

SONY[®]

LCD Data Projector

VPL-FX200U/FX200M



With optional VPLL-Z2019 lens



The Sony VPL-FX200 – Excellent Picture Performance in an Easy to Handle Large Venue Projector

Leave it to Sony to stay ahead of the times. To present your creative material with the greatest impact you need a projection system that not only handles what you give it today, but is also ready for tomorrow. The new VPL-FX200 LCD Data Projector from Sony has exactly what you are looking for - excellent picture performance, with the essential system expansion capability you need for the future.*

The VPL-FX200 uses the very latest Sony projector technology. It provides an incredible brightness of 3100 ANSI lumens. Picture quality and uniformity are superb. Lens and input options, together with a full range of accessories, mean that the VPL-FX200 can be configured to meet your installation requirements. Adding just these features alone would be a great improvement to today's installation projectors. Sony has gone several steps further - providing all of these features in a projector that is smaller and easier to handle than other projectors designed for rental, fixed installation, and large venue applications.

* The VPL-FX200 is available in two models: the VPL-FX200U for countries operating at AC 100-120 V and the VPL-FX200M for AC 220-240 V.



VPL-FX200

Outstanding brightness of 3100 ANSI lumens

Using three 1.8-inch Sony LCD panels, the VPL-FX200 delivers an outstanding brightness of 3100 ANSI lumens - your large image will be clear even in areas with ambient light.

Excellent picture performance

The advanced technologies of the VPL-FX200 provide excellent picture performance. This projector utilizes 3D Digital gamma correction for superb picture uniformity, as well as exclusive Sony DRC (Digital Reality Creation) technology. DRC generates video pictures with effectively four times the resolution of that from a conventional video signal. Unlike conventional linear interpolation which uses filtering techniques, DRC generates a high resolution signal by referring to memorized waveform patterns. As a result, you will project high density pictures in which the details of the objects are enhanced.

MULTISCAN CAPABILITY

With its high performance built-in scan converter, the VPL-FX200 is compatible with a variety of input sources: composite, Y/C, component (Y/R-Y/B-Y) and RGB video, computer signals (up to UXGA, 1600 x 1200, fV: 60 Hz) with a horizontal frequency of 15 to 94 kHz and a vertical frequency of 50 to 120 Hz, and HDTV*.

The multiscan technology employed by the VPL-FX200 performs advanced interpolation and finite impulse response (FIR) filtering independently in both horizontal and vertical directions, depending on the line structure of the input signal.

* The VPL-FX200 supports 1125/60/2:1 and 1125/59.94/2:1 (SMPTE-240M/274M) HDTV systems.

SYSTEM VERSATILITY

The VPL-FX200 was designed with versatility in mind. The option slots in the rear panel accept a range of Sony IFB Interface Boards that allow multiple sources to be connected to the projection system at the same time.

The use of a PC-3000 Signal Interface Switcher will further enhance the ability of the projector to handle multiple signals simultaneously. The VPL-FX200 also supports RS-232C/RS-422A control interfacing.

FAIL-SAFE

The light source of the VPL-FX200 incorporates four lamps so that even if one lamp fails, the projector will still continue to function. If a second fails, the projector automatically switches to standby mode.



Quad lamp

Control panel and connector section



Optional lens (Photo: VPLL-Z2019)



Carrying handles (both sides)

Pop-out cranks (both sides)



ADJUSTABLE FEET

The VPL-FX200 has easy-to-adjust feet. Simply by turning the pop-out cranks on each side, you can set the projector to the desired height.

INSTALLATION FLEXIBILITY

The VPL-FX200 is designed for use in a variety of installation situations - ceiling, floor, and even rear projection. To add even more flexibility, a range of six lenses is available to provide the perfect match for your installation.

POWER FOCUS, POWER ZOOM, AND PICTURE SHIFT FUNCTIONS*

Power Focus and Power Zoom are easily controlled from the control panel or the supplied remote control unit. The projected image can be shifted up and down using the Picture Shift feature.

* Some optional lenses do not support the zoom function.

STACKING CAPABILITY*

The VPL-FX200 can be twin or triple stacked using optional SU-PJ2000 projector stands. When stacked, the brightness is significantly increased.

* The fixed focus lenses (VPLL-2075/2014/2009) cannot be used when the VPL-FX200 is stacked.



OPTIONAL LENSES

Note: Throw ratio is the distance between the center of the projector lens and the screen, divided by the screen width.

VPLL-Z2019

- 1.9-2.4:1 Throw ratio
- 1.3 times zoom standard focus lens



VPLL-Z2025

- 2.47-3.81:1 Throw ratio
- 1.6 times zoom long focus lens



VPLL-Z2039

- 3.93-5.65:1 Throw ratio
- 1.5 times zoom long focus lens



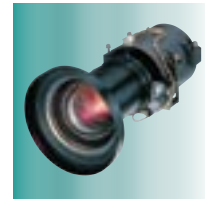
VPLL-2075

- 7.38:1 Throw ratio
- Fixed long focus lens



VPLL-2014

- 1.36:1 Throw ratio
- Fixed short focus lens



VPLL-2009

- 0.89:1 Throw ratio
- Fixed short focus lens



EASY OPERATION

APA (Auto Pixel Alignment)

Pixel alignment is automated. Just press the APA key and innovative Sony technology detects the signal and adjusts for optimum image quality.

OSD (On-Screen Display)

The On-screen display for the VPL-FX200 is available in English, French, Spanish, Italian, German, Japanese, and Chinese languages. With this projector's graphical interface, it is very easy to use.



REMOTE CONTROL

The RM-PJ1001 wired/wireless remote control unit is supplied with the VPL-FX200 and controls all projector functions. The optional RM-PJ3000S wired/wireless remote control unit provides simple remote control. The optional RM-PJ10 Remote Control Receiver is available to extend the range of these remotes in wireless mode.



RM-PJ1001 and RM-PJ3000S remote control units

ADDITIONAL FEATURES

POWER SAVING

When the Power Saving Mode is activated, the VPL-FX200 automatically enters the power saving mode if no signals have been received for 10 minutes. The projector returns to normal operation as soon as a signal is input.

TRIG TERMINAL

The VPL-FX200 has a TRIG terminal to provide control of an integrated projection room, including screens, curtains, and lighting.

ACCESSORIES FOR OPTIONAL CONVENIENCE AND SYSTEM FLEXIBILITY

SIGNAL INTERFACE SWITCHER

PC-3000

- Provides eight slots for optional interface boards and one fixed output with 150 MHz cable compensation.
- Up to eight PC-3000 units can be connected, enabling up to 57 different signals to be connected in a system.
- In addition to its RS-232C/RS422A communication port, the PC-3000 is also equipped with a PJ COM port, in accordance with RS-485. This enables mutual communication between projectors and the PC-3000, expanding the versatility of system set-up.
- Incorporates an LCD display in the front panel for easier setting and adjustment.
- Input selection of a connected projector, as well as the input selection of the PC-3000 itself, can be controlled via the front panel.



INTERFACE BOARDS

IFB-12A

- 5 BNC input/output
- Accepts analog RGB, component (Y/R-Y/B-Y), HDTV (Y/P_B/P_R, GBR), composite video and Y/C signals
- RGB bandwidth of 300 MHz
- Cable compensation function for output signals (150 MHz)



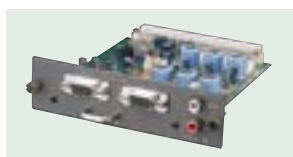
IFB-20

- Analog RGB input/output
- RGB bandwidth of 120 MHz



IFB-21

- Analog RGB input, with loop-through output (HD D-sub 15-pin)
- RGB bandwidth of 150 MHz



IFB-30

- Digital RGB input (D-sub 9-pin)
- Monochrome/8 color/16 color/64 color mode switchable
- RGB bandwidth of 30 MHz



IFB-50

- Component SDI BNC input/output
- Serial Digital Interface board for SMPTE 259 M-C/ITU-R BT656-3 4:2:2 video signals



IFB-1000

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



INTERFACE CABLES

SIC-20A/20B/20C

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



SIC-21

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

SIC-22

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

SMF-400

- HD D-sub 15-pin to BNC x5
- Length: overall 2 m (6.6 ft)



SMF-401

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

RCC-5G/10G/30G

- D-sub 9-pin to D-sub 9-pin
- Remote cable for RS-422A
- Length: 5, 10, and 30 m

OTHER ACCESSORIES

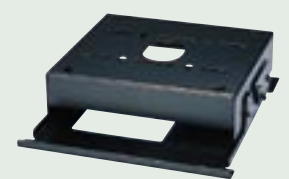
SU-PJ2000

- Projector stand (for twin and triple stacking)



PSS-2000

- Suspension support



VPS-100FH

- 100-inch flat screen*

VPS-120FH

- 120-inch flat screen*



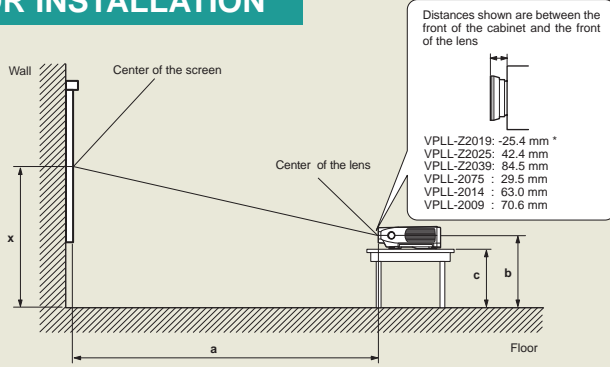
* viewable area, measured diagonally

PSS-10

- Suspension support



FLOOR INSTALLATION



a: Distance between the screen and the center of the lens
 b: Distance between the floor and the center of the lens
 c: Distance between the floor and the bottom of the adjusters
 x: Free

* The VPLL-Z2019 lens is recessed from the front of the cabinet.

VPLL-Z2019

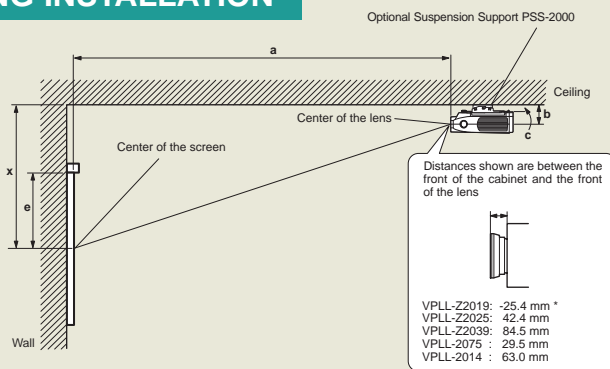
| Screen Size (inches) | 40 | 80 | 100 | 120 | 150 | |
|----------------------|-----|---------------------|---------------------|---------------------|---------------------|----------------------|
| a | min | 1490 (58 3/4) | 3080 (121 3/8) | 3870 (152 1/2) | 4670 (184) | 5860 (230 3/4) |
| | max | 1890 (74 1/2) | 3880 (152 7/8) | 4880 (192 1/4) | 5870 (231 1/4) | 7370 (290 1/4) |
| b | min | x-287 (x-11 3/8) | x-573 (x-22 5/8) | x-717 (x-28 1/4) | x-860 (x-33 7/8) | x-1075 (x-42 3/8) |
| | max | | | | | |
| c | min | x-442 (x-17 1/2) | x-728 (x-28 3/4) | x-872 (x-34 3/8) | x-1015 (x-40) | x-1230 (x-48 1/2) |
| | max | | | | | |

When two projectors are stacked

| Screen Size (inches) | 80 | 100 | 120 | 150 |
|----------------------|-------------------|-------------------|-------------------|--------------------|
| a | 3710 (146 1/8) | 4650 (183 1/8) | 5600 (220 1/2) | 7020 (276 7/16) |

* VPLL-2075, VPLL-2014, and VPLL-2009 cannot be used when the

CEILING INSTALLATION



a: Distance between the screen and the center of the lens
 b: Distance between the ceiling and the center of the lens
 c: Distance between the ceiling and the mounting surface of the suspension bracket
 e: Distance between the top of the available screen range and the center of the screen
 x: Distance between the ceiling and the center of the screen

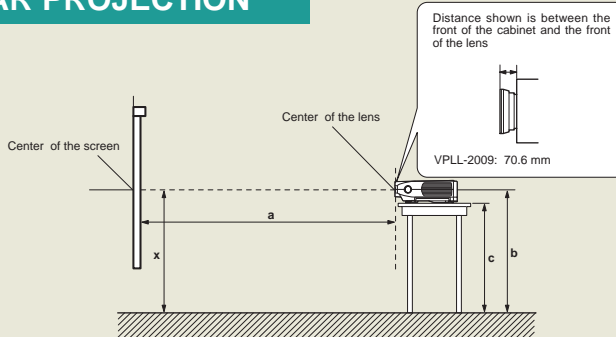
* The VPLL-Z2019 lens is recessed from the front of the cabinet.

VPLL-Z2019

| Screen Size (inches) | 40 | 80 | 100 | 120 | 150 | |
|----------------------|-----------------|------------------|---------------------|---------------------|----------------------|-------------------|
| a | min | 1490 (58 3/4) | 3080 (121 3/8) | 3870 (152 1/2) | 4670 (184) | 5860 (230 3/4) |
| | max | 1890 (74 1/2) | 3880 (152 7/8) | 4880 (192 1/4) | 5870 (231 1/4) | 7370 (290 1/4) |
| b | min | | | | | |
| | max | | | | | |
| e | 305 (12 1/8) | 610 (24 1/8) | 762 (30) | 914 (36) | 1143 (45) | |
| x | min | | | | | |
| | max | c+430 (c+17) | c+717 (c+28 1/4) | c+860 (c+33 7/8) | c+1003 (c+39 1/2) | c+1218 (c+48) |

Note: When using the PSS-2000 Projector suspension support, c=104.7 (4 1/8), x (min)=e

REAR PROJECTION



a: Distance between the screen and the center of the lens
 b: Distance between the floor and the center of the lens
 c: Distance between the floor and the bottom of the projector
 x: Free

VPLL-2009*

| Screen Size (inches) | 40 | 80 | 100 | 120 | 150 | |
|----------------------|-----------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| a | 640 (25 1/4) | 1410 (55 5/8) | 1800 (70 7/8) | 2190 (86 1/4) | 2770 (109 1/8) | |
| b | min | x-11 (x-7/16) | x-22 (x-7/8) | x-28 (x-1 1/8) | x-33 (x-1 5/16) | x-41 (x-1 11/16) |
| | center | | | | | |
| c | max | x+11 (x+7/16) | x+22 (x+7/8) | x+28 (x+1 1/8) | x+33 (x+1 5/16) | x+41 (x+1 11/16) |
| | min | x-154 (x-6 1/8) | x-165 (x-6 1/2) | x-170 (x-6 3/4) | x-176 (x-7) | x-184 (x-7 1/4) |
| c | center | | | | | |
| | max | x-130 (x-5 1/4) | x-119 (x-4 3/4) | x-114 (x-4 1/2) | x-108 (x-4 3/8) | x-100 (x-4) |

INSTALLATION

unit = mm (inches)

| 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|----------------------|----------------------|----------------------|----------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| 7050 (277 5/8) | 7850 (309 1/8) | 9840 (387 1/2) | 11820 (465 1/2) | 13810 (543 7/8) | 15800 (622 1/8) | 17790 (700 1/2) | 19780 (778 7/8) |
| 8860 (348 7/8) | 9860 (388 1/4) | 12350 (486 3/8) | 14840 (584 3/8) | 17330 (682 3/8) | 19810 (780 1/8) | 22300 (878 1/8) | 24790 (976 1/8) |
| x-1290 (x-50 7/8) | x-1433 (x-56 1/2) | x-1791 (x-70 5/8) | x-2150 (x-84 3/4) | x-2508 (x-98 3/4) | x-2866 (x-112 7/8) | x-3225 (x-127) | x-3583 (x-141 1/8) |
| x | | | | | | | |
| x-1445 (x-57) | x-1588 (x-62 5/8) | x-1946 (x-76 3/4) | x-2305 (x-90 3/4) | x-2663 (x-104 7/8) | x-3021 (x-118 31/32) | x-3380 (x-133 1/8) | x-3738 (x-147 1/4) |
| x-142 (x-5 5/8) | | | | | | | |

VPLL-Z2025

unit = mm (inches)

| Screen Size (inches) | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | |
|----------------------|-----|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| a | min | 3980 (156 3/4) | 5020 (197 11/16) | 6060 (238 5/8) | 7620 (300 1/8) | 9180 (361 1/2) | 10220 (402 1/2) | 12830 (505 1/4) | 15430 (607 5/8) | 18030 (709 15/16) | 20630 (812 3/8) | 23230 (914 3/4) | 25830 (1017 1/8) |
| | max | 6160 (242 5/8) | 7750 (305 1/4) | 9330 (367 3/8) | 11710 (461 1/8) | 14080 (554 1/2) | 15660 (616 5/8) | 19620 (772 5/8) | 23580 (928 1/2) | 27540 (1084 1/2) | 31500 (1240 3/8) | 35460 (1396 1/4) | 39420 (1552 1/4) |
| b | min | x-573 (x-22 5/8) | x-717 (x-28 1/4) | x-860 (x-33 7/8) | x-1075 (x-42 3/8) | x-1290 (x-50 7/8) | x-1433 (x-56 1/2) | x-1791 (x-70 5/8) | x-2150 (x-84 3/4) | x-2508 (x-98 3/4) | x-2866 (x-112 7/8) | x-3225 (x-127) | x-3583 (x-141 1/8) |
| | max | x | | | | | | | | | | | |
| c | min | x-728 (x-28 3/4) | x-872 (x-34 3/8) | x-1015 (x-40) | x-1230 (x-48 1/2) | x-1445 (x-57) | x-1588 (x-62 5/8) | x-1946 (x-76 3/4) | x-2305 (x-90 3/4) | x-2663 (x-104 7/8) | x-3021 (x-118 31/32) | x-3380 (x-133 1/8) | x-3738 (x-147 1/4) |
| | max | x-142 (x-5 5/8) | | | | | | | | | | | |

When two projectors are stacked

| 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|---------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 8430 (332) | 9380 (369 3/8) | 11740 (462 3/8) | 14110 (555 5/8) | 16470 (648 5/8) | 18840 (741 7/8) | 21200 (834 3/4) | 23560 (927 3/4) |

| Screen Size (inches) | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|----------------------|-------------------|-------------------|-------------------|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
| a | 4530 (178 3/8) | 5710 (224 7/8) | 6890 (271 3/8) | 8660 (34) | 10420 (410 3/8) | 11600 (456 3/4) | 14540 (572 5/8) | 17490 (688 3/4) | 20430 (804 1/2) | 23370 (920 1/4) | 26320 (1036 3/8) | 29260 (1152 1/8) |

VPL-FX200 is stacked.

unit = mm (inches)

| 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|----------------------|----------------------|----------------------|----------------------|-----------------------|------------------------|-----------------------|-----------------------|
| 7050 (277 5/8) | 7850 (309 1/8) | 9840 (387 1/2) | 11820 (465 1/2) | 13810 (543 7/8) | 15800 (622 1/8) | 17790 (700 1/2) | 19780 (778 7/8) |
| 8860 (348 7/8) | 9860 (388 1/4) | 12350 (486 3/8) | 14840 (584 3/8) | 17330 (682 3/8) | 19810 (780 1/8) | 22300 (878 1/8) | 24790 (976 1/8) |
| c+130.6 (c+5 1/4) | | | | | | | |
| c+143.6 (c+5 3/4) | | | | | | | |
| 1372 (54 1/8) | 1524 (60) | 1905 (75 1/8) | 2286 (90 1/8) | 2667 (105 1/8) | 3048 (120 1/16) | 3429 (135 1/8) | 3810 (150 1/8) |
| c+130.6 (c+5 1/4) | | | | | | | |
| c+1433 (c+56 1/2) | c+1577 (c+62 1/8) | c+1935 (c+76 1/4) | c+2293 (c+90 3/8) | c+2652 (c+104 1/2) | c+3010 (c+118 5/32) | c+3368 (c+132 5/8) | c+3726 (c+146 3/4) |

VPLL-Z2025

unit = mm (inches)

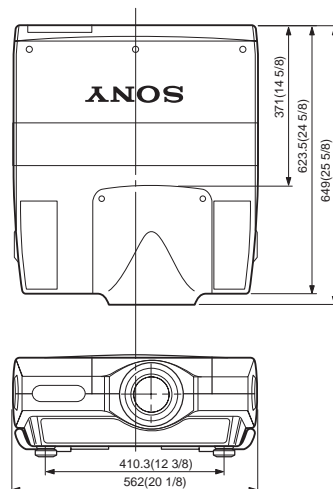
| Screen Size (inches) | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | |
|----------------------|-----|---------------------|---------------------|----------------------|--------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|------------------------|-----------------------|-----------------------|
| a | min | 3980 (156 3/4) | 5020 (197 11/16) | 6060 (238 5/8) | 7620 (300 1/8) | 9180 (361 1/2) | 10220 (402 1/2) | 12830 (505 1/4) | 15430 (607 5/8) | 18030 (709 15/16) | 20630 (812 3/8) | 23230 (914 3/4) | 25830 (1017 1/8) |
| | max | 6160 (242 5/8) | 7750 (305 1/4) | 9330 (367 3/8) | 11710 (461 1/8) | 14080 (554 1/2) | 15660 (616 5/8) | 19620 (772 5/8) | 23580 (928 1/2) | 27540 (1084 1/2) | 31500 (1240 3/8) | 35460 (1396 1/4) | 39420 (1552 1/4) |
| b | min | | | | | | | c+130.6 (c+5 1/4) | | | | | |
| | max | | | | | | | c+143.6 (c+5 3/4) | | | | | |
| e | min | 610 (24 1/8) | 762 (30) | 914 (36) | 1143 (45) | 1372 (54 1/8) | 1524 (60) | 1905 (75 1/8) | 2286 (90 1/8) | 2667 (105 1/8) | 3048 (120 1/16) | 3429 (135 1/8) | 3810 (150 1/8) |
| | max | | | | | | | c+130.6 (c+5 1/4) | | | | | |
| x | min | | | | | | | | | | | | |
| | max | c+717 (c+28 1/4) | c+860 (c+33 7/8) | c+1003 (c+39 1/2) | c+1218 (c+48) | c+1433 (c+56 1/2) | c+1577 (c+62 1/8) | c+1935 (c+76 1/4) | c+2293 (c+90 3/8) | c+2652 (c+104 1/2) | c+3010 (c+118 5/32) | c+3368 (c+132 5/8) | c+3726 (c+146 3/4) |

unit = mm (inches)

| 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|
| 3350 (132) | 3730 (146 7/8) | 4700 (185 1/8) | 5670 (223 3/8) | 6630 (261 1/8) | 7600 (299 1/4) | 8570 (337 1/2) | 9530 (375 1/4) |
| x-50 (x-2) | x-55 (x-2 1/4) | x-69 (x-2 3/4) | x-83 (x-3 3/8) | x-96 (x-3 7/8) | x-110 (x-4 3/8) | x-124 (x-5) | x-138 (x-5 1/2) |
| x | | | | | | | |
| x+50 (x+2) | x+55 (x+2 1/4) | x+69 (x+2 3/4) | x+83 (x+3 3/8) | x+96 (x+3 7/8) | x+110 (x+4 3/8) | x+124 (x+5) | x+138 (x+5 1/2) |
| x-192 (x-7 5/8) | x-198 (x-7 7/8) | x-211 (x-8 3/8) | x-225 (x-8 7/8) | x-239 (x-9 1/2) | x-253 (x-10) | x-267 (x-10 1/2) | x-280 (x-11 1/8) |
| x-142 (x-5 5/8) | | | | | | | |
| x-92 (x-3 5/8) | x-86 (x-3 1/2) | x-73 (x-2 7/8) | x-59 (x-2 3/8) | x-45 (x-1 13/16) | x-31 (x-1 1/4) | x-17 (x-11/16) | x-4 (x-5/32) |

Dimensions

unit = mm (inches)



EXAMPLES

VP LL-Z2039

unit = mm (inches)

| Screen Size (inches) | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | |
|----------------------|-----|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| a | min | 6360 (250 1/2) | 7990 (314 5/8) | 9620 (378 7/8) | 12070 (475 3/8) | 14510 (571 3/8) | 16150 (636) | 20220 (796 1/4) | 24300 (956 7/8) | 28380 (1117 1/2) | 32460 (1278 1/8) | 36540 (1438 7/8) | 40620 (1599 1/2) |
| | max | 9150 (360 3/8) | 11480 (452 1/8) | 13810 (543 7/8) | 17300 (681 1/4) | 20790 (818 5/8) | 23120 (910 3/8) | 28940 (1139 5/8) | 34760 (1368 3/4) | 40570 (1597 1/2) | 46390 (1826 5/8) | 52210 (2055 7/8) | 58030 (2284 15/16) |
| b | min | x-573 (x-22 5/8) | x-717 (x-28 1/4) | x-860 (x-33 7/8) | x-1075 (x-42 3/8) | x-1290 (x-50 7/8) | x-1433 (x-56 1/2) | x-1791 (x-70 5/8) | x-2150 (x-84 3/4) | x-2508 (x-98 3/4) | x-2866 (x-112 7/8) | x-3225 (x-127) | x-3583 (x-141 1/8) |
| | max | x | | | | | | | | | | | |
| c | min | x-728 (x-28 3/4) | x-872 (x-34 3/8) | x-1015 (x-40) | x-1230 (x-48 1/2) | x-1445 (x-57) | x-1588 (x-62 5/8) | x-1946 (x-76 3/4) | x-2305 (x-90 3/4) | x-2663 (x-104 7/8) | x-3021 (x-118 31/32) | x-3380 (x-133 1/8) | x-3738 (x-147 1/4) |
| | max | x-142 (x-5 5/8) | | | | | | | | | | | |

When two projectors are stacked

| Screen Size (inches) | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|----------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| a | 6840 (269 3/8) | 8590 (338 1/4) | 10340 (407 1/4) | 12970 (510 3/4) | 15590 (613 7/8) | 17340 (682 7/8) | 21720 (855 1/4) | 26100 (1027 3/4) | 30470 (1199 7/8) | 34850 (1372 1/4) | 39230 (1544 3/4) | 43600 (1716 3/4) |

VP LL-2075*

| Screen Size (inches) | 80 | 100 | 120 | 150 | 180 | 200 | |
|----------------------|----------------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|
| a | 12030 (473 11/16) | 15000 (590 5/8) | 17960 (707 1/4) | 22410 (882 1/2) | 26860 (1057 5/8) | 29830 (1174 5/8) | |
| b | min | x-573 (x-22 5/8) | x-717 (x-28 1/4) | x-860 (x-33 7/8) | x-1075 (x-42 3/8) | x-1290 (x-50 7/8) | x-1433 (x-56 1/2) |
| | max | x | | | | | |
| c | min | x-728 (x-28 3/4) | x-872 (x-34 3/8) | x-1015 (x-40) | x-1230 (x-48 1/2) | x-1445 (x-57) | x-1588 (x-62 5/8) |
| | max | x-142 (x-5 5/8) | | | | | |

VP LL-2014*

| Screen Size (inches) | 40 | 80 | 100 | 120 | 150 | 180 | | |
|----------------------|------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|
| a | 1030 (40 5/8) | 2180 (85 7/8) | 2760 (108 3/4) | 3330 (131 1/8) | 4200 (165 3/8) | 5060 (199 1/4) | 5660 (223 1/8) | |
| b | min | x-198 (x-7 7/8) | x-397 (x-15 5/8) | x-496 (x-19 5/8) | x-595 (x-23 1/2) | x-744 (x-29 3/8) | x-893 (x-35 1/4) | x-1042 (x-41 1/8) |
| | max | x | | | | | | |
| c | min | x-349 (x-13 7/8) | x-548 (x-21 5/8) | x-647 (x-25 1/2) | x-746 (x-29 1/2) | x-895 (x-35 1/4) | x-1044 (x-41 1/8) | x-1193 (x-47 1/8) |
| | max | x | | | | | | |

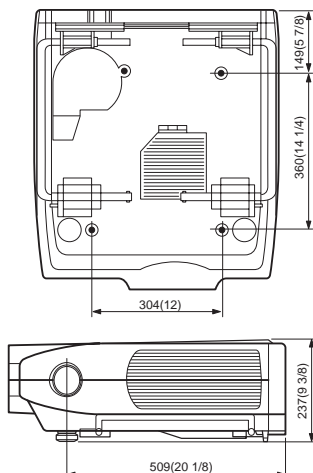
VP LL-Z2039

unit = mm (inches)

| Screen Size (inches) | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | |
|----------------------|-----------------|----------------------|---------------------|----------------------|--------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|------------------------|-----------------------|-----------------------|
| a | min | 6360 (250 1/2) | 7990 (314 5/8) | 9620 (378 7/8) | 12070 (475 3/8) | 14510 (571 3/8) | 16150 (636) | 20220 (796 1/4) | 24300 (956 7/8) | 28380 (1117 1/2) | 32460 (1278 1/8) | 36540 (1438 7/8) | 40620 (1599 1/2) |
| | max | 9150 (360 3/8) | 11480 (452 1/8) | 13810 (543 7/8) | 17300 (681 1/4) | 20790 (818 5/8) | 23120 (910 3/8) | 28940 (1139 5/8) | 34760 (1368 3/4) | 40570 (1597 1/2) | 46390 (1826 5/8) | 52210 (2055 7/8) | 58030 (2284 15/16) |
| b | min | c+130.6 (c+5 1/4) | | | | | | | | | | | |
| | max | c+143.6 (c+5 3/4) | | | | | | | | | | | |
| e | 610 (24 1/8) | 762 (30) | 914 (36) | 1143 (45) | 1372 (54 1/8) | 1524 (60) | 1905 (75 1/8) | 2286 (90 1/8) | 2667 (105 1/8) | 3048 (120 1/16) | 3429 (135 1/8) | 3810 (150 1/8) | |
| x | min | c+130.6 (c+5 1/4) | | | | | | | | | | | |
| | max | c+717 (c+28 1/4) | c+860 (c+33 7/8) | c+1003 (c+39 1/2) | c+1218 (c+48) | c+1433 (c+56 1/2) | c+1577 (c+62 1/8) | c+1935 (c+76 1/4) | c+2293 (c+90 3/8) | c+2652 (c+104 1/2) | c+3010 (c+118 5/32) | c+3368 (c+132 5/8) | c+3726 (c+146 3/4) |

VP LL-2075*

| Screen Size (inches) | 80 | 100 | 120 | 150 | 180 | 200 | |
|----------------------|----------------------|----------------------|---------------------|----------------------|---------------------|----------------------|----------------------|
| a | 12030 (473 11/16) | 15000 (590 5/8) | 17960 (707 1/4) | 22410 (882 1/2) | 26860 (1057 5/8) | 29830 (1174 5/8) | |
| b | min | c+130.6 (c+5 1/4) | | | | | c+130.6 (c+5 1/4) |
| | max | c+143.6 (c+5 3/4) | | | | | c+143.6 (c+5 3/4) |
| e | 610 (24 1/8) | 762 (30) | 914 (36) | 1143 (45) | 1372 (54 1/8) | 1524 (60) | |
| x | min | c+130.6 (c+5 1/4) | | | | | c+130.6 (c+5 1/4) |
| | max | c+717 (c+28 1/4) | c+860 (c+33 7/8) | c+1003 (c+39 1/2) | c+1218 (c+48) | c+1433 (c+56 1/2) | c+1577 (c+62 1/8) |



VPL-FX200 Input Signal Preset Data

| Memory No. | Preset Signal | fH (kHz) |
|------------|---------------|--------------------|
| 1 | VIDEO | 525/60 |
| 2 | | 625/50 |
| 3 | | 15 kHz RGB (60 Hz) |
| 4 | | 15 kHz RGB (50 Hz) |
| 5 | HDTV | 33.750 |
| 6 | 640x350 | VGA-1(VGA350) |
| 7 | | VESA 85(VGA350) |
| 8 | 640x400 | NEC PC98 |
| 9 | | VGA-2(TEXT)/VESA70 |
| 10 | | VESA 85(VGA400) |
| 11 | 640x480 | VESA 60 |
| 12 | | Mac 13 |
| 13 | | VESA 72 |
| 14 | | VESA 75(IBM M3) |
| 15 | | VESA 85(IBM M4) |
| 16 | 800x600 | VESA 56 |
| 17 | | VESA 60 |
| 18 | | VESA 72 |
| 19 | | VESA 75(IBM M5) |
| 20 | | VESA 85 |
| | | |

unit = mm (inches)

| 250 | 300 | 350 | 400 | 450 | 500 |
|----------------------|----------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| 37250 (1466 3/4) | 44660 (1758 1/2) | 52080 (2050 3/4) | 59500 (2342 7/8) | 66910 (2634 5/8) | 74330 (2926 3/4) |
| x-1791 (x-70 5/8) | x-2150 (x-84 3/4) | x-2508 (x-98 3/4) | x-2866 (x-112 7/8) | x-3225 (x-127) | x-3583 (x-141 1/8) |
| x-1946 (x-76 3/4) | x-2305 (x-90 3/4) | x-2663 (x-104 7/8) | x-3021 (x-118 31/32) | x-3380 (x-133 1/8) | x-3738 (x-147 1/4) |

unit = mm (inches)

| 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| 6640 (22 1/8) | 7080 (278 7/8) | 8520 (335 1/2) | 9960 (392 1/4) | 11400 (448 7/8) | 12840 (505 5/8) | 14280 (562 3/8) |
| x-992 (x-39 1/8) | x-1240 (x-48 7/8) | x-1488 (x-58 5/8) | x-1736 (x-68 3/8) | x-1984 (x-78 1/4) | x-2232 (x-88) | x-2480 (x-97 3/4) |
| x | | | | | | |
| 1143 (45 1/8) | x-1391 (x-54 7/8) | x-1639 (x-64 5/8) | x-1887 (x-74 3/8) | x-2135 (x-84 1/8) | x-2383 (x-93 7/8) | x-2631 (x-103 5/8) |
| -142 (-5 5/8) | | | | | | |

unit = mm (inches)

| 250 | 300 | 350 | 400 | 450 | 500 |
|----------------------|----------------------|-----------------------|------------------------|-----------------------|-----------------------|
| 37250 (1466 3/4) | 44660 (1758 1/2) | 52080 (2050 3/4) | 59500 (2342 7/8) | 66910 (2634 5/8) | 74330 (2926 3/4) |
| 1905 (75 1/8) | 2286 (90 1/8) | 2667 (105 1/8) | 3048 (120 1/16) | 3429 (135 1/8) | 3810 (150 1/8) |
| c+1935 (c+76 1/4) | c+2293 (c+90 3/8) | c+2652 (c+104 1/2) | c+3010 (c+118 5/32) | c+3368 (c+132 5/8) | c+3726 (c+146 3/4) |

| fV (kHz) | H/V Polarity | Size |
|-------------|-----------------|------|
| 59.940 | - | - |
| 50.000 | - | - |
| 59.940 | S on G | - |
| 50.000 | S on G | - |
| 60.000 | S on Y/G | 1235 |
| 70.086 | P/N | 800 |
| 85.080 | P/N | 832 |
| 56.416 | N/N | 848 |
| 70.086 | N/P | 800 |
| 85.080 | N/P | 832 |
| 59.940 | N/N | 800 |
| 66.667 | S on G | 864 |
| 72.809 | N/N | 832 |
| 75.000 | N/N | 840 |
| 85.008 | N/N | 832 |
| 56.250 | P/P | 1024 |
| 60.317 | P/P | 1056 |
| 72.188 | P/P | 1040 |
| 75.000 | P/P | 1056 |
| 85.061 | P/P | 1048 |

VPLL-2009*

unit = mm (inches)

| Screen Size (inches) | 40 | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|----------------------|------------------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|
| a | 640 (25 1/4) | 1410 (55 5/8) | 1800 (70 7/8) | 2190 (86 1/4) | 2770 (109 1/8) | 3350 (132) | 3730 (146 7/8) | 4700 (185 1/8) | 5670 (223 3/8) | 6630 (261 1/8) | 7600 (299 1/4) | 8570 (337 1/2) | 9530 (375 1/4) |
| min | x-11 (x-7/16) | x-22 (x-7/8) | x-28 (x-1 1/8) | x-33 (x-1 5/16) | x-41 (x-1 11/16) | x-50 (x-2) | x-55 (x-2 1/4) | x-69 (x-2 3/4) | x-83 (x-3 3/8) | x-96 (x-3 7/8) | x-110 (x-4 3/8) | x-124 (x-5) | x-138 (x-5 1/2) |
| b | center x | | | | | | | | | | | | |
| max | x+11 (x+7/16) | x+22 (x+7/8) | x+28 (x+1 1/8) | x+33 (x+1 5/16) | x+41 (x+1 11/16) | x+50 (x+2) | x+55 (x+2 1/4) | x+69 (x+2 3/4) | x+83 (x+3 3/8) | x+96 (x+3 7/8) | x+110 (x+4 3/8) | x+124 (x+5) | x+138 (x+5 1/2) |
| min | x-154 (x-6 1/8) | x-165 (x-6 1/2) | x-170 (x-6 3/4) | x-176 (x-7) | x-184 (x-7 1/4) | x-192 (x-7 5/8) | x-198 (x-7 7/8) | x-211 (x-8 3/8) | x-225 (x-8 7/8) | x-239 (x-9 1/2) | x-253 (x-10) | x-267 (x-10 1/2) | x-280 (x-11 1/8) |
| c | center x-142 (x-5 5/8) | | | | | | | | | | | | |
| max | x-130 (x-5 1/4) | x-119 (x-4 3/4) | x-114 (x-4 1/2) | x-108 (x-4 3/8) | x-100 (x-4) | x-92 (x-3 5/8) | x-86 (x-3 1/2) | x-73 (x-2 7/8) | x-59 (x-2 3/8) | x-45 (x-1 13/16) | x-31 (x-1 1/4) | x-17 (x-11/16) | x-4 (x-5/32) |

VPLL-2014*

unit = mm (inches)

| Screen Size (inches) | 40 | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|----------------------|-----------------------------|---------------------|---------------------|-------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| a | 1030 (40 5/8) | 2180 (85 7/8) | 2760 (108 3/4) | 3330 (131 1/8) | 4200 (165 3/8) | 5060 (199 1/4) | 5640 (222 1/8) | 7080 (278 7/8) | 8520 (335 1/2) | 9960 (392 1/4) | 11400 (448 7/8) | 12840 (505 5/8) | 14280 (562 3/8) |
| min | c+130.6 (c+5 1/4) | | | | | | | | | | | | |
| b | max c+139.6 (c+5 1/2) | | | | | | | | | | | | |
| e | 305 (12 1/8) | 610 (24 1/8) | 762 (30) | 914 (36) | 1143 (45) | 1372 (54 1/8) | 1524 (60) | 1905 (75 1/8) | 2286 (90 1/8) | 2667 (105 1/8) | 3048 (120 1/16) | 3429 (135 1/8) | 3810 (150 1/8) |
| min | c+130.6 (c+5 1/4) | | | | | | | | | | | | |
| x | c+338 (c+13 3/8) | c+536 (c+21 1/8) | c+636 (c+25 1/8) | c+735 (c+29) | c+884 (c+34 7/8) | c+1033 (c+40 3/4) | c+1132 (c+44 5/8) | c+1380 (c+54 3/8) | c+1628 (c+64 1/8) | c+1876 (c+73 7/8) | c+2124 (c+83 3/4) | c+2372 (c+93 1/2) | c+2620 (c+103 1/4) |

| Memory No. | Preset Signal | fH (kHz) | fV (kHz) | H/V Polarity | Size | | |
|------------|---------------|---------------|-------------|--------------|--------|------|------|
| 21 | 832x624 | Mac 16 | 49.724 | 74.550 | N/N | 1152 | |
| 22 | 1024x768 | VESA 43(8514) | 35.524 | 86.958 | P/P | 1264 | |
| 23 | | VESA 60 | 48.363 | 60.004 | N/N | 1344 | |
| 24 | | VESA 70 | 56.476 | 69.955 | N/N | 1328 | |
| 25 | | VESA 75 | 60.023 | 75.029 | P/P | 1312 | |
| 26 | | VESA 85 | 68.677 | 84.997 | P/P | 1376 | |
| 27 | | 1152x864 | VESA 70 | 63.995 | 70.019 | P/P | 1308 |
| 28 | VESA 75 | | 67.500 | 75.000 | P/P | 1422 | |
| 29 | VESA 85 | | 77.487 | 85.057 | P/P | 1394 | |
| 30 | 1152x900 | SUN LO | 61.795 | 65.960 | N/N | 1283 | |
| 31 | | SUN HI | 71.713 | 76.047 | N/N | 1256 | |
| 32 | | 1280x960 | VESA 60 | 60.000 | 60.000 | P/P | 1440 |
| 33 | 1280x1024 | VESA 75 | 75.000 | 75.000 | P/P | 1382 | |
| 34 | | VESA 43 | 46.433 | 43.436 | P/P | 1272 | |
| 35 | | SGI-5 | 53.316 | 50.062 | N/N | 1260 | |
| 36 | | VESA 60 | 63.974 | 60.013 | P/P | 1272 | |
| 37 | | SXGA VESA75 | 79.976 | 75.025 | P/P | 1266 | |
| 38 | | SXGA VESA85 | 91.146 | 85.024 | P/P | 1296 | |
| 39 | | 1600x1200 | UXGA VESA60 | 75.000 | 60.000 | P/P | 1352 |

SPECIFICATIONS

OPTICAL

| | |
|---------------------------------|--|
| Projection system: | 3 LCD panels, 1 lens projection |
| LCD panel: | 1.8-inch TFT LCD panel, 2,359,296 pixels (786,432 pixels x3) |
| Lamp: | 120 W UHP lamp (x4) |
| Light output: | 3100 ANSI lumens ^{*1} (typical) |
| Projection picture size: | 40 to 500 inches (viewable area, measured diagonally) |

Optional projection lenses:

| | Throwing distance (unit: mm) | | |
|--|------------------------------|----------------|-----------------|
| | 40-inch | 100-inch | 300-inch |
| VPLL-Z2019 (1.3 times zoom lens) | 1,490 - 1,890 | 3,870 - 4,880 | 11,820 - 14,840 |
| VPLL-Z2025 (1.6 times zoom lens) | N.A. | 5,020 - 7,750 | 15,430 - 23,580 |
| VPLL-Z2039 (1.5 times zoom lens) | N.A. | 7,990 - 11,480 | 24,300 - 34,760 |
| VPLL-2075 (fixed long focus lens) | N.A. | 15,000 | 44,660 |
| VPLL-2014 (fixed short focus lens) | 1,030 | 2,760 | 8,520 |
| VPLL-2009 (fixed short focus lens) | 640 | 1,800 | 5,670 |

GENERAL

| | |
|-------------------------------|--|
| Color system: | NTSC/PAL/SECAM/NTSC4.43/PAL-M (automatically selected) |
| Resolution: | Video: 600 TV lines RGB: 1024 x 768 pixels |
| Scanning frequency: | fH: 15 kHz - 94 kHz fV: 50 Hz - 120 Hz Display area: >6.4 μsec |
| Speaker: | 5 W stereo |
| Power requirements: | VPL-FX200U: AC 100 to 240 V, 50/60 Hz (UL approved for AC 120 V operation) VPL-FX200M: AC 220 to 240 V, 50/60 Hz |
| Power consumption: | VPL-FX200U: 770 W (Max.), 15 W (Standby) VPL-FX200M: 770 W (Max.), 20 W (Standby) |
| Heat dissipation: | 2628 BTU |
| Dimensions: | 562 (W) x 237 (H) x 649 (D) mm (22 1/4 x 9 3/8 x 25 5/8 inches) |
| Mass: | Approx. 34.5 kg (75 lb 14 oz) |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Operating humidity: | 35 to 85% (no condensation) |
| Storage temperature: | -20 to 60°C (-4 to 140°F) |
| Storage humidity: | 10 to 90% |

INPUTS/OUTPUTS

| | |
|-------------------------------------|---|
| VIDEO IN | |
| Composite video: | Loop-through BNC 1.0 Vp-p ± 2 dB sync negative, 75 Ω |
| S VIDEO IN | |
| Y IN: | BNC 1.0 Vp-p ± 2 dB sync negative, 75 Ω |
| C IN: | BNC Burst 0.286 Vp-p ± 2 dB (NTSC), 75 Ω or 0.3 Vp-p ± 2 dB (PAL), 75 Ω |
| Y/C IN: | Loop-through Mini DIN 4-pin |
| Y (luminance): | 1.0 Vp-p ± 2 dB sync negative, 75 Ω |
| C (chrominance): | Burst 0.286 Vp-p ± 2 dB (NTSC), 75 Ω or 0.3 Vp-p ± 2 dB (PAL), 75 Ω |
| AUDIO IN: | Phono, stereo, 500 mV rms, impedance more than 47 kΩ |
| INPUT A | |
| Analog RGB/Component: | BNC x 5 |
| R/R-Y: | 0.7 Vp-p ± 2 dB positive, 75 Ω |
| G: | 0.7 Vp-p ± 2 dB positive, 75 Ω |
| G with sync/Y: | 1.0 Vp-p ± 2 dB sync negative, 75 Ω |
| B/B-Y: | 0.7 Vp-p ± 2 dB positive, 75 Ω |
| SYNC/HD | |
| Composite sync: | 0.6 - 8 Vp-p high impedance, sync positive/negative |
| Horizontal sync: | 0.6 - 8 Vp-p high impedance, sync positive/negative |
| VD | |
| Vertical sync: | 0.6 - 8 Vp-p high impedance, sync positive/negative |
| HDTV^{**} (Y/Pb/Pr): | BNC |
| Y: | 1.0 Vp-p ± 2 dB positive, 75 Ω, Tri-level sync: ±0.3 Vp-p Bi-level sync: 0.3 Vp-p |
| Pb/Pr: | ±0.35 Vp-p ± 2 dB positive, 75 Ω |
| HDTV^{**} (GBR): | BNC |
| G with sync: | 1.0 Vp-p ± 2 dB, 75 Ω, Tri-level sync: ±0.3 Vp-p Bi-level sync: 0.3 Vp-p |
| B/R: | 0.7 Vp-p ± 2 dB positive, 75 Ω |
| Audio IN: | Phono, stereo, 500 mV rms, impedance more than 47 kΩ |

| | |
|---------------------------------|--|
| AUDIO OUT: | Phono, Max. 1 V rms when input is 500 mV rms, impedance more than 1 kΩ |
| INPUT B/C: | Open for optional IFB board |
| CONTROL S IN/ | Stereo mini jack 5 Vp-p, |
| PLUG IN POWER: | Plug in power DC 5 V maximum output 60 mA |
| CONTROL S OUT: | Stereo mini jack 5 Vp-p |
| REMOTE | |
| RS-232C/RS-422A ^{*1} : | D-sub 9-pin (female) |
| PJ COM ^{*2} : | D-sub 9-pin x2 (female) |
| Trig: | Mini jack |
| | Power ON: 12 V, output impedance 4.7 kΩ |
| | Power OFF: 0 V |

SAFETY REGULATIONS

| | |
|-------------|---|
| VPL-FX200U: | UL 1950, cUL 950, FCC Class A, IC Class A |
| VPL-FX200M: | EN 60 950 (TÜV), CE, C-tick |

ACCESSORIES

| | |
|------------------------------|---|
| SUPPLIED ACCESSORIES: | Remote commander RM-PJ1001 Remote commander cable (15 m) AA size battery (x3) AC power cord PJ COM termination Lens ring Operation manual Installation manual |
| OPTIONAL ACCESSORIES: | Projector quadruple lamp (for replacement) LMP-Q120 Projector individual lamp LMP-S120 1.3 times zoom standard focus lens VPLL-Z2019 1.6 times zoom long focus lens VPLL-Z2025 1.5 times zoom long focus lens VPLL-Z2039 Fixed long focus lens VPLL-2075 Fixed short focus lens VPLL-2014 Fixed short focus lens VPLL-2009 Stack stand (for twin and triple stacking) SU-PJ2000 Suspension support PSS-2000 Suspension support PSS-10 Signal adaptor HD D-sub 15-pin→D-sub 9-pin (for SIC Cable) ADP-10 Signal adaptor Macintosh→VGA ADP-20 D-sub HD 15-pin→5 BNC cable SMF-400 D-sub HD 15-pin→D-sub HD 15-pin SMF-401 Interface board IFB-12A/20/21/30/1000/50 Signal interface cable SIC-20A/20B/20C/21/22 Signal interface switcher PC-3000 9-pin remote cable RCC-5G/10G/30G (for RS-422A) Remote commander RM-PJ3000S ^{*3} Remote control receiver RM-PJ10 100-inch flat screen VPS-100FH ^{*6} 120-inch flat screen VPS-120FH ^{*6} |

^{*1} ANSI lumens is a measuring method of the American National Standards Institute ANSI IT7.228.

^{*2} The VPL-FX200 supports 1125/60/2:1 and 1125/59.94/2:1 (SMPT-240M/274M) HDTV systems.

^{*3} RS-232C/RS-422A selectable.

^{*4} PJ COM complies with RS-485.

^{*5} Laser Type: Class II

Wavelength: 645 nm

Output: 1 mW

^{*6} Not available in some areas. For details, please contact your nearest Sony office.



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