

SONY[®]

Multiscan Projector

VPH-D50Q/D50QM





Projecting A Superb Image Has Never Been So Simple.....

Simulated picture

Sony introduces a new Multiscan Projector designed for exactly what an audience will most appreciate: more persuasive business presentations, more effective educational experiences and more exciting home theatrical entertainment.

The Sony VPH-D50Q/D50QM is a high-performance, cost effective Multiscan Projector that handles signals with a horizontal frequency of 15 to 64kHz - reproducing sources that range from conventional video signals, all the way up to demanding high-frequency computer graphics.

The VPH-D50Q/D50QM also incorporates technological advantages resulting from our long experience of leadership in designing projectors. The result is bright, amazingly detailed large-screen image quality, accompanied by special features for ease of operation.

At last, high quality images can coexist with simple control interfaces - and a compact, easy-to-handle design that makes setup quick and operation simple, even if you're just starting out with a projection system.

For large-screen viewing in business, educational and home entertainment applications, the Sony VPH-D50Q/D50QM is a new star performer - in a lineup that's known for quality and reliability.



SUPERB PICTURE QUALITY



High resolution, brightness, and contrast

Bright, detailed image reproduction is assured with the VPH-D50Q/D50QM. Assembled with newly developed 7-inch CRTs and numerous advanced circuits including 75MHz RGB bandwidth circuitry, this projector produces a light output of 160ANSI lumens and a resolution of

1280 x 1024 dots resulting in superb picture quality.



Multiscan capability

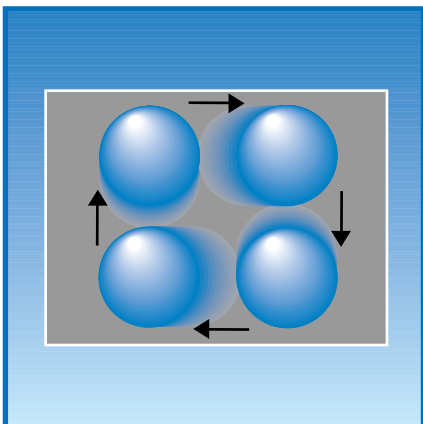
Signals with a horizontal frequency of 15 to 64kHz can be reproduced with the VPH-D50Q/D50QM. Various signals, from conventional video signals up to high quality computer signals, can all be reproduced with excellent quality.

CONVENIENT OPERATING FUNCTIONS



Picture orbiting function

Similar to "screen saver" functions for computer monitors, Sony's Picture orbiting feature reduces the risk of CRT burn in projectors. CRT burn is caused by prolonged still-image projection. The orbiting function rotates the projected image in intervals which cannot be detected by the human eye.



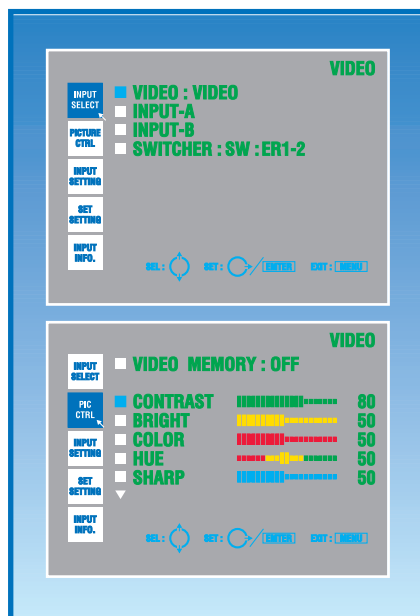
Power saving mode

The VPH-D50Q/D50QM is extremely power efficient and therefore environmentally-friendly. When the power saving mode is set to on, the projector automatically enters power saving mode when an input signal has not been detected for over 10 minutes. When a signal is detected, the projector promptly resumes its operation status.



Multi-language on-screen menu

Operations can be performed via the multi-language on-screen menu which can be selected in any of seven languages: English, French, German, Italian, Spanish, Japanese or Chinese.



ABG (Automatic Background) on/off function

To ensure that white balance is not affected by aging of CRTs or temperature drift, the VPH-D50Q/D50QM has an ABG circuitry individually controlling each CRT. However, this circuit can be switched off if the gray line produced by the ABG circuit at the top of the picture is unacceptable. This is particularly useful in installations such as planetariums and in multi-screen systems.

* The ABG circuit is set to on at default.



Special features for multi-projection applications

ABL link function

In order to prevent CRT damage, the VPH-D50Q/D50QM has an Automatic Brightness Limiter (ABL). This circuitry controls the beam current so that it remains below the point where CRT damage may occur and overall screen brightness is affected. The ABL Linkage function is designed especially for multi-screen displays. If the ABL circuit is activated on any one projector in a multi-projector installation, then the beam current in all of the other projectors is similarly modified so that uniform brightness over the whole of the projected image is maintained.

Index operation

In a multi-projector application, index numbers can be assigned to each VPH-D50Q/D50QM to make it easier to control and adjust individual units.



Loop-through remote connectors

With the supplied IFB-40 Interface Board, multi-projector remote control is easy and convenient for double and triple-stack applications. Simply connect a SIC-M cable from the 14-pin output connector of one projector to the 14-pin input connector of another.



Optional built-in line doubler

The visibility of scanning lines—especially noticeable in large screen reproduction—is greatly reduced and images are solidly reproduced with the optional internal Sony EXB-DS10 IDTV Board which also features motion compensation.

SYSTEM EXPANDABILITY AND VERSATILITY



Various input terminals

The VPH-D50Q/D50QM is equipped with RGB/Component (Y/R-Y/B-Y), HDTV*¹, Y/C and composite video input terminals as standard. In addition, this projector has a slot for an optional interface board from the Sony IFB Series*². By connecting an optional Sony signal switcher with IFB Series boards, several inputs can be simultaneously connected, thus expanding the projection system.

*1 HDTV: 1125/60 interlaced HDTV studio standard system.

*2 The IFB-40 is fitted as standard.



RS-422A communication port

An RS-422A serial communication port is available to link the projector with a computer. Full RS-422A control can be obtained via this port, thus enhancing system use.



Remote control capability

Installation and setup

All operations and adjustments of the VPH-D50Q/D50QM can be performed using the supplied RM-PJ1000 remote commander. To increase control flexibility in

rear-projection and projection-wall applications, the optional RM-PJ10 infrared remote control receiver is also available.

Professional presentation

Additionally, the optional RM-PJM800 remote commander unit is a handy presentation tool. This convenient remote offers control of key presentation features such as input select and computer mouse functions via an optional RM-PJ20/21 mouse receiver.

CONVENIENT INSTALLATION, COMPACT DESIGN



Designed with mobility

Thanks to its compact size, the VPH-D50Q/D50QM can be easily transported and installed under various conditions. Pop-out handles can be pulled out when needed and retracted when not in use.



Universal air coupling for simple screen size alternation

Universal air coupling enables the VPH-D50Q/D50QM to be used with screen sizes ranging from 60 to 250 inches in size with the utmost simplicity. Fine adjustments can be quickly performed with the VPH-D50Q/D50QM in which the CRT and lens angle can be independently altered both horizontally and vertically, while still monitoring the reproduced image.



Memory function for facilitated setup

With ease of use and installation in mind, 50 sets of input conditions such as picture control, registration and RGB size/shift can be stored in the INPUT MEMORY. Once this data is memorized, the projector automatically retrieves the most appropriate set-up condition for each signal. In addition, a Video Memory

function is provided to store up to 10 picture control settings. Each input signal can therefore be optimally reproduced depending on the nature of its image.



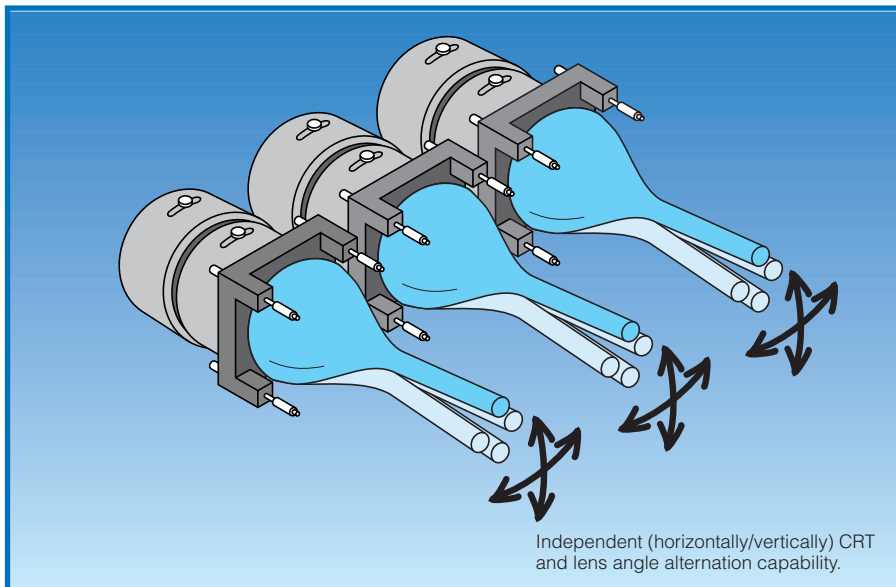
Precise registration

Delicate linear accuracy can be achieved with the Key Balance and Pin Balance. This precise image reproduction meets the high quality requirements of today's most demanding applications such as corporate presentations and home entertainment theaters.



New simplified internal layout

The internal layout of the VPH-D50Q/D50QM is very straightforward, making access to controls for installation and servicing extremely easy. Opening the projector cover and removal of circuit boards requires no complicated operations.

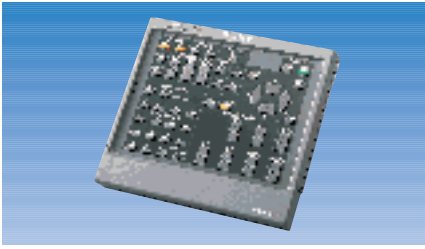


Independent (horizontally/vertically) CRT and lens angle alternation capability.



OPTIONAL ACCESSORIES FOR CONVENIENCE AND SYSTEM FLEXIBILITY

REMOTE CONTROL

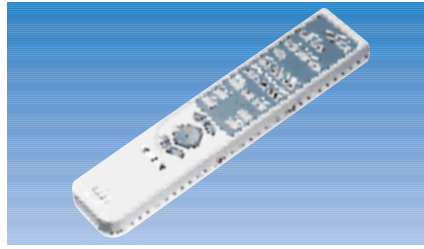


RM-PJ1000*

Infrared remote control unit

- Wired/wireless remote control unit for setup and operation
- Full remote operation
- Function keys can be illuminated for operation in dark rooms

* Supplied with the VPH-D50Q/D50QM



RM-PJM800

Infrared remote control unit

- Wireless remote control unit for presentations
- Can also be used to control the PC-1271/1271M
- Power on/off and input selection operation
- Computer mouse control when used with RM-PJ20



RM-PJ10

Infrared remote control receiver

- Remote control satellite for rear projection or out-of-sight projector applications
- Extends the operating range of the RM-PJ1000 and RM-PJM800

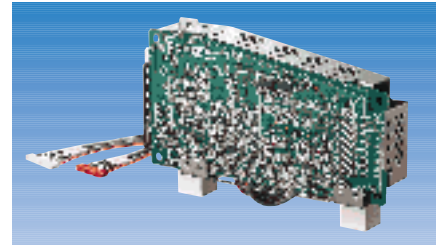


RM-PJ20/21*1

Mouse receiver

- Enables operation of a connected computer with the RM-PJM800

EXTENSION BOARD



EXB-DS10

Extension board (internal line doubler board)

- Line doubler signal processing board designed to be fitted in the VPH-D50Q/D50QM
- Compatible with composite video, Y/C video, component and 15kHz RGB signals
- Aperture is adjustable horizontally and vertically to achieve crisp image reproduction with any type of input signal
- Line doubler signal processing can be turned ON and OFF via the remote commander or control panel
- Moving image correction circuitry is incorporated for natural reproduction of line-doubled fast-moving images
- Digital noise reducer incorporated
- Compatible with NTSC, PAL, SECAM, NTSC_{4.43} and PAL-M
- 3D comb filter or 3-line comb filter for NTSC and 3-line comb filter for PAL signals to reduce cross color and dot interference for clear image reproduction

INTERFACE BOARD

IFB Series Interface Boards can be fitted in the VPH-D50Q/D50QM Projector, the PC-1271/1271M Signal Interface Switcher and the IFU-1271/1271M Interface Unit.

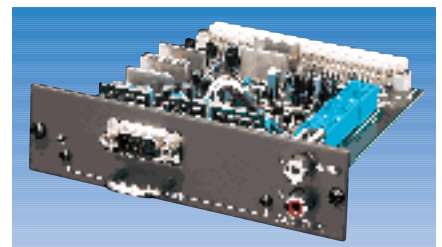


IFB-12

Analog RGB/Component (Y/R-Y/B-Y)/HDTV (Y/P_b/P_r, GBR)/Y/C/Composite video input/output* (5 x BNC)

- Functions as an input/output* board
- RGB bandwidth of 300MHz

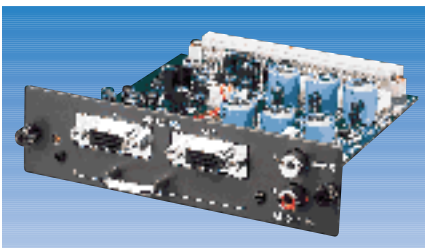
* The IFB-12 can function as an output board when fitted in the VPH-D50Q/D50QM.



IFB-20*2

Analog RGB input (D-sub 9-pin)

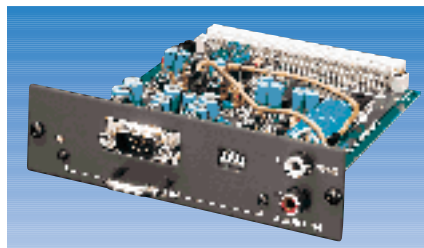
- RGB bandwidth of 120MHz



IFB-21

Analog RGB input/output (HD D-sub 15-pin)

- RGB bandwidth of 150MHz



IFB-30

Digital RGB input (D-sub 9-pin)

- Monochrome/8 color/16 color/64 color mode switchable
- RGB bandwidth of 30MHz



IFB-1000*2

Composite/Y/C input (Loop-through BNC/ Loop-through Mini DIN 4-pin)

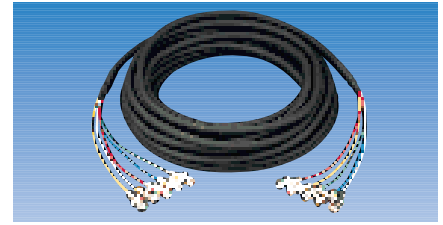
INTERFACE CABLES

Interface Cables are designed to connect IFB Series Interface Boards with various signal sources. Using a SIC cable, a signal can be simultaneously connected to a local monitor as well as to the projector or signal interface switcher.



RCC-5G/10G/30G

- 9-pin remote cable for RS-422A
- D-sub 9-pin ↔ D-sub 9-pin
- Length: 5, 10 and 30 meters



SIC-10

- 5 x BNC ↔ 5 x BNC (R, G, B, HD/HV, VD) ↔ (R, G, B, HD/HV, VD)
- Length: overall 10m (32.8ft)



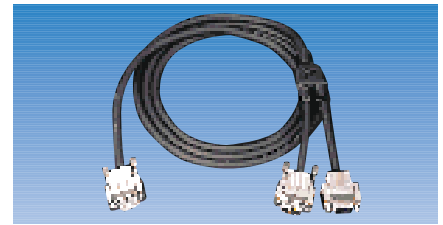
SIC-20A/20B/20C

- Analog RGB
- D-sub 9-pin (female) ↔ D-sub 15-pin (female) ↔ D-sub 15-pin (male)
- Length: overall 2m (6.6ft), branch 0.2m (0.7ft)



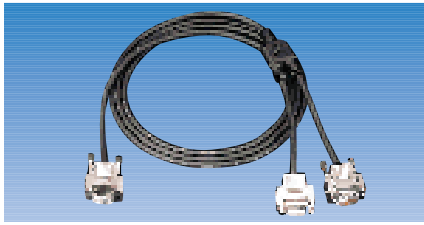
SIC-21

- Analog RGB
- D-sub 9-pin (female) ↔ D-sub 9-pin (female) ↔ D-sub 9-pin (male)
- Length: overall 2m (6.6ft), branch 0.2m (0.7ft)



SIC-22

- Analog RGB with digital sync
- D-sub 9-pin (female) ↔ D-sub 15-pin High Density (female) ↔ D-sub 15-pin High Density (male)
- Length: overall 2m (6.6ft), branch 0.2m (0.7ft)



SIC-30

- Digital RGB input
- D-sub 9-pin (female) ↔ D-sub 9-pin (female) ↔ D-sub 9-pin (male)
- Length: overall 2m (6.6ft), branch 0.2m (0.7ft)



SIC-M*2

- Multi-cable 14-pin (female) ↔ 14-pin (male)
- Length: 1, 5, 15, 25 and 50 meters



SMF-400

- HD D-sub 15-pin ↔ 5BNC
- Length: overall 2m (6.6ft)



SMF-401

- HD D-sub 15-pin ↔ HD D-sub 15-pin
- Length: overall 2m (6.6ft)

OTHER

ADP-10

(Signal adapter, HD D-sub 15-pin to D-sub 9-pin for SIC cable)

ADP-20

(Signal adapter, Macintosh to VGA)

VPS-100FH

(100-inch flat screen)

VPS-120FH

(120-inch flat screen)

PSS-70

(Projector suspension support)

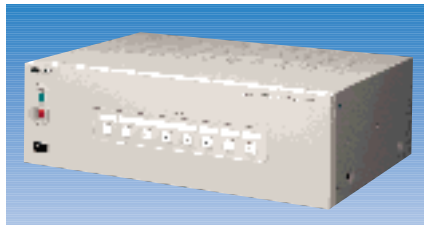
PSS-10

(Projector suspension support)

SIGNAL INTERFACE SWITCHER

PC-1271/1271M

- Provides eight slots for optional interface boards. By using two PC-1271/1271M Switchers, a maximum of 16 inputs can be connected simultaneously.
- Remote control capability with the RM-PJ1000 and RM-PJM800. The switcher can also be controlled with a custom-made remote control unit via the REMOTE 2 (D-sub 25-pin).
- The switcher can be connected to the projector using a SIC-M multi-cable* (50m) via REMOTE 1. Incorporates a cable length compensation switch to maintain the RGB bandwidth of 70MHz when using the multi-cable. A 150MHz RGB bandwidth is guaranteed for Monitor OUT.
- When one of the input selection switchers is selected, the front panel of the chosen interface board automatically illuminates.
- When power is turned on, the PC-1271/1271M reconnects the channel that was in



- use immediately prior to the power being turned off.
- Mountable in an EIA 19-inch rack with the supplied rack mount kit.

*1 Will soon be available.

*2 Some items are not available in some areas. For further details, please consult your nearest Sony office.

SIGNAL INTERFACE UNIT



IFU-1271/1271M*2

- Distributes an input signal from the IFB board to two outputs with 100MHz bandwidth.
- The IFU-1271/1271M converts signals from a digital signal level to an analog signal level (TTL to 0.7Vp-p) for output.

MULTISCAN PROJECTOR

VPH-D50Q/D50QM

OPTICAL

Projection system:	3 picture tubes, 3 lenses, direct projection system
Picture tube:	7-inch (phosphor size 5.5-inch) static focus CRT
Projection lens:	Double focus, F1.0/135mm
Screen coverage:	60 to 250-inch measured diagonally, factory preset to 120-inch
Light output:	ANSI*1: 160lm (fH: 64kHz, fV: 50Hz, 6500K) 130lm (fH: 15kHz, fV: 60Hz, 6500K) 800lm (peak white) 200lm (all white)
Throwing distance:	60-inch 1902mm (6 ft 2 7/8 inches) 70-inch 2179mm (7 ft 1 25/32 inches) 100-inch 3016mm (9 ft 10 3/4 inches) 120-inch 3571mm (11 ft 8 19/32 inches) 150-inch 4424mm (14 ft 6 3/16 inches) 200-inch 5844mm (19 ft 2 3/32 inches) 250-inch 7257mm (23 ft 9 23/32 inches)

SIGNALS

Color system:	NTSC, PAL, SECAM, NTSC4.43, PAL-M
Resolution:	700TV lines (video) 1000TV lines (HDTV) 1280 x 1024 pixel (RGB, measured at fH: 64kHz, fV: 60Hz)
Scanning frequency:	Horizontal: 15 to 64kHz Vertical: 38 to 150Hz
RGB bandwidth:	75MHz-3dB

GENERAL

Power requirements:	VPH-D50Q: AC 120V, 50/60Hz VPH-D50QM: AC 220 to 240V, 50/60Hz
Power consumption:	450W, Standby: 7W
Heat dissipation:	1535.7BTU
Operating temperature:	0 to 40°C (32 to 104°F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60°C (-4 to 140°F)
Storage humidity:	10 to 90%
Dimensions:	603(W) x 345(H) x 671(D)mm (23 3/4 x 13 5/8 x 26 1/2 inches)
Mass:	Approx. 54kg (119 lb 1 oz)

INPUTS/OUTPUTS

Video:	Loop-through BNC 1Vp-p±2dB sync negative, 75Ω
S Video:	
Y IN:	BNC 1Vp-p±2dB sync negative, 75Ω
C IN:	BNC Burst 0.286Vp-p±2dB (NTSC), 75Ω 0.3Vp-p±2dB (PAL), 75Ω
Y/C IN:	Loop-through mini DIN 4-pin
Y (luminance):	1Vp-p±2dB sync negative, 75Ω
C (chrominance):	Burst 0.286Vp-p±2dB (NTSC), 75Ω 0.3±2dB (PAL), 75Ω
Input A:	BNC x 5
Analog RGB/Component:	
R/R-Y:	0.7Vp-p±2dB positive, 75Ω
G:	0.7Vp-p±2dB positive, 75Ω
G with sync/Y:	1Vp-p±2dB sync negative, 75Ω
B/B-Y:	0.7Vp-p±2dB positive, 75Ω
Sync/HD:	
Composite sync:	0.6 to 8Vp-p, high impedance, positive/negative
Horizontal sync:	0.6 to 8Vp-p, high impedance, positive/negative
VD:	
Vertical sync:	0.6 to 8Vp-p, high impedance, positive/negative
HDTV*2 (Y/P _B /P _R):	
Y:	1Vp-p±2dB, 75Ω Tri-level sync: ±0.3Vp-p, Bi-level sync: 0.3Vp-p
P _B /P _R :	±0.35Vp-p±2dB, 75Ω

HDTV*2 (GBR):	
G with sync:	1Vp-p±2dB, 75Ω Tri-level sync: ±0.3Vp-p, Bi-level sync: 0.3Vp-p
B/R:	0.7Vp-p±2dB, 75Ω

Input B:	
Supplied with an IFB-40:	14-pin multi connector (input: male, output: female)

CONTROL S	
IN PLUG IN POWER:	Stereo mini-jack 5Vp-p, plug in power DC5V, maximum output 60mA
OUT:	Stereo mini-jack, 5Vp-p

REMOTE	
RS-422A:	D-sub 9-pin (female)

ABL Link	
IN:	Mini-jack
OUT:	Mini-jack

TRIG:	Mini-jack Power On: DC5V, output impedance 4.7kΩ Power Off: 0V
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SAFETY REGULATIONS

VPH-D50Q:	UL1950, CSA950, DHHS, DNHW, FCC (ClassB), IC (ClassB)
VPH-D50QM:	EN60 950 (TÜV), CE, PTB, C-TickMark

ACCESSORIES

Supplied accessories:	Remote commander RM-PJ1000 Remote commander cable (15m) Adjusting plate AA size (R6) battery x 3 AC power cord Operation manual Installation manual
Optional accessories:	Interface board IFB-12/20/21/30/1000*3 Extension board EXB-DS10 (internal line-doubler board) Signal interface cable SIC-10/20A/20B/20C/21/22/30 SIC-M (Signal interface cable, 1/5/15/25/50m)*3 Signal interface switcher PC-1271/1271M Interface unit IFU-1271/1271M*3 Suspension support PSS-70 Suspension support PSS-10 Remote commander RM-PJM800 Infrared remote control receiver RM-PJ10 Mouse receiver RM-PJ20/21*4 Signal adapter ADP-10 (HD D-sub 15-pin to D-sub 9-pin for SIC cable) Signal adapter ADP-20 (Macintosh® to VGA) Monitor cable SMF-400 (HD D-sub 15-pin to 5BNC) Monitor cable SMF-401 (HD D-sub 15-pin to HD D-sub 15-pin) 9-pin remote cable RCC-5G/10G/30G (D-sub 9-pin to D-sub 9-pin for RS-422A) 100-inch flat screen VPS-100FH 120-inch flat screen VPS-120FH

*1 ANSI lumen is a measuring method of American National Standard IT7.215.

*2 HDTV: 1125/60 interlaced HDTV studio standard system.

*3 Some items are not available in some areas. For further details, please consult your nearest Sony office.

*4 Will soon be available.

REAR PANEL CONNECTOR SECTION



SIGNAL INTERFACE SWITCHER

PC-1271/1271M

GENERAL

RGB bandwidth:	150MHz for Monitor out 70MHz for Remote 1 out
Power requirements:	PC-1271: AC 120V, 50/60Hz PC-1271M: AC 220 to 240V, 50/60Hz
Power consumption:	Approx. 60W
Dimensions:	424 (W) x 133 (H) x 290 (D)mm (16 3/4 x 5 1/4 x 11 1/2 inches)
Mass:	8kg (17 lb 10 oz)

INPUTS

Input 1 to 8 (open for optional IFB Series input modules)	
Remote 1:	14-pin (male), from a second PC-1271/1271M
Remote 2:	D-sub 25-pin (female), from an external control unit
Control S:	Loop-through mini jack

OUTPUTS

Monitor out	
Video*	BNC 1Vp-p±2dB, sync negative, 75Ω
Y/C*:	4-pin mini DIN Y (luminance): 1Vp-p±2dB, sync negative, 75Ω C (chrominance): Burst 0.286Vp-p±2dB (NTSC), 75Ω 0.3Vp-p±2dB (PAL), 75Ω
R/B:	BNC 0.7Vp-p±2dB, 75Ω
G/Sync on G:	BNC G: 0.7Vp-p±2dB, 75Ω G with sync: 1Vp-p±2dB, sync negative, 75Ω

HD/VD/HV:	BNC 1Vp-p±2dB, positive/negative, 75Ω
Audio:	Phono x 2 -5dBu, impedance 1kΩ (stereo or monaural selectable)
Remote 1:	14-pin (female), to VPH-D50Q/D50QM or PC-1271/1271M

ACCESSORIES

Supplied accessories	Wireless remote control unit RM-1270S AA size battery x 2 (for RM-1270S) Rack mount kit with screws (for 19-inch EIA standard rack) Operation manual
Optional accessories	Interface board: IFB-12/20/21/30/1000 Signal interface cable: SIC-10/20A/20B/20C/21/22/30

* The Y/C input has priority over the video input.

SIGNAL INTERFACE UNIT

IFU-1271/1271M

GENERAL

RGB bandwidth:	100MHz (-3dB)
Power requirements:	IFU-1271: AC 120V, 50/60Hz IFU-1271M: AC 220 to 240V, 50/60Hz
Power consumption:	10W
Dimensions:	180 (W) x 105 (H) x 185 (D)mm (7 1/8 x 4 1/4 x 7 3/8 inches)
Mass:	3kg (6 lb 9.8 oz)

INPUTS

Open for an optional IFB Series input module

OUTPUT

Out:	5 x BNC (x2) Phono x 2 (stereo or monaural selectable)
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ACCESSORIES

Supplied accessories	AC power cord Operation manual
Optional accessories	Interface board: IFB-12/20/21/30/1000 Signal interface cable: SIC-10/20A/20B/20C/21/22/30

INSTALLATION EXAMPLES

FLOOR INSTALLATION USING FRONT PROJECTION FLAT SCREEN

- The distances in light blue are the factory preset settings.
- Unit: mm (inches)

Screen size (inches)	60	70	80	90	100	120	150	180	200	250
A (Vsize)	914 (36)	1067 (42)	1219 (48)	1372 (54)	1524 (60)	1829 (72)	2286 (90)	2743 (108)	3048 (120)	3810 (150)
B (Hcent)	710 (28)	777 (30 5/8)	845 (33 3/8)	912 (36)	980 (38 5/8)	1114 (43 1/8)	1320 (52)	1526 (60 1/8)	1662 (65 1/2)	2005 (79)
C (Width)					28 ^{a)} 32 ^{b)} (1 1/8)(1 5/16)	32 ^{c)} (1 5/16)				
D (TD)	1956 (77)	2240 (88 1/4)	2529 (99 5/8)	2816 (110 7/8)	3102 (122 1/4)	3673 (144 5/8)	4551 (179 1/4)	5425 (213 5/8)	6012 (236 3/4)	7466 (294)
E (Xlens)	1902 (74 7/8)	2179 (85 7/8)	2459 (96 7/8)	2738 (107 7/8)	3016 (118 7/8)	3571 (140 5/8)	4424 (174 1/4)	5274 (207 5/8)	5844 (230 1/8)	7257 (285 3/4)
F (Lhole)	2033 (80 1/8)	2310 (91)	2591 (102)	2869 (113)	3148 (124)	3703 (145 7/8)	4556 (179 3/8)	5405 (212 7/8)	5976 (235 3/8)	7389 (291)
G (Lmax)	2535 (99 7/8)	2812 (110 3/4)	3092 (121 3/4)	3371 (132 3/4)	3649 (143 3/4)	4204 (165 5/8)	5057 (199 1/8)	5907 (232 5/8)	6477 (255 1/8)	7890 (310 3/4)
H (Lfront)	1864 (73 1/2)	2141 (84 3/8)	2421 (95 3/8)	2700 (106 3/8)	2978 (117 3/8)	3533 (139 1/8)	4386 (172 3/4)	5236 (206 1/4)	5806 (228 5/8)	7219 (284 1/4)

- ^{a)} Sony VPS-100FH
- ^{b)} Sony VPS-100FM
- ^{c)} Sony VPS-120FH and VPS-120FM

CEILING INSTALLATION USING FRONT PROJECTION FLAT SCREEN

- The distances in light blue are the factory preset settings.
- Unit: mm (inches)

Screen size (inches)	60	70	80	90	100	120	150	180	200	250
A (Vsize)	914 (36)	1067 (42)	1219 (48)	1372 (54)	1524 (60)	1829 (72)	2286 (90)	2743 (108)	3048 (120)	3810 (150)
B (Hcent)	825 (32 1/2)	892 (35 1/8)	960 (37 7/8)	1027 (40 1/2)	1094 (43 1/8)	1229 (48 3/8)	1435 (56 1/2)	1640 (64 5/8)	1777 (70)	2120 (83 1/2)
C (Width)					28 ^{a)} 32 ^{b)} (1 1/8)(1 5/16)	32 ^{c)} (1 5/16)				
D (TD)	1956 (77)	2240 (88 1/4)	2529 (99 5/8)	2816 (110 7/8)	3102 (122 1/4)	3673 (144 5/8)	4551 (179 1/4)	5425 (213 5/8)	6012 (236 3/4)	7466 (294)
E (Xlens)	1902 (74 7/8)	2179 (85 7/8)	2459 (96 7/8)	2738 (107 7/8)	3016 (118 7/8)	3571 (140 5/8)	4424 (174 1/4)	5274 (207 5/8)	5844 (230 1/8)	7257 (285 3/4)
F' (Lpss)	2166 (85 3/8)	2442 (96 1/4)	2723 (107 1/4)	3001 (118 1/4)	3280 (129 1/4)	3835 (151)	4688 (184 5/8)	5537 (218 1/8)	6108 (240 1/2)	7521 (296 1/8)
G (Lmax)	2535 (99 7/8)	2812 (110 3/4)	3092 (121 3/4)	3371 (132 3/4)	3649 (143 3/4)	4204 (165 5/8)	5057 (199 1/8)	5907 (232 5/8)	6477 (255 1/8)	7890 (310 3/4)
H (Lfront)	1864 (73 1/2)	2141 (84 3/8)	2421 (95 3/8)	2700 (106 3/8)	2978 (117 3/8)	3533 (139 1/8)	4386 (172 3/4)	5236 (206 1/4)	5806 (228 5/8)	7219 (284 1/4)

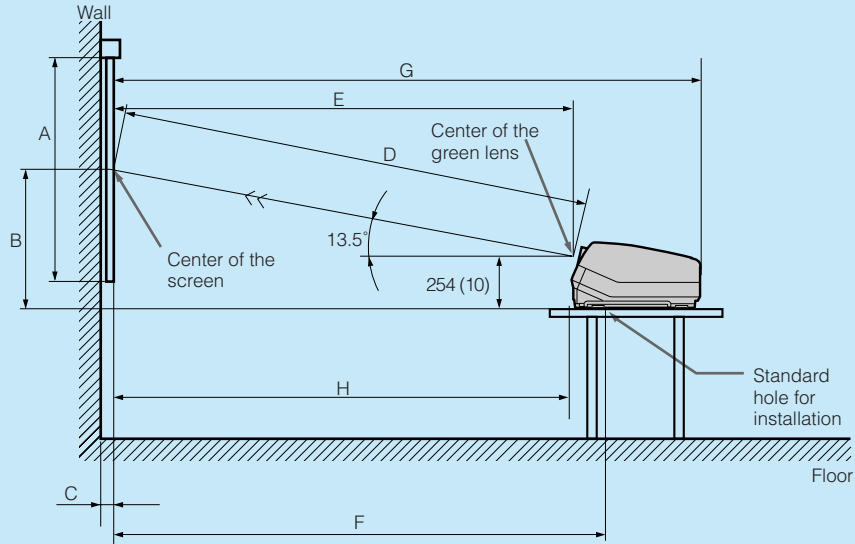
- ^{a)} Sony VPS-100FH
- ^{b)} Sony VPS-100FM
- ^{c)} Sony VPS-120FH and VPS-120FM

FLOOR INSTALLATION USING REAR PROJECTION FLAT SCREEN

- When the optical axis angle is 2°
- The distances in light blue are the factory preset settings.
- Unit: mm (inches)

Screen size (inches)	60	70	80	90	100	120	150	180	200	250
A (Vsize)	914 (36)	1067 (42)	1219 (48)	1372 (54)	1524 (60)	1829 (72)	2286 (90)	2743 (108)	3048 (120)	3810 (150)
B (Hcent)	140 (5 5/8)	130 (5 1/4)	120 (4 3/4)	110 (4 3/8)	100 (4)	80 (3 1/4)	49 (1 15/16)	18 (23/32)	-3 (-1/8)	-54 (-2 1/8)
E (Xlens)	1977 (77 7/8)	2265 (89 1/4)	2556 (100 3/4)	2846 (112 1/8)	3136 (123 1/2)	3712 (146 1/4)	4599 (181 1/8)	5482 (215 7/8)	6075 (239 1/4)	7544 (297 1/8)
F (Lhole)	2172 (85 5/8)	2460 (96 7/8)	2751 (108 3/8)	3041 (119 3/4)	3331 (131 1/8)	3907 (153 7/8)	4794 (188 3/4)	5677 (223 5/8)	6270 (246 7/8)	7739 (304 3/4)
G (Lmax)	2655 (104 5/8)	2943 (115 7/8)	3234 (127 3/8)	3524 (138 3/4)	3814 (150 1/4)	4390 (172 7/8)	5277 (207 7/8)	6160 (242 5/8)	6753 (265 7/8)	8222 (323 3/4)

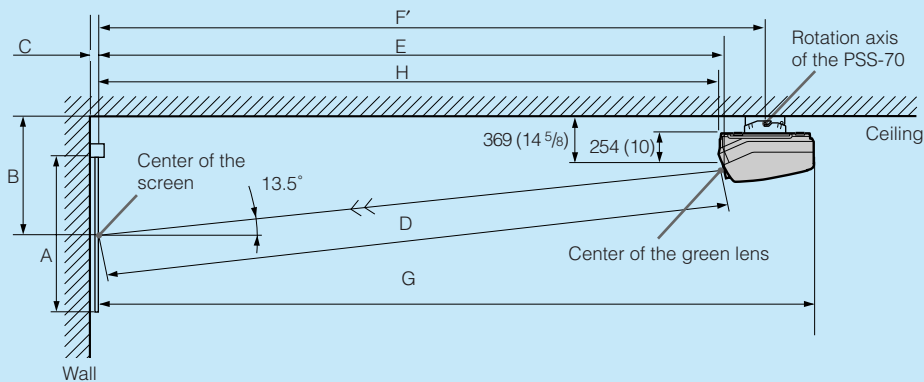
Be sure that the projector is level to the floor.



B: Difference in height between the projector's bottom surface and the center of the screen
 E: Horizontal distance between the center of the screen and the center of the green lens
 F: Horizontal distance between the center of the screen and the standard hole for installation

Tolerances
 B: $\pm 5\%$
 Other measurements: 0% to $+5\%$

Use the PSS-70 Projector Suspension Support (not supplied).



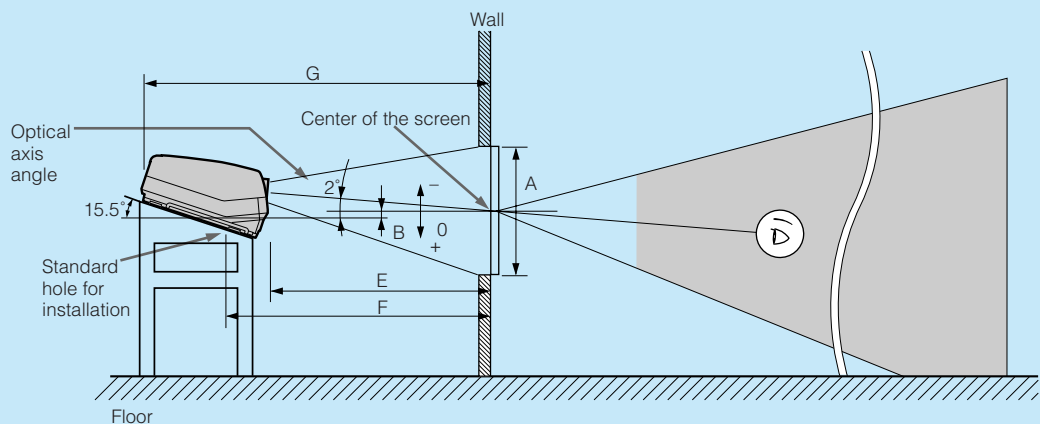
E: Horizontal distance between the center of the screen and the center of the green lens

Tolerances
 B: $\pm 5\%$
 Other measurements: 0% to $+5\%$

WHAT IS THE OPTICAL AXIS ANGLE?

The optical axis angle is the angle between the horizontal level line and the straight line from the center of the projector's green lens to the center of the screen. When using a rear projection screen, you can get the brightest picture when the center of the screen is aligned with a straight line extension of the center of the green lens.

Therefore, the most suitable optical axis angle varies depending on the height of the screen and your line of sight.



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