

SONY

LMD-2020
LMD-1420
LMD-2010
LMD-1410



LCD Monitors

A new range of LMD Series monitors optimised for SD signal monitoring

Sony expands its product line of LMD Series LCD monitors with the introduction of four new models – the 20-inch*¹ LMD-2020 and LMD-2010, and the 14-inch*² LMD-1420 and LMD-1410.

Combining years of professional monitor expertise together with the use of extremely high-grade LCDs, these monitors offer the performance to replace conventional CRT monitors – and match the quality you have come to expect of the Sony PVM-L2 and PVM-L1 line of monitors. What makes these LCD monitors so unique is their superb picture performance in reproducing SD video images. This has been achieved by the use of specially selected VGA resolution (640 x 480 pixel) LCD panels – the natural choice to minimise the effect of converting the input signal's line count to match the LCD's vertical pixel count, a process required in all LCD monitors purposed for video monitoring. Combined with their rich and stable colour, the result is image reproduction which is both much sharper and more natural.

In addition to their many professional features, these monitors are equipped with all types of interlace SD inputs – from analogue composite and Y/C (S-video) to analogue component and RGB. The LMD-2020 and LMD-1420 add the further capability to accept digital SD-SDI*³ inputs.



Designed to meet the critical requirements of professional video monitoring, these new LMD Series LCD monitors are the ideal choice for a smooth migration into the LCD world.

*1 20-inch viewable area measured diagonally.

*2 14-inch viewable area measured diagonally.

*3 The optional BKM-320D is required.

Main Features

High Picture Quality

Precise Reproduction of Interlace SD Images

The new LMD Series LCD monitors incorporate VGA-type LCD panels with 640 x 480 pixel resolution, for precise reproduction of interlace SD video images.

To display an interlace signal on a progressive LCD monitor, it must first be converted to a progressive signal using I/P conversion. In this process, the absent lines of the interlace field are interpolated using data from the previous field, or data from adjacent lines within the same field. A second process, called 'scaling', is then executed to match the input signal's line count to the vertical resolution of the LCD display. However, since scaling involves duplication or removal of scanning lines, it can have a large effect on picture quality in image areas where I/P conversion is difficult to achieve.

To minimise this effect, the LMD-2020, LMD-1420, LMD-2010, and LMD-1410 use specially selected VGA (640 x 480 pixels) LCDs, which allow moderate scaling for the reproduction of 525 and 625 interlace signals. The result is precise image reproduction for any type of picture content.

Excellent Brightness and Contrast

The new LMD Series monitors incorporate extremely bright, high-contrast 4:3 aspect ratio LCD panels which are coated with robust protection layers. The LMD-2020 and LMD-1420 in particular incorporate multi-layer AR (Anti-Reflection) coated protection panels for further robustness.

Faithful Colour Reproduction

The LCDs used in the new LMD Series monitors provide pure colour characteristics that are optimised for video monitoring.

Input Versatility

The LMD-2020, LMD-1420, LMD-2010, and LMD-1410 come equipped with a full range of analogue SD inputs including analogue composite for NTSC and PAL, Y/C and 525i or 625i component and RGB. The LMD-2020 and LMD-1420 add SD-SDI input capability thanks to the optional BKM-320D input adaptor.

Wide Viewing Angle of 170 degrees

Convenient Installation

The LMD-2020, LMD-1420, LMD-2010, and LMD-1410 offer a high level of installation convenience. Compared to their PVM monitor equivalents, they are approximately 40% slimmer, 30-50% lighter and consume 20% less power.

Mounting Flexibility

The VESA®- compatible mounting holes (100 pitch spacings) are available for arm installations. EIA 19-inch standard rack mounting is also possible.

Operational Convenience

The LMD-2020, LMD-1420, LMD-2010 and LMD-1410 monitors provide the convenient features for which Sony professional monitors are renowned.

	LMD-2020	LMD-2010
	LMD-1420	LMD-1410
4:3 Marker and Safety Area Marker	■	—
Colour temperature/gamma selection	■	■
Blue-only mode	■	—
Three-colour tally	■	—
Protected controls	■	■
Monaural audio monitoring	■	■
Switchable aspect ratio to 16:9	■	■
4:3 Zoom	■	—
External Sync	■	—
Parallel Control	■	■
SDI*4 Input	●	—
19-inch EIA Standard Rack Mounting	■*5	■*5
VESA (100 x 100 spacing) Mounting	■	■

*4 The optional BKM-320D is required.

*5 The optional MB-527 mounting bracket is required for the LMD-2020 and LMD-2010. The MB-526 is required for the LMD-1420 and LMD-1410.

LMD-2020 LMD-1420 LMD-2020/LMD-1420 Connector Panel*6

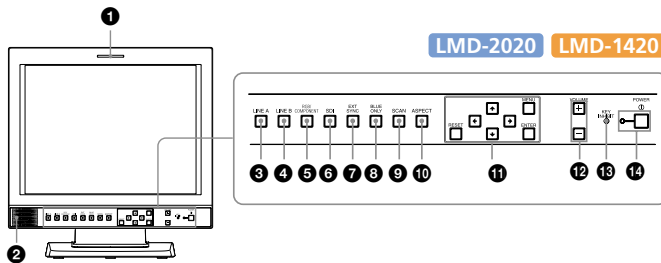


LMD-2010 LMD-1410 LMD-2010/LMD-1410 Connector Panel*6

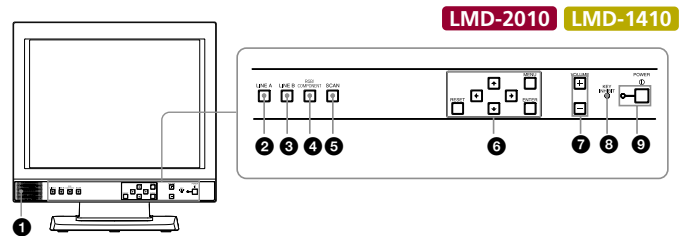


*6 The supplied monitor stand is detachable.

Front Panel

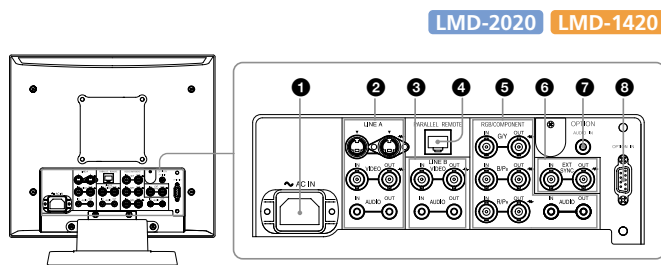


- 1 Tally lamp 2 Speakers 3 Line A Button 4 Line B Button
- 5 RGB/COMPONENT button 6 SDI button 7 EXT SYNC (external sync) button
- 8 BLUE ONLY button 9 SCAN select button 10 ASPECT select button
- 11 Menu operation buttons 12 VOLUME buttons 13 KEY INHIBIT indicator
- 14 POWER switch and indicator

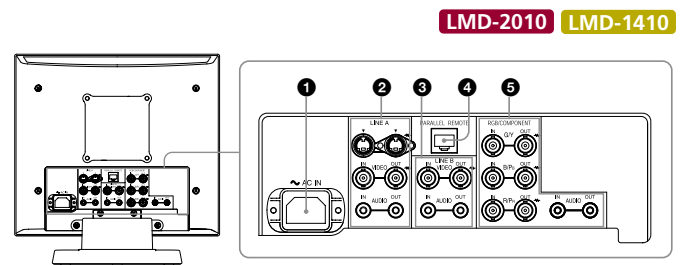


- 1 Speakers 2 Line A Button 3 Line B Button 4 RGB/COMPONENT button
- 5 SCAN select button 6 Menu operation buttons 7 VOLUME buttons
- 8 KEY INHIBIT indicator 9 POWER switch and indicator

Connector Panel

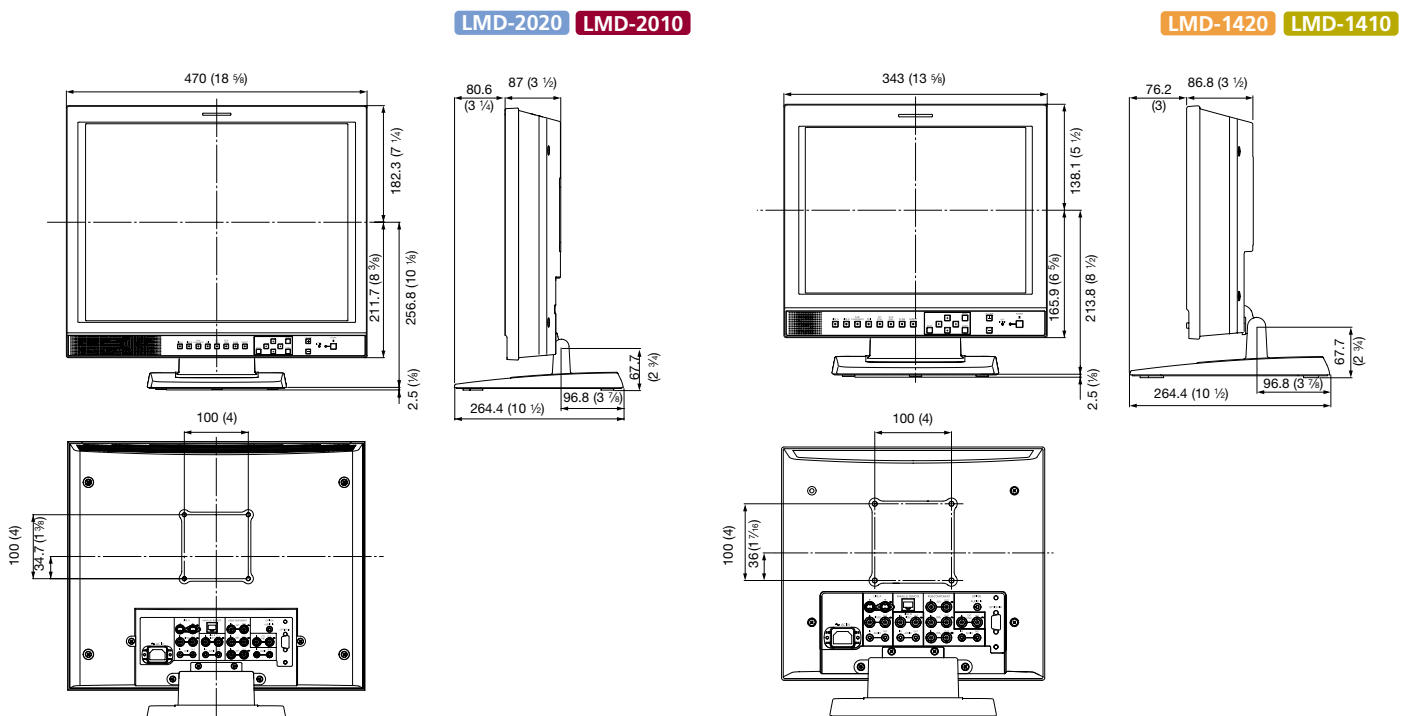


- 1 AC IN socket 2 LINE A [composite (BNC), Audio (4 pin mini-DIN), Audio (RCA pin)]
- 3 LINE B [composite (BNC), Audio (RCA pin)] 4 PARALLEL REMOTE terminal (modular connector)
- 5 RGB/COMPONENT connectors 6 EXT SYNC IN/OUT (external sync) connectors (BNC)
- 7 OPTION AUDIO IN connector 8 OPTION IN connector for SD-SDI board (BKM-320D)



- 1 AC IN socket 2 LINE A [composite (BNC), Audio (4 pin mini-DIN), Audio (RCA pin)]
- 3 LINE B [composite (BNC), Audio (RCA pin)] 4 PARALLEL REMOTE terminal (modular connector)
- 5 RGB/COMPONENT connectors

Dimensions Unit: mm (inches)



Specifications

Model Name

LMD-2020

LMD-1420

LMD-2010

LMD-1410

Picture Performance					
LCD Panel	Type	A-Si TFT Active Matrix LCD with an AR-coated protection panel		A-Si TFT Active Matrix LCD	
	Resolution	640 x 480 dots			
	Pixel efficiency	99.99%			
	Dot pitch	0.213(H) x 0.638(V) mm	0.443(H) x 0.443(V) mm	0.213(H) x 0.638(V) mm	0.443(H) x 0.443(V) mm
	Picture Size (H x W)	Approx. 408 x 306 mm (Approx. 16 1/8 x 12 1/8 inches)	Approx. 283 x 212 mm (Approx. 11 1/4 x 8 3/8 inches)	Approx. 408 x 306 mm (Approx. 16 1/8 x 12 1/8 inches)	Approx. 283 x 212 mm (Approx. 11 1/4 x 8 3/8 inches)
	(Diagonal)	510 mm (20.1 inch)	354 mm (14 inch)	510 mm (20.1 inch)	354 mm (14 inch)
	Aspect	4:3			
	Colours	Approx. 16,700,000 colours	Approx. 16,200,000 colours	Approx. 16,700,000 colours	Approx. 16,200,000 colours
	Viewing Angle	85°/85°/85°/85° (U/D/L/R, contrast >10:1 typical)			
	Input				
Line A	Composite	BNC X 1, 1.0Vp-p±3dB, 75 Ω termination, Sync 0.3 Vp-p negative			
	Y/C	DIN 4 pin x 1, Y: 1.0Vp-p±3dB, 75 Ω termination, C: 0.286Vp-p±3dB (NTSC), 0.3Vp-p±3dB (PAL), 75 Ω termination, Sync 0.3 Vp-p negative			
Line B	Audio in	RCA pin x 1, -5dBu 47 kΩ or higher			
	Composite	BNC X 1, 1.0Vp-p±3dB, 75 Ω termination, Sync 0.3 Vp-p negative			
RGB/Component	Audio in	RCA pin x 1, -5dBu 47 kΩ or higher			
	RGB/Component	BNC X 3, 0.7Vp-p±3dB, 75 Ω termination, Sync on Green 0.3Vp-p, negative			
Option	SD-SDI	D-sub 9-pin x 1		—	
	Audio in	RCA pin x 1, -5dBu 47 kΩ or higher		—	
External Sync		BNC X 1		—	
Remote	Parallel remote	Modular 8-pin (Assignable)			
	Audio in	Controlled through parallel remote (Modular 8-pin)		—	
Output					
Line A	Composite	BNC X 1, Loop-through, with 75 Ω automatic termination			
	Y/C	DIN 4 pin x 1, Loop-through, with 75 Ω automatic termination			
	Audio in	RCA pin x 1, Loop-through			
Line B	Composite	BNC X 1, Loop-through, with 75 Ω automatic termination			
	Audio in	RCA pin x 1, Loop-through			
RGB/Component	RGB/Component	BNC X 3, Loop-through, with 75 Ω automatic termination			
	Audio in	RCA pin x 1, Loop-through			
External Sync		BNC X 1, Loop-through, with 75 Ω automatic termination		—	
Speaker power		0.5 W (monaural)			
General					
Power Consumption	Approx. 87 W	Approx. 51 W	Approx. 84 W	Approx. 48 W	
Power Requirement	AC 100 to 240 V, 50/60 Hz				
Operating Temperature	0 to 35 °C				
Operating Humidity	30 to 85% (No condensation)				
Storage & Transport Temperature	-10 to 40 °C				
Storage & Transport Humidity	0 to 90%				
Operating/Storage/Trans. Pressure	700 to 1060 hPa				
Dimensions (W x H x D)					
Dimensions with stand	Approx. 470 x 441 x 264 mm (Approx. 18 5/8 x 17 3/8 x 10 1/2 inches)	Approx. 343 x 354 x 264 mm (Approx. 13 5/8 x 14 x 10 1/2 inches)	Approx. 470 x 441 x 264 mm (Approx. 18 5/8 x 17 3/8 x 10 1/2 inches)	Approx. 343 x 354 x 264 mm (Approx. 13 5/8 x 14 x 10 1/2 inches)	
Dimensions without stand	Approx. 470 x 394 x 87 mm (Approx. 18 5/8 x 15 5/8 x 3 1/2 inches)	Approx. 343 x 304 x 87 mm (Approx. 13 5/8 x 12 x 3 1/2 inches)	Approx. 470 x 394 x 87 mm (Approx. 18 5/8 x 15 5/8 x 3 1/2 inches)	Approx. 343 x 304 x 87 mm (Approx. 13 5/8 x 12 x 3 1/2 inches)	
Mass					
Panel & Stand	Approx. 9.2 kg (Approx. 20 lb 5 oz)	Approx. 6.8 kg (Approx. 14 lb 16 oz)	Approx. 8.7 Kg (Approx. 19 lb 3 oz)	Approx. 6.5 Kg (Approx. 14 lb 5 oz)	
Panel only	Approx. 7.5 kg (Approx. 16 lb 9 oz)	Approx. 5.1 kg (Approx. 11 lb 4 oz)	Approx. 7.0 Kg (Approx. 15 lb 7 oz)	Approx. 4.8 Kg (Approx. 10 lb 9 oz)	

Optional Accessories



BKM-320D
SD-SDI Input Adaptor

LMD-1410
LMD-1420
LMD-2010
LMD-2020



MB-527
Mounting Bracket
for 20-inch monitor

LMD-2010
LMD-2020



MB-526
Mounting Bracket
for 14-inch monitor

LMD-1410
LMD-1420

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