



Yamaha Video Components

and Recommended Home Theater Systems



Yamaha delivers home theater's ultimate promise: film-like quality with realistic surround sound.

When a director begins work on a movie, he has a vision of how he wants the movie to look and sound. If he's a good director and has a good crew, that vision is translated successfully to film and if you go to a good theater, you will see and hear the movie as the director originally envisioned it. Watching and listening to it in your home is another story. All too often, a story with a bad ending. But Yamaha decided to remedy that situation, first with a wide range of high performance audio components, and now with a line of superb video components to match. So you can have a full-scale home theater system that equals, and in some ways even surpasses, what you experience in a theater. It's time to start giving your favorite directors the respect they deserve. Enjoy their visions the way they intended them to be seen and heard – with a Yamaha system.

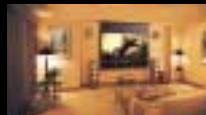




C O N T E N T S

DPX-1000 System 6

Film-like picture quality complemented by a supremely capable sound system.



LPX-500 Systems 12

An impressive combination of audio and video performance and convenience.



The world's most advanced video and audio in unrivalled home theater performance.

Yamaha video technology begins with the Natural Black concept.

Yamaha's Natural Black concept is a comprehensive approach to achieving the highest levels of contrast and overall quality for strikingly clear image quality. It combines various technologies, parts and functions to achieve truer, deeper levels of black than those of conventional home theater projectors and monitors. The result is images that are not merely high quality, but ultra sharp, clear and richly detailed at every level of brightness.

Yamaha projectors use a wide range of superior technologies to provide extraordinarily good image reproduction. The DPX-1000 starts with a high performance optical system with a 14 lens configuration and complements it with a 5x color wheel, Picture Management System and extensive Color Balance Control. The LPX-500 makes the most of its Natural Black high contrast performance with features like Linear Color Balance technology and a design that virtually eliminates light leakage and projector noise.



Yamaha Natural Black provides superb contrast for a better viewing experience.

NATURAL BLACK



The superior audio performance of Digital ToP-ART technology is now available for home theater enjoyment.

Digital ToP-ART (Total Purity Audio Reproduction Technology) is the name Yamaha has given to a design philosophy whose goal is to maximize digital quality while minimizing analog circuitry. The culmination of the best digital engineering and design possible today, it brings together several key elements to create the best-sounding, easiest-to-use A/V components available. In Yamaha home theater components, Digital ToP-ART can be divided into three categories. The first is High Performance Digital Circuitry, which maximizes the quality of the digital circuitry while using a logical, straight-line circuit layout for optimum signal purity. The second is High-Density CINEMA DSP Circuitry, which raises digital sound field processing to the state of fine art. This proprietary technology gives movies much greater impact in your home theater, affording all the realism, excitement and nuance that the director intended to convey. And third is our High Quality, Wide-Range Power Amplifier technology that delivers the full impact and dynamism of movies by supplying generous amounts of clean power.



**DIGITAL
TOP-ART**

H O M E T H E A T E R

technologies result



Speaker and subwoofer technology ensures that you enjoy the full impact of movie sound.

Speakers and subwoofers are also an important part of any high quality home theater system. Yamaha offers a full line of high performance speakers to meet all system needs, including models with advanced features like the Waveguide Horn, PMD cone woofer and powerful dual-woofer designs, as well as compact effect speakers and specially designed center channel types.

Deep, clear bass is essential for full home theater enjoyment, so Yamaha has developed two unique bass technologies. Advanced YST (Yamaha Active Servo Technology) enables the speaker and amplifier to work together to cancel out impedance so the speaker unit has a perfectly linear motion. QD-Bass (Quatre Dispersion Bass) uses down-firing drivers with square, pyramid-shaped reflective plates to radiate the sound efficiently in four horizontal directions.



Yamaha subwoofers deliver the powerful bass that today's movies demand.



Home theater surround sound achieves its fullest potential with CINEMA DSP.

CINEMA DSP is what puts Yamaha home theater surround sound in a class of its own. Making the most of any Dolby Digital or DTS Digital Surround source, it creates independent sound fields in the presence (front), rear left and rear right (and rear center for 6.1-channel sound) to place listeners right in the middle of the movie soundtrack, just as the multiple speaker arrays in a movie theater do. Dialogue is clear and perfectly located, while music and effects come from exactly where the director intended them to, resulting in sound with exceptional depth, richness and realistic presence. Instead of merely watching and listening to a movie, you will have the unique feeling of actually being inside each scene.



CINEMA DSP Programs (RX-Z1)		
ENTERTAINMENT	Game	●
CONCERT VIDEO 1	Pop/Rock	●
	DJ	●
CONCERT VIDEO 2	Classical/Opera	●
	Pavilion	●
TV THEATER	Mono Movie	●
	Variety/Sports	●
MOVIE THEATER 1	Spectacle	● [S]
	Sci-Fi	● [S]
MOVIE THEATER 2	Adventure	● [S]
	General	● [S]
ENHANCED	Enhanced	● [S]
CINEMA DSP Total		12 [32]

Remarks ●: CINEMA DSP
 ●: Tri-Field CINEMA DSP Capable
 ●: Quad-Field CINEMA DSP Capable
 [S]: Variations

RX-Z1 has total of 42 surround programs.



DPX-1000 System

Ultra high performance DLP™ Digital Cinema Projector with



If you've decided the time has come to start enjoying widescreen movies at home with the highest possible film-like quality, the first component to choose is the DPX-1000. Designed exclusively for home theater use, this high performance projector combines the highest level of DLP™ quality with a superior optical system and other technologies for superb contrast and color quality. Sit back and enjoy!



superior new technologies and optics.



Theater-Like Picture Quality Complemented by
Supremely Capable Sound Systems.



DPX-1000 System

Combine top-line components and you get a system that sets the standard for excellence.

RX-Z1 Receiver provides unrivalled performance.

No other receiver in the world has as much to offer the home theater enthusiast as the RX-Z1. With eight channels of discrete amplification (130W x 6 + 45W x 2) and 42 surround programs including Yamaha's uniquely realistic Quad-Field CINEMA DSP programs, this receiver takes movie sound to a new level of sheer enjoyment. Naturally, it is compatible with all the latest movie sound formats, and includes a wide range of attractive features, such as SILENT CINEMA for surround sound headphone listening.



Yamaha Exclusive YSS-938 LSI

DVD-S2300 DVD Player expands entertainment possibilities.

You'll never be at a loss for what to watch or listen to with the DVD-S2300. It gives you the choice of playing DVD-Video, DVD-Audio, SACD, VCD, CD, CD-R/RW and even discs with MP3 tracks. Advanced digital technologies deliver top-class performance and it has helpful functions like Cinema Mode Selection and Advanced Surround.



Multi-Bit Delta Sigma DAC

HX Series Speakers are the ultimate choice for home theater sound.

Yamaha's years of acoustic, audio and digital technical expertise are behind the development of these high performance speakers. This system includes the NS-8HX 3-Way Dual Woofer Bass-Reflex Speakers, the NS-C7HX 2-Way Dual Woofer Acoustic Suspension Center Speaker and the NS-4HX 2-Way Dual Woofer Bass-Reflex Speakers.



Waveguide Horn Drivers

YST-SW1500 Subwoofer gives movies a new dimension of excitement.

This 1,000W subwoofer uses a new type of power supply for higher efficiency and greater stability. Its 30cm extra-long stroke, pure spruce drivers, with Advanced YST and QD-Bass provide outstanding power with low distortion all the way down to 16Hz.



Extra-Long Stroke Subwoofer Driver

DPX-1000



Digital Cinema Projector

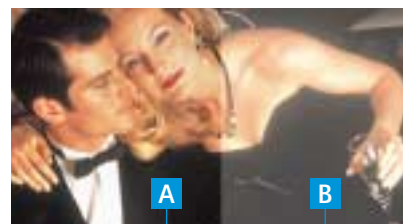
You've never seen movies look this good up close
— 2,700:1 contrast ratio with spectacular color
and clarity for total viewing enjoyment.



The DPX-1000 Digital Cinema Projector will be the centerpiece of a home theater system that puts the emphasis clearly on "theater." It uses Yamaha's Natural Black concept to achieve an incredible 2,700:1 contrast ratio and overall quality for stunningly clear image quality. Its design features a high performance optical engine with a large f2.4 projection lens and a Picture Management System that uses 10-bit component signal processing from input to output. The new 16:9 widescreen DLP™ chip offers HD-compatible resolution of 1280 x 720 and a 5x color wheel ensures superb color reproduction. There are also numerous features for enhanced performance and convenience, including complete Color Balance Control, motorized optics for installation flexibility, a "Silent" projector design and custom installation solutions. You'll know how good life can be when you relax with family and friends and watch your favorite movies unfold on a super-wide screen in exquisite color and clarity.

Yamaha Natural Black Concept

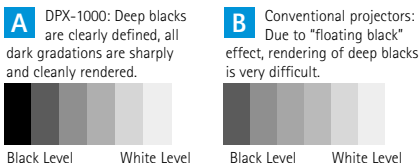
How a video system reproduces black and all its gradations is what determines contrast, and generally makes the difference between an image that is merely good and one that is sharp and richly detailed at every level of brightness. In quest of superior contrast performance, Yamaha developed the Natural Black concept, whereby various technologies, parts and functions combine to achieve truer, deeper levels of black than those of conventional home theater projectors.



Yamaha Natural Black makes subtle degrees of black in textures, shadows and so on stand out more clearly.

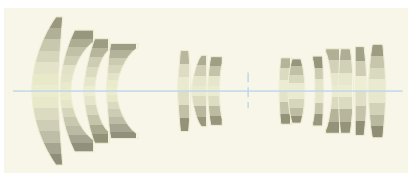
With other projectors, black contrast may be soft and fuzzy rather than sharp and clear.

Black reproduction by DPX-1000 and conventional projectors.



An Optical Engine Far Superior to Conventional Types

The DPX-1000 utilizes a superior optical engine with an extremely high quality projection lens, based on the concept that if lens performance is low, it is impossible to take full advantage of the high image quality resulting from the projector's advanced processing. This large diameter lens, with 12 groups and 14 elements and a wide f value of 2.4, incorporates design expertise used to create high-end single lens reflex and TV camera lenses. The lens is made of expensive anomalous dispersion glass with an aspherical shape and special coating for projector use. It ensures the highest possible resolution and contrast. In all performance aspects – color reproduction, color balance, contrast, resolution, and above all, film-like rich texture – the performance of this lens is outstanding.



12-Group, 14-Lens Configuration

Motorized Iris Control for Higher Contrast

The DPX-1000 is equipped with a motorized Optical Iris that synchronizes control of the projection system and illumination system. Optimizing the shape of the iris achieves an extremely high contrast ratio of 2,700:1 in the Cinema mode, as well as increasing depth of field and enhancing black level. The prism shape and lens arrangement are also optimized, and a low-reflection coating restricts the reflection of unnecessary light that reduces contrast. With this system, contrast is so good that small details that would ordinarily be masked by black areas are visible.

New High Performance DLP™ Chip

The DLP chip used in the DPX-1000 is Texas Instruments' latest 16:9 widescreen version, which



offers native resolution of 1280 x 720 and HD compatibility for extreme image accuracy. The key DMD™ (Digital Micromirror Device™) component is the dark metal type for even deeper blacks, and uses a mirror angle of 12°. Light leakage to the screen when the micromirrors are off (when light is not reflected on the screen from the lamp) is reduced from previous levels.



1,280 x 720 Pixel DMD™ Device

Yamaha Signal Management System

The DPX-1000 features full 10-bit component signal processing from input to output. Most projectors use 8-bit processing for 256 levels of gradation, but 10-bit processing provides four times as many, or 1024. Yamaha's Area Adaptive Scaling enables native 720p display. Faroudja's DCDi processing, used in the 10-bit mode for 480i signals such as DVD, effectively reduces "jaggies" with standard definition sources.



DCDi Off

DCDi On

Area Adaptive Scaling

Almost all input signals are, after being made progressive, scaled according to the number of pixels of the projection screen, a factor which also can affect picture quality. The DPX-1000 uses Yamaha's original Area Adaptive Scaling based on precisely determined algorithms. Performing scaling matched to multi-sided expansion filters by analyzing the image edge of the object range creates images with extremely high resolution.

5x Color Wheel

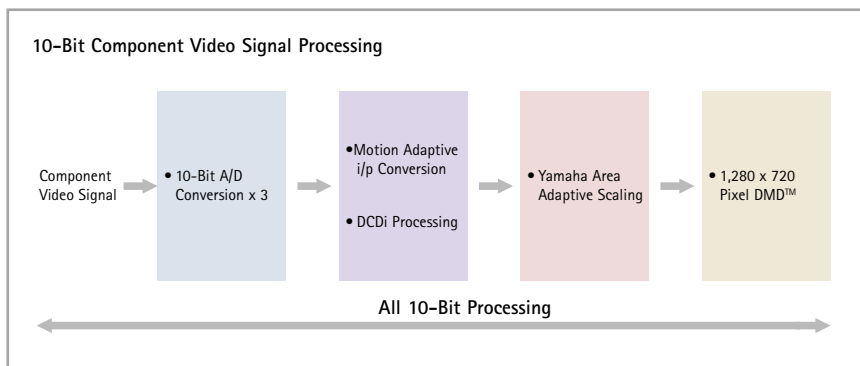
The DPX-1000 uses a 5x color wheel to reduce distortion and ensure superb color accuracy. This monolithic color wheel is made of a single piece of glass for lower noise and has a dichroic coating to enhance color performance. It is driven by a coreless air bearing motor with low noise and excellent durability.



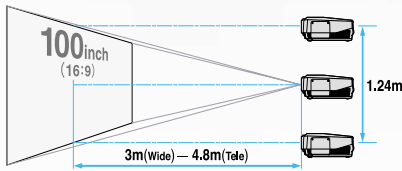
3-Color 6-Segment Color Wheel



High Picture Quality Signal Processing Board



Largest Zoom Lens in Its Class for Large Screen Reproduction, Flexible Installation
 The DPX-1000 projection lens not only reproduces sharp images, it has two functions that increase installation flexibility so you can achieve large screen sizes. With the largest zoom ratio in its class (1.6x), it can project a wide 100 inch 16:9 image from only 3m (short focal length) to 4.8m (long focal length) projection distances. It can also be installed within a vertical range of 0 to 1.24m thanks to a lens shift function that is adjustable over a wide range. Because these adjustments are electrically powered and can be performed with a remote control, they can be done after positioning the projector or installing it on the ceiling. You can create the optimum viewing environment for enjoying large screen images anywhere, even in small rooms.



Silent Operation

Naturally, a home theater projector should be extremely quiet, and the DPX-1000 is unmatched here also. It's Tri-Silencer system uses separate lamp, DMD™ and power supply ducts equipped with chambers paneled with sound absorbent materials, and cooling fan operation is minimized by continually adjusting it according to internal temperature. The result is noise levels of only 28dB in the Economy mode and 30dB in the Standard mode.



Complete Color Balance Control

An extensive range of adjustable parameters, selectable from the on-screen menus, provide professional-level color balance control. You can memorize six patterns of parameters for each input terminal, a total of 36 patterns. You can also return to the default settings at any time.

Move Menu Window			
Image	Signal	Initial	Setup
Black Level	0		
White Level	0		
Gamma Trim	A B C D E		
Hue	0		
Saturation	100		
Color Temp.	6000K ±0.000uv		
Sharpness Type	Off L M H		
Sharpness Gain	16		
Color Balance	Standard		
Level Adjustment			
Iris	Standard Cinema		
←: Enter		Memory 1	VIDEO

• **Black Level**

Adjusting the black level, an extremely important parameter for obtaining movie quality images, optimizes the reproduction of black gradations and can correct black level abnormalities.

• **Color Temperature**

The color temperature control allows adjustment of the white point on the chromaticity coordinates (from 5,000 to 10,000 chromaticity), and provides full access to the other chromaticity coordinates (red, green, blue, cyan, magenta, yellow) for fine tuning of the entire color range.

Move Menu Window			
Image	Signal	Initial	Setup
Color Temp.	6000K ±0.000uv		
←: ESCAPE:Return		Memory 1	VIDEO

• **Gamma Correction**

14-bit digital gamma correction is performed during final signal input to the DMD™ using a carefully tuned gamma curve to reproduce finely calibrated gradations. 10 patterns can be selected, depending on the type of input.

On-Screen Display with Extensive Menus

The on-screen display, selectable via the remote control, offers a wide range of parameters that can be adjusted to provide the highest possible image quality in all situations. There are Setup and Initial (default) menu, and for more detailed adjustments, Image and Signal menus. The extremely large selection of choices ensures that you can achieve the sharpest, most natural-looking pictures for all input formats, sources and room conditions. You can even vary the position of the menu on the screen.

Move Menu Window			
Image	Signal	Initial	Setup
R Color Coordinate	x=0.640 y=0.330		
R Gain	0.95		
G Color Coordinate	x=0.300 y=0.600		
G Gain	0.89		
B Color Coordinate	x=0.150 y=0.060		
B Gain	0.43		
Y Color Coordinate	x=0.428 y=0.499		
Y Gain	0.95		
C Color Coordinate	x=0.226 y=0.332		
C Gain	0.68		
M Color Coordinate	x=0.336 y=0.163		
M Gain	1.00		
←: ESCAPE: Return		Memory 1	VIDEO

Move Menu Window			
Image	Signal	Initial	Setup
Color System	Auto		
INPUT A Signal	Component		
INPUT A Symb Type	Auto		
INPUT B Signal	RGB PC		
INPUT B Symb Type	Auto		
DVI Signal	RGB PC		
Auto Power Off	Off On		
Auto Input Search	Off On		
Display Language	English		
Lamp Running Time	0 Hour		
Reset			
←: Enter		Memory 1	VIDEO



Custom Installation Solutions

The DPX-1000 is sure to be a popular choice among customers wanting custom installation. It is therefore equipped with an RS-232C serial interface, extended IR codes, IR I/O ports and power status trigger DC12V. The complete set of inputs includes composite video, S video, component video/BNC, RGB with V/H sync, D-Sub 15 and a DVI terminal compatible with a wide range of signals as well as HDCP (High Definition Copy Protection).

Full-Function Remote Control

All settings, adjustments and lens operations can be performed by remote control. The unit is equipped with backlighting that turns on for 10 seconds each time you touch a button. It is comfortable to hold and operate, with often used buttons the most accessible.



Other Convenient Features

- Automatic input signal detection and selection.
- Automatic aspect ratio detection and selection.
- Economy mode and low standby power consumption (0.1W).

DPX-1000 Specifications

[Optical]

- **Projection mode:** DLP™ ((Digital Light Processing) Images of 1,280 x 720 pixels (0.8 inch)
- **Lens:** f=24.4 to 39 mm, F=2.4 to 3.1 electronic zoom (x 1.6), electronic focus
- **Brightness:** 800/500 ANSI Lumens (Standard mode/Cinema mode)
- **Contrast Ratio:** 1,500:1/2,700:1 (Standard mode/Cinema mode)
- **Lamp:** 270 W SHP lamp
- **Image size:** 60 to 200 inches
- **Projection distance:** 1.8 to 6.05 m (70-7/8" to 236-1/5") (wide image, 16:9 screen)

[Electrical]

- **Color mode:** NTSC, PAL, SECAM, NTSC4.43, PAL-M, PAL-N, PAL60
- **Scanning frequency:** H:15 to 80 kHz; V:50 to 85 Hz

[Input]

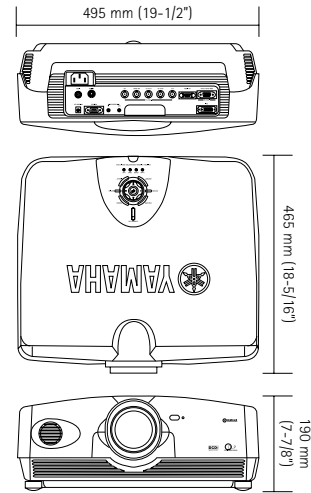
- **VIDEO Composite signal:** 1 Vp-p/75 ohms (negative sync.)
- **S-VIDEO (S video signal):** Y=1 Vp-p/75 ohms (negative sync.); C=0.286 or 0.3 Vp-p/75 ohms
- **D4 VIDEO (component signal):** Y with sync.=1V p-p/75 ohms (negative sync., 480i, 576i, 480p, 576p); Y with sync.=1 Vp-p/75 ohms (3 values sync., 1035i, 1080i, 720p); Pb/Pr=0.7 Vp-p/75 ohms
- **INPUT A/INPUT B (component signal):** Y with sync.=1 Vp-p/75 ohms (negative sync., 480i, 576i, 480p, 576p); Y with sync.=1 Vp-p/75 ohms (3 values sync., 1035i, 1080i, 720p); Pb/Pr=0.7 Vp-p/75 ohms
- **RGB signal:** G with sync.=1 Vp-p/75 ohms (negative sync.), 480i, 576i, 480p, 576p); G with sync.=1 Vp-p/75 ohms (3 values sync., 1035i, 1080i, 720p); G=0.7 Vp-p/75 ohms (when using HD/VD or SYNC); B/R=0.7Vp-p/75 ohms; HD/VD=1.5 Vp-p/2.2 k-ohms (positive and negative sync.); SYNC=2 Vp-p/2.2 k-ohms (negative sync., 480i, 576i); SYNC=1 to 5 Vp-p/2.2 k-ohms (positive and negative sync.)
- **DVI:** Digital RGB signal

[General]

- **Noise Level:** 30 dB/28 dB (Standard mode / Economy mode)
- **Power consumption:** 365 W
- **Standby power consumption :** 0.1 W
- **Dimension (W x H x D):** 495 x 190 x 465 mm; 19-1/2" x 7-1/2" x 18-5/16"
- **Weight:** 13.8 kg; 30.4 lbs.



Control Panel



Accessories



PMT-H35: Optional installation brackets for high ceiling



PMT-L31: Optional installation brackets for low ceiling



PJL-327: Optional lamp cartridge



DPX-1000 connection panel offers INPUT A (G/Y, B/Pb/Cr, HD/SYNC and VP), INPUT B (RGB/YPsPr/YCbCr), DVI, S-video input and composite video input terminals, remote control IR Code input/output, RS-232C serial interface, and +12V trigger output terminal.

LPX-500 System

The compact projector with film-like picture quality specifically



The LPX-500 Home Cinema Projector is a brilliant achievement, combining superb contrast, color balance and overall image quality with easy setup and handy portability. Taking advantage of innovative Yamaha technologies like Natural Black and Linear Color Balance, as well as DCDi processing, the LPX-500 delivers beautiful picture quality. When used in either of the two recommended systems shown on the next page, it gives you a home theater experience of extraordinary beauty and power.



for home theater use.



Pair the LPX-500 with These Sound Systems for Total Home Theater Enjoyment.



LPX-500 System 1

Yamaha top-line audio components combine high performance with superior control capabilities.

RX-V3300 Receiver maximizes movie enjoyment.

For performance, control and versatility, few receivers can match the RX-V3300. 8-channel discrete amplification (130W x 6 + 25W x 2) and the Digital ToP-ART design concept ensure that sound quality is absolutely first rate. With Quad-Field CINEMA DSP, 33 surround programs, SILENT CINEMA and full Dolby and DTS 6.1-channel compatibility, it makes movies sound simply sensational. Extensive facilities for custom installation, too.



DVD-S2300 DVD Player expands entertainment possibilities.

You'll never be at a loss for what to watch or listen to with the DVD-S2300. It gives you the choice of playing DVD-Video, DVD-Audio, SACD, VCD, CD, CD-R/RW and even discs with MP3 tracks. Advanced digital technologies deliver top-class performance and it has helpful functions like Cinema Mode Selection and Advanced Surround.



HX Series Speakers are the ultimate choice for home theater sound.

Yamaha's years of acoustic, audio and digital technical expertise are behind the development of these high performance speakers. This system includes the NS-8HX 3-Way Dual Woofer Bass-Reflex Speakers, the NS-C7HX 2-Way Dual Woofer Acoustic Suspension Center Speaker and the NS-4HX 2-Way Dual Woofer Bass-Reflex Speakers.



YST-SW1500 Subwoofer gives movies a new dimension of excitement.

This 1,000W subwoofer uses a new type of power supply for higher efficiency and greater stability. Its 30cm extra-long stroke, pure spruce drivers, with Advanced YST and QD-Bass provide outstanding power with low distortion all the way down to 16Hz.



LPX-500 System 2

High quality audio and video components make an impressive home theater system.

RX-V1300 Receiver maximizes movie enjoyment in many ways.

The RX-V1300 incorporates much of the same technology and features as the RX-V3300 in a 100W x 6-channel configuration. Quad-Field CINEMA DSP provides the ultimate in surround sound performance, with a selection of 25 surround programs, as well as SILENT CINEMA for headphone enjoyment. A wide range of functions and connections let you command a truly impressive system.



DVD-S2300 DVD Player expands entertainment possibilities.

You'll never be at a loss for what to watch or listen to with the DVD-S2300. It gives you the choice of playing DVD Video, DVD Audio, SACD, VCD, CD, CD-R/RW and even discs with MP3 tracks. Advanced digital technologies deliver top-class performance and it has helpful functions like Cinema Mode Selection and Advanced Surround.



HX Series Speakers for flawlessly accurate, clear reproduction.

Utilizing a unique Waveguide Horn, White Spruce Diaphragm woofers and midranges, and aluminum dome tweeters, these speakers deliver all the dramatic sound impact that movie directors want to convey. This system includes the NS-6HX 3-Way Bass-Reflex Speakers, the NS-C5HX 2-Way Dual Woofer Acoustic Suspension Center Speaker and the NS-2HX 2-Way Bass-Reflex Speakers.

YST-SW1500 Subwoofer gives movies a new dimension of excitement.

This 1,000W subwoofer uses a new type of power supply for higher efficiency and greater stability. Its 30cm extra-long stroke, pure spruce drivers, with Advanced YST and QD-Bass provide outstanding power with low distortion all the way down to 16Hz.



LPX-500

DCDi
by FAROU DJA

Home Cinema Projector

A technologically advanced LCD projector that makes movie viewing on a large screen a thrilling experience.

NATURAL BLACK



Natural Black Concept for Superior Contrast

When you watch a movie, shadows should stand out from the background, black levels should be solid even in dark scenes, and blacks should maintain their depth when the scene becomes brighter. Which is exactly what happens with Yamaha Natural Black. Because even though it's usually the bright colors that you notice, how a video system reproduces gradations of black is extremely important. This is what determines contrast, and is very often the difference between an image that is merely good, and one that is sharp and rich at every level of brightness. Yamaha put a great deal of effort into improving black reproduction, and with Natural Black, we've achieved levels of black that are significantly "blacker" than those of conventional projectors.

Black reproduction by LPX-500 and conventional projectors.



Yamaha Natural Black makes subtle degrees of black in textures, shadows and so on stand out more clearly.

With other projectors, black contrast may be soft and fuzzy rather than sharp and clear.

720p HDTV Format Compatibility, 16:9 Widescreen Display

The LPX-500 is able to handle high resolution 720p HDTV signals. Other formats will also provide excellent quality. 16:9 aspect ratio compatibility means that widescreen movies can be viewed in their entirety, with the correct perspective.

Linear Color Balance

The LPX-500 uses three LCD panels (R, G, B) to create the image. Ideally, all three signals should have the same linearity, but due to various factors, their linearity continuously varies. The Linear Color Balance function helps maintain the proper balance between them, for improved color reproduction.



Light Leakage Prevention

Most projectors suffer from light leakage, which is visible around the projector and also around the screen. This is especially visible if the wall in back of the screen is a light color, and is distracting when watching movies in a dark room. As the LPX-500 is intended primarily for home theater use, it is carefully designed to prevent light leakage.

DCDi Processing

Faroudja, one of the world's leading video technology companies, developed the DCDi processing used in this projector. It ensures smooth and natural images without staircasing or jaggies.



DCDi Off

DCDi On

Low-Noise Design

The LPX-500 features ultra-low-noise operation (32dB) due to the quiet operation of its two fans, particularly the powerful Sirocco fan in the rear. Both fans are positioned to the side of the body openings rather than right in front of them, reducing the amount of noise audible outside the body.

Short Focus Lens with High Power Zoom

We gave the LPX-500 a short focus lens so it can be used closer to the screen. This provides numerous benefits: more flexible placement, positioning the projector "up front" out of the middle of the seating area, and use in relatively small rooms. With a 100" screen, the projector requires only 3.15 (Wide mode) to 4.30 meters (Tele mode) of distance. A Zoom mode expands the image 1.35 times to let you get closer to the action.

Digital Keystone Correction

When there is a difference in the relative heights of the screen and the projector, a trapezoidal bending effect can occur which causes image distortion. Digital Keystone Correction, accessed in the Setup menu, compensates for this effect.



Keystone Correction Off

Keystone Correction On

On-Screen Display with Convenient Menus for Detailed Adjustments

The on-screen display, selectable via the remote control unit, offers a wide range of parameters that can be adjusted to provide the highest possible image quality in all situations. There are Setup and Info menus, and for detailed adjustments, Image and Signal menus. This extremely detailed assortment of choices ensures that you can achieve the best looking picture for all input formats, sources and room conditions. You can even vary the position of the menu on the screen!

The Image menu offers 11 different modes for detailed image adjustment. You can select three Picture Modes, vary black and white levels, adjust flesh tones, sharpness, color balance and more. There is also a Memory Save mode that lets you store six patterns for each of six inputs.



LPX-500 Control Panel

Numerous Inputs for Full Compatibility and Custom Installation

A full complement of professional grade inputs are provided for a variety of sources, including component video with BNC terminals for maximum connection integrity, analog RGB and DVI (Digital Visual Interface), composite video and S-video. An RS-232C serial interface and a +12V trigger out jack output signals to activate other components when the projector is powered on, facilitating custom installation.



LPX-500 connection panel offers component video (RGB) input (D Sub), component video (RGB) RCA input, S-video input, composite video input and digital RGB input terminals, RS-232C serial interface, and +12V trigger output terminal.

The LPX-500 is compatible with a wide range of formats, from digital satellite broadcasting with high image quality at 1080i, 720p, 480p and 480i, to ordinary media such as DVD, LD and VCR. It can also accept 1080p signals via an RGB input; this progressive scanning format has 1080 scanning lines for extremely high resolution. If the RGB output from a personal computer is input directly through the D-Sub 15-pin terminal, native solution and expanded XGA images are possible, as well as compatibility with compressed SXGA images.

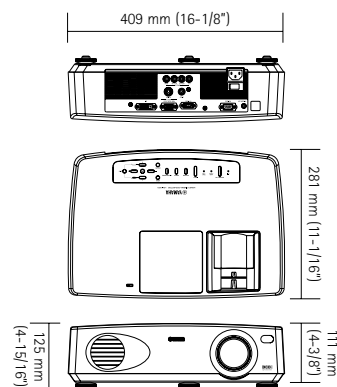
A Remote You'll Enjoy Using

The remote control is styled for comfortable one-hand operation. It controls a wide range of functions, including Still (freezes the image), Hide (turns off the image), Aspect (selects display aspects) and of course all the menu selections. You can also use it to access the Digital Keystone Correction function in the Setup menu, which compensates for trapezoidal distortion when screen and projector are at different heights. You can select two types of correction, Normal and Full Height. A light switch lights up the buttons for 10 seconds.



Main Specifications

- Panel: 0.9-inch p-Si TFT LCD x 3
- Resolution: 1,280 x 720 pixels
- Brightness: 800 ANSI lumens
- Contrast ratio: 800:1 (full on/off)
- Projection lens: 1:1.35 manual zoom, manual focus
- Light resource: 150 W UHP lamp
- Projection distance: 2.97'– 42.67' (0.91 wide – 13.01 m) for 16:9 picture
- Video standard: NTSC, PAL, SECAM, NTSC4.43, PAL60, PAL-M and PAL-N
- Input accepted: SDTV (480i, 576i), HDTV (480p, 720p, 1080i), SXGA, XGA, SVGA and VGA, SXGA (compression), XGA, SVGA and VGA
- Horizontal sync range: 15 – 92 kHz (analog); 31 – 64 kHz (digital)
- Vertical sync range: 50 – 117 Hz (analog); 60 Hz (digital)
- Power consumption: 240 W
- Dimensions (W x H x D): 409 x 125 x 281 mm; 16-1/8" x 4-15/16" x 11-1/16"
- Weight: 4.8 kg; 10.6 lbs.



Accessories



PMT-H25: Optional installation brackets for high ceiling



PMT-L21: Optional installation brackets for low ceiling



PJL-5015: Optional lamp cartridge

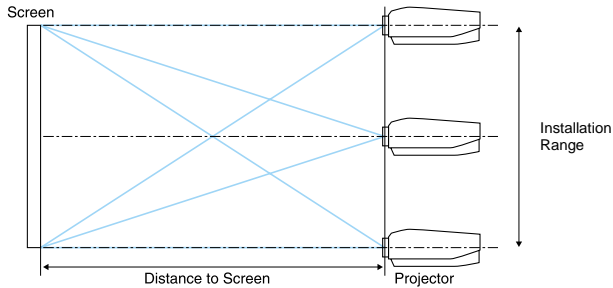
DPX-1000

Distance to Screen 16:9

Diagonal Image Size	Size (16:9)	Wide		Tele	
		m	feet	m	feet
	30"	(26" x 15")	0.86	2.81	1.41
40"	(35" x 20")	1.16	3.81	1.90	6.23
60"	(52" x 29")	1.78	5.83	2.88	9.44
80"	(70" x 39")	2.39	7.84	3.86	12.66
100"	(87" x 49")	3.00	9.86	4.84	15.87
200"	(174" x 98")	6.07	19.93	9.74	31.95
300"	(262" x 147")	9.14	30.00	14.64	48.02

Distance to Screen 4:3

Diagonal Image Size	Size (4:3)	Wide		Tele	
		m	feet	m	feet
	30"	(24" x 18")	0.78	2.58	1.29
40"	(32" x 24")	1.07	3.50	1.74	5.71
60"	(48" x 36")	1.63	5.35	2.64	8.67
80"	(64" x 48")	2.19	7.20	3.54	11.62
100"	(80" x 60")	2.74	9.05	4.44	14.57
200"	(160" x 120")	5.58	18.29	8.94	29.32
300"	(240" x 180")	8.39	27.54	13.44	44.08



- Digital Light Processing, DLP™, Digital Micromirror Device and DMD™ are trademarks of Texas Instruments, Inc.
- "DCDi" is a trademark of Faroudja, a division of Sage Inc.
- Dolby Digital and Double D are trademarks of Dolby Laboratories Corporation.
- DTS, ES and DTS Digital Surround are trademarks of Digital Theater Systems, Inc.
- Screen images are simulated.
- Product designs and specifications are subject to change without notice.
- LPX-500 room photo (P.12): Okura ACT CITY HOTEL HAMAMATSU.
- Theatre photos: Warner Mycal Cinemas "Minato Mirai."

For details please contact:

Yamaha Electronics Corporation,
USA, P.O. Box 6660
Buena Park, CA 90622

Visit us at our website:
<http://www.yamaha.com>

 **YAMAHA**
CREATING 'KANDO' TOGETHER

YAMAHA CORPORATION
P.O.Box 1, Hamamatsu, Japan

P10001294 UEN 10302 D Printed in Japan

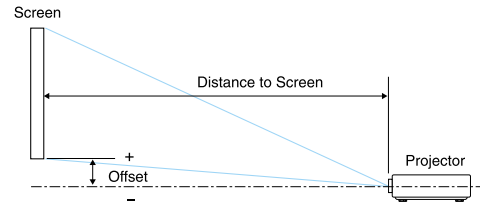
LPX-500

Distance to Screen 16:9

Diagonal Image Size	Size (16:9)	Wide		Tele	
		m	feet	m	feet
	30"		0.91	2.97	1.25
40"		1.23	4.02	1.69	5.53
60"		1.87	6.13	2.56	8.39
80"		2.51	8.23	3.43	11.25
100"		3.15	10.33	4.3	14.1
120"		3.79	12.44	5.17	16.96
200"		6.36	20.85	8.65	28.39

Offset Height of Lens Center and Screen Bottom

Diagonal Image Size	Size	Wide		Tele	
		cm	inches	cm	inches
	30"		5.1	2	5.1
40"		6.8	2.7	6.9	2.7
60"		10.2	4.0	10.3	4.1
80"		13.6	5.4	13.7	5.4
100"		17.0	6.7	17.2	6.8
120"		20.4	8.0	20.6	8.1
200"		34.0	13.4	34.3	13.5



CINEMA DSP : Yamaha's unique technology for the creation of sound fields is capable of powerfully reproducing the three-dimensional environment that movie sound engineers aim to convey, in any audio format from monaural to the latest 6.1-channel digital surround. It is compatible with DVD and all other A/V sources.

Yamaha CINEMA DSP technology has received a patent in the U.S. (Patent No. 5,261,005).