

VIDEO XTREME™ PORTFOLIO

VX-40d, VX-50d, VX-60d, VX-80d

HOME THEATER AND
HOME CINEMA PROJECTORS



RUNCO
THE WORLD'S FINEST
HOME THEATER PRODUCTS™

VIDEO XTREME™ PORTFOLIO

The new Video Xtreme™ Portfolio of 3-chip DLP™ projectors represent Runco's ultimate achievement in video projection design and performance. These models have been created for the very finest *home theater* and *home cinema* applications and true connoisseurs of big screen picture perfection.

With Runco's three-chip implementation of DLP, no color wheel is used, reducing mechanical complexity and compromises to color spectrum purity. Four models are offered with configuration options creating sixteen distinct versions, for a lineup so broad and versatile that custom-tailoring for any conceivable installation requirement is now possible.

All models feature newly designed Xenon illumination systems for tremendous light output. The VX-40d and VX-60d are equipped with a 1.0 kW lamp, while the VX-50d and VX-80d boast an impressive 1.2 kW lamp to produce our brightest pictures ever. Runco's Xenon lamp intensity control system can operate at lower output levels as well, for use with smaller screens to preserve maximum black level performance and extend lamp life.

The VX-40d and VX-50d feature a native resolution of 1280 x 720, utilizing advanced 16:9 SuperOnyx™ DMD™ technology. The VX-60d and VX-80d use a new SuperOnyx DMD array calibrated for 788P resolution on 16:9 screens, with an anamorphic lens option bringing resolution all the way up to a native 1400 x 1050 for stunning high definition performance.

All models offer world class CinOptx™ *Telesto* lenses, usually associated with the most expensive professional screening applications. *Telesto* lenses are available in five different throw distance ranges to accommodate a wide variety of implementations.

Runco has engineered ISF™ calibration standards into every model for the purest video performance and has incorporated AxiShift™ technology with a motorized horizontal and vertical lens shift system to resolve even the most difficult projector placement issues.

For the ultimate in viewing flexibility and enjoyment, Runco's exclusive, award winning CineWide™ and CineWide with AutoScope™ technology is available. This ground breaking option can transform all of these superb *home theater* systems into a true *home cinema* experience, reproducing 2:35 CinemaScope™ movies with breathtaking accuracy and full vertical height for the first time.





VX-60d

O-Path™ CINOPTX™

O-Path™ Technology and CinOptx™ Premium Grade Lens Systems are featured on the Video Xtreme Portfolio projectors. O-Path efficiently collimates the light energy from the lamp through the optical path to maximize light output and eliminate stray light that can reduce brightness and compromise contrast ratio performance. The broad variety of lenses in the CinOptx family are designed to bring images faithfully to the screen without the geometric and color spectrum aberrations common among "production" lenses.

CSMS.

Runco International has carefully developed a full set of specification standards for our video projectors that is founded upon more realistic and easier to understand criteria for expressing the light output or brightness capability of a display device, as well as its contrast ratio. The Cinema Standards Measurement System™ was developed based on the actual experience one has in a movie theater, providing the consumer with an objective reference point to compare specifications.

CineWide™ *Bringing Hollywood Home™*

Runco's exclusive CineWide™ and CineWide with AutoScope™ technology ensures uncompromised widescreen reproduction of movies originally filmed in the CinemaScope 2.35:1 format. Through a combination of software, electronics and anamorphic optics, each projector is able to use the full pixel array on its DMD chips, thereby producing a 2.35 image with enhanced resolution and increased brightness. No resolution is lost to annoying black bars.

Live Link™

The LiveLink™ DVI cabling system is Runco's exclusive solution for reliable, pure digital video signal transfer. This is the first DVI cabling system capable of truly supporting longer runs while preserving all essential high-resolution video signal quality. LiveLink is nothing short of a revolution for home theater design.



The new Video Xtreme Portfolio products incorporate the Imaging Science Foundation's "ISF 3c™" (Certified Calibration Configuration) setup and calibration standards in projector GUI menus to facilitate picture quality conforming to the highest standards in the industry.

CINEWIDE™ AND CINEWIDE WITH AUTOSCOPE™

TRANSFORMING HOME THEATER INTO TRUE HOME CINEMA

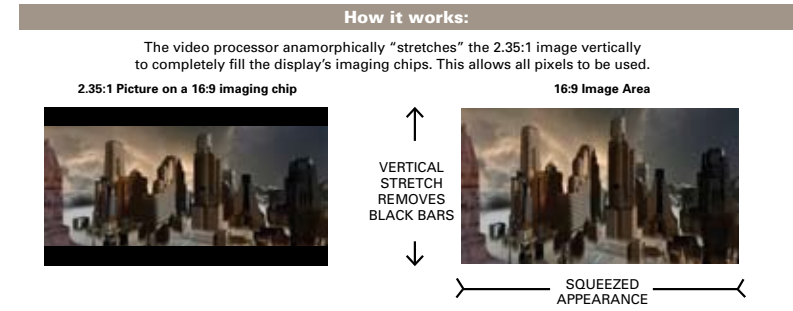
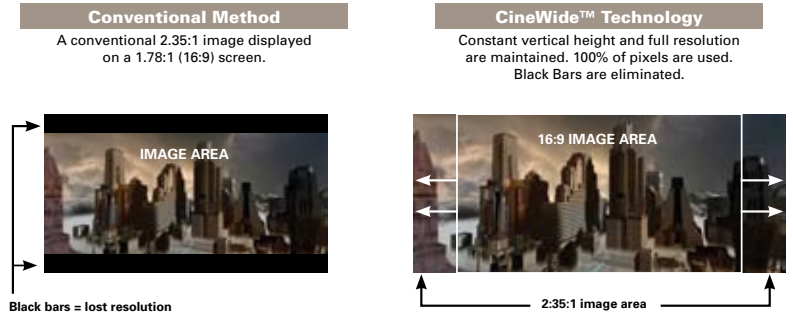
R unco's award winning development of CineWide™ and CineWide with AutoScope™ technology has created a revolution in faithful movie reproduction, for the first time transforming *home theater* into *home cinema*.



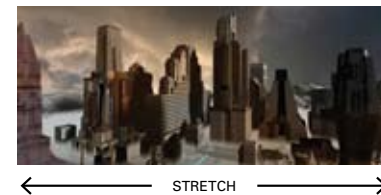
This technology provides uncompromised widescreen reproduction of movies originally filmed in the CinemaScope™ 2.35:1 format. It maintains constant vertical height on the screen just as in a movie theater. When a viewer transitions from 1.78:1 (16:9) program material to superwide 2.35:1, the image simply gets wider while full screen height is maintained, eliminating black bars.

This is done through an ingenious combination of software, electronics and precision anamorphic optics. With the AutoScope option, the anamorphic lens is motorized and remote controlled.

With CineWide the projection system is able to use the full pixel array on its SuperOnyx™ DMD™ chips, thereby producing a 2.35:1 image with enhanced resolution and increased brightness. No resolution or image area is lost to useless black bars on the top and bottom of the screen that contain no picture information.



The anamorphic lens then "stretches" the image width to 2.35:1. Correct geometry is restored, while 100% of the pixels are now used to maintain full resolution and eliminate black bars.



CineWide requires the use of a 2.35:1 or similar aspect ratio superwide format screen.

CineWide and AutoScope technology is the talk of the industry. These are among the awards and acknowledgements we have already received.



2005 Overall Most Creative New Product



Best Video Product 2005



Manufacturer's Excellence Award Best New Product 2005



Electronic House Product of the Year 2005



Best New Product 2005

DHD™ CONTROLLER

The Video Xtreme Portfolio projection systems include the DHD controller/processor. The DHD is engineered with advanced, Vivix II™ digital video processing to produce stunning video imagery, even elevating standard NTSC material to near high definition levels. Superb scaling capabilities output all signals at the native display resolution of the projectors.

The DHD provides for a pure digital signal path from input to output and resides outboard of the projector chassis. This simplifies installation by placing the DHD and its associated input connections in the equipment rack. Only one digital signal cable is then required to the projector. These projection systems can also take full advantage of Runco's exclusive LiveLink™ digital cable solution to preserve HD signal quality and bandwidth over much longer runs than conventional digital signal cables.



DHD CONTROLLER SPECIFICATIONS

Aspect Ratios:	Anamorphic, Letterbox, VirtualWide™ Cinema, 2.35 Cinema
Input Standards:	NTSC/PAL
Output Resolution:	720P (VX-40d, VX-50d) 788P (VX-60d, VX-80d) 1050P (VX-60d, VX-80d with anamorphic lens configuration)
Outputs:	(1) HD - R (Pr), G (Y), B (Pb), H, V; (1) DVI w/HDCP
Inputs:	(1) Composite; (2) S-Video; (1) Component; (2) HD - R (Pr), G (Y), B (Pb), H, V; (2) DVI w/HDCP

Communication Control Ports:	(1) RS-232 (via DB9 connector), (1) RJ-11 output (for display only), IR (with discreet commands), Front panel controls
Screen Trigger/ Masking Outputs:	(3) 12V DC, 1/8A
Bandwidth:	150 Mega Samples/Second (MSPS)
Power Requirements:	100–240V AC (auto sensing) 50/60 Hz, 160W
Operating Environments:	41°–95° F, (5°–35° C), 0%–90% Humidity (non-condensing)

Dimensions: (w/out feet)	Width: 17 1/2 in. (444.50 mm), Depth: 11 3/16 in. (284.10 mm), Height: 3 3/4 in. (95.25 mm), Weight: 13 lbs. (5.9 kg)
Included Accessories:	Rack mounting brackets
Regulatory Approvals:	Complies with FCC, CE, C-Tick
Limited Warranty:	(2) Two years parts and labor from the date of delivery to the end user

Specifications:	VX-40d	VX-50d	VX-60d	VX-80d
Projector Type:	Digital Light Processing™ (DLP™), 3-Chip, 16:9 SuperOnyx™ DMD™	Digital Light Processing™ (DLP™), 3-Chip, 16:9 SuperOnyx™ DMD™	Digital Light Processing™ (DLP™), 3-Chip, SuperOnyx™ DMD™	Digital Light Processing™ (DLP™), 3-Chip, SuperOnyx™ DMD™
Native Resolution:	1280 x 720	1280 x 720	1400 x 1050	1400 x 1050
Aspect Ratios:	Determined by Supplied Video Processor	Determined by Supplied Video Processor	Determined by Supplied Video Processor	Determined by Supplied Video Processor
Video Standards:	NTSC, PAL	NTSC, PAL	NTSC, PAL	NTSC, PAL
DTV Compatibility:	480p, 720p, 1080i	480p, 720p, 1080i	480p, 720p, 1080i	480p, 720p, 1080i
Picture Size (16:9 screens):	Recommended Width: 72–192 in. Maximum Width: 300 in.	Recommended Width: 72–240 in. Maximum Width: 350 in.	Recommended Width: 72–192 in. Maximum Width: 300 in.	Recommended Width: 72–288 in. Maximum Width: 375 in.
Throw Distance Factor x Screen Width:	Telesto Lens Options: A: Fixed 0.8 (for rear screen applications) B: Zoom 1.65–1.95 C: Zoom 2.04–2.73 (with CineWide 1.55–2.06) D: Zoom 2.86–4.83 (with CineWide 2.17–3.65) E: Zoom 4.96–7.90 (with CineWide 3.76–5.98) <i>(Telesto A and B options are not available with CineWide or CineWide w/AutoScope)</i>	Telesto Lens Options: A: Fixed 0.8 (for rear screen applications) B: Zoom 1.65–1.95 C: Zoom 2.04–2.73 (with CineWide 1.55–2.06) D: Zoom 2.86–4.83 (with CineWide 2.17–3.65) E: Zoom 4.96–7.90 (with CineWide 3.76–5.98) <i>(Telesto A and B options are not available with CineWide or CineWide w/AutoScope)</i>	Telesto Lens Options: A: Fixed 0.75 (for rear screen applications) B: Zoom 1.48–1.75 C: Zoom 1.81–2.40 (with CineWide 1.37–1.81 for 1.78 screens, 1.03–1.35 for 2.35 screens) D: Zoom 2.56–4.35 (with CineWide 1.94–3.29 for 1.78 screens, 1.45–2.46 for 2.35 screens) E: Zoom 4.48–7.15 (with CineWide 3.40–5.41 for 1.78 screens, 2.54–4.04 for 2.35 screens) <i>(Telesto A and B options are not available with CineWide or CineWide w/AutoScope)</i>	Telesto Lens Options: A: Fixed 0.75 (for rear screen applications) B: Zoom 1.48–1.75 C: Zoom 1.81–2.40 (with CineWide 1.37–1.81 for 1.78 screens, 1.03–1.35 for 2.35 screens) D: Zoom 2.56–4.35 (with CineWide 1.94–3.29 for 1.78 screens, 1.45–2.46 for 2.35 screens) E: Zoom 4.48–7.15 (with CineWide 3.40–5.41 for 1.78 screens, 2.54–4.04 for 2.35 screens) <i>(Telesto A and B options are not available with CineWide or CineWide w/AutoScope)</i>
Horizontal and Vertical Offset Without CineWide Option: <i>(Note: With CineWide option offsets vary per lens. Please contact Runco Technical Support for more information.)</i>	Horizontal 50% of screen width (25% left or right of center). Vertical 130% of screen height (65% above or below center). Short Throw: 0% (no horizontal or vertical offset) <i>(Contact Runco technical support for installation details.)</i>	Horizontal 50% of screen width (25% left or right of center). Vertical 130% of screen height (65% above or below center). Short Throw: 0% (no horizontal or vertical offset) <i>(Contact Runco technical support for installation details.)</i>	Horizontal 50% of screen width (25% left or right of center). Vertical 100% of screen height (50% above or below center). Short Throw: 0% (no horizontal or vertical offset) <i>(Contact Runco technical support for installation details.)</i>	Horizontal 50% of screen width (25% left or right of center). Vertical 100% of screen height (50% above or below center). Short Throw: 0% (no horizontal or vertical offset) <i>(Contact Runco technical support for installation details.)</i>
Light Output:	CSMS** Specifications: Home Theater Calibration: 2180 ANSI Lumens; 86 Foot-Lamberts (fL); 4000 ANSI Lumens*	CSMS** Specifications: Home Theater Calibration: 3462 ANSI Lumens; 107.3 Foot-Lamberts (fL); 6000 ANSI Lumens*	CSMS** Specifications: Home Theater Calibration: 2360 ANSI Lumens; 94 Foot-Lamberts (fL); 4000 ANSI Lumens*	CSMS** Specifications: Home Theater Calibration: 5740 ANSI Lumens; 188.6 Foot-Lamberts (fL); 8000 ANSI Lumens*
Contrast Ratio:	CSMS** Contrast Ratio: 233:1–285:1; 1500–2000:1 (Variable depending on lens aperture setting)	CSMS** Contrast Ratio: 229:1–279:1; 1500–2000:1 (Variable depending on lens aperture setting)	CSMS** Contrast Ratio: 227:1–282:1; 1500–2000:1 (Variable depending on lens aperture setting)	CSMS** Contrast Ratio: 225:1–277:1; 1500–2000:1 (Variable depending on lens aperture setting)
Lamp:	1000W Xenon lamp module	1.2kW Xenon lamp module	1000W Xenon lamp module	1.2kW Xenon lamp module
Lamp Life:	1000 Hours	1000 Hours	1000 Hours	1000 Hours
Inputs:	(1) Composite, (1) S-Video, (1) DVI, (1) RGB/ Component, (1) RS-232	(1) Composite, (1) S-Video, (1) DVI, (1) RGB/ Component, (1) RS-232	(1) Composite, (1) S-Video, (1) DVI, (1) RGB/ Component, (1) RS-232	(1) Composite, (1) S-Video, (1) DVI, (1) RGB/ Component, (1) RS-232
12V Output:	See Controller for Specifications	See Controller for Specifications	See Controller for Specifications	See Controller for Specifications
Power Requirements:	100-240V AC, 50/60Hz, 1700W	200-240V AC, 50/60Hz, 2100W	100-240V AC, 50/60Hz, 1700W	200-240V AC, 50/60Hz, 2100W
Operating Environments:	40 to 95°F (5 to 35°C); 20-80% humidity (non-condensing)	40 to 95°F (5 to 35°C); 20-80% humidity (non-condensing)	40 to 95°F (5 to 35°C); 20-80% humidity (non-condensing)	40 to 95°F (5 to 35°C); 20-80% humidity (non-condensing)
Dimensions (w/o feet):	Width: 29 1/8 in. (740 mm) Depth: 28 1/4 in. (718 mm) Height: 12 1/4 in. (311 mm) Weight: 115 lbs. (52.16kg) (without lens)	Width: 29 1/8 in. (740 mm) Depth: 28 1/4 in. (718 mm) Height: 12 1/4 in. (311 mm) Weight: 118 lbs. (53.52kg) (without lens)	Width: 29 1/8 in. (740 mm) Depth: 28 1/4 in. (718 mm) Height: 12 1/4 in. (311 mm) Weight: 115 lbs. (52.16kg) (without lens)	Width: 29 1/8 in. (740 mm) Depth: 28 1/4 in. (718 mm) Height: 12 1/4 in. (311 mm) Weight: 115 lbs. (52.16kg) (without lens)
Regulatory Approvals:	Complies with FCC Class B, CE, C-Tick	Complies with FCC Class B, CE, C-Tick	Complies with FCC Class B, CE, C-Tick	Complies with FCC Class B, CE, C-Tick
Limited Warranty:	<u>Projector:</u> (2) Two years parts and labor from the date of delivery to the end user. <u>Lamp Warranty:</u> 1000 hours or (6) Six months, which ever comes first.	<u>Projector:</u> (2) Two years parts and labor from the date of delivery to the end user. <u>Lamp Warranty:</u> 1000 hours or (6) Six months, which ever comes first.	<u>Projector:</u> (2) Two years parts and labor from the date of delivery to the end user. <u>Lamp Warranty:</u> 1000 hours or (6) Six months, which ever comes first.	<u>Projector:</u> (2) Two years parts and labor from the date of delivery to the end user. <u>Lamp Warranty:</u> 1000 hours or (6) Six months, which ever comes first.

***ANSI Lumen specification:**

This is the typical projector luminosity (brightness) specification found in most sales literature. This measurement is included in RUNCO literature to allow for direct comparison with other manufacturer's projectors. These measurements can be taken at 9,000 to 13,000° Kelvin to get expected performance data when the projector is used in professional, commercial, and industrial displays.

****CSMS Home Theater Calibration ANSI Lumen Specification:**

These measurements are taken from the projector as set up in a home theater environment. The projector is calibrated to ISF specifications including setting the color temperature to 6500° Kelvin, the standard for reproducing video.

****CSMS Home Theater Calibration foot-Lambert (fL) Specification:**

This is the unit of measurement used in commercial movie theaters to express image brightness. The Society of Motion Picture and Television Engineers (SMPTE) specifies 16 fL as the target image brightness for film-based projectors using an open gate (without film in the projector). More importantly, today SMPTE specifies 12 fL as the target image brightness in Digital Cinema theaters using DLP™ technology. The foot-Lambert is dependant on screen size, screen gain, and projector light output.

All measurements are made at RUNCO to ANSI/NAPM IT7.228-1997 specifications using the Photo Research PR-650 SpectraColorimeter and Minolta LS-100 Luminance Meter, Video Essentials test DVD, and a Da-Lite 1.5 gain, 100-inch wide screen. The projector is calibrated to a color temperature of 6500° Kelvin and has a minimum of 150 hours of usage.



Engineered for ISF calibration.



Specifications are subject to change without notice.
Optional ceiling bracket available.

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CinemaScope is a trademark of Twentieth Century Fox Film Corporation.

ISF is a registered trademark of Imaging Science Foundation.

Theater installation photo courtesy of Aurant, Salt Lake City, UT



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