SONY

PVM-A170 v2.0

17-inch TRIMASTER EL™ OLED high grade picture monitor

Overview

Slim, lightweight and robust OLED monitor ideal for 4K production, shopping channels, field and graphics applications, as well as OB vans

The PVM-A170 17-inch, Full HD monitor achieves the industry-leading lightweight and shallow body*, with a approximately 40 per cent reduction compared to the previous PVM-1741A model. It is easy to carry, even by one person. The PVM-A170 incorporates the TRIMASTER EL™ OLED panel and offers the industry's widest viewing angles of any professional flat-panel monitor on the market, making group monitoring easy. The stylish new design also includes a, robust, optional protection panel and corner bumpers**. The latest camera-linkage functions, such as camera and lens metadata display and a Picture and Picture function, provide the convenience of working efficiency both in the field and in the post process. Version 2.0 of the PVM-A170 expands and enhances the monitor's ability to support 4K production, shopping channels, field and graphics applications.

* Comparing professional broadcast monitors incorporating SDI interface(s) and built-in AC power.

** Requires optional BKM-PP17 protection kit.

Stylish lightweight and slim body with industry's widest viewing angle

Robust and stylish sharp edges chassis. Perfect for group monitoring. The PVM-A170 weighs 4.2 kg and is approx. 40% thinner than the previous PVM-1741A model. It provides cost savings for transportation and power consumption. It also saves space and weight in digital galleries.

4K production features

The PVM-A170 V2.0 fulfils the demand for an affordable HD monitor in a 4K system. The unit supports the ITU-R BT.2020 colour space and accepts one of Quad-link 2SI 3G-SDI signals. To fully utilise its wide colour gamut, the monitor offers DCI-P3 and S-GAMUT/S-GAMUT3/S-GAMUT3.cine settings, with proper EOTFs such as 2.6 gamma, S-Log3(SDR) and S-Log2(SDR).

Shopping channels feature

Shopping channels require a unique screen layout to instantly differentiate between a product and its commercial data. The monitor allows you to set two flexible area markers anywhere on the screen

Enhanced field application features

The monitor is ideal for field applications, with sync-free side-by-side, false colour and audio muting functions. You can monitor two pictures without synchronisation. False colour allows you to check the exposure level of a camera at a glance from a distance. Audio muting helps you start to shooting quickly.

Graphics applications features

The monitor accepts a computer signal though HDMI. To fully utilise its wide colour gamut, the monitor also offers Adobe RGB and sRGB settings in colour space, and D50 preset in colour temperature.

Latest camera-linkage functions

Includes camera and lens metadata display* and a Picture and Picture function with side by side, wipe, blending, difference and auto input switching. Ideal for OnSet and live production monitoring.

*Lens metadata is supported by F65, PMW-F55, PMW-F5, PXW-FS7M2 and PXW-FS7 as well as equipment capable of SMPTE RDD18.

User presets and password protection

Secure your monitor settings for greater peace of mind. Five user presets are available. One colour temperature memory USER1 can also be password protected.

2K format display and Dual-Link HD-SDI mode

This feature offers a cost effective 2K monitoring solution, ideal for OnSet digital cinematography. In addition, a Dual-link HD-SDI input is available.

Multiple monitors firmware upgrade utility

Save you time to upgrade simultaneously your monitors through your network.

Features

Slim and lightweight – easy to carry

The PVM-A170 monitor achieves the industry-leading lightweight and slim body* – the PVM-A170 weighs 4.2 kg and is approx. 40 per cent thinner than the previous PVM-1741A model. This advantage allows users to widen their applications, including field monitoring and installation on the monitor wall and OB van.

* Comparing professional broadcast monitors incorporating SDI interface(s) and built-in AC power.

Viewing angle innovation

The PVM-A170 incorporates the TRIMASTER EL™ OLED panel and offers the industry's widest viewing angles for any professional flat-panel monitor on the market

Accurate black reproduction

A key advantage of TRIMASTER EL is the fact that each pixel can be turned completely off. No other display technology is able to offer this. In comparison, TRIMASTER EL is capable of reproducing accurate black with each individual pixel, enabling users to evaluate each picture image faithfully to the signal.

Accurate colour reproduction

Sony's OLED Super Top Emission technology not only offers a wide colour gamut with its high purity of the three primary colours, but also maintains this wide colour gamut throughout the entire luminance range. TRIMASTER EL system is truly an ideal display device for accurate picture reproduction. With OLED, users can see the details in the blacks, and see the colours as well.

Wide colour gamut*

Thanks to Sony's unique OLED technology, Version 2.0 of the monitor supports ITU-R BT.2020, DCI-P3, S-GAMUT/S-GAMUT3/S-GAMUT3.cine, sRGB and Adobe RGB.

* Supported with V2.0

Quick response with virtually no motion blur

The TRIMASTER EL grey-to-grey switching speed (measured in microseconds, µs) is much faster than that of the LCD (measured in milliseconds, ms).* This fast response benefits a variety of applications and uses, for example, in sports broadcasting.

* Sony's test results.

Video input versatility

The PVM-A170 monitor is equipped with built-in standard input interfaces: 3G/HD/SD-SDI (x2), HDMI (HDCP) input (x1) and composite (x1).

Computer input versatility

Multiple computer signals can be received via an HDMI/DVI interface; the resolution range is from 640 x 480 to 1680 x 1050 pixels.

Optional protection kit

The BKM-PP17 optional accessory kit provides an AR-coated protection panel for the 17-inch monitor, along with corner bumpers to safeguard the monitor from scratches and impact.

* Optional protection kit cannot be mounted together with the rack mount kit.

Yoke-mount and Wall-mount capability

The PVM-A170 has screw holes on its side bezels for yoke-mounting. This type of mounting is convenient when installing a monitor to a camera crane or monitor stand in the field. There are also Wall-mount 100-mm pitch holes on each monitor's rear panel.

Room clearance connector panel design

The connector panel on the rear of each monitor is designed to allow sufficient cord clearance, despite of the unit's slim dimension. This design allows space saving and cabling flexibility.

Waveform monitor, vector scope, and audio level meter display

An input signal's waveform and vector scope with an SDI-embedded 2-channel audio level meter can be displayed on screen. Both the waveform monitor and vector scope have various modes, including a zoom function (in an area of 0 to 20 IRE) with the waveform monitor, and a zoom function (in the

central black area) with the vector scope, for adjusting white balance. The waveform of a specified line can also be displayed. In conjunction with the Picture & Picture function*, the waveform monitor and vector scope display can monitor two camera signals. In addition, an audio level meter can display the embedded audio signal from the SDI or HDMI input. It can display on screen the ch1 to ch8 or ch9 to ch16.

* Supported with V1.1

False colour function*

The monitor can display false colour according to the signal level from a camera. As the whole picture is changed, it is easy to see levels for over-exposure, under-exposure or appropriate exposure. You can adjust these levels and turn the scale** of false colour on and off, as required.

* Supported with V2.0
** False color scale itself only supports a 0.45 OETF signal.

Camera focus function

The PVM-A170 monitor can control the aperture level of a video signal, and display images on the screen with sharpened edges to help camera focus operation. Further to this, the sharpened edges can be displayed in user-selectable colours (white, red, green, blue, and yellow) for more precise focusing.

Line-doubler* mode for field dominance check and time code function

The PVM-A170 offers a line-doubler mode, which is helpful when checking for field order and line flicker. In addition, LTC and VITC time code can be displayed at the top or bottom of the picture.

* Supported with V1.1

Auto white adjustment*

The PVM-A170 monitor employs a software-based colour temperature (white balance) calibration function, which is called Monitor_AutoWhiteAdjustment. Combined with a PC and commercially available calibration tools**, this function enables simple adjustment of the monitor's white balance.

* The Konica Minolta CA-210/CA-310/CS-200, DK-Technologies PM5639/06, X-Rite i1 Pro/i1 Pro2, Photo Research PR-655/670, Klein K-10, and JETI specbos 1211.

** Supported with V1.1

Enhanced Picture & Picture function*
The unique Picture & Picture function of the PVM-A170 allows simultaneous display of two input signals on the monitor's screen. This function helps with colour adjustment and setting of camera frames. Various modes are available: side by side, wipe, blending, difference and auto input switching. This function works when synchronous SDI signals are input.
Sync-free side by side with low latency allows you to monitor two signals without synchronisation. You can configure each picture as HD or SD with different frame rates, taking them from both SDI and HDMI. This function works with the false colour function, camera focus function and metadata on the main picture of the two pictures

* Supported with V2.0

2K (2048 x 1080) input and image-slide*
The PVM-A170 monitor can display 2K (2048 x 1080 resolution) input. The 2K signal is displayed in two ways – as a full 2K image scaled into a full-HD (1920 x 1080) screen, or as a 2K native display with an image-slide function.

* Supported with V1.1

Camera/lens metadata display function and on-screen tally*

The PVM-A170 monitor can display the camera and lens metadata** set of a camera system, according to the SMPTE RDD18*** document for Acquisition Metadata Sets for Video Camera Parameters. Further to this, these monitors also support a subset of Sony's private metadata.*** The monitor is also equipped with a three-colours red, green and yellow on-screen tally function. The position of the tally display can be changed to either the upper or lower section of the screen.

* Supported with V1.1

**Lens metadata is supported by F65, PMW-F55, PMW-F5, PXW-FS7M2 and PXW-FS7 as well as equipment capable of SMPTE RDD18.

*** Not all metadata is supported.

Anamorphic image conversion and Active Format Description (AFD) functions*

The monitor's anamorphic image conversion function** correctly displays horizontally squeezed 3G/HD-SDI signals from an onset camera system. The signals include two major systems: 16:9 1920 x 1080 (1280 x 720) signals and 17:9 2048 x 1080 signals. These signals can be appropriately displayed on the monitor's screen. The Active Format Description (AFD) function*** also reads the ancillary data flag on an SDI, and can upconvert the SD image to display automatically on the full HD resolution screen. This is achieved by adjusting the resolution and aspect ratio.

* Supported with V1.1

** Only 3G/HD-SDI and dual-link HD-SDI are supported.

*** Only SD-SDI signals are supported

Flexible area marker*, Grid Display, two Center Markers and Flip functions

You can set two flexible area markers freely on the screen. As their line colours and thickness can be changed, these two markers are easily identified.

Grid Display function displays arbitrary multiple vertical and horizontal lines to help when users check the composition of a picture. In addition to a standard Center Marker 1, Center Marker 2 is also available. This second marker enables easier checking of the centre portion's focus. The Flip function turns the reversed image to a normal view, horizontally or vertically.

* Supported with V2.0

Power-on setting, DC Low Power indicator

Power-on setting allows users to make choice when the monitor starts up; this includes last memory, user preset, and factory preset settings. So, users can set the monitor accurately and quickly. This function is very useful for rental equipment. DC power supply is available in the range of 12V to 16V. The power indicator blinks when the DC power supply is low.

* Supported with V1.1

User Presets with password lock and short-cut to function key configuration*

When multiple users share the same monitor, each user can memorize his/her setting data and retrieve this data whenever required. This frees the user from time-consuming and repetitive setting tasks. When multiple users share the same monitor, each user can register his/her own password for colour temperature and user preset data. This ensures the user correctly recalls previous user preset data, and keeps preset information safe from unauthorised use. For improving speed of the F-Key

configuration, the user can take a short-cut to the settings menu screen by simply pressing the function key repeatedly.

* Supported with V1.1

Optimised low-latency I/P conversion

An I/P conversion system delivers automatically optimised signal processing according to input signals, with low latency (less than 0.5 field). This helps with editing and monitoring fast-moving images, and with synchronising audio with lip sync.

Multiple monitors upgrade utility*

Multiple PVM-A and LMD-A Series monitors on the same Ethernet network can be upgraded by simple operation providing an efficient solution for large infrastructure.

* Supported with V1.1

Detachable handle

The monitor is equipped with a detachable handle for portable applications. It can be removed to reduce weight when installed in a monitor wall or when it is rack mounted.

Specifications

Picture Performance	
Panel	OLED panel
Picture Size (Diagonal)	419.7 mm (16 1/2 inches)
Effective Picture Size (H x V)	365.8 x 205.7 mm (14 1/2 x 8 1/8 inches)
Resolution (H x V)	1920 x 1080 pixels (Full HD)

Aspect	16:9
Panel Drive	RGB 10-bit
Viewing Angle (Panel Specification)	89°/89°/89°/89° (typical) (up/down/left/right contrast > 10:1)

Input

Composite Input	BNC (x1), 1.0 Vp-p ±3dB sync negative
SDI	Input BNC (x2)
HDMI Input	HDMI (x1) (HDCP correspondence)
Audio Input	Stereo mini jack (x1), -5 dBu 47 kΩ or higher
Parallel Remote	RJ-45 modular connector 8-pin (x1) (Pin-assignable)
Serial Remote (LAN)	RJ-45 modular connector (x1) (Ethernet, 10BASE-T/100BASE-TX)
DC Input	XLR-type 4-pin (male) (x1) DC 12 V to 16 V (output impedance 0.05 Ω or less)

Output

Composite Output	BNC (x1), Loop-through, with 75 Ω automatic termination
SDI Output	BNC (x2) Output signal amplitude: 800 mVp-p ±10% Output impedance: 75 Ω unbalanced
Audio Monitor Output	Stereo mini jack (x1)
Speaker (Built-in) Output	1.0 W (mono)
Headphone Output	Stereo mini jack (x1)

General

Power Requirements	AC 100 V to 240 V, 0.9 A to 0.5 A, 50/60 Hz DC 12 V to 16 V, 6.4 A to 4.8 A
Power Consumption	Approx. 75 W (AC power supply) (max.) Approx. 60 W (AC power supply) (average power consumption in the default status)
Operating Temperature	0°C to 35°C (32°F to 95°F) Recommended: 20°C to 30°C (68°F to 86°F)

Operating Humidity	30% to 85% (no condensation)
Storage / Transport Temperature	-20°C to +60°C (-4°F to +140°F)
Storage / Transport Humidity	0% to 90%
Operating / Storage / Transport Pressure	700 hPa to 1060 hPa
Dimensions (W x H x D)	435.0 x 274.0 x 65.5 mm* (17 1/4 x 10 7/8 x 2 5/8 inches) (without monitor feet) 435.0 x 296.5 x 165.0 mm (17 1/4 x 11 3/4 x 6 1/2 inches) (with monitor feet)
Mass	Approx. 4.2 kg (9 lb 4.2 oz)
Supplied Accessories	AC power cord (1), AC plug holder (1), Handle (1) (including 4 screws), Before Using This Unit (1), CD-ROM (1)
Optional Accessories	SU-561 Monitor Stand, MB-P17 Mounting bracket, BKM-PP17 Protection kit
	*Without projection parts.

SONY

Related products

HDC-4300

4K/HD System Camera

HDC-2570

Multi-format HD portable system camera with digital triax transmission interface

HDC-2500

3G double-speed multi format HD system camera

HDC-2400

3G multi format HD system camera

HDC-1700

Multi format HD portable system camera

PDW-850

Three 2/3-inch Power HAD FX CCD sensors XDCAM HD422 ultimate Professional Disc camcorder with best picture quality and easy-to-share and archive media

PXW-X500

Three 2/3-inch type PowerHAD FX Full HD CCD sensors XDCAM camcorder with multi-format recordings including XAVC

PXW-X320

Three 1/2-inch type Exmor CMOS sensors XDCAM camcorder with 16x zoom HD lens recording Full HD XAVC 100 Mbps, with wireless options

HDC-2000W

3G double-speed multiformat HD studio system camera (beige)

HDC-2000B

3G double-speed multiformat HD studio system camera (black)

PMW-400L

Three 2/3-inch type Exmor CMOS sensors without lens XDCAM camcorder recording Full HD 422 at 50 Mbps

PMW-400K

Three 2/3-inch type Exmor CMOS sensors with 16x zoom HD lens XDCAM camcorder recording Full HD 422 at 50 Mbps

PMW-320L

Three 1/2-inch type Exmor CMOS sensors XDCAM EX camcorder without lens recording full HD / SD

PMW-320K

Three 1/2-inch type Exmor CMOS sensors XDCAM EX camcorder with 16x zoom HD lens recording full HD

HSC-100R

Three 2/3-inch Power HAD FX CCD sensors portable HD / SD camera for digital triax operation

BVM-E251

24.5-inch TRIMASTER EL™ OLED critical reference monitor with wide viewing angle supports 4K

/ SD   production

Gallery