

DMX512-A Splitter/Repeater

User Manual

Issue: April 2020



Overview

The DMX_{512-A} splitter/repeater provides a DMX_{512-A} input along with a passive loop through connection and four optically isolated DMX_{512-A} outputs. Each of the four outputs can drive 32 DMX_{512-A} devices. Please note that the maximum number of devices can vary depending on the quality of the receivers.

The splitter also incorporates an end-of-line termination resistor which is selectable via an internal dip switch together with the ability to connect or disconnect the signal ground.

Input Voltage:	9V to 40V DC
Power:	4.5W max
Operating Temperature:	0°C to +70°C
Data Protocol:	DMX _{512-A}
Terminals	
Inputs:	1 x DMX _{512-A} input & 1x DMX _{512-A} through
Outputs:	4 x DMX _{512-A} outputs
Physical Dimensions	
Height:	105mm
Width:	71mm
Depth:	59mm
EMC Compliance:	C-Tick, CE
DMX Protection (IN)	+60Vdc, +-15kV HBM ESD

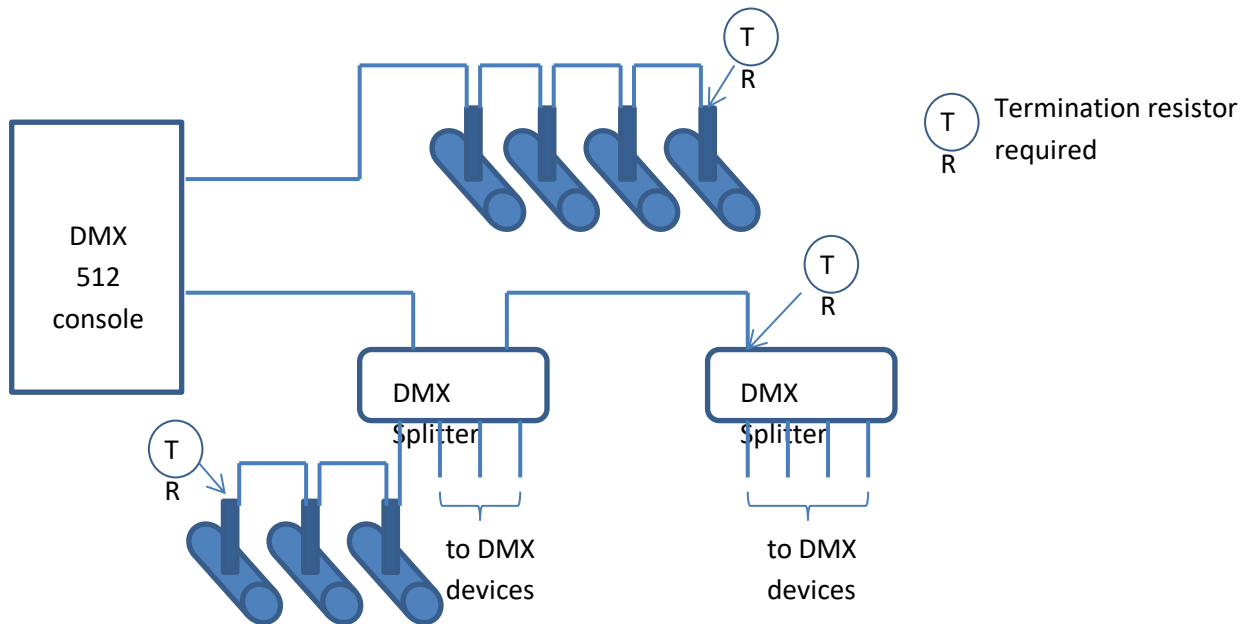
Splitter Pin Out



Termination (for End of Line)

In order to reduce the possibility of data errors occurring in the DMX_{512-A} system, the device at the end of the DMX_{512-A} line should have a termination resistor fitted between the two data lines. The DMX_{512-A} splitter/repeater has an inbuilt termination resistor which can be selected via dip switch 1 inside the splitter/repeater unit.

The figure below is an example of a DMX_{512-A} system showing where termination resistors required.



Signal Ground Isolation

Dip switch 2 allows the signal ground to be connected or disconnected from the splitter/repeaters ground if required (refer to the DMX_{512-A} standard and the technical data provided with your DMX_{512-A} compliant devices by their respective manufacturers).

Indicating LEDs

1. DATA LED

When valid DMX_{512-A} is present, the data LED will be ON. When DMX_{512-A} is disconnected the DATA LED will turn off. In normal operation, while data is being transmitted to the splitter, the LED intensity will vary with the values of DMX being received. Note that when DMX_{512-A} unexpectedly drops out (for example the DMX_{512-A} cable is removed from the Splitter terminals while the splitter is on) the DMX_{512-A} transceiver may go into a high impedance mode in which case the DATA LED may not correctly indicate status which can be corrected by rebooting the splitter.

2. DC LED

When 9-40VDC is present, the DC status LED will be ON.

Additional EMC Protection

Optional additional EMC Protection is available up to the following, on all lines.

- ESD, IEC61000-4-2 +-30kV contact, +- 30kV air
- EFT, IEC61000-4-4, 50A (5/50ns)
- Lighting, IEC61000-4-5, 19A (t = 8/20us)

Other Products

Other Control Freak products made by Creative Lighting include:

DIDIO DALI/DMX512/IR/RS232 Power supplies, translators, interfaces, Scene Controllers, Room Controllers and Sequencers

SLAMMO DALI/DMX512/DSI/RDM LED dimmers

LIDA DALI AC controllers for switched loads, relays, fans and HID

ADDICT DALI/DMX512/RDM tools, Universal Lead sets and accessories

SHOWPRO DMX512 controllers

UBi DALI test and distribution for external DALI power supplies

REGISTRATION – DMX512-A SPLITTER REPEATER

Please complete this form and fax to 07 32828700 to register for manufacturer's warranty.

Name of project _____

Location of project _____

Brief description of project _____

Purchaser Name _____

Purchaser Company _____

Contact Details – Email _____

Contact Details – Telephone _____

Date of Purchase _____

Purchased from _____

Warranty

Congratulations on acquiring this genuine Control Freak® product ("the goods") which is guaranteed to the purchaser for a period of 24 months from the date of original purchase from Creative Lighting and its authorised agents and resellers. Under normal use and for applications for which this product was designed, this Control Freak® product and all component electronics are warranted to be free of defects in material and workmanship. In the unlikely event that the goods prove to be defective, Creative Lighting will decide either to repair or to replace the defective components. Before that can happen, the goods must first be returned to Creative Lighting at the purchaser's cost.

Australia only: If we determine that the goods are defective, we will not only repair or replace the defective components at no cost to the purchaser; we will also pay the cost to return them to the purchaser by our standard freight method, with any cost to reinstall the goods borne by the purchaser.

This Guarantee specifically excludes faults which arise as a result of alteration, tampering, misuse, abuse, accident, vandalism, negligence, improper installation, or the use of other manufacturer's products in combination with the goods except where such use of other manufacturers' goods is authorised by us. All other warranties inclusive of any warranties of merchantability or fitness for any particular purpose whether expressed or implied are hereby expressly negated to the fullest extent permissible by law. Under no circumstances will Creative Lighting be liable for reinstallation or freight except in the case of freight within Australia. In no event shall the manufacturer be liable for consequential damages. This Guarantee constitutes the sole and exclusive remedy to the purchaser for proven defects.