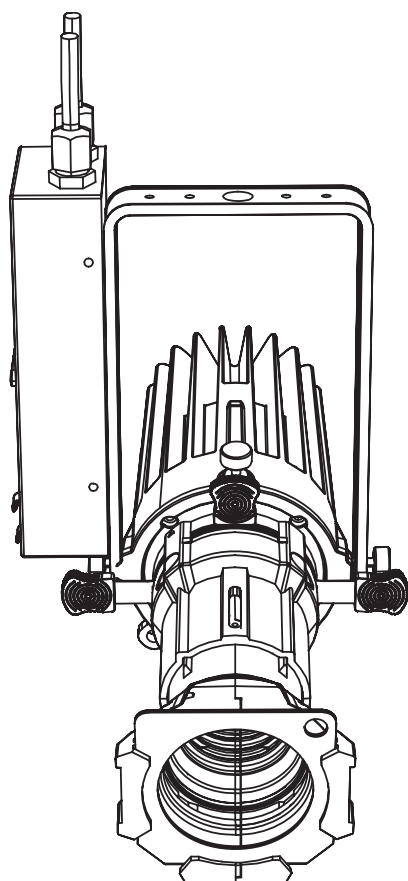# EXPO X40T

40W LED profile spot 3200K, 4000K, 5600K, tunable white interchangeable

USER
MANUAL

CE **IP20**
Indoor

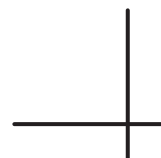**REV 1.1 - 24**

English Version

Table of contents

Caution!

Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching the wires!

Avoid looking directly into the light source!
Wear protective glasses and other PPE (personal protective equipment) when working on or near the fixture.

Always make sure you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.Make sure it is grounded when using it!
Unplug mains lead before opening the housing!
Make sure that the power cord is never crimped or damaged by sharp edges. Check the fixture and the powercord from time to time.
Make sure to replace the fuse with another of the same type and rating.

For your own safety, please read this user manual carefully before you initial start-up.
Follow operating safety precautions and pay attention to warning signs methods and equipment on the user manual.

Warning! This symbol indicates a hot surface. Certain parts of the housing can become hot during operation. After use, wait for a cool-down period of at least 10 minutes before handling or transporting the device.

Indoor use only! To prevent risk of fire or shock, do not expose this product to rain or moisture. IP 20 rating.
The ambient temperature must always be between -5° C and +45° C.

Every person involved with the installation, operation and maintenance of this device has to
- be qualified
- follow the instructions of this manual
- consider this manual to be part of the total product
- keep this manual for the entire service life of the product
- pass this manual on to every further owner or user of the product
- download the latest version of the user manual from the Internet

Introduction

Thank you for having chosen EXPO X40T. You will see you acquired a powerful and versatile device. The EXPO X40T is an interchangeable fixture which is possible to be used as single white version(3200K, 4000K or 5600K) as well as tunable white version.
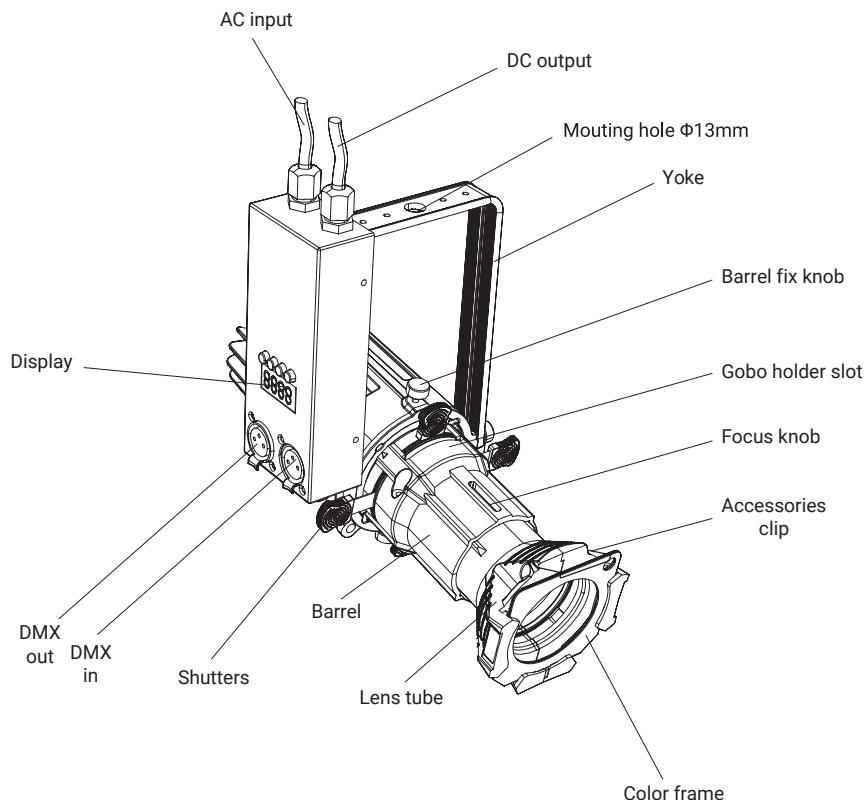
Unpack your item. Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

EXPO X40T

Safety instructions

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual. Always disconnect from the mains, when the device is not in use or before cleaning it. Keep away children and amateurs from the device! There are no serviceable parts inside the device. Maintenance and service operations are only to be carried out by authorized dealers.

Overview

AC input

DC output

Mouting hole Φ13mm

Yoke

Barrel fix knob

Display

Gobo holder slot

Focus knob

Accessories clip

DMX out

DMX in

Shutters

Barrel

Lens tube

Color frame

Installation

Read 'Safety information' before installing the fixture.
The fixture is designed for indoor use only and must be used in a dry location with adequate ventilation. Ensure that none of the fixture's ventilation slots are blocked.

Fasten the fixture to a secure structure or surface. Do not stand it on a surface or leave it where it can be moved or fall over. If you install the fixture in a location where it may cause injury or damage if it falls, secure it as directed in this user manual using a securely anchored safety cable that will hold the fixture if the primary fastening method fails.

Fastening the fixture to a flat surface
The fixture can be fastened to a hard, fixed, flat surface that is oriented at any angle. Ensure that the surface and all fasteners used can support at least 10 times the weight of all fixtures

and equipment to be installed on it.

Fasten the fixture securely. Do not stand it on a surface or leave it where it can be moved or fall over. If you install the fixture in a location where it may cause injury or damage if it falls, secure it as directed below with a securely anchored safety cable that will hold the fixture if the primary fastening method fails.

Mounting the fixture on a truss

The fixture can be clamped to a truss or similar rigging structure in any orientation. When installing the fixture hanging vertically down, you can use an open-type clamp such as a G-clamp. When installing in any other orientation, you must use a half-coupler clamp that completely encircles the truss chord.
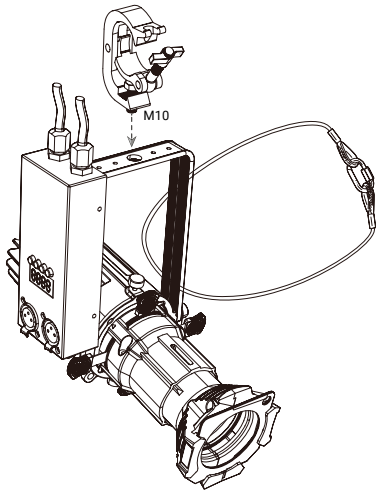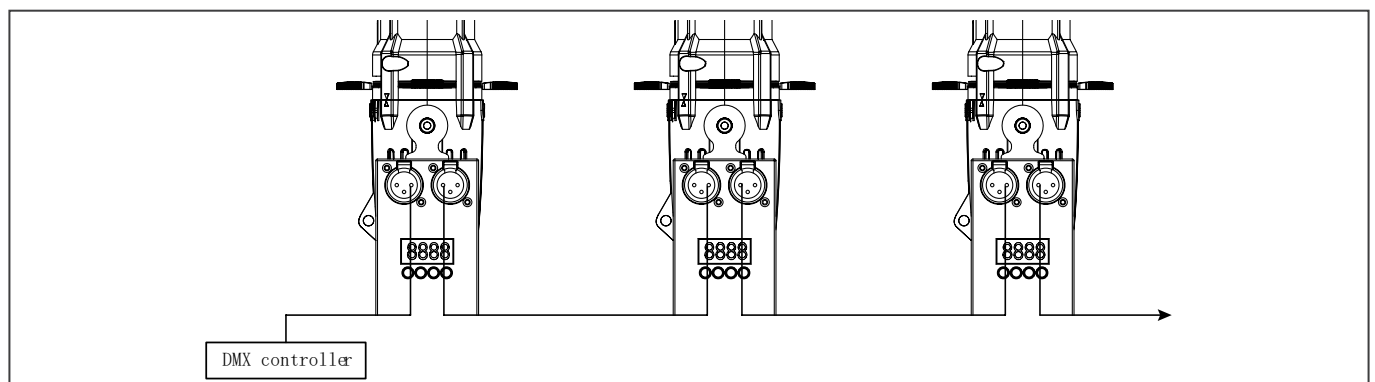

To clamp the fixture to a truss:

1. Check that the rigging structure can support at least 10 times the weight of all fixtures and equipment to be installed on it.
2. Block access under the work area.
3. Fold the legs of the mounting bracket together and bolt a rigging clamp securely to the mounting bracket. The bolt used must be M10. It must pass through both mounting bracket legs and be fastened with a self-locking nut.
4. Working from a stable platform, hang the fixture with its clamp on the truss and fasten the clamp securely.
5. Secure the fixture with a safety cable as directed below.

Securing with a safety cable

Secure the fixture with a safety cable (or other secondary attachment) that is approved for the weight of the fixture so that the safety cable will hold the fixture if a primary attachment fails.

Loop the safety cable through the eyebolt in the back of the fixture and around a secure anchoring point. Do not loop the safety cable around the fixture's mounting bracket only, as this will leave the fixture unsecured if it separates from the bracket.

DMX-512 connection/connection between fixtures

EXPO X40T

Occupation of the XLR-connection:

DMX OUT

2 1
3

1. Group
2. Signal (–)
3. Signal (+)

DMX IN

1 2
3

1. Group
2. Signal (–)
3. Signal (+)
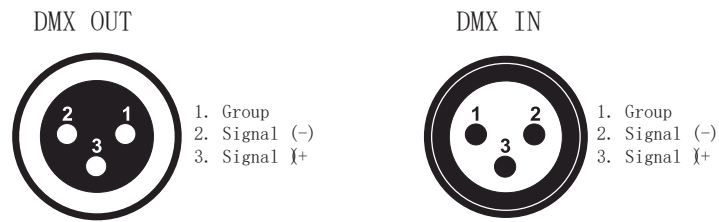
If you are using controllers with this occupation, you can connect the DMX-output of the controller directly with the DMX-input of the first fixture in the DMX-chain. If you wish to connect DMX-controllers with other XLR-outputs, you need to use adapter-cables.

Building a serial DMX-chain:
Connect the DMX-output of the first fixture in the DMX-chain with the DMX-input of the next fixture.
Always connect one output with the input of the next fixture until all fixtures are connected.

DMX-512 connection with DMX terminator:
For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain.

Caution: At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (–) and Signal (+) into a 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

Change lens tube

1. Loose the focus knob.
2. Take the lens tube out.
3. Replace the new lens tube.
4. Fix the focus knob.
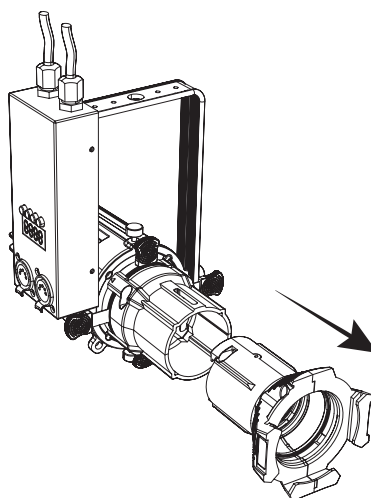
Power connection

Power Requirements

The EXPO X40T luminaire operates on 100 to 240 volts AC (+/- 10%, auto-ranging). The luminaire contains an auto-ranging power supply.

Connection with the mains:
Connect the device to the mains with the enclosed power supply cable.

The occupation of the connection cables as below:

Cable color	Connection	International
Brown	Live	L
Blue	Neutral	N
Yellow/green	Earth(Ground)	⏚

Operation

How to switch between tunable white mode and single white mode

The EXPO X40T can both be a tunable white device for a single color device. Follow below instruction settings to select your desired version.
n.od1 = tunable white version.
n.ode2 = single white version (3200K, 4000K, 5600K)

1. Power on the unit.
2. Use the "Menu" button to navigate the menu and select "A001".
3. Press and hold "Enter" button under "A001" mode for 3 - 5 seconds to enter the advanced settings.
4. Press "Enter" button to navigate the advanced settings until you see "n.od1" or "n.od2".
5. To choose tunable white mode, click up or down button and select "n.od1", then press enter to save.
6. To choose single white mode, click up or down button and select select "n.od2", then press enter to save.
7. When finished, press "Menu" button to exit.

Important notice: DO NOT CHANGE OTHER SETTINGS IN THE ADVANCED MENU IF YOU DO NOT KNOW WHAT IS IT FOR!

Control Menu Map - n.od1 (tunable white version)

MAIN MENU	SUB MENU	FUNCTION INSTRUCTION
A001	001-512	DMX address setting
CHnL	1/2/3/5 CH	Channel Mode

EXPO X40T

dlnn	d000-255	WW+CW dimmer, 0 - 100%
Strb	S.00 - S.20	Strobe, speed increasing
uL--	u.000 - u.255	WW dimmer, 0 - 100%
cL--	c.000 - c.255	CW dimmer, 0 - 100%
nodE	nod.0	Dimmer speed 0 (no delay)
	nod.1	Dimmer speed 1
	nod.2	Dimmer speed 2
	nod.3	Dimmer speed 3
	nod.4	Dimmer speed 4 (slowest speed)
tEnP	t---	Fixture temperature
UErn		Firmware version
rSEt		Reset
PnnF	0.6F/1.2F/2.0F/4.0F/12F/24F	PWM frequency adjustment(KHz)

Control Menu Map - n.od2 (single white version)

MAIN MENU	SUB MENU	FUNCTION INSTRUCTION
A001	001-512	DMX address setting
CHnL	1/2 CH	Channel Mode
dlnn	d000-255	WW+CW dimmer, 0 - 100%
Strb	S.00 - S.20	Strobe, speed increasing
CCt	3200	3200K
	4000	4000K
	5600	5600K
nodE	nod.0	Dimmer speed 0 (no delay)
	nod.1	Dimmer speed 1
	nod.2	Dimmer speed 2
	nod.3	Dimmer speed 3
	nod.4	Dimmer speed 4 (slowest speed)
tEnP	t---	Fixture temperature
UErn		Firmware version
rSEt		Reset
PnnF	0.6F/1.2F/2.0F/4.0F/12F/24F	PWM frequency adjustment(KHz)

EXPO X40T

How to choose color temperature in single white mode
In the single white mode, we offer three color presets for you. That is 3200K, 4000K, 5600K.

3200K mode

1. Click the "Menu" button to navigate main menu till you see "CCt" option.
2. Click "Enter" button to submenu.
3. Click up or down button to select 3200K.
4. Press Enter to save and exit, now this is a 3200K fixture.

4000K mode

1. Click the "Menu" button to navigate main menu till you see "CCt" option.
2. Click "Enter" button to submenu.
3. Click up or down button to select 4000K.
4. Press Enter to save and exit, now this is a 4000K fixture.

5600K mode

1. Click the "Menu" button to navigate main menu till you see "CCt" option.
2. Click "Enter" button to submenu.
3. Click up or down button to select 5600K.
4. Press Enter to save and exit, now this is a 5600K fixture.

Color temperature calibration
In the long term use, the color temperature deviation cannot be avoided. The EXPO X40T offers a powerful color temperature calibration function. Before settings, make sure you are in "n.od2" - single color mode. For data accuracy, make sure you have a professional light meter to measure color temperature.

3200K calibration:

1. In the main menu, click menu button to navigate and select CCt - 3200K.
2. Press and hold "Enter" button for at least 3 seconds. Submenu will be displayed.
3. Click "Enter" button to switch between Yxxx and Uxxx.
4. Yxxx stand for warm white, Uxxx stand for cold white.
5. Adjust the two values for calibration, increase Uxxx value will increase color temperature.
6. Press "Enter" button to save changes and "Menu" button to exit.

4000K calibration:

1. In the main menu, click menu button to navigate and select CCt - 4000K.
2. Press and hold "Enter" button for at least 3 seconds. Submenu will be displayed.
3. Click "Enter" button to switch between Yxxx and Uxxx.
4. Yxxx stand for warm white, Uxxx stand for cold white.
5. Adjust the two values for calibration, increase Uxxx value will increase color temperature.

EXPO X40T

6. Press "Enter" button to save changes and "Menu" button to exit.

5600K calibration:

1. In the main menu, click menu button to navigate and select CCt - 5600K.
2. Press and hold "Enter" button for at least 3 seconds. Submenu will be displayed.
3. Click "Enter" button to switch between Yxxx and Uxxx.
4. Yxxx stand for warm white, Uxxx stand for cold white.
5. Adjust the two values for calibration, increase Uxxx value will increase color temperature.
6. Press "Enter" button to save changes and "Menu" button to exit.

DMX Protocol - n.od1 (tunable white mode)

1 CH Mode	Function	Function Control
CH1	Dimmer	000-255: 0-100% dimmer

2 CH Mode	Function	Function Control
CH1	Dimmer	000-255: 0-100% dimmer
CH2	Strobe	000-010: No function 011-255: Strobe with speed increasing

3 CH Mode	Function	Function Control
CH1	Dimmer	000-255: 0-100% dimmer
CH2	Warm white	000-255: WW 0-100% dimmer
CH3	Cold white	000-255: CW 0-100% dimmer

5 CH Mode	Function	Function Control
CH1	Dimmer	000-255: 0-100% dimmer
CH2	Warm white	000-255: WW 0-100% dimmer
CH3	Cold white	000-255: CW 0-100% dimmer
CH4	Color temperature	000-010: No function
		011-255: Color temperature CW - WW
CH5	Strobe	000-010: No function 011-255: Strobe with speed increasing

DMX Protocol - n.od2 (single white mode)

1 CH Mode	Function	Function Control
CH1	Dimmer	000-255: 0-100% dimmer

2 CH Mode	Function	Function Control
CH1	Dimmer	000-255: 0-100% dimmer
CH2	Strobe	000-010: No function 011-255: Strobe with speed increasing

Fixture Cleaning

Due to fog residue, smoke, and dust cleaning the internal and external optical lenses and mirror should be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates (I.e. smoke, fog residue, dust, dew). In heavy club use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity, and crisp output.

To clean the fixture:
1. Disconnect the fixture from power and allow it to cool for at least 10 minutes.
2. Vacuum or gently blow away dust and loose particles from the outside of the fixture with low-pressure compressed air.
3. Clean the surfaces by wiping gently with a soft, clean lint-free cloth moistened with a weak detergent solution. Do not rub glass surfaces hard: lift particles off with a soft repeated press. Dry with a soft, clean, lint-free cloth or low-pressure compressed air. Remove stuck particles with an unscented tissue or cotton swab moistened with glass cleaner or distilled water.
4. Check that the fixture is dry before reapplying power.

Troubleshooting

Listed below are a few common problems that you may encounter, with solutions.

The fixture does not work, no light

- Check the connection of power and main fuse. Be sure the external fuse has not blown.
- Measure the mains voltage on the main connector.

EXPO X40T

Technical specifications
Specifications

Model	EXPO X40T
Power supply:	AC100-240V, 50/60Hz
Light source:	40Watt COB LED
Color temperature:	3200K, 4000K, 5600K, 2700K - 6000K interchangeable
Fixed lens:	19°、26°、36°、50°
Color Rendition:	CRI 92
Gobo holder:	E-sized, glass gobo holder
Gobo size:	OD 38mm, Image area 26mm Max, thickness 1.2mm
Power connection:	Dedicated power in
Signal connection:	3-pin XLR in & out
Control channels:	1/2/3/5 tunable white mode 1/2 single white mode
Control mode:	DMX, RDM, manual
Housing:	Color black or white, die-casting aluminum
Size:	275 x 135 x 110mm
N.W.:	1.5 kg
Environment:	IP 20

Dimensions
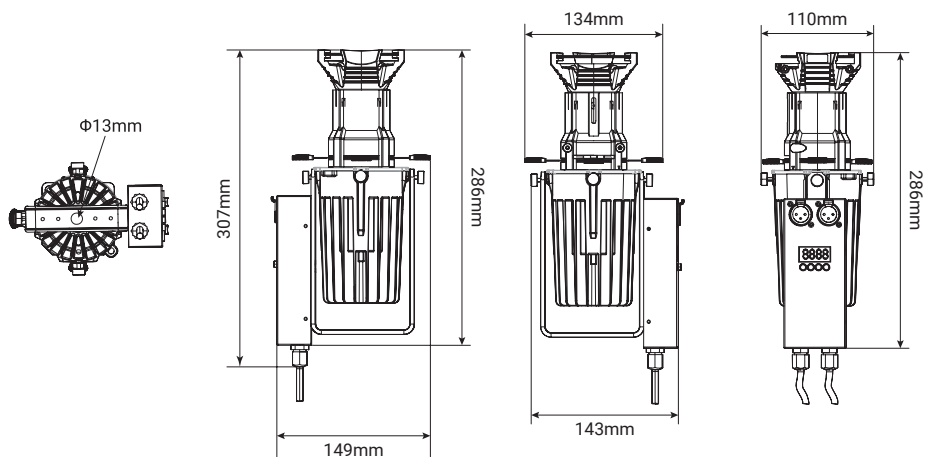
Please note: All information is subject to change without prior notice.