EPSON®

Technical Brief Multimedia Projectors

Contents

This technical brief provides detailed information on the following topics, related to all EPSON multimedia projectors:

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  - Image clarity
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  - EPSON SizeWise™ resizing technology
- Versatility
  - Flexible controls
  - ELP Link IV software
  - Flexible installation
  - EasyMP and EasyMP.net

Image Quality—Superior brightness

All EPSON multimedia projectors include EPSON's integrated LCD prism technology. This technology is centered on EPSON's patented optical engine.

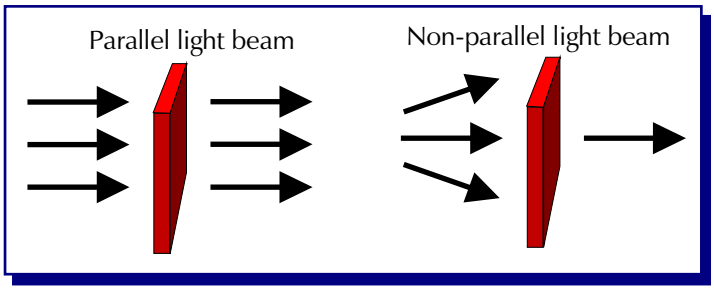
EPSON's engine includes 3-panel Poly-Silicon TFT LCD's:

- Size ranging from 1.32 inches to 0.9 inches
- Resolutions from SVGA to XGA to SXGA.

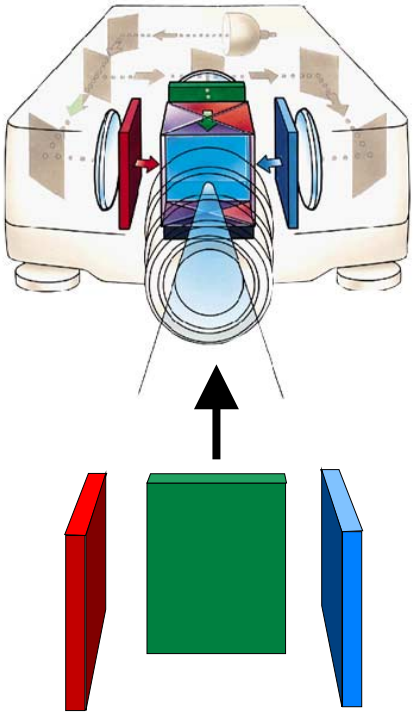
Improvements in the precision of this LCD structure has allowed EPSON projectors to reach a superior level of brightness with a combination of these five technologies, included in most EPSON projectors:

1. UHE lamp:
The long-life Ultra High Efficiency (UHE) lamp uses a shorter arc length. This shorter length is the primary factor in achieving higher efficiency.

2. Polarization conversion:
EPSON's technology has improved the amount of parallel light that moves through the LCD panels. More light passes through each LCD because it is polarized without a filter.



Three-panel design:



EPSON-made Poly-Silicon LCD's are manufactured to the highest standards.

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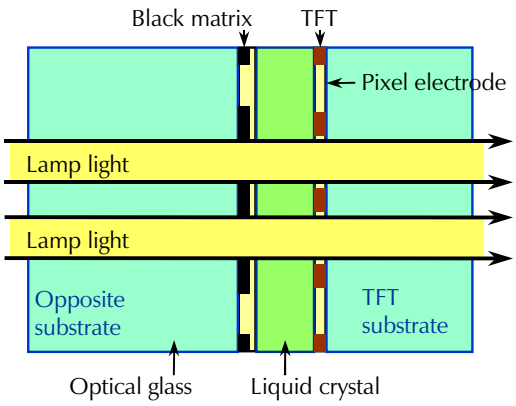
3. High aperture LCD panels:
The UHA (Ultra High Aperture) has increased the aperture ratio which allows more light through the lens. EPSON produces the highest aperture LCD's, which are more transmissive.

4. Micro Lens Array:
MLA is a layer of the LCD composed of quartz crystal lenses. Each pixel has a dedicated lens that focuses and maximizes the throughput of light from the lamp. MLA allows more light to pass through each pixel, more than twice the light of LCD's of two years ago. (Not included on all EPSON projectors.)

5. "Metal Sandwich" technology:
A light shield of metal between the pixels blocks the light leakage. Cross-talk between pixels is reduced, resulting in clearer, crisper images. (Not included on all EPSON projectors.)

Traditional LCD structure



EPSON's advanced LCD technology (on most EPSON projectors)

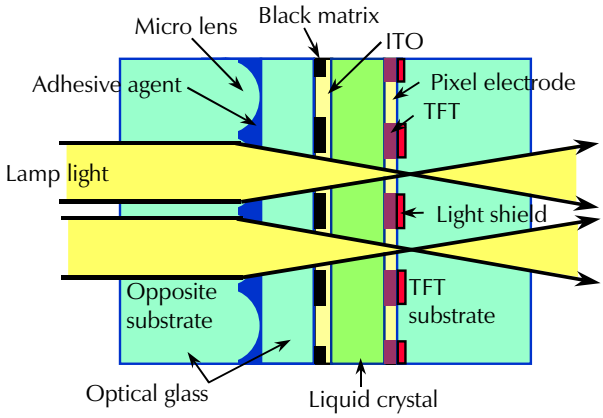


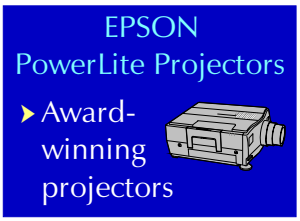
Image quality—Image clarity

EPSON projectors producte astonishingly clear, sharp images with a combination of these three technologies:

1. High illumination ratios:
The illumination ratio measures the relationship of the darkest spot (the corner) to the brightest spot on the screen (the center). The higher the ratio, the more uniform the brightness.

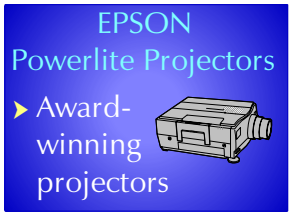
2. High contrast ratios:
Contrast ratio measures the difference between the light and dark areas of the image. The higher the ratio the sharper, more colorful, and more lifelike the images appear.

EPSON projectors produce smooth, evenly lit images with sharp contrast.



vs.

Competitive units can produce "hot" centers with dark corners and fuzzy contrast.



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3. Panel on Prism (POP):
This technology allows little or no shift between the LCD panels and the prism, which keeps the pixel alignment precise and the image sharp and clear.

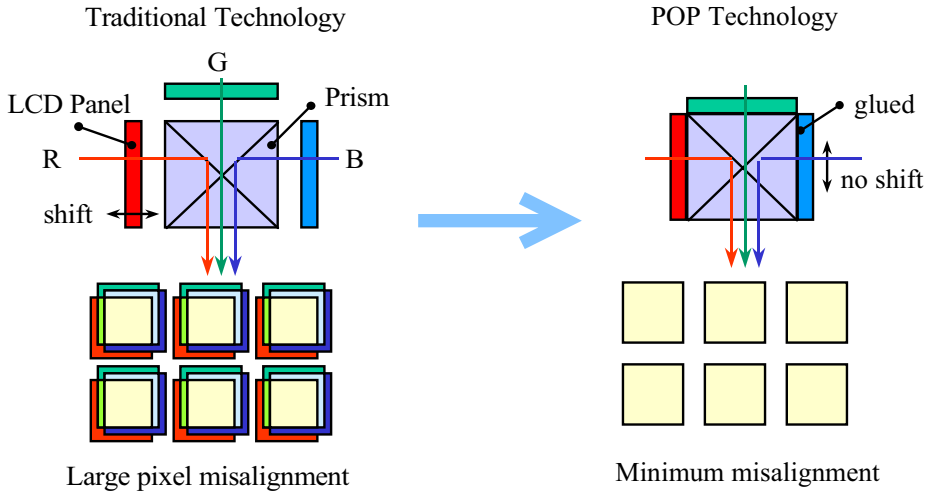
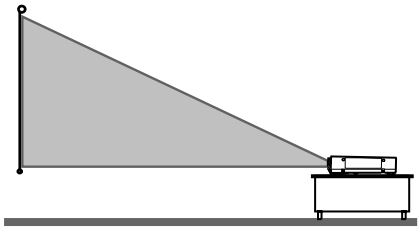


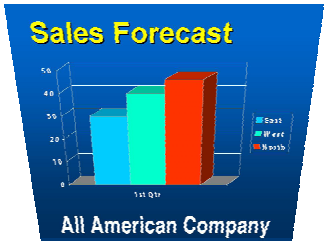
Image quality—Keystone correction

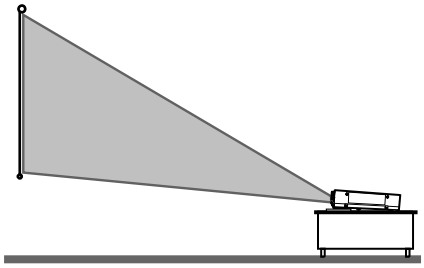
Many EPSON projectors provide keystone correction, which allows you to correct up to a ±20° tilt while maintaining the correct aspect ratio.



Set up your projector so the lens is aligned with the bottom of the screen.

Without keystone correction





If you can't set the projector up aligned with the screen, then the keystone correction will correct the misalignment.

With keystone correction

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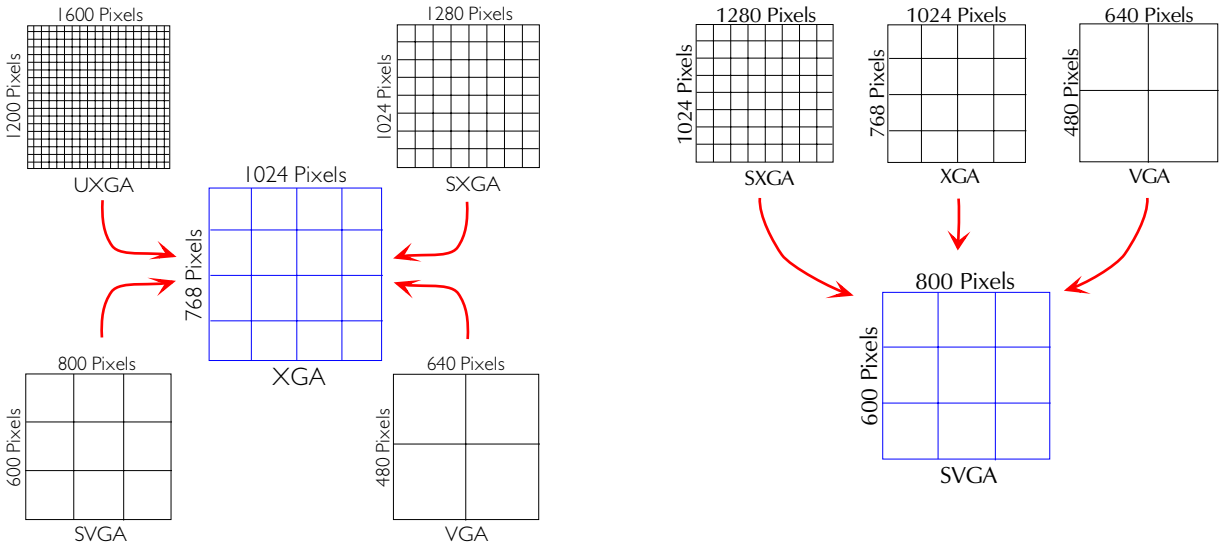
Image quality—EPSON SizeWise™ resizing technology

EPSON's third generation resizing technology supports resolutions from workstations and notebook computers with:

- Clear, sharp text
- Virtually no picture content loss
- Graphics able to maintain their integrity
- Power to handle spreadsheet gridlines and small fonts from any video standard.

EPSON projectors offer different levels of SizeWise technology, depending on the projector's native resolution.

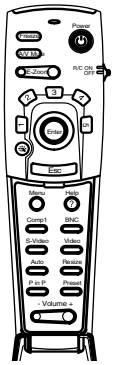


Versatility—Flexible controls

Each EPSON projector can be controlled by the included infrared remote control and control panel. You use the remote control from virtually any point in the room because the projector has infrared receivers in the front and back of the projector.

Each remote control and control panel varies, but some of the universal functions are:

- Power
- Access on-line help
- Access the on-line menu of settings
- Volume
- Resize the on-screen image
- Mute
- Programable multi-function buttons for special effects



Most EPSON projectors are also compatible with RS-232 controllers like CRESTRON™ or AMX™.

- RS-232 is a standard for serial digital communication. It allows the projector to be remotely controlled either from a dedicated remote control or a computer.

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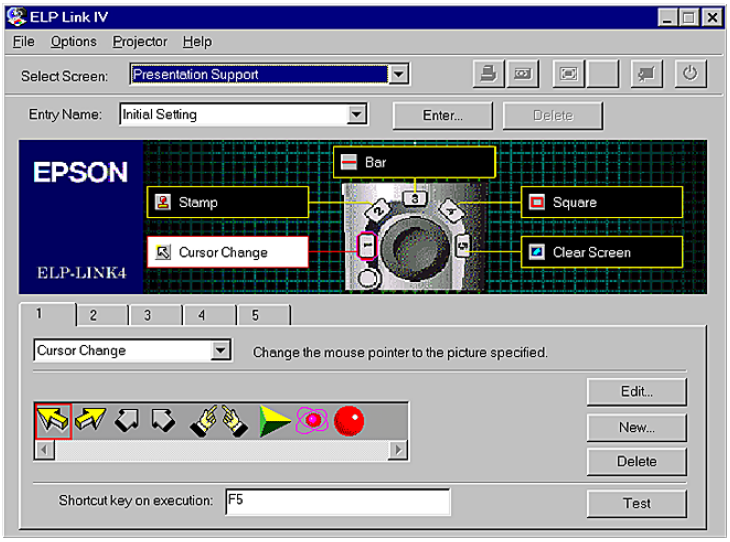
Versatility—ELP Link IV software

EPSON's ELP Link IV software, which customizes projector controls, comes standard or optional with EPSON projectors and allows you to:

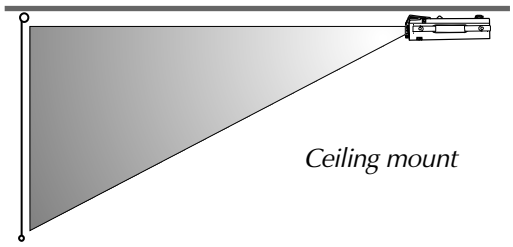
1. Customize remote control buttons to:
   - Draw lines, ellipses, squares, and bars in different sizes and colors
   - Stamp one or several copies of pre-selected images
   - Change the cursor shape
   - Play a selected sound effect
   - Create a spotlight effect on the screen
   - Clear previous effects
   - Create a macro for a specific sequence of key strokes
2. Control the following projector features:
   - Change projector settings
   - Change the test pattern
   - Specify an image gamma
   - Create a user logo



Versatility—Flexible installation

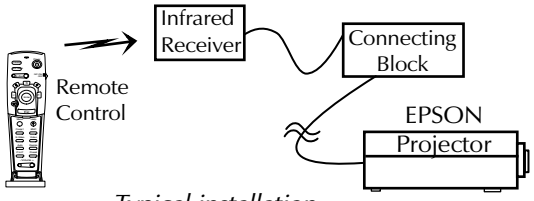
EPSON PowerLite projectors can be installed in a variety of ways:

- Front projection
- Rear projection
- Ceiling mount



Ceiling mount

Many EPSON projectors can also be installed outside of the presentation room or in a position inaccessible to the remote control, and can be controlled by a control system such as Xantech®.



Typical installation out of presentation room

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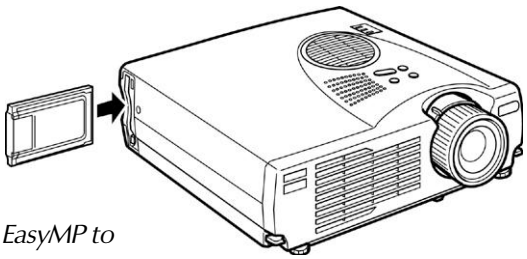
Versatility—EasyMP and EasyMP.net

EasyMP and EasyMP.net are available on a select few of EPSON's multimedia projectors.

EPSON's EasyMP allows presenters to give presentations without using a computer. All you have to do is:

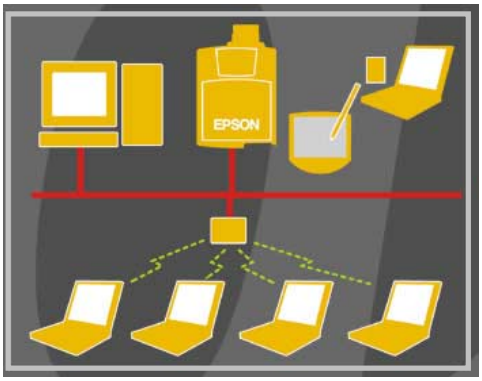
- Create a presentation in Microsoft® PowerPoint®
- Drag and drop the presentation onto the EMP
- Slide Maker software
- Transfer the SlideMaker presentation onto the CompactFlash card (either in your computer or via a USB cable right to the card in the projector.)

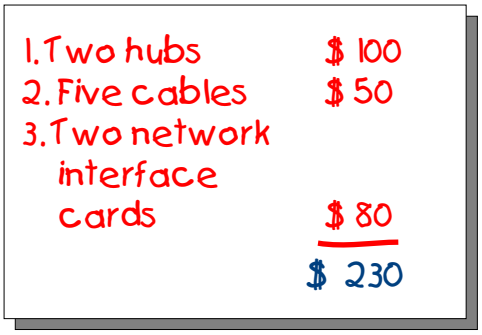


While the presentation is in the projector, you can use EasyMP to hide and rearrange slides.

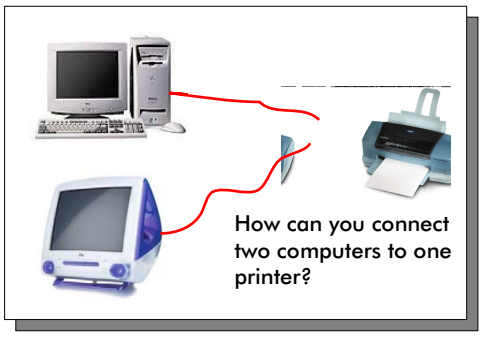
EPSON's EasyMP.net (currently available only on the EPSON PowerLite 8150i) allows presenters to download presentations and control the projector over a network. EasyMP.net offers presenters the following features:

- EasyView : Built-in multi format simple viewer
- EasyBoard : Electronic white board
- EasyMarker : Annotate slide
- EasyCapture : Capture screen images
- EasyReview : Review captured images
- EasyFile : Transfer slides and captured images to computers on the network
- EasyConfiguration : Set up EasyMP.net
- EasyTablet : Operate projector as well as EasyBoard and EasyMarker with Tablet
- WebRemote : Set up & Control by Browser





Use EasyBoard as a white board to draw or write during a presentation.



Use EasyMarker to draw lines and annotate slides in your presentation.

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