

SONY®

Color Video Monitors

**PVM-8045Q/8042Q/8040
PVM-5041Q**





PVM-8045Q



PVM-8042Q



PVM-8040



PVM-5041Q

The pursuit of excellence in both picture performance and operational features has always been key to the success of Sony professional monitors. The Sony 8-inch* PVM-8045Q, 8042Q, 8040 and the 5-inch* PVM-5041Q 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 range of requirements.

The PVM-8045Q is a picture evaluation monitor incorporating an HR (High Resolution) Trinitron® CRT that provides an excellent center resolution of 450 TV lines. The PVM-8042Q and 5041Q are suitable for use as functional monitors in multi-purpose applications.

The PVM-8045Q, 8042Q and 5041Q 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/EFP applications. They can also accept both 4:3 and 16:9 aspect ratio signals. Alternatively, for basic 4:3 monitoring, the PVM-8040 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 full line of compact monitors includes a model to meet your needs.

*Viewable area, measured diagonally

Features



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

High Quality Picture



High Resolution

The PVM-8045Q incorporates a HR (High Resolution) Trinitron CRT which provides a high horizontal resolution of 450 TV lines.



Stable Color Reproduction

Black level stability is a very significant parameter in professional monitoring because of its importance in providing stable, accurate color reproduction. 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 color reproduction over a long period of time and compensating for changes in CRT characteristics.

Comb Filter for NTSC

The comb filter improves luminance/chrominance separation which reduces cross color interference and produces high resolution.

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, enabling the direct connection of equipment such as a Camera Control Unit (CCU) or a Betacam® VTR. In addition, the use of component signals produce a high picture quality for evaluation applications.

Y/C Input

In addition to composite inputs, a Y/C input is also provided so that luminance/chrominance video signals can be accepted, minimizing cross color/dot interference and realizes 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



4:3/16:9 Operation

The picture aspect ratio can be switched between 4:3 and 16:9, depending on the input signal. On the PVM-8045Q/8042Q, the "16:9" switch is located on the front panel. On the PVM-5041Q*, aspect ratio is selected with the slide switch mounted on the rear panel.

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



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.



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.



Blue Only Mode

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

Wired Remote Control Capability

Mode selection of H/V delay, 4:3/16:9 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-8045Q/8042Q only

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 utilizes 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.

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.

Features

Additional Features

EIA Standard Rack Mountable



Up to two 8-inch monitors* or three PVM-5041Q 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 allows 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 relied on to provide a stable picture display.

Worldwide TV Standards



Operation is fully compatible with the three major TV standards; NTSC, PAL and SECAM. NTSC_{4.43} 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-8045Q/8042Q and VF-504 for the PVM-5041Q

Control Panel



PVM-8045Q/PVM-8042Q

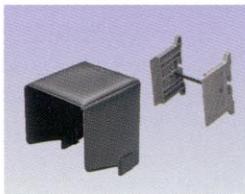


PVM-8040

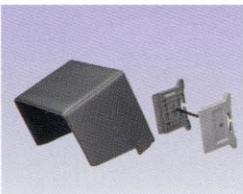


PVM-5041Q

Optional Accessories



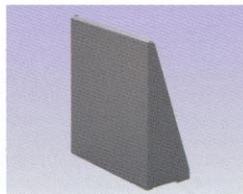
Monitor ENG Kit (Monitor hood and cord reel) for PVM-5041Q
VF-504



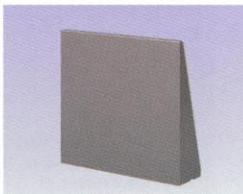
Monitor ENG Kit (Monitor hood and cord reel) for PVM-8045Q/8042Q
VF-505



Rack Mounting Bracket
MB-507



Blank Panel for PVM-5041Q
MB-508



Blank Panel for PVM-8045Q/8042Q/8040
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-L100



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



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



TV Tuner Unit
TU-1041U

Battery Adaptor

DC-L10

Features

- Attaches a rechargeable Lithium-Ion Battery Pack BP-L60A or BP-L90A to PVM-8045Q/8042Q/5041Q
- 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)
- Weight: 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-8045Q



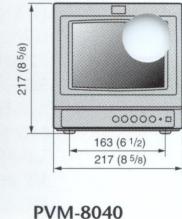
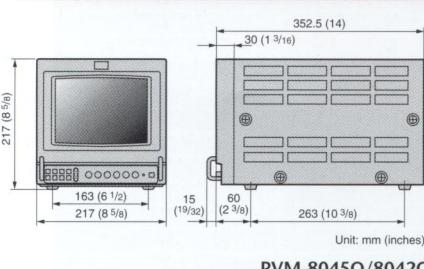
Feature Reference Chart

	PVM-8045Q	PVM-8042Q	PVM-8040	PVM-5041Q
Color system	NTSC/PAL/ SECAM/NTSC _{4.43}	NTSC/PAL/ SECAM/NTSC _{4.43}	NTSC	NTSC/PAL/ SECAM/NTSC _{4.43}
CRT	Viewable area (measured diagonally) AG pitch	8-inch 0.25 mm	8-inch 0.5 mm	8-inch 0.5 mm
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	N
VF-505 Monitor ENG kit	Y	Y	N	N
DC-L10 Battery adaptor	Y	Y	N	Y

Specifications

	8045Q	8042Q
GENERAL		
Color system	NTSC/PAL/SECAM/NTSC _{4.43}	
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 center	Composite video: 250 TV lines at center
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)	
Color 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 (UL approved for 120 V operation), 0.7 to 0.4 A, 50/60 Hz DC: 12 V, 3.7 A DC: 12 V, 3.7 A	
Power consumption	AC: 45 W, DC: 41 W	
INPUT		
VIDEO INPUT		
LINE A/LINE		
Composite video ^{*1}	Loop-through BNC 1 Vp-p ±6 dB, sync negative, automatic 75 Ω termination ^{*2}	
Y/C ^{*1}	Loop-through Mini DIN 4-pin Y (luminance): 1 Vp-p ±6 dB, sync negative, automatic 75 Ω termination ^{*2} C (chrominance): NTSC: 0.286 Vp-p ±6 dB, automatic 75 Ω termination ^{*2} PAL: 0.3 Vp-p ±6 dB, automatic 75 Ω termination ^{*2}	
LINE B		
Composite video	Loop-through BNC 1 Vp-p ±6 dB, sync negative, automatic 75 Ω termination ^{*2}	
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 ^{*2}	
DC	XLR 4-pin	
Remote	Mini DIN 8-pin (with Tally)	
OUTPUT		
Speaker out	0.5 W, monaural	
PHYSICAL CHARACTERISTICS		
Weight	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)	
SUPPLIED ACCESSORIES		
	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	
REGULATION COMPLIANCE		
	UL-6500 listed, C-UL (CAN/CSA-E65-94), FCC Class-A, IC Class-A, DHHS, DNHW	

Rear Panel / Dimensions



8040

5041Q

NTSC

NTSC/PAL/SECAM/NTSC^{4,43}
 15 cm (6-inch) Trinitron tube,
 viewable area 12.7 cm (5-inch) measured diagonally,
 70° deflection, AG pitch 0.4 mm

3 %
 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 (UL approved for 120 V operation),
 0.7 to 0.4 A
 AC: 39 W

AC: 100 to 240 V (UL approved for 120 V operation),
 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):
 NTSC: 0.286 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

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. 7.8 kg (17 lb 3 oz)

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
 Operation instructions

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.

