

Safety Guide



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# 1. SAFETY

### About this chapter

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

### **Covered EX products**

Product	Contains	Accessories included
R9004776	• 1x 14-9750004-	• European Power Cord CEE7 (not included with units shipped to China)
	• 1x B1959864	US Power Cord NEMA 5/15 (not included with units shipped to China)
	• 1x B1959865	China Power Cord GB 2099 (only included with units shipped to China)
	• 1x R9871179	<ul> <li>Rear Rack Mount Support Kit, includes brackets, side support plates, screws, and washers</li> </ul>
	• 2x 09-0904021-	• Rear connector protectors
	• 4x 13-0211010-9	• 8-32 x .38 Pan Head Screws for rear connector protectors (x2 per protector)
	• B561132	USB Thumb Drive (Contains Users Guide, System Software and Control GUI)

### About this guide

Part number	Description	Level
R5906020	Safety Guide	Any person that comes in contact with the
		EX product



A printed copy of the Safety Guide and Quick Start Guide is included in the EX 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 EX 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 EX extension box 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**



**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 EX extension box damage

Please read this chapter carefully. It contains important information to prevent personal injury while installing the EX extension box. 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 EX extension box. 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 an EX extension box.
- Installation of the EX extension box 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 EX extension box 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 EX extension box.
- Do not remove the top cover during normal operation. Removal of the top cover exposes 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 the power cords before removing the cover, 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 EX extension box 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<sub>a</sub>= 40°C (104°F).
- To avoid explosion, do not operate this product in an explosive atmosphere.

# 1.3 Important safety instructions

### To prevent risk, personal injury and EX extension box damage

Please read this chapter carefully. It contains important information to prevent personal injury while installing the EX extension box. 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 EX extension box. 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.
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- 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 EX extension box is fragile. Handle the unit with care at all times.
- Do not remove the top cover during normal operation. Removal of the top cover exposes 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 the power cord before removing the cover, 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 EX extension box 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.
- 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<sub>a</sub>= 40°C (104°F).
- To avoid explosion, do not operate this product in an explosive atmosphere.

# **1.4 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 EX extension box 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.

# 1.5 Plug types

### AC Power cord with NEMA 5/15 plug up to 13 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)

### 1.6 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.