X processor, you get stunning detail in in low light from ISO range 100 – 25000. And for an additional burst of light, the α6000 features a pop-up flash and a standard hot shoe for additional flash accessories.

## Low light situations not a problem

Built-in pop-up flash in a compact camera body is perfect when an extra burst of light is needed to get the shot. Combine with high ISO sensitivity - from 100 to 16000 ISO - to enable shooting in just about any setting.

## Better Images through BIONZ® X processing

The new BIONZ® X image processor faithfully reproduces textures and details in real time via extra high-speed processing capabilities delivering true-to-life images - as seen by the naked eye. It enables greater natural detail, richer tonal gradations, lower noise and more realistic images whether you shoot stills or video.

## New Eye AF control

Thanks to extremely accurate eye detection, faces will be sharply focused - even when capturing a subject partially turned away from the camera and with a shallow depth of field – as the camera can prioritize a single pupil. A green frame appears over the prioritized eye when focus has been achieved for easy confirmation. Eye AF can be used when the function is assigned to a customizable button, allowing users to instantly activate it depending on the scene.

## 4K Still image output by HDMI® or Wi-Fi® for viewing on 4K TVs

Enjoy Ultra High Definition slide shows directly from the camera to a compatible 4K television. The α6000 converts images for optimized 4K image size playback (8MP). Enjoy expressive rich colors and amazing detail like never before. Images can be viewed via an optional HDMI®.

## Specifications

Camera	
Lens Compatibility	Sony E-mount, (Sony A-mount, Minolta/Konica Minolta Maxxum lenses confirmed via optional LA-EA adaptor)
Lens Mount	Sony E-mount
Camera Type	Mirrorless Camera

Imaging Sensor	
Imaging Sensor	Exmor™ APS HD CMOS sensor (23.5 X 15.6mm)
Processor	BIONZ X™ image processor
Anti Dust	Charge protection coating on Optical Filter and ultrasonic vibration mechanism
Pixel Gross	Approx. 24.7 megapixels
Effective Picture Resolution	Approx. 24.3 megapixels
Focal Length Conversion Factor	1.5x
Color Filter System	RGB primary color
Recording	
Media Type	SD, SDHC and SDXC memory card Memory Stick PRO Duo™/Pro-HG Duo™ media
Color Space	Still: sRGB standard (with sYCC gamut), Adobe RGB Movie: xvYCC standard (x.v.Color™ when connected via HDMI cable) Compatible with TRILUMINOS™ color
Still Image Mode	RAW, RAW & JPEG, JPEG Fine, JPEG Standard
Still Image Max Effective Resolution	24.3M pixels (approx.)
Still Image Size 16:9	L: 6000 x 3376 (20M) M: 4240 x 2400 (10M) S: 3008 x 1688 (5.1M)
Still Image Size 3:2	L: 6000 x 4000 (24M) M: 4240 x 2832 (12M) S: 3008 x 2000 (6.0M)
Panorama Still Image Size	Wide: Horizontal 23M (12,416 x 1,856), Wide: Vertical 12M (5,536 x 2,160), Standard: Horizontal 15M (8,192 x 1,856), Standard: Vertical 8.4M (3,872 x 2,160)
Video Format	AVCHD Ver. 2.0 / MP4 (MPEG-4 AVC (H.264))
Video Mode	AVCHD: PS - 1920x1080/60p @28Mbps FX - 1920x1080/60i @24Mbps FH - 1920x1080/60i @17Mbps FX - 1920x1080/24p @24Mbps FH - 1920x1080/24p @17Mbps MP4: HD - 1440x1080/30fps @12Mbps, VGA - 640x480/30fps @3Mbps
Video Resolution	AVCHD: PS - 1920 x 1080 / 60p @ Maximum bit-rate 28Mbps FX - 1920 x 1080 / 60i @ Maximum bit-rate 24Mbps FH - 1920 x 1080 / 60i @ Average bit-rate 17Mbps FX - 1920 x 1080 / 24p @ Maximum bit-rate 24Mbps FH - 1920 x 1080 / 24p @ Average bit-rate 17Mbps  AVC MP4: 1440 x 1080 / 30fps @ Average bit-rate 12Mbps VGA: 640 x 480 / 30fps @ Average bit-rate 3Mbps
Audio Format	Dolby Digital (AC-3) / MP4: MPEG-4 AAC-LC, 2ch
Still Image File Format	JPEG (DCF Ver. 2.0, Exif Ver.2.3, MPF Baseline compliant), RAW (Sony ARW 2.3 format)
Optics/Lens	
Lens Type	Sony E-mount
Lens Mount Type	Sony E-mount lenses
Lens Stabilization	Optical SteadyShot
Aperture (Max.)	f/3.5 - 5.6
Aperture (Min.)	f/22 - F32

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Optical Zoom	Approx. 3x
Digital Zoom	Approx. 4x
Focal Length (35mm equivalent)	24mm - 77mm
Filter Diameter	40.5mm
Lens Groups-Elements	8 groups, 9 elements (4 aspheric surfaces)
Minimum Focus Distance	9-13/16" (.25m) (W) - 11-13/16" (0.3m) (T)
AF for Movie Capture	Fast Hybrid AF
Angle of View	83°-32°
Aperture Blade	7 Blades
Aspheric Elements	1 ED element, 3 aspheric elements
Dimensions (Max. Diameter x Length)	2-5/8" x 1-13/16 (64.7 x 29.9mm)
Direct Manual Focus	Yes
Exterior Finish	Black (NEX-5T/B)
Lens Weight	4.1 oz (116 g.)
Low Noise During Movie Capture	Yes
Maximum Magnification	0.215x
Mount Material	Metal
EV Compensation	Still images: +/-3.0 EV (1/3EV steps selectable) Movies: +/-2.0 EV (1/3EV steps selectable)
Macro Mode	Yes
Magnification	0.215x
<b>Viewfinder</b>	
Type	0.39" (1.0 cm) OLED electronic viewfinder (color), 1,440,000 dots
Diopter Adjustment	-4.0 to +3.0m <sup>-1</sup>
Field of View	100% (approx. 33° viewing angle)
Magnification	Approx. 1.07x (35mm camera equivalent: Approx. 0.70x) with 50mm lens at infinity, -1m-1 diopter
<b>LCD Display</b>	
LCD Type	3.0" TFT LCD (921,600 dots)
Angle Adjustment	Tilt up by approx. 90 degrees, down by approx. 45 degrees
Brightness Control	Auto, Manual (5 steps between -2 and +2), Sunny Weather mode
Coverage	100%
Live View	Continuous Live View
Real-time image adjustment display	Yes (On/Off)
Histogram	Yes (On/Off)
Peaking	Yes (Level setting: High/Mid/Low/Off, Color: White/Red/Yellow)
Grid Display	Yes (Rule of Thirds, Square 4x6, Diagonal & Square 4x4, Off)
Customization	Graphic Display, Display All Info, No Disp. Info, Histogram, For viewfinder
Zebra	Yes (levels 70, ,75, 80, 85, 90, 95, 10, 100+, off)
<b>Focus Control</b>	
Focus System	Fast Hybrid AF(phase-detection AF/contrast-detection AF)
Focus Points	179 points (phase-detection AF) 25 points (contrast-detection AF)
AF Modes	AF-A (Automatic AF), AF-S (Single-shot AF), AF-C ( Continuous AF), DMF (Direct Manual Focus), Manual Focus
Focus Area	Wide (179 points phase-detection AF, 25 points contrast-detection AF), Zone, Center-weighted, Flexible Spot (Small, Medium, Large)
Focus Sensitivity	EV0 to EV20 (ISO100 equivalent with F2.8 lens attached)
Focus Features	Lock-on AF, Eye AF, Predictive control, Focus lock, AF illuminator (with Built-in LED type) Approx. range; 0.3- approx. 3.0m (with E PZ 16-50mm F3.5-5.6 OSS lens attached)

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AF Illuminator	Built-in LED, Range: approx. 3' 4" - 9' 9" (0.3m-3.0m)
<b>Exposure System</b>	
Picture Effect(s)	13 modes: Posterization (Color, B/W), Pop Color, Retro Photo, Partial Color (R, G, B, Y), High Contrast Monochrome, Toy Camera, Soft High-key, Soft Focus, HDR Painting, Rich-tone Monochrome, Miniature, Watercolor, Illustration
Auto Exposure Lock	Yes with AE lock button (AE also locked when shutter button is halfway: Auto/On/Off selectable)
Color Temperature	2500 to 9900K & Color Filter (G7 to M7: 15-steps, A7 to B7: 15-steps)
Creative Style	Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box(1-6), (Contrast (-3 to +3 steps), Saturation (-3 to +3 steps), Sharpness (-3 to +3 steps))
D-Range Optimizer	Off, Dynamic Range Optimizer (Auto/Level (1-5)), Auto High Dynamic Range (Auto Exposure Difference, Exposure Difference Level (1-6 EV, 1.0 EV step))
Exposure Bracketing	Cont. Bracket: x3 or x5 image in 1/3 EV, 1/2 EV, 2/3 EV, 1.0 EV, 2.0 EV, 3.0 EV increments, Single Bracket: x3 or x5 image in 1/3 EV, 1/2 EV, 2/3 EV, 1.0 EV, 2.0 EV, 3.0 EV increments, White Balance Bracket: Low (LO), high (HI) DRO Balance Bracket: Low (LO), high (HI)
Exposure Compensation	Still images: $\pm 5.0$ EV(1/3EV, 1/2EV steps selectable) Movies: $\pm 2.0$ EV(1/3EV steps selectable)
Exposure Settings	iAUTO, Superior Auto, Programmed AE (P), Aperture priority (A), Shutter priority (S), Manual (M), Memoru Recal (MR), Sweep Panorama, Scene Selection, Movie
ISO	Stills: ISO 100-25,600 selectable in 1/3 EV steps, Still Auto: ISO 100-25,000 selectable upper and lower limit, Movies: ISO 100-12,800 selectable in 1 EV steps, Movie Auto ISO 200-12,800 selectable upper and lower limit
Metering	Advanced 1200-zone evaluative metering
Metering Modes	Multi-segment, Center-weighted, Spot
Metering Sensitivity	EV 0 to 20 EV (at ISO100 equivalent, with F2.8 lens attached)
Noise Reduction	Long exposure NR: On/Off, available at shutter speeds longer than 1 sec., High ISO NR: Normal/Low/Off selectable, Multi-frame NR: Auto/ISO 100 to 51200
Scene Mode(s)	Portrait, Landscape, Macro, Sports Action, Sunset, Night Portrait, Night View, Hand-held Twilight, Anti Motion Blur
White Balance Mode	Auto WB, Daylight, Shade, Cloudy, Incandescent, Fluorescent (Warm White, Cool White, Day White, Daylight), Flash, Color Temperature (2500 to 9900K) & Color Temp. Filter (G7 to M7: 15-steps, A7 to B7: 15-steps), Custom, Underwater Auto
<b>Drive System</b>	
Continuous Shooting Speed	Continuous mode: 11fps (hi), 6fps (mid), 2.5fps (low) with AF
Drive Mode	Single Shot, Continuous shooting (Hi/Mid/Lo selectable), Self-timer (10/2 sec delay selectable), Self-timer (Cont.) (with 10 sec delay 3/5 exposures selectable), Bracket: Cont. / Single/ WB / DRO
Flash Sync Speed	1/160 sec.
Self-timer	2-sec. or 10-sec. delay
Shutter Speeds	Still images: 1/4000 to 30 sec., Bulb Movies: 1/4000 to 1/4 (in 1/3 step), up to 1/60 in AUTO mode, up to 1/30 in Auto Slow Shutter mode
Shutter Type	Electronically-controlled, vertical-traverse, focal-plane shutter
<b>Flash</b>	
Flash Bracketing	1/3, 1/2, 2/3, 1.0, 2.0, 3.0 EV steps, 3/5 frames (1.0/2.0/3.0 EV : only 3 frames) selectable
Flash Compensation	$\pm 3.0$ EV (switchable between 1/3 and 1/2 EV steps)
Flash Coverage	16mm (focal length printed on lens body)
Flash Metering System	Pre-flash TTL
Flash Modes	Flash off, Auto flash, Fill-flash, Slow Sync., Rear Sync., Red-eye reduction (On/Off)
Flash Type	Built-in, Pop-up
Guide Number	6 (in meters at ISO 100)

Recycling Time	Approx. 4 sec
<b>Interface</b>	
Remote Commander	Yes, via optional RM-VPR1
Accessory Shoe	MI (Multi-interface shoe), Standard ISO 518:2006 design with multi-pin configuration for additional accessories
A/V Remote Terminal	Yes, via optional RM-DSLR2 wired Multi-terminal remote
DC IN	Yes via optional AC-PW20AM (sold separately)
HD Output	HDMI micro connector (Type-D) BRAVIA Sync (link menu) PhotoTV HD 4K Still Image playback via HDMI to compatible 4K TV
HDMI Terminal	HDMI@micro connector (Type-D)
Memory Card Slot	Dual compatibility slot: Memory Stick PRO Duo™/Pro-HG Duo™/PRO-HG HX Duo™ media - SD, SDHC and SDXC memory card
NFC	Yes (NFC Forum Type 3 Tag compatible, One-touch remote, One-touch sharing)
Tripod Mount	Yes (1/4" diameter, 20 threads per inch)
USB Port(s)	USB 2.0 Hi-speed (mass-storage, MTP)
Wi-Fi	Yes(Wi-Fi Compatible, IEEE 802.11b/g/n(2.4GHz band) )
<b>Weights and Measurements</b>	
Dimensions (Approx.)	Approx. 4-3/4" x 2-7/8" x 1-13/16" (120mm x 67mm x 45mm)
Weight (Approx.)	Approx. 10.1 oz (285 g) (body only) Approx. 12.1 oz (344 g) (with battery and memory stick)
<b>Power</b>	
Battery Type	InfoLITHIUM®NP-FW50 (7.2V)
Battery Capacity	1080 mAh
Number of Still Images	Approx. 310 shots (Viewfinder), Approx. 360 shots (LCD monitor) (CIPA standard)
External Power	AC Adaptor AC-PW20
Power Consumption (in LCD Screen Operation)	Approx. 2.4W (still images, with E PZ 16-50mm F3.5-5.6 OSS lens)
Power Consumption (in View Finder Operation)	Approx. 2.8W (still images, with E PZ 16-50mm F3.5-5.6 OSS lens)
<b>Software</b>	
Supplied Software	Supplied Software: PlayMemories Home, Image Data Converter Version 4
Operating System Compatibility	supported, Windows Image Mastering API(IMAPI) Ver.2.0 or later is required to use the function for creating discs.) Windows Vista®SP2 (Starter Edition is not supported) Windows®7 SP1; Windows®8; Mac OS X (10.6-10.8)
<b>Service and Warranty Information</b>	
Limited Warranty Term	1 Year Parts & Labor
<b>Accessories</b>	
Supplied Accessories	Rechargeable Battery (NP-FW50) AC Adaptor (AC-UB10) Shoulder strap Body cap Eyepiece cup Micro USB cable

1. Among interchangeable-lens digital cameras equipped with an APS-C image sensor as of February 12, 2014. Measured using CIPA internal measurement method with E PZ 16-50mm F3.5-5.6 OSS lens mounted, Pre-AF off and viewfinder in use.

2. Not supported in some regions.

3. Records in up to 29 minutes segments.4 Some functions can only be assigned to certain buttons.

4. Some functions can only be assigned to certain buttons.

5. Requires an active 802.11 Wi-Fi network (802.11n recommended) or PlayMemories Mobile™ app installed on compatible Android™ or iOS device. PlayMemories camera apps require download with existing Sony Entertainment Network account. Download available in all countries/areas where Sony Entertainment Network is available.

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