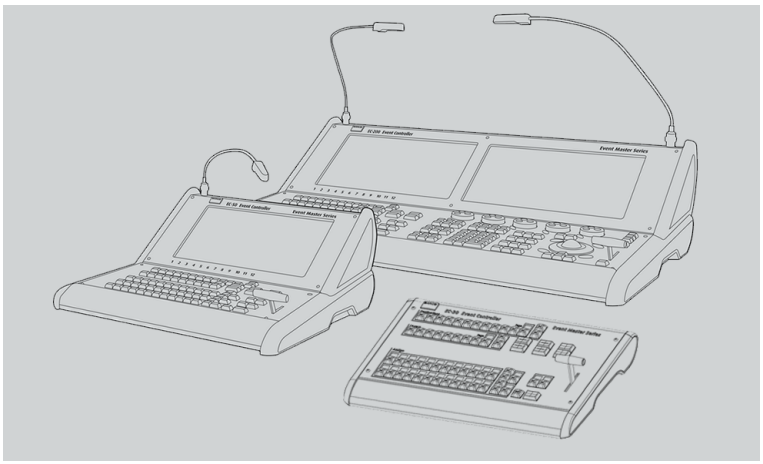
EC Series



Safety Guide

ENABLING BRIGHT OUTCOMES

Registered address: Barco NV
President Kennedypark 35, 8500 Kortrijk, Belgium
www.barco.com/en/support
www.barco.com

Barco Inc, Image Processing
3078 Prospect Park Drive, Rancho Cordova, CA , 95670, USA
www.barco.com/en/support
www.barco.com

1 Safety guidelines

About this chapter

Read this chapter attentively, it contains important information to prevent personal injury while using the EC series controller. It also includes several cautions to prevent damage to the EC series controller. Ensure that you understand and follow all safety guidelines, safety instructions and warnings in this chapter before using your EC series controller.

Clarification of the term “EC series” used in this document

When referring in this document to the term “EC series” means that the content is applicable for following Barco products:

- EC-30
- EC-50
- EC-200
- EC-210

Covered EC series products

Products	Contains	Accessories included
R9004783 (EC-30)	• EC controller	• EC-30 assembly
	• 1x 90803038EF	• US Power Cord NEMA 5/15 (not included with units shipped to China)
	• 1x 14-9750004-90	• European Power Cord CEE7 (not included with units shipped to China)
	• 1x B1959865	• China Power Cord GB 2099 (included only with units shipped to China)
	• 1x 99070037EF	• Power supply (25W, 12V)
	• 1x R9080003	• Dust Cover
	• 1x 90409546EF	• USB Type A to Type B Cable
	• B561132	• USB Thumb Drive (Contains Users Guide, System Software and Control GUI)
	• R5906018	• Safety manual
	• 60600356	• Quick Start Guide
R9004772 (EC-50)	• EC controller	• EC-50 assembly

Products	Contains	Accessories included
	• 1x 90803038EF	• US Power Cord NEMA 5/15 (not included with units shipped to China)
	• 1x 14-9750004-90	• European Power Cord CEE7 (not included with units shipped to China)
	• 1x B1959865	• China Power Cord GB 2099 (included only with units shipped to China)
	• 1x 61100005	• Desk Light
	• 1x R9080001	• Dust Cover
	• 1x 90409546EF	• USB Type A to Type B Cable
	• 1x 90409545EF	• DVI-D to DVI-D Cable
	• B561132	• USB Thumb Drive (Contains Users Guide, System Software and Control GUI)
	• R5906018	• Safety manual
	• 60600332	• Quick Start Guide
R9004771 (EC-200)	• EC controller	• EC-200 assembly
	• 1x 90803038EF	• US Power Cord NEMA 5/15 (not included with units shipped to China)
	• 1x 14-9750004-90	• European Power Cord CEE7 (not included with units shipped to China)
	• 1x B1959865	• China Power Cord GB 2099 (only included with units shipped to China)
	• 2x 61100005	• Desk Light
	• 1x R9080002	• Dust Cover
	• 1x B561132	• USB Thumb Drive (Contains Users Guide, System Software and Control GUI)
	• R5906018	• Safety manual
	• 60600333	• Quick Start Guide
R9004790 (EC-210)	• EC controller	• EC-210 assembly
	• 1x 90803038EF	• US Power Cord NEMA 5/15 (not included with units shipped to China)
	• 1x 14-9750004-90	• European Power Cord CEE7 (not included with units shipped to China)
	• 1x B1959865	• China Power Cord GB 2099 (only included with units shipped to China)
	• 2x 61100005	• Desk Light
	• 1x R9080004	• Dust Cover
	• 1x B561132	• USB Thumb Drive (Contains Users Guide, System Software and Control GUI)
	• R5906018	• Safety manual
	• 26–1701004–00	• Quick Start Guide

About this guide

Part number	Description	Level
R5906018	Safety Guide	Any person that comes in contact with a EC series product

A printed copy of the Safety Guide and Quick Start Guide is included in the EC series controller box at purchase. Please check online for the other documents.

Always check for the latest version of the manual at the following address. Click on the EC series product page and go to the “Downloads” tab.
www.barco.com/en/Products-Solutions/Image-processing/Presentation-switchers

1.1 General considerations

General safety instructions

- Before operating this equipment please read the EC series controller User Guide thoroughly and retain it for future reference.
- All warnings in this documentation manual should be adhered to.
- All instructions for operating and use of this equipment must be followed precisely.
- All local installation codes should be adhered to.

Battery caution (EC-200/EC-210 only)

Partially based on a microcomputer, the EC-200 and EC-210 controllers need a CMOS battery to store BIOS settings in memory.

CAUTION: Risk of explosion when the battery is replaced by an incorrect type. Dispose of used batteries according to the waste instructions.

ATTENTION : Risque d'explosion en cas d'usage d'une batterie non prévue pour cet appareil. Jetez les batteries usagées suivant les règles de recyclage prévues.

WARNING: Ensure you understand and follow all safety guidelines, safety instructions, warnings and cautions mentioned in the product documentation.

WARNING: The mains power plug connected to the wall outlet must be easily accessible at all times for all installation modes.

Environment

Do not place this equipment on an unstable cart, stand, or table. The product may fall, causing serious damage to it.

1.2 Important safety instructions

To prevent risk, personal injury and EC series controller damage

Please read this chapter carefully. It contains important information to prevent personal injury while installing the EC series controller. Furthermore, it includes several cautions to prevent damage to the device. Ensure that you understand and follow all safety guidelines, safety instructions and warnings mentioned in this chapter before installing the EC series controller. After this chapter, additional “warnings” and “cautions” are given depending on the installation procedure. Read and follow these “warnings” and “cautions” as well.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Only trained technicians may install a EC series controller.
- Installation of the EC series controller must be done in a dust free area.
- Only use attachments/accessories specified by the manufacturer.
- CAUTION: Troubleshooting must be performed by a trained technician. To reduce the risk of electrical shock, do not attempt to service this equipment unless you are qualified to do so.
- Refer all servicing to qualified service personnel. Servicing is required when the system has been damaged in any way, such as liquid has been spilled or objects have fallen into the system, or the system has been exposed to rain or moisture, does not operate normally, or has been dropped.
- FRAGILE: The EC series controller is fragile. Handle the unit with care at all times.
- To prevent injury, take note: by law, minimum 2 persons are required to carry the EC-200 and EC-210 controllers.

- Do not remove covers or panels during normal operation. Removal of the top cover will expose dangerous voltages. To avoid personal injury, do not remove the top cover. Do not operate the unit without the cover installed.
- During maintenance operations, always switch off the unit and unplug power cords before removing one of the covers, unless otherwise stated.
- Always wear a wrist band which is connected to the ground while handling the ESD sensitive parts.
- Wear insulating gloves during the execution of the installation and maintenance actions to avoid short-circuit.
- Be careful never to drop anything into the EC series controller assembly during the procedure. The fall of a tool or a spare part in the unit could have catastrophic consequences when you will restart the system.
- Be careful to always follow strict procedures during maintenance operations (spare parts replacement).
- This product is intended to operate from a power source that will not apply more than 230 volts rms between the supply conductors or between both supply conductor and ground. A protective ground connection by way of grounding conductor in the power cord is essential for safe operation.
- This product is grounded through the grounding conductor of the power cord. To avoid electrical shock, plug the power cord into a properly wired receptacle before connecting to the product input or output terminals. A protective-ground connection by way of the grounding conductor in the power cord is essential for safe operation.
- Use only the power cord and connector specified for your product. Use only a power cord that is in good condition. Refer cord and connector changes to qualified service personnel.
- To avoid fire hazard, use only the fuse having identical type, voltage rating, and current rating characteristics. Refer fuse replacement to qualified service personnel.
- Replace spare parts only with the same or equivalent type recommended by the manufacturer.
- Save the original shipping carton and packing material. They will come in handy if you ever have to ship your equipment. For maximum protection, repack your set as it was originally packed at the factory.
- Rated maximum ambient operating temperature, t_a= 40°C (104°F).
- To avoid explosion, do not operate this product in an explosive atmosphere.

1.3 Environmental Condition Check

Environment condition check

The unit must always be mounted in a manner which ensures both air inlets and outlets are free. For installations in environments where the device is subject to excessive dust, it is highly advisable to take measures to prevent the dust from reaching the unit. If this is not a feasible , then the unit should be relocated to a different dust-free location.

It is the customer's responsibility to ensure at all times that the device is protected from the harmful effects of hostile airborne particles in the environment of the device. The manufacturer reserves the right to refuse repair if a device has been subject to negligence, abandon or improper use.

Environment conditions

Table below summarizes the physical environment in which the EC series controller may be safely operated or stored.

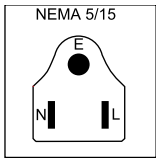
Environment	Operating	Non-Operating
Ambient Temperature	0°C (32°F) to 40°C (104°F)	-10°C (14°F) to 60°C (140°F)
Air cleanliness	Clean office environment (equivalent with cleanroom standard ISO 14644-1 ISO Class 9)	n.a.
Humidity	5% to 85% RH Non-condensed	0% to 95% RH Non-Condensed
Altitude	-60 (-197Ft) to 3000m (9843Ft)	-60 (-197Ft) to 10000m (32810Ft)

Environment

Do not install the device in a site near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity. Be aware that room heat rises to the ceiling; check that temperature near the installation site is not excessive.

1.4 Plug types

AC Power cord with NEMA 5/15 plug up to 10 A

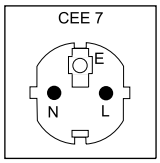


The wires of the power cord are colored in accordance with the following code:
Green or yellow + green: Earth (Ground)
Blue or white: Neutral
Brown or black: Line (Live)

Power cord with GB 2099 plug up to 10 A

The wires of the mains lead are colored in accordance with the following code:
Green + yellow: Earth (Ground)
Blue: Neutral
Brown: Line (Live)

AC Power cord (mains lead) with CEE 7 plug up to 10 A



The wires of the mains lead are colored in accordance with the following code:
Green + yellow: Earth (Ground)
Blue: Neutral
Brown: Line (Live)

1.5 International Safety Standards

Standards overview

This equipment is built in accordance with the requirements of the international safety standards IEC60950-1, EN60950-1, UL60950-1 and CAN/CSA C22.2 No.60950-1, which are the safety standards of information technology equipment including electrical business equipment. These safety standards impose important requirements on the use of safety critical components, materials and insulation, in order to protect the user or operator against risk of electric shock and energy hazard and having access to live parts. Safety standards also impose limits to the internal and external temperature rises, radiation levels, mechanical stability and strength, enclosure construction and protection against the risk of fire. Simulated single fault condition testing ensures the safety of the equipment to the user even when the equipment's normal operation fails.

Barco Inc, Image Processing | 3078 Prospect Park Drive, Rancho Cordova, CA , 95670, USA
Registered address: Barco NV | President Kennedypark 35, 8500 Kortrijk, Belgium
www.barco.com