

# LR512



USB & WiFi - DMX controller



## Overview

The LR512 DMX controller can control a wide variety of different DMX systems- from RGB/ RGBW to more advanced moving and color mixing fixtures, as well as other stage effects.

Directly connect to the Light Rider app via an Apple iPad or Android tablet with no additional requirements. The controller supports up to 1024 channels when upgraded and used with compatible software / apps.

SUT (Smart Upgrade Technology) enables upgrades such as compatibility with additional software and apps when purchased at [store.dmxsoft.com](http://store.dmxsoft.com).

[www.lightrider.com](http://www.lightrider.com)

## Key Features

- Light Rider app connectivity for Android tablet and Apple iPad.
- Tablet app designed for live use to create an automated light show.
- USB & WiFi connectivity for programming/control
- Up to 2 DMX512 universes in live and stand alone (Light Rider app only supports 1 DMX512 universe)
- DMX Stand Alone controller for computer software
- Stand Alone mode with 99 scenes
- 100KB flash memory for storing stand alone programs
- Network communication. Control lighting remotely
- SUT Technology allows the device to be used with other Nicolaudie Group software via an online upgrade

**Note: feature compatibility depends on which application is being used with the controller and which SUT add-ons have been purchased**

## Technical Data

<b>Input Power</b>	5-5.5V DC 0.6A
<b>Output Protocol</b>	DMX512 (x2)
<b>Programmability</b>	Android Tablet and Apple iPad (for Light Rider app). PC and Mac (for Hardware Manager / computer software). See website for specification requirements.
<b>Available Colors</b>	Orange
<b>Connections</b>	USB-C, 2x XLR3
<b>Memory</b>	100KB flash
<b>Environment</b>	IP20. 0°C - 50°C
<b>Buttons</b>	2 buttons to change scenes (next and previous)
<b>Dimensions</b>	95x85x40mm 130g
<b>Packaging</b>	138x138x65mm 350g
<b>Standards</b>	Low voltage, EMC, RED and RoHS

## Optional Accessories

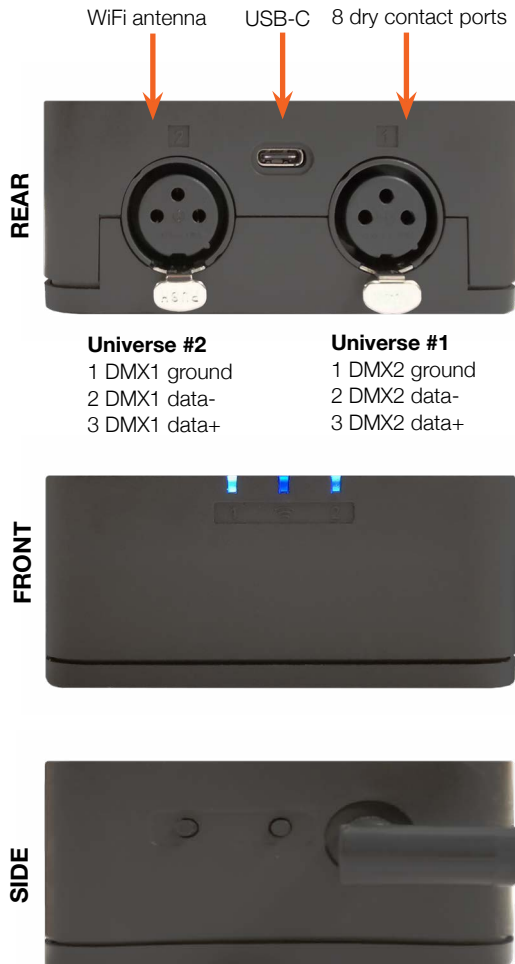
**POWER1\_EU/UK/US** 5V ACDC power supply with EU/UK/US plug

# CONNECTIVITY

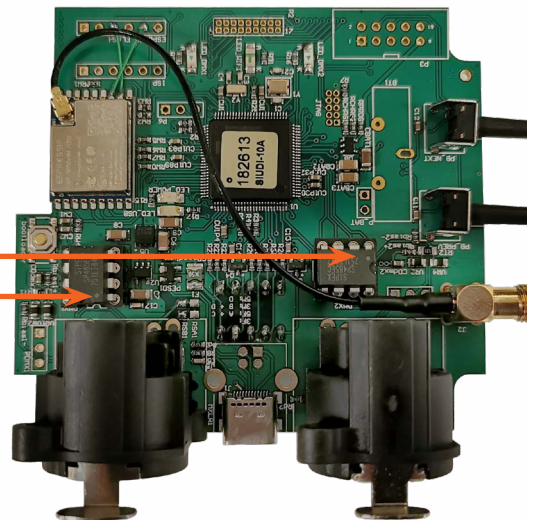
## Live use with a computer



## Light Rider app live use with a tablet



Universe 2 DMX Chip  
Universe 1 DMX Chip  
SP485ECP-L  
MAX485CPA+  
ADM485JNZ



# Setting up the Controller

## Network Control

The controller can be connected directly from a computer/ smartphone/tablet (Access Point Mode), or it can be connected to an existing local network (Client Mode). The controller will work in Access Point (AP) Mode by default. See *Programming the Controller* for further information

- In AP Mode, the default network name is **Smart DMX Interface XXXXXX** where X is the serial number. The default password is **smartdmx0000**
- In Client Mode, the controller is set, by default, to get an IP address from the router via DHCP. If the network is not working with DHCP, a manual IP address and subnet mask can be set. If the network has a firewall enabled, allow port 2430

## Upgrades

The controller can be upgraded at [store.dmxsoft.com](http://store.dmxsoft.com). Hardware features may be unlocked and software upgrades may be purchased without the need to return the controller.

## UDP Triggering

The controller can be connected to an existing automation system over a network and triggered via UDP packets on port 2430. Refer to the remote protocol document for more information.

## iPhone/iPad/Android Control

### Easy Remote Pro

Create an entirely customized remote controller for your tablet or smartphone. Easy Remote is a powerful and intuitive app allowing you to easily add buttons, faders, color wheels and more. Connect to a WiFi network and the app will find all compatible devices. Available for iOS and Android.

### Arcolis

The Arcolis application is a comprehensive tool allowing you to directly control and re-program the controller from your smartphone or tablet. This is a simple application which can be used by just about everyone in any situation. Mobile, easy to use and powerful, Arcolis is the ideal controller for dimming or switching traditional, LED and RGB color mixing DMX lighting fixtures. Program static and dynamic lighting scenes and effects. Currently available for Android only.

### Light Rider

Designed for live use, moving and color effects can be created automatically to create an automated light show.

## Programming the Controller

The controller can be programmed from a PC, Mac, Tablet or Smartphone using the software available on our website. Refer to the corresponding software manual for more information. The firmware can be updated using the Hardware Manager which is included with the programming software and also available on the App Store.

### Computer Software (Windows/Mac) - Single Zone

<http://www.store.dmxsoft.com>

Purchase licences for additional Nicolaudie Group computer DMX software

### Hardware Manager (Windows/Mac/iPhone/iPad) - Firmware, clock..

<https://storage.googleapis.com/nicolaudie-eu-tools/Release/HardwareManager.exe>

<https://storage.googleapis.com/nicolaudie-eu-tools/Release/HardwareManager.dmg>

The iPhone/iPad version can be found on the app store

## Service

Serviceable parts include:

- DMX Chips - used to drive the DMX (see p2.)

# Troubleshooting

## What do the LED's on the controller signify?

- Top LCD; Light Blue : Device status:
  - 01 : Playback of scene 01 from Stand Aloine memory
  - EA : No scenes stored in Stand Aloine memory for playback
  - LI : Live, means the device is connected to an app or software
  - 88 : The device is in bootloader mode
- Front #1; Light Blue : Flickering indicates DMX activity in port 1
- Front WiFi; Dark Blue :
  - ON : Connected but no data transmission
  - Flickering : WiFi activity
  - OFF : no WiFi connection
- Front #2; Light Blue : Flickering indicates DMX activity in port 2
- Beneath, Inside; Yellow : The device is receiving power
- Beneath, Inside; Green : USB activity

## 'LI' is showing on the display

The controller is in bootloader mode. This is a special 'startup mode' which is run before the main firmware loads. Try re-writing the firmware with the latest hardware manager

## '88' is showing on the display

This stands for 'LIVE' mode and means that the controller is connected and running live with a computer, tablet or smartphone.

## 'EA' is displayed

There is no show on the device.

## The controller is not detected by the computer

- Be sure that the latest software version is installed from our website
- Connect by USB and open the Hardware Manager (found in the software directory). If it is detected here, try to update the firmware. If it is not detected, try the method below.
- Bootloader Mode  
Sometimes the firmware update may fail and the device may not be recognised by the computer. Starting the controller in 'Bootloader' mode forces the controller to start at a lower level and in some cases allows the controller to be detected and the firmware to be written. To force a firmware update in Bootloader Mode :
  1. Power off your interface
  2. Start HardwareManager on your computer
  3. Press and hold the dimmer button (marked 'PB\_ZONE" on PCB) and connect the USB cable at the same time. If successful, your interface will appear in HardwareManager with the suffix \_BL.
  4. Update your firmware

## The lights are not responding

- Check the DMX +, - and GND are connected correctly
- Check that the driver or lighting fixture is in DMX mode
- Be sure that the DMX address has been set correctly
- Check there are no more than 32 devices in the chain
- Check that the red DMX LED is flickering. There's one by each XLR
- Connect with the computer and open Hardware Manager (found in the software directory). Open the DMX Input/Output tab and move the faders. If your fixtures respond here, it is possibly a problem with the show file