

Specifications

Model number	PLC-HF15000L	PLC-HF10000L
System	RGB liquid crystal shutter projection system	
LCD panel	Size	1.64 inch (Inorganic), Aspect Ratio 17:9
	Pixel Count	6,635,520 (2048 x 1080 dots x 3)
Color Control Device	1	
Projection Lens	Option	
Light Source	380 W x 4	380 W x 2
Screen Size (Projection Distance)	40 inch - 600 inch (Projection distance varies depending on the lens)	
Color Reproducibility	Full color (1.07 billion colors, Videosignal)	
Contrast Ratio(Full On/Full Off) *1	3000:1	
Brightness *1	15,000 lumens *3	10,000 lumens *3
Uniformity *1	90 %	
db Rating *1	48.0 (Eco 1)	39.0 (Eco 1)
Resolution (when using RGB signal)	2048 x 1080 dots (WUXGA dot resizing possible)	
Terminals	Input 1	RGB (D-Sub15), DVI-D (HDCP), HDMI (v1.3 with Deep Color)
	Input 2	RGBHV / VIDEO / Y, Pb / Cb, Pr / Cr (BNC x 5), S-video (Mini DIN4)
	Input 3	Detachable terminal for system up
	Input 4	Detachable terminal for system up
	OtherTerminal	RJ-45 wired LAN, RS232C In / Out (D-Sub9 x 2), Wired Remote control (mini jack), USB type B
Scanning frequency (Input)	Horizontal: 15 - 120 kHz, Vertical: 48 - 120 Hz, Dot Clock: 230 MHz or less (analog)	
Digital keystone	H +/- 30°, V +/- 30°	
Input signal compatibility (depend on input terminal)	WUXGA / UXGA / WSXGA+ / SXGA+ / SXGA / WXGA+ / WXGA / XGA / SVGA / VGA / MAC 2K-24p, 2K-24/25/30psf, 1080-24/25/30/48/50/60p, 1080-24/25/30psf, 1080-50/60i, 720-50/60p, 575p, 480p, 575i, 480i	
Color System	PAL / SECAM / NTSC / NTSC4.43 / PAL-M / PAL-N	
Operating Temperature	5 - 40 °C	
Power Consumption	100 - 120 V	1000 W (Normal) / 800W (Eco1)
	200 - 240 V	1850 W (Normal) / 1450 W (Eco1)
Standby		955 W (Normal) / 770 W (Eco1)
		18 W
Power Source	AC 200 - 240 V (11.0 A .Max), 50/60 Hz	AC 100 - 120 V / 200 - 240 V (±10 %), 50/60 Hz
Dimensions (W x H x D)	650.0 x 349.0 x 815.0 mm (25.6" x 13.7" x 32.1")	538.5 x 268.0 x 757.0 mm
Weight	46.5 kg (103 lbs)	27.6 kg (60.8 lbs)
Main Accessories	Removable power cord x 1, D-sub 15 cable x 1, PIN code label seal, Owner's Manual (Quick Manual & CD-ROM), Real Color Manager Pro. CD-ROM x 1, Remote control x1 (AAA battery x 2), Lens Attachment (1 type), Lens spacer (3 types), Light block plate (3 types), Lens safety clamp (2 types), Fixing Bracket for AC Power Cord x 1 (HF15000L only)	

*1 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.
 *2 When Lamp Mode "Auto" is selected.
 *3 When LNS-S03 is used.
 *Product names and company names are trademarks or registered trademarks of their respective companies.
 *Product appearance and specifications are subject to change without notice.



All products manufactured by the Projector Division of SANYO's Digital System Company employ a quality management system that has undergone the inspection and registration process of the ISO 9001 international standard.



SANYO's Digital System Company has received ISO 14001 certification for the environmental management system used in its factory.

<http://sanyo.com/projector/>

Caution: Please consult the instruction manual to ensure safe and proper operation of the product.

Distributed by:



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Digital System company

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SML169



2K Professional Projector



PLC-HF15000L
PLC-HF10000L

2K QuaDrive™

Filling Large Spaces with Stunningly
Powerful Images.



PLC-HF10000L

PLC-HF15000L

2K QuaDrive™

Welcome to a New and Exciting World of Synergy.

Large projectors are mainly installed in spacious locations such as theaters and auditoriums, so the images that they project onto huge screens must be bright and high in quality. Thanks to the 2K Panel, which offers a level of resolution that surpasses full HD, and the unique QuaDrive™ Engine, SANYO projectors produce bright images with brilliant colors. See the beauty of these new SANYO images. They'll give you a glimpse of a bright new world.



THEATER

HALL

EVENT



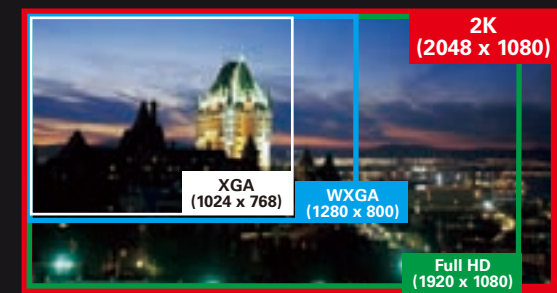
PLC-HF10000L

High Brightness, High Resolution, High Image Quality

The most advanced technologies are employed to project large-screen images without losing the beauty, dynamism or nuances of the original image source.

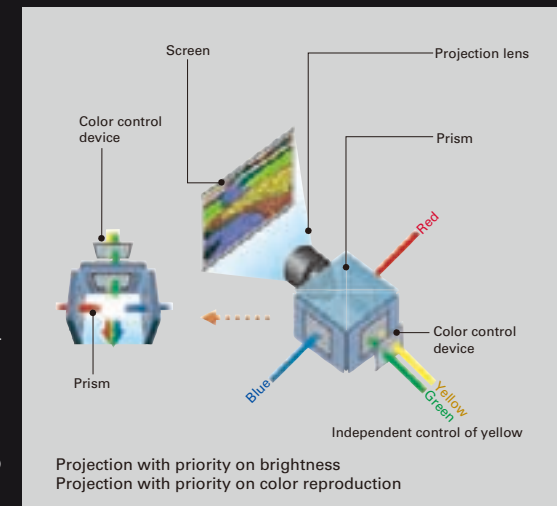
High-Resolution 2K Panels

New LCD panels with an inorganic alignment layer offer higher resolution than full HD, to display Real 2K (2048 x 1080 dots) images. Full-HD (1920 x 1080-dot) video from Blu-Ray Discs can be displayed in the original format without compression.



Newly Developed QuaDrive™ Optical Engine

The new LCD panels with inorganic alignment layer are made of a new liquid crystal material with significantly improved lightfastness. They team up with our newly developed QuaDrive™ optical engine* with an inorganic polarizing plate and an inorganic optical compensating plate to achieve both high reliability and high image quality (excellent color reproduction). The new optical engine eliminates the need for frequent maintenance and projects sharp, crisp pictures onto a large screen.



High Brightness of 15,000 Lumens PLC-HF15000L only

The PLC-HF15000L uses four high-output 380-watt lamps and employs a cutting-edge cooling technology to achieve the industry's highest brightness* of 15,000 lumens. The PLC-HF10000L uses two high-output 380-watt lamps to achieve the brightness of 10,000 lumens. This ensures bright and detailed large-screen images.

*As of September 28, 2010 (to be released at December 24, 2010), for high resolution transmissive LCD projectors above Full HD

PLC-HF15000L

Easy Maintenance

Featuring an original SANYO design for less maintenance and stable operation under diverse operating conditions.

Newly Developed Active Maintenance Cleaner Enables 12,000 Hours*¹ of Filter Usage PLC-HF15000L only

If dust infiltrates a projector—in particular, the optical engine at the heart of the projector—it adversely affects brightness and contrast performance. Protection from dust is therefore an extremely important part of maintaining a projector's capabilities. SANYO's new projectors employ an Active Maintenance Cleaner (AMC) that automatically cleans the filter on a regular basis and includes a blockage-detecting sensor. AMC incorporates three high-performance filters and a special brush. After it brushes off and collects large dust particles from the first filter, remaining smaller dust particles are captured by an electrostatic honeycomb filter and an electrostatic pleated filter. Even if the device is installed in a high location, such as a ceiling, it is not necessary to clean the filter. It keeps functioning for 12,000 hours*¹, without requiring maintenance. Also optionally available is a smoke filter, which provides protection from fine smoke particles. This enables the projector to be used in locations such as concert venues.

*¹ When lamp control - Normal mode is selected. This value is calculated through the company's independent test in reference to the JIS D0207 test method. The filter replacement period is an estimate and changes according to the use environment.

First layer

Dust adhered on filter → Automatic brushing for collection of dust → Clean filter surface

First layer filter is cleaned automatically*¹ at regular time intervals*² or when it detects clogs

*¹ Please clean away dust adhering to the unit after using 12000 hours (Indication).
*² The filter cleaning is automatically scheduled when it reaches a setting time (100H (default)), and the cleaning is implemented during the cooling after power-off, or next time the power is turned on.

Second layer
Electrified honeycomb filter

The difference between an electrostatic charge filter and an electrostatic filter

Electrostatic charge filter (HD2000)

Electricity is lessened over time. The adsorptive power is decreased.

Electrostatic filter (HF15000L)

Electricity is retained semipermanently. The filter keeps adsorbing dust.

Third layer
Electrified pleat filter

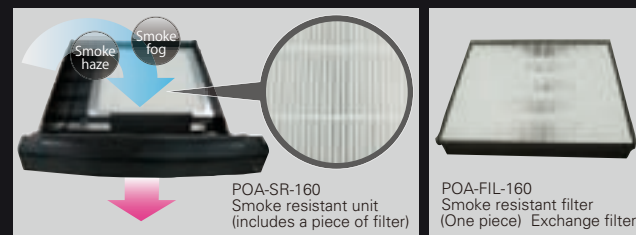
Two different kinds of electrified filters that can collect fine dust are installed so that it prevents dust from entering into the projector

Please exchange the second and the third filter after using 12,000 hours (Indication).

Smoke Resistant Filter Unit (Optional) PLC-HF15000L only

Using HEPA pleated filter

The optional smoke filter prevents the entry of not only dust but also extremely small particles such as smoke. It ensures stable operation of the projector in concerts or other events in which smoke generators are used.



Active Maintenance Filter (AMF) PLC-HF10000L only

Less Maintenance Work and Lower Costs

The Active Maintenance Filter (AMF) system automatically winds the filter to set a clean filter surface in place when the filter sensor detects clogging. The cartridge-type filter can be replaced easily by one-touch operation. The filter does not need to be replaced for approximately 10,000 hours*, thus reducing the burden of maintenance.

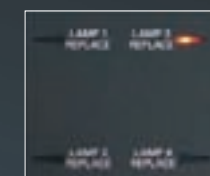
*When lamp control - Normal mode is selected. This value is calculated through the company's independent test in reference to the JIS D0207 test method. The filter replacement period is an estimate and changes according to the use environment.

Advanced Features and Functions

A host of advanced features and functions allow use in a variety of installation conditions, and flexibly respond to various image display needs.

Hot Swappable Quad Lamps PLC-HF15000L only

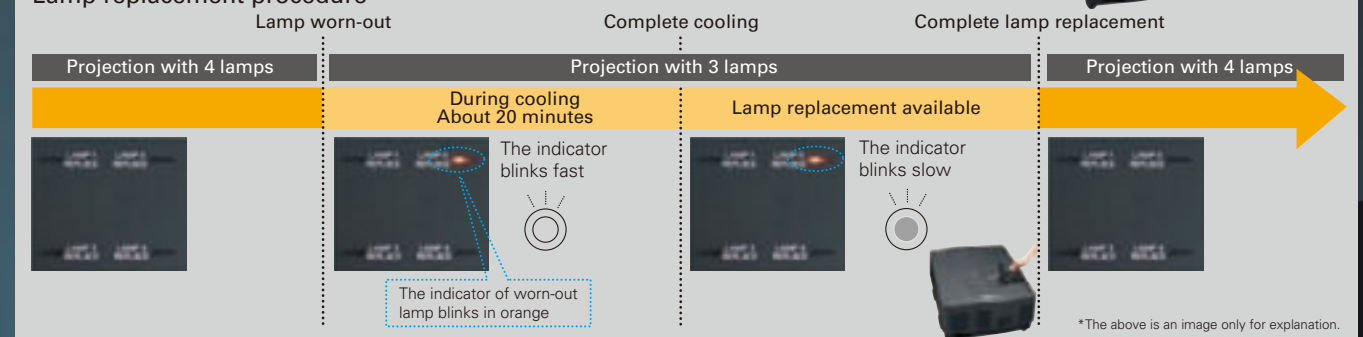
The Hot Swappable Quad Lamps system lets you change lamps without turning off the projector. When lamps must be replaced during projection, the projector does not need to be turned off, unlike conventional projectors. This eliminates the need to interrupt the projection during an event or important business presentation.



The lamp on the top panel lights in orange to indicate the need for lamp replacement.



Lamp replacement procedure



Robust Design PLC-HF15000L only

An iron base plate is installed on the bottom of the main unit for improved the brackets can be attached directly to the base plate. Also, carry handles attached to base-plate can be used to move the projector unit or fix the mounting brackets.



A Convenient Function for Multi-Screen Projection

Constant Brightness Output Control, and Edge Blending and Color Matching Functions

In multi-screen projection using multiple projectors, the Constant Brightness Output Control corrects deviations in brightness among the projectors and maintains constant brightness. The Edge Blending function controls the brightness of overlapping image portions and makes adjustments to create natural-looking image joints. The Color Matching function corrects deviations in color reproduction ranges. As a result, multi-screen images appear natural with smooth, seamless image joints.



< Example > PLC-HF15000L

Before correction
Brightness varies among projected images due to the different operating hours of the projectors. Colors are slightly different between two adjacent images. Overlapping image portions become brighter.

Constant Brightness Output Control
Brightness is adjusted uniformly to the brightness level set in the menu.

Edge Blending Function
Image joints are virtually unrecognizable.

Color Matching Function
Color reproduction ranges are corrected.

Correction of the green level Correction of the red level

Picture-in-Picture & Picture-by-Picture

Capable of projecting two images simultaneously either using built-in picture-in-picture mode or picture-by-picture mode. In addition, digital-digital signal combinations (Example 1080p/60-1080p/60*) are available by using optional interface boards. *1080p/60-1080p/30 combination when using Dual-SDI board.

Picture-in-Picture



Sub-image size and position are adjustable
Example <Product introduction>
At TV conference between A and B Main screen: Presentation content Sub screen: Party at the other side of the line

Available Digital-Digital Signal Combination

Example

HDMI or DVI-D (Standard terminal)
+
POA-AMD23ADI or POA-AMD22SDIDL (Option Interface)



Picture-by-Picture



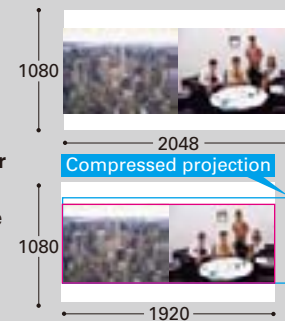
Image size and position are fixed
Example <Use in class>
At science experiment Left screen: DVD movie Right screen: Teaching material

2K real compatible projector

Capable of 2 screen-projection of real XGA (1024X768) PC image! High resolution stays!

Full HD real compatible projector

Image quality is reduced by compressed projection due to the lack of width for XGA (1024 X 768) PC images.



Mechanical shutter (effect function) – Allows various stage effects

The effect function is added to mechanical shutter. When closing a shutter, the projection image gradually fade out, and gradually fade in when opening, which brings more attractive stage effects.

Installation Flexibility

- Powered lens shift (Vertical, Horizontal) & Powered zoom / focus
- A wired LAN terminal (RJ-45) is provided as standard. It lets you control and manage the projector over a network.
- The Lens Center design adds extra convenience in installation. PLC-HF10000L only
- 360° projection in the vertical direction is possible.
- The foot points are convenient for stack.
- There are 9 optional lenses with focal lengths ranging from short to long.

Other Convenient Features and Functions

- Operation panel and terminal panel illumination function
- One-way Flow system
- HDMI digital input terminal.
- Dual-link SDI and Dual SDI are supported (optional board required).
- Screen aspect function
- Test pattern function
- Closed caption function (NTSC)
- Direct power off
- Fixing power cable PLC-HF15000L only
- Selectable 2, 3 or 4 lamps mode PLC-HF15000L only
- Corner keystone correction

Option Lens Throw Distance : unit (m,ft) (Aspect ratio horizontal : vertical = about 17:9)

Type	On-Axis Short Fixed Lens	Short Zoom Lens	Short Zoom Lens	Short Zoom Lens	Standard Zoom Lens	Standard Zoom Lens	Semi Long Zoom Lens	Long Zoom Lens	Ultra Long Zoom Lens
Part Number	LNS-W03E	LNS-W06	LNS-W02Z	LNS-W04	LNS-S04	LNS-S03	LNS-M02	LNS-T02	LNS-T03
Image									
Zoom / Focus	Fixed / Manual	x1.3 / Power	x1.3 / Power	x1.3 / Power	x1.3 / Power	x1.3 / Power	x1.3 / Power	x1.4 / Power	x1.4 / Manual
Twin stack support	x	o	o	o	o	o	o	o	o
Focal length (mm / inch)	30 1.18	46-58 1.81-2.28	52-68 2.05-2.68	58-76 2.28-2.99	76-98 2.99-3.86	97-131 3.82-5.16	125-162 4.92-6.38	158-221 6.22-8.70	224-325 8.82-12.80
F value	2.6	2.3-2.8	2.5-2.9	1.7-2.3	2.0-2.6	1.7-2.6	2.1-2.7	2.0-2.9	2.2-2.5
lens aperture (lens / inch)	175 6.89	140 5.51	114 4.49	122 4.80	140 5.51	137 5.39	137 5.39	130 5.12	169 6.65
Lens weight (kg / lbs)	3.1 6.83	3.0 6.61	2.2 4.85	2.8 6.17	2.6 5.73	3.7 8.15	3.1 6.83	3.1 6.83	7.3 16.08
Projection light axis	H1:H2 W1:W2	1:1 (Fixed)	10:0 - 0:10 (approx.)	10:0 - 0:10 (approx.)	10:0 - 0:10 (approx.)	10:0 - 0:10 (approx.)	10:0 - 0:10 (approx.)	10:0 - 0:10 (approx.)	10:0 - 0:10 (approx.)
Throw Ratio	0.8:1	1.2-1.5:1	1.4-1.8:1	1.5-2:1	2.0-2.6:1	2.6-3.5:1	3.4-4.5:1	4.4-6.2:1	6.3-9.0:1
Throw Distance	m ft	m ft	m ft	m ft	m ft	m ft	m ft	m ft	m ft
Inch	W x H (m)	Wide	Tele	Wide	Tele	Wide	Tele	Wide	Tele
40	0.9 x 0.5	0.67	2.20	1.0	1.3	3.3	4.3	1.2	1.6
60	1.3 x 0.7	1.04	3.41	1.6	2.0	5.1	6.6	1.8	2.4
80	1.8 x 0.9	1.41	4.62	2.1	2.7	6.9	8.9	2.5	3.2
100	2.2 x 1.2	1.78	5.82	2.6	3.4	8.6	11.2	3.1	4.1
120	2.7 x 1.4	2.14	7.03	3.2	4.1	10.4	13.5	3.8	4.9
150	3.4 x 1.8	2.70	8.85	4.0	5.2	13.1	16.9	4.7	6.2
200	4.5 x 2.4	3.62	11.87	5.3	6.9	17.5	22.7	6.3	8.3
250	5.6 x 3.0	4.54	14.89	6.7	8.7	21.9	28.4	7.9	10.3
300	6.7 x 3.6	5.46	17.92	8.0	10.4	26.3	34.2	9.5	12.4
350	7.9 x 4.1	6.38	20.94	9.4	12.2	30.8	39.9	11.1	14.5
400	9.0 x 4.7	7.30	23.96	10.7	13.9	35.2	45.7	12.7	16.6
450	10.1 x 5.3	8.22	26.98	12.1	15.7	39.6	51.4	14.3	18.7
500	11.2 x 5.9	9.15	30.01	13.4	17.4	44.0	57.2	15.9	20.8
550	12.4 x 6.5	10.07	33.03	14.8	19.2	48.4	62.9	17.5	22.8
600	13.5 x 7.1	10.99	36.05	16.1	20.9	52.9	68.7	19.1	24.9

Option Interface Module

Product name	DVI Board DVI/D-sub 15	5-BNC Board 5BNC/S-VIDEO	Dual-SDI Board Dual-SDI	Dual-Link SDI Board Dual-Link SDI
Item code	POA-AMD23ADI	POA-AMD25VD3	POA-AMD17SDID	POA-AMD22SDIDL
Image				
Terminal	DVI-D, Mini D-sub15pin	5BNC(RGBHV, Video, Y-Pb/Cb-Pb/Pr)&S-Video	HD/SD-SDI (IN2/OUT1) 3BNC	HD/SD-SDI (IN2/OUT2) 4BNC

External Dimensions (unit: mm (inch))

