SONY

NTSC/PAL/SECAM/NTSC4.43

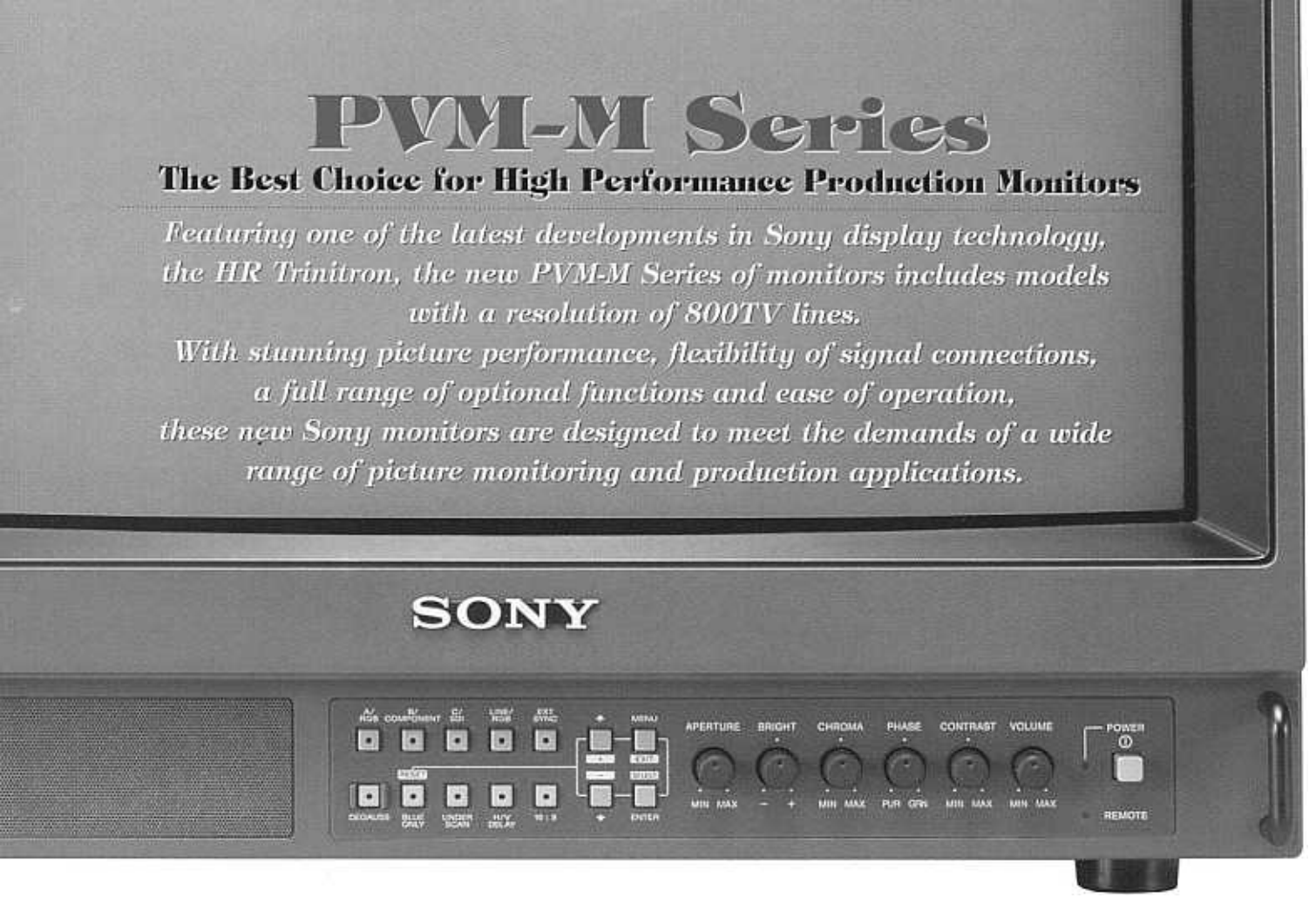
Color Video Monitor

PVM-20M4U/20M2U
PVM-14M4U/14M2U

PVM-M Series

The Best Choice for High Performance Production Monitors

Featuring one of the latest developments in Sony display technology, the HR Trinitron, the new PVM-M Series of monitors includes models with a resolution of 800TV lines. With stunning picture performance, flexibility of signal connections, a full range of optional functions and ease of operation, these new Sony monitors are designed to meet the demands of a wide range of picture monitoring and production applications.



Superior Picture Performance

◆ High resolution

The newly developed HR Trinitron® CRT enables the PVM-20M4U/14M4U to achieve the high resolution of 800TV lines. The PVM-20M2U/14M2U provide a 600TV line resolution, with a dark tint CRT for high contrast images.

Horizontal Resolution
800/600
LINES

◆ Accurate color matching

SMPTE-C standard phosphor CRTs are incorporated in the PVM-20M4U/14M4U. The accuracy of color reproduction achieved by these monitors makes them ideal for applications which require precise color reproduction.

◆ Beam Current Feedback circuit

Because monitor white balance is prone to drift during continuous operation over a long period of time, PVM-M Series monitors are equipped with a beam current feedback circuit. This corrects for white balance drift and resuls in long-term stability of color reproduction.

◆ NTSC comb filter

Accurate luminance/chrominance separation can be attained with the NTSC comb filter with enhanced pulse response characteristics.

Input flexibility

◆ Versatile analog signal inputs

PVM-M Series models are equipped with input connectors for component (Y/R-Y/B-Y), RGB, Y/C and composite signals for system flexibility. Furthermore, for accurate reproduction, the component level can be adjusted according to the input system.

◆ Worldwide TV standards

The PVM-M Series accepts NTSC, PAL and SECAM signals. NTSC4.43 can also be reproduced.

◆ Component serial digital interface option

Inserting the optional serial digital interface kits BKM-101C (video) and BKM-102 (audio) into a monitor allows the PVM-M Series to accept SMPTE 259M component serial digital signals.

SDI

◆ Caption vision (closed caption) decoder is built-in

◆ External sync

The monitor can accept external sync signal for synchronization with other equipment. The external sync can be set so that it will automatically switch according to the input selected.

Specification

PVM-20M4U

PVM-14M4U

PVM-20M2U

PVM-14M2U

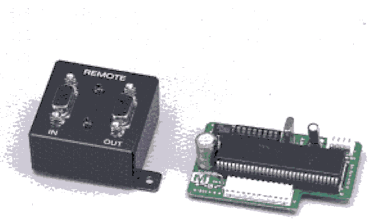
		PVM-14M4U
CRT	AG pitch	0.25mm
	phosphor	SMPTE-C
	CRT size	37.1cm (14-inch) diagonally
	Visible picture size	33.2cm (13-inch) diagonally
Resolution		800TV lines
Color system		NTSC, PAL, SECAM, NTSC4.43
Aperture correction		0 to +6dB
Frequency response		LINE: 10.0 MHz (±3dB) *Y signal only
		RGB: 10.0 MHz (±3dB)
Synchronization		AFC time constant 1.0mS
Normal scan		7% over scan
Under scan		5% under scan
Linearity		H: less than 4%
		V: less than 4%
Convergence		center: 0.4mm (typical)
		peripheral: 0.5mm (typical)
Raster size stability		H: 1.0%
		V: 1.5%
HV regulation		3.5%
Color temperature		D65, D93, USER (3200K to 10000K)
Audio out		0.8W (distortion: less than 5%)
Power consumption		90W (with SDI: 99W)
AC input range		AC100 to 240V (50/60Hz)
Operation temperature		0° to 35°C
Storage temperature		-10° to 40°C
Operating humidity		35 to 85% (no condensation)
Storage humidity		0 to 90%
Pressure		880 to 1060hPa
Dimensions		346 x 340 x 431mm (w x h x d)
		13 5/8 x 13 1/2 x 17 inches
Mass		16.7kg (including SDI: 17.7kg)
		36lb 13oz (38lb 16oz)

PVM-14M4U / PVM-14M2U / PVM-20M4U / PVM-20M2U	
Inputs / Outputs	LINE A/B
	1.0Vp-p±6dB
	Loop-through BNC automatic 75Ω termination
	LINE C
	Y: 1.0Vp-p±6dB
	C: 0.3Vp-p±6dB
	Loop-through Mini DIN 4-pin automatic
	75Ω termination
	RGB / Component (selectable)
	R/R-Y: 0.7Vp-p±6dB
	G: 0.7Vp-p±6dB
	Sync on G: 0.3Vp-p±6dB
	Y: 0.7Vp-p±6dB
	B/B-Y: 0.7Vp-p±6dB
	Loop-through BNC automatic 75Ω termination
	Ext. Sync
	4Vp-p±6dB, negative
	Loop-through BNC automatic 75Ω termination
Safety Standards	UL-1950/CSA-950, DHHS/DNHW, FCC Class A/IC Class A

PVM-14M2U	PVM-20M4U	PVM-20M2U
0.25mm	0.31mm	0.4mm
P-22	SMPTE-C	P-22
37.1cm (14-inch) diagonally	53.3cm (20-inch) diagonally	53.3cm (20-inch) diagonally
33.2cm (13-inch) diagonally	48.3cm (19-inch) diagonally	48.0cm (19-inch) diagonally
600TV lines	800TV lines	600TV lines
NTSC, PAL, SECAM, NTSC4.43	NTSC, PAL, SECAM, NTSC4.43	NTSC, PAL, SECAM, NTSC4.43
0 to +6dB	0 to +6dB	0 to +6dB
LINE: 10.0 MHz (±3dB) *Y signal only	LINE: 10.0 MHz (±3dB) *Y signal only	LINE: 10.0 MHz (±3dB) *Y signal only
RGB: 10.0 MHz (±3dB)	RGB: 10.0 MHz (±3dB)	RGB: 10.0 MHz (±3dB)
AFC time constant 1.0mS	AFC time constant 1.0mS	AFC time constant 1.0mS
7% over scan	7% over scan	7% over scan
5% under scan	5% under scan	5% under scan
H: less than 4%	H: less than 5%	H: less than 5%
V: less than 4%	V: less than 5%	V: less than 5%
center: 0.4mm (typical)	center: 0.5mm (typical)	center: 0.6mm (typical)
peripheral: 0.5mm (typical)	peripheral: 0.7mm (typical)	peripheral: 1.0mm (typical)
H: 1.0%	H: 1.0%	H: 1.0%
V: 1.5%	V: 1.5%	V: 1.5%
3.5%	4.0%	4.0%
D65, D93, USER (3200K to 10000K)	D65, D93, USER (3200K to 10000K)	D65, D93, USER (3200K to 10000K)
0.8W (distortion: less than 5%)	0.8W (distortion: less than 5%)	0.8W (distortion: less than 5%)
90W (with SDI: 99W)	125W (with SDI: 135W)	115W (with SDI: 125W)
AC100 to 240V (50/60Hz)	AC100 to 240V (50/60Hz)	AC100 to 240V (50/60Hz)
0° to 35°C	0° to 35°C	0° to 35°C
-10° to 40°C	-10° to 40°C	-10° to 40°C
35 to 85% (no condensation)	35 to 85% (no condensation)	35 to 85% (no condensation)
0 to 90%	0 to 90%	0 to 90%
880 to 1060hPa	880 to 1060hPa	880 to 1060hPa
346 x 340 x 431mm (w x h x d)	450 x 458 x 503mm (w x h x d)	450 x 458 x 503mm (w x h x d)
13 5/8 x 13 1/2 x 17 inches	17 3/4 x 18 1/8 x 19 7/8 inches	17 3/4 x 18 1/8 x 19 7/8 inches
16.7kg (including SDI: 17.7kg)	30.0kg (including SDI: 31.0kg)	30.0kg (including SDI: 31.0kg)
35lb 4oz (39lb 10oz)	66lb 2oz (68lb 5oz)	66lb 2oz (68lb 5oz)

	PVM-14M4U	PVM-14M2U	PVM-20M4U	PVM-20M2U
Supplied accessories	20-pin remote cable / Tally label / AC cord / AC plug holder / Operation manual			
Optional accessories	BKM-101C (Component serial digital interface kit (video))		BKM-101C (Component serial digital interface kit (video))	
	BKM-102 (Component serial digital interface kit (audio))		BKM-102 (Component serial digital interface kit (audio))	
	BKM-103 (Serial remote control kit for RS422)		BKM-103 (Serial remote control kit for RS422)	
	MB-502B (Rack mounting bracket)		SLR-103A (Slide rail)	
	SLR-102 (Slide rail)		TU-1041U (Tuner unit)	
	TU-1041U (Tuner unit)			

BKM-101C/102
Component serial digital interface kit
101C (video) / 102 (audio)



BKM-103
Serial remote control kit for RS422

TU-1041U Tuner unit

Advanced Operational Functions

◆4:3/16:9 capability
By pressing a front panel button, the aspect ratio can be switched between 4:3 and 16:9.

◆Switchable color temperature
Color temperature can be changed to D65, D93 or user preset (3200K to 10000K).

◆Blue Only mode
Noise on signals can be precisely evaluated. Chroma/Phase adjustments can be easily made with the monochrome display in the Blue only mode.

◆Underscan, H/V delay capability
When the Underscan mode is selected, the entire active picture area is displayed. This makes it possible to view the entire image to check picture edges. The H/V delay function allows viewing of the blanking area and sync/burst signal by displaying the horizontal and vertical intervals in the center of the screen.

◆Automatic Color Control (ACC) OFF mode
The Automatic Color Control function can be turned off for accurate color signal evaluation.

◆Auto/Manual Degaussing
When the power is turned on, the CRT is automatically degaussed. Degaussing can also be initiated by pressing the Manual Degauss button.

Ease of Operation

◆Auto Chroma/Phase Setup
An Auto Chroma/Phase Setup mode facilitates the complex, delicate procedure of monitor adjustment. Using broadcast standard color bars as a reference, this function automatically calibrates chroma and phase. This is very convenient with computer-based editing systems to align the color reproduction of the video output signals.

◆On-screen menu
The PVM-M Series provide a variety of on-screen menus for monitor adjustment/operation. One example is the STATUS menu, for setting parameters such as color system, color temperature, etc. and whether any optional board is installed. The on-screen menu display can be selected to English, French, German, Spanish or Italian.

◆Remote/Tally
Parallel remote control and Tally can be operated via a 20-pin connector.

◆Serial Remote Control option
The monitor can be serially remote controlled by installing the optional BKM-103 RS-422 serial remote control kit.

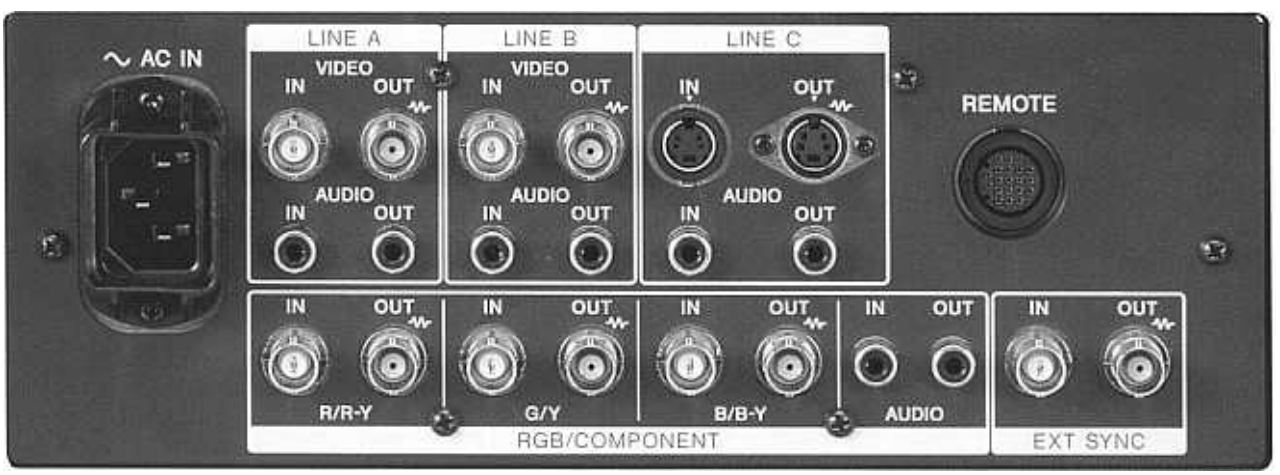
◆Sub-control mode
In this mode, the adjustment range of the Contrast, Brightness, Chroma and Phase controls can be shifted. A particular level can be set for the center click position of each control so that multiple monitors to all be set to the same reference level.

◆User preset memory
In addition to controls on the front panel, a user memory is available for Brightness, Chroma, Phase, Contrast, Aperture and Volume control settings in the menu mode.

Others

◆VLF (Very Low Frequency) Operation
PVM-20M4U/14M4U minimizes magnetic field emission.

◆Mountable in a 19-inch EIA standard rack
PVM-20M4U/20M2U can be mounted in a 19-inch EIA standard rack with the optional slide rail kit SLR-103A.
PVM-14M4U/14M2U can be mounted in a 19-inch EIA standard rack with the optional rack mounting bracket MB-502B and slide rail kit SLR-102.



Rear Panel Connector Section

SONY

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