

# **DMX RGB Controller**

DMX512 Controller

User's Manual

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## INTRODUCTION

Small controller with many possibility but especially developed for controlling RGB lights. Its mainstay softing channels and configurable all channels separately. Able to use normal dimmer packs or any kind of dmx products till 8 pieces and 24 channels pro piece.

For the use of the controller it is essential to read through the operating instructions and simultaneously operate the controller. If you have any question, contact the factory or the dealer by e-mail. Here you can report the possible remarks and recommendations experienced by you. We answer your questions by e-mail or upload the software developed by you, from where you can download or install the newer version, since the software of the controller can be updated free of charge. If you would like to find out the freshness of the software of your controller, enter the menu, select the menu item **INFORMATION**. Upon logging on the version number of the software of the controller and the date of placing on the market can be read in the display. Compare the version number with the software version number that can be found in the website of the manufacturer or the dealer, and if necessary, update the controller software by means of those described in the **SOFTWARE UPDATE** section.

## INSTALLATION

After connecting the network cable, upon turning on the mains switch the LEDs of the controller are switched on, and the logon text can be seen in the display for some seconds, **and** then the controller goes to a mode ready for immediate action.

If after turning on the caption „SOFTWARE UPDATE NECESSARY” is shown in the display, the controller will be usable only after updating the software.

It may occur if the connection is cut off during the software update or power failure takes place, so the update is interrupted.

**Turning off the appliance:** in any mode it is possible by turning off the mains switch.

Five stages of the LEDs in the switches of the controller are distinguished, the knowledge of which facilitates the operation of the controller.

- it does not illuminate: At this time the related switch does not have any function in the current mode, there is no consequence of pressing it
- it illuminates with half intensity: It indicates that the related switch has some function, and it can be activated by pressing the button.
- it illuminates with full intensity: The function of the button related to the LED is active, which can be turned off by pressing another button, not by itself.
- it flashes with full intensity: it indicates such a powered-up function, which can be turned off by pressing the button related to the LED.
- it flashes with half intensity: it indicates such an activated function, in which a parameter has already been modified, but at present it is not the current mode. By pressing the related LED the function of the button related to the LED becomes active again, its LED flashes with full intensity.

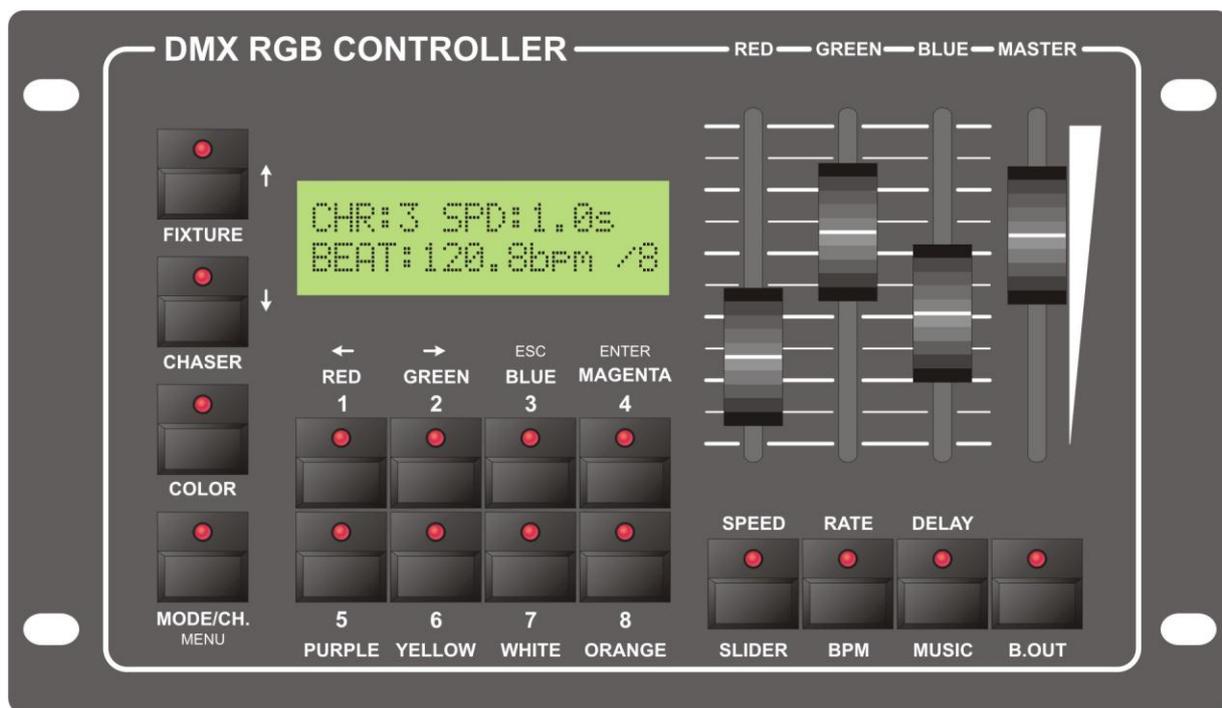
## SOFTWARE UPDATE

**Use of the downloading software:** ATTENTION! The software runs only under Windows operating systems. Follow those listed in the points listed below from step to step for completing the software update:

1. You will be required for the software update:
  - a. Besides the controller a computer, in which the Windows operating systems is running and there is a connection possibility of an USB port.
  - b. A standard USB cable, with which the controller and the computer must be connected.
  - c. Downloading software, which is available in the homepage of the controller distributor or manufacturer, its name is 'Ldm.exe'.
  - d. Updating file, which includes the software to be loaded into the controller, its name is e.g.: 'Cer1024v20.dat'. In the file name the last two digits refer to the software version number. It can also be found in the homepage of the manufacturer or distributor.
2. Connect the controller and the computer with the cable.

3. Connect the controller to the power supply.
4. Start the downloading software in the computer ('Ldm.exe').
5. The software automatically starts making a connection.
6. If the setup and connection are all right, the data of the controller are shown in the window (type, etc.).
7. In case of a correct connection click on the Downloading icon (Icon 1) or select the File/Open menu item, and find the file to be loaded into the controller (e.g.: Cer1024v20.dat), and then acknowledge the selection with the "Open" button.
8. Click on the Download button, and the downloading starts.
9. The stage of the downloading can be monitored in the pop-up process indicator.
10. If the process is completed, the update is ready. For disconnection only pull out the USB cable from the controller.
11. If during the update any fault, e.g. power failure should occur, restart the controller by interrupting the power, and restart the updating software, and repeat the actions.

## FRONTSIDE OF CONTROLLER



## HOW TO START

### SETTING OF THE CONNECTED DEVICES TO DMX OUTPUT

The connected device DMX base address must be set by 32. It means that the first device must be set to 1 and the others always plus 32.

Device number	DMX address
1.	1.
2.	33.
3.	65.
4.	97.
5.	129.
6.	161.
7.	193.

## CONTROL OF THE CHANNELS

After turning on the controller goes into an automatic mode. For making a SHOW and running them in your own light equipment, some setups have to be made, i.e. the controller has to be configured. It is recommended to configure the controller in the following sequence:

- Check the version number of the controller software, if you find a more up-to-date in the homepage of the distributor or the manufacturer, download it and update the controller, see Chapter SOFTWARE VERSION, Chapter SOFTWARE UPDATE
- Select the language in which the controller will output the texts in the display, see Chapter LANGUAGE SELECTION.
- Adjust the contrast and brightness of the display if e.g. it illuminates too intensively or outputs the texts palely, see Chapter DISPLAY SETUP.
- Adjust the intensity of the LEDs to the desired value, see Chapter LED SETUP.
- If the unit to be controlled is not in the unit library, create it, see Chapter UNIT INSTALLATION.
- Configure the units to be controlled, see Chapter DMX PATCH.
- Try out if the adjusted units' works properly, see Chapter MANUAL MODE. **Take care at what value the GRAND MASTER potentiometer is in the manual mode!**

After making the settings if we are able to set the channels of the units in the manual mode, we are prepared for the use of the controller. The operation of the controller can be divided into two large parts: **AUTOMATIC MODE** and **MENU SYSTEM**. All modifications and settings can be made in the MENU. In the AUTOMATIC MODE the recorded events can be run, all effects can be started, which have been set up in the MENU.

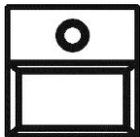
## SAVING DATA

In the menu item if after the modification of any data we exit the menu item, the controller asks saving of the modification. Its operation is made in the same way in each menu item.

- ESC - exit without saving the modifications
- UP-DOWN - remains in the modification
- ENTER - saving the modifications, and then exit to the menu

## ENTRY INTO THE MENU

After turning on the controller the controller gets into the MAIN mode. Here the written programs, images can be called, started, their parameters can be set.



MODE/CH.  
MENU

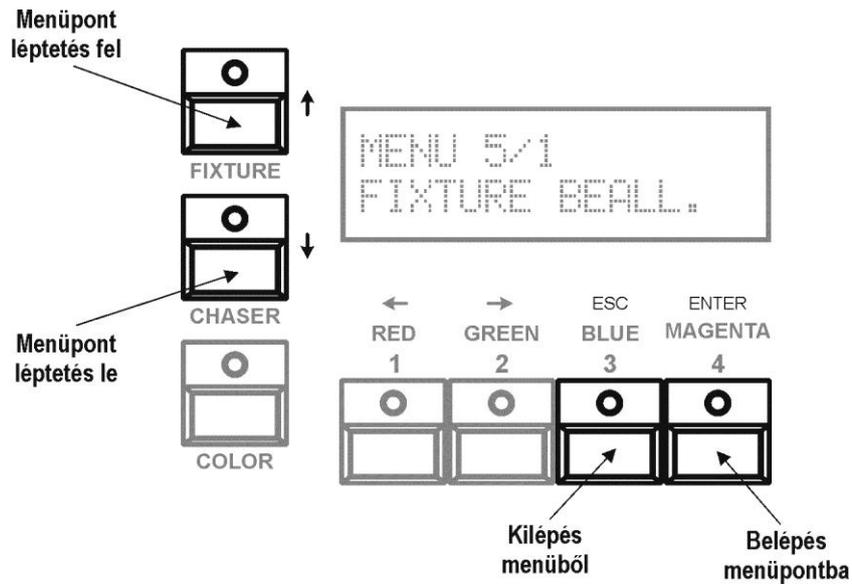
In the MAIN mode you can enter the menu by pressing long (about 3 sec.) the MENU button.

## MENU SYSTEM

It is practical to start the operation of the controller by getting familiar with the menu system and the settings accessible from it. After turning on the controller you can enter the menu by pressing the MENU button in MAIN mode.

In the upper line of the display the name and number of the current menu item can be read, and the denomination of the menu items is shown in the other lines. You can select among the menu items with the UP-DOWN buttons. You can enter the current menu item by pressing ENTER, and go back to automatic mode by pressing ESC.

You can go to further submenus from the main menu by pressing ENTER, you can exit or go back to automatic mode by pressing ESC.



## STRUCTURE OF THE MENU

- 1. Fixture configuration
  - 1. Fixture selection (1-8)
    - Fixture all channels number (1-24)
    - SOFT/HARD setting by channels
    - Slider to channels
    - Grandmaster
    - Black out
    - Minimum value
    - Maximum value
- 2. Software update via DMX
  - For some products by Manufacturer which have DMX input
- 3. Language
  - 1. Hungary
  - 2. English
  - 3. German
- 4. Software version
  - Software version
  - Software date
- 5. Product data
  - Serial number
  - Manufacturing date
- 6. Operating mode
  - Simple
  - Advanced

## MENU 6. – OPERATING MODE

There is two different working modes: Simple and advanced.

Simple:

Only 3 channels (one RGB Product) for control, GM, BO effects all three channels, Minimum value is 0, and maximum value is 255.

Advanced:

8 fixture can be controlled, and the first menu settings are valid for channels.

- UP/DOWN - mode selection
- ESC - exit, if there was any modification then product will ask saving it.

## **MENU 5. – PRODUCT DATA**

### **SERIALNUMBER**

In the upper line of the display the serial number of the controller can be read.

### **MANUFACTURING DATE**

In the lower line the manufacturing date of the controller can be read (year/month/day).

- ESC - back to menu

## **MENU 4. – SOFTWARE VERSION**

### **SOFTWARE VERSION**

In the upper line of the display the version number of the controller software can be read.

### **DATE OF ISSUE OF THE SOFTWARE**

In the lower line the date of issue of the software version can be read (year/month/day).

- ESC - back to menu

## **MENU 3. – LANGUAGE**

It is possible to select what language the controller displays the captions included in the display in.

- UP/DOWN - language selection
- ESC - exit, if there was any modification then product will ask saving it.

## **MENU 2. – SOFTWARE UPDATE VIA DMX**

There is some product from the manufacturer, which has DMX input and its software can be updated by DMX line. In this menu you can send an update file from memory (what you can load from PC to controller via USB) to product via DMX.

In upper line you can read which software is in memory, at the end of row you can see the version number.

Plug the device, press ENTER, and during update you can read on display: software update in process.

- ENTER - start software update
- ESC - exit

## MENU 1. – FIXTURE CONFIGURATION

Here you can set all parameters for the fixture which you want to control.

### FIXTURE SELECTION

At same time you can control 8 fixtures, and one of them can be selected, and its parameters can be set up.

- UP/DOWN - select fixture (1-8)
- ENTER - go in selected fixture parameter setting
- ESC - exit to menu

### MAXIMUM CHANNEL NUMBER

Set the maximum channel number, it can be at most 24. On the data sheet of connected device can be see how many channels the fixture has. This number must set here.

For example: if you want to control RGB dimmers, then set the value to 3.

- UP/DOWN - set maximum channel number (1 - 24)
- ENTER - go to next data editing
- ESC - back to fixture selection

### SOFT/HARD SELECTION

The controller is able to control all channel in hard or soft mode. Hard mode means that the channel value change immediately to new value and soft mode means that the channel value changing continuously to new value under selected soft time.

- UP/DOWN - select channel (1 - max channel number)
- ENTER - from channel select to hard/soft set, or go to next parameter setting
- ESC - from soft/hard set to channel select or back to fixture selection

### SLIDER ORDER

There are 3 sliders, and one fixture can be at most 24 channels. All channels can be able to modify by sliders. The solution is the 8 buttons under the display. All buttons will have 3 sliders: 8 button x 3 slider = 24 channels.

- UP/DOWN - channel, button, or slider selection
- ENTER - go to next parameter setting
- ESC - back to fixture selection

Buttons can be select from 1 to 8, sliders from 1 to 3. The channel can be select from 1 to max channel number.

**So the number of the button means POTI page number and not FIXTURE number!**

*Example: If we want to control two devices with three channels each, then for both the device we should set **BUTTON 1** and **SLIDER 1, 2 and 3.**The 2 and higher **BUTTON** number needed if we have more than three channels devices.*

### GRAND MASTER

Every channel can be set to effect grand master slider.

- UP/DOWN - select channels, or master selecting/deselecting
- ENTER - go to next parameter setting
- ESC - back to fixture selection

### BLACK OUT

Every channel can be set to black out effect. The black out value will appear on the output until black out effect active. It can be different for every channel.

- UP/DOWN - channel selection, or set black out active

- 1 - Delete Black-out active value
- ENTER - go to next parameter setting
- ESC - back to fixture selection

#### MINIMUM VALUE

For every channel can be set a minimum value. The channel will never have less then this minimal value.

- UP/DOWN - channel selection, or channel minimum value
- ENTER - go to next parameter setting
- ESC - back to fixture selection

#### MAXIMUM ÉRTÉK BEÁLLÍTÁSOK

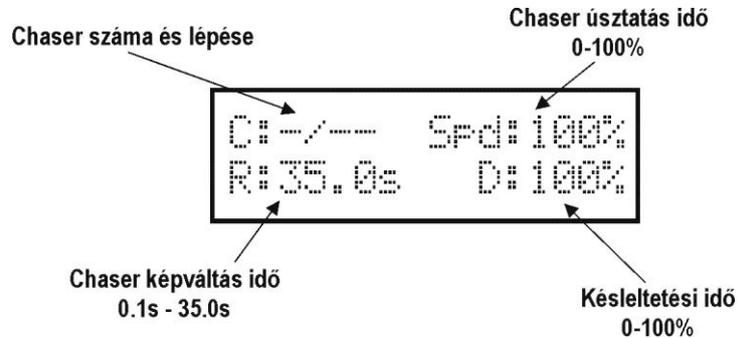
For every channel can be set a maximum value. The channel will never have higher then this maximal value.

- UP/DOWN - channel selection, or channel maximum value
- ENTER - go to next parameter setting
- ESC - back to fixture selection

## AUTOMATA MODE

After starting product it will go to automatic mode.

### DISPLAY



### GRAND MASTER

Limit channel values. The output brightness can be set between 0% and 100%.

### BLACK-OUT

By pressing will BO effect activated, and preprogrammed values can be see on output until pressing again BO button

### MUSIC

The running chaser will load next step by in built microphone if MUSIC effect is activated.

### BPM

Loading new step in running chaser can be by given beat by more times pushing BPM button.

### SLIDER/SPEED

The 1-3 sliders have two different modes. Normally you can change channel values, but after pressing SLIDER/SPEED buttons you can modify the chaser parameters: speed, rate and delay.

### FUNCTION BUTTONS 1-8

Only one button can be active between the FIXTURE, CHASER, COLOR, and MODE.

If Fixture button is active, then fixtures can be select on button 1-8.

If Chaser button active, then chasers can be select on button 1-8. By pressing chaser button more time you can select chaser banks. There is 3 chaser banks, and every bank has 8 chaser, so  $3 \times 8 = 24$  chaser can be made.

If color button is active, then colors can be call on button 1-8.

If mode button is active then slider banks can be select on button 1-8.

### FUNCTION GROUP BUTTONS (FIXTURE, CHASER, COLOR, MODE/CH)

#### FIXTURE

After pressing you can select on 1-8 buttons fixtures. If its led is blinking, it means that there are channels in manual mod.

If press again, the manual selecting will be deleted and blinking ended.

By slider 1-3 only channels will be modify where the fixture also selected.

#### CHASER

After pressing you can select chasers on button 1-8. More times pressing you can change chaser bank. There are 3 banks, so you can run  $3 \times 8 = 24$  chasers. Same time one chaser can be run. If one of the 1-8 led not lit, means that no chaser saved on this button.

Save chaser scene:

- Press FIXTURE button to go fixture selection
- Select fixtures on button 1-8
- Change channel value on slider 1-3
- Press CHASER button to go chaser selection
- Press and hold CHASER button again
- Press of 1-8 buttons to save scene (it will be the first step)
- Change channel value again by slider 1-3
- Press and hold CHASER button again
- Press of 1-8 buttons to save scene (it will be the second step)
- You can save 33 scenes for one button at most.

Delete chaser:

- Press CHASER button to go chaser selection
- Press and hold one of the 1-8 button which you want to delete
- After 3 sec the chaser will be deleted, its led switched off.

COLOR

After pressing COLOR buttons you can select preset colors on button 1-8.

- Press FIXTURE button to go fixture selection
- Select fixtures on button 1-8
- Change channel value on slider 1-3
- Press COLOR button to go color selection
- Press and hold COLOR button again
- Press of 1-8 buttons to save scene

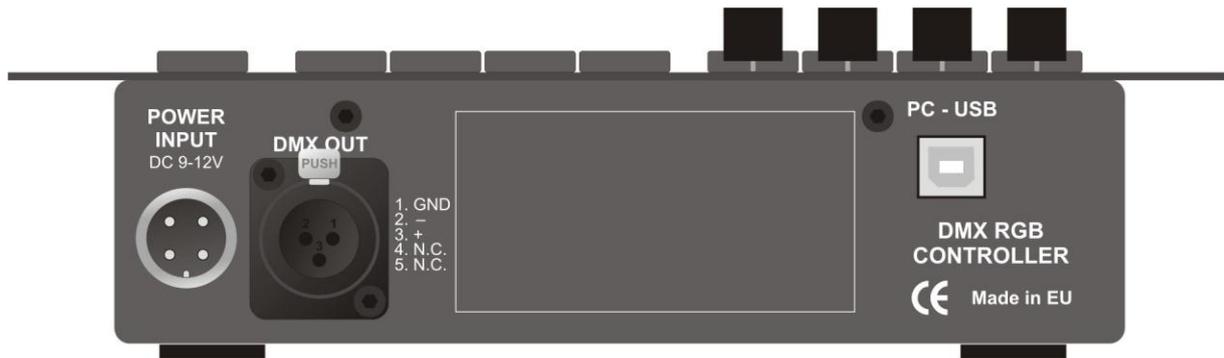
MODE/CH

After pressing MODE/CH button you can select fader bank. For all button consist 3 sliders, so:  $8 \times 3 = 24$  channels. The fader order to channels you can set in FIXTURE CONFIGURATION menu.

## Technical parameters

- channels:  $8 \times 24 = 192$  channels
- fixture number: 8
- chaser number: 8/99 step
- chaser wait time: 0.1s – 35.0s
- chaser soft time: 0 – 100%
- beat range: 60.0 – 600.0bpm

## Connectors and their linking

**Power**

DC 9-12V

**DMX socket**

Output for 512 channels (5 pole connectors)

**PC USB socket**

It is for software update, data saving and loading via a PC. Usable cable: standard USB 2.0 cable

**Measurements and weight**

- Wide: 230mm; High: 133mm ; Deep: 50mm
- Weight: 1,0kg

**ACCESORIES**

- Power supply
- User manual's

