ZENOPIX
smart solutions

Your Solution Partner in Lighting Control

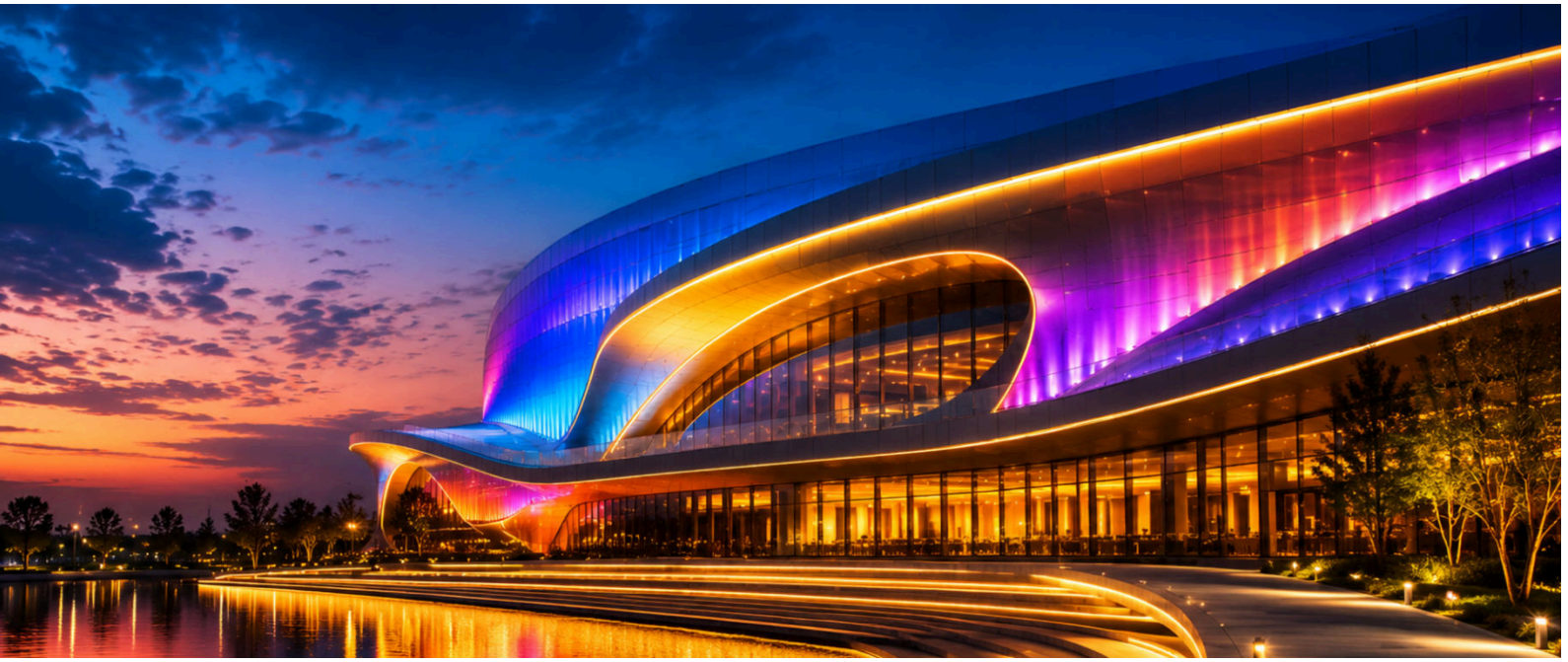
RDM/DMX ADDRESS WRITER

USER MANUAL



Version 3 / October 2026

zenopix.com



Thank you for choosing Zenopix Address Writer.

Please read this booklet and the product user manual before using the product. You can access the user manual on our website. If you experience any technical issues, you can contact our company and get technical support through the information below.

Company Information and Contact Address

ZENOPIX LIMITED COMPANY

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Zenopix Address Writer is a registered product of Zenopix® Electronics Limited Company.

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Safe Use

Use the device only in dry environments (enclosed spaces). The device's IP rating is IP20. Do not use the device in humid environments and avoid contact with water or other liquids. If you will not use the device for a long time, turn it off. Galvanic isolation is always recommended. Do not remove any parts from the unit or connect it to an ungrounded circuit. Do not connect the unit to LEDs that are on. Connect the unit only to LEDs and controllers that were initially turned off. There are no parts inside or outside the interface that can be repaired by the user. Repair service is solely the responsibility of the manufacturer. If the interface appears defective, please contact your dealer. After the warranty period expires, if possible, you may contact your supplier or manufacturer for repair of the unit for an individual service fee. This device must be used by professionals. The device is not designed to be operated by non-professionals or children.

Warranty Information

The Zenopix Address Writer comes with a 2-year standard manufacturer's warranty. You can find detailed information in the product's warranty certificate or on our website.

Box Contents

1 × Zenopix Address Writer

1 × Terminal block accessories bag

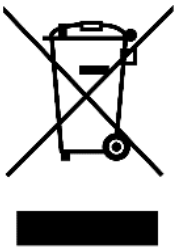
1 × Technical document and user manual

1 × Warranty certificate

1 x Device test report

NOTE: After opening the package, check the contents and the status of the interface! If anything is missing or damaged, contact your supplier. Do not use the device if it appears damaged!

Information About Human and Environmental Health



If the information in the User Manual is fully followed, this device poses no risk to human health or the environment. The device must not be disposed of with household waste; electrical and electronic equipment must be handed over to recycling centers. It must be recycled or disposed of without harming nature or human health.

Introduction

The Zenopix RDM/DMX Address Writer is a compact and reliable device designed to address, configure, and test **DMX chips** and **RDM-compatible devices in LED strips**. It simplifies the commissioning process by enabling fast and accurate address assignment, reducing setup time, and minimizing configuration errors.

Designed for both field setup and production environments, the Address Writer offers an efficient solution for programming and verifying DMX Chips and RDM-enabled devices. Its portable design, user-friendly operation, and compatibility with a wide range of RDM/DMX equipment make it an indispensable tool for lighting manufacturers, installers, and maintenance professionals.

Address Writer Key Features

- Supported DMX chips for addressing **TM512, UCS512, SM16512, SM18522, GS8511, GS8512, GS8513, GS8515, GS8516, GS8516B, GS8521, GS8523, GS8524, GS8525, GS8526**.
- **It performs both** address assignment and functional testing **for RDM decoders and lighting fixtures**, facilitating installation, commissioning, and maintenance processes.
- It verifies the accuracy of assigned addresses **through channel counting**, ensuring correct device configuration and reliable system operation.
- **It has a 12–24VDC power input**; it provides flexible and portable operation for on-site programming, testing, and troubleshooting in professional lighting installations.

Safety Instructions

To prevent misuse, damage, or personal injury to the device, please follow the instructions below:

⚠️	This device operates at low voltage (12-24 V DC). Do not use lower or higher voltages.
⚠️	Any external power supply connected to the device must be appropriately fused and/or protected against short circuits, with ratings suitable for the connected load.
⚠️	It is the user's responsibility to protect the device against lightning, electric shock, and high voltage fluctuations. Ensure that the necessary electrical surge protection measures are fully implemented in the installation area.

Technical Specifications

Features	Value
Output Protocol	DMX/RDM
Input Voltage Range	12–24 V DC
Output Port	2 × 4096 DMX Channels / 2 x 32 RDM RDM end devices.
Chip Mode	Single / Tunable / RGB / RGBW
Status LEDs	2 Pieces
Power Consumption	<3 W
Supported Integrated Circuits	TM512, UCS512, SM16512, SM18522, GS8511, GS8512, GS8513, GS8515, GS8516, GS8516B, GS8521, GS8523, GS8524, GS8525, GS8526.
Operating Temperature and Humidity	0°C – 55°C / 0 ~ 60% RH non-condensing
Storage Temperature and Humidity	-10°C ~ 60°C / 0 ~ 70% RH non-condensing
Dimensions	159 × 93 × 24 mm (Length × Width × Height.)
Weight	190 g ± 10 g
Protection	IP20

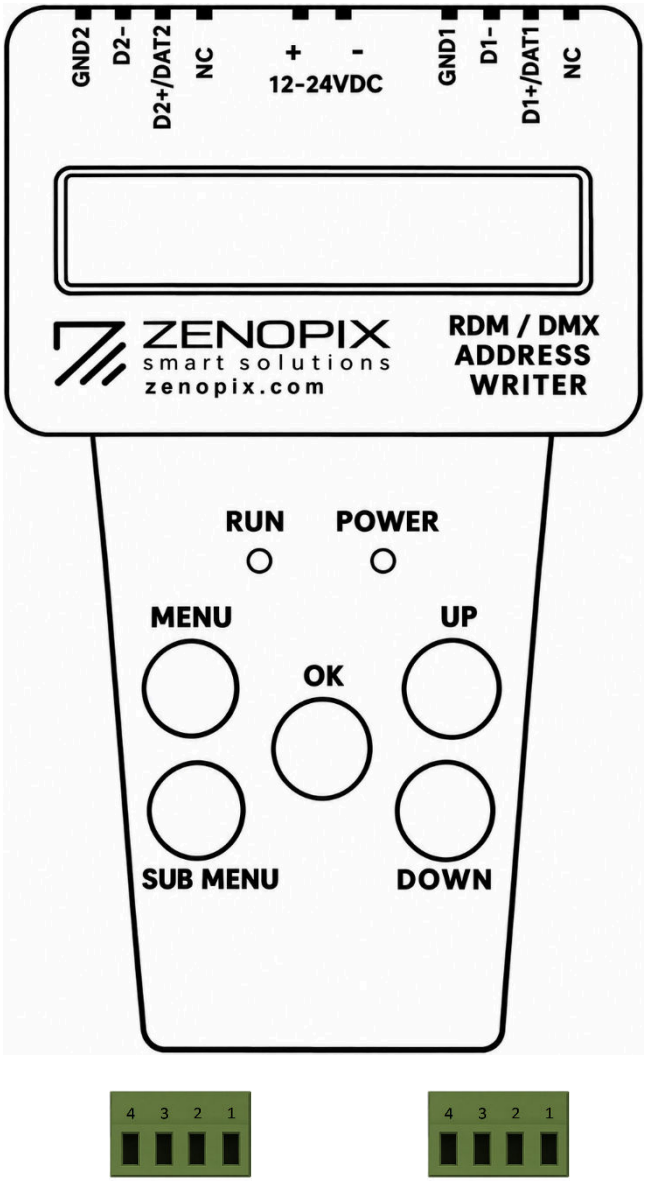
Device Button Descriptions

There are 5 buttons **on the device.** These buttons are **Menu, Sub Menu, OK, Up, and Down**.

MENU	The MENU button allows you to switch between the 6 programs of the Address Writer. Press it to move to another program
SUBMENU	It is used to navigate between submenus **within the program**. You can switch to another submenu by pressing the button.
OK	Activates the selected menu or submenu.
UP	Increases the selected value.
DOWN	Decreases the selected value.

You can find the above information on the device.

Device and Pin Connections



1) Ground 2) DMX Data- 3) DMX Data+ 4) NC

Menu Descriptions (Programs)

There are 6 main programs **in the device menu** . These are;

1. **DMX Addressing,**
2. **RDM Addressing,**
3. **Test,**
4. **Chip Select,**
5. **Setting,**
6. **Fast Mode**

are options.

- **DMX Addressing:** Used to assign addresses to the LEDs you will use. You can assign a value between **1 and 4096** to the first channel, and subsequent channels are addressed automatically. You **can specify which address the first channel receives by pressing the Sub Menu button. To increase the address number faster** , first hold down the Up button, then press and hold the **Down** button. You can also change the address individually using the **Up and** Down buttons. Press **the OK** button to apply addressing.

- **RDM Addressing: Press** the OK button **to find the RDM device connected to the line** . The device will start scanning both ports. Then the ID number and address value of the detected RDM decoder will be displayed on the screen. **You can select the address value using the** Up **and** Down buttons and **save it by pressing** the OK button.

- **Test:** You can test the LEDs you will use in this menu. **You can switch between test colors and animations by pressing the** Sub Menu button.

- **Chip Select:** In this menu, you can select **the chip model** you want to address . If you perform RDM addressing on Zenopix decoders, select the default **TM512** chip.

- **Setting:** In this section, **you can select the** type and pixel configuration **of your LED. You can change the LED type using the** Up **and** Down buttons. You **can select the number of pixel groups by pressing the**

Sub Menu button. This feature allows you to address 2 pixels as a single pixel if **desired.**

- **Fast Mode:** Provides quick access to frequently used addressing and test operations from a single screen. In this mode, the MENU key starts addressing, **the UP** button changes the test color, **the SUB MENU** moves the tested address one step forward, and OK resets the LED addresses. Press DOWN to exit Fast Mode. Exit Fast Mode with the DOWN key. The selected color or tested address is displayed on the second line of the LCD screen.

Device Usage

Zenopix Address Writer; is used to address pixel LEDs, change the address of RDM devices, and test connectivity. The following steps describe the daily use of the device.

Turning on the device

1. Make the connections. Connect the cables while the device and the LEDs to be connected are off. Check the output port and cable directions you will use.

2. Power on the device. When 12-24 V DC power is applied, the display will display "**<<< ZenoPix >>>**" and for this firmware version**, "Address Writer v1.12**." When the firmware is updated, the product or version information on the second line may change.

3. Wait for the home screen. The device loads the last saved settings and opens the DMX Addressing screen. If Fast Mode has been previously enabled, the device will turn on directly on the quick test screen.



Example of the home screen Version information may change with firmware

Navigating Menus

MENU: Switches between DMX Addressing, RDM Addressing, Test, Chip Select, Setting, and Fast Mode screens.

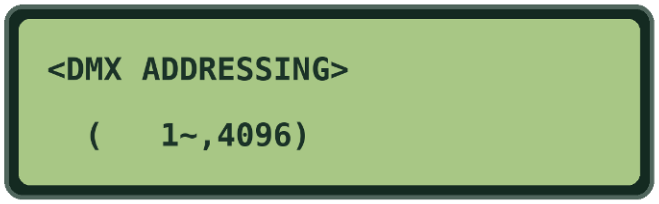
SUB MENU: Switches between the sub-options of the screen you are on. UP and DOWN changes the selected value. OK applies or saves the selection. The "~" sign on the screen indicates the value you are changing.

Assigning DMX Addresses to LED Chips

1. Select the chip model. Go to the Chip Select screen with MENU. Select the chip model used on your LED with UP and DOWN, then save with OK.

2. Select the LED structure. Go to the Setting screen with MENU. The CH value is the number of channels of a pixel; for example, 3 is selected for RGB, 4 for RGBW. The PG value determines the group of pixels sharing the same address. Switch between CH and PG with SUB MENU, select the value with UP/DOWN, and save with OK.

3. Set the address range. Use MENU to reach the DMX Addressing screen. Switch between the start and end addresses with SUB MENU. Select values between 1-4096 with UP and DOWN. For major changes, you can proceed 50 steps by using the UP and DOWN keys together.



DMX start and end address screen

4. Start addressing. Press the OK button. The screen first shows "Start / Addressing," and during the process, "Addressing" appears. The device then assigns the LEDs addresses sequentially starting from the selected starting address.

5. Wait for completion. When the "Addressing / Completed" message appears on the screen, the process is complete. Do not turn off the device or LEDs or disconnect connections before this message appears.



Addressing completed screen

Assigning an address to an RDM device

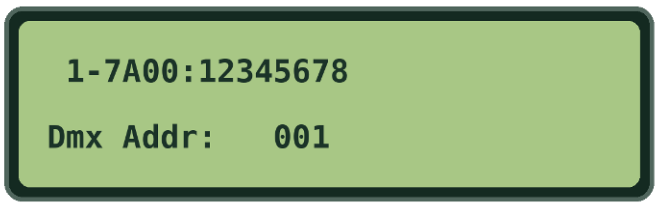
1. Start the scan. Go to the RDM Addressing screen with MENU and press the OK button. The device scans PORT-1 and PORT-2 in turn. "Searching ..." indicates that the scan is in progress.



RDM scanning screen

2. Select the device. The number of detected devices is displayed on the screen. If there are multiple devices, you can switch between devices using the SUB MENU. The screen shows the ID of the selected device and the current DMX address.

3. Find the device with RDM Identify. When a device is selected with the SUB MENU, the software sends Identify ON to the selected device and Identify OFF to devices not selected in the list. The selected fixture or decoder reveals itself by turning its light or status indicator on and off as supported by its manufacturer. This way, you can check which product the device shown on the screen is in the field.



Selected RDM device and current address

4. Save the new address. Select the new address with UP and DOWN, then press the OK button. The "**SAVED**" message indicates the address has been saved, and the "**NOT SAVED**" message indicates the process was incomplete. If the device cannot be found, check the connections and the device's RDM support.

Testing LEDs

Reach the Test screen with MENU. Switch between single-color channel testing, channel navigation over addresses, automatic address scanning, and manual address testing options on all LEDs with SUB MENU. Change the test channel or address with UP and DOWN. The OK button switches between continuous progress and single step in moving tests. This way, you can find the LED with the wrong address or the faulty connection.



Automatic address test screen

Using Fast Mode

Fast Mode consolidates frequently used addressing and test operations on a single screen. When this mode is on, MENU starts addressing, UP changes test color, SUB MENU advances the tested address one step, OK resets LED addresses, and exits DOWN Fast Mode. The selected color or tested address appears on the second line of the LCD.



Fast Mode home screen

WARNINGS

- Products must be used by qualified professionals.
- Zenopix products are not waterproof (except for special models). Please avoid sun and rain.
- Please check whether the operating voltage used complies with the parameter requirements of the products.
- Before turning on the device, please ensure all cables are correct in case of incorrect connections that could damage the lighting fixtures. If a malfunction occurs, please do not attempt to repair the products yourself. If you have any questions, please contact your suppliers.
- This manual is subject to change without prior notice. If you have any questions, please do not hesitate to contact us.

Technical Support

If you have further questions about using Zenopix Address Writer or technical issues, use the following resources for troubleshooting:

Read the Zenopix Address Writer user manual

Contact your supplier or sales representative.

Check the latest information on our website

For any technical issues you may have, you can contact us directly through info@zenopix.com

Order Code

You can follow the template below when creating a product order code. If multiple options are included in the same block, separate them with a period You can find the supported variants for the relevant product in the template. You can also choose directly from the codes in the table*¹. Unless specifically specified by the customer, the boldly underlined model in the table is used as the default during ordering. Customizations to the standard product may affect the lead time.

*¹ Please ensure the product code is specified correctly. No changes can be made to the product's hardware features after production.

[PRODUCT FAMILY] - [CAPACITY/FEATURE] - [CASE TYPE] - [CONNECTION/ HARDWARE]

PRODUCT FAMILY: ADDR

CAPACITY/FEATURE: 2 Output

ENCLOSURE TYPE: CBX: Plastic Enclosure

CONNECTION/HARDWARE: PTB: Pluggable Terminal Block

Product Code (SKU)	Description
ADDR-2-CBX-PTB	Addressing Device, 2-outlet, Plastic box, Plug-in terminal connection

Your lighting solution partner

Zenopix; approximately
Based on twenty years of expertise, lighting
specialized in control systems
an R&D is a technology and manufacturing company.

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