SGM®

R-2 RAIL LIGHT RGBW
R-2 RAIL LIGHT WHITE

Dimensions

224 [8.8]

57 [2.2]

104 [4.1]

187 [7.4]

48 [1.9]

167 [66]

92 [3.6]

270°

330°
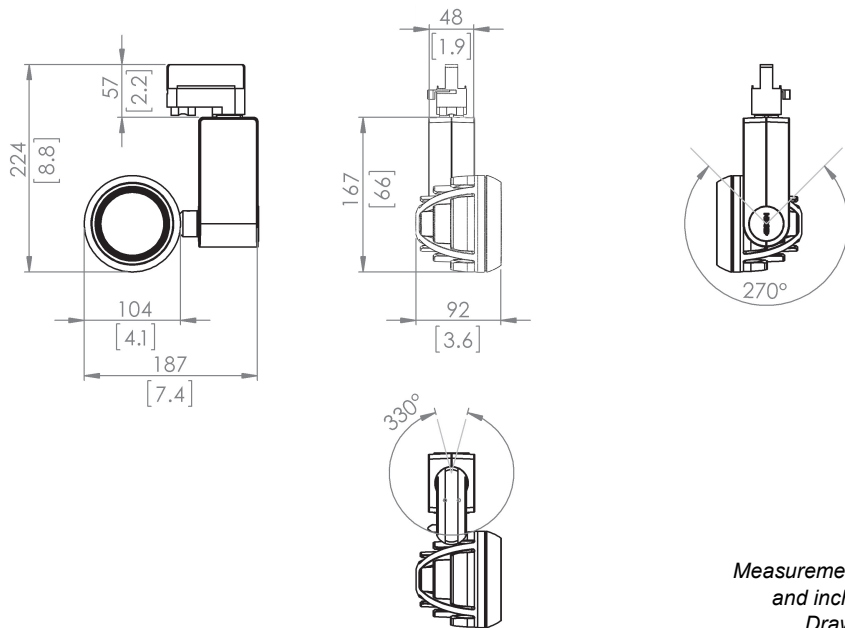
*Measurements in millimetres
and inches (in brackets).
Drawing not to scale.*

R-2 RAIL LIGHT
USER MANUAL

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The original edition of this document is in English. All other language editions are translations of the original edition.

This edition applies to firmware version 1.00 or later.

Ver. B

Contents

Safety information

WARNING! *Read the safety precautions in this section before unpacking, installing, powering or operating this product.*

The R-2 Rail Light is an LED luminaire intended for professional use only. It is not suitable for household use.
Impropre a l'usage domestique.

Review the following safety precautions carefully before installing or operating the fixture. This fixture must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the fixture and the hazards involved. **Ce produit doit être installé selon le code d'installation pertinent, par une personne qui connaît bien le produit et son fonctionnement ainsi que les risques inhérent.**

Preventing electric shock

WARNING! *Risk of electric shock.*

- Always power off/unplug the fixture before removing any covers.

- Ensure that the power is turned off when connecting the fixture to the AC mains supply.

- Ensure that the fixture is electrically connected to earth (ground).

- Do not apply power if the fixture is in any way damaged.

- Do not immerse the fixture in water or liquid.

6

Preventing burns and fire

 WARNING! *Take measures to prevent burns and fire.*

- Install in a location that prevents accidental contact with the fixture.
- Install only in a well-ventilated space.
- Install at least 0.3 m (12 in.) away from objects to be illuminated.
- Install only in accordance with applicable building codes.
- Do not paint, cover or modify the fixture.
- Keep all flammable materials away from the fixture.
- Allow the fixture to cool for 15 minutes after operation, before touching it.

CAUTION: *Exterior surface temperature after 5 min. operation = 45 °C (113 °F). Steady state = 70 °C (158 °F).*

Avoid personal injury

⚠ **WARNING!** *Take measure to prevent personal injury.*

- Do not look directly at the light source from close range.

- Take precautions to prevent injury due to falls when working at height.

- For permanent installation, ensure that the fixture is securely fastened to a load-bearing surface with suitable corrosion-resistant hardware.

Overview

The R-2 LED Rail Light concept gives the user full control and offers a unique and personal experience; whether it is installed in a museum, an exhibition, a center, a hall, a trade show, a club or a shop or any other application you could think of. It is possible to control your complete light setup from a distance via wireless DMX from LumenRadio.
An automatically programmed schedule or alterations can all be done manually, providing endless possibilities and opening up many new opportunities to create dynamic and vibrant environments.

The track adapter system enables retrofitting of your entire setup in the most commonly used tracks available on the market today. This can be done in a few easy steps, as it is unnecessary to pull new cables etc.

The R-2 series is available in both black and white housings, so that they blend into your existing installations.

The R-2 RGBW features a 13° lens and the R-2 White features a 25° lens as standard.

This manual covers installation, use and maintenance of the R-2 Rail Light. All documentation is also available from the SGM web-site: **http://www.sgmlight.com**

Parts identification and terminology

A Head
B Lens
C Base
D Lens cap
E Pin hole
F Rotational phase selector
G Track adapter
H Twist lock
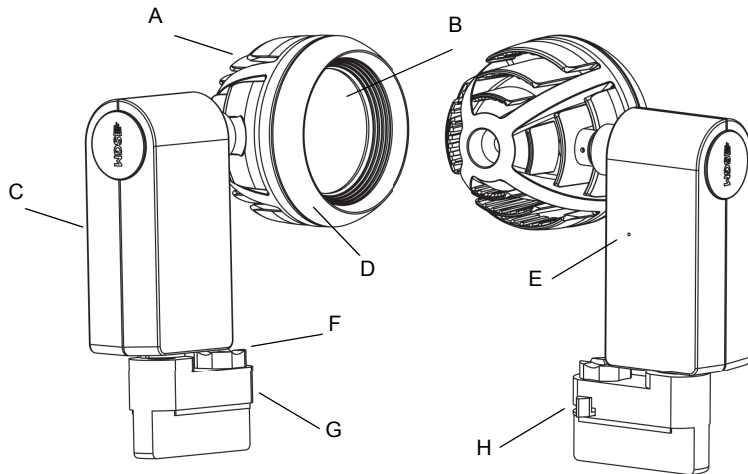
Preparing for installation

Unpack the fixture and inspect it to ensure that it has not been damaged during transport.

The R-2 Rail Light is shipped with:

- User manual
- Pin key tool (for pin hole)

When selecting a location for the fixture, ensure that:

- It is situated away from public thoroughfares and protected from contact with people.
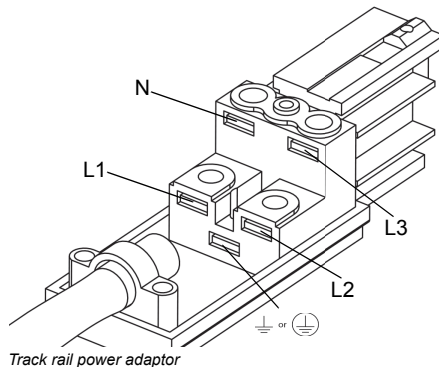- It has adequate ventilation.

Connecting AC Power

The R-2 Rail Light can operate on any 100–240V, 50/60 Hz AC mains power supply. It draws approximately 0.2 amps at full power.

For permanent installation, have a qualified electrician wire the mains cable directly to a suitable branch circuit.

The power cable color coding is given below.

Country or Region	Phase (L)	Neutral (N)	Protective earth/ground ⏚ or (⏚)
European Union (EU)	(brown)	(blue)	(green & yellow)
USA & Canada	(black)	(white)	(green)

Track rail power adaptor

The fixture must be grounded/earthed and be able to be isolated from AC power. The AC power supply must incorporate a fuse or circuit breaker for fault protection.

CAUTION: *Do not open the fixture, or connect the fixture to an electrical dimmer system, as this can damage it.*

12

Connecting power adaptor to track rail

1   Press the power adaptor into the track rail like shown below.

2   Tighten the Phillips screw on the bit of the power adaptor that is visible inside the track rail.
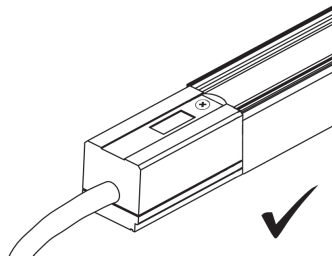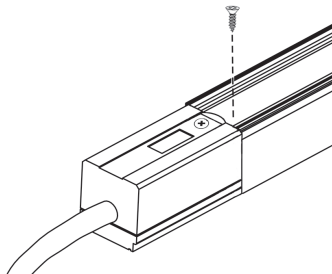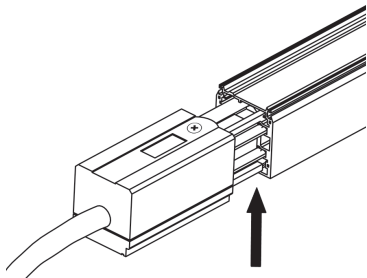
Installing the R-2 Rail Light

To attach the R-2 Rail Light to a track rail:

1 Insert the fixture with the polarity groove opposite the polarity ridge on the track rail. *NOTE: Make sure the rotational phase selector is set to 'OFF' before you insert the fixture in the track rail.*

2 Push the fixture into the track rail until it snaps into place.

3 Turn the twist locking mechanism to secure the fixture to the track rail.

4 Choose the appropriate power circuit by turning the rotational phase selector (1, 2, or 3).

5 To remove the fixture from the track rail, set the rotational phase selector to 'OFF', reverse the twist locking mechanism, and pull the fixture out from the track rail.
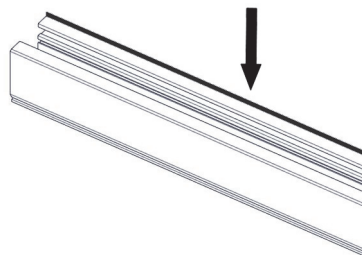
Polarity ridge (highlighted)
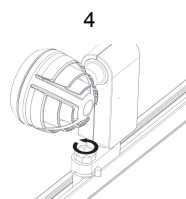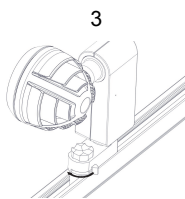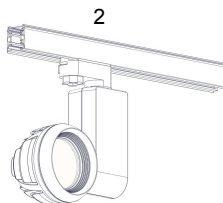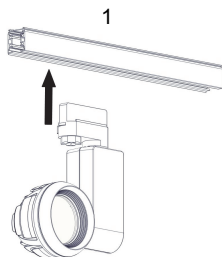
Pan/Tilt adjustment

To adjust pan/tilt (330° / 270°), simply rotate the head/body of the fixture to the desired position:
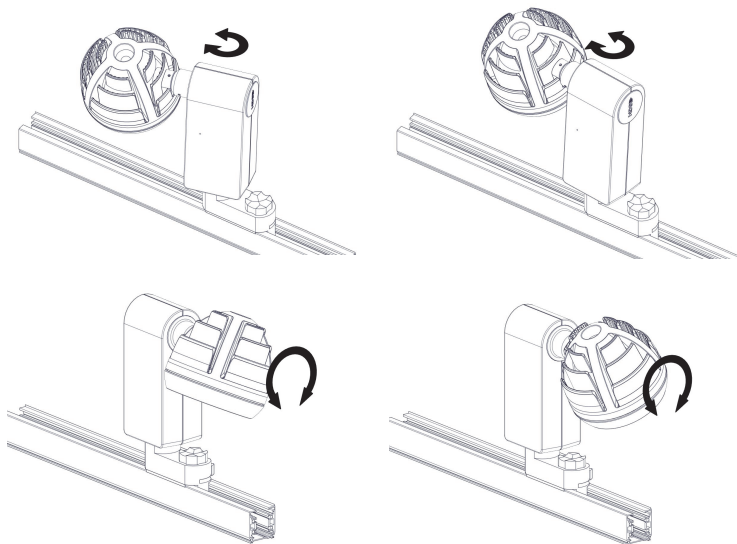
Connecting to a wireless DMX control device

The R-2 Rail Light is controllable using a wireless Lumen Radio transmitter (DMX or DMX/RDM) and SGM's Rail Light Configuration Tool (downloadable from **www.sgmlight.com**).

You can set up the Lumen radio transmitter in the following ways:

- Local Area Network LAN
- USB dongle (SGM USB uploader cable)

See detailed setup instructions on the following pages.

Lumen Radio transmitter

Overview

Wireless antenna

Link status diode

Link button

Power input

Power status diode

5-pin XLR DMX input
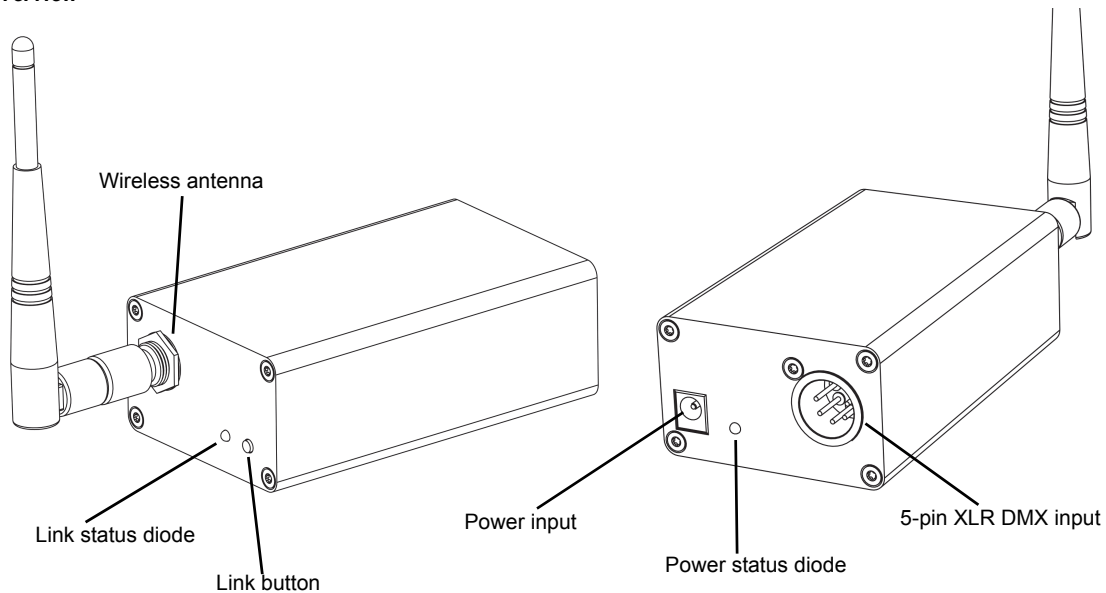
Local Area Network (LAN)

Follow the steps below to set up a network between your personal computer and the wireless Lumen Radio transmitter:

1 Connect the Lumen Radio transmitter to power and link it to your PC via an ethernet cable.

2 Right-click the ▂▃ icon and select 'Open Network and Sharing Center'

3 Select 'Change adapter settings'
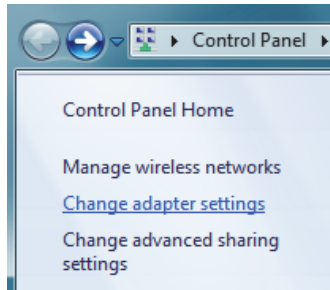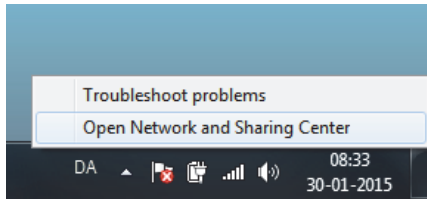
4 Select 'Local Area Connection'
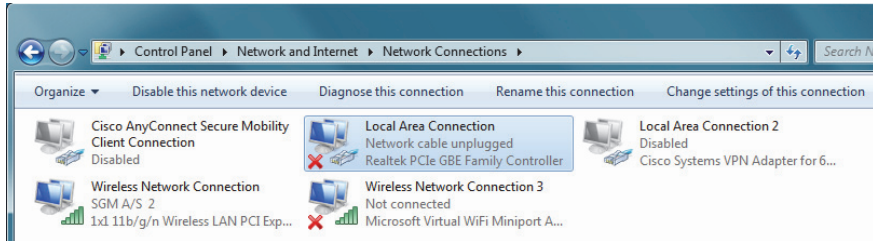
5 Select 'Internet Protocol Version 4 (TCP/IPv4)' and click 'Properties'
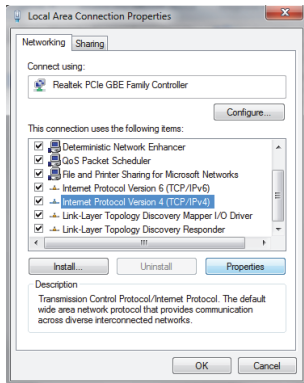
6   Type in an appropriate IP address and Subnet mask (e.g. 2.0.0.88 and 255.0.0.0 as shown below) and click 'OK'.
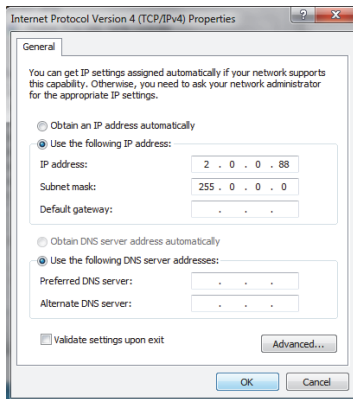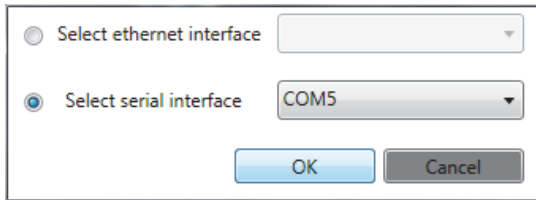
7   Open the SGM Rail Light Configuration Tool, select the appropriate ethernet interface, and click 'OK'
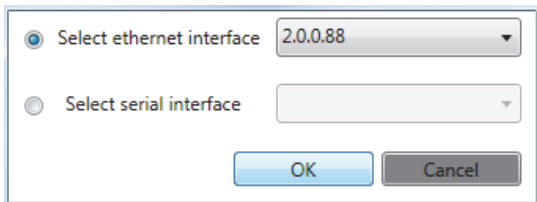
USB dongle

Follow the steps below to set up a network between your personal computer and the wireless Lumen Radio transmitter:

1   Connect the Lumen Radio transmitter to power and link it to your PC via a USB dongle (SGM uploader cable)

2   Open the SGM Rail Light Configuration Tool, select the appropriate serial interface, and click 'OK'

○ Select ethernet interface	▼
◉ Select serial interface	COM5 ▼
	OK Cancel

SGM Rail Light Configuration

Overview
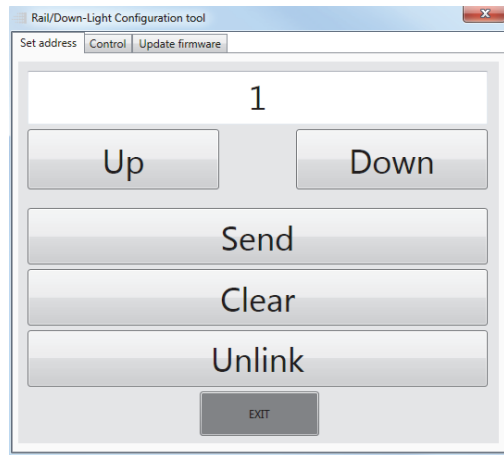
Set Address	Assign DMX addresses to individual fixtures. Max. 512 channels for R-2 White and max. 128 for RGBW (it is possible to assign several fixtures to one address).
Up	Click to scroll up.
Down	Click to scroll down.
Send	Click to send DMX address to fixture.
Clear	Click to stop fixtures from flashing when assigning DMX addresses.
Unlink	Disconnects fixture from Lumen Radio transmitter (DMX address is still assigned).
Exit	Click to exit program.

Interaction with R-2 Rail Light

To establish connection between the wireless Lumen Radio transmitter and the R-2 Rail Light fixture(s), connect both to power and click the 'Link' button on the wireless transmitter

When you have set your DMX address and you click '**Send**', all active R-2 Rail Light fixtures will start flashing. To assign the chosen DMX address to a specific fixture, use the key pin tool and click the pin hole on the base of the fixture (see parts identification on page 10 for more details). The fixture will stop flashing and is now assigned to the chosen DMX address. To assign more fixtures to the same DMX address, simply click the pin hole on the desired number of fixtures.

To stop the remaining fixtures from flashing, click '**Clear**'.

If you want to assign a new DMX address to a pre-assigned fixture, simply overwrite it by clicking '**Send**' and assign it to a new DMX address.

Click '**Unlink**' to unlink a fixture from an assigned DMX address. The fixture will still have the assigned DMX address, but it will not be active until you click the 'Link' button on the wireless Lumen Radio transmitter.

To physically unlink the R-2 Rail Light fixture:

1　Insert the pin key tool in the pin hole (see "Parts identification and terminology" on page 10) and press the button.

2　When the fixture starts flashing, press the button again to unlink the fixture.

DMX Control
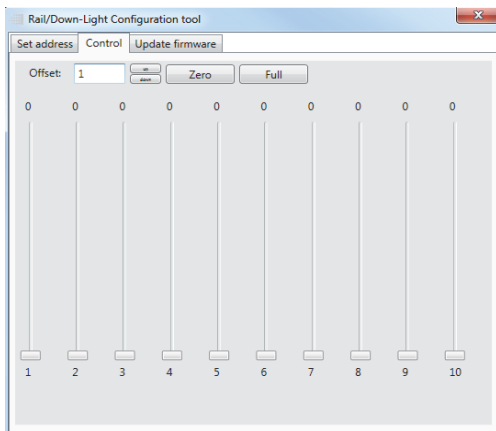
Offset	Click 'Up' / 'Down' or type in value to change offset.
Adjustment sliders	Adjust sliders to control light output. and intensity
Zero	Set all sliders to 0.
Full	Set all sliders to 255.

Service

There are no user-serviceable components in the fixture. Do not open the R-2 Rail Light, as doing so is likely to damage the fixture. Consult your SGM dealer if the fixture operates abnormally, is defective or otherwise in need of service or repair.

Upgrading the firmware

We recommend that you keep your fixture's firmware up-to-date. Visit **http://www.sgmlight.com** to download the latest firmware.

Open SGM's Rail Light Configuration Tool and select 'Update firmware' to upload the latest firmware.
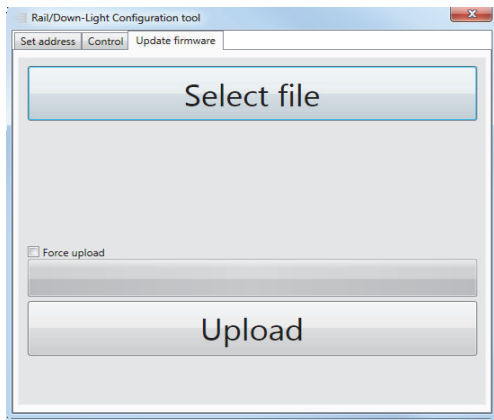
Select file	Click and browse to select file.
Upload	Click to upload file.
Force upload	Click to force upload. If you upload software and one or more fixtures fail, and you have to try and upload the software again, the fixtures that have already adopted the initial software update will ignore the upload. Clicking **Force upload** forces these fixtures to accept the repeated software upload.

NOTE: To perform firmware updates, you need a Windows-based personal computer and a SGM USB 5-Pin-XLR upload cable (available from your SGM distributor).

Cleaning

To maintain optimal performance, regular cleaning is essential. Cleaning schedules will vary depending on the operating environment, and the installation should therefore be checked at frequent intervals within the first few weeks of operation to see whether cleaning is necessary. This procedure will allow you to assess cleaning requirements in your particular situation. If in doubt, consult your SGM dealer for a suitable maintenance schedule.

Clean the R-2 Rail Light using a soft cloth dampened with a solution of water and a mild detergent. Do not use products that contain solvents, abrasives or caustic agents for cleaning, as they can cause damage to both hardware, cables and connectors.

DMX protocols

R-2 RGBW

3 Channel Mode (Standard)[1]

Channel	Name	DMX value		DMX percentage		Description	Info	Default DMX value	Fader type
1	Red	0	255	0,0%	100,0%	No RED > Maximum RED	-	-	Fade
2	Green	0	255	0,0%	100,0%	No GREEN > Maximum GREEN	-	-	Fade
3	Blue	0	255	0,0%	100,0%	No BLUE > Maximum BLUE	-	-	Fade

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1. To ensure uniform color between products, 3 Channel Mode RGB features full color calibration (irrespective of current color setting) when you mix 2 or 3 colors. Adjusting 1 color does not activate full color calibration.

R-2 White (3000K/4000K)

1 Channel Mode (Standard)

Channel	Name	DMX value		DMX percentage		Description	Info	Default DMX value	Fader type
1	White	0	255	0,0%	100,0%	No Light > Maximum Light	-	-	Fade

Fixtures and accessories

Included items

User manual
Pin key tool

Ordering information

R-2 RGBW, white housing, 13° ....Order no: 84010103
R-2 RGBW, black housing, 13° ....Order no: 84010104
R-2 W, 3000K, white housing, 25°..Order no: 84010101
R-2 W, 3000K, black housing, 25°..Order no: 84010102
R-2 W, 4000K, white housing, 25°..Order no: 84010109
R-2 W, 4000K, black housing, 25°..Order no: 84010110
Lumen Radio transmitter DMX ....Order no: 80070229
Lumen Radio transmitter DMX/RDM..Order no: 80070230
SGM USB uploader cable ....Order no: 83062011

APPROVALS AND CERTIFICATIONS

Conforms to.. 1999/5/EC: R&TTE Directive (EN301489-1, EN301489-3, EN300328)
Conforms to.. 2006/95/EC: Low Voltage Directive (EN 60598-1, EN 60598-2-17, EN 62471)
Conforms to...2011/65/EU: RoHS2 Directive

The information in this document is subject to change without notice

User's notes

SGM