

**SONY**<sup>®</sup>

**Colour Video Monitors**

**PVM-9045QM/9042QM/9040ME**  
**PVM-6041QM**



**T**he pursuit of excellence in both picture performance and operational features has always been the key factor in the success of Sony professional monitors. The Sony PVM-9045QM, 9042QM, 9040ME and the PVM-6041QM Video Monitors incorporate this concept in their design and embody the outstanding reliability and superb picture quality that are essential in professional image display devices. With models that offer a range of features, these new additions to the PVM Series offer the flexibility that matches a broad spectrum of requirements. Looking at the specifications of individual models, the PVM-9045QM is a picture evaluation monitor incorporating an HR (High Resolution) Trinitron® CRT that provides an excellent centre resolution of 450 TV lines. The PVM-9042QM and 6041QM are suitable for use as functional monitors in multi-purpose applications. The PVM-9045QM, 9042QM and 6041QM are equipped with a component (Y/R-Y/B-Y or RGB) input facility and can be operated on AC and DC power supplies for ENG/EFM applications. They can also accept both 4:3 and 16:9 aspect ratio signals. Alternatively, for basic 4:3 monitoring, the PVM-9040ME has composite video and Y/C inputs. These four monitors are also suited for studio installation with their rack mounting option. So whether the application is picture evaluation or basic video monitoring, in the studio or on location, this new range of compact monitors includes a model to meet your needs.



PVM-9045QM



PVM-9042QM

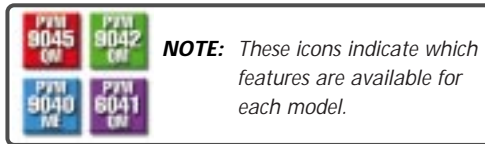


PVM-9040ME



PVM-6041QM

## Features



**NOTE:** These icons indicate which features are available for each model.

### High Quality Picture

#### High Resolution



The PVM-9045QM incorporates a HR (High Resolution) Trinitron CRT which provides a high horizontal resolution of 450 TV lines.

To achieve this stability, all these monitors have a beam current feedback circuit. This stabilizes the CRT drive by checking the cathode current at low-light signal levels. This effectively corrects black level drift, giving stable colour reproduction over a long period of time and compensating for changes in CRT characteristics.

#### Stable Colour Reproduction



Black level stability is a very significant parameter in professional monitoring because of its importance in providing stable, accurate colour reproduction.

### Input Facilities

#### Component (Y/R-Y/B-Y or RGB) Input



To maximize operational convenience and versatility, a component (Y/R-Y/B-Y or RGB) input is included. This enables the direct connection of equipment such as a Camera Control Unit (CCU) or a Betacam® VTR. In addition, the use of component signals ensures that a high quality picture is available for picture evaluation.

#### Y/C Input



In addition to composite inputs, a Y/C input is also provided so that luminance/chrominance video signals can be accepted. This minimizes cross colour/dot interference and realises high quality video pictures.

#### External Sync



These monitors 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.

### Convenient Operational Features

#### 16:9/4:3 Operation



The picture aspect ratio can be switched between 4:3 and 16:9, depending on the input signal. On the PVM-9045QM/9042QM, the "16:9" switch is provided on the front panel. On the PVM-6041QM\*, aspect ratio is selected with the slide switch mounted on the rear panel.

\* 16:9 aspect images are available only in the underscan mode.

#### Wired Remote Control Capability



Mode selection of H/V delay, 16:9/4:3 aspect ratio\*, Underscan and External sync, together with input selection, can be operated from a custom-made selector connected to the remote input with the supplied Mini DIN 8-pin connector. Tally on/off can also be controlled.

\* PVM-9045QM/9042QM only

#### Underscan Switch



In the Underscan mode, the picture size is reduced and the entire active picture is displayed on the screen. This facility allows picture edges to be observed.

#### AC/DC\* Operation



As well as operating from an AC power source, these monitors can be also powered from a 12 V DC source for field operation. The use of an optional DC-L10 Battery Adaptor allows the use of the same Lithium-ion batteries that power Sony camcorders. The monitors can also be optionally operated from one or two internal NP-1B Battery Packs internally or an external BP-90A Battery Pack with a DC-210 Battery Adaptor.

\* The monitors are not equipped with battery chargers. To charge batteries, an appropriate battery charger for each battery type must be used.

#### H/V Delay



With the H/V delay mode, both the horizontal and the vertical blanking areas can be displayed simultaneously for inspection of horizontal and vertical syncs.

#### Manual Degauss Switch



Manual degauss is available by pressing the "DEGAUSS" switch on the front panel.

#### Bias/Gain Control



Bias and Gain controls are provided on the front panel. Fine adjustment of white balance can be easily made from the front of the monitor while observing the screen.

#### Blue Only Mode



The Blue Only mode monochrome display allows easy VTR noise inspection and chroma adjustment.

# Features

## Additional Features

### EIA Standard Rack Mountable



Up to two 9-inch monitors\* or three PVM-6041QM models\* can be mounted side by side into an EIA standard rack with the optional MB-507 rack mounting bracket. Any empty spaces can be covered with optional blank panels.

\* Exclusive



### Audio Monitoring Facility



A speaker (0.5 W, monaural) is built into the monitor for sound monitoring.

### High Durability



The heavy-duty construction of these monitors copes with operation even under adverse conditions, with the metal cabinet minimizing electromagnetic interference between adjacent monitors. Whatever the application and situation, these rugged monitors can be always be relied on to provide a stable picture display.

### Worldwide TV Standards



Operation is fully compatible with the three major TV standards; PAL, SECAM and NTSC. NTSC<sup>4.43</sup> can also be reproduced.

### Carrying Handle



With their carrying handles, these monitors can be carried to any location.

### Monitor ENG Kit



The optional ENG kit\* contains a monitor hood and cord reel for operational convenience in the field.

\* VF-505 for the PVM-9045QM/9042QM and VF-504 for the PVM-6041QM



PVM-9045QM/PVM-9042QM



PVM-9040ME

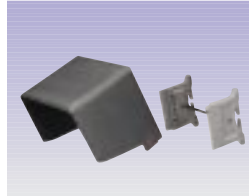


PVM-6041QM

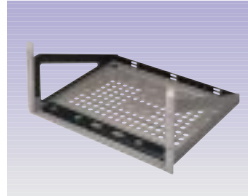
## Optional Accessories



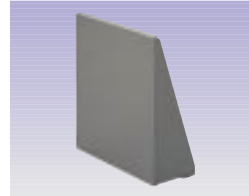
Monitor ENG Kit (Monitor hood and cord reel) for PVM-6041QM  
VF-504



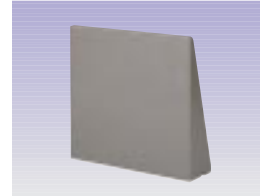
Monitor ENG Kit (Monitor hood and cord reel) for PVM-9045QM/9042QM  
VF-505



Rack Mounting Bracket  
MB-507



Blank Panel for PVM-6041QM  
MB-508



Blank Panel for PVM-9045QM/  
9042QM/9040ME  
MB-509



Car Battery Cord  
DCC-XLR4



Rechargeable Lithium-ion Battery Pack  
BP-L90A



Rechargeable Lithium-ion Battery Pack  
BP-L60A



Rechargeable Battery Pack  
NP-1B



Rechargeable Battery Pack  
BP-90A



Battery Case for BP-90A  
DC-210



Battery Charger for four BP-L60A or  
four BP-L90A  
BC-L100CE



Battery Charger for four NP-1B  
BC-1WDCE



Battery Charger for four NP-1B and  
four BP-90A  
BC-410CE



TV Tuner Unit  
TU-1040E

### Battery Adaptor

#### DC-L10

#### Features

- Attaches a rechargeable Lithium-Ion Battery Pack BP-L60A or BP-L90A to PVM-9045QM/9042QM/6041QM
- Retractable handle
- Easily detachable upper part of adaptor bracket

#### Specifications

##### ■ Operating time\*

BP-L60A	Approx. 100 min. (typical)
BP-L90A	Approx. 160 min. (typical)

\* Actual operating times may vary.

##### ■ Dimensions: 315 (W) x 146 (H) x 100 (D) mm (12 1/2 x 5 3/4 x 4 inches)

##### ■ Mass: With attachment frames for 9-inch monitor: 2.35 kg (5 lb 19 oz) With attachment frames for 6-inch monitor: 2.15 kg (4 lb 28 oz)

##### ■ DC output: DC 12 V, Right angle XLR 4-pin connector (female)

##### ■ DC fuse: 5 A

DC-L10  
with PVM-9045QM

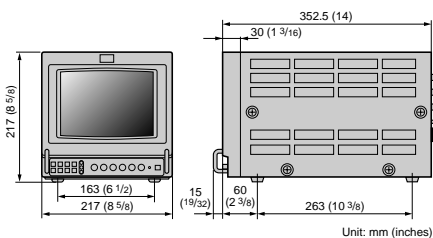


## Feature Reference Chart

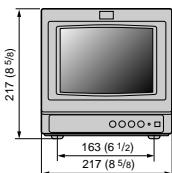
	PVM-9045QM PAL/SECAM/ NTSC/NTSC <sub>4.43</sub>	PVM-9042QM PAL/SECAM/ NTSC/NTSC <sub>4.43</sub>	PVM-9040ME PAL/SECAM	PVM-6041QM PAL/SECAM/ NTSC/NTSC <sub>4.43</sub>
Colour system				
Resolution (TV lines)	450	250	250	250
Composite video input	2	2	1	1
Y/C input	1	1	1	N
RGB/Component IN (3 BNC)	Y	Y	N	Y
Audio IN	3	3	1	2
Ext. sync IN	Y	Y	N	Y
Tally/Remote	Y	Y	N	Y
DC operation	Y	Y	N	Y
Switchable aspect ratio (4:3/16:9)	Y	Y	N	Y
Underscan	Y	Y	N	Y
H/V delay	Y	Y	N	Y
Blue only	Y	Y	N	Y
Bias/Gain control	Y	Y	N	N
MB-507 Rack mounting bracket	Y	Y	Y	Y
MB-508 Blank panel	N	N	N	Y
MB-509 Blank panel	Y	Y	Y	N
VF-504 Monitor ENG kit	N	N	N	Y
VF-505 Monitor ENG kit	Y	Y	N	N
DC-L10 Battery adaptor	Y	Y	N	Y

# Specifications

	9045QM	9042QM
<b>GENERAL</b>		
Colour system	PAL/SECAM/NTSC/NTSC <sub>4.43</sub>	
CRT type	22 cm (9-inch) HR Trinitron Tube, viewable area 19.1 cm (8-inch) measured diagonally, 70° deflection, AG pitch 0.25 mm	22 cm (9-inch) Trinitron tube, viewable area 19.7 cm (8-inch) measured diagonally, 70° deflection, AG pitch 0.5 mm
Resolution	Composite video: 450 TV lines at centre	Composite video: 250 TV lines at centre
Frequency response	6.0 MHz (-3 dB)	
Aperture correction	-4.0 dB to 6.0 dB (at 3.0 MHz)	
Synchronization	AFC time constant 1.0 ms	
Normal scan	6 % overscan	
Underscan	3 % underscan	
H linearity	Less than 5 % (typical)	
V linearity	Less than 5 % (typical)	
Convergence	Central: 0.43 mm (typical) Corner: 0.53 mm (typical)	
Raster size stability	H: 1.0 %, V: 1.5 %	
HV regulation	3.0 % (cut off to high light)	
Colour temperature	D 65	
Operating temperature	0 to 35° C (32 to 95° F)	
Storage temperature	-10 to 40° C (14° F to 104° F)	
Humidity	0 to 90 % (no condensation)	
Power requirements	AC: 100 to 240 V, 0.7 to 0.4 A, 50/60 Hz DC: 12 V, 3.7 A	
Power consumption	AC: 43 W, DC: 40 W	
<b>INPUT</b>		
VIDEO INPUT		
LINE A/LINE		
Composite video* <sup>1</sup>	Loop-through BNC 1 Vp-p ±6 dB, sync negative, automatic 75 Ω termination* <sup>2</sup>	
Y/C* <sup>1</sup>	Loop-through Mini DIN 4-pin Y (luminance): 1 Vp-p ±6 dB, sync negative, automatic 75 Ω termination* <sup>2</sup> C (chrominance): NTSC: 0.286 Vp-p ±6 dB, automatic 75 Ω termination* <sup>2</sup> PAL: 0.3 Vp-p ±6 dB, automatic 75 Ω termination* <sup>2</sup>	
LINE B		
Composite video	Loop-through BNC 1 Vp-p ±6 dB, sync negative, automatic 75 Ω termination* <sup>2</sup>	
RGB/COMPONENT (Y, R-Y, B-Y)		
	BNC Red/R-Y: Non-composite: 0.7 Vp-p ±6 dB, sync positive, 75 Ω Sync on Green/Green/Y: Composite: 1.0 Vp-p ±6 dB, sync negative Non-composite: 0.7 Vp-p ±6 dB, sync positive, 75 Ω Blue/B-Y: Non-composite: 0.7 Vp-p ±6 dB, sync positive, 75 Ω	
AUDIO INPUT		
LINE A/LINE	Loop-through Phono, -5 dBu, high impedance	
LINE B	Loop-through Phono, -5 dBu, high impedance	
RGB/COMPONENT (Y, R-Y, B-Y)	Phono, -5 dBu, high impedance	
External sync	Loop-through BNC 4.0 Vp-p ±6 dB, sync negative, automatic 75 Ω termination* <sup>2</sup>	
DC	XLR 4-pin	
Remote	Mini DIN 8-pin (with Tally)	
<b>OUTPUT</b>		
Speaker out	0.5 W, monaural	
<b>PHYSICAL CHARACTERISTICS</b>		
Mass	Approx. 8.2 kg (18 lb) without batteries	
Dimensions	Approx. 217 (W) x 217 (H) x 352.5 (D) mm (8 5/8 x 8 5/8 x 14 inches)	
<b>SUPPLIED ACCESSORIES</b>		
	AC power cord Mini DIN 8-pin connector w/cable (cable length: 350 mm (13 7/8 inches)) Tally number plated (12 pcs. (No.1 to 5, A, B, C, P, R, white x 2 pcs.)) Operation instructions	
<b>REGULATION COMPLIANCE</b>		
	EN 60 950 (TÜV), CE (EMC, LVD), C-Tick Mark	



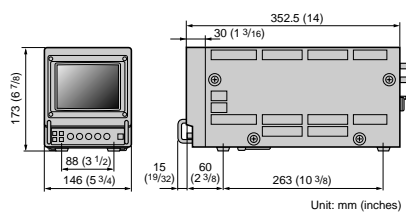
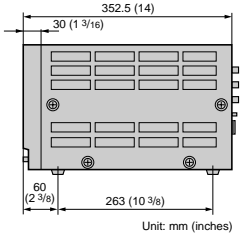
PVM-9045QM/9042QM



PVM-9040ME

9040ME		6041QM	
PAL/SECAM		PAL/SECAM/NTSC/NTSC <sub>4.43</sub> 15 cm (6-inch) Trinitron tube, viewable area 12.7 cm (5-inch) measured diagonally, 70° deflection, AG pitch 0.4 mm	
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---		3 % underscan Less than 7 % (typical) Less than 7 % (typical) Central: 0.5 mm (typical) Corner: 0.6 mm (typical) 2.0 % (typical)	
AC: 100 to 240 V, 0.7 to 0.4 A AC: 39 W		AC: 100 to 240 V, 0.7 to 0.4 A, 50/60 Hz DC: 12 V, 3.2 A AC/DC: 40 W (typical)	
Loop-through Mini DIN 4-pin Y (luminance): 1 Vp-p ±6 dB, sync negative, automatic 75 Ω termination*2 C (chrominance): PAL: 0.3 Vp-p ±6 dB, automatic 75 Ω termination*2		---	
---		---	
---		BNC Red/R-Y: Non-composite: 0.7 Vp-p ±6 dB, sync positive, 75 Ω Sync on Green/Green/Y: Composite: 1.0 Vp-p ±6 dB, sync negative Non-composite: 0.7 Vp-p ±6 dB, sync positive, 75 Ω Blue/B-Y: Non-composite: 0.7 Vp-p ±6 dB, sync positive, 75 Ω	
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---		Phono, -5 dBu, high impedance	
---		BNC 4.0 Vp-p ±6 dB, sync negative, automatic 75 Ω termination*2	
---		XLR 4-pin	
---		Mini DIN 8-pin	
---		---	
---		Approx. 5.5 kg (12 lb 2 oz) 146 (W) x 173 (H) x 352.5 (D) mm (5 3/4 x 6 7/8 x 14 inches)	
---		AC power cord Mini DIN 8-pin connector w/cable (cable length: 350 mm (13 7/8 inches)) Operation instructions	

0 dBu = 0.775 V rms  
 \*1 The Y/C input has priority over the Composite input.  
 \*2 75 Ω termination is automatically set to OFF when a connection is made to the OUT connector.



PVM-6041QM

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