AX40

USER MANUAL

CE IP20
Indoor

REV 1.0 - 24

English Version

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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 AX40. You will see you acquired a powerful and versatile device.

Our product incorporates LumenRadio chips, which serve as low-power RF transceivers. These chips are responsible for receiving LumenRadio's proprietary MiraOS protocol or other wireless signals (e.g., 2.4GHz/Sub-GHz) and demodulating them into digital signals.

They support efficient spectrum utilization (e.g., via frequency hopping) and offer strong anti-interference capabilities.The chips are typically based on the ARM Cortex-M architecture (such as Nordic's nRF52/ nRF53 series), optimized for low power consumption. They also feature AES encryption or LumenRadio's private encryption mechanisms to prevent data tampering and interference.

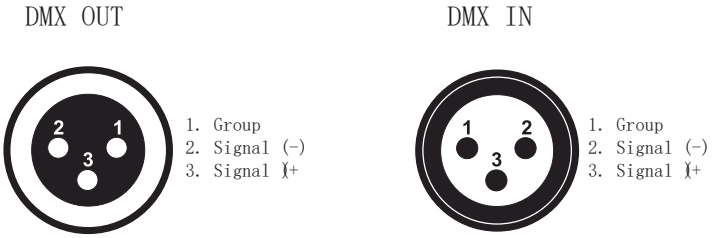
Unpack your item. Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

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.

DMX-512 connection/connection between fixtures

Occupation of the XLR-connection:



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 5-pin XLR-plug and plug it in the DMX-output of the last fixture.

Power connection

Power Requirements

The AX40 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

When starting the AX40 , plug in the signal line and prioritize the control of the DMX signal; When the signal cable is not plugged in, wireless signal control takes priority.
When the light fixture receives a signal, the signal light will stop flashing and the light fixture can be controlled.

Addressing

All fixtures should be given a DMX starting address when using a DMX signal, so that the correct fixture responds to the correct control signals. This digital starting address is the channel number from which the fixture starts to listen to the digital control information sent out from the DMX controller. The allocation of this starting address is achieved by setting the correct number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures, or make different address for each fixture individually.

If you set the same address, all the units will start to listen to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.

If you set a different address, each unit will start to listen to the channel number you have set, based on the quantity of control channels of the unit. That means changing the settings of one channel will affect only the selected fixture.

In the case of the AX40, which is 1/2/3/5 channels fixture. If you set, for example, the address in the 2 channel mode to channel 2, the device will use the channel 2 to channel 3 for control.

Note: After switching on, the device will automatically detect whether DMX 512 data is received or not. If there is data received at the DMX input, the dot in the display will flash.

Control Menu Map

MENU	SUB MENU	OPERATION
Addr	d001-d512	RDM/DMX address
CHnL	1CH	Channel mode
	2CH	
	3CH	
	5CH	
Strb	S.01-s.20	Strobe with speed increasing
uL--	u.000-u.255	WW dimmer
CL--	C.000-C.255	CW dimmer

MENU	SUB MENU	OPERATION
UOL	2700K-6000K	Rotary control of dimmer and color temperature
DEF	2700K	Color temperature preset
	3000K	
	3200K	
	3600K	
	4000K	
	4200K	
	4500K	
	4800K	
	5200K	
	5600K	
	6000K	
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	-25~100	Fixture temperature
UErn	u1.A3	Firmware version
2.4G	on	Wireless on
	oFF	Wireless off
rSEt	Yes/No	Reset
pnnF	1.2~24.0F	Dimmer frequency adjustment(KHz)

DMX Protocol

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

2 Channel Mode	Function	Function Control
CH1	Dimmer	000-255: 0-100% dimmer
CH2	CTO mode	000-009: no function
		010-019: 2700K
		020-029: 3000K
		030-039: 3200K
		040-049: 3600K
		050-059: 4000K
		060-069: 4200K
		070-079: 4500K
		080-089: 4800K
		090-099: 5200K
		100-109: 5600K
		110-119: 6000K
		120-255: no function

3 Channel 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 Channel Mode	Function	Function Control
CH1	Dimmer	000-255: 0-100% dimmer
CH2	CTO mode	000-009: no function
		010-019: 2700K
		020-029: 3000K
		030-039: 3200K
		040-049: 3600K
		050-059: 4000K
		060-069: 4200K
		070-079: 4500K
		080-089: 4800K
		090-099: 5200K
		100-109: 5600K
		110-119: 6000K
		120-255: no function
CH3	Cold white	000-255: CW 0-100% dimmer
CH4	Color temperature	000-010: No function
		011-255: Color temperature WW - CW
CH5	Strobe	000-255: 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.

Technical specifications

Model	AX40
Power supply:	AC100-240V, 50/60Hz
Light source:	40W WW + 40W CW COB LED
Color temperature:	2700K - 6000K
Color Rendition:	Avg. CRI 92
Fixed lens:	19°, 26°, 36°, 50°
Power connection:	Dedicated power in
Signal connection:	3-pin XLR in & out
DMX channels:	1/2/3/5
Housing:	Color black or white, aluminum
Size(barn door excluded):	260x 170 x 270mm
N.W.:	1.55 kg
Environment:	IP20

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