SONY®

The LMD-9020 is a cost-effective addition to the 8.4-inch* handheld-type LUMA Professional LCD Monitors, offering the performance to replace CRT monitors with the quality expected from the PVM-9L2 range.

The LCD panel of the LMD-9020 offers high resolution and excellent color reproduction, combined with high contrast and high brightness. This monitor also has a wide viewing angle, plus a high level of robustness thanks to its AR-coated protection panel.

As standard, the LMD-9020 accepts a variety of analog formats from SD to HD. The unit can be AC, DC, or battery powered. And, with its slim design and half-rack width, the LMD-9020 can be conveniently used on a lap, desktop, or mounted in a rack for ENG and EFP operations, as well as in mobile applications and studios. The LMD-9020 also offers the familiar operational features inherited from the Sony PVM Series of CRT monitors.

The combination of all these features makes the LMD-9020 a perfect choice for a smooth migration from CRT to LCD.

* Viewable area, measured diagonally

Features

■■ Input Versatility

The LMD-9020 provides a range of analog inputs as standard. For typical SD video monitoring, analog composite (NTSC/PAL), analog component/RGB (525/60i and 625/50i), and Y/C (S-Video) signals are accepted. The LMD-9020 also accepts a variety of analog progressive SD and HD formats, including 480/60P and 576/50P, and high-definition 1080/60i, 1080/50i, 720/50P and 720/60P. It can also accept 1080/24PsF.

■■ High Picture Quality – High Purity Panel

The LMD-9020 uses a VGA (640 x 480) resolution LCD panel, with high purity color filters. The result is high-brightness, high-contrast images with precise color reproduction. Also, the LMD-9020 provides a wide 170-degree viewing angle, both vertically and horizontally.

In addition, its robust AR-coated protection layer minimizes the chance of the panel being scratched during transportation – an extremely important criteria for use in the field or in any mobile application.

■■ ENG KIT

The LMD-9020 is a strategic choice for use in ENG and EFP field operations. When compared to CRT displays, the picture contrast of these monitors is much less affected by ambient light, allowing clear images to be viewed even under strong sunlight. For further protection, the optional VF-509 ENG kit provides a viewing hood, carrying handle, and connector protector.

■■ Convenient Installation

The LMD-9020 is 5U high and half-rack wide. Using the optional MB-525 Mounting Bracket with a nine-step tilt capability, two units can be installed side-by-side in a 19-inch EIA standard rack.

■■ Other Features

- 4:3/16:9 Switchable Display
- Selectable Scan Size
- Advanced Marker Settings
- Color Temperature/Gamma Selection
- Three-color Tally
- Parallel Remote Control
- Monaural Audio Monitoring
- Protected Controls
- Setup Level for Analog Component and NTSC signal
- Sub Control on Contrast, Chroma, Phase, and Brightness
- Blue-only mode
- Monochrome mode
- Power-saving Function
- 4:3 Zoom

Input Signals

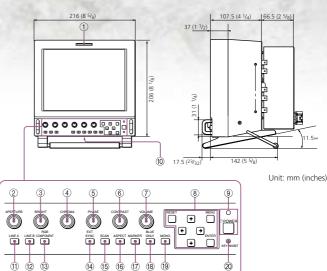|	System	Input Signal			Standard Interface	
		Total Lines	Active Line	Aspect Ratio	Composite Y/C (x 1)	RGB Component (x 1)
LMD-9020	575/50i	625	575	16:9/4:3	O	O
	480/60i*	525	483	16:9/4:3	O	O
	480/60P	525	483	16:9/4:3	—	O
	576/50P	625	576	16:9/4:3	—	O
	1080/24PsF	1125	1080	16:9	—	O
	1080/50i	1125	1080	16:9	—	O
	1035/60i*	1125	1035	16:9	—	O
	1080/60i*	1125	1080	16:9	—	O
	720/50P	750	720	16:9	—	O
	720/60P	750	720	16:9	—	O

* Also accepts 59.94Hz field rate.

Specifications

LMD-9020

Picture Performance

Type	a-Si TFT Active Matrix LCD with a multi-layer AR-coated protection panel
Resolution	640 x 680 dots
Pixel efficiency	99.99%
Picture Size (H x W), (Viewable area) (Diagonal)	Approx. 170.9 x 128.2 mm, (Approx. 6 $3/4$ x 5 $1/8$ inches) 213.6 mm (8.4-inch)
Aspect	4:3
Colors	16,770,000 colors
Viewing Angle	85°/85°/85°/85° (typical) (up/down/left/right contrast>10:1)

Input

Line A	Composite	BNC x 1, 1.0 Vp-p +3dB, -6 dB sync negative
	Y/C	4-pin mini-DIN x 1 Y : 1.0 Vp-p + 3dB, -6 dB sync negative C : 0.286 Vp-p ±3 dB (NTSC), 0.3 Vp-p ±3 dB (PAL)
	Audio	Mini jack x 1, -5 dBu 47 kΩ or higher
Line B	Composite	BNC x 1, 1.0 Vp-p +3 dB, -6 dB sync negative
	Audio	Mini jack x 1, -5 dBu 47 kΩ or higher
RGB/ Component	RGB/Component	BNC x 3, RGB input : 0.7 Vp-p +3 dB, -6 dB (Sync On Green, 0.3 Vp-p sync negative) Component input : 0.7 Vp-p +3 dB, -6 dB (75% chrominance standard color bar signal)
	Audio	Mini jack x 1, -5 dBu 47 kΩ or higher
Ext.sync		BNC x 1, 0.3 to 4 Vp-p ± bipolarity ternary or negative polarity binary
Remote	Parallel remote	Modular connector 8-pin x 1(Assignable)

Output

Line A	Composite	BNC x 1, Loop-through, with 75 Ω automatic termination
	Y/C	4-pin mini-DIN x 1, Loop-through, with 75 Ω automatic termination
Line B	Composite	BNC x 1, Loop-through, with 75 Ω automatic termination
Audio output		Mini jack x 1, Loop-through
Headphones output		Mini jack x 1(Monaural), Loop-through
Speaker output		0.5 W (Monaural)

General

Power Consumption		Approx. 15 W, With AC Adaptor : Approx. 20 W
Power requirement		AC 100 to 240 V, 50/60 Hz, 0.82 to 0.42 A, DC 12 V 1.5 A, Rechargeable Battery Pack
Operating Temparature		0 to 40 °C
Operating Humidity		30 to 85 % (No condensation)
Operating/Storage/Trans. Pressure		700 to 1060 hPa
Storage & Transport Temperature		-20 to 60 °C
Storage & Transport Humidity		0 to 90 %
Dimensions (W x H x D)		Approx. 216 x 206 x 136.1 mm (8 $5/8$ x 8 $1/8$ x 5 $3/8$ inches)
	Dimension with the supplied stand	Approx. 216 x 230 x 159.5 mm (8 $5/8$ x 9 $1/8$ x 6 $3/8$ inches)
	Dimension with the supplied stand and AC adaptor	Approx. 216 x 230 x 210 mm (8 5/8 x 9 1/8 x 8 3/8 inches)
Mass		Approx. 2.8 Kg (6 lb 3 oz)
	With the supplied stand	Approx. 3.0 Kg (6 lb 10 oz)
	With the supplied stand and AC adaptor	Approx. 3.7 Kg (8 lb 3 oz)
Supplied Accessories		AC adaptor (1), AC Cord (1), AC plug holder (1), Operating instructions (1), CD-ROM (1), Warranty card (1), Using the CD-ROM Manual (1)

Optional Accessories

- **MB-525** — Mounting Bracket
- **VF-509** — ENG Kit (Viewing Hood, Carrying Handle and Connector Protector)
- **BP-GL95/BP-GL65** — Rechargeable Lithium-ion Battery Pack
- **BP-L60S** — Lithium-ion Battery Pack
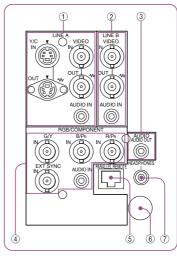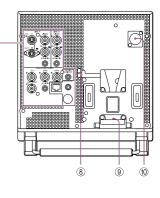- **BC-L70** — Lithium-ion Battery Charger

Dimensions & Control Panel

Unit: mm (inches)

① Tally lamp
② APERTURE
③ BRIGHT (brightness)
④ CHROMA
⑤ PHASE
⑥ CONTRAST
⑦ VOLUME
⑧ Menu operation buttons
⑨ POWER switch and indicator
⑩ Speaker
⑪ LINE A
⑫ LINE B
⑬ RGB/COMPONENT
⑭ EXT SYNC (external sync)
⑮ SCAN select
⑯ ASPECT select
⑰ MARKER
⑱ BLUE ONLY
⑲ MONO
⑳ KEY INHIBIT indicator

Connector Panel

① Line A
 • Y/C In/Out (4-pin mini-DIN x 2)
 • Composite In/Out (BNC x 2)
 • Audio In (mini jack x 2)
② Line B
 • Composite In/Out (BNC x 2)
 • Audio In (mini jack)
③ Audio Out (mini jack)
④ RGB/Component
 • G/Y, B/Pв, R/Pв IN (BNC x 3)
 • EXT Sync (BNC x 1)
 • Audio In (mini jack)
⑤ Parallel Remote (modular 8-pin)
⑥ Service Terminal
⑦ Headphones Jack
⑧ AC Adaptor Eject button
⑨ AC adaptor Attachment place
⑩ DC 12V In (XLR-type 4-pin)

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