

## PVM-741

7.4-inch TRIMASTER EL OLED monitor with 2x 3G/HD/SD-SDI inputs and smart functions.



### Overview

#### **Portable OLED picture monitor with 10-bit RGB panel driver**

The PVM-741 is a high-performance, 7.4-inch (188-mm)\* OLED (organic light-emitting diode) monitor backed by TRIMASTER EL™ technology. By optimally combining Sony's OLED display panel technology with a 10-bit panel driver and Sony's processing technology, the PVM-741 monitor achieves superb picture quality – unparalleled black performance, a wide colour gamut, and quick pixel response with virtually no motion blur.

Smart features for a wide range of applications

In addition to this picture performance, the PVM-741 monitor's hallmarks are its mobility and the smart and convenient features required for a small monitor – it has evolved in a steady, balanced way. The PVM-741 is ideal for a wide range of professional monitoring applications, including use in an studio camera monitoring, outside broadcast, on set acquisition for digital cinema, field production, editing studio and even research and development.

\* 188-mm, viewable area, measured diagonally.

## Features

### **Sony's OLED with a 10-bit RGB driver**

The PVM-741 Quarter HD resolution (960 x 540 pixels) and a 10-bit RGB driver, together with Sony's Super Top Emission OLED display panel, creates life like and smoother-than-ever gradation from dark to bright portions of a scene such as in a sunrise or sunset.

### **Superb black performance**

Thanks to Sony's OLED system, deep blacks can be accurately displayed and the black portion of an image is not degraded.

### **Quick response with blur-free motion**

Because the OLED electroluminescent layer inherently responds to any electrical current input, it emits light immediately. By this mechanism, excellent quick response characteristics can be achieved in fast-motion images.

### **Multi-format signal interfaces with two 3G/HD/SD-SDI input capability**

To provide flexibility the PVM-741 incorporates various video interfaces as standard, including 3G/HD/SD, SDI (x2) HDMI (x1) interface and Composite input (x1).

### **3G-SDI interface capability**

With the 3G-SDI interface, PVM-741 accepts 1080/50p and 1080/60p formats, which is compliant with the SMPTE 425 standard, transmitting up to 4:2:2/10-bit 1080/60p and 1080/50p video data using one SDI cable. Also the PVM-741 accepts 10-bit 4:4:4 Y/Cb/Cr and 4:4:4 RGB of 3G-SDI signals for various formats. When an upgrade to these 1080/p systems is required, this single-link 3G-SDI system is an ideal, future-proof solution.

### **8-ch Audio Level Meter Display**

When an SDI interface is connected, the embedded audio level can be displayed on screen with an 8-channel audio level meter.

### **HDMI interface for a wide range of applications**

HDMI connectivity can expand user's convenience and applications. Forexample, the PVM-741 monitor can connect with professional video systemsuch as XDCAM, XDCAM-EX, NXCAM, and HDV. Furthermore, consumer video products like a Blu-ray and a digital camera are also connectable. These articles are ideal for Blu-ray video authoring and digital photo image previews.

## **Waveform monitor and vector scope display**

The combination of the vector scope and waveform monitor functions helps users in field production without additional measurement equipment.

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.

## **Time Code display**

PVM-741 can display on screen a Time Code – either LTC or VITC is selectable.

## **Flip function**

The PVM-741 has a feature to flip the picture without frame delay, horizontally, vertically or both horizontally and vertically. This feature is useful for 3D acquisition system with 3D rig camera.

## **Camera focus functions**

The PVM-741 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.

This camera focus function can even be enhanced when

combined with native scan mode.

## **Colour temperature**

Colour temperatures of D93, D65, or a USER preset value can be selected.

## **Auto white adjustment**

The PVM-741 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.

## **Sophisticated I/P conversion**

PVM-741 uses a motion-adaptive I/P-conversion process to achieve conversion results that are optimised to the picture content – whether the image is static or dynamic. Highly accurate I/P conversion of both HD and SD inputs, is provided regardless of signal resolution.

## **I/P mode selection**

PVM-741 provides four I/P modes so that users can select the most suitable mode for each purpose.

INTER-FIELD: interpolates images between fields. This is used for picture quality optimisation (e.g., to reduce jagged effect on moving pictures).

INTRA-FIELD: interpolates images within the field, and delivers naturally reproduced images and quick picture processing. This mode is available only for 1920 x 1080 SDI signal input.

FIELD MERGE: combines lines alternately in odd and even fields, regardless of picture movements. This is used for PsF (Progressive Segmented Frames) processing and still image monitoring.

LINE DOUBLER: interpolates by repeating each line. This is used for editing and monitoring fastmoving images, and checking line flicker. The minimum processing time is less than one field (0.5 frames).

### **Centre marker and aspect markers**

The PVM-741 can display a centre marker and aspect markers. The brightness of these markers can be selected from two different levels: grey and dark grey. Users can also select a grey mat to fill the outer area of the aspect markers.

### **Safety area markers**

The safety area markers can be selected from 80%, 85%, 88%, 90%, and 93%.

### **External remote control function**

PVM-741 monitor has an external remote control capability for input/output signal selection and adjustment of various items via Ethernet (10BASE-T/100BASE-TX) connection. Up to 32 monitors and up to four BKM16R control units can be connected via Ethernet connection and controlled remotely on the network. Also this monitor supports some functions of the BKM-16R – an optional remote control unit for BVM-E/BVM-F/BVM-L/PVM-L Series monitors – such as the power on/off switch and the Input Select function.\*

\* The PVM-741 does not support all BKM-16R functions.

### **Power-saving mode**

When no input signal is received for over a minute, the monitor goes into power-saving mode and consumes minimal power.

This function prevents unnecessary electrical consumption.

### **Silent mode**

This convenient function enables users to stop the built-in cooling fan achieving monitor operation without any fan rotation noise. Silent mode is ideal when noise must be avoided.

### **Closed-caption decoder**

The closed caption information embedded in EIA/CEA-608 and EIA/CEA-708 can be decoded for display.

### **User-friendly control panel design**

By assigning monitor functions to each of its seven function buttons, users can customise the PVM-741 for a specific application or usage such as field or studio use. Seven functions can be allocated to the assignable buttons. Button lights are dimmable and indicator lights are on/off switchable. This function allows users to easily operate a monitoring in a dark environment without interference of these lights.

### **Robust, light-weight, and compact body**

Incorporating a light-weight and compact aluminium diecast body with a detachable AR-coated protection panel, this model is flexible enough to change style according to user requirements: with or without stand (which is easily detachable), tilted on a stand (15-degree slant), rack-mounted, or set on a camera pedestal.

### **Retractable carrying handle**

The PVM-741 provides a retractable carrying handle as a supplied accessory. With this carrying handle, users find it easy to hand carry this superb OLED monitor anytime, anywhere.

### **Mounting flexibility**

The PVM-741 is 3.8U high and half-rack wide. Using the optional MB-531 mounting bracket with a 10-degree-forward and 10-degree-backward nonstop-tilt capability, two units can be

installed side by side in a 19-inch EIA standard rack.

### **Screw holes for camera pedestal**

With 3/8-inch and 1/4-inch screw holes on its base, the PVM-741 can be installed in a camera system. Also with the supplied arm-mount bracket fixed on the top, the PVM-741 can be installed in a camera arm.

### **Optional ENG kit VF-510**

For use in ENG and EFP field, the optional VF-510ENG Kit provides a viewing hood, carrying handle, and connector protector.

### **Detachable AR (anti-reflection)-coated protection panel**

AR-coated protection panel keeps the OLED panel surface from scratch and keeps reflection from ambient light to a minimum.

### **AC/DC operations**

The PVM-741 can be operated with two-way power supplies: DC 12 V and AC via the attached dedicated AC adaptor.

## Specifications

### Picture Performance

Panel	OLED panel
Picture Size (Diagonal)	188.0 mm 7 1/2 inches
Effective Picture Size (H x V)	163.9 x 92.2 mm 6 1/2 x 3 5/8 inches
Resolution (H x V)	960 x 540 pixels (Quater HD)

Aspect	16:9
Pixel Efficiency	0.9999
Panel Drive	RGB 10-bit
Viewing Angle (Panel Specification)	89°/89°/89°/89° (typical) (up/down/left/right contrast 10:1)
Normal Scan	0% scan
Over Scan	5% over scan
Color Temperature	D65, D93, User
Warm-up Time	Approx. 30 minutes

## Input

Composite Input	BNC (x1), 1.0 Vp-p $\pm$ 3dB sync negative
SDI Input	BNC (x2)
HDMI Input	HDMI (x1) (HDCP correspondence)
Audio Input	Stereo mini jack (x1), -5 dBu 47 k $\Omega$ or higher
Parallel Remote	Modular connector 8-pin (x1) (Pin-assignable)
Serial Remote (LAN)	RJ-45 (x1) (Ethernet, 10BASE-T/100BASE-TX)



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DC Input	XLR-type 4-pin (male) (x1), 12V DC (output impedance 0.05 $\Omega$ or less)
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## Output

Composite Output	BNC (x1) Loop-through, with 75 $\Omega$ automatic termination
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SDI Output	BNC (x1) Output signal amplitude: 800 mVp- p $\pm 10\%$ Output impedance: 75 $\Omega$ unbalanced
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Audio Monitor Output	Stereo mini jack (x1)
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Speaker (Built-in) Output	0.5 W (mono)
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Headphone Output	Stereo mini jack (x1)
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## General

Power Requirements	100 V to 240 V AC, 0.5 A to 0.3 A, 50/60 Hz 12 V DC, 1.9 A
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Power Consumption	Approx. 30 W (max.)
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Inrush Current	<p>(1) Maximum possible inrush current at initial switch-on (Voltage changes caused by manual switching): 51 A peak, 7 A r.m.s. (240V AC)</p> <p>(2) Inrush current after a mains interruption of five seconds (Voltage changes caused at zerocrossing): 17 A peak, 2 A r.m.s. (240V AC)</p>
Operating Temperature	<p>0°C to 40°C (Recommended: 20°C to 30°C) 32°F to 104°F (Recommended: 68°F to 86°F)</p>
Operating Humidity	<p>30% to 85% (no condensation)</p>
Storage/Transport Temperature	<p>-20°C to +60°C -4°F to +140°F</p>
Storage/Transport Humidity	<p>0% to 90%</p>
Operating/Storage/Transport Pressure	<p>700 hPa to 1060 hPa</p>

Dimensions (W x H x D) *1	<p>222.4 x 166 x 70 mm          222.4 x 183.5 x 161.8 mm          (when AC adaptor is installed)          8 7/8 x 6 5/8 x 2 7/8 inches          8 7/8 x 7 1/4 x 6 3/8 inches          (when AC adaptor is installed)</p>
Mass	<p>Approx. 2.0 kg          Approx. 2.6 kg(when AC adaptor is installed)          Approx. 4 lb 6 oz          Approx. 5 lb 12 oz(when AC adaptor is installed)</p>
Supplied Accessories	<p>AC power cord (1)          AC plug holder (1)          AC adaptor (1)          Handle (1)          Arm mount bracket (1)          Screws (4)          Operating instructions (1)          CD-ROM (1)          Using the CD-ROM Manual (1)</p>
Optional Accessories	<p>MB-531 Mounting bracket          MB-532 Mounting panel          VF-510 Monitor ENG kit</p>

## Notes

Note

\*1 The values for dimensions are approximate.

## Related products



### PMW-F55

Super 35mm 4K CMOS sensor compact CineAlta camera records HD/2K/4K on SxS memory plus 16-bit RAW 2K/4K output



### PMW-F5

Super 35mm 4K CMOS sensor compact CineAlta camera records HD/2K on SxS memory plus 16-bit RAW 2K/4K output



### PXW-FS7

4K Super 35mm Exmor CMOS sensor XDCAM camera with  $\alpha$  Mount lens system, 4K/2K RAW and XAVC recording options



### PDW-850

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



### PMW-400L

Three 2/3-inch type Exmor CMOS sensors without lens XDCAM camcorder recording XAVC HD 100 Mbps and MPEG HD 4:2:2 at 50 Mbps



### PMW-400K

Three 2/3-inch type Exmor CMOS sensors with 16x zoom HD lens XDCAM camcorder recording XAVC HD 100 Mbps and MPEG HD 4:2:2 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 / SD



### PXW-X500

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



### PXW-X320

Three 1/2-inch type Exmor CMOS sensors XDCAM camcorder recording Full HD



### PXW-FS7M2

4K Super 35mm Exmor CMOS sensor



### LMD-941W

Full-HD 9-inch LCD monitor with 2x 3G/HD/SD-SDI inputs and smart functions.

format recordings including XAVC

XAVC 100 Mbps, with wireless and 16x zoom HD lens options. (PXW-X320L lens-less model also available)

XDCAM camera with Variable ND Filter, E-Mount (Lever Lock), 4K/2K RAW and XAVC recording

## Gallery



