

# BARCOGRAPHICS 1209s

## Ultra-High Resolution Graphics Projector

The BARCOGRAPHICS 1209s is a new ultra-high resolution graphics projector designed to provide superlative performance, not only by today's standards, but by tomorrow's as well. Its unequalled flexibility, combined with an almost limitless display compatibility, promote the BARCOGRAPHICS 1209s as the ideal solution for demanding applications such as: industrial design, simulation, process control and traffic management centres, as well as military command & control centres (C<sup>3</sup>I) and other applications where image quality can not be compromised.

### Ultra wide compatibility

The BARCOGRAPHICS 1209s features a display compatibility from VHS video up to 2,500 by 2,000 pixel workstations.

- Horizontal autolock scan frequency range of 15-135 kHz
- 120 MHz RGB amplifiers
- Universal signal connection facilities

### Very high resolution images

The BARCOGRAPHICS 1209s renders high resolution large screen images with unprecedented visual fidelity.

- Improved, ultra-high definition, liquid cooled 9" electromagnetic focus CRTs with digitally controlled dynamic astigmatism guarantee razor sharp images
- Super-high definition liquid coupled F1.15 lenses provide outstanding image contrast
- State-of-the-art electronic circuitry result in better geometry, unequalled sharpness and true colour projection
- Optional high quality Line Doubler for improved Video image quality

### Unequalled flexibility

- Built-in Scheimpflug optical correction, with stepless adjustment, for optimal optical focus for projection under non-standard angles
- A series of options for multi-screen applications, non-standard projection angles,...
- Different lens options are available, optimised for a wide range of screen sizes from 2 m (6.6 ft.) to 8.8 m (29 ft.) wide
- Built-in IRIS<sup>3</sup> automatic alignment system aligns on-screen convergence and geometry in less than 2.5 minutes



## New!

Now with Built-in IRIS<sup>3</sup>  
Auto-Convergence  
Auto-Geometry



**BARCO**

# High precision graphics projection system

## Ultra-high resolution, highly flexible optical system

**Improved resolution**  
The BARCOGRAPHICS 1209s is equipped with improved, ultra-high definition, liquid cooled 9" CRTs with an advanced electromagnetic focus system and digitally controlled dynamic astigmatism, which guarantees razor sharp projected images, even at maximum contrast levels.

**Super-high definition, fully colour corrected, liquid coupled F1.15 lenses provide outstanding image contrast.** Several types of lenses are available, optimised for a wide range of screen sizes.

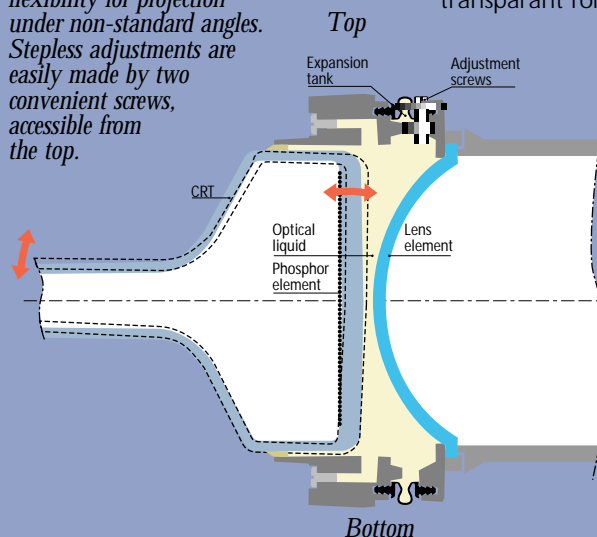
**Optical Scheimpflug correction**  
The BARCOGRAPHICS 1209s features a new, precision Scheimpflug optical correction system with stepless adjustments for both horizontal and vertical axes. Unlike conventional projectors, these adjustments can easily be made while looking at the projected image.

This results in a highly effective means of achieving near perfect focus uniformity from left to right and top to bottom, even under non-standard angles.

*BARCO's built-in Scheimpflug optical correction offers ultimate flexibility for projection under non-standard angles. Stepless adjustments are easily made by two convenient screws, accessible from the top.*

**Built-in IRIS<sup>3</sup> (Intelligent Registration Interface System) auto-convergence and geometry alignment**

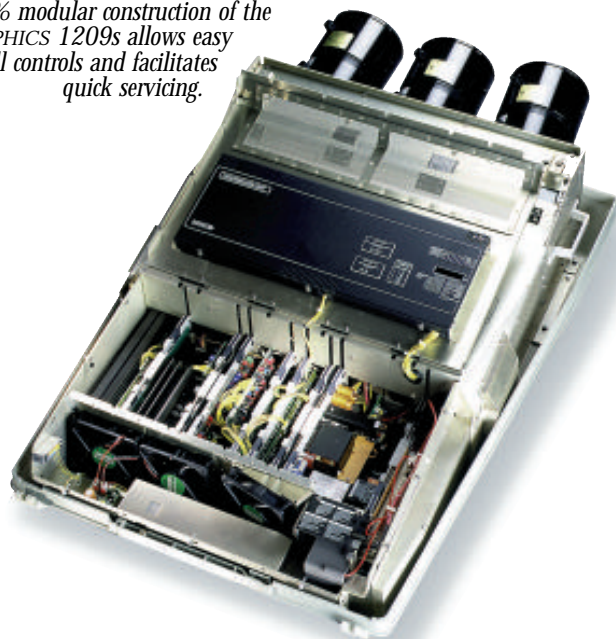
A built-in IRIS<sup>3</sup> automatic alignment system effortlessly aligns the geometry and convergence of the projected image with exceptional accuracy, which makes CRT technology transparent for the every-day user.



**Secure design**  
The BARCOGRAPHICS 1209s has been designed for extremely low RFI/EMI emissions (FCC Rules & Regulations part 15 Class B for 120 V version and CE EN55022 Class B for 230 V version) for demanding military and industrial applications where unwanted interference could compromise critical communications lines.

**Flexible installation possibilities**  
BARCO offers a series of special options for non-standard applications (multi-screen applications, non-standard projection angles,...). For specialised applications, BARCO can provide unique projector configurations, which are custom tailored to specific application requirements.

*The 100 % modular construction of the BARCOGRAPHICS 1209s allows easy access to all controls and facilitates quick servicing.*



# Technical specifications

Lens types	HD120	HD180	HD300
F number	F1.15	F1.15	F1.15
Screen width meter	2-3	3-4.2	2-8.8
feet	6.6-10	10-14	6.6-29
Optical resolution	12 lp/mm	12 lp/mm	10 lp/mm
Standard/optional	Standard	Optional	Optional

*The BARCOGRAPHICS 1209s can be equipped with different lenses, optimised for particular screen sizes.*

## Light output

At 10 % peak white: 1,250 lumens

ANSI<sup>(1)</sup>

Economy mode: 195 lumens

Normal mode: 240 lumens

Boost mode: 270 lumens

## CRTs

New, improved, high brightness, high definition liquid cooled 9" CRTs with electromagnetic focus

## Lenses

Super high definition, liquid coupled, fully colour corrected F1.15 lenses, optimised for particular screen sizes (see table)

## Scan frequencies

Horizontal: 15-135 kHz autolock

Vertical: 37-200 Hz autolock

## Minimal retrace time

Horizontal:

< 2.5 µs in range 15-90 kHz

< 1.25 µs in range 64-135 kHz

(switching point adjustable between 64 and 94 kHz)

Vertical: < 200 µs

## Max. compatible display resolution

2,500 x 2,000

## RGB bandwidth

120 MHz [-3 dB]

## Horizontal linearity

< ±1.5 % distortion throughout the full horizontal frequency range

## Inputs

- RGB or (Y, R-Y, B-Y) input on 5 BNC-connectors, with automatic sync detection and sync polarity, with sync on green or separate sync

- RGB analog input on D9-connector, with automatic sync detection and polarity (optional D9-BNC adapter available)
- Video (PAL, SECAM, NTSC 3.58, NTSC 4.43), loop-through (2xBNC) with 75 Ohm termination switch
- S-Video input (4-pin mini-DIN), loop through with 75 Ohm termination switch (can also be programmed as a second Video input)

## Remote control

A backlit user-friendly infrared remote control for control of:

- Source switching
- User settings per source (brightness, contrast, colour, hue, sharpness)
- Geometry per source (password protectable)
- Convergence per source (password protectable)

An optional executive remote control unit is available for control of source switching and user settings per source

## Special features

- CRT drive in 3 modes: normal mode, economy mode for longer life time of the CRTs, and boost mode for high performance applications
- Optional high quality Line Doubler for improved Video image quality
- On-screen menus selectable between English, French, German and Spanish
- 32 frequency-related memory banks
- LDI (Linear Digital Interpolation)
- Effective on-screen display: installation screens, barscale display of user settings, on-screen display of source frequencies

- Automatic storing of all adjustments
- Ability to set parameters to midposition
- Colour temperature adjustment (3200 K, 4900 K, 6500 K, 9300 K or custom)
- D.D.A. (Digital Dynamic Astigmatism) guarantees superb focus quality from centre to corners of projected image
- 100 % modular construction: allows easy access to all controls and facilitates quick servicing
- 'Seagull' correction to improve corner geometry
- Separate East-West corrections for left and right side
- Built-in projection distance calculator
- Built-in IRIS<sup>3</sup> automatic convergence and geometry alignment unit
- A built-in Scheimpflug optical correction, with stepless adjustments for both horizontal and vertical axis guarantees optimal optical focus from left to right and top to bottom for projection under non-standard angles.

## AC power consumption

590 W max [230 VAC +15%/-10%]

## Safety regulations

The BARCOGRAPHICS 1209s complies with UL 1950 and EN60950.

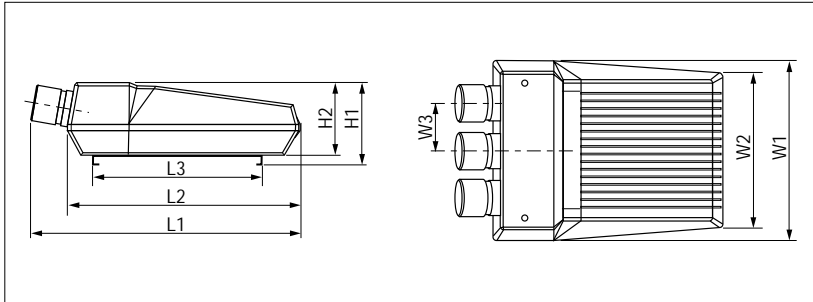
## Electromagnetic interference

The BARCOGRAPHICS 1209s complies with FCC Rules & Regulations, part 15 Class B (120 V version) and CE EN55022 Class B (230 V version).

## Radiation regulations

The BARCOGRAPHICS1209s complies with DHHS radiation emission standards 21 CFR Subchapter J.

<sup>(1)</sup> Measurement method conforms to ANSI IT7.215 standard.



Dimensions mm		inch
L1	1,174	46.2
L2	1,014	39.9
L3	735	28.9
H1	355	13.9
H2	315	12.4
W1	782	30.8
W2	665	26.2
W3	208	8.2

#### Weight

Net weight: 82 kg (181lbs)

Shipping weight: 112 kg (247 lbs)

#### Order information

BARCOGRAPHICS 1209S

230 V: R9000972

120 V: R9000977

RCVDS 05 source selector

230 V R9827880

120 V R9827889

Projector Control software

R9827530

Video line doubler R9828161

Executive remote control

R9827970

Remote infrared receiver

R9827515

D9-BNC cable adapter R9827840

Communication cables

5 m (16 ft.) R9827770

15 m (50 ft.) R9827560

30 m (100 ft.) R9827570

Ceiling mount 808/1200

• With pulley system R9827341

• Without pulley system R9827342

Sturdy, transportable flight case

R9827650

Special add-in boards

• Contrast modulation kit

R9828145

• Orbiting kit R9827781

• BCL link R9827862

• Convergence on green R9828080

• Tri-level sync input R9828040

BARCO Projection Systems is an ISO 9001 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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