SONY

BVM-L230

23-Inch LCD Master Monitor

Overview

The BVM-L230 reference LCD monitor supersedes the market leading BVM-A series CRT models, heralding in a new era in broadcast post-production, D-Cinema production, evaluation and mastering. LCD displays are increasingly replacing CRT monitors in the professional arena due to their operational flexibility and lower overall ownership cost. In the BVM-L230 you will find a state-of-the-art product that surpasses the performance of its CRT predecessors.

A new Sony technology - TRIMASTER - has been employed in the BVM-L230 to produce an LCD monitor fully justifying the Reference designation. In developing TRIMASTER, the technology had to deliver accurate colour reproduction, precision imaging and absolute picture consistency. Sony designers have achieved this through three key devices: a high-grade customised LCD panel, a new precision high-purity LED backlight and a sophisticated display engine.

The high-grade customised LCD panel incorporates a 10-bit driver for smooth greyscale and colour transitions, and possesses a high frame rate capability allowing black-frame insertion for much reduced motion blur.

The new Precision Backlight system utilises High Purity LEDs - these deliver wide reference-standard colour space, uniformity

control and colour stability through the auto white-balance circuitry.

The display engine uses two state-of-the-art ICs employing accurate 12-bit output processing - one dedicated to I/P conversion, producing the lowest possible artefact count, and one focussed on the highly accurate colour management system, delivering stability, consistency and precise standards emulation.

The BVM-L230 also benefits from new picture & picture and blend modes plus a new pixel zoom function for greater user flexibility.

With its exceptional performance and the clear LCD advantages of light weight, reduced depth and installation flexibility, the BVM-L230 is a deserving successor to CRT broadcast reference monitors.

Suitable for a Wide Range of Reference and Mastering Applications

Ideal for BROADCAST (studio and engineering etc.), PRODUCTION (OB, monitor wall, camera and VTR control etc.), and POST-PRODUCTION (top-end multi-format editing consoles, telecinema and digital cinema).

Ultimate Picture Quality Rivalling Top-Flight CRT Monitors

The BVM-L230 is capable of displaying High Definition native 1920x1080 picture resolution on its LCD display. Taken together with its customised LCD panel and 10-bit drivers for smooth colour gradation, its precision LED backlight for wide colour gamut and picture consistency, and its new 12-bit output display engine processor for accurate colour reproduction and sophisticated I/P conversion, the BVM-L230 is truly the standard-bearer amongst reference LCD monitors.

Superb Colour Accuracy

The innovative Colour Management System ensures consistent and repeatable colour to ITU-709, SMPTE-C and EBU standards and from monitor to monitor. The level of accuracy is the same as displayed by the BVM-A series of CRT monitors.

Outstanding Greyscale and Colour Depth Provide Lifelike Picture Quality

Achieved through 10-bit LCD panel drivers and 12-bit output signal processing.

Picture Quality Decisions can be made with Confidence

The BVM-L230 Monitor's exceptional performance in the key areas of picture quality, accuracy, consistency and stability make this product a natural choice as a measurement and reference tool.

Consistently Optimal Picture Performance

Less 'drift' than CRT displays, with an absence of picture distortions such as convergence, geometry, linearity and focus variation. The BVM-L230 is also immune to magnetic field interference.

Faithful Reproduction of Interlaced Pictures

Capable of reproducing interlaced video images to the same standard as CRT monitors.

High Quality Motion Display

Black Frame Insertion Mode dramatically reduces motion blur.

Exemplary Picture Consistency

Consistent and repeatable chroma and greyscale performance ensures efficient matching between monitors

Productivity Boost

New dual image processing including Picture Side by Side, Wipe,

Butterfly, Blending modes and a new Pixel Zoom mode allow quick evaluation and comparison of two input sources.

Exceptionally Versatile

Due to its broad range of inputs and multi-format signal capabilities, the BVM-L230 is equally suited to AV or IT-based applications, allowing you the freedom to operate in whichever format you choose, even D-Cinema.

Future Proof

Multi-format and HD capability plus optional decoder boards will ensure that the BVM-L230 remains current.

Easier to Install and Accommodate than CRT

Space saving / lightweight / low heat output

Air Conditioning Requirements lower than with CRT

LCD monitors generate less heat.

Easy Maintenance

No routine convergence, focus, geometry or linearity adjustments necessary. No susceptibility to magnetic fields.

Lower Total Cost of Ownership than CRT

Long operational life / high reliability.
Low energy bills.
Low routine maintenance cost
Reduced environmental disposal costs.

Features

Innovative WUXGA (1920x1200 pixels) LCD Panel
Delivers outstandingly crisp, high brightness and high contrast HD images in Native mode.

High-Purity Precision LED Backlight
Provides an exceptionally broad colour gamut for faithful colour

display, as well as delivering precise picture uniformity and stability.

Accurate, Repeatable and Stable Colour Reproduction

The innovative precision LED backlight and Colour Management System deliver accurate and consistent colour temperature right across the greyscale range. Consequently, the monitor can emulate ITU-709, SMPTE-C, and EBU colour spaces with ease. It can also emulate D-Cinema colour gamut

Superb White Uniformity

Achieved through the precision LED backlight.

Multi-Format Signal Support

The BVM-L230 is capable of displaying an exceptionally broad range of signal formats with an extremely high degree of colour accuracy. These include: composite video formats NTSC, PAL & SECAM, analogue components RGB & Y/C, and multi-format signals 480/60i, 480/60p, 575/50i, 575/50p, 720/50p, 720/60p, 1080/24p, 1080/24psf, 1080/25p, 1080/25psf, 1080/30p, 1080/30psf, 1080/50i, 1080/50p, 1080/60i, 1080/60p, 2048x1080 (2K)and PC signals from VGA to WUXGA.

It also supports Dual-Link HD-SDI signals: 10-bit 4:4:4 RGB 1920x1080-50i/60i & 24/25/30p/psf; 10-bit 4:2:2 1920x1080-50p/60p, and 12-bit 4:4:4 XYZ 2048x1080-24p/24psf.

10-bit LCD Display Drivers

Delivers smooth, accurate colour and greyscale transitions for high quality video production.

12-bit Output Display Engine Processor

High-resolution processing contributes significantly to the superb picture performance.

Sophisticated Interlace to Progressive Algorithm

Accurate and fast processing with remarkably little video delay.

Interlace Display Mode
Faithfully reproduces interlaced signals, emulating CRT monitors.

Dual Image Processing
Image Side by Side, Wipe, Butterfly and Blend modes provide users with enhanced operational flexibility.

New Pixel Zoom Mode
Allows picture magnification up to 800% without scaling.

Black Frame Insertion Mode
Dramatically reduces motion blur - a problem common to many LCD monitors.

Auto White-Balance Function
The BVM-L230 can perform automatic colour temperature adjustments when connected to an external colour analyzer (such as those from Minolta, DK and X-Rite).

Separate External Remote Control unit with memory stick slot
The Memory Stick socket enables users to download and save all monitor set-ups such as input channel configuration, control preset adjustments, white balance settings and maintenance parameters.

Four Slots for Optional Video Input Decoders
The monitor can accept up to four optional video input boards simultaneously. Available formats include analogue, composite, Y/C, components, RGB and digital SD & HD-SDI.

Centralised Monitor-Wall Control
Multiple monitors can be easily managed by a single control unit via a serial RJ45 Ethernet connector.

Specifications

PICTURE PERFORMANCE	
Type	a-Si TFT Active Matrix LCD
Picture Size (Viewable Area)	(H x V) Approx. 483.8 x 302.4 mm (Approx. 19 1/8 x 12 inches) (Diagonal) 570.6 mm (22 1/2 inches)
Aspect	16:10
Resolution (H x V)	1920 x 1200 pixels (WUXGA)
Pixel Efficiency	99.99%
Backlight	High-purity LEDs
Preset Brightness	100 cd/m2 (D-Cine: 48 cd/m2) (when 100% white signal is input)
Panel drive	RGB 10 bit
Panel frame rate	96/100/120 Hz
Viewing angle	85°/85°/85°/85° (typical) (up/down/left/right contrast > 10:1)

INPUT/OUTPUT

Video Input/Output	Four (4) slots
PC input	DVI-D (HDCP correspondence) x 1
Control	LAN Ethernet (10 BASE-T/100 BASE-TX), RJ-45 x 1 Parallel Remote D-sub 9-pin (female) x 1 Option A Mini-DIN 8-pin (female) x 1 Option B USB (Type A) x 1 (used for future expansion)
DC 5V Out	Circle 4-pin (female) x 1

GENERAL

Power Requirements	100 to 240 V AC, 2.0 to 0.9 A, 50/60 Hz
Power consumption	Approx. 180 W (at maximum load, the luminance compensation due to the aged deterioration of the LED is included.)
Operating Temperature	0°C to 35°C (32°F to 95°F) (Recommended operation temperature 20°C to 30°C (68°F to 86°F))
Operating Humidity	0% to 90% (no condensation)
Operating Pressure	700 hPa to 1060 hPa

Storage and Trans. Temperature	-20°C to +60°C (-C324°F to +140°F)
Storage and Trans. Humidity	0% to 90%
Storage and Trans. Pressure	700 hPa to 1060 hPa
Dimensions (W x H x D)	565.5 x 436.4 x 243.1 mm (22 3/8 x 17 1/4 x 9 5/8 inches)
Mass.	Approx. 22 kg (48 lb 8 oz)

Supplied Accessories

	AC plug holder
	AC power cord
	Bracket
	Cable holder
	CD-ROM
	Connection cable for probe
	Operation Manual
	Using the CD-ROM manual

Gallery