REALiS

SX7 SX6 SX60 X700

Canon

*image*ANYWARE

The Difference is in The Details

Canon's REALiS brand projectors feature LCOS (liquid crystal on silicon) technology, recently described by a leading trade magazine as "sort of a 'best of breed' combination of LCD and DLP technologies." LCOS technology produces lattice-free seamless images, and unlike LCD has no "screen door effect" to mute color and detail. LCOS technology has been highly coveted for providing exceptional color, intricate details, easy-to-read type (as small as 7 pt.) and "HD images that jump out at the viewer in breathtaking quality," making it the ideal projector for demanding uses and applications. These include medical image presentations, display of CAD engineering drawings and blueprints, faithful color reproduction of professional photography, as well as countless uses for business, higher education and government.

REALiS LCOS Projectors vs. Transmissive LCD Projectors

The surface area of each pixel in Transmissive LCD projectors is small, creating an overall grid-like lattice effect ("screen door effect"), which results in muted colors and text that appears faint and uneven. REALiS LCOS projectors have minimal gaps between the pixels, creating color-rich, detailed images, and text that appears dark and crisp. The advantages are easy to see:

LCOS vs. DLP

LCOS Technology displays even subtle color gradation and tones of black and grey, which enhance visual accuracy, while DLP has a limited grey scale.

Display of Fine Lines

Display of fine lines: CAD images, blueprints, and fine lines are reproduced smoothly and accurately with REALiS high-resolution projectors.


LCOS


LCD


LCOS


LCD

Display of Color and Detail

REALiS SXGA+ models can be presented with exceptional color and intricate detail.


LCOS


LCD

Display of Small Text

By using more pixels for each letter, REALiS projectors can display easy-to-read type, as small as 7 pt. often illegible on LCD-based XGA projectors.


LCOS


LCD

Display of Fine Grained Objects

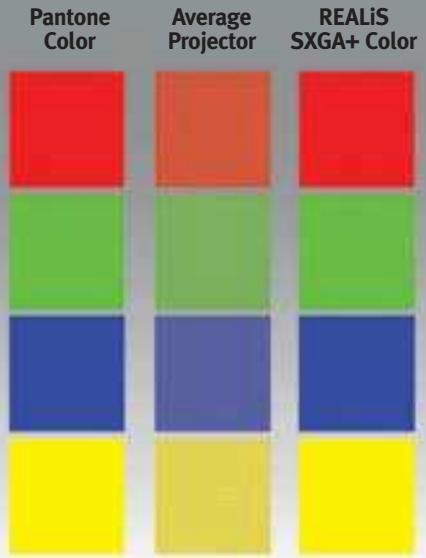
REALiS lattice-free images ensures smooth, crisp displays of fine grained objects, including metallic surfaces, typically dulled by LCD projectors.

Canon's LCOS Projectors: What's Behind "Color-So-Real?"

The Secret is AISYS-Enhanced LCOS Technology

Canon's proprietary AISYS optical system enhances LCOS technology to achieve crisp, color-rich, intricately-detailed images by efficiently utilizing and equalizing light from the projector lamp. This unique technology effectively boosts the performance functions of brightness and contrast to optimize image quality, in a more compact housing that maximizes affordability. New Optical elements were incorporated into the illumination optical system to enhance uniformity of light. The Polarizing Beam Splitters (PBS) in the color separation and recombination system were redesigned for more precise light control resulting in a new standard in bright, beautiful, high-contrast projected images.

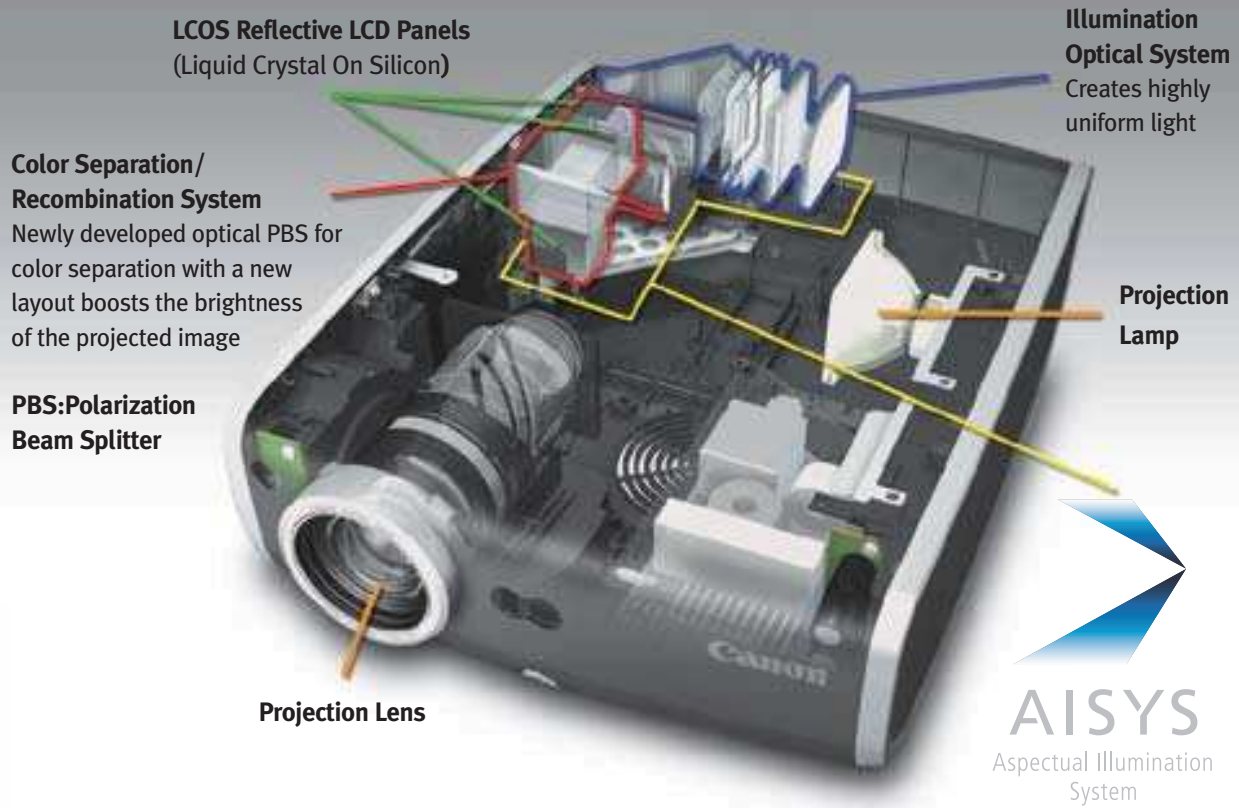
Engineered for Superior Color *



* Simulated image

Advantages of the AISYS Optical System

- **Seamless image**
- **High Contrast**
- **Compact Size**
- **High Definition**
- **Accurate Color Reproduction**
- **Brightness**

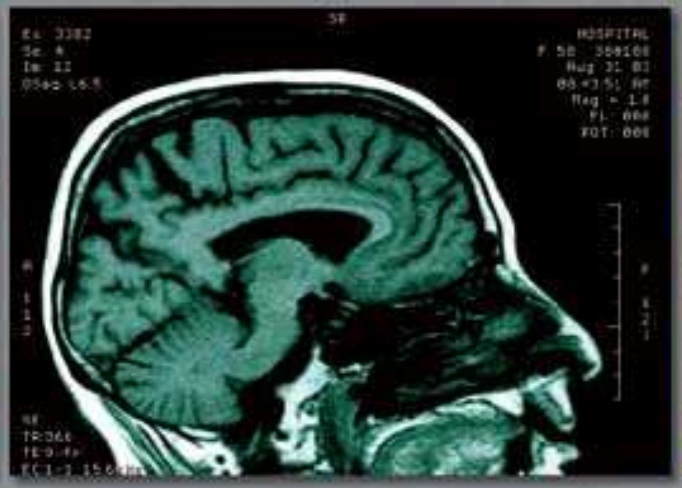


REALiS

AISYS
Aspectual Illumination System

Professional Photography

Medical Imaging



Engineering Design

Color coded models recommended for this application.

REALiS SX7

HD ready

- SXGA+ (1400 x1050)
- LCOS and AISYS Improved
- 1.7x Powered Zoom Lens
- 4000 ANSI Lumens
- 1000:1 Contrast Ratio
- Adobe RGB Color Match System
- Auto Set-up

REALiS SX6

HD ready

- SXGA+ (1400x1050)
- LCOS and AISYS Improved
- 1.7x Powered Zoom Lens
- 3500 ANSI Lumens
- 1000:1 Contrast Ratio
- Adobe RGB Color Match System
- Auto Set-up

Higher Education

Government

Business

REALiS SX60

HD ready

- SXGA+ (1400x1050)
- LCOS and AISYS Improved
- 1.7x Powered Zoom Lens
- 2500 ANSI Lumens
- 1000:1/2000:1 Contrast Ratio
- Home Cinema Mode
- Auto Set-up
- Screen Aspect Modes
- HDCP Compliant

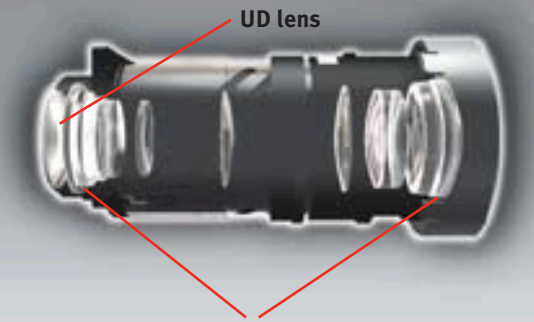
REALiS X700

- XGA (1024 x768)
- LCOS and AISYS Improved
- 1.7x Powered Zoom Lens
- 4000 ANSI Lumens
- 1000:1 Contrast Ratio

Engineered for Precise Color and Detail.

The REALiS Advantage

Canon's two new LCOS Multimedia Projectors, the REALiS SX7 and REALiS X700 join the REALiS SX6 and REALiS SX60 offering an impressive line-up of high and super-high (SXGA+) resolution projectors. Whether the projectors are being used by medical or engineering professionals displaying intricately-detailed, color-rich images; professional photographers or graphic artists needing to precisely match Adobe RGB color; business people or educators presenting charts and images in stunning detail; government or security users requiring exacting imagery; or even discerning home theatre enthusiasts, Canon's new REALiS Multimedia Projector line provides the features and performance to exceed their quality expectations.



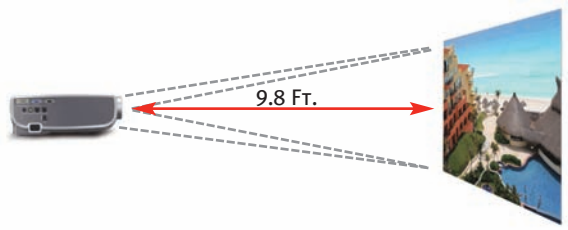
Two high-precision double-sided aspherical lenses

Genuine Canon Optics 1.7x Power Zoom Lens

Canon's SX7, SX6, SX60 and X700 are equipped with a 1.7X Powered Zoom Lens. The lens configuration is a six-group assembly with 12 elements and four moving groups, featuring one UD lens and two high-precision double-sided aspherical lenses.

Throw Distance

The 1.7x Ultra-Wide Powered Zoom Lens has the widest zoom range of any of Canon's projector lenses, giving you a diagonal screen size range of 40" (at a very short distance of 3.9') to 100" at 9.8' and up to 300" maximum. (See chart page 11.)



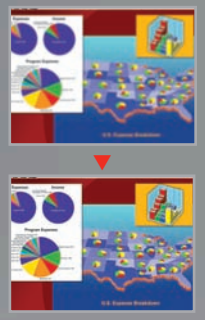
Placement for projection on a 100-inch screen.

Auto Set-up

Press Auto Set, and within seconds your input source is connected, distortion corrected, focus sharpened and color balanced.

Auto Keystone

Automatically calculates the angle of the projector and corrects for image distortion. Vertical (±20°).



Auto Screen Color

Automatically adjusts the color balance according to the projection surface's color.

Auto Focus

An infrared sensor on the front of the unit measures the distance to the screen and adjusts the focus in as quickly as one second.

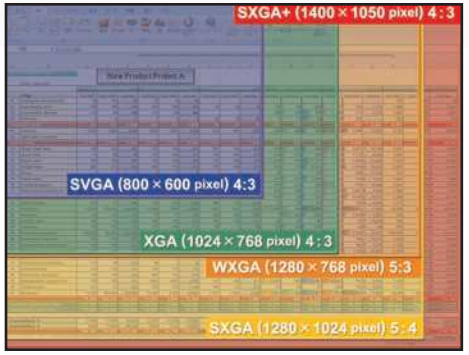
Auto Input

Automatically detects the image signal from the input terminal, identifies it as the input signal and selects it for display.

Input Signal		Terminal
Digital PC	▶	DVI-I
Digital Video	▶	DVI-I
Analog PC	▶	DVI-I, Mini D-sub 15
Component	▶	Mini D-sub 15
SCART	▶	Mini D-sub 15
Video	▶	RCA signal
S-Video	▶	Mini DIN4

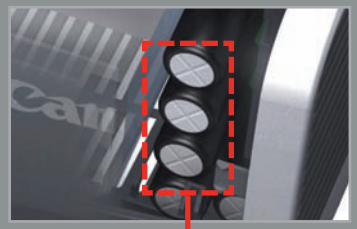
Super-High (SXGA+) Resolution (SXGA+ models only)

SXGA+ can project 3.1 times the display area of SVGA and 1.9 times the area of XGA to clearly display large amounts of detailed information, such as simultaneous projection of multiple PC windows (SX7, SX6, SX60).



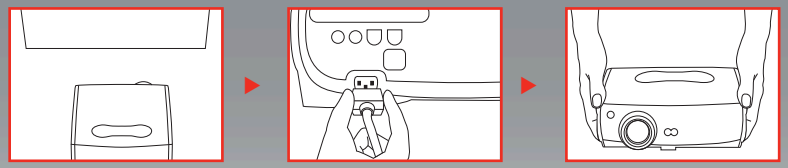
Off and Go

All REALiS models are equipped with an internal charging system to run the fan. This makes it possible to unplug the projector right after using it, while the internal charging system keeps the fan running.



Internal charging system for cooling fan.

When presentation is finished, the unit can be unplugged immediately.



Direct Power On

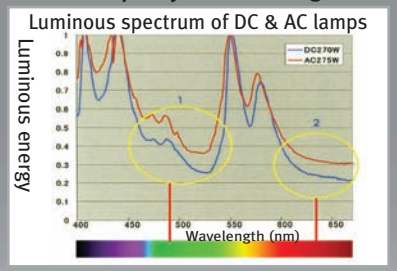
All REALiS models can be switched on and off from a central control terminal without actually pressing the buttons on the main unit, permitting remote operation when the projector is mounted overhead. It is also possible to control the power supply by simply connecting or disconnecting the power cable.

When Direct Power setting is 'On', the projector starts up automatically when power is supplied and is ready to display images in approx. 20 seconds.

AC Projector Lamp

The REALiS SX7 and X700 models feature a newly engineered AC Lamp that effectively boosts the purity of the projected reds and greens (see chart at right) and provides superior color and longer life. This results in noticeably more vivid images and greater overall value.

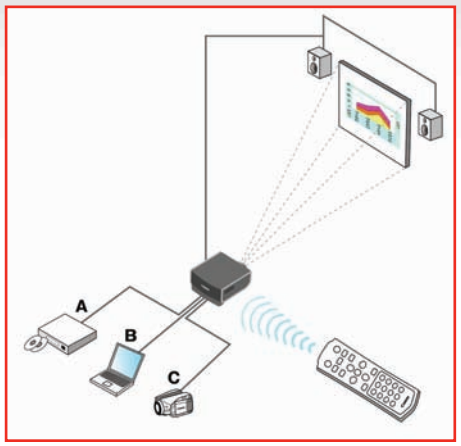
Enhanced purity of reds and greens



Feature-Rich Technology Engineered For Excellence.

Audio input & output

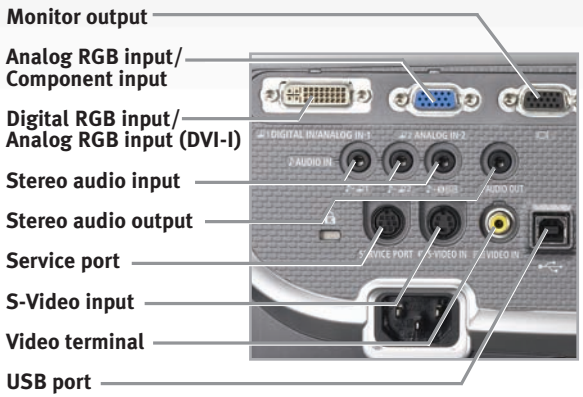
SX7 X700

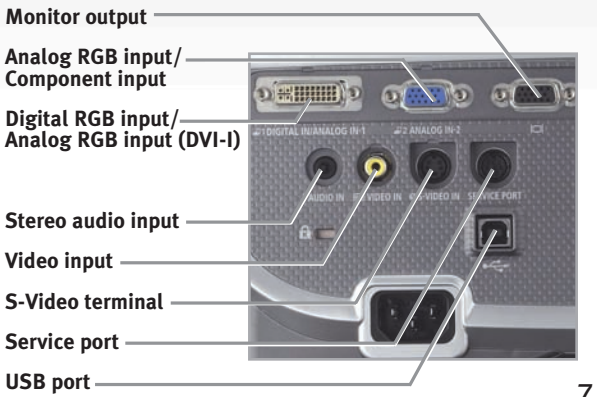


Audio input source switches automatically to match the image signal input source. Audio output terminals permit connection to external audio devices making it easy to control sound levels from the projector's remote control unit.

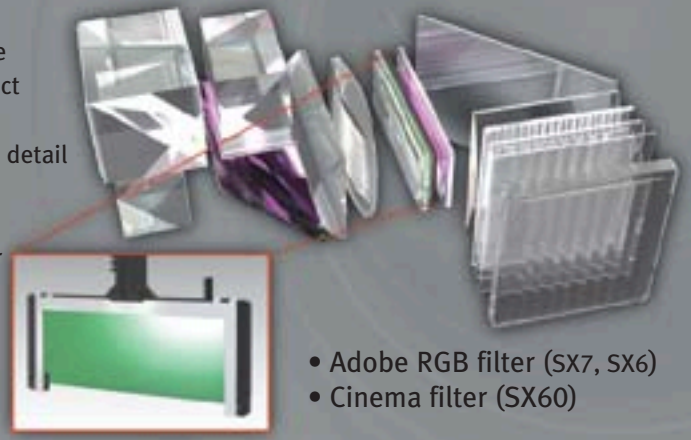
Compatible with a variety of image input signals, including HDTV

SX7 X700 SX6 SX60





Incredibly True Color: Display "Superior" and Highly Accurate Adobe RGB and sRGB Color



- Adobe RGB filter (SX7, SX6)
- Cinema filter (SX60)

REALiS SX7 and SX6 have been engineered to project HD-quality color with exceptional accuracy and detail in Adobe RGB and sRGB modes, using a sophisticated Canon color management technology initially developed for printers. REALiS SX7, SX6 and SX60 display expanded color space using proprietary color filters incorporated in the AISYS optical system. The SX6 filter enables 100% support of sRGB (SX7 requires no filter) and virtually accurate reproduction of Adobe RGB. The SX60 Cinema filter makes it possible to display the original colors of the film before conversion to video.

Screen Aspect Modes

Now anyone who owns a 4:3 or 16:9 screen can enjoy the spectacular HD-like quality of Canon's REALiS projectors by picking the aspect mode to match your screen ratio.

16:9 Screen Aspect Mode

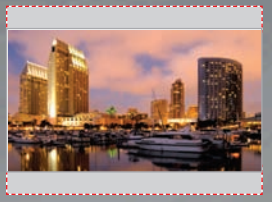
4:3 content

Watch 4:3 content on a 16:9 screen

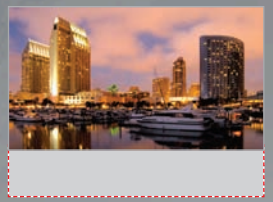
16:9 content

Watch 16:9 content on a 16:9 screen

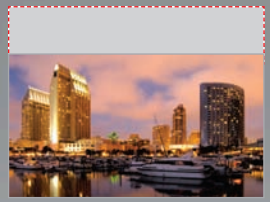
16:9 Digital Image Shift



Before Shift



Digital Image Shift UP

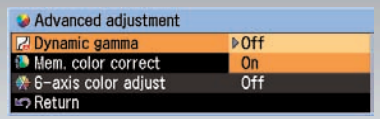


Digital Image Shift DOWN

Home Cinema Mode

The SX60 multimedia projector is equipped with a home cinema filter making it ideal for this application.

Dynamic Gamma



When dynamic gamma is 'On' gamma is automatically adjusted to optimum values. When projecting moving images with rapid shifts in brightness, each frame is displayed with optimum contrast balance to prevent washed-out whites and blocked-up blacks.

In bright scenes, gamma is adjusted according to the brightness, automatically compensating for washed-out areas and reproducing gradation in the bright sections.

In scenes containing dark areas, gamma is adjusted for the entire image, including dark sections, minimizing blocked-up shadows.

Crisp Blacks Create Rich Shadow Detail

Precise control prevents excess light leakage, producing rich, detailed gradation even in shadowed portions of projected images. And the crisp blacks produced by the LCOS reflective panels create images with realistic depth and dimension.

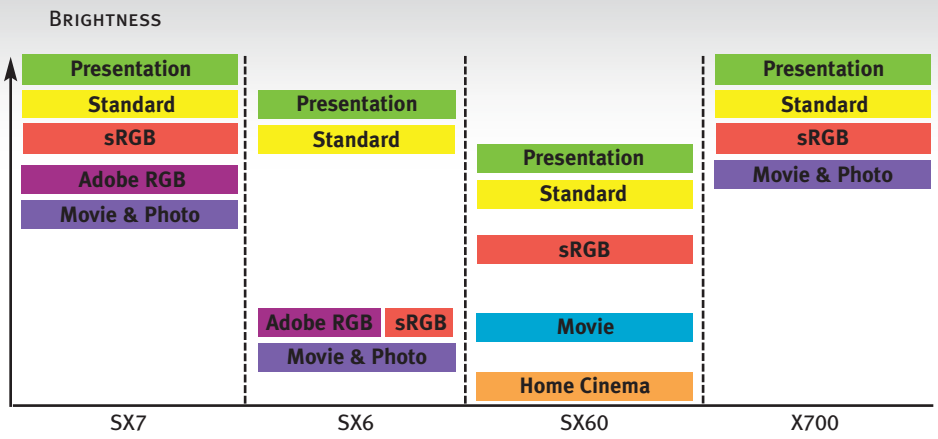
Conventional Home Use Projector

SX60

Image Modes

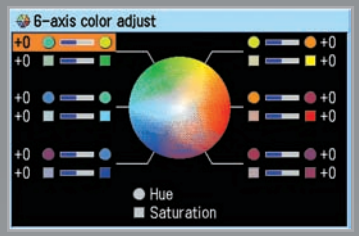
Select the image mode to suit the characteristics of the content: “Presentation” mode for briefings and conferences, “Adobe RGB” or “sRGB” when color reproduction is critical, etc.

Standard	Prioritizes reproduction of white, closely matching the image characteristics of the original
Presentation	Produces a bright, high-contrast display for ease of viewing text and numerical data
Movie	Suitable for displaying theatrical content; image quality emphasizes gradations in dark areas
Movie & Photo	For display of video and digital camera images; clearly defines gradations and improves color reproduction
Adobe RGB / **sRGB**	Reproduces colors in the appropriate color space for accurate projection of content produced in specific standardized formats
Home Cinema	Controls brightness while enhancing contrast to a ratio of 2000:1; for display of theatrical content in pitch-dark rooms



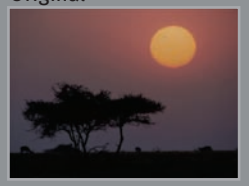
6-Axis Color Adjustments

A 6-Axis Color Adjustment function has been incorporated to meet the demands of professionals with demanding color requirements. Both hue and saturation can be adjusted on independent RGB and CMYK color axes.

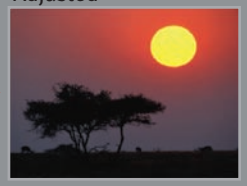


More orange in the sunset

Original



Adjusted



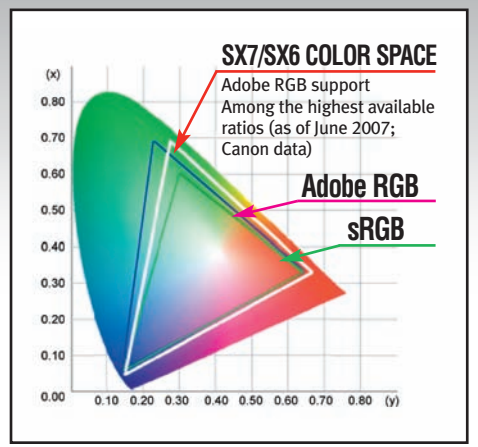
A bluer sky

Original

Adjusted

Adobe RGB Color Match System

A special RGB color filter on the SX7 and SX6 enables virtually accurate Adobe RGB color as well as sRGB, (SX7 requires no filter for sRGB) which is ideal for professional photography, design, publishing and printing.

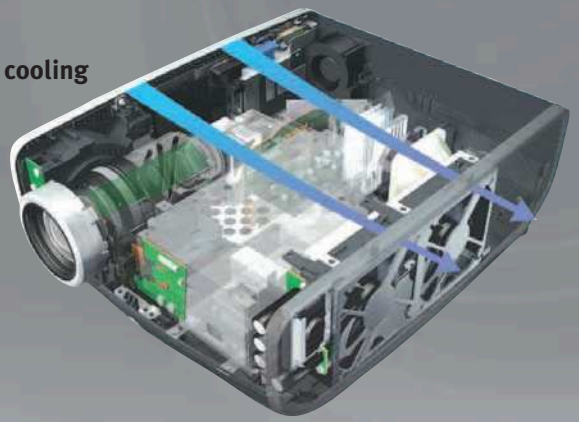


REALiS projectors produce scanless, grid-free images for realistic reproduction of colors and textures in photos.

Quiet Operation

In a projector, heat is generated by its projection lamp and power-supply circuits. The cooling system required to dissipate this heat is one of the main reasons why projectors tend to be noisy. For all our REALiS models, ventilation vents, cooling fan, and layout of the optical array have been engineered with noise prevention in mind, resulting in exceptionally quiet operation.

- **Vents designed for efficient cooling**
- **In-line layout for unobstructed ventilation**
- **Large fan operates at lower speed**



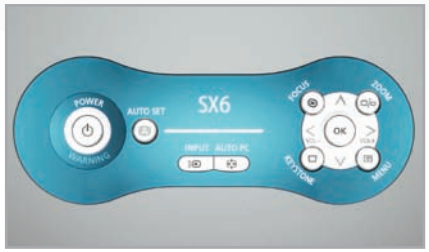
LED Illumination

LEDs on all REALiS models indicate the projector's connections and operational status at a glance. When several image input devices are connected, a LED indicates which image signal is selected as the input. The LED illumination on the operation panel flashes to indicate start-up, end of presentation, and other user commands.

Input terminals

LED indicates connector responding to image signal.

Operations panel



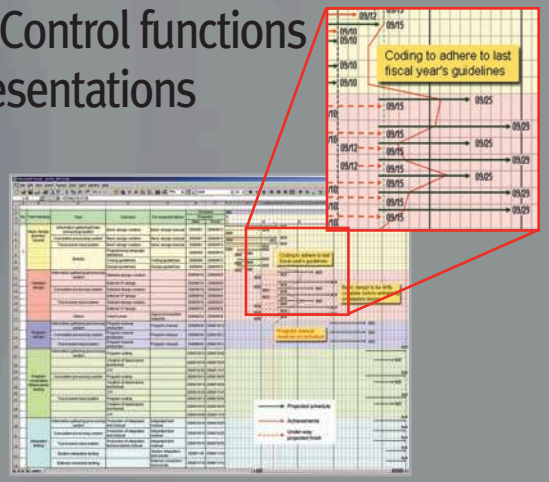
LEDs flash to indicate/confirm specific operations.

Convenient Remote Control functions for sophisticated presentations

Digital Zoom

Enlarges a selected single area of the screen, such as specific data in a graph; images can be enlarged a maximum of 12x*.

* Resolution of the enlarged section is reduced.



Spot

Highlights a portion of the image on the screen; the spotlight can be made larger or smaller and moved anywhere on the screen.

Freeze

Freeze-frame function lets you freeze the on-screen display for pauses in the presentation, such as changing PC connections or checking the subsequent image file.

Guide Functions

All REALiS models display guide messages in an on-screen window, providing feedback on invalid operations and set-up tips. The same window also introduces auto set-up and Off & Go functions when power is switched on or off.

Canon Throw Distance Chart

4:3 Aspect Ratio

SX7, SX6, SX60, X700						
Projector Screen Size	40”	80”	100”	150”	200”	300”
Screen Size – horizontally	2’8”	5’4”	6’8”	10’0”	13’4”	20’0”
Projection distance (shortest to longest)	3’11” – 6’5”	7’9” – 12’11”	9’8” – 16’2”	14’7” – 24’4”	19’6” – 29’6”	29’4” – 29’6”

16:9 Aspect Ratio

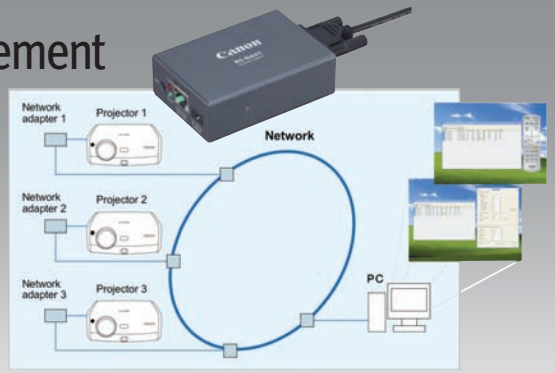
SX7, SX6, SX60, X700						
Projector Screen Size	40”	80”	100”	150”	200”	300”
Screen Size – horizontally	2’11”	5’10”	7’3”	10’11”	14’6”	N/A
Projection distance (shortest to longest)	4’2” – 7’0”	8’5” – 14’1”	10’7” – 17’8”	15’11” – 26’6”	21’3” – 29’6”	N/A

Click here to use the Throw Distance Calculator

For complete Throw Distance information, please visit www.canonprojectors.com

Network Projector Management

The optional network adapter makes it possible to operate the projector from a networked PC. Multiple projectors can be managed remotely as well. In the event of a malfunction, an alert can be sent to the computer. This feature also makes it possible to operate ceiling-mounted units or other remote installations from a single PC screen.



Unique Website Lets You Compare Quality

Visit “Where Are The Details,” www.usa.canon.com/details.

- COMPARE RESOLUTION: Compare XGA, SXGA+ and REALiS SXGA+ with LCOS by market, in single frame and side-by side interactive screens.
- REALiS TECHNOLOGY: Discover the many REALiS features with our 360 degree interactive presentation. View specs on each product.
- WHO NEEDS REALiS?: A market-specific drop-down menu lets you discover why REALiS is ideal for your particular application.
- REALiS ADVANTAGE: Read about and see a video which explains AISYS, Canon’s proprietary technology that enhances LCOS technology.

Kit Contents

Remote Control

Soft Case

Computer Cable (DVI-VGA)

USB Cable

Component Video Adapter Cable

Power Cord

Optional Accessories

Replacement Lamp

RS-LP04 (SX7, X700)
RS-LP02 (SX6, X600)
RS-LP03 (SX60)

Ceiling Mount

RS-CL06 (SX7, SX6, SX60, X700)

Ceiling Plate

RS-CL02

Ceiling Pipe

RS-CL03 (14.17 in.)
RS-CL04 (21.65 in.)
RS-CL05 (29.92 in.)

Network Adapter

RS-NA01

RS-232C Cable RS-CA01

Product Specifications

Product			REALiS SX7	REALiS SX6	REALiS SX60	REALiS X700
Basics	Imaging Device		0.7" Reflective LCD panels (LCoS) x3			
	Aspect Ratio		4:3			
	Native Resolution		SXGA+	SXGA+	SXGA+	XGA
	Brightness		4000 ANSI Lumens	3500 ANSI Lumens	2500 ANSI Lumens	4000 ANSI Lumens
	Uniformity		88%	88%	88%	88%
	Contrast		1000:1	1000:1	1000:1 2000:1 (Home Cinema Mode)	1000:1
	Keystone	Vertical	+/- 20 degrees (Auto/Manual)			
		Horizontal	+/- 20 degrees (Manual)			
Optics	Projection Lens		F1.85 - 2.5, f=21.7 - 35.8 mm			
	Lens Shift		9:1, Fixed			
	Zoom		1.7x Powered , 12x Digital			
	Focus		Powered (Auto/Manual)			
	Screen Size		40" - 300"			
	Projection Distance Coverage		3.9 - 29.5ft (1.2 - 9m) / 100": 9.8 - 16.1ft (3.0 - 4.9m)			
	Throw Ratio		1.46 – 2.43:1			
Image Adjustments	Color Mode		Adobe RGB, sRGB, Presentation, Standard, Movie & Photo	Adobe RGB, sRGB, Presentation, Standard, Movie & Photo	sRGB, Presentation, Standard, Movie, Home Cinema	sRGB, Presentation, Standard, Movie
	Color Adjust		Dynamic Gamma, 6-axis (RGBCMY) Color Adjustment			
	Wall Correction		Auto/Manual			
	Mounting		Ceiling/Rear/Ceiling and Rear			
	Tilt Angle		Adjusting feet up to 10 degrees			
Input Signals	Analog PC Input		UXGA/SXGA+/WXGA/SXGA/XGA/SVGA/VGA			
	Digital PC Input		SXGA+/WXGA/SXGA/XGA SVGA/VGA			
	Scanning Frequency		H:15 - 100 kHz, V: 50 - 100 Hz, Dot clock: 170 MHz			
	Video/S-Video Input		NTSC/PAL/SECAM/NTSC4.43/PAL-M/PAL-N			
	Component Input		1080i/1035i/720p/575p/480p/575i/480i			
	Digital Video Input		1080i/1035i/720p/575p/480p			
Termimal	Input	DVI-I 29pin	Digital PC input/Analog PC input/Digital Video input			
		D-Sub 15pin	Analog PC input /Component input/SCART input			
		RCA	Video input			
		Mini DIN 4pin	S-Video input			
		Stereo Mini Jack	Stereo audio input x3	Stereo audio input x1	Stereo audio input x1	Stereo audio input x3
	Output	D-sub 15pin	Analog PC output			
		Stereo Mini Jack	Stereo audio input x1	N/A	N/A	Stereo audio input x1
	Built-In Speaker		1W (Mono)			
	Control Terminal		RS-232			
	Network		YES (Optional Network Adapter)			
Lamp	Type		275W NSH (AC)	270W NSH (DC)	180W NSH (DC)	275W NSH (AC)
	Lamp Life (Quiet/Normal)		3000/2000 Hours	2000/1500 Hours	4000/2500 Hours	3000/2000 Hours
Remote Control	Sensor		Wireless Infrared, Front/Back			
	Mouse Control		USB			
Ratings	Fan Noise (Normal/Quiet)		35/31dB	35/31dB	30/27dB	35/31dB
	Power	Consumption (Normal/Quiet/Stand-by)	360W/290W/7W	355W/290W/7W	250W/225W/7W	360W/290W/7W
		Voltage	AC 100 to 240V, 50/60Hz			
	Temperature	Operating	41 to 95 F (5 to 35 C)			
		Storage	104 to -22 F (60 to -30 C), 5%RH ~ 90%RH			
	Dimensions (W x D x H)		10.5 x 13.2 x 4.5 in. (266 x 336 x 114 mm)			
	Weight		10.6 lbs (4.8 kg)	10.4 lbs (4.7 kg)	10.1 lbs (4.6 kg)	10.6 lbs (4.8 kg)

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TRIPLE P PROGRAM

TRIPLE P PPP

Canon's Projector Protection Program, also known as "Triple P," is a service program that provides a loaner projector of equal or greater quality in the event that your projector needs to be repaired.

- Free to any buyer within their first year of new product warranty
- *Canon Customer Support Center* toll free hotline: 1-800-828-4040
- Customer Service Hours: 8 a.m. to Midnight, Monday to Friday
  10 a.m. to 8 p.m., Saturday
- For next business day delivery of loaner, Customer Activation Form must be received by *Canon Customer Support Center* by 3 p.m. EST (Monday to Friday)
- Customer must provide a valid credit card as security for the loaner unit
- Delivery not available on Saturday and Sunday
- Program available for products purchased and utilized in the U.S.A. only
- Applies to Canon SXGA+ and XGA resolution products only
- Loaner unit based on availability
- Program subject to change at any time without any given notice

1-800-OK-CANON
www.canonprojectors.com

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Canon Latin America, Inc.
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[1]Systems Contractor News, October 2005 in Realis SX50 review.

Errors and omissions excepted. Weight and dimensions are approximate. Specifications subject to change without notice. Projected images simulated.

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*image*ANYWARE