

RDMSPPLITTER MANUAL



Revision History

Revision	Date	Author(s)	Description
1	15.06.2026	ME	Initial version.

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Chapter 1

Safety Precautions

This chapter contains important safety information for the installation, operation, and maintenance of the RdmSplitter. Read these precautions carefully before using the device to ensure safe operation and to prevent damage to equipment or injury to personnel.

Before installing the RdmSplitter, read this manual completely and ensure that all installation personnel are familiar with the product and applicable safety requirements. Verify that the installation environment is suitable for the device and within the specified operating conditions. Disconnect power before making any wiring connections. Do not install or operate the product if it appears damaged. Ensure adequate ventilation around the unit and prevent exposure to moisture, excessive heat, or mechanical stress.

1.1 Indoor Use Only

The RdmSplitter is intended for indoor use only. Do not install or operate the device in environments exposed to rain, moisture, condensation, excessive dust, or direct sunlight. Operating the product outside its specified environmental conditions may result in malfunction, damage, or reduced product lifetime.

1.2 Power Supply Requirements

Only power the RdmSplitter using the approved power sources specified in this manual: a DC power supply within the specified input voltage range. Applying voltages outside the specified limits may damage the device and void the warranty.

1.3 No User-Serviceable Parts



The RdmSplitter contains no user-serviceable parts. Do not attempt to open, disassemble, or repair the device. Opening the enclosure may expose sensitive electronic components and may void the warranty. Repairs must only be carried out by qualified service personnel or the manufacturer.

1.4 Product Modifications



Do not modify the RdmSplitter or its accessories. Unauthorized modifications may impair product performance, compromise safety, invalidate regulatory compliance certifications, and void the warranty.

1.5 Disconnect Power Before Servicing



Always disconnect all power sources and any external DC supply, before installing, wiring, relocating, or servicing the device. Failure to disconnect power may result in equipment damage or unintended operation.

Chapter 2

Introduction

The RdmSplitter is a compact, DIN-rail mountable DMX/RDM distribution device designed to simplify and improve the reliability of lighting control installations. It receives a single DMX-512 or RDM signal and distributes it to six independent output branches, allowing multiple fixtures or fixture groups to be connected while maintaining signal integrity.



Figure 2.1: RdmSplitter Terminal



Figure 2.2: RdmSplitter RJ-45

By electrically isolating the outputs from one another, the RdmSplitter helps protect lighting systems against wiring faults, ground loops, and interference that can occur in large or complex installations. Each output branch can operate independently, reducing the impact of faults on the overall system.

The RdmSplitter fully supports Remote Device Management (RDM), enabling bidirectional communication between controllers and compatible fixtures. This allows users to remotely discover, configure, monitor, and manage connected devices without requiring physical access.

2.1 Compliance

This device is in compliance with the following regulations:

- CE
- UKCA

- FCC

See the appendix for the associated certificates.

2.2 Features

The feature set of the RdmSplitter includes:

- DMX-512 (ANSI E1.11) individually optically isolated ports
- RDM (ANSI E1.20)
- DIN Rail form-factor
- Power consumption 9-24V DC 500mA
- Operating temperature -20°C to +50°C (-4°F to 122°F)
- Operating relative humidity 10% to 80% non-condensing

2.3 What's in the box?

The RdmSplitter packaging contains the following items (see figure 2.3):

- RdmSplitter

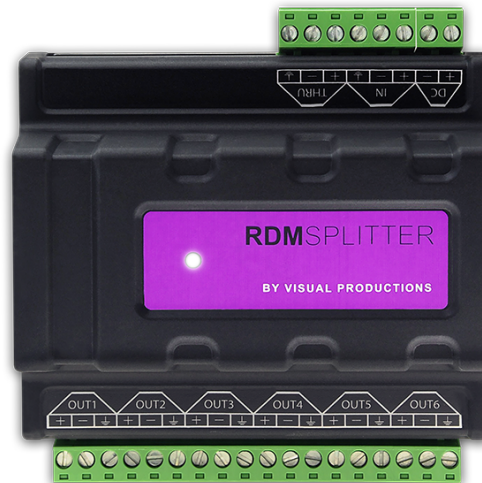


Figure 2.3: RdmSplitter box contents

2.4 Unpacking

Carefully unpack the RdmSplitter and inspect the contents for any signs of damage that may have occurred during transportation. Verify that all supplied accessories and documentation are present. If any damage is found, do not install or operate the device and contact your supplier

immediately. Retain the original packaging materials whenever possible, as they provide the safest means for transporting or storing the product in the future.

2.5 Intended Disposal

At the end of its service life, this product must not be disposed of with household waste. The RdmSplitter contains electronic components that should be collected and recycled in accordance with local regulations for Waste Electrical and Electronic Equipment (WEEE). Please dispose of the product through an authorized recycling facility or return it to an appropriate electronic waste collection point. Proper disposal helps conserve natural resources and prevents potential negative effects on the environment.

2.6 Further help

If, after reading this manual, you have further questions, then please consult the online forum at <https://forum.visualproductions.nl>

Chapter 3

Installation

This chapter discusses how to physically set up the RdmSplitter.

3.1 DIN Rail

The RdmSplitter is designed for DIN rail mounting. The device takes 6 width units.



Figure 3.1: DIN Rail mounting

3.2 DC Power

The RdmSplitter can be powered via a DC power supply: Minimum 9V, maximum 24V DC. The input is protected for inverted polarity. The power supply is sold separately.

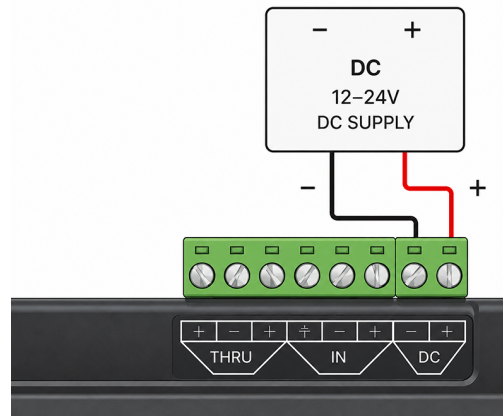


Figure 3.2: DC power

3.3 Status LED

The RdmSplitter is equipped with a single status LED located on the front panel. This LED provides visual feedback about the device's operating state and DMX activity.

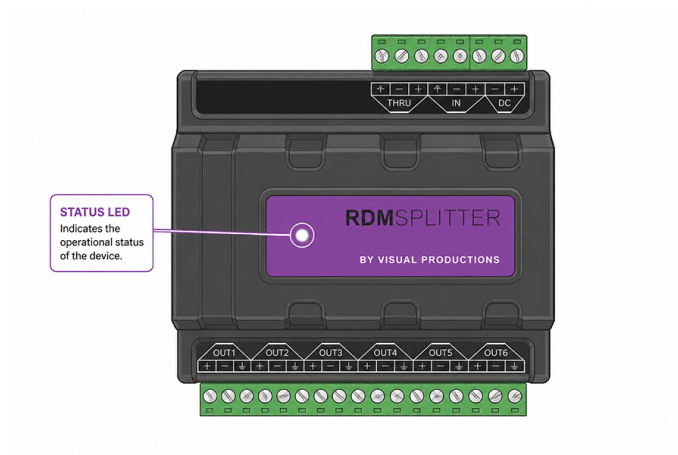


Figure 3.3: Status LED

- **Solid On** – The RdmSplitter is powered.
- **Fast Flash** – Valid DMX data is being received and processed by the RdmSplitter.
- **Slow Flash** – Valid RDM data is being received and processed by the RdmSplitter.

3.4 DMX Ports

All DMX ports on the RdmSplitter are optically isolated, providing protection against ground loops and electrical interference between connected devices.

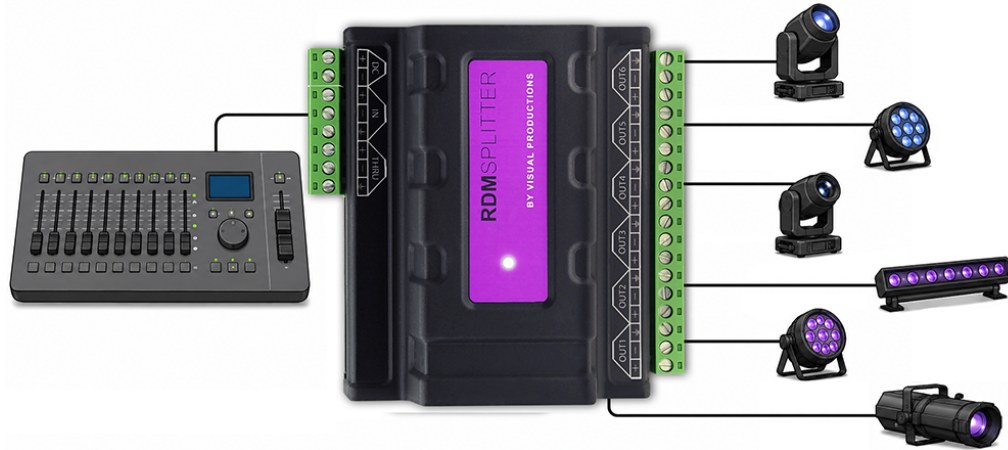


Figure 3.4: DMX connections

When wiring DMX devices, observe the following recommendations:

- Connect up to 32 DMX devices to the output.
- Use a DMX terminator (120Ω) on the last fixture in the chain.
- Do not connect the shield (ground) to the fixture chassis. Connect to signal ground only.

Appendices

Appendix A

Certifications

This appendix contains the declarations of conformity and regulatory certifications applicable to the RdmSplitter.



EU Declaration of Conformity

We, **Visual Productions BV**, as the manufacturer, hereby declare under our sole responsibility that the following device:

Product Name: RdmSplitter (Terminal
RdmSplitter (RJ-45)
Product Type: Lighting Controller

complies with the requirements of the following directives and standards:

Applicable Directives:

- 2014/30/EU – Electromagnetic Compatibility (EMC)
- 2011/65/EU (as amended by 2015/863) – Restriction of Hazardous Substances (RoHS)

Applied Harmonised Standards:

- EN 61000-6-1:2019 – Electromagnetic compatibility (EMC) – Part 6-1: Generic standards – Immunity for residential, commercial, and light-industrial environments
- EN 63000:2018 – Technical documentation for the assessment of electrical and electronic products concerning the restriction of hazardous substances

This declaration is issued under the sole responsibility of the manufacturer, confirming that the object of the declaration complies with the relevant Union harmonisation legislation.

Authorised Representative:

Full name and identification of the person responsible for product quality and compliance with standards on behalf of the manufacturer:

Date: March 28, 2025

Place: Haarlem, The Netherlands



Ing. Maarten Engels
Managing Director
Visual Productions BV

SUPPLIER'S DECLARATION OF CONFORMITY (No. 2023/202-06)

This Declaration of Conformity is issued under the sole responsibility of the manufacturer

MANUFACTURER

Company name	Visual Productions BV
Full address	Izaak Enschedeweg 38A 2031 CR Haarlem
Country	The Netherlands

RESPONSIBLE PARTY – U.S. CONTACT INFORMATION

Company name	ACT Entertainment
Full address	3581 Larch Lane Jackson, MO 63755
Country	United States of America
Contact details (Phone)	+1 800 255 9822

DESCRIPTION AND IDENTIFICATION OF THE EQUIPMENT

Generic denomination	Lighting control system
Function/intended use	DMX/RDM splitter/booster
Models	RdmSplitter(Terminal), RdmSplitter (RJ-45), DmxMerger, RdmRelay

The object of the Declaration described above is in conformity with all relevant provisions of:

FCC (47 CFR Part 15B)

Supplementary information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.



Signed for and on behalf of:

Place of issue: Haarlem
The Netherlands

Identity: Maarten Engels
Function: Managing Director

Date of issue: 13-06-2023

Signature:

A handwritten signature in blue ink, appearing to read 'Maarten Engels', with a horizontal line underneath.

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