

LC series

A series of High-Resolution LCD displays



Barco's LC series of High-Resolution LCD displays has been specifically designed for use in a wide variety of professional applications. The LC family presents crisp, clear and color-accurate images on 42", 47" and 56" screen sizes. Dedicated versions with HD-SDI inputs are available.

Your benefits:

- High brightness
- High contrast, even in high ambient light environments
- High resolution and pixel density
- Frame lock and genlock functionality
- Low power consumption
- Long lifetime

Featuring some of the most advanced LCD technology available today, Barco's LC series stands for the ultimate in detail. The LC series consists of a 42" and 47" display in native full high definition (1920x1080 pixels) and a 56" display in quad full high definition (3840x2160 pixels).

BARCO

Visibly yours

The allround display

Barco's high-definition LCD technology can be found in many various types of control rooms and studios worldwide. From process control centers to broadcast environments, control room operators value Barco's LC series for a host of reasons.





Broadcasting

The LC series' large size and outstanding video quality make it an ideal display solution for studio backdrop applications and broadcast control rooms, where multiple video inputs need to be monitored. A dedicated calibration sensor and software allow to configure any display to a target color temperature, gamma and brightness, and match multiple displays to these targets. The 42" and 47" displays' fanless design keeps the background noise below the audible noise level. Optional single-link HD-SDI inputs are available for 42" and 47" displays. For high-quality distribution of video sources, the 42" and 47" displays can be combined with Barco's multiviewer product family or Networked Broadcast Monitoring Systems. Last but not least, Barco's 42" and 47" displays are configured for the lowest possible impact on system latency.

Utilities and process control centers

Barco's high-resolution LCD displays offer an ideal personal wall solution for process control centers. Operators benefit from a large display surface without having to compromise on image quality or accuracy of the SCADA or GIS application. The high pixel density of the 56" displays presents the ultimate detail in any graphical application.

Traffic and surveillance

Barco's LC series displays are being used in many traffic and surveillance centers worldwide. They provide the perfect overview display solution to help viewers reduce response times and create better conditions for collaborative decision making. With its high pixel density and size, the 56" Quad HD can display high-quality video signals with razor sharp image quality. It also has sufficient pixels to show various GPS and GIS maps. Last but not least, the size of the 56" Quad HD allows to have multiple applications shown simultaneously for ergonomically friendly individual or group viewing.

Command and Control environments

High-quality displays can significantly improve the speed and quality of command decisions. Barco's high-definition LCD displays are widely used in Command & Control applications, where a Common Operational Picture is needed. The LC series' wide viewing angle perfectly allows video conferencing and collaboration with multiple viewers. High-density information can be viewed in perfect detail.



Broadcasting



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Command and Control environments



Utilities and process control centers



Traffic & surveillance

The ultimate in detail. The summit of comfort.

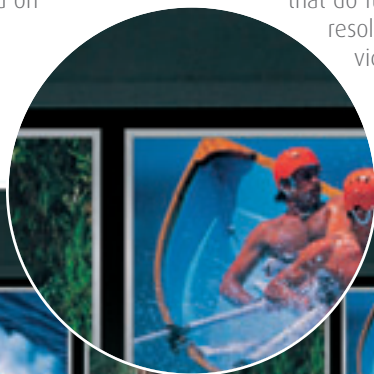
Ultra-high resolution

Barco's LC series of high-resolution displays are able to show large amounts of data in ultimate detail. Any input source can be shown pixel-on-pixel, which avoids unnecessary scaling artifacts often found on lower-resolution displays.

The 42" and 47" displays in **native full high definition** (1920x1080 pixels) and the 56" display in **quad full high definition** (3840x2160 pixels) deliver bright and crisp images that do full justice to high-resolution graphics and video.

Faster response time

Thanks to its extremely fast response time (6.5 ms gray to gray), the LC series reproduces fast-moving action scenes with vivid accuracy.



Wide viewing angle

The wide viewing angle (176°) and large surface are very beneficial in collaborative environments where detailed information is viewed by multiple participants.



Configurable ambient light sensor

Configurable ambient light sensor

For optimal viewing comfort under varying light conditions, the 42" and 47" displays feature an ambient light sensor that can be configured to switch the backlights to a lower level when the ambient light has dropped below a user-defined threshold.

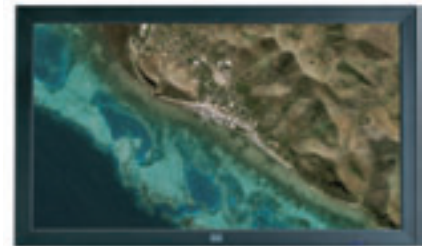
Integrated optical stabilization

The 56" displays feature an integrated optical stabilization sensor which ensures that the light output remains stable at all times.

Picture in Picture (PIP) Picture and Picture (PAP)

The 42" and 47" displays are able to present two images - in any mix of data and video - next to each other or as Picture-in-Picture. This allows the audience to display more information at once in a much more dynamic way.

Size and position of the Picture-in-Picture are easily configurable.



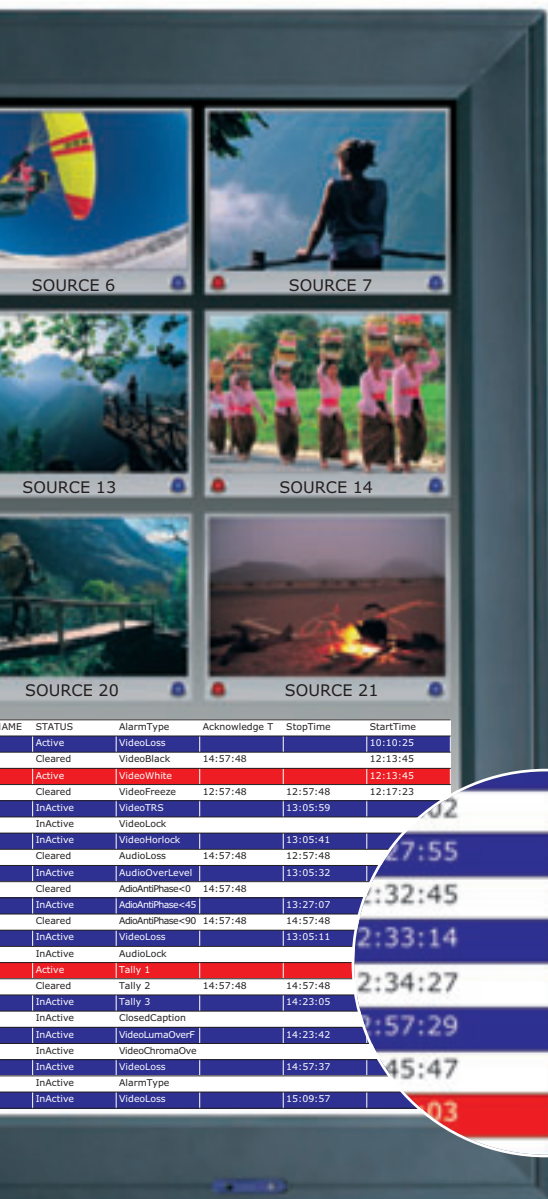
One source on one screen



Picture-in-Picture



Picture-and-Picture



The ultra-high resolution allows much more data to be shown. You will see brilliantly clear images with maximum detail.

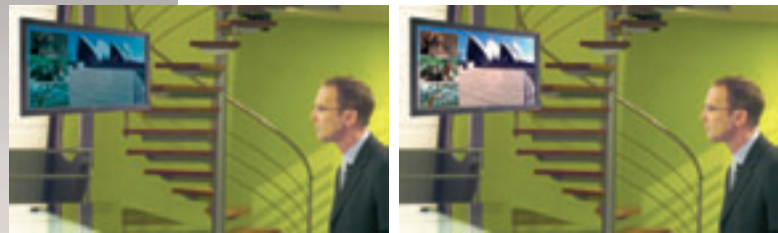


Integrated mounting interfaces according to VESA standards allow for easy wall or ceiling installation.

Excellent broadcast reproduction

Color calibration

Using Barco's dedicated calibration software and sensor, the color temperature, brightness and gamma can be adjusted to an absolute target with small error. Correct color targets are important for good color judging, display wall uniformity as well as for backdrop applications.



Wrong color balance results in a bluish image in backdrop applications (left picture). 3200K color adjustment results in a perfect color balance (right picture).

FrameLock and Genlock functionality

Barco's LC series displays automatically lock to the input frequency of the connected source in order to play in phase-sync and frame-sync with the input signal (50-60 Hz). Since no frame rate conversion is done, the motion is smooth, without judder. In case of backdrop applications, the camera will also run in sync with the display when the signal source is genlocked with the studio camera. No phase shift will be visible in the recording.

Low latency

Barco's 42" and 47" displays are configured for the lowest possible impact on system latency.

Low noise, fanless system

The fanless design of the 42" and 47" displays keeps the noise level below 21 dB(A), which is perfect to meet the needs of small rooms, such as TV news rooms or board rooms.

Worry-free operation and installation

VESA mounting structure for easy installation

Integrated mounting interfaces according to VESA standards allow for easy wall or ceiling installation. Table stands and mounting devices are optional.



Control and diagnostics

Wide variety of inputs

Adhering to the most stringent professional standards, the 42" and 47" displays offer a wide variety of inputs for the majority of video and data sources: analog and digital RGB, S-video, composite and component video, as well as optional SDI/HDSI autosynching input (one board with two inputs and loop-through of the active one).

Control & diagnostics

With extensive control and diagnostic functions through RS232, the LCD displays can be easily controlled, both on or off site or in real-time with a simple touch of a button.

Mechanical	LCN-42 and LCS-42	LCN-47 and LCS-47	LC-5621
Cooling	Low noise level 21 dB(A)/fanless cooling	Low noise level 21 dB(A)/fanless cooling	Fans for optimized cooling
Hanging	VESA MIS F, 600, 200, 8 (mounts and table stands are optional)	VESA MIS F, 600, 200, 8 (mounts and table stands are optional)	VESA (mounts and table stands are optional)
Active screen diagonal	42" (1,067 mm)	47" (1,194 mm)	56.2" (1427.5 mm)
Active screen area	934 x 527 mm (36.77" x 20.75")	1,047.4 x 592.4 mm (41.24" x 23.32")	1,244 x 700 mm (48.98" x 27.56")
Dimensions (WxHxD)	1,026 x 619 x 123.7 mm (40.39" x 24.37" x 4.87")	1,139.4 x 684.4 x 126.2 mm (44.86" x 26.94" x 4.97")	1,341 x 797 x 132 mm (52.8" x 31.38" x 5.20")
Weight	29.5 kg (65.1 lb)	40.2 kg (88 lbs)	61 kg (135 lbs)
Front glass	Optional	Optional	Optional

High-resolution desktop solution

Barco's 56" 78 dpi display provide a unique high-resolution desktop solution. The displays' large size is suitable for one or two operators on the workstation desk and allows the overview and sharing of many desktop applications. The high pixel count allows showing much more information than conventional displays, and the high pixel density gives ultimate detail to any graphical application.



Technical specifications LC series

LCD Panel	LCS-42 and LCS-47	LCN-42 and LCN-47	LC-5621
Technology	TFT LCD	TFT LCD	TFT LCD
Resolution	1920x1080 (full HD)	1920x1080 (full HD)	3840 x 2160
Lifetime	50,000h average	50,000h average	50,000h average
Visual characteristics			
Colors	16.8 million	16.8 million	16.8 million
Color gamut	76% NTSC	76% NTSC	75% NTSC
Aspect ratio	16:9	16:9	16:9
Viewing angle (CR > 20)	176°/176°	176°/176°	176°/176°
Response time	6.5 ms	6.5 ms	6.5 ms
Dots per inch	52 dpi for 42"; 46 dpi for 47"	52 dpi for 42"; 46 dpi for 47"	78 dpi
Color adjustment	3200K, 5400K, 6500K, 9300K, User (R,G,B sliders)	3200K, 5400K, 6500K, 9300K, User (R,G,B sliders)	3200K, 5400K, 6500K, 9300K, User (R,G,B sliders)
Contrast ratio	1500:1	1500:1	1200:1
Brightness	500cd/m ²	500cd/m ²	500cd/m ²
Light sensor	Ambient light sensor for automatic dimming	Ambient light sensor for automatic dimming	Backlight stabilization sensor
Connectivity and control			
(HD-)SDI input	2 separate inputs with loop through of active inputs HD-SDI – 480i, 576i, 720p, 1080i at 50, 59.94 and 60 Hz	Not applicable	Not applicable
Standard inputs	DVI; VGA (D15); S-Video; Composite Video; Component video (YPbPr, YCbCr)	DVI; VGA (D15); S-Video; Composite Video; Component video (YPbPr, YCbCr)	Two Dual-link DVI inputs
Supported resolutions	On composite, S-video and component inputs: PAL-Secam 576i, NTSC 480i On DVI and VGA inputs: VESA: VGA, SVGA, XGA, WXGA, SXGA, SXGA+, UXGA; SMPTE-296M(1280 x 720p); SMPTE-274M (1920 x 1080i & 1920 x 1080p)	On composite, S-video and component inputs: PAL-Secam 576i, NTSC 480i On DVI and VGA inputs: VESA: VGA, SVGA, XGA, WXGA, SXGA, SXGA+, UXGA; SMPTE-296M(1280 x 720p); SMPTE-274M (1920 x 1080i & 1920 x 1080p)	3840x2160 (1920x2160 on each DVI input)
Control	RS232 control (with loop-through); Baud-rate: 115200, 38400, 19200 or 9600 On Screen Display (OSD) IR remote control	RS232 control (with loop-through); Baud-rate: 115200, 38400, 19200 or 9600 On Screen Display (OSD) IR remote control	RS232 control; Baud-rate: 115200 On Screen Display (OSD) IR remote control
Audio	Audio pre-amp input module (excl. speakers)	Audio pre-amp input module (excl. speakers)	Not applicable
Picture-in-Picture	PIP source max. 110 MHz	PIP source max. 110 MHz	Not applicable
Power requirements			
Input	85V-264V (50Hz-60Hz)	85V-264V (50Hz-60Hz)	85V-264V (50Hz-60Hz)
Power consumption	234W max for 42" 303W max for 47"	234W max for 42" 303W max for 47"	450W
Environmental			
Operating temp (min-max)	5° to 40°C (41° to 104°F)	5° to 40°C (41° to 104°F)	5° to 35°C (41° to 95°F)
Humidity	Max. 85%	Max. 85%	Max. 85%
Approvals			
Regulation compliance	CE, UL, FCC, TÜV, CCC	CE, UL, FCC, TÜV, CCC	CE, UL, FCC (from Q4 2007)

Ref. no. R599991PB1108R001

The information and data given are typical for the equipment described. However any individual item is subject to change without any notice. The latest version of this product sheet can be found on www.barco.com. The product is subject to warranty of 2 years. Warranty for image retention is subject to certain conditions of use.

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