External dimensions

7.24 (184)

5.28 (134)

23.86 (606)

9.92 (252)

20.39 (518)

3.65" (Max.)

15.91 (404)

2.36 (60)

1.08 (27.5)

9.15 (232.5)   9.15 (232.5)

18.11 (460)

13.58 (345)

18.27 (464)

Unit : inch (mm)

Dedicated options

Installation example

Mounting hardware for low ceilings
POA-CHS401

Installation example

Mounting hardware for high ceilings
POA-CHL401

Replacement Filter
POA-FIL-140

Smoke Resistant Box
POA-SR-140

Bumper Frame
POA-BF-140

*Appearance may change due to modification.

Specifications

Model number		PLC-XF60	PLC-EF60
System		3-color LCD shutter projection system	
Optics		Dichroic mirror separation/prism synthesis system	
LCD panel	Size	1.4-inch x 3, 4:3 aspect ratio	
	Drive system	Polysilicon active matrix TFT	
	Number of pixels	2,359,296 pixels: 786,432 (1,024 x 768) x 3	4,410,000 pixels: 1,470,000 (1,400 x 1050) x 3
	Configuration	Stripe	
Lens		Optional	
Lamp		300W UHP x 2	
Projection size		30 to 500 inches diagonally	
Throw distance		Differs depending on installed lens	
Color reproduction		Full color (1,070 million colors)	
Brightness[*1][*2]		6,500 lumens	5,800 lumens
Uniformity[*1]		90%	
Contrast ratio[*1][*3]		1,300:1 (full on/full off)	
Audio output		3 W + 3 W (stereo)	
Speaker		Ø2.8 cm x 2	
Scanning frequency		H-sync: 15–120 kHz, V-sync: 48–120 Hz, Dot clock: 230 MHz or less	
Resolution RGB		1,024 x 768 dots (Dot resizing for 1,600 x 1,200 – 1,280 x 1,024)	1,400 x 1,050 dots (Dot resizing for 1,600 x 1,200)
Computer compatibility		UXGA/SXGA/XGA/SVGA/VGA/Mac	
Color system		PAL/SECAM/NTSC/NTSC 4.43/PAL-M/PAL-N	
Input terminals	Input 1	Image: DVI-D x 1 (HDCP compatible[*4]), mini D-sub 15-pin x 1 Audio: Stereo mini jack x 1	
	Input 2	Image: BNC x 5 (RGBHV/YCbCr/Video) Audio: Stereo mini jack x 1	
	Input 3	Image: RCA x 3 (YCrCb/Video), S-Video x 1 Audio: RCA x 2 (R/L (mono))	
	Input 4	MVP slot 1 (Warp & blending board installed) Image: DVI-D x 1, Serial port: D-sub 9-pin x 2 (in/out)	
	Input 5	Open	
Output terminals		Image: Mini D-sub 15-pin x 1 (analog RGB)	
Communication terminals		USB port: Type A x1, type B x 1 Serial port: D-sub 9-pin x 2 (in/out) Wired remote jack: Stereo mini jack x 1	
Exclusive terminal		For Smoke Resistant Box	
Fan noise		39 dB (Eco mode)	
Operating temperature		5 –35 C	
Power supply		AC 100–240 V, 50/60 Hz, auto voltage	
Power consumption		900 W	
Dimensions (W x H x D)		20.39" x 9.92" x 23.86" (518 x 252 x 606 mm)	
Weight		54.3 lbs (without lens) (24.7 kg)	
Standard accessories		Owner's manual, warranty card, AC power cord (3 m, x 1), wired remote control cable (x 1), wireless/wired remote control(x 1), AA-size dry batteries (x 2) supplied), PIN code label, DVI cable (x 1), VGA cable (x 1), lens attachment (x 1), light shield (x 2), application software CD-ROM, dust cover	

*1 The figures are averages of all products at the time of shipment, and are indicated in accordance with JIS X6911: 2003Data Projector Specifications Format. The measurement method and conditions are described in Appendix 2.
*2 In 2 lamp mode, with the LNS-W04 installed.
*3 In High Contrast mode, lamp mode: Auto.
*4 DVI input images may not appear depending on the change of HDCP specifications.
All trademarks and registered trademarks are the property of their respective trademark owners.

Pixelworks ICs are used in this projector

Further details regarding this product can be accessed at **http://www.sanyo-lcdp.com/english/**

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

Distributed by:

Multimedia LCD Projector   PLC-XF60/EF60

The Solution to Professional Demands

SANYO

3 LCD
ADVANCED IMAGING TECHNOLOGY

Conventions and Other Events

Project crisp, sharp images from a variety of sources - PCs, document cameras, VTRs and more. With the XF60/EF60's high output and brightness, there's no need to dim the room lights - so viewers can read handouts and take notes comfortably during the presentation. Using a PC gives you total control over image source switching, for easy, flexible large-screen presentations.
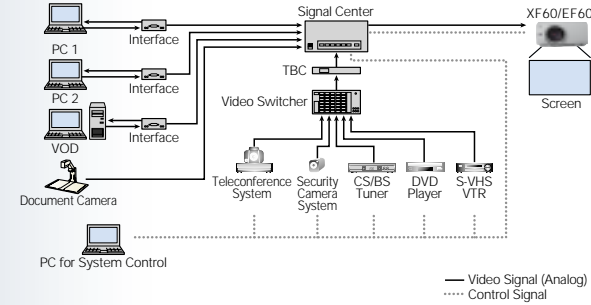
Theaters and Halls

You can use the simple blending function to input signals from a split source separately to two PLC-XF60 or PLC-EF60 projectors, and display them onto a special screen as a single image. The warp function also lets you project images onto a curved screen. These functions make it easy to create impressive, high-resolution visual effects in halls, theaters, and other large venues.
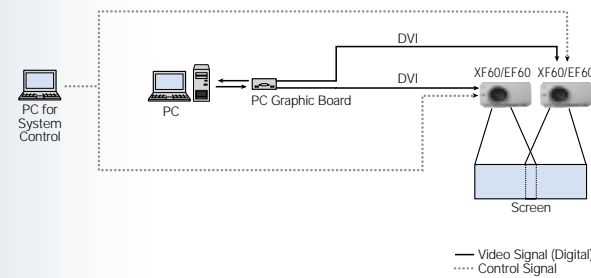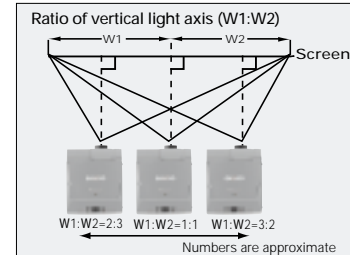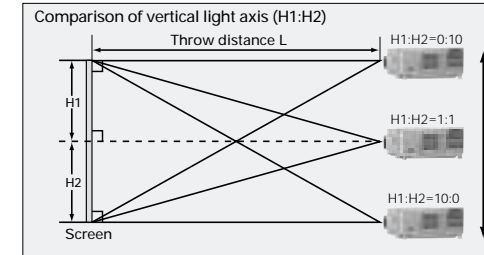
Monitor Control

You can configure a large-screen monitor system by using multiple XF60/EF60s in a rear projection system to project images onto a multi-screen display. Use it to reproduce complex visual information, such as network control schematics, maps, and images from surveillance cameras. Using a system control PC makes it easy to operate and manage this kind of system.
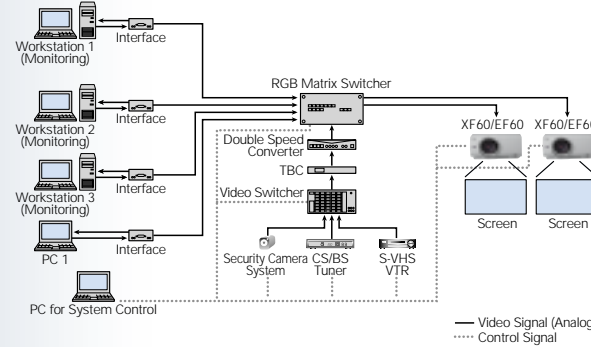
Optional Lenses

Product name	Wide fixed lens 1 LNS-W01Z	Wide zoom lens LNS-W02Z	Wide fixed lens 2 LNS-W03	"1.4" Standard zoom (1.8" Wide zoom)" LNS-W04	Standard zoom lens 2 LNS-S02Z	Standard zoom lens 3 LNS-S03	Semi-long zoom lens LNS-M01Z	Long fixed lens LNS-T01Z	Long zoom lens LNS-T02	Long zoom lens LNS-T03
Product number	LNS-W01Z	LNS-W02Z	LNS-W03	LNS-W04	LNS-S02Z	LNS-S03	LNS-M01Z	LNS-T01Z	LNS-T02	LNS-T03
Focal length	45	52-68	30	58-76	76-97	97-131	125-162	253	158-221	224-325
F value	F2.5	F2.5-F2.9	F2.6	F1.7-2.3	F2.0-F2.3	F1.7-F2.7	F2.0-F2.6	F2.0	F2.0-F2.6	F2.2-F2.5
Lens aperture	175	120	175	122	116	137	95	158	130	169
Lens weight	5.8	2.5	3.1	2.8	1.9	3.7	1.9	3.8	3.1	7.3
Projection light axis H1 H2	10:0-0:10	10:0-0:10	1:1	10:0-0:10	8:-1--1:8	10:0-0:10	10:0-0:10	10:0-0:10	10:0-0:10	10:0-0:10
W1 W2	2 3-3 2	2 3-3 2	1:1	2 3-3 2	2 3-3 2	2 3-3 2	2 3-3 2	2 3-3 2	2 3-3 2	2 3-3 2
Zoom/focus	/	Motor driven	/	Motor driven	Motor driven	Motor driven	Motor driven	/	Motor driven	M
Lens Memory	—	—	—	○	—	—	—	—	—	—
Twin stack support	—	—	—	—	○	○	○	○	○	○

Throw distance by screen size (mm):

Screen size	W01Z Throw	W02Z Wide	W02Z Stack	W02Z Tele	W03 Throw	W04 Wide	W04 Stack	W04 Tele	S02Z Wide	S02Z Stack	S02Z Tele	S03 Wide	S03 Stack	S03 Tele	M01Z Wide	M01Z Stack	M01Z Tele	T01Z Throw	T02 Wide	T02 Stack	T02 Tele	T03 Wide	T03 Stack	T03 Tele
30-inch type	874	1028	1190	1365	575	1101	1444	1497	1416	1938	1908	—	—	2765	3149	3553		3616	4186	4933	5097	6254	7320	
40-inch type	1193	1401	1616	1850	790	1514	1966	2037	1958	2620	2611	—	—	3658	4169	4709	7164	4747	5520	6520	6680	8222	9645	
50-inch type	1513	1774	2042	2335	1004	1927	2489	2577	2500	3302	3315	—	—	4551	5190	5864	8973	5878	6855	8106	8262	10190	11971	
60-inch type	1832	2146	2469	2820	1218	2340	3011	3117	3041	3983	4019	—	—	5444	6210	7020	10782	7009	8189	9693	9844	12158	14296	
70-inch type	2151	2519	2895	3305	1433	2754	3533	3657	3583	4665	4723	—	—	6336	7231	8175	12591	8140	9524	11279	11427	14126	16622	
80-inch type	2471	2891	3321	3790	1647	3167	4055	4197	4125	5347	5427	5370	6853	7306	7229	8251	9331	14400	9271	10858	12866	13009	16094	18947
90-inch type	2790	3264	3748	4275	1861	3580	4577	4737	4666	6029	6131	6063	7729	8240	8122	9272	10486	16208	10403	12145	14591	14591	18063	21272
100-inch type	3109	3637	4174	4760	2075	3993	5099	5276	5208	6711	6835	6756	8604	9173	9015	10293	11642	18017	11534	13527	16039	16173	20031	23598
110-inch type	3429	4009	4601	5245	2290	4407	5621	5816	5750	7392	7538	7449	9480	10107	9908	11313	12797	19826	12665	14862	17625	17756	21999	25923
120-inch type	3748	4382	5027	5730	2504	4820	6143	6356	6291	8074	8242	8142	10356	11041	10800	12334	13953	21635	13796	16197	19212	19338	23967	28249
130-inch type	4067	4755	5453	6215	2718	5233	6665	6896	6833	8756	8946	8836	11231	11974	11693	13354	15108	23444	14927	17531	20799	20920	25935	30574
140-inch type	4386	5127	5880	6700	2932	5647	7187	7436	7374	9438	9650	9529	12107	12908	12586	14375	16264	25253	16059	18866	22385	22503	27904	32900
150-inch type	4706	5500	6306	7185	3147	6060	7709	7916	7916	10119	10354	10222	12983	13842	13479	15395	17419	27061	17190	20200	23972	24085	29872	35225
160-inch type	5025	5872	6732	7670	3361	6473	8231	8516	8458	10801	11058	10915	13859	14775	14372	16416	18575	28870	18321	21535	25558	25667	31840	37551
170-inch type	5344	6245	7159	8155	3575	6886	8754	9056	8999	11483	11762	11608	14734	15709	15264	17437	19730	30679	19452	22869	27145	27250	33808	39876
180-inch type	5664	6618	7585	8640	3789	7300	9276	9596	9541	12165	12465	12301	15610	16642	16157	18457	20886	32488	20583	24204	28731	28832	35776	42202
190-inch type	5983	6990	8012	9125	4004	7713	9798	10136	10083	12846	13169	12995	16486	17576	17050	19478	22041	34297	21715	25538	30318	30414	37744	44527
200-inch type	6302	7363	8438	9610	4218	8126	10320	10676	10624	13528	13873	13688	17361	18510	17943	20498	23197	36106	22846	26873	31904	31996	39713	46853
230-inch type	7260	8481	9717	11065	4861	9366	11886	12296	12249	15574	15985	15767	19989	21311	20621	23560	26663	41532	26239	30877	36664	36743	45617	53829
250-inch type	7899	9226	10570	12035	5289	10192	12930	13376	13332	16937	17393	17154	21740	23178	22407	25601	28974	45150	28502	33546	39837	39908	49554	58480
280-inch type	8856	10344	11849	13490	5932	11432	14496	14996	14957	18982	19504	19233	24367	25979	25085	28663	32441	50576	31895	37550	44596	44655	55458	65456
300-inch type	9495	11089	12702	14460	6361	12259	15541	16076	16041	20346	20912	20620	26119	27846	26871	30704	34752	54194	34158	40219	47769	47819	59394	70107
330-inch type	10453	12207	13981	15915	7004	13499	17107	17696	17666	22391	23023	22699	28746	30647	29549	33766	38218	59620	37551	44222	52529	52566	65299	77084
350-inch type	11091	12952	14834	16885	7432	14325	18151	18775	18749	23755	24431	24086	30497	32514	31335	35807	40529	63238	39814	46891	55702	55731	69235	81735
380-inch type	12049	14070	16113	18340	8075	15565	19717	20395	20374	25800	26543	26165	33124	35315	34013	38869	43995	68664	43207	50895	60462	60478	75140	88711
400-inch type	12688	14816	16966	19310	8503	16392	20761	21475	21457	27164	27950	27551	34876	37183	35799	40910	46306	72282	45470	53564	63635	63642	79076	9336
410-inch type	13007	15188	17392	19795	8718	16805	21283	22015	21999	27845	28654	28245	35751	38116	36692	41930	47462	74091	46601	54899	65221	65225	81044	95688
420-inch type	13326	15561	17818	20280	8932	17218	21806	22555	22540	28527	29358	28938	36627	39050	37584	42951	48617	75900	47732	56233	66808	66807	83013	98013
430-inch type	13646	15933	18245	20765	9146	17631	22328	23095	23082	29209	30062	29631	37503	39983	38477	43971	49773	77709	48863	57568	68394	68389	84981	100338
440-inch type	13965	16306	18671	21250	9361	18045	22850	23635	23624	29891	30766	30324	38378	40917	39370	44992	50928	79517	49994	58902	69981	69972	86949	102664
450-inch type	14284	16679	19097	21735	9575	18458	23372	24715	24165	30573	31470	31017	39254	41851	40263	46012	52084	81326	51126	60237	71567	71554	88917	104989
460-inch type	14604	17051	19524	22220	9789	18871	23894	24715	24707	31254	32174	31711	40130	42784	41156	47033	53239	83135	52257	61572	73154	73136	90885	107315
470-inch type	14923	17424	19950	22705	10004	19284	24416	25255	25249	31936	32877	32404	41006	43718	42048	48054	54395	84944	53388	62906	74740	74719	92853	109640
480-inch type	15242	17797	20377	23190	10218	19698	24938	25795	25790	32618	33581	33097	41881	44652	42941	49074	55550	86753	54519	64241	76327	76301	94822	111966
490-inch type	15562	18169	20803	23675	10432	20111	25460	26335	26332	33300	34285	33790	42757	45585	43834	50095	56706	88562	55650	65575	77913	77883	96790	114291
500-inch type	15881	18542	21229	24160	10646	20524	25982	26875	26873	33981	34989	34483	43633	46519	44727	51115	57861	90370	56781	66910	79500	79465	98758	116617

Ratio of light axis of image throw

Comparison of vertical light axis (H1:H2)

Throw distance L — H1:H2=0:10 — H1:H2=1:1 — H1:H2=10:0

Ratio of vertical light axis (W1:W2)

1: 2=2:3   1: 2=1:1   1: 2=3:2

Numbers are approximate

Ratio of projection light axis (H1:H2, W1:W2) can be electronically changed. Range of change differs according to lens.

*1 The approximate projection distance has been calculated based on lens specifications. A maximum 5% differentiation may occur due to minute lens size/shape variations.

*2 The "stacking point" is a recommended distance best for projection when using 2 stacked units. Due to minute lens size/shape variations, best results may not be achieved when unit is positioned away from the recommended stack point area.

*3 Short lenses (LSN-W01Z/W02Z/W03) cannot be used for stack projection.

*4 Optional lenses are provided with dedicated tools for lens changing.

Real XGA Projector 6500lm PLC-XF60

Real SXGA+ Projector 5800lm PLC-EF60

	Resolution	High Contrast Optical System	DRIT*1	3D AUCC*2	12bit Digital Gamma Correction	3D Digital Progressive	3D Digital Y/C Separation	3D Digital N/R	Ghost Canceler	Intelligent Sharpness Control	3-2/2-2 Pulldown	DVI(HDCP) Compatible	Auto Picture Control	Color Management System	Multiple-Lamp System	Fail-Safe Function	LENS SHIFT U/D, R/L	Digital KEYSTONE	Digital Zoom	LENS Exchange	LENS MEMORY	Easy Stackable	360-Degree Tilt Angle	MVP*3 System	Mechanical Shutter System	WARP & BLENDING	My Menu Function	Optional Filter Box compatible	Monitor Out	USB-Key Security	Built-in Speaker	Filter Warning LED	USB Mouse*4 Control	Power Management System	Eco Mode	Wireless/Wired Remote Control	Multi Language
PLC-XF60 XGA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	U/D,R/L	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PLC-EF60 SXGA+	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	U/D	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

*1: Digital Realized Interpolation Technology   *2: 3D Automatic Uniformity Correction Control   *3: Multi-Versatile Platform   *4: Not compatible with some models.

Performance You Would Expect in Projectors
One Class Above

After carefully analyzing professional needs, S ANYO has used its advanced technologies to develop a projector series that offers an ideal solution to high-level applications.

3-LCD Projector

Designed specifically for professional use, these high-performance projectors are at the top of their class in every essential presentation requirement: image quality, operating ease, installation flexibility and maintenance.

PLC-XF60/EF60

Warp & Blending

The PLC-XF60/EF60 projects images onto a screen with a curved surface, letting you easily construct an advanced theater system.

Warp

Blending
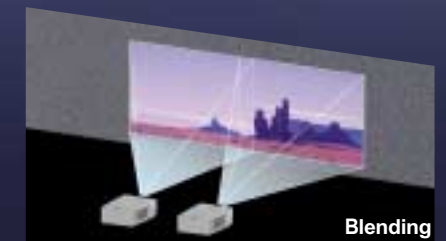
Single I ntake and Exhaust V ents

Air is drawn in through one vent and exhausted from another. You get simpler maintenance, with only one filter to replace.

Front I nterface Panel

Slots for optional boards and other terminals are right on the front panel for easy access. You don't need extra space behind the unit*.

* A minimum space is required.

360-Degree T ilt Angle

The PLC-XF60/EF60 can project images while it is tilted 360 degrees around its horizontal axis in either direction—for more flexible setup.
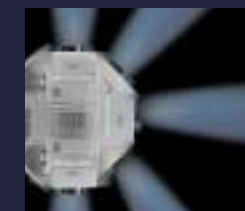
Touch Pad on U nit T op

The touch pad on top makes it easy to access and adjust settings. You can also operate the PLC-XF60/EF60 with a USB-connected mouse.

RF Remote Control with T ouch Pad

The PLC-XF60/EF60's RF remote control unit features a handy touch pad for easy operation, even in dark rooms.

Progressive S can I C

The newly developed progressive scan IC improves image quality. 2-3 pulldown compatibility also provides outstanding images from film sources.

M echanical S hutter S ystem

A new shutter mechanism provides complete blackness when no image is being projected.

Performance

6500 Lumens Brightness

The PLC-XF60/EF60 is equipped with XGA / SXGA+ LCD panels with micro lenses. The two UHP lamps combine with the industry's most advanced optical engine to deliver class-leading brightness of 6500 lumens.
* 5800 lumens for the PLC-EF60

1300:1 Contrast Ratio

The new mechanical shutter system helps SANYO's high-performance optical system achieve its best-in-class contrast ratio of 1300:1*. This is one more reason for the PLC-XF60/EF60's crisp, high-quality images. *In High Contrast mode

Progressive Scan IC

A newly developed progressive scan IC improves image quality, and a SANYO original cross-color separation circuit helps achieve superior diagonal resolution. Also offering 2-3 pulldown compatibility (HDTV compatibility), the PLC-XF60/EF60 delivers high-quality image projection from film sources.

12-Bit Digital Gamma Correction

This gamma correction control function achieves smoother gradation characteristics by adjusting the gradation according to the image being input.
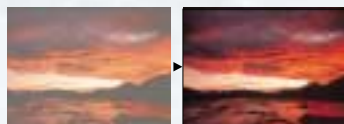
Mechanical Shutter System

A new shutter mechanism clicks into place to block the lamp light the instant you turn off the image. It also prevents overlapping images when you are using several projectors on a single screen.

Built-In Test Pattern

A built-in test pattern lets you make precise, detailed adjustments during setup, even when there's no external signal source available. It also eliminates the need to connect and reconnect equipment when making adjustments with a twin-stack setup.
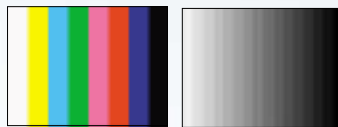
Color/Gamma Correction

The CD-ROM supplied with the PLC-XF60/EF60 includes software for color correction and gamma correction. You can make precise, detailed adjustments to assure that the projected images have the superior quality needed in the most demanding professional applications.

Usability

Touch Pad on the Top

A touch pad on the top of the main unit lets you perform almost all operations available on the remote control. You'll find the touch pad especially convenient when making adjustments during system setup.

Lens Memory

The lens position, zoom and focus settings can be stored in memory for instant recall.* * Supports only the standard lens (LNS-W04)

New Graphical User Interface (GUI)

The PLC-XF60/EF60 introduces a new on-screen display designed for easier operation. With a customizable "My Menu" function and control possible via a USB mouse, you can get the flexibility to handle any operating conditions.
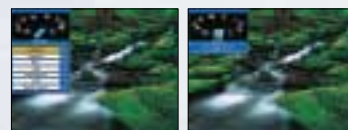
RF Remote Control with Touch Pad

Because the PLC-XF60/EF60 uses an RF (radio frequency) remote control system rather than a conventional infrared system, you can get a much wider remote control range. The remote control unit also has a touch pad. Compared with units that have illuminated buttons, the touch pad is easier to operate in dark settings where it's difficult to see your fingertip.

Input Search

With this function On, PLC-XF60/EF60 automatically starts input signal search when turning on the projector.

Custom Startup

A company logo mark or other image can be captured and used as the startup image.

Selectable Background

The PLC-XF60/EF60 can be set to display blue, black or a custom logo (captured image) when there is no input signal.

Flexibiliy

Front Interface Panel

The optional board slots and other connection terminals are set right on the front panel for easy access and extra layout flexibility. You can set up your PLC-XF60/EF60 system without worrying about how much space* there is behind the unit. A terminal cover (with strap) is also provided. * A minimum space is required.

Rigid, Stackable Cabinet

The PLC-XF60/EF60 features an extremely rigid cabinet that lets you stack one unit atop another without special hardware. This improved rigidity makes it easy to set up a twin projection system or to stack a backup unit.

Vertical/Horizontal Lens Shift

The lens can be shifted between 10:0 and 0:10* vertically and between 3:2 and 2:3* horizontally. This makes the PLC-XF60/EF60 much easier to set up than our previous two-lamp projectors.
* With the LNS-W04

Keystone Correction

The PLC-XF60/EF60 provides keystone correction of +/-20 degrees horizontally and +/-35 degrees vertically.

Note: Horizontal keyston is ineffective with the PLC-EF60

360-Degree Tilt Angle

The PLC-XF60/EF60 can project images while the main unit is tilted 360 degrees around the horizontal axis in either direction. This gives you more setup flexibility - for example, you can set up with the screen on the ceiling or floor.

Optional Lenses

SANYO offers a wide selection of optional lenses. This lets you find the right lens for any particular application, and it gives you the system layout and setup flexibility you need to handle a variety of conditions.

Easy Maintenance

Single Intake and Exhaust Vents

Air enters through a single vent on one side and exits through a single vent on the opposite side. This improves dust resistance. Because there's only one filter to replace, maintenance is easier too. The optional Smoke Resistant Box attaches easily for projector use in harsh environmental conditions.

Filter Warning

An LED on the main unit lights up to indicate when the filter needs replacement. This helps prevent a clogged filter from causing serious equipment problems.

Easy-Replaceable Lens Mount

The bayonet-mount system lets you change lenses quickly and easily.

Optional Long-Life Lamp

The optional long-life lamp* offers an extended life expectancy of about 10,000 hours. * Available soon.

USB Memory Backup

Image adjustment settings can be stored in the optional USB memory.* You can then copy the stored data to another PLC-XF60/EF60 for use as a backup projector. You can also copy the user setting list.
* POA-USB01

Security Functions

The 4-digit PIN code lock function prevents unauthorized use of the projector. The optional USB memory* can also be used as a protect key.
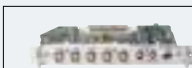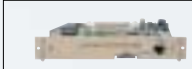* POA-USB01

Warning Log

Errors that occur in the main unit are logged in memory. This stored information can help reduce troubleshooting time and effort.

Two Interface Board Slots

The front panel has two slots for interface boards. Both slots support the Multi Versatile Platform (MVP), so you can expand functions in the future. Input 4 supports both digital and analog (a Warp & Blending board comes as standard equipment). Input 5 is digital.

Product name	5-BNC Board	DVI Board	Dual-SD Board
Item code	POA-MD16VD1	POA-MD18DVI	POA-MD17SDID

Product name	Network Board	Faroudja Board	Mini D-sub15 Board
Item code	POA-MD19NET	POA-MD09VD3	POA-MD04VGA