

EXPOLITE

USER MANUAL

TourLED VC 140

led27140



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Every fixture is fully tested by the manufacturer and properly packed. Before installation and use, make sure that packaging and fixture are in perfect condition. In case of transport damage, contact your dealer and do not operate the fixture.

As part of continuous product development, technical data are subject to change without notice.

01 OVERVIEW

1.1 Introduction

1.1 Introduction

Thank you for choosing the Expolite TourLED VC 140. Read this user manual carefully before starting and operate the fixture strictly according to these instructions to avoid damage and accidents caused by misuse.

1.2 Product description

The TourLED VC 140 is equipped with 7 × 20 W 6-in-1 LEDs. Each LED combines the colours red, green, blue, amber, lime and cyan (RGBALC); each colour can be dimmed individually. The built-in programs include dimming, strobe, colour change and cross-fading. The fixture is controlled via the standard DMX 512 signal.

1.3 Packing list

- 1 × TourLED VC 140
- 1 × DMX signal cable
- 1 × power cable
- 1 × user manual
- 1 × warranty card

02 SAFETY INSTRUCTIONS

2.1 General notes

2.1 General notes

- Any repair work must be carried out by qualified personnel only.
- Always disconnect the fixture from the power supply before setting up, servicing or moving it.
- Avoid direct eye exposure to the light source while the fixture is switched on.

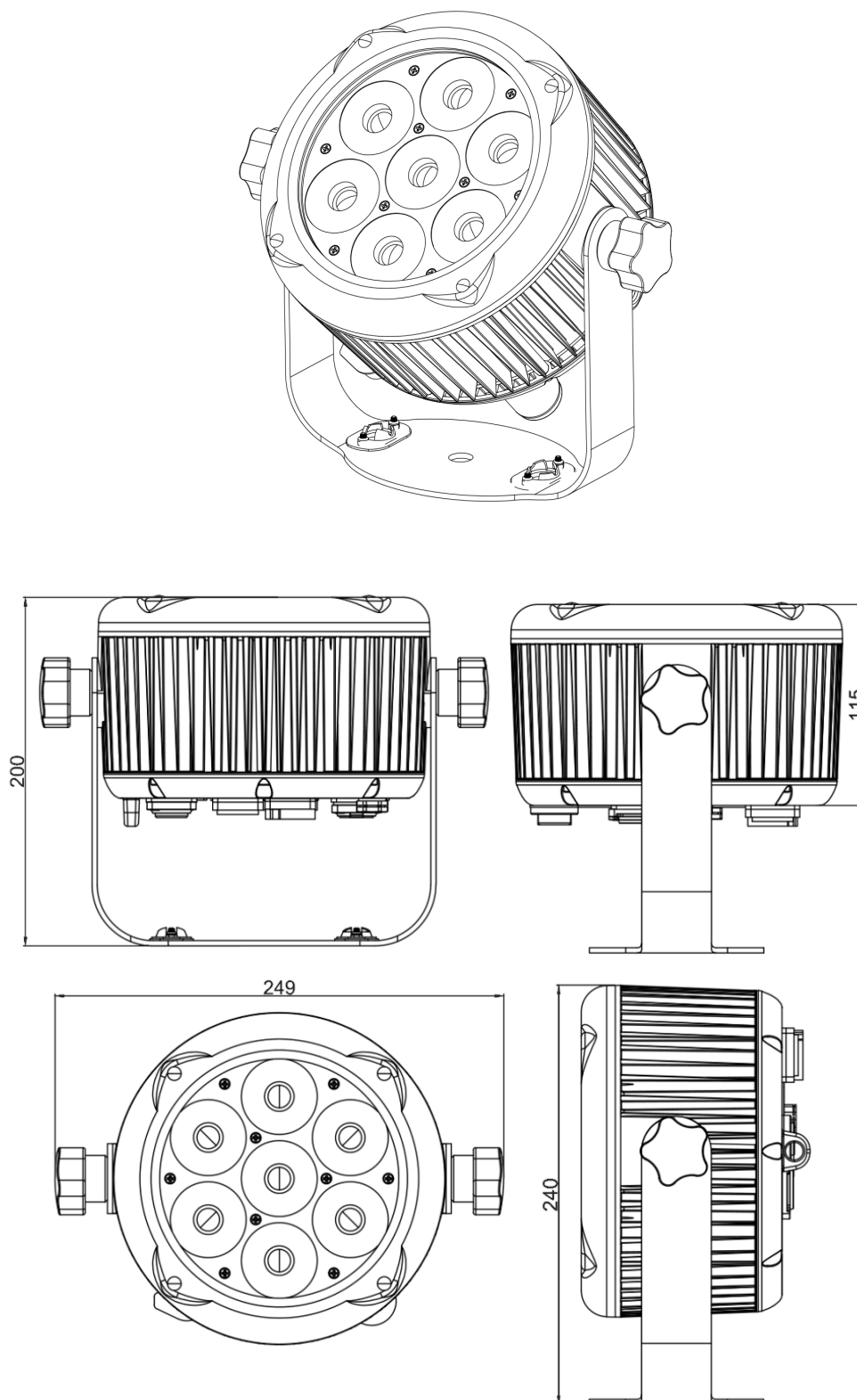
CAUTION

1. The mounting bracket is intended solely for fixing the fixture. It must not be used as a carry handle.
2. For overhead installation, for safety reasons run a safety cable rated for 10 times the weight of the fixture through the safety eyelet.

03 DIMENSIONS

3.1 Dimension drawing

All dimensions in millimetres.



04 TECHNICAL DATA

4.1 Fixture data

Light source	
LED configuration	7 × 20 W 6-in-1 LED (RGBALC)
Colours	Red, green, blue, amber, lime, cyan
Life span	50,000 – 100,000 h
Optics	
Beam angle	15°
Power supply	
Input voltage	AC 100–240 V, 50/60 Hz
Max. power consumption	110 W
Control	
Control signal	DMX512 / RDM
Control modes	Stand-alone, master/slave, DMX, Vision Control app (Bluetooth)
Channel modes	12 CH / 8 CH / 6 CH
PWM frequency	1,200 / 2,400 / 4,000 / 12,000 / 16,000 / 20,000 Hz
Functions	Dimmer, strobe, gradual change, rainbow, auto programs
Temperature monitoring	Automatic power reduction on overheating; power and temperature readable in the menu
Electrical safety	
Dielectric strength	1.5 kV
Insulation resistance	> 2 MΩ
Housing	
Ingress protection	IP65
Cooling	Natural convection and temperature-controlled fans
Dimensions	200 × 249 × 115 mm
Weight	3.75 kg

05 DMX CONTROL

5.1 Channel assignment

The DMX channel assignment depends on the selected channel mode (6 CH, 8 CH, 12 CH).

6 CH	8 CH	12 CH	Value	Function
–	CH1	CH1	0–255	Master intensity
CH1	CH2	CH2	0–255	Red
CH2	CH3	CH3	0–255	Green
CH3	CH4	CH4	0–255	Blue
CH4	CH5	CH5	0–255	Amber
CH5	CH6	CH6	0–255	Lime
CH6	CH7	CH7	0–255	Cyan

CH8 (8 CH / 12 CH) – Strobe	
0–5	No strobe
6–20	Asynchronous strobe (slow → fast)
21–60	Synchronous strobe (slow → fast)
61–100	Electronic sine wave (slow → fast)
101–140	Random strobe (slow → fast)
141–180	Opening pulse (slow → fast)
181–220	Closing pulse (slow → fast)
221–255	Electronic square wave (slow → fast)

05 DMX CONTROL

5.1 Channel assignment (continued)

CH9 (12 CH only) – Colour macros	
0–5	No effect
6–10	Color 1 (custom colour from the [Custom] menu)
11–15	Color 2
16–20	Color 3
21–25	Color 4
26–30	Color 5
31–35	Color 6
36–40	Color 7
41–45	Color 8
46–50	Color 9
51–55	Color 10
56–60	Auto 1 (jump: R, G, B, RG, RB, GB)
61–65	Auto 2 (fade in-out: R, G, B, A, L, C)
66–70	Auto 3 (fade in-out: RG, RB, GB)
71–75	Auto 4 (fade in-out: RGBL)
76–80	Auto 5 (cross fade: B, GB, G, GR, R, RB)
81–110	Reserved
111–115	Red
116–120	Green
121–125	Blue
126–130	Amber
131–135	Lime
136–140	Cyan
141–145	Yellow
146–150	Pink
151–155	Royal Blue
156–160	Orange
161–165	Violet
166–170	Golden
171–175	2700 K
176–180	3200 K
181–185	4000 K
186–190	5500 K
191–195	6500 K
196–200	RGBL
201–220	Reserved
221–225	CHASE1
226–230	CHASE2
231–235	CHASE3
236–255	Reserved

05 DMX CONTROL

5.1 Channel assignment (continued)

CH10 (12 CH only) – Auto speed

0–255	Auto speed, slow → fast (1–255 BPM)
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CH11 (12 CH only) – Rainbow

0–10	No effect
11	Blue – Blue = full, Red + Green = 0 (step)
12–50	Red = 0, Green up, Blue = full (proportional)
51	Light blue – Red = 0, Green = full, Blue = full (step)
52–90	Red = 0, Green = full, Blue down (proportional)
91	Green – Red = 0, Green = full, Blue = 0 (step)
92–130	Red up, Green = full, Blue = 0 (proportional)
131	Yellow – Red = full, Green = full, Blue = 0 (step)
132–170	Red = full, Green down, Blue = 0 (proportional)
171	Red – Red = full, Green = 0, Blue = 0 (step)
172–210	Red = full, Green = 0, Blue up (proportional)
211	Magenta – Red = full, Green = 0, Blue = full (step)
212–250	Red down, Green = 0, Blue = full (proportional)
251–255	Blue – Red = 0, Green = 0, Blue = full (step)

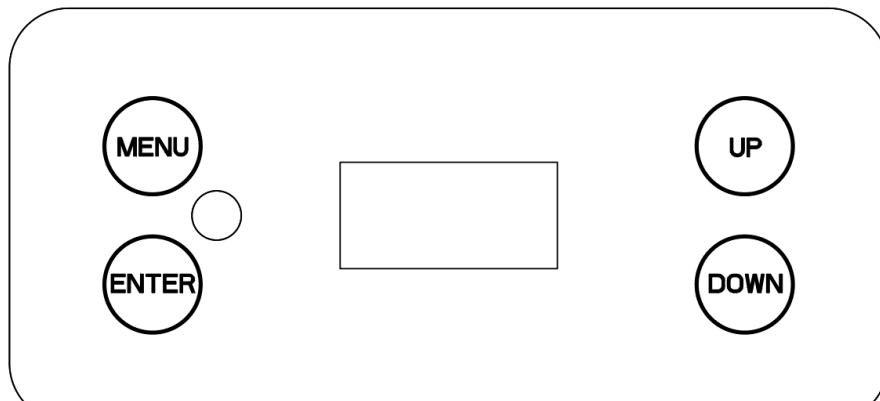
CH12 (12 CH only) – Dimmer curve

0–10	Dimmer curve as set in the menu
11–20	Linear curve
21–30	Square law curve
31–40	Inverse square law curve
41–50	S-curve
51–60	Linear curve, smoothed
61–70	Square law curve, smoothed
71–80	Inverse square law curve, smoothed
81–90	S-curve, smoothed
91–255	Dimmer curve as set in the menu

06 DISPLAY OPERATION

6.0 Control panel

- **MENU:** access the menu or return to the previous menu level
- **ENTER:** select the current menu option
- **UP:** menu selection or parameter increase
- **DOWN:** menu selection or parameter decrease



Note: When the display stops blinking, a DMX signal is being received.

06 DISPLAY OPERATION

6.0 Menu overview

Menu item	Values
Address	001–512
Static	
Red / Green / Blue / Amber / Lime / Cyan / Strobe	0–255
Presets	None, Red, Green, Blue, Amber, Lime, Cyan, Yellow, Pink, Royal Blue, Orange, Violet, Golden, 2700K, 3200K, 4000K, 5500K, 6500K, RGBL
Set	
Input Source	Vision / DMX512 / Automatic
Vision APP	Unlink / Visibility / Vision info
Calibrate	
Red / Green / Blue / Amber / Lime / Cyan	0–255
Use	Yes / No
Ch.Mode	12CH / 8CH / 6CH
Curves	Linear / Square / Inv.Sq / S-Curve / Linear(S) / Square(S) / Inv.Sq.(S) / S-Curve(S)
PWM	1200HZ / 2400HZ / 4000HZ / 12000HZ / 16000HZ / 20000HZ
Display	On (permanently on) / Off (off after 2 minutes)
Lock	Yes / No – Unlock: UP → DOWN → UP → DOWN → ENTER
Rotate	Normal / Rotate 180°
Intensity	0–255
Custom	
Color 1 ... Color 10	Red / Green / Blue / Amber / Lime / Cyan: 0–255
Auto	
Auto 1 ... Auto 5	Run
Auto speed	0–255 (s)
Chase 1 ... Chase 3	Run
Program	
Chase 1 ... Chase 3	Scene 1 ... Scene 25
Red / Green / Blue / Amber / Lime / Cyan / Strobe	0–255
Auto	None / Auto 1 ... Auto 5
Auto Speed / Time	0–255 (s)
Wait	0–25.5 (s)
Use	Yes / No
Info	Software / Power / Temp. / RDM UID / Serial Number / Device Hours / Source hours / Power Cycles
Reset	
Settings / Programs	Yes / No
Send	Yes / No

06 DISPLAY OPERATION

6.1 – 6.4

6.1 DMX address setting

- 1) Press [Enter] in the [Address] menu to open the address setting.
- 2) Use [Up] / [Down] to select a value from 1–512.
- 3) Press [Enter] to save and exit the menu.

6.2 Static colour setting

- 1) Press [Enter] in the [Static] menu.
- 2) Use [Up] / [Down] to select [Red], [Green], [Blue], [Amber], [Lime], [Cyan] or [Strobe].
- 3) Use [Up] / [Down] to set a value from 0–255.
- 4) Press [Enter] to save and exit the menu.

6.3 Colour calibration

- 1) Press [Enter] in the [Calibrate] menu.
- 2) Use [Up] / [Down] to select [Red], [Green], [Blue], [Amber], [Lime] or [Cyan].
- 3) Use [Up] / [Down] to set a value from 0–255.
- 4) Under [Use], select [Yes] (active) or [No] (inactive).
- 5) Press [Enter] to save and exit the menu.

Note: With [Use] = [Yes], the actual output of each colour is scaled by the ratio of the calibration value to 255.

6.4 Channel mode setting

- 1) Press [Enter] in the [Ch.Mode] menu.
- 2) Use [Up] / [Down] to select [12CH], [8CH] or [6CH].
- 3) Press [Enter] to save and exit the menu.

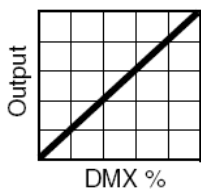
06 DISPLAY OPERATION

6.5 – 6.6

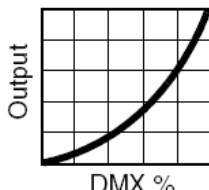
6.5 Dimming mode setting

- 1) Press [Enter] in the [Curves] menu.
- 2) Use [Up] / [Down] to select [Linear], [Square], [Inv.Sq], [S-Curve], [Linear(S)], [Square(S)], [Inv.Sq.(S)] or [S-Curve(S)].
- 3) Press [Enter] to save and exit the menu.

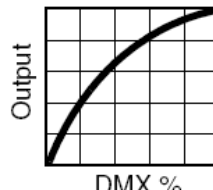
Note: The (S) variants add a slight delay for smooth dimming.



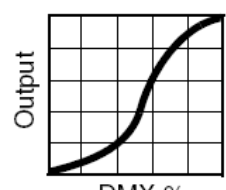
Linear



Square law



Inverse square law



S-curve

6.6 Auto key lock

- 1) Press [Enter] in the [Lock] menu.
- 2) Use [Up] / [Down] to select [Yes] or [No].
- 3) Press [Enter] to save and exit the menu.

Note: With [Yes], the control panel locks automatically after two minutes to prevent accidental input. To unlock, press [Up] → [Down] → [Up] → [Down] → [Enter].

06 DISPLAY OPERATION

6.7 – 6.9

6.7 Custom colour setting

- 1) Press [Enter] in the [Custom] menu.
- 2) Use [Up] / [Down] to select [Color 1] ... [Color 10].
- 3) Use [Up] / [Down] to select [Red] ... [Cyan] and set a value from 0–255.
- 4) Press [Enter] to save and exit the menu.

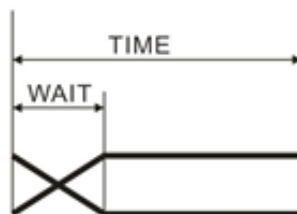
6.8 Auto run, self-program run

- 1) Press [Enter] in the [Auto] menu.
- 2) Use [Up] / [Down] to select [Auto 1] ... [Auto 5], [Auto Speed] or [Chase 1] ... [Chase 3].
- 3) Press [Enter] to start the program.

6.9 Edit self-program

- 1) Press [Enter] in the [Program] menu.
- 2) Use [Up] / [Down] to select [Chase 1] ... [Chase 3] and confirm with [Enter].
- 3) Use [Up] / [Down] to select [Scene 1] ... [Scene 25] and confirm with [Enter].
- 4) Use [Up] / [Down] to select [Red] ... [Strobe], [Auto], [Auto Speed], [Time], [Wait] or [Use] and set the required value.
- 5) Press [Enter] to save and exit the menu.

Note: With [Use] = [No] or [Time] = 0, the scene is not executed. [Wait] defines the fade time as shown in the following diagram.



06 DISPLAY OPERATION

6.10 – 6.13

6.10 Fixture information

- 1) Press [Enter] in the [Info] menu.
- 2) [Software] shows the firmware version, [Power] the current power reduction, [Temp.] the current LED temperature, [RDM UID] the RDM information and [Serial Number] the Bluetooth serial number.
- 3) [Device Hours], [Source hours] and [Power Cycles] show the operating hours of the fixture, the operating hours of the light source and the number of power cycles.

6.11 Reset fixture settings

- 1) Press [Enter] in the [Reset] menu and select [Settings].
- 2) Use [Up] / [Down] to select [Yes].
- 3) Press [Enter] to confirm.

Note: [Address], [Custom] and [Program] are not reset; all other values return to their default settings.

6.12 Reset self-programs

- 1) Press [Enter] in the [Reset] menu and select [Programs].
- 2) Use [Up] / [Down] to select [Yes].
- 3) Press [Enter] to confirm.

6.13 Parameter transfer via DMX cable

- 1) Press [Enter] in the [Send] menu.
- 2) Use [Up] / [Down] to select [Yes].
- 3) Press [Enter] to confirm the transfer to connected fixtures.

Note: Disconnect the DMX console before transferring. The [Address] setting is not transferred. After receiving the parameters correctly, the receiving fixtures restart automatically.

07 VISION CONTROL APP

7.1 Connecting

7.1 Connecting

- 1) Switch the fixture on and select [Vision] under [Main Menu] → [Set] → [Input Source].
- 2) Enable Bluetooth on your smartphone and open the Vision Control app.
- 3) On the “Discover” page, swipe down and tap the tile of the discovered fixture.

7.2 Unlinking

- 1) Under [Settings] → [Network Settings] → [Link & Remove Fixtures], open the “Linked Fixtures” tab.
- 2) Select the fixture and remove it via “Remove”.

Note: The fixture must be switched on and connected while unlinking. The Bluetooth serial number of the fixture can be found under [Info] → [Serial Number].

08 MASTER/SLAVE OPERATION

8.1 Operation without a console

8.1 Operation without a console

When a fixture operates in master mode, it sends the control signal to the slave fixtures running in sync with it. To avoid interference between the master signal and DMX 512 signals, disconnect the DMX line to the console before using master/slave operation.

Note: For signal lines longer than 60 m (more than 20 fixtures), use a signal amplifier.

09 DMX CABLING

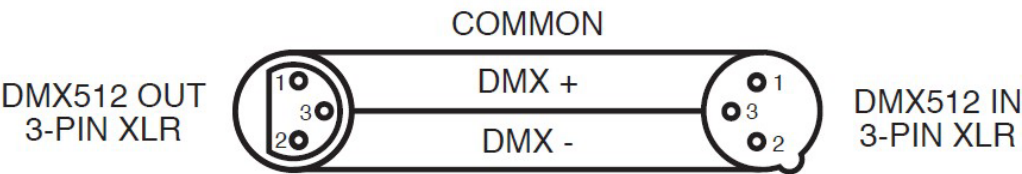
9.1 XLR cables

9.1 XLR cables

The standard connection is made with XLR cables: one end connects to the male plug, the other to the female socket.



XLR pin configuration	
Pin 1	Ground
Pin 2	Data compliment (DMX-)
Pin 3	Data true (DMX+)



09 DMX CABLING

9.2 – 9.4

9.2 Termination

Termination reduces signal errors and avoids signal transmission problems and interference. Connect a DMX terminator — a 120 Ω (1/4 W) resistor between pin 2 (DMX-) and pin 3 (DMX+) — at the DMX output of the last fixture in the chain.



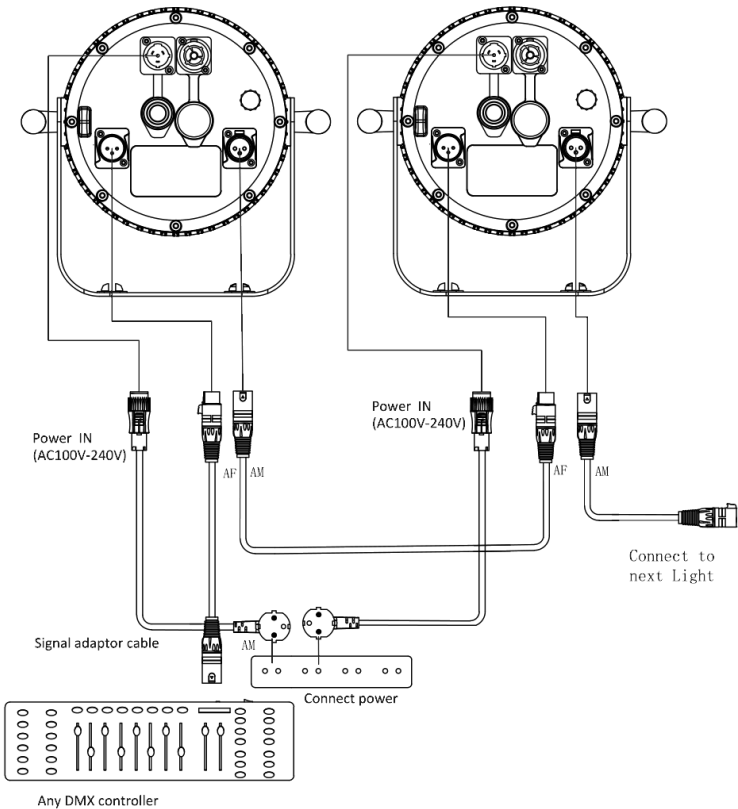
9.3 3-pin / 5-pin conversion

If the DMX controller output is 5-pin, use a 5-pin to 3-pin adapter cable.

Conductor	3-pin XLR female (Out)	5-pin XLR male (In)
Ground / shield	Pin 1	Pin 1
Data compliment (-)	Pin 2	Pin 2
Data true (+)	Pin 3	Pin 3
Not used	–	Pin 4: do not use
Not used	–	Pin 5: do not use

9.4 Connection example

Connect the fixtures with the supplied power and DMX cables as shown below. The DMX output of one fixture connects to the DMX input of the next fixture.



10 TROUBLESHOOTING

10.1 Problems and remedies

Problem	Reason and action
The fixture cannot be started normally	– Check that the power connection is correct. – Check the supply voltage. – The power supply is damaged or incorrectly connected. Call qualified personnel to fix it. – The control board is not connected correctly. Call qualified personnel to fix it.
The fixture does not respond to the console	– Check that the DMX connector and the power connection are connected correctly. A blinking decimal point in the lower right corner of the display indicates an incoming signal. – Check the DMX address setting. – Check the [Ch.Mode] setting. – Do not run the DMX line close to high-voltage wires — they can damage or interfere with the DMX circuit.
The beam appears dim, brightness declines noticeably	– Check under [Power] whether the fixture is in over-temperature protection. If so, provide adequate ventilation.



QUESTIONS OR FEEDBACK?

Scan the QR code to get in touch — we're happy to help!