

## DMX/RDM Setup Tool

CD-MT512

<b>Client</b>	
<b>Project</b>	
<b>Order Code</b>	
<b>QTY</b>	





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## Thank you for purchasing the Colordreamer DMX/RDM Addressing Tool!

Our manual will describe the installation and mounting of the product as well as description of how to use

it. Please read and understand this manual in its entirety before using the product.

### Package Contents:

#### **1XDMX Addressing Tool**

**Product Warranty is void if product is not installed as per installation instructions and in compliance with all local and provincial codes.**

### SAFETY RECOMMENDATIONS AND WARNINGS

Only use this device in dry environments (indoor use)

Do not make modifications or alter the product

Keep away from flammable material.

Do not use chemicals or abrasives to clean the device as this many voids the warranty.

Ensure installation complies with local electrical rules and regulations.

Do not connect or disconnect the device while the power is connected.

Connectors are to be kept clean and dry at all times.

Input Voltage range 12-24VDC

Power off the device during service or when not in use.

Twisted pair cable is recommended for data transmission

Avoid unwanted voltage on the DMX cables at all times.

Do not remove any parts from the unit including the plug ground pin or connect to an ungrounded circuit.

To supply this unit with power, first connect the provided power cord to the unit and then to a suitable power outlet.

## Product Overview

The CD-MT512 is a powerful DMX/RDM Addressing and test tool. It allows for DMX Addressing and Color testing of Lighting products. This Tool is a must for anyone involved with DMX512 installation.

Compatible with DMX512(1990) protocol and return-to-zero code protocol

### Supports

SM18522PH/SM18522PS/SM18512P/SM18512PS/SM17500P/UCS512H4LB/UCS512DH/UCS512C1 /UCS512C7/UCS512C8/UCS512C4/UCS512CN. Additional IC types will be supported with future firmware updates.

We offer regular address writing, repeated address writing, and unified address writing functions. Regular address writing sets one IC to one pixel; repeated address writing sets several ICs to one pixel; and unified address writing sets all ICs in a signal loop to one pixel. After successful address writing, we offer manual and automatic point-checking to verify correct address writing.

Supports color testing and point-checking verification for zero-code ICs.

Customizable default display effect upon power-on of DMX IC OUT R/G/B/W ports

Change lamp power by altering the gain current of DMX IC OUT R/G/B/W

Set the starting address of the first lamp; other lamps in series signal loops can automatically obtain the address.

Simple color control of lighting fixtures can be performed to check their functionality, such as overall RGBW gradient and color adjustment of each RGBW channel.

Optimized stability of large-scale RDM device search

Added 180s timeout protection to RDM discovery single round to prevent infinite blocking during single-round scans

After RDM search completion, the device list is sorted in ascending order by UID, ensuring stable list order

Only the currently selected device's Identify function is lit during search/page turning; the rest are automatically disabled

- Automatically exits main scan and rescan after searching 128 devices

Supports online firmware upgrades to unlock new features without returning to the factory for program updates.

## Product Specification

Models	CD-MT512
<b>Electrical</b>	
Input Voltage	12-24VDC
USB Port	USB Type C, cable not included
Power Consumption	2W
Display	4.0-inch (diagonal) all-screen LCD Multi-Touch display
<b>Control</b>	
DMX Outputs	512 DMX Channels
Supported DMX IC	SM18522PH/SM18522PS/SM18512P/SM18512PS/SM17500P/UCS512H4LB/UCS512DH/UCS512C1/UCS512C7/UCS512C8/UCS512C4/UCS512CN/CD
RZ Code Outputs	SPI
Supported RZ Code IC	SM16703,SM16704,SM16824,SM18703/ UCS2903,UCS2904B,UCS8903,UCS8904
IC Current Gain	Support
RDM Setup	Support
<b>Physical</b>	
Housing Material	Aluminium
Finish Color	Black
Connector	Removable multi-pin terminal blocks
Dimensions(LXWxH)	114X71.2X24.8mm
Weight	200g
<b>Environment</b>	
Operating Temperature	-10°C to +50°C
Storage Temperature	-20°C to +70°C
Humidity	0-80% non-condensing



IP Rating	Dry, Indoor IP20
Certification	CE

## Description of Status LED:

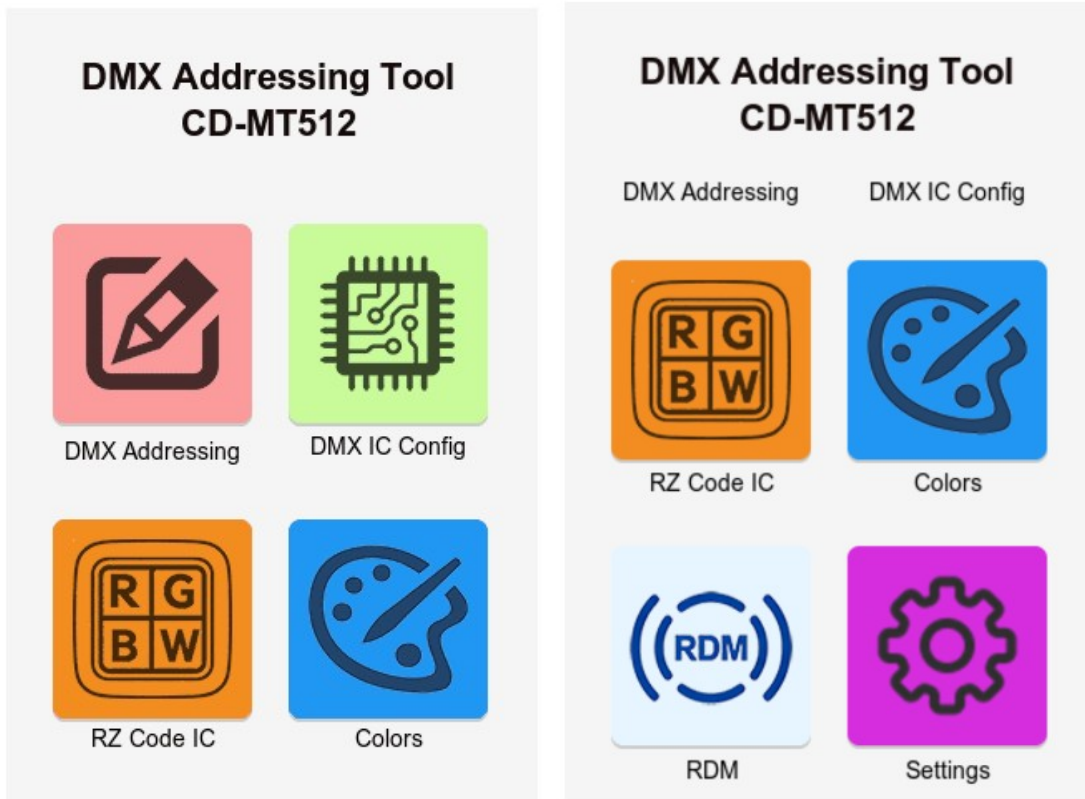
### Status LED for Power

Status	Description
Powered Off	Power cable not connected. The device has no power
Permanently Red:	Connected to Power. Power is on.

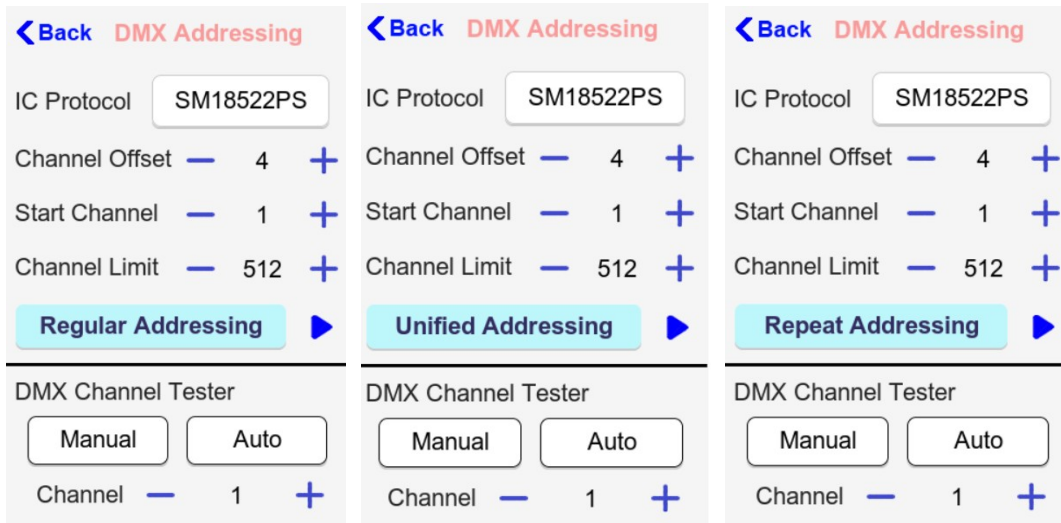
## User Guide

## Home Screen

The CD-MT512 has a total of 6 icons. Clicking on different icons will take you to different function settings.



## DMX Addressing



The image shows three side-by-side screenshots of the DMX Addressing interface. Each screenshot has a title bar with a back arrow and the text 'DMX Addressing'.  
 - The first screenshot shows 'Regular Addressing'. It has an 'IC Protocol' dropdown set to 'SM18522PS'. Below it are three sliders: 'Channel Offset' set to 4, 'Start Channel' set to 1, and 'Channel Limit' set to 512. At the bottom is a blue button labeled 'Regular Addressing' with a right-pointing arrow.  
 - The second screenshot shows 'Unified Addressing'. It has the same 'IC Protocol' dropdown set to 'SM18522PS' and the same three sliders. At the bottom is a blue button labeled 'Unified Addressing' with a right-pointing arrow.  
 - The third screenshot shows 'Repeat Addressing'. It has the same 'IC Protocol' dropdown set to 'SM18522PS' and the same three sliders. At the bottom is a blue button labeled 'Repeat Addressing' with a right-pointing arrow.  
 Below each of these three panels is a 'DMX Channel Tester' section. It contains two buttons: 'Manual' and 'Auto'. Below these is a 'Channel' slider set to 1.

You can set and verify the address of your DMX lighting fixture by clicking the DMX Addressing icon.

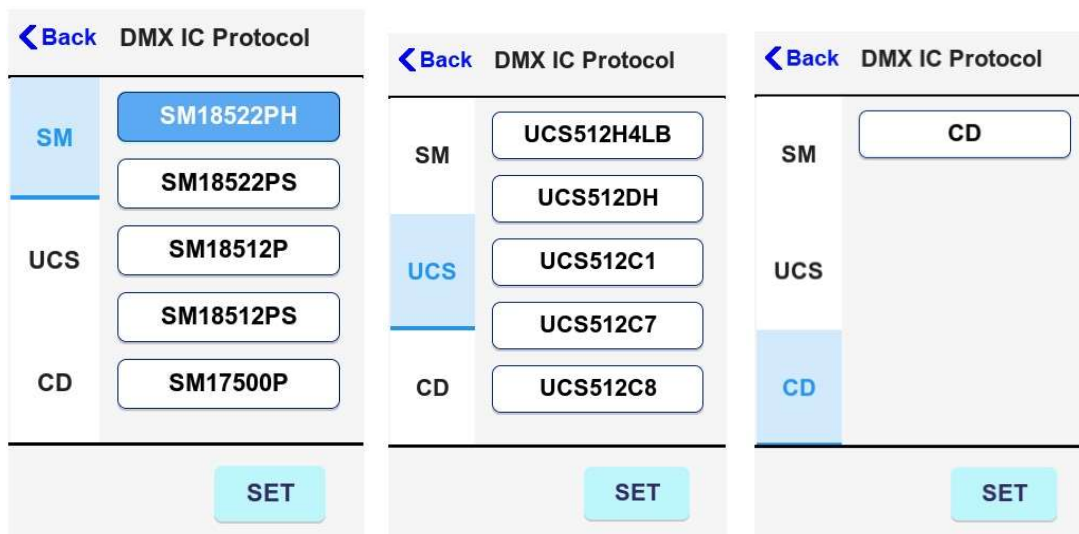
**1: The IC protocol can be SM/UCS or CD.**

**SM:** SM18522PH, SM18522PS, SM18512P, SM18512PS, SM17500P

**UCS:** UCS512H4LB, UCS512DH, UCS512C1, UCS512C7, UCS512C8, UCS512C4 and UCS512CN

**CD:** CD

**If you cannot find your currently used IC in our supported IC list, please contact our sales team and provide the IC information. We will update the firmware to meet your needs as much as possible.**



The image shows three side-by-side screenshots of the 'DMX IC Protocol' selection interface. Each screenshot has a title bar with a back arrow and the text 'DMX IC Protocol'.  
 - The first screenshot shows the 'SM' category selected. It lists five protocols: SM18522PH (highlighted in blue), SM18522PS, SM18512P, SM18512PS, and SM17500P. A blue 'SET' button is at the bottom.  
 - The second screenshot shows the 'UCS' category selected. It lists five protocols: UCS512H4LB, UCS512DH, UCS512C1, UCS512C7, and UCS512C8. A blue 'SET' button is at the bottom.  
 - The third screenshot shows the 'CD' category selected. It lists one protocol: CD. A blue 'SET' button is at the bottom.

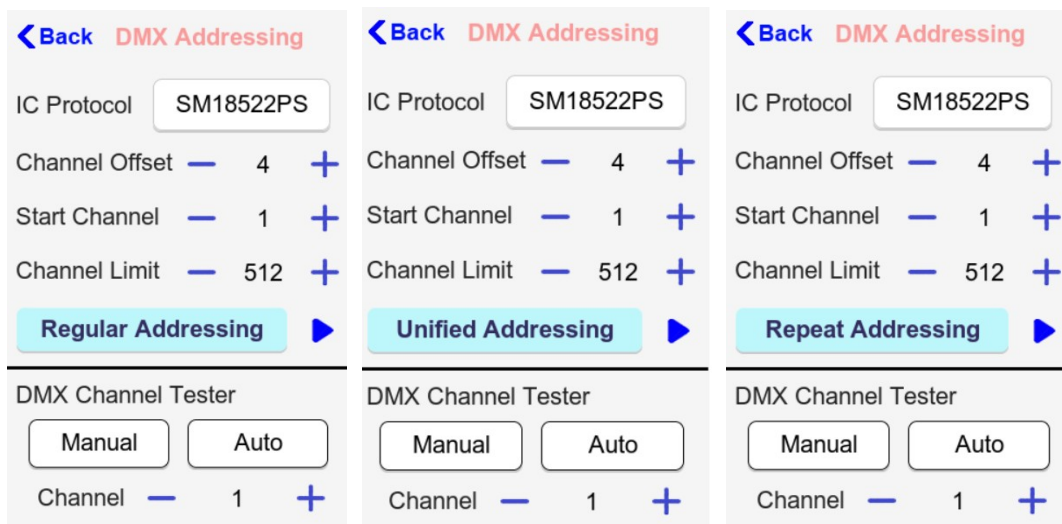
2: You can set the CHANNEL OFFSET to 1, 2, 3, or 4. For a single-color lamp, OFFSET is 1. For a dual-color temperature lamp, OFFSET is 2. For an RGB lamp, OFFSET is 3. For an RGBW lamp, OFFSET is 4.

3: "Start Channel": Default is 1

You can set the starting address of a signal loop to 1, and the addresses of the remaining lights will be automatically assigned.

4: "Channel Limit": max 512

5: We offer regular address writing, repeated address writing, and unified address writing functions.



Regular address writing sets one IC to one pixel; repeated address writing sets several ICs to one pixel; and unified address writing sets all ICs in a signal loop to one pixel.

After successful address writing, we offer manual and automatic point-checking to verify correct address writing.

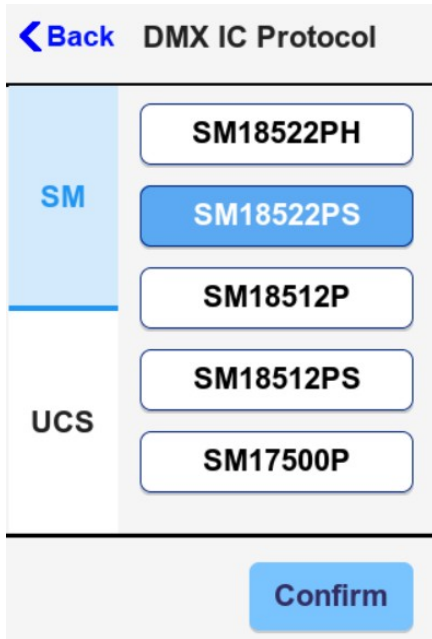
Example:

For DMX flexible strip.10Pixels per meter, RGB Color, if you set start address 1, then address will be 1, 2, 3, 4, 5, 6.....automatically

## DMX IC Configuration

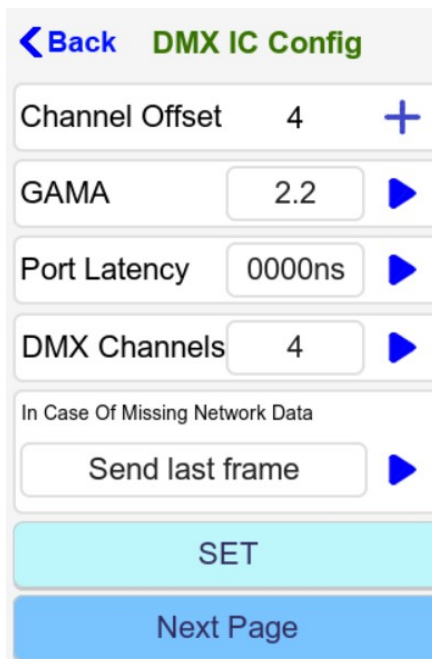
You can configure certain IC functions, such as power-on effects and current settings for the IC's RGBW channels, by clicking the IC configuration icon.

choose the IC Protocol what you need: SM/UCS/CD series



The screenshot shows a mobile application interface for selecting a DMX IC protocol. At the top, there is a header with a back arrow and the text "DMX IC Protocol". Below this, there are two main categories: "SM" and "UCS". Under the "SM" category, there are three buttons: "SM18522PH", "SM18522PS" (which is highlighted in blue), and "SM18512P". Under the "UCS" category, there are two buttons: "SM18512PS" and "SM17500P". At the bottom of the screen, there is a large blue "Confirm" button.

You can set the CHANNEL OFFSET to 1, 2, 3, or 4. For a single-color lamp, OFFSET is 1. For a dual-color temperature lamp, OFFSET is 2. For an RGB lamp, OFFSET is 3. For an RGBW lamp, OFFSET is 4.



The screenshot shows a mobile application interface for configuring DMX IC settings. At the top, there is a header with a back arrow and the text "DMX IC Config". Below this, there are several settings: "Channel Offset" set to 4 with a plus sign button; "GAMA" set to 2.2 with a play button; "Port Latency" set to 0000ns with a play button; "DMX Channels" set to 4 with a play button; and "In Case Of Missing Network Data" with a "Send last frame" button and a play button. At the bottom, there are two large buttons: a light blue "SET" button and a blue "Next Page" button.

You can set “Send last frame” / “Send a customized color” in case of missing network data

<p><a href="#">← Back</a> <b>DMX IC Config</b></p> <p>Channel Offset 4 <input data-bbox="544 367 587 405" type="button" value="+"/></p> <p>GAMA <input type="text" value="2.2"/> <input data-bbox="544 450 587 488" type="button" value="▶"/></p> <p>Port Latency <input type="text" value="0000ns"/> <input data-bbox="544 533 587 571" type="button" value="▶"/></p> <p>DMX Channels <input type="text" value="4"/> <input data-bbox="544 616 587 654" type="button" value="▶"/></p> <p>In Case Of Missing Network Data</p> <p><input type="text" value="Send last frame"/> <input data-bbox="544 741 587 779" type="button" value="▶"/></p> <p><input data-bbox="161 808 603 880" type="button" value="SET"/></p> <p><input data-bbox="161 891 603 958" type="button" value="Next Page"/></p>	<p><a href="#">← Back</a> <b>DMX IC Config</b></p> <p>Channel Offset 4 <input data-bbox="1002 367 1045 405" type="button" value="+"/></p> <p>GAMA <input type="text" value="2.2"/> <input data-bbox="1002 450 1045 488" type="button" value="▶"/></p> <p>Port Latency <input type="text" value="0000ns"/> <input data-bbox="1002 533 1045 571" type="button" value="▶"/></p> <p>DMX Channels <input type="text" value="4"/> <input data-bbox="1002 616 1045 654" type="button" value="▶"/></p> <p>In Case Of Missing Network Data</p> <p><input type="text" value="Send a customized color"/> <input data-bbox="1002 741 1045 779" type="button" value="▶"/></p> <p><input data-bbox="619 808 1061 880" type="button" value="Send a customized color"/></p> <p><input data-bbox="619 891 1061 958" type="button" value="Next Page"/></p>
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[← Back](#)

**Send a customized color**

R

G

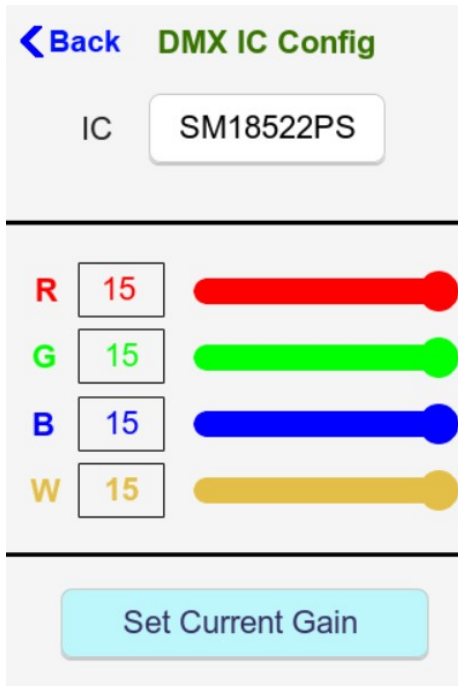
B

W

Set the default power-on effect by changing the values of each RGBW channel.

Clicking the next page allows you to set the drive current for each channel of the IC RGBW.

If one meter DMX LED strip with RGBW fully lit is 16W, you can adjust the current gain values to lower the wattage of the LED strip according to the table in the IC data sheet.



The image shows a software interface for configuring DMX IC settings. At the top, there is a back arrow and the title "DMX IC Config". Below this, the IC model "SM18522PS" is displayed in a text box. The main section contains four rows, each representing a color channel: Red (R), Green (G), Blue (B), and White (W). Each row has a numerical input field set to "15" and a corresponding colored slider bar. At the bottom, there is a light blue button labeled "Set Current Gain".

Channel	Current Gain
R	15
G	15
B	15
W	15

## RZ Code IC Config

[< Back](#) **RZ Code IC Config**

IC Protocol

Channel Limit  512

Gama Value  2.2

Data Reverse OFF

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RZCode Channel Tester

Channel  1

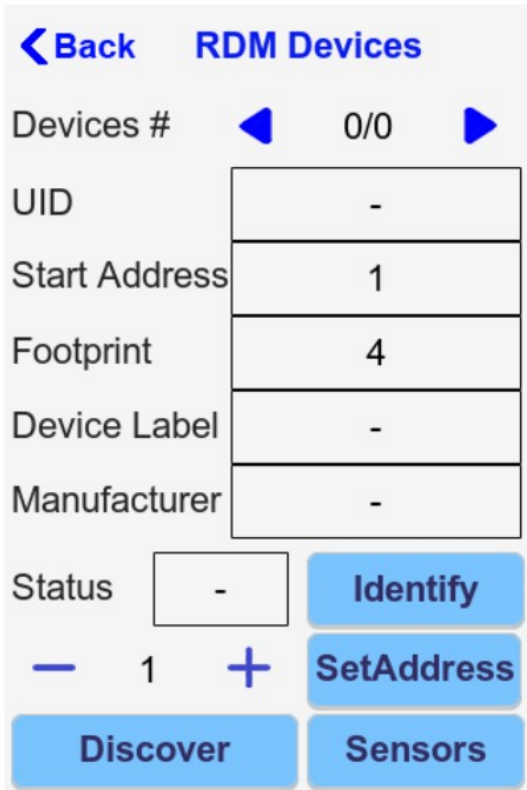
Touch “**RZ Code IC**”, choose the IC you need, IC Type:

SM: SM16703, SM16704, SM16824, SM18703

UCS: UCS2903, UCS2904B, UCS8903, UCS8904

**RZ Code only support Channel Testing**

## RDM



Device Discovery: First, send the "Discover" command through the RDM interface. The CD-MT512 will automatically search for and list all RDM lights connected to the DMX encoder.

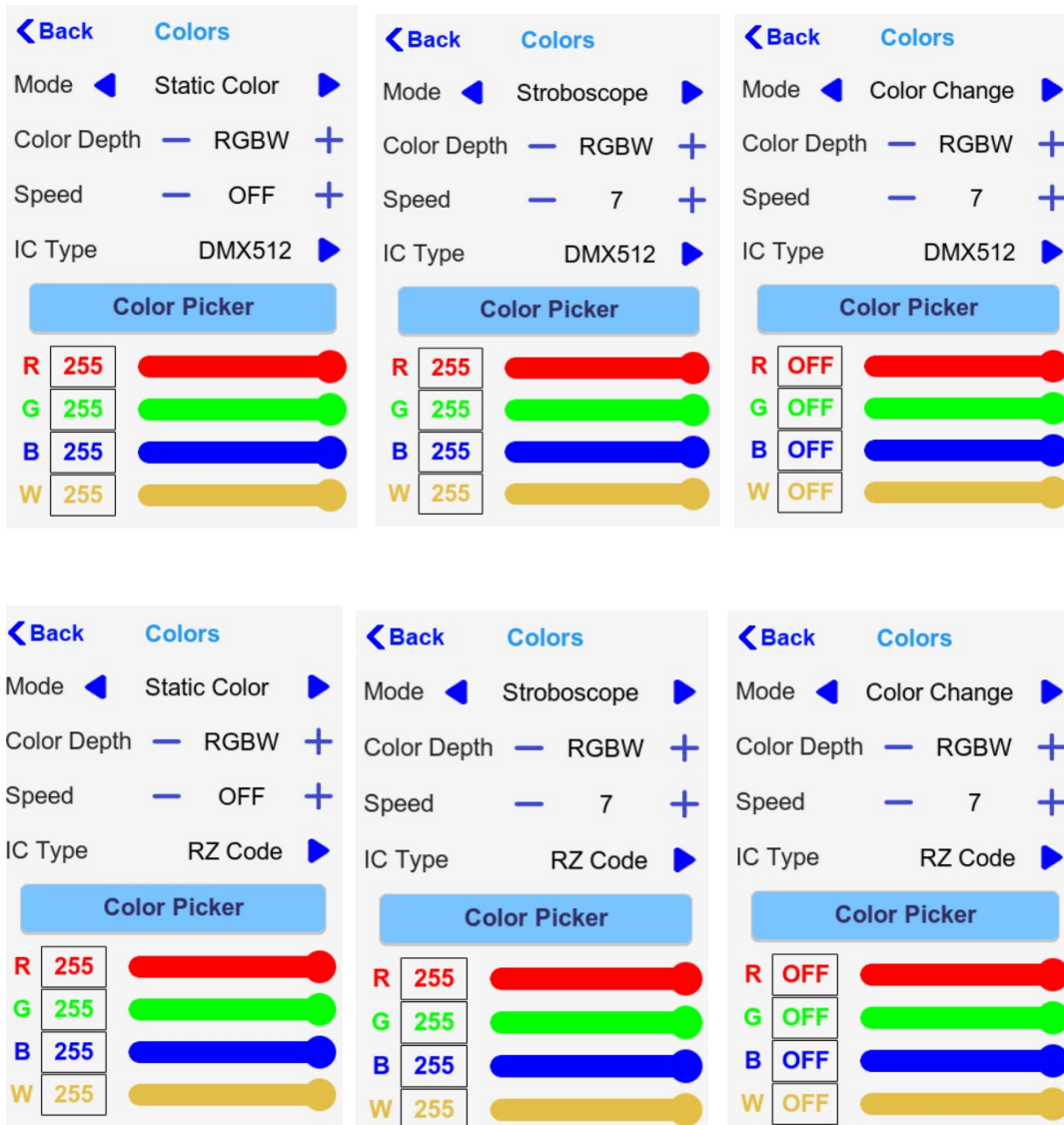
If you have connected 80 lights, Devices# will display 1/80, 2/80...80/80. The more lights connected, the longer the search time. Use the left and right arrows to select the lights you want to configure.

Use the Identify function to identify the selected lights. For example, if you select to configure the light 1/80, clicking the Identify button will show a light breathing and flashing, indicating its status is YES. Clicking Identify again will stop the light breathing, and the status will be NO.

You can also view the RDM light's manufacturer information, device label, and sensor information, such as temperature or voltage monitoring.

After identifying the lights, use the SET Address function to change the light's starting address.

## Color Test



When your project control system is not yet ready, you can use the Color Test function of the CD-MT512 device to perform a simple color test on the lights to check if the lights are functioning properly.

Mode: “Static Color” / “Stroboscope” / “Color Change”

Choose IC Type of the led fixtures: DMX512 / RZ Code

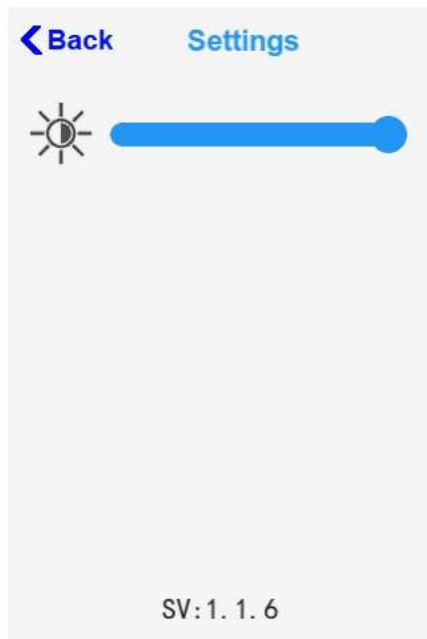
Then touch “Color Picker” to set Color :

The color values for each RGBW channel is from 0 to 255.

0 is the lowest value.

255 is the highest value.

## Settings



you can adjust the brightness of screen.

You can see the firmware version of your device. You can download firmware upgrade software and the latest firmware package from the official website to unlock new features.

## Firmware Upgrade Guide

## for CD-MT512 DMX Addressing Tool

### Step 1:

Connect the Addressing tool to the computer via USB cable.

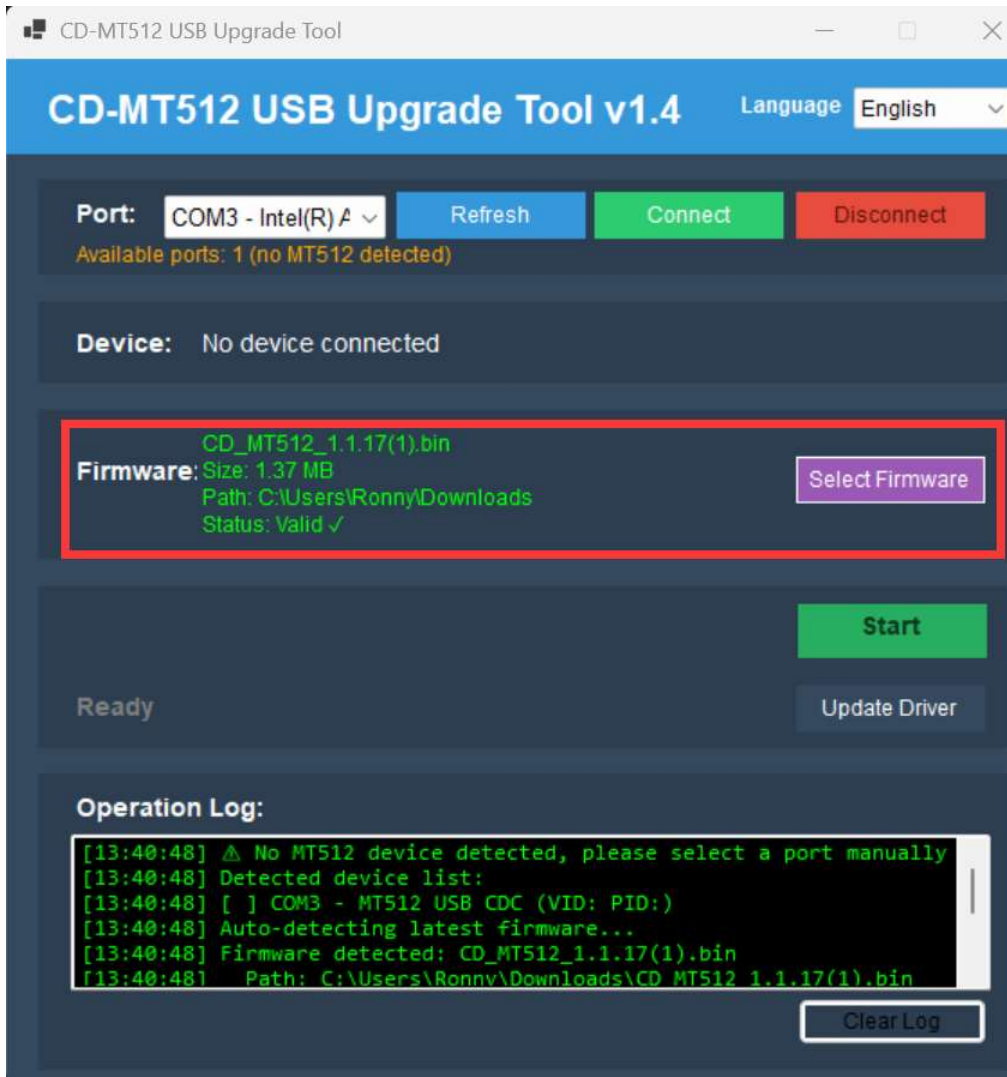
### Step 2:

名称	修改日期	类型	大小
今天			
Readme	2026/6/17 13:32	文本文档	0 KB
今年的早些时候			
MT512_DFU_TOOL.dll	2026/4/26 0:08	应用程序扩展	136 KB
<b>MT512_DFU_TOOL</b>	2026/4/26 0:08	<b>应用程序</b>	136 KB
MT512_DFU_TOOL.pdb	2026/4/26 0:08	PDB 文件	51 KB
MT512_DFU_TOOL.deps.json	2026/4/13 21:27	JSON 文件	17 KB
MT512_DFU_TOOL.runtimeconfig.json	2026/4/13 21:27	JSON 文件	1 KB
esptool	2026/3/8 22:46	应用程序	12,385 KB
config.json	2026/2/1 19:57	JSON 文件	1 KB
firmwarefile	2026/4/26 0:03	文件夹	
runtimes	2026/4/26 0:01	文件夹	
很久以前			
System.IO.Ports.dll	2025/11/19 23:28	应用程序扩展	36 KB
System.Management.dll	2025/10/24 8:20	应用程序扩展	72 KB
System.CodeDom.dll	2025/10/24 8:14	应用程序扩展	180 KB

Run the program 'MT512 DFU TOOL' as administrator

### Step 3:

Select the firmware you need to update.



## Step 4:

Klik "Update driver" as below:



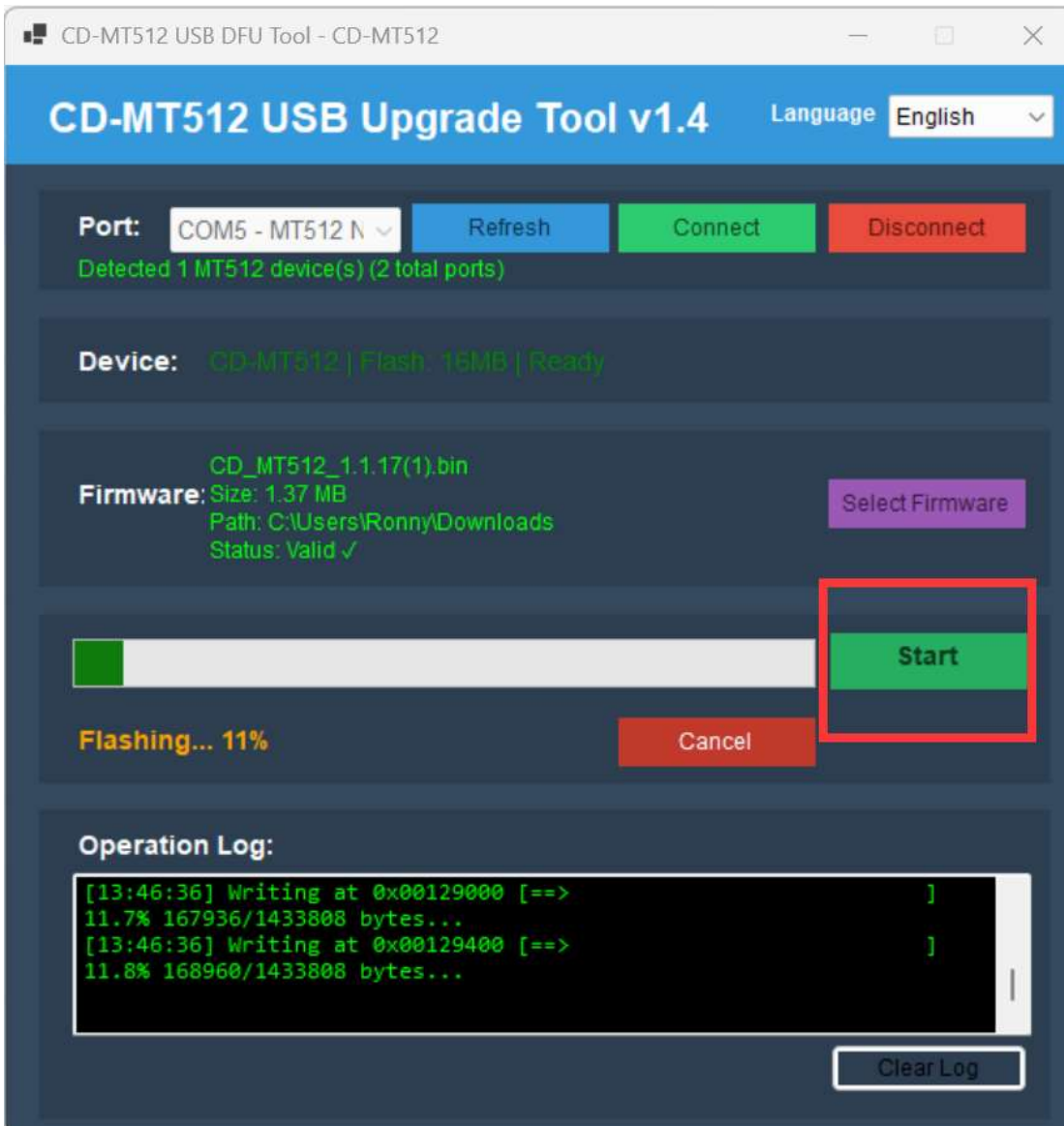
## Step 5:

Do connection between CD-MT512 addressing tool to your PC



## Step 6:

Click "Start" to Start Upgrade



## Step 7:

When the interface displays as shown in the figure, the update is completed.

