

VPL-VW870ES

4K SXRD Home Cinema Projector with laser light source, 2,200 lumen brightness, Premium All-Range Crisp Focus (ARC-F) lens and Digital Focus Optimiser



Overview

Compact, native 4K resolution home projector with laser light source

An ideal choice to fit in your home cinema room, the VPL-VW870ES brings movies to life with extraordinary cinematic detail, colour and contrast. This compact size home projector combines an advanced laser light source with the same Sony 4K SXRD panel technology that's found in our professional cinema projectors.

Crisply detailed native 4K images (4096 x 2160) offer four times the resolution of Full HD, pulling you right into the heart of the action with unprecedented clarity. An ARC-F lens is mounted on the VPL-VW870ES, expressing precise details in every corner of the screen.

You'll experience fabulously rich cinematic colours, smooth motion and spectacular contrast. Savour the action with 2200 lumens brightness and see vibrant images.

You're fully prepared with compatibility for the latest 4K standards, including High Frame Rates and HDR (High Dynamic Range) - so you'll get the very best out of today's content, and tomorrow's.

Features

Watch brightness for longer with a Z-Phosphor™ laser light

The VPL-VW870ES uses an ultra-pure and reliable Z-Phosphor™ laser light source. This Sony developed light source offers bright images for up to 20,000 hours of uninterrupted operation - no lamp replacement, and virtually zero maintenance.

Native 4K SXR™ panel

Featured in Sony's digital cinema projectors, advanced SXR™ (Silicon X-tal Reflective Display) panel technology delivers native 4K (4096 x 2160) resolution images, with more than four times the detail of Full HD. Fine details are wonderfully clear and natural, without jagged edges or visible pixels.

See richer, deeper blacks

Latest SXR™ 4K panels deliver even better contrast, as well as native 4K resolution. SXR™ projection offers rich, inky blacks, as well as clear cinematic motion and image smoothness. Improvements to the panel's reflective silicon layer now mean even better light control, for precisely reproduced shadows and blacks.

Dual contrast control

In addition to the dynamically-controlled laser light output, an Advanced Iris is also incorporated. Both the iris control and laser can be adjusted independently, and dynamically, to optimise light output for both dark and bright well-lit scenes. The result is deeper blacks than ever, as well as bright, vibrant colours where needed. The infinite dynamic contrast makes every scene spring to life with detail and realism.

Corner-to-corner sharpness with the ARC-F lens

For pristine image quality across the entire screen, the VPL-VW870ES features an All-Range Crisp Focus (ARC-F) lens. This large-aperture lens adopts an all-glass design for its 18 elements, including six extra low-dispersion (ELD) elements. This ensures

optimal convergence of the red, green and blue primaries even at the extreme edges of the image for a clear and vivid image wherever you look.

Digital Focus Optimiser

Optimum focus is achieved, not only optically but digitally, by the Digital Focus Optimiser. It compensates the possible optical degradation of the lens in advance then outputs the optimum corrected images, so that even the focus in the corners is better than ever.

Super-resolution Reality Creation

Exclusive Reality Creation technology analyses images right down to the pixel level. It uses powerful pattern-matching algorithms developed over years of movie production to enhance image crispness without increasing digital picture noise. It also upscales existing full HD Blu-ray Disc™ and DVD movies to near 4K quality.

HDR compatibility: every image comes to life

Get the most from today's UHD Blu-ray and streaming services with High Dynamic Range. HDR video offers an expanded brightness range that delivers more realistic, high-contrast images and brilliant colours. Compatible with both HDR10 and HLG (Hybrid Log-Gamma) formats. Sony's home cinema projectors reproduce colour and contrast that's faithful to the creator's intention.

HDMI 18 Gbps compatibility

With an increase in 4K HDR 60P content, the VPL -VW870ES is now HDMI 18 Gbps compatible for smoother expressions of gradations.

4K Motionflow™

The powerful video processor in the VPL-VW870ES offers Motionflow™ for smooth and clear motion, even when viewing 4K content. Motionflow adds frames to reduce blur, while maintaining brightness, making it ideal for fast-moving sports

content. Cinema purists can choose True Theatre mode to retain the original 24fps.

2,200 lumens for high brightness

Enjoy the action with up to 2,200 lumens brightness from the laser light source, for vibrant images on screens.

Picture Position Memory stores your settings

Store lens, zoom, and shift settings for up to five screen formats for easy recall. Picture Position Memory remembers key settings so you can quickly watch movies in the ideal format. Match aspect ratios, including 16:9 and Cinemascope, and store these settings in the projector.

Select from nine calibrated picture modes

Quickly set the picture to what you're watching or playing. Select from nine calibrated picture modes, including two theatre film modes, cinema digital, reference, TV, photo, game, bright cinema, and bright TV. An advanced HSV (Hue Saturation Value) colour tuning tool gives you even more control.

Specifications

Display System

Display System	4K SXRD panel, projection system
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Display device

Size of effective display area	0.74" x 3
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Number of pixels	26,542,080 (4096 x 2160 x 3) pixels
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Projection lens

Focus	Powered
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Zoom	Powered
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Lens shift	VPLL-Z7013 (Bundled): Powered V ± 80%, H ± 31% VPLL-Z7008 (Optional): Powered V ± 50%, H ± 18%
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Throw ratio *1	VPLL-Z7013 (Bundled): 1.35 : 1 to 2.90 : 1 VPLL-Z7008 (Optional): 0.85 : 1 to 1.06 : 1
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Light source

Light source	Laser diode
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Light output

Light output	2,200 lm
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Colour light output

Colour light output	2,200 lm
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Dynamic contrast

Dynamic contrast ∞:1

Displayable scanning frequency

Horizontal 19 kHz to 72 kHz

Vertical 48 Hz to 92 Hz

Display resolution *2

Computer signal input Maximum display resolution: 1920 x 1080 dots (HDMI Input only)

Video signal input 480/60p, 576/50p, 720/60p, 720/50p, 1080/60 i, 1080/50 i, 1080/60p, 1080/50p, 1080/24p, 3840 x 2160/24p, 3840 x 2160/25p, 3840 x 2160/30p, 3840 x 2160/50p, 3840 x 2160/60p, 4096 x 2160/24p, 4096 x 2160/25p, 4096 x 2160/30p, 4096 x 2160/50p, 4096 x 2160/60p

OSD language

OSD language 18-languages (English, Dutch, French, Italian, German, Spanish, Portuguese, Turkish, Polish, Russian, Swedish, Norwegian, Japanese, Simplified Chinese,

Traditional Chinese, Korean, Thai, Arabic)

INPUT OUTPUT (Computer / Video / Control)

HDMI1 / HDMI2 *3	Digital (RGB/Y Pb/Cb Pr/Cr)
Trigger1 / Trigger2	Minijack, DC 12 V Max. 100 mA
Remote	RS-232C, D-sub 9-pin (male)
LAN	RJ45, 10Base-T/100BASE-TX
IR IN	Mini Jack
USB	DC 5 V, Max. 500 mA

Acoustic noise

Acoustic noise	24 dB *4
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Operating temperature / Operating humidity

Operating temperature / Operating humidity	5°C to 35°C (41°F to 95°F) / 20% to 80% (no condensation)
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Storage temperature / Storage humidity

Storage temperature /	-10°C to +60°C (14°F to +140°F) /
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Storage humidity 20% to 80% (no condensation)

Power requirements

Power requirements AC 100 V to 240 V, 4.9 A to 2.2 A,
50/60Hz

Power consumption

Power consumption 490 W

Standby 0.4 W (when "Remote Start" is set
to "Off")

Networked Standby 1.0W (LAN) (when "Remote Start" is
set to "On")
When a LAN terminal is not
connected, it becomes a low
power consumption mode (0.5 W).

Standby Mode / Networked Standby Mode Activated

Standby Mode /
Networked Standby
Mode Activated After about 10 Minutes

3D

3D capability	Yes
3D emitter	Built-in RF emitter
3D glasses	TDG-BT500A (Optional) Please contact your Sony representative for specific models available in your region.

Dimensions (W x H x D) (without protrusions)

Dimensions (W x H x D)	560 x 223 x 496 mm
(without protrusions)	22 1/16 x 8 25/32 x 19 17/32 inches

Mass

Mass	Approx. 22 kg / 49 lb
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Supplied accessories

Supplied accessories	RM-PJ24 Remote Commander (1) Size AA (R6) Manganese Batteries (2) Lens Cap (1) AC Power Cord (1) Operating Instructions (CD-ROM) (1) Quick Reference Manual (1) Safety Regulations (1)
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Optional accessories

TDG-BT500A (3D glasses)*
VPLL-Z7008 (Short Throw Lens)

Optional accessories

*Please contact your Sony representative for specific models available in your region.

Notes

*1

Display size : 16:9

*2

Displayed image may be converted for some input signals.

*3

Both HDMI inputs are compatible with HDCP 2.2.

*4

This value is approximate.
Depends on the projector setting condition and usage environment.

Gallery

