

# 7000 XGA Installation Projector

VPL-FX500L







With its outstanding image quality, the VPL-FX500L delivers amazing installation flexibility and trouble-free maintenance in challenging installations. The projector also offers peace of mind with its twin-lamp system which eliminates downtime.

This VPL-FX500L has a very wide lens shift range, enabling excellent flexibility when installing the unit. Lamp and air filter maintenance cycles are synchronised and are exceptionally long compared to single and dual-lamp systems, cutting maintenance time and cost. In addition, the projector is designed to deliver a low total cost of ownership, and includes eco-friendly features such as long-lasting lamps and low power consumption.

Packing the most advanced projector technologies into an unobstrusive design, the VPL-FX500L is an excellent choice, delivering a dramatic brightness of 7,000 lumens and high-quality images with XGA resolution.

#### **Features**

#### **High Picture Quality**

High Picture Quality and Bright Images By combining a new-generation optical system that uses Sony's BrightEra™ Long Lasting Optics technology\* and a 3LCD projection system, the VPL-FX500L offers high picture quality in XGA (1024 x 768) resolution and a high brightness of 7000 lumens.

\* BrightEra with Long Lasting Optics is the brand name for a new generation of optical system, which is a more advanced version of Sony's original BrightEra technology. In addition to the adoption of LCD panels that have pixels with large aperture ratios and inorganic alignment layers, BrightEra with Long Lasting Optics technology also uses an inorganic layer for polarisation lottes to greatly enhance reliability.



#### **Unobstrusive Design**

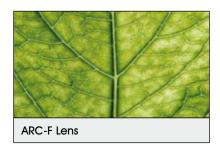
The VPL-FX500L showcases a newly designed low profile chassis, so the projector appears to blend into the ceiling on which it is mounted.

The connector panel is located on the front of the unit so its cables cannot be seen by the audience.



#### **Optional High-resolution Lenses**

The optional VPLL-Z4015, VPLL-Z4019, VPLL-Z4025 and VPLL-Z4045 are known as All Range Crisp Focus (ARC-F) lenses. Each with a large diameter and fine pitch, they ensure crisp pictures.





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#### 12-bit 3D Gamma Correction

The VPL-FX500L incorporates 12-bit 3D Gamma Correction circuitry to perform highly accurate gamma correction, achieving smoother gradations and a richer grey-scale.





#### I/P Conversion and Film Mode

The video signal processing technology that Sony has incorporated in the VPL-FX500L offers I/P conversion and 2-3 pull-down to generate high-quality images with outstanding clarity.

## Excellent Total Cost of Ownership and ECO-friendly Design

#### Long-lasting Lamp

By incorporating newly developed high-performance lamps and advanced lamp-control technology, the VPL-FX500L delivers a recommended lamp replacement time of approximately 8,000 hours.\*

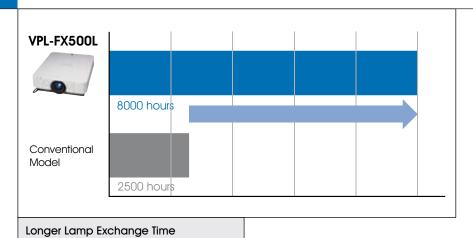
\* In Standard mode (with two lamps).

#### Fail Safe Twin-lamp System

The VPL-FX500L's twin-lamp system provides peace of mind and economical operation. One lamp can output a total of 7,000 lumens but a second lamp is built in to provide automatic backup should the primary lamp fail. The two lamps can be alternately used, achieving a recommended lamp replacement time of approximately 8,000 hours, saving maintenance time and cost.

#### Low Power Consumption

The VPL-FX500L offers remarkably low power consumption, allowing users to make significant savings on electricity costs.





#### **ECO MODE**

Eco Mode optimises combinations of the following functions.

- Lamp mode "High / Standard"
- Saving the consumption of lamp wattage.
- Power Saving mode "Lamp Cutoff / Projector Standby"
- When set to "On", the projector goes into power saving mode if there is no operation for 10 minutes without any signal input.

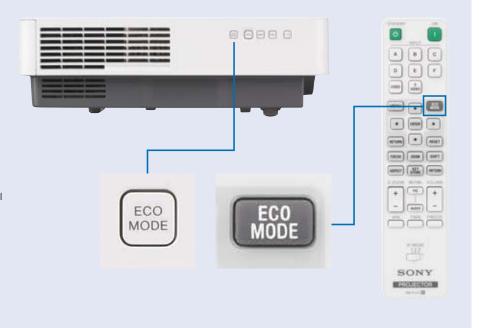
Lamp Cutoff; The lamp goes off. The lamp lights again when a signal is input or any key is pressed.

Projector Standby; "Standard / Low" In "Standard", power consumption is 12W and is reduced to 0.3W in "Low"\*

\*Network function cannot be operated

#### **ECO MODE Key**

With a single push of the ECO MODE key on either the projector or the supplied Remote Commander $^{\text{\tiny M}}$  unit, the user can select an energy-saving setting in the ECO Mode menu.



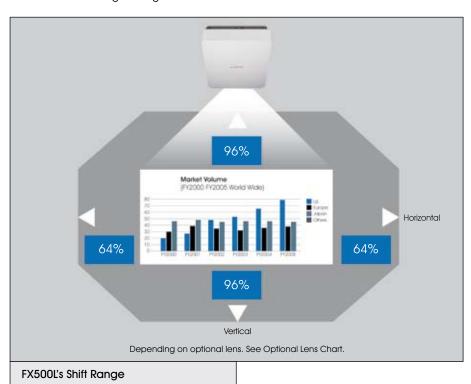
#### VPL-FX500L

#### **Installation Advantages**

#### Lens Shift Function

The VPL-FX500L is equipped with a lens shift function which is controlled from the projector control panel or the supplied Remote Commander unit. Using this function, the position of the projected image can be moved vertically by -96% to +96% and horizontally by -64% to +64%. Images can be easily adjusted to the desired settings during installation.





#### **Features**

#### **Trouble-free Maintenance**

#### Easy Lamp and Filter Maintenance

When the lamps and air filter are due for replacement, a timely message is clearly displayed on screen. The lamps and air filter are accessible from both sides, so their replacement can be performed without uninstalling the projector. Like the lamps, the replacement filter has an approximate 8,000-hour replacement cycle in standard mode. This synchronised replacement is achieved, even in tough environments, by a Quad Filter System Plus, saving maintenance time and cost.

The Quad Filter System Plus is composed of four pleated electrostatic filters. This substantial unit is designed to maintain high performance for a long period of time, requiring air filter replacement only when lamp replacement is also required (included with replacement lamp).



Lamp Replacement



#### **Choice of Sony Lenses**

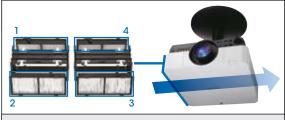
Various optional zoom lenses are available for the VPL-FX500L which can be used for many different applications.

#### **Centered Lens Design**

The centered lens provides symmetry for a balanced installation and makes set up very simple.

#### One-way Intake with Quad Filter System Plus

To keep all internal parts clean, the projector design unifies air intake through just one hole which is equipped with a Quad Filter System Plus.



One-way Intake with Quad Filter System Plus

#### **Presentation Functions**

Freeze Function

Freezes the projected image

Digital Zoom Function

Enlarges a section of the image

Picture/Audio Muting

Mutes the image/audio

Other Features

Quiet Noise Operation

Low frequency sound

**Closed Captioning** 

Official teletext broadcasting, developed by the NCI, USA

Security Pack

Security lock (password and mechanical), security bar, panel key lock and security label

Test Pattern Key

For easy screen adjustment

**ID Mode** 

For individual control of multiple projectors

Audio Monitor Function

Allows audio to be selected based on input selection

Smart APA

Auto pixel alignment

Direct Power On/Off

Direct power control using the circuit breaker on the switch board

High Altitude Mode

For projector operation at high altitude

**Network and Control** 

Controls and monitors projector status Compatible with various control systems

Ziris Manage (optional)

Monitoring and reporting software for all Sony projectors and displays within a network









#### **PrimeSupport**

All Sony Professional's business projectors sold into the EU, Norway and Switzerland come supplied with a 3 year PrimeSupport pack. This offers unique services and benefits over and above standard warranty:-

#### 3 Years Cover

Freephone telephone helpdesk support (00800 7898 7898) in 5 languages. Collection, repair and return anywhere in EU, Norway and Switzerland.

In addition, optional PrimeSupport Plus packs can be purchased which can further enhance the 3 year support to give extra peace of mind:-

- A 2 year extension to give long-term assurance of expert support and technical assistance
- Provision of a loan unit throughout the 3 year of PrimeSupport cover to minimise disruption to business
- Free replacement lamp throughout the 3 year PrimeSupport cover to reduce unexpected running costs

## Prime **Support**

## Optional Accessories



LMP-F330 Projector Lamp (Replacement filters included)



PSS-630 Projector Suspension Support



PSS-630P Projector Suspension Support Joint Pole



PK-F500LA1
Projection Lens Adapter



Prime Support Plus

PK-F500LA2
Projection Lens Adapter

## **Optional Lenses**

#### **Premium Series**

Projection Lens	VPLL-Z4015	VPLL-Z4015 VPLL-Z4019 VPLL-Z4025		VPLL-Z4045	
Throw ratio	2.06:1 to 2.72:1	2.67:1 to 3.42:1	3.36:1 to 6.23:1	6.19:1 to 10.72:1	
Zoom / Focus	Powered / Powered	Powered / Powered	Powered / Powered	Powered / Powered	
Lens shift	Vertical: Upward 86% to Downward 86% Horizontal: Right 57% to Left 57%	Vertical: Upward 96% to Downward 96% Horizontal: Right 64% to Left 64%	Vertical: Upward 96% to Downward 96% Horizontal: Right 64% to Left 64%	Vertical: Upward 96% to Downward 96% Horizontal: Right 64% to Left 64%	
Aperture	f/2.20 to 2.60	f/1.70 to 2.10	f/2.20 to 3.10	f/2.20 to 3.60	
Screen size*	40" to 600"	40" to 600"	40" to 600"	60" to 600"	
Dimensions	W 148 x H 133 x D 231 mm (W 5 13/16 x H 5 1/4 x D 9 3/32 in)	W 148 x H 133 x D 212 mm (W 5 13/16 x H 5 1/4 x D 8 11/32 in)	W 148 x H 133 x D 243 mm (W 5 13/16 x H 5 1/4 x D 9 9/16 in)	W 148 x H 133 x D 235 mm (W 5 13/16 x H 5 1/4 x D 9 1/4 in)	
Mass	3.00 kg / 6 lb 10 oz	3.06 kg / 6 lb 12 oz	2.80 kg / 6 lb 3 oz	3.00 kg / 6 lb 10 oz	

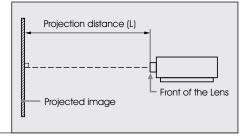
## **Optional Lenses**

## **Value Series**

Projection Lens	VPLL-FM22PK	VPLL-ZM32PK	VPLL-ZM42PK	VPLL-ZP41PK	
	PK-F500LA2 Projector Lens Adapter	PK-F500LA2 Projector Lens Adapter	PK-F500LA2 Projector Lens Adapter	PK-F500LA1 Projector Lens Adapter	
Throw ratio	0.89:1	1.48:1 to 1.62:1	1.87:1 to 2.30:1	2.53:1 to 3.08:1	
Zoom / Focus	- / Manual	Manual / Manual	Manual / Manual	Powered / Powered	
Lens shift	-	Vertical: Upward 50% to Downward 50% Horizontal: Right 32% to Left 32%	Vertical: Upward 50% to Downward 50% Horizontal: Right 32% to Left 32%	Vertical: Upward 96% to Downward 96% Horizontal: Right 64% to Left 64%	
Aperture	f/2.00	f/1.76 to 1.96	f/1.74 to 2.28	f/1.70 to 2.00	
Screen size*	40" to 300"	40" to 300"	40" to 300"	40" to 300"	
Dimensions	W 88 x H 88 x D 169 mm (W 3 15/32 x H 3 15/32 x D 6 21/32 in)	W 88 x H 88 x D 159 mm (W 3 15/32 x H 3 15/32 x D 6 1/4 in)	W 88 x H 88 x D 159 mm (W 3 15/32 x H 3 15/32 x D 6 1/4 in)	W 117 x H 110 x D 198 mm (W 4 19/32 x H 4 11/32 x D 7 25/32 in)	
Mass	0.95 kg / 2 lb 2 oz	0.95 kg / 2 lb 2 oz 1.00 kg / 2 lb 3 oz		1.46 kg / 3 lb 3 oz	

Projection Lens	VPLL-ZM102PK	VPLL-ZM101PK		
	PK-F500LA2 Projector Lens Adapter	PK-F500LA1 Projector Lens Adapter		
Throw ratio	3.35:1 to 4.92:1	4.47:1 to 6.58:1		
Zoom / Focus	Manual / Manual	Manual / Manual		
Lens shift	Vertical: Upward 50% to Downward 50% Horizontal: Right 32% to Left 32%	Vertical: Upward 96% to Downward 96% Horizontal: Right 64% to Left 64%		
Aperture	f/2.04 to 2.57	f/2.00 to 2.60		
Screen size*	40" to 300"	40" to 300"		
Dimensions	W 88 x H 88 x D 198 mm (W 3 15/32 x H 3 15/32 x D 7 25/32 in)	W 100 x H 100 x D 222 mm (W 3 15/16 x H 3 15/16 x D 8 3/4 in)		
Mass	1.50 kg / 3 lb 5 oz	1.81 kg / 3 lb 16 oz		

 $<sup>\</sup>ensuremath{^{\star}}$  Viewable area, measured diagonally.



## **Installation Diagram**

Projectio	on Distance										
Projection	n Image Size	Projection Distance (L)									
Diagonal	Width x Height	VPLL-FM22PK	VPLL-ZIM32PK	VPLL-ZIM42PK	VPLL-ZP41PK	VPLL-ZM102PK	VPLL-ZM101PK	VPLL-Z4015	VPLL-Z4019	VPLL-Z4025	VPLL-Z4045
2.03 m	1.63 x 1.22	1.42	2.39 - 2.64	3.05 - 3.82	4.11 – 5.01	5.40 – 8.01	7.29 – 10.71	3.22 - 4.24	4.19 – 5.35	5.26 - 9.74	9.69–16.78
(80-inch)	(64 x 48)	(56)	(94 - 103)	(120 - 150)	(162 – 197)	(213 – 315)	(287 – 421)	(127 - 167)	(165 – 210)	(207 - 383)	(382 – 660)
2.54 m	2.03 x 1.52	1.79	3.00 – 3.31	3.82 - 4.79	5.16 - 6.29	6.79 – 10.05	9.16 – 13.44	4.05 – 5.33	5.27 - 6.72	6.61 – 12.21	12.17 – 21.03
(100-inch)	(80 x 60)	(71)	(118 – 130)	(151 - 188)	(203 - 247)	(268 – 395)	(361 – 529)	(160 – 210)	(208 - 264)	(261 – 481)	(479 – 828)
3.05 m	2.44 x 1.83	2.16	3.61 – 3.98	4.60 – 5.76	6.20 - 7.57	8.18 – 12.09	11.03 – 16.17	4.89 - 6.42	6.35 - 8.08	7.97 – 14.69	14.64 – 25.28
(120-inch)	(96 x 72)	(85)	(143 – 157)	(181 – 227)	(245 - 298)	(323 – 476)	(435 – 636)	(193 - 252)	(250 - 318)	(314 – 578)	(577 – 995)
3.81 m	3.05 x 2.29	2.72	4.53 – 4.99	5.76 – 7.22	7.77 – 9.49	10.27 – 15.16	13.84 – 20.26	6.13 – 8.05	7.96 – 10.14	10.00 – 18.40	18.35 – 31.66
(150-inch)	(120 x 90)	(107)	(179 – 196)	(227 – 284)	(306 – 373)	(405 – 597)	(545 – 797)	(242 – 317)	(314 – 399)	(394 – 724)	(723 – 1,246)
5.08 m	4.06 x 3.05	3.64	6.06 - 6.68	7.70 – 9.64	10.39 – 12.69	13.75 – 20.27	18.53 – 27.09	8.21 – 10.77	10.66 – 13.56	13.38 – 24.58	24.54 - 42.29
(200-inch)	(160 x 120)	(143)	(239 - 263)	(303 – 379)	(409 – 499)	(542 – 798)	(730 – 1,066)	(324 – 424)	(420 – 533)	(527 – 968)	(967 - 1,665)

## **Preset Signal Chart**

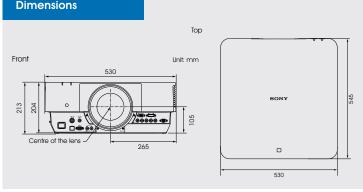
Computer Signal			
	fH [kHz] /	Input Co	onnector
Resolution	fV [Hz]	RGB	DVI-D
	31.5/70	•	
640 x 350	37.9/85	•	
(40 - 400	31.5/70	•	
640 x 400	37.9/85	•	
	31.5/60	•	•
	35.0/67	•	
640 x 480	37.9/73	•	
	37.5/75	•	
	43.3/85	•	
	35.2/56	•	
	37.9/60	•	•
800 x 600	48.1/72	•	
	46.9/75	•	
	53.7/85	•	
832 x 624	49.7/75	•	
	48.4/60	•	•
1024 x 768	56.5/70	•	
1024 X 706	60.0/75	•	
	68.7/85	•	
	64.0/70	•	
1152 × 864	67.5/75	•	
	77.5/85	•	
1152 x 900	61.8/66	•	
1280 x 960	60.0/60	•	•
1200 X 900	75.0/75	•	
	64.0/60	•	•
1280 x 1024	80.0/75	•	
	91.1/85	•	
1400 x 1050	65.3/60	•	•
1600 x 1200	75.0/60	•	•
1280 x 768	47.8/60	•	•
1280 x 720	45.0/60	•	•
1920 x 1080	67.5/60		•
1360 x 768	47.7/60	•	•
1440 x 900	55.9/60	•	•
1680 x 1050	65.3/60	•	•
1280 x 800	49.7/60	•	•
1920 x 1200	74.0/60	<b>●</b> *¹	●*¹

Digital TV Signal				
Signal	fV [Hz]	Input Connector		
signai		RGB*2/YPBPR	DVI-D	
480i	60	•	•	
576i	50	•	•	
480p	60	•	•	
576p	50	•	•	
1080i	60	•	•	
1080i	50	•	•	
720p	60	•	<b>●</b> *³	
720p	50	•	•	
1080p	60		<b>●</b> *3	
1080p	50		•	
Analogue TV Sign	ial			
Signal	f√ [Hz]	Input Connector		
agnai	TV [HZ]	VIDEO/\$ VIDEO		
NTSC	60	•		
PAL/SECAM	50	•		

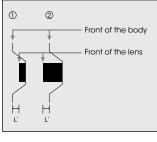
- \*1: Available for VESA Reduced Blanking signals. \*2: With INPUT A only. \*3: Determine as a computer signal.
- When a signal other than the signals listed in table is input, the picture may not be displayed properly.
  An input signal meant for screen resolution different from that of the panel will not be displayed in its original resolution. Text and lines may be uneven.



## The distance between the front of the lens (centre) and the front of the cabinet **Dimensions**



Lens	Ľ	Туре
VPLL-FM22PK	30.9 (1 <sup>7</sup> /32)	1
VPLL-ZM32PK	42.5 (1 11/16)	(-)
VPLL-ZM42PK	40.1 (1 <sup>19</sup> / <sub>32</sub> )	(-)
VPLL-ZP41PK	9.1 (1 <sup>1</sup> /32)	2
VPLL-ZM102PK	3.0 (1/8)	(-)
VPLL-ZM101PK	41.3 (1 <sup>5</sup> /8)	2
VPLL-Z4015	47.8 (1 <sup>7</sup> /s)	2
VPLL-Z4019	26.7 (1 <sup>1</sup> /16)	2
VPLL-Z4025	55.4 (2 <sup>3</sup> /16)	2
VPLL-Z4045	53.0 (2 <sup>3</sup> / <sub>32</sub> )	2



Unit: mm (inches)

#### **Specifications**

		VPL-FX500L				
Display system		3 LCD system				
Display device	Size of effective display area	0.99" (25.0 mm) x 3, BrightEra, Aspect ratio: 4:3				
Number of pixels		2,359,296 (1024 x 768 x 3) pixels				
Projection lens Zoom		Powered / Manual (Depends on lens)				
	Focus	Powered / Manual (Depends on lens)				
	Lens shift	Powered (Depends on lens)				
Light source		High-pressure mercury lamp 330W type (Twin-lamp system)				
Recommended I	amp replacement time*1	6000 H (Lamp mode: High), 8000 H (Lamp mode: Standard) *2				
Filter replacemen	it cycle	Same time as the lamp replacement				
Screen size		40" to 600" (1.02 m to 15.24 m)*3				
Light output		7000 lm (Lamp mode: High)* <sup>4</sup> , 5600 lm (Lamp mode: Standard)				
Colour light outpu	ut	7000 Im (Lamp mode: High)*4, 5600 Im (Lamp mode: Standard)				
	white / full black)*5	2500:1				
Displayable	Horizontal	14 kHz to 93 kHz				
scanning frequency	Vertical	47 Hz to 93 Hz				
Display resolution		Maximum display resolution: 1920 x 1200 dots*6 (resizing display), Panel display resolution: 1024 x 768 dots				
	Video signal input	NTSC, PAL, SECAM, 480/60i, 576/50i, 480/60p, 576/50p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/60p, 1080/50p				
Colour system		NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N, PAL60				
Keystone correction	on	Vertical: Max. +/- 30 degrees* <sup>7</sup>				
OSD language		20-languages (English, Dutch, French, Italian, German, Spanish, Portuguese, Turkish, Polish, Russian, Swedish, Norwegian, Japanese, Simplified Chinese, Traditional				
		Chinese, Korean, Thai, Vietnamese, Arabic, Persian)				
Computer and video signal INPUT A		RGB / Y Pa Pr. input connector: 5BNC (female)				
input/output	INPUT B	RGB input connector: Mini D-sub 15-pin (female)				
	INPUT C	DVI-D input connector: DVI-D 24-pin (Single link), supported HDCP				
	S VIDEO IN	S video input connector: Mini DIN 4-pin				
	VIDEO IN	Video input connector: BNC				
	OUTPUT	Monitor output connector* <sup>6</sup> : Mini D-sub 15-pin (female)				
Control signal input/output		RS-232C connector: D-sub 9-pin (female) LAN connector: RJ45, 10BASE-TX Control S input connector: Stereo mini jack, Plug in power DC5V Control S output connector: Stereo mini jack				
Operating tempe	erature (Operating humidity)	0°C to 40°C / 32°F to 104°F (35% to 85% (no condensation))				
Storage temperature (Storage humidity)		-20°C to +60°C / -4°F to +140°F (10% to 90%)				
Power requirements		AC 100 V to 240 V, 4.8 A to 2.0 A, 50/60 Hz				
Power	AC 100 V to 120 V	480 W				
consumption AC 220 V to 240 V		460 W				
Standby	AC 100 V to 120 V	13 W (Standby mode: Standard) / 0.1 W (Standby mode: Low)				
Standby AC 100 V to 120 V mode power consumption AC 220 V to 240 V		12 W (Standby Mode: Standard) / 0.2 W (Standby mode: Low)				
Heat dissipation   AC 100 V to 120 V   AC 220 V to 240 V		1638 BTU				
		1570 BTU				
Outside dimensio	ins	W 530 x H 213 x D 545 mm (W 20 7/8 x H 8 3/8 x D 21 15/32 in)				
Mass		20 kg / 44 lb 1 oz				
Supplied accessories		RM-PJ19 Remote Commander (1), Size AA (R6) batteries (2), AC power cord (1), Cable ties (2), Lens installation screws (4), Lens gap cover (1), Quick Reference Manual (1), Security Label (1), Operating Instructions (1)				

<sup>\*1</sup> The figures are expected maintenance time and not guaranteed. They will depend on the environment or how the projector is used. \*2 With two lamp sequential use. \*3 Viewable area, measured diagonally.

\*4 When attaching the VPLL-ZP41PK. \*5 The value is average. \*6 Available for VESA Reduced Blanking signal. \*7 Depend on resolution. \*8 From INPUT A and INPUT B.

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HCT\_8046\_UK\_08/2010

