USER MANUAL

DMX/RDM INSTALLATION

99082152
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APPLICABLE MODELS

Model	Item No.
FL 1300 XT268S	
Tunable White DMX	01410849
RGBW DMX	01410888
FL 1300 XT266M	
3000K Dual DMX	01440458
4000K Dual DMX	01440468
3000K Twinkle DMX	01440258
4000K Twinkle DMX	01440268
TW Twinkle DMX	01440249
RGBW Twinkle DMX	01440388
FL 1500 XT268M	
Tunable White DMX	01460849
RGBW DMX	01460888
FL 1500 XT266L	
3000K Dual DMX	01470458
4000K Dual DMX	01470468
3000K Twinkle DMX	01470258
4000K Twinkle DMX	01470268
TW Twinkle DMX	01470249
RGBW Twinkle DMX	01470388
ACCESSORIES	
DMX Controller	01600302

This DMX/RDM Installation User Manual applies to all RobLight DMX/RDM-controllable light generators equipped with a controllable 6-colour wheel and/or twinkle wheel. It also applies to DMX/RDM-controllable light generators without colour or twinkle wheels, including Clear White, Tunable White, and RGBW models.

Factory Default DMX Address Configuration

The factory default DMX channel assignments are configured as follows:

Models with Colour and/or Twinkle Wheel

Dual Model

Channel 1: Intensity
Channel 2: Colour Wheel
Channel 3: Twinkle Wheel

Colour Model

Channel 1: Intensity
Channel 2: Colour Wheel

Twinkle Model

Channel 1: Intensity
Channel 2: Twinkle Wheel

Tunable White Model

Channel 1: Warm White Intensity
Channel 2: Cool White Intensity
Channel 3: Colour/Twinkle Wheel

RGBW Twinkle Model

Channel 1: Red Intensity
Channel 2: Green Intensity
Channel 3: Blue Intensity
Channel 4: White Intensity
Channel 5: Twinkle Wheel

RGB Twinkle Model

Channel 1: Red Intensity
Channel 2: Green Intensity
Channel 3: Blue Intensity
Channel 4: Twinkle Wheel

Models without Colour or Twinkle Wheel

White Light Model

Channel 1: Intensity

Tunable White Model

Channel 1: Warm White Intensity
Channel 2: Cool White Intensity

RGBW Model

Channel 1: Red Intensity
Channel 2: Green Intensity
Channel 3: Blue Intensity
Channel 4: White Intensity

RGB Model

Channel 1: Red Intensity
Channel 2: Green Intensity
Channel 3: Blue Intensity

DMX Addressing and RDM Configuration

Factory Default Configuration

The light generator is factory-set to the default DMX channel configuration as specified in the preceding section. The DMX start address can be remotely configured via RDM (Remote Device Management) using a compatible RDM-enabled DMX controller.

When assigning a DMX start address, ensure that sufficient channel capacity is available within the DMX universe to accommodate the total number of channels required by the selected model. Overlapping channel assignments may result in unintended or unpredictable operation.

For reliable communication, the DMX line must be properly terminated, and the installation must comply with standard DMX512 wiring practices. The use of shielded twisted-pair cable suitable for DMX data transmission is strongly recommended.

RDM functionality enables remote addressing, configuration, and device status monitoring when used with compatible control systems.

Factory Custom Addressing

Custom DMX addressing can be specified at the time of ordering (Part No. 99030071). Units ordered with factory custom addressing will be delivered pre-configured and clearly labeled with the assigned settings.

On-Site Address Configuration

Address configuration on site must be performed by qualified personnel only. All work involving the light generator must be carried out by a trained and authorized electrician.

To modify the DMX start address, connect an RDM-compatible controller to the DMX connector of the device. Address programming procedures may vary depending on the RDM controller and software used.

The device is fully compliant with the RDM standard (ANSI E1.20).

DMX Wiring

The light generator is supplied with a shielded, twisted-pair rubber DMX cable terminated with 5-pin XLR connectors (male connector for DMX input and female connector for DMX output). The DMX input and output ports are clearly labeled “IN” and “OUT” on the side of the device to ensure correct installation.

The DMX line must always be properly terminated using a 120 Ω termination resistor at the final device in the chain (termination accessory required). Failure to terminate the DMX line may result in signal instability or communication errors.

RobLight strongly recommends the use of shielded rubber DMX cable with twisted pairs for reliable data transmission. Upon request, the light generator can be supplied with a more heavy-duty DMX cable suitable for demanding installations.

Modification or replacement of the DMX cable inside the light generator is not permitted. Any alteration of the internal DMX wiring will void the product warranty.

For further information regarding DMX standards and installation practices, refer to the official DMX512 documentation and applicable industry guidelines.

Figure 1 – DMX input (male) and output (female) connectors.

DMX Protocol

Factory Default Configuration – Dual Model (Reference Layout)

The table below defines the factory default DMX channel configuration for the Dual Model (Intensity, Colour Wheel, and Twinkle Wheel).

For models without one or more wheel functions, the unused channel(s) are not active. Refer to the model-specific section for detailed channel configurations.

Channel 1		Channel 2		Channel 3	
DMX Value	**Function**	**DMX Value [1]**	**Function Colour [2]**	**DMX Value [3]**	**Function Twinkle [2]**
0	Light Off	0 [4]	Reset / Clear	0 [4]	Reset / Clear
1-255	Intensity ~10–100%	33	Green		
		67	Orange		
		100	Blue		
		133	Red		
		167	Yellow	33-167	Only Twinkle
		200	Clear	200	Clear
		206-225[5]	Continuous Rotation	206-225[5]	Continuous Rotation

Technical Notes

1. **Colour Wheel Positioning**
   DMX values 0–200 position the colour wheel in angular increments of 1.8°. Intermediate values between the specified positions will produce blended colour output.

2. **Model Availability**
   Wheel functionality is available only on models equipped with the respective wheel configuration.

3. **Twinkle Wheel Positioning**
   DMX values 0–200 position the twinkle wheel in angular increments of 1.8°. Values within this range provide static positioning and do not generate a dynamic twinkle effect, but instead create varying intensity distribution across the fiber harness.

4. **Mode Transition Requirement**
   When switching from continuous rotation mode to a fixed colour or twinkle position, the wheel must be reset by setting the DMX value to 0 and allowing a minimum delay of 5 seconds before selecting the desired position.

5. **Continuous Rotation Mode**
   DMX values 206–225 enable continuous rotation of the colour or twinkle wheel. All values within this range are valid and correspond to individual rotation speeds, with rotational speed decreasing as the DMX value increases. For selection of a specific rotation speed, refer to the Wheel Speed Settings table.

Wheel Speed Settings

Continuous Rotation Speed Reference

The table below specifies the continuous rotation speed parameters for the Colour Wheel and Twinkle Wheel. Each DMX value range corresponds to a defined rotational speed expressed in revolutions per minute (RPM).

Wheel speed functionality is available only on models equipped with the respective wheel.

DMX Value Range	Rotation Speed (RPM)
205-206	3 RPM
207-208	2 RPM
209-210	1 RPM
211-213	1/2 RPM
214-215	1/3 RPM
216-217	1/5 RPM
218-219	1/7 RPM
220-221	1/10 RPM
222-223	1/12 RPM
224-225	1/15 RPM
0 [1]	Reset Wheel
201–204 / 226–255	N/A

Technical Notes

1. **Mode Transition Requirement**
   When switching from continuous rotation mode to a fixed colour or twinkle position, the wheel must be reset by setting the DMX value to 0 and allowing a minimum delay of 5 seconds before selecting a new position.

Programming the Controller

The DMX/RDM (SLESA-U10) controller is custom-configured for use with RobLight light generators and enables control, configuration, and monitoring via compatible lighting software.

Programming can be performed using a PC, Mac, tablet, or smartphone with the Nicolaudie software applications listed below. Firmware updates and hardware configuration are managed through the Hardware Manager utility, which supports firmware updates, device settings, and diagnostics.

For additional technical specifications and device details, please refer to the SLESA-U10 controller data sheet.

Compatible Software

ESA2 (Windows / Mac)

https://www.nicolaudie.com/esa2.htm

RDM Manager

Windows: https://eu-tools.n-g.co/Release/RDM_Manager.exe

Mac: https://eu-tools.n-g.co/Release/RDM_Manager.dmg

Hardware Manager (Firmware & Settings)

Windows: https://eu-tools.n-g.co/Release/HardwareManager.exe

Mac: https://eu-tools.n-g.co/Release/HardwareManager.dmg

For iPhone, iPad, and Android devices, search for “Hardware Tools” in the respective app store.

Tutorials and Documentation

For guidance on DMX addressing and software operation, refer to the official resources below:

Easy Stand Alone (ESA) – Documentation

https://nicolaudie.com/manuals/#/en/easy-stand-alone/overview

RDM Manager – Video Tutorial

https://www.youtube.com/watch?v=YEht0K5B50c&ab_channel=NicolaudieArchitectural

These resources provide step-by-step instructions for configuring DMX channels, managing RDM devices, and operating the respective software tools.

For complete functionality and advanced configuration options, please consult the official software documentation provided by the manufacturer.

Accessories and Spare Parts

The following accessories and spare parts are available for use with RobLight DMX-controllable light generators. For ordering information, please refer to the part numbers listed below.

Part Name	Description	Part No.
DMX Controller	USB DMX/RDM Interface for Lighting Control Software	01600302
Casambi to DMX Controller	A Bluetooth-enabled device for wireless lighting control	80000031
DMX Cable – 2.5 m (XLR)	Shielded DMX cable with 5-pin XLR connectors	99030056
DMX Cable – 5 m (XLR)	Shielded DMX cable with 5-pin XLR connectors	99030052
DMX Cable – 10 m (XLR)	Shielded DMX cable with 5-pin XLR connectors	99030057
DMX Cable – 11–50 m (XLR)	Custom-length shielded DMX cable with 5-pin XLR connectors	99030058
DMX Cable – 51–100 m (XLR)	Custom-length shielded DMX cable with 5-pin XLR connectors	99030059
Power Supply 100–240 VAC / 5 VDC USB	External power supply unit	67080002
DMX to 1–10 V Interface	Signal converter for 1–10 V control systems	01600316
Factory DMX Address Configuration	Custom factory-set DMX addressing	99030071
DMX Control Unit Programming (per hour)	Custom programming service	99030070

For additional accessories or custom solutions, please contact RobLight technical support.

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