



User Guide

PLEASE READ & SAVE THESE ORIGINAL INSTRUCTIONS

X-Effects[®] LED Projector

This guide applies to the following X-Effects models:

- X-Effects LED Projector 5500K
- X-Effects LED Projector RGBW
- X-Effects LED HO LED Projector 5500K
- X-Effects LED HO LED Projector RGBW



For professional use only. Not for residential use.

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Information and specifications in this document are subject to change without notice.

Rosco assumes no responsibility or liability for any errors or inaccuracies that may appear in this manual.

INTRODUCTION

Congratulations on your purchase of a Rosco X-Effects LED Projector. The IP65-rated Rosco X-Effects LED Projector offers the perfect balance of performance and durability by providing dramatic illumination effects for a broad range of lighting-applications. Designed to create dynamic lighting effects, the X-Effects LED Projector is quick and easy to set-up with convenient on-board or remote DMX controls.

To ensure efficient and safe operation, please take a few moments to read this manual completely.

IMPORTANT SAFEGUARDS

The symbols below are used throughout this manual to identify important safety information. Heed all warnings and safety info on.



Warning, Danger or Caution

Risk of Personal Injury



Risk of Electric Shock

Risk of severe electric shock



PREVENTING ELECTRIC SHOCK

This machine uses mains electrical power at 100-240VAC. When directly contacted, such voltages are hazardous to human life. Follow all local electrical codes and take precautions when using this product.

This product is designed to operate from three-wire power systems, where one of the wires is a safety ground. DO NOT disconnect the safety ground, or use extension cords or adapter plugs to connect this machine to a two-wire system. Operation without a safety ground may result in hazardous electrical shock.

Use only extension cords that are of appropriate length and are rated for X-Effects LED's specified voltage and current. If an extension cord shows signs of wear or gets warm to the touch, discontinue its use and obtain a cord with a higher current rating. Improper extension cords are hazardous and may result in poor performance due to excessive voltage drop.

Disconnect unit from power source before servicing and when not in use.



MAINTAINING SAFE OPERATION

Do not look directly into the X-Effects LED Projector. Prolonged exposure to the light beam can cause damage to the eyesight.

Use only Rosco spare parts and accessories so as to not void the system warranty.

Allow the unit to cool before attempting to service.

Rosco X-Effects LED Projectors must only be serviced by a qualified technician.

Rosco X-Effects LED Projector is not certified for use in hazardous locations

Rosco X-Effects LED Projector is designed for operation within the range of -4° to 113°F (-20° to +45°C).

Ensure Rosco X-Effects LED Projector is stored within the range of -4° to 140°F (-20° to +60°C).

UNPACKING

Carefully remove the unit from the box.

Do not attempt to operate your Rosco X-Effects LED Projector if there are any signs of physical damage. In case of damage, contact your Rosco dealer.

WHAT'S IN THE BOX

1x X-Effects LED Projector

Please refer to the box label for the fixture part number.

297000000075 X-Effects LED Effects Glass Single 96mm x 2

296000010034 X-Effects LED Allen key 8mm

297000000005 X-Effects LED Power/Data Cable with UTL Connector Unterminated 2m

Please note, the X-Effects LED Projector does not ship with a lens. When a lens is ordered, it is packaged separately. Choose from the available four lens accessories when ordering to achieve the beam spread your project requires: 19°, 30°, 50° and 70°

ASSEMBLY

INSERTING GOBOS

Before operating, you must first insert the appropriate gobos to achieve your desired dynamic lighting effects.

Your X-Effects LED Projector can accept one gobo in the static gobo pocket (37.4mm with custom bezel) and two rotating off-set effects glass gobos (96mm with custom bezel) in the Motor Rotation Module. You can utilize any combination of static gobos, Permacolor Filters, ColorWave, Image Glass, or custom gobos to create effects such as wispy smoke, rippling water, raging fire, and more.

- Access the Motor Rotation Module to insert the gobos inside the unit by loosening the four recessed quick-turn screws on the front of the unit (Lens Tube Module). (see Image A, pg. 10)
- Carefully remove the front Lens Tube Module and set it aside.

Static Gobo Insertion

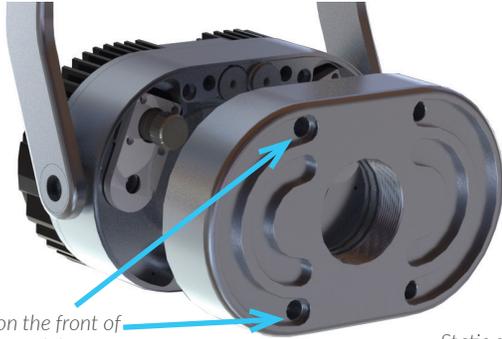
- If using a static gobo, ensure your it is clean, free of dust, fingerprints, and other residues.
- Carefully insert the gobo in the static gobo pocket.
 - Hold the gobo to view the image the way you'd like it projected.
 - Flip the gobo to make the image appear backwards.
 - Rotate the gobo 180 degrees so the backwards image is upside down.
 - Align it with the center optical path hole (the static gobo pocket).
 - Press down firmly and evenly on the bezel of the gobo until it sits flat in the pocket.
- After inserting the static gobo, you can proceed with the effects glass gobos (96mm).

Installing Framing Shutters

- Place shutters over the magnetized circumference of the static gobo pocket and adjust to block the optical path as desired.

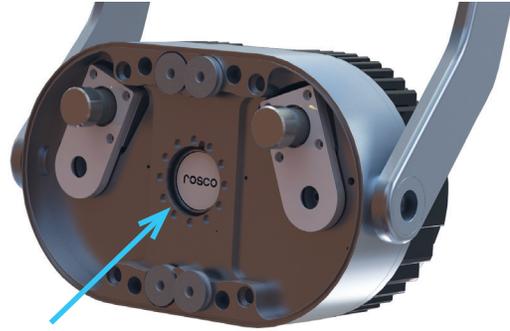
Effects Glass Gobos Insertion

- Ensure your effects glass gobos are free of dust, fingerprints, and other residues.
 - All X-Effects LED Projectors include two X-Effects LED Effects Glass (96mm) - Single 297000000075. Additional Effects glass can be found at www.rosco.com/products/catalog/gobos?type=68.
- Place the first effects glass gobo into the first rotation carrier closer to the optic.
 - Hold effects gobo with the pointed edge facing the unit and the smooth side facing you.
 - Position the effects glass on the rotational knob groove and the groove on the bottom bearing deeper in the unit.
 - Push against the rotational knob to provide space for the effects glass to fit into the top bearing. The effects glass should be held in place by the 2 bearings and the rotational knob.
 - Hold the 2nd effects glass with the pointed edge facing you and smooth side flat against the other effects glass and repeat the above steps to insert the 2nd effects glass.
- The two Gobos should stack flat side to flat side with the optical path aligned in the center of the unit.
 - Be careful with the orientation of the effects wheels; an improper setup can cause damage to the unit or gobos or might fail to produce the desired illumination effect. (Image C, D)
- After inserting the gobos, replace the front Lens Tube Module and securely tighten the four quick-turn screws. See images on pg. 10.



Quick-turn screws on the front of the Lens Tube Module

Image A



Static gobo pocket in the Motor Rotation Module

Image B

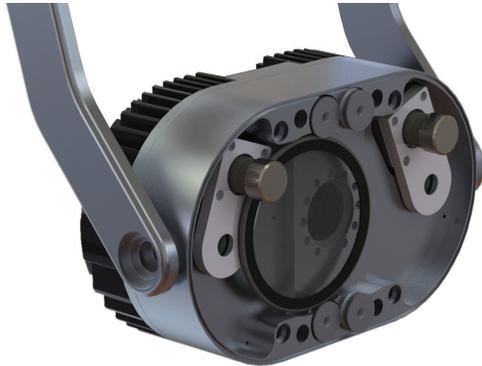
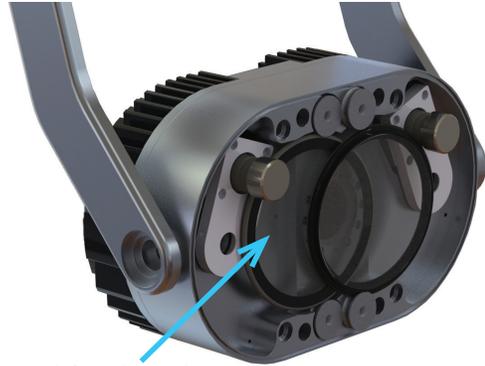


Image C



Gobos stack flat side to side

Image D

WEATHERPROOFING

The X-Effects LED Projector is an IP65 rated fixture, but it must be installed and serviced properly to maintain its waterproofing. Here are the procedures to follow to support a long lasting operation:

- Do not install the unit without an X-Effects LED Projector lens. It is required for protecting and sealing the front opening from ingress.
- Projectors* will be shipped with a lens cavity cap to seal the unit from ingress. Do not remove lens cavity cap until the lens can be immediately installed.
- Turn off unit and allow to cool completely before removing gobo cassette or lens tube. This will prevent cool humid air from rushing into the hot internal cavity when exposed to the pressure and temperature difference.
- Install lens tube a minimum of 2 complete rotations or 5/8inch (16mm) past the O-rings to ensure the lens and front opening are watertight.

For outdoor installations where the lens is mounted facing upwards, we strongly recommend purchasing the X-Effects LED Lens Cover Threaded #297000000020. This accessory helps prevent pooling of water on the lens, which can lead to projection distortion and accelerate lens wear.

*Starting with X-Effects LED Serial Number #23002769 and greater.

LEGACY X-EFFECTS UNITS WATERPROOFING

For X-Effects LED units with serial numbers less than the below, it is strongly recommended to apply Rosco supplied sealing tape to protect against water exposure. Newer units have an improved design to help prevent ingress.

X-Effects Standard LED Projector

RGBW: SN# 22011236

5500K: SN# 22002235

X-Effects HO LED Projector

RGBW: SN# 22011181

5500K: SN# 22002260

Before applying the Rosco Sealing tape, ensure that you have completed the prior steps and have inserted and confirmed the gobos and effects are to your liking.

- Carefully apply the sealing tape to cover the joins between the housing and the lens cover, taking care when aligning to miss the bracket fixing points
- Remove the release linear (the first layer of the tape).
- Overlap and press firmly to complete the seal.
- Insert the four rubber bungs into the front covers' fixing holes.

The steps above should complete the seal. The sealing tape can be gently removed and reapplied, if necessary. Please reach out to your Rosco contact if you require sealing tape for your unit.

INSERT FOCUSING LENS

Your Rosco X-Effects LED Projector requires a focusing lens to project its effects properly. Four X-Effects LED Projector Lens options are available, providing a range of beam angles for various projection distances. Select the appropriate lens to optimize the effect in your venue:

297000000019	X-Effects LED Projector Lens - 19°, Black
297000000030	X-Effects LED Projector Lens - 30°, Black
297000000050	X-Effects LED Projector Lens - 50°, Black
297000000070	X-Effects LED Projector Lens - 70°, Black



Use a non-abrasive micro-fiber cloth with lens cleaner to remove residue from the X-Effects LED Projector lenses.

Install the X-Effects LED Projector Lens into the opening on the front of the unit prior to operation. Insert the small diameter of the lens tube into the opening on the front of the projector and rotate clockwise to thread the lens into place. Rotate the lens clockwise or counter-clockwise to adjust the desired focal position.

WIRING INSTRUCTIONS

Your Rosco X-Effects LED Projector will include a detached power+data cable with socket UTL connector that mates with the connector on the back of the luminaire. The user end of the cables are unterminated and should be connected to appropriate power and data supplies.

Note: Power and data connections should be performed by a qualified electrician and are the responsibility of the installer or end user. Below indicates wiring information for North American installations. For installations outside of North America, see wiring information on page 15.

The power wiring is labelled as follows (18AWG):

- Core No1: Live (Hot) Lead
- Core No2: Neutral Lead
- Core No3: No Connection
- Yellow/Green (YE-GN): Ground

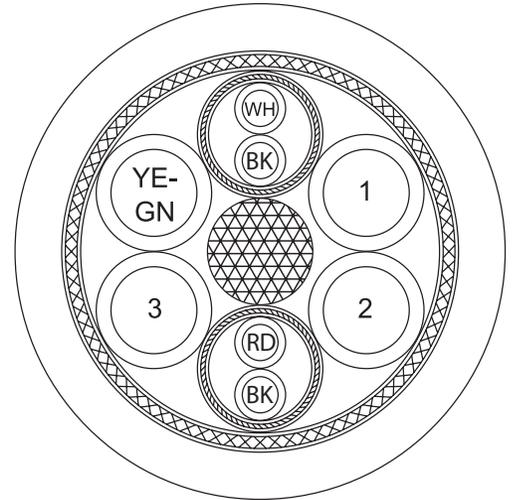
The data wiring is color-coded as follow (26AWG):

DMX IN

- RED (RD): Data+
- BLACK (BK): Data -
- Shield/Screen: Ground

DMX OUT

- White (WH): Data+
- BLACK (BK): Data-
- Shield/Screen: Ground



Ensure the correct power connections have been made to the X-Effects Projector. The fixture will immediately illuminate upon receiving power.

WIRING INSTRUCTIONS CONT.

For installations outside of North America, see below.

The power wiring color-code is as follows:

Core No1: Live (Hot) Lead

Core No2: Neutral Lead

Yellow/Green (YE-GN): Ground

The data wiring color-code is as follows:

DMX IN

Green (GN): Data+

Yellow (YE): Data -

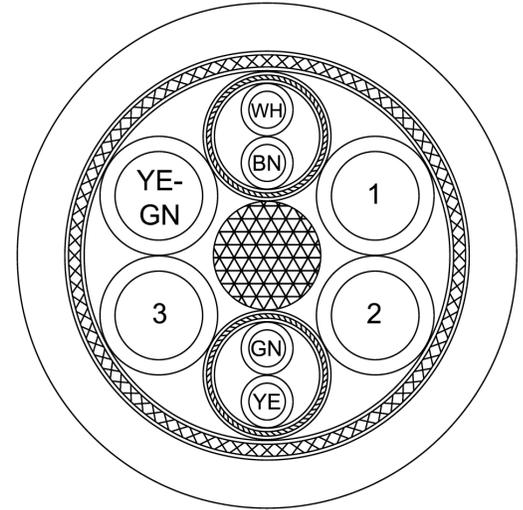
Shield: Ground

DMX OUT

White (WH): Data+

Brown (BN): Data-

Shield: Ground



MOUNTING, CONTROLS & OPERATION

Mount the X-Effects LED Projector via the center hole in the yoke in the desired location, making sure it is located at least 4" (100mm) above ground level. Adjust pan and tilt as required and secure via the hex bolts on the sides of the yoke.



The Rosco X-Effects LED Projector offers manual operation, or remote operation via user-supplied DMX512 data input.

Manual Mode

The X-Effects LED Projector beam intensity, motor speeds and direction can be adjusted independently via the dials on the rear panel.

Rotating the motor speed/direction dials fully clockwise or counter-clockwise will achieve maximum forward/reverse rotation speed. Centering the indicator in a vertical position will bring the motor to a complete stop.

The output intensity on 5500K/White LED unit can be adjusted from 0-100% using the bottom center control knob on the rear panel. The RGBW units will default to all LEDs operating @ 70% maximum output, providing a mixed White light @ 5500K. Turning the Dimming knob will override the default output condition, with all LED colors moving in sync (maintains 5500K White light). With DMX the Red, Green, Blue and White LED outputs can be controlled individually.



DMX Control / RDM

Rosco X-Effects LED Projectors are RDM operable, enabling the DMX address and personality to be configured with a compliant RDM lighting desk or other RDM controller. RDM also supports an operating temperature sensor, power cycle counter and hours run on your X-Effects LED Projector.

- The default DMX address is 001 on all X-Effects LED units shipped from the factory.
- Rosco's 16-bit RDM ESTA UID is (0x5252) with the fixture's 6-digit serial number equating to the low 4 octets of the UID.

When a valid DMX signal is presented to the X-Effects LED Projector, DMX takes precedence over any manual settings. In the event of a DMX fail, the X-Effects LED Projector will revert to the manual controls setting.

5500K X-Effects LED Projectors require 5 DMX channels for control:

1. Motor 1 Speed
2. Motor 1 Direction
3. Motor 2 Speed
4. Motor 2 Direction
5. % Output (dimming)

RGBW X-Effects LED Projectors require a total of 8 DMX channels for control:

- | | |
|----------------------|----------------------------|
| 1. Motor 1 Speed | 5. Output Intensity: Red |
| 2. Motor 1 Direction | 6. Output Intensity: Green |
| 3. Motor 2 Speed | 7. Output Intensity: Blue |
| 4. Motor 2 Direction | 8. Output Intensity: White |

Operation

Ensure the correct power and data connections (if applicable) have been made to the X-Effects LED Projector. Power up the unit and adjust the focus of the beam pattern by rotating the lens tube clockwise or counter-clockwise.

Adjust speed and direction of the left and right drive motors using the on-board controls or remote DMX console.

Adjust dimming/output level via on-board control or remote DMX console.

Adjust color (RGBW units) using remote DMX console.

ORDERING ACCESSORIES

297000000019	X-Effects LED Projector Lens - 19°, Black
297000000030	X-Effects LED Projector Lens - 30°, Black
297000000050	X-Effects LED Projector Lens - 50°, Black
297000000070	X-Effects LED Projector Lens - 70°, Black
297000000010	X-Effects LED Framing Shutters - Set of 4
297000000011	X-Effects LED Lens Cover
297000000012	X-Effects LED Projector Yoke Locking Handle, Black
296000005101	Pole Mount Accessory, Black
296000005103	3-Pack 24" SS Strap Kit for Pole Mount
296000005104	Wall Mount Accessory, Black
296000005106	Surface Mount Accessory, Black
296000010012	Safety Cable, 3-ft (1m)
297000000020	X-Effects LED Lens Cover Threaded

Static Filter Part Numbers

297000000085	X-Effects LED Amber Filter - Fire Effect
297000000090	X-Effects LED Green Filter - Aurora Effect
297000000095	X-Effects LED Blue Filter - Water Effect
120X-YYYY-SXFX	X-Effects LED Permacolor Dichroic Glass Filter (YYYY = four digit color number)

Static Gobo Part Numbers

2507210ISXFX	X-Effects LED Static Custom Steel Gobo
260CUSBWSXFX	X-Effects LED Static Custom B&W Glass Gobo
260CUS1CSXFX	X-Effects LED Static Custom One-Color Glass Gobo
260CUS2CSXFX	X-Effects LED Static Custom Two-Color Glass Gobo
260CUSMCSXFX	X-Effects LED Static Custom Multi-Color Glass Gobo
255XXXXXSXFX	X-Effects LED Static Image Glass Gobo (XXXXX = five digit gobo number)
255XXXXXSXFX	X-Effects LED Static ColorWave Gobo (XXXXX = five digit gobo number)

X-Effects Static Gobos/Filters are the same size as the Image Spot Gobos/Filters and can be used interchangeably (37.4mm with custom bezel). The custom bezel is required for gobos to fit Rosco units properly.

Dynamic Effects Gobo (96mm) Part Numbers

297000000075	X-Effects LED Effects Glass (96mm) - Single
2507210IDXFX	X-Effects LED Dynamic Custom Steel Gobo
255XXXXDXFX	X-Effects LED Dynamic Image Glass Gobo (XXXXX = five digit gobo number)
255XXXXDXFX	X-Effects LED Dynamic ColorWave Gobo (XXXXX = five digit gobo number)
260CUSBWDXFX	X-Effects LED Dynamic Custom B&W Glass Gobo
260CUS1CDXFX	X-Effects LED Dynamic Custom One-Color Glass Gobo
260CUS2CDXFX	X-Effects LED Dynamic Custom Two-Color Glass Gobo
260CUSMCDXFX	X-Effects LED Dynamic Custom Multi-Color Glass Gobo

Combine any two Dynamic Effects Glass Gobos (96mm) including ColorWaves, Image Glass, and Custom Gobos; and a Static Gobo including Steel, Glass, Permacolor, or Custom, to create endless unique lighting effects.

Visit the gobos page to see all available options: <http://www.rosco.com/products/family/gobos>

SPECIFICATIONS

Power

Input Voltage: Universal 100-240VAC
50-60 Hz

Maximum Power
Consumption: 45W/90W HO

Data: DMX 512 – UTL Connector

Physical Characteristics

Dimensions: 5.5in L x 10.1in W x 5.8in H / 5.5in L x 10.1in W x 6.5in H HO
(including yoke) (14.2cm L x 25.8cm W x 14.8cm H/ 14.2cm L x 25.8cm W x 16.7cm H HO)

Weight: 9 lb (4.1 kg)/13 lb (5.8 kg) HO

LED: Color Temperature = 5500K or RGBW
4,000 lumen output (5500K units)

LM-79-08: 50,000 hours @ 45C

Working Environment

Ambient Temperature: Working temperature: -40° to 113°F (-40° to +45°C)

Humidity: 20 ~ 90% RH non-condensing

Approvals:

CE

ETL: Meets UL standards #1573, #8750

cETL: Meets CSA standards C22.2 #166, #250



Ratings:

IP65 Outdoor Use in Wet Environments

Environmental



Disposal of Old Electrical & Electronic Equipment

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste.

3-YEAR LIMITED WARRANTY

Rosco Laboratories warrants to the first retail purchaser that this Product will be free from defects in workmanship and material for a period of 36 months from the date of original purchase.

For warranty service you must be able to provide proof of purchase. Should this Product prove defective during the warranty period, please contact your local Rosco office for Return Authorization. No warranty service will be performed without Return Authorization.

At Rosco's sole discretion, covered Products will be repaired or replaced with new or refurbished equipment or a model of like kind and quality. Exchanged or replaced parts and Products assume the remaining warranty period of the original product covered by this limited warranty. You are responsible for securely packaging the defective Product and returning it to Rosco as per the instructions of the Return Authorization. Within North America, Rosco will ship the repaired or replaced Product to you freight prepaid. Shipments to other locations will be made freight collect.

This warranty is non-transferable and does not extend beyond the first retail purchase of the Product.

This warranty does not cover damage to the Rosco Product caused by parts not manufactured, distributed or certified by Rosco.

Rosco is not obligated to provide warranty service should the Product fail to be properly maintained or fail to function properly as a result of misuse, abuse, improper installation, neglect, improper shipping, damage caused by disasters such as flood, fire and lightning, improper electrical current or unauthorized service repairs other than those by a Rosco Authorized Servicer.

If a claimed defect cannot be identified or reproduced, you will be held responsible for the costs incurred. Unless otherwise stipulated by state law, all warranties expressed or implied are limited to the thirty six (36) month period of this warranty.

THE WARRANTY AND REMEDY PROVIDED ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE. EXCEPT AS PROVIDED IN THIS WRITTEN WARRANTY AND UNLESS EXCLUSIONS ARE SPECIFICALLY FORBIDDEN BY STATE LAW, NEITHER ROSCO NOR ITS AFFILIATES WILL BE LIABLE FOR ANY LOSS, INCONVENIENCE, OR DAMAGE, INCLUDING DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING INJURY TO PERSONS OR PROPERTY, RESULTING FROM THE USE OR INABILITY TO USE THE ROSCO PRODUCT, WHETHER RESULTING FROM BREACH OF WARRANTY OR ANY OTHER LEGAL THEORY.



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