

## PVM-L1700

17-inch Broadcast LCD monitor



### Overview

#### **Multi-format Widescreen LCD Monitor**

The PVM-L1700 is a 17-inch LCD monitor equipped with a customized WCG-CCFL (Wide Colour Gamut CCFL) backlight system designed for use in Broadcast applications. The image processing engine uses the same technology as the award-winning BVM-L TRIMASTER Series, ensuring the PVM-L1700 offers the superb picture performance and sophisticated features required by today's broadcast critical picture-monitoring applications.

The PVM-L1700 can also accept almost any type of video and PC signal, both analogue and digital. The video interface accepts analogue composite signals up to 3G SDI, as well as HDMI™ and DVI signals.

In addition, the PVM-L1700 extends the user-friendly approach of Sony's professional CRT monitors in terms of system configuration, installation, functionality, and operational convenience.

The PVM-L1700 is the ideal choice for the next level of digital broadcast systems that requires smooth migration from CRT to LCD, SD to HD, and/or interlaced to progressive.

## **Suitable for a Wide Range of High-End Applications**

Ideal for BROADCAST (studio, engineering, etc.) and PRODUCTION (OB, monitor wall, camera/VTR control, etc) applications.

## **Picture Quality Rivalling Top-Flight CRT Monitors**

The PVM-L1700 is capable of displaying High Definition in native mode 1920x1080 pixels. Equipped with a 10-bit customised LCD panel, a precision backlight for extended colour gamut and a Sony display engine providing 12-bit output processing for precision imaging, the PVM-L1700 is the ideal choice for high quality and critical viewing requirements

## **Superb Colour Accuracy**

The innovative Colour Management System ensures consistent and repeatable colours to match the international ITU-709, SMPTE-C and EBU colour space standards.

## **Outstanding Greyscale and Colour Depth Provide Lifelike Picture Quality**

Superb precision in picture reproduction is achieved through the 10-bit LCD panel drivers and 12-bit output signal processing.

## **Consistently Optimal Picture Performance**

Less 'drift' than CRT displays, with an absence of picture distortions such as convergence, geometry, linearity and focus variation. The PVM-L1700 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 mode and a new Pixel Zoom function allow quick evaluation and comparison of two input sources.

## **Exceptionally Versatile**

Due to its broad range of inputs and multi-format signal capabilities, the PVM-L1700 is equally suited to AV or IT-based applications, allowing you the freedom to operate in whichever format you choose from the entry HDMI to the latest 3G SDI.

## **Future Proof**

A slot structure allows accommodating various optional input boards and the ability to accept future boards as well to ensure that the PVM-L1700 remains current.

## **Easier to Install and Accommodate than CRT**

The PVM-L1700 has benefits over CRT such as space saving, less weight and heat generated.

## **Air Conditioning Requirements lower than with CRT**

LCD monitors generate less heat than CRT reducing the air conditioning requirements when used in large volume in a confined environment.

## **Easy Maintenance**

Routine convergence, focus, geometry and linearity adjustments are no more necessary.

## **Lower Total Cost of Ownership than CRT**

Long operational life / high reliability.  
Low energy bills.

Low routine maintenance cost  
Reduced environmental disposal costs.

## Features

### **Customised Full HD Panel with 10-bit Driver**

The PVM-L1700 monitor achieves both high resolution and stunning colour depth using a full 1920 x 1080 HD LCD panel and precise 10-bit driver.

### **High Quality I/P Conversion Technology**

The PVM-L1700 monitor uses a sophisticated I/P conversion technique that keeps artefacts that are often seen in typical LCD monitors to a minimum such as edge jaggedness, conversion errors, etc.

### **Low video delay**

The PVM-L1700 display engine provides a picture delay that is less than one field.

### **High Accuracy Display Engine**

The PVM-L1700 monitor uses a 12-bit output display engine, which allows images to be reproduced with high precision for accurate evaluation and manipulation.

### **Panel Calibration**

Every PVM-L1700 monitor is carefully calibrated at the factory on an individual basis, providing a high level of accuracy and stability for characteristics such as gamma and uniformity.

### **Colour Feedback System**

Using a colour feedback system, the PVM-L1700 monitor achieves the stability required for Broadcast critical viewing applications.

### **Input Versatility**

The PVM-L1700 monitor can accept almost any SD or HD video format, both analogue and digital, plus PC signals from VGA to

Full HD (1920 x 1080). In addition to a DVI-D and an HDMI interface equipped as standard, four option board slots are offered to configure this monitor according to different user needs.

### **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 3G/HD/SD SDI.

### **Interlaced Display Mode**

Faithfully reproduces interlaced signals, emulating CRT monitors.

### **Dual Image Processing**

Image Side by Side mode provides 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.

### **Black Detail Mode**

This mode allows improving the black level reproduction when viewing images with low light contents.

### **Separate Control unit with memory stick slot**

A separate control unit is available for the PVM-L1700. It is equipped with a 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.

### **Centralised Monitor-Wall Control**

Multiple monitors can be easily managed by a single control unit

via a serial RJ45 Ethernet connector.

## Specifications

### Picture Performance

Panel	a-Si TFT Active Matrix LCD
Picture Size (Diagonal)	419.0 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	16:09
Pixel Efficiency	0.9999
Backlight	CCFL
Panel Drive	RGB 10-bit
Panel Frame Rate	96 Hz, 100 Hz, 120 Hz
Viewing Angle (Panel Specification)	89°/89°/89°/89° (typical) (up/down/left/right contrast 10:1)
Normal Scan	0% scan

Mapping the pixels of the signal to the panel to one-to-one mode, or displaying an SD signal of

Native Scan	nonsquare pixels (the number of H pixels of the signal system is 720 or 1440) or a 640 × 480 SD signal of HDMI video by scaling processing of doubling for the V direction and correct aspect ratio for the H direction and also optimizing and sidplaying a picture by modifying the aperture coefficient value, filter coefficient value, etc.
Under Scan	3% under scan
Over Scan	Mask of 5% over scan portion in the normal scan
Color Temperature	D65, D93, User
Standard Luminance	100 cd/m <sup>2</sup> (Preset1 to Preset5) (1.0 Vp-p reference signal, 100% white signal input)
Color Space (Color Gamut)	ITU-R BT.709, EBU, SMPTE-C, L1700 Native *1
Warm-up Time	Approx. 30 minutes

## Input

HDMI Input	HDMI (x1) (HDCP correspondence,
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	Deep Color correspondence)
DVI-D Input	DVI-D (x1) (HDCP correspondence)
Option Port	Four (4) ports
Parallel Remote	D-sub 9-pin (female) (x1)
Serial Remote (LAN)	RJ-45 (x1) (Ethernet, 10BASE-T/100BASE-TX)
Option A Input	Mini-DIN 8-pin (female) (x1)
Option B Input	USB (Type A) (x1) (used for future expansion)
DC Input	XLR-type 3-pin (male) (x1), 24V DC (output impedance 0.05 $\Omega$ or less)

## Output

DC 5 V Output	Circle 4-pin (female) (x1)
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## General

Power Requirements	100 V to 240 V AC, 1.2 A to 0.5 A, 50/60 Hz 24V to 28V DC, 4.6A to 4.06 A
	Approx. 110 W (AC power supply), 100 W (DC power supply) (max.)



Power Consumption	Approx. 90 W (AC power supply), 80 W (DC power supply) (with BKM-243HS, average power consumption in the default status)
Inrush Current	(1) Power ON, current probe method: 20 A (100 V), 53 A (240V) (2) Hot switching inrush current, measured in accordance with European standard EN55103-1: 13 A (230 V)
Operating Temperature	0°C to 35°C (Recommended: 20°C to 30°C) 32°F to 95°F (Recommended: 68°F to 86°F)
Operating Humidity	0% to 90% (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) *2	436 x 265.8 x 278.6 mm 17 1/4 x 10 1/2 x 11 inches
Mass	Approx. 11.0 kg Approx. 24 lb 4 oz
Supplied Accessories	AC power cord (1) AC plug holder (1) Rack mount bracket (Left, right, each 1) Rack mount attachment screws (6) Connection Cable for Color Temperature Probe (1) Operation Manual (Japanese, English, each 1) CD-ROM (1) Using the CD-ROM Manual (1)
	BKM-16R Monitor Control Unit BKM-39H Controller Attachment Stand SMF-700 Monitor Interface Cable BKM-220D SDI 4:2:2 Input

## Optional Accessories

Adaptor (with serial number 2100001 or higher)  
BKM-227W NTSC/PAL  
Input Adaptor  
BKM-229X Analog  
Component Input Adaptor (with serial number 2200001 or higher)  
BKM-243HS HD/D1-SDI  
Input Adaptor (with serial number 2108355 or higher)  
BKM-244CC HD/SD-SDI  
Closed Caption Adaptor  
BKM-250TG 3G/HD/SD-SDI  
Input Adaptor (with serial number 7100001 or higher)

## Notes

### Note

\*1 The PVM-L1700 individual chromaticity points. The widest color space setting of the signal is reproduced by the PVM-L1700. R ( $x = 0.645, y = 0.330$ )/G ( $x = 0.267, y = 0.634$ )/B ( $x = 0.150, y = 0.060$ ) (typical)  
\*2 The values for dimensions are approximate.

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for customers in the  
USA

Lamp in this product contains mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or see [www.sony.com/mercury](http://www.sony.com/mercury) for additional information.

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## Gallery



