True Color Reproduction

BARCO ELM R12

The Extreme Light Machine

The ELM R12 combines exceptional light output and high resolution with advanced signal processing to deliver a remarkable break-through in performance for large screen cinematic video display.

Equipped with high resolution Digital Light Proccessing™ (DLP™) sub-system which features 3 S-XGA resolution Digital Micromirror Devices™ (DMD™) and a state-of-the-art optical system, the BARCO ELM R12 delivers an exceptionally high light output of 12,000 ANSI lumens to meet and exceed the needs of the most demanding rental, staging and electronic cinema applications.

DLP™
A TEXAS INSTRUMENTS TECHNOLOGY

Ready for the Road

A wide range of special features and accessories make the ELM R12 especially well suited for the most demanding Rental and Staging requirements.

Special design features enable the projector to be handled, set-up and controlled in an exceptionally easy fashion. An extremely rugged steel frame construction allows the projector to be stacked quickly and safely, without the need for a stacking frame. An innovative modular construction establishes new standards of serviceability.

Exceptional Performance

The BARCO ELM R12 combines exceptional source compatibility with advanced TCR^{PLUS} image processing to provide unique flexibility with superb video and film-like image quality.

Compatible with both current and future digital sources, the ELM R12 utilizes 13-Bit digital signal processing for superb grayscale performance.

Together with the units remarkable 12,000 ANSI lumens of light output this results in image quality that is truly in a class of its own.

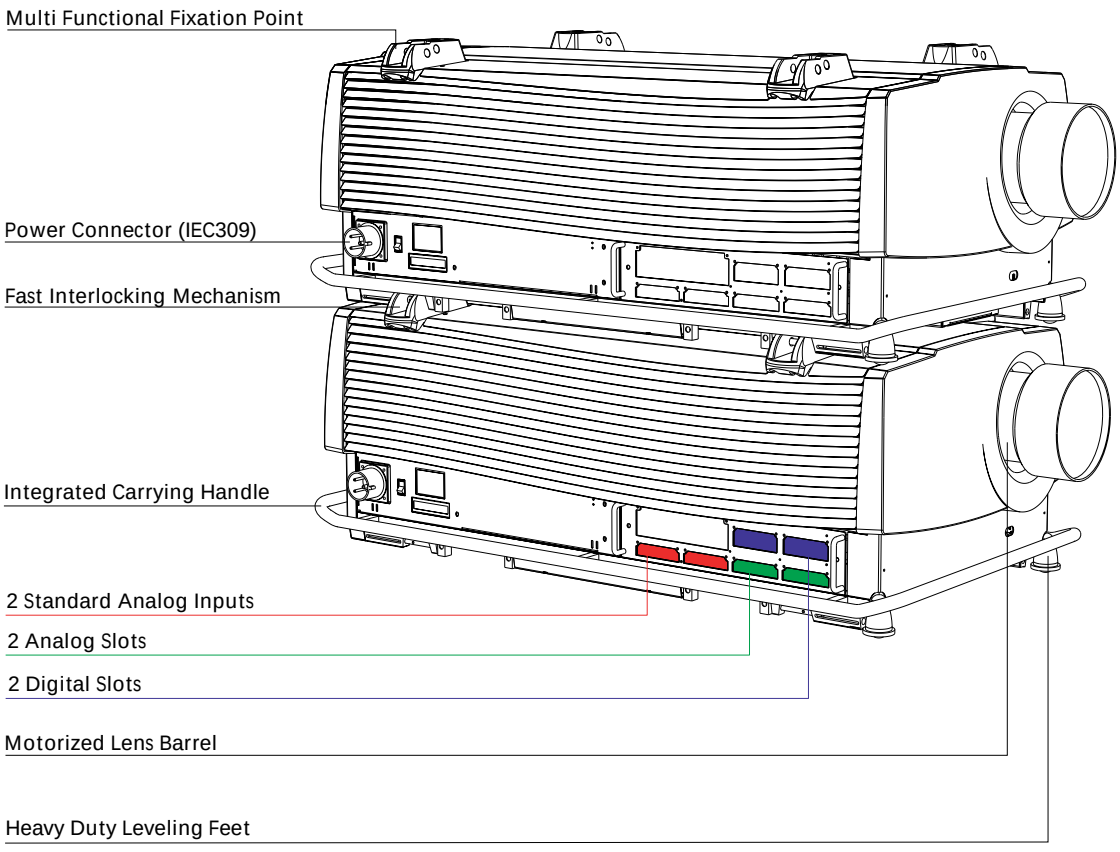
BARCO

Ready for the Road

Several innovative features and accessories make the ELM R12 well prepared for a lifetime on the road in the most demanding Rental and Staging applications.

Flexible Set-Up
• An integrated all-round carrying handle and optional front and side forklift chassis attachment facilitates transport.
• A rugged internal steel frame allows double and triple stacked configurations without the need for stacking frames.
• Integrated fixation points, compatible with standard rigging gear for easy truss mounting.
• A unique interlocking feature allows direct stacking or flying of up to three projectors without tools.
• Advanced modular construction and fast removable side panels ensure easy service and maintenance even when stacked.
• Illuminated side connection of all signal and power inputs
• Motorized Image shift, zoom and rotation for pixel accurate picture alignment in stacked configuration
• Heavy duty adjustable leveling feet
• Rollover protection
• Built-in Serial Digital Input (SDI/4:2:2) for direct connection of digital video sources with active loop-through for monitoring or double and triple stacking applications.
• Up to 100 % vertical or 85% horizontal Lens Shift when using BARCO's QLD lenses
• Extensive Image Size, Shift and unique digital Keystone geometry adjustments.

Versatile Control
• External auto-diagnostics with back-lit LCD display of 2 lines of 24 characters
• Internal test patterns (crosshatch, color bars, grayscale,...)
• Pre-calibrated color temperature selections (3200K, 5400K, 6500K, 9300K or custom)
• Easy firmware upgrade from PC via RS232 or RS422 input
• Intuitive on-screen display
• Multi-level password protection
• Modular lamp power supply with automatic redundancy feature.



Exceptional Performance

The Barco ELM R12 combines exceptional source compatibility with advanced digital image processing to provide unique flexibility with superb video and film-like image quality

Compatibility
- All current Video sources in Composite, S-VHS, RGB or Component or Serial Digital format
- All currently proposed HDTV, extended and improved television standards (Eureka 95,Hi-Vision, ACTV, IDTV, EDTV,...)
- Computers and workstations with a resolution of up to 1600 x 1280 pixels
- Most Macintosh computers
- Two digital input slots to allow for direct digital interfacing with current and future digital standards

Display Excellence
- High light output of 12,000 ANSI lumens
- Three S-XGA DMD panels with a resolution of 1280 x 1024 pixels
- 13-Bit signal processing for superior low-light performance.
- BARCO's patented Pixel Map Processor guarantees compatibility with the widest range of sources.
- Light shutter blanks image when paused
- BARCO's advanced TCR^{PLUS} feature improves the image quality of both video and RGB sources.

TCR^{Plus} The Power to Reinforce Color and Detail

TCR True Color Reproduction

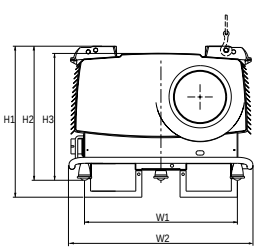
BARCO's TCR^{Plus} Technology incorporates the True Color Reproduction feature which provides true-to-life colorimetry and superior color uniformity over the entire screen, perfect color tracking and superb gamma correction, as well as a large number of image enhancement tools. The result: graphics that really stand out and video images that seem to jump right off the screen!

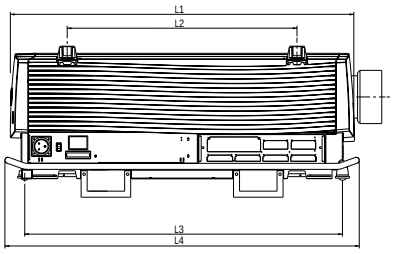
Dynamic Color Depth
Superior picture performance is achieved with any source by analyzing, grading and controlling the color contrast of each image pixel in real-time.

Sharper Picture Display
Powerful digital processing circuits dramatically improve both sharpness and picture detail for high resolution graphics and video images.

Noise Reduction
An advanced Digital Noise Reduction System reduces noise in video pictures and increases stability of graphics images without inducing motion artifacts.

Technical Specifications





Dimensions	inch	mm
L1	55.9	1,420
L2	37.4	950
L3	51.7	1,314
L4	57.7	1,465
W1	24.9	632
W2	29.9	760
H1	24.6	624
H2	21.8	554
H3	20.6	524

Light Output
12,000 ANSI lumen

Brightness Uniformity:
> 90% for the total screen area

Digital MicroMirror Device
3 high resolution S-XGA DMD's, with a resolution of 1280 x 1024 pixels.

Lamp
Typical lifetime: 500 hours

Lenses
BARCO's LD Series lenses are compatible with existing DLP projection systems. The throw ratio of LD lenses is 25% smaller when used on the ELM R12.

Lens Type	Throw Ratio
LD (1.5-2.5:1)	1.2-2.0
LD (2.5-4.0:1)	2.0-3.2
LD (4.0-7.0:1)	3.2-5.6

BARCO's QLD Series lenses are recommended for use on the ELM R12

Lens Type	Throw Ratio
QLD (1.2:1)	1.2
QLD (1.5-2.0:1)	1.5-2.0
QLD (2.0-2.5:1)	2.0-2.5
QLD (2.5-4.0:1)	2.5-4.0
QLD (4.0-7.0:1)	4.0-7.0

Contrast Ratio
>250 :1 (on 5x4 B/W checkerboard)
>500 :1 (full white/full black)

Remote Control
All controls are accessible through a soft-touch panel, a user-friendly back-lit infrared remote control of
- Source switching
- User settings per source
- Installation and service adjustments

Fixed Inputs
• RGB analog input with standard sync (BNC connectors), sync on green or separate sync
• Multifunctional 5-Cable input for the connection of
- RGB analog signals with standard sync (BNC connectors) or tri-level sync, sync on green or separate sync
- Standard Video signals
- S-VHS signals
• RS232 or RS422 loop-through input (D9-connector) for PC based projector control
• SDI input (Serial Digital Input)
• Communication input (D9-connector) for peripherals
• 3 pin male XLR connector for wired remote (standard remote)
• 3 pin female XLR connector for bi-directional communication (ruggedized remote)

Optional Inputs
Two additional input slots are provided for five optional types of input modules:
• Video / S-Video Input: Video on BNC, S-Video on 4-pin mini-DIN connector
• Component Video Input (Y, R-Y, B-Y, S) on 4 BNC connectors
• RGB analog input with standard sync (BNC connectors), sync on green or separate sync
• RGB analog input with tri-level sync (BNC connectors), sync on green or separate sync
• 5-Cable input

Power Consumption
Max. 3750 Watts

AC Power
230 V +-10% .

Weight
Net weight 315lbs. / 143kg

Order Information

ELM R12	R9001490
LD (1.5-2.5:1)	R9840090
LD (2.5-4.0:1)	R9840270
LD (4.0-7.0:1)	R9840280
QLD (1.2:1)	R9840120
QLD (1.5-2.0:1)	R9840130
QLD (2.0-2.5:1)	R9840140
QLD (2.5-4.0:1)	R9840150
QLD (4.0-7.0:1)	R9840160

BARCO Projection Systems is an ISO9001 registered company.

The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.

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Ref. no. R599493(9)-02- August '99 - Printed in Belgium