DEZELECTRIC

PC-DMX/RDM Interface

RDM compliant LED Led Driver

User Manual

The RGB-3 DMX LED DRIVER device can be controlled and configured by the PC software PC-DMX/RDM Interface. For this needed an interface hardware, it is the PC-DMX Interface.

There are two different modes to use the PC-DMX/RDM Interface with RGB-3 DMX LED DRIVER.

1.) DMX mode
2.) DMX/RDM mode

DMX Mode

In DMX mode there is only one way communication from PC to Device. The PC software can send commands by special DMX package (start code = 1) to devices, but the device can not send any answer.

Set PRO CONTROLLER RGB DMX to DMX mode:
set the code switches in any value except 600.

Set PC software to DMX mode:
Click on the menu: Configure – Mode…. The Mode window opens and selects the DMX radio button. Press OK.

Functions for RGB-3 DMX LED DRIVER **in DMX mode:**

• Software update
• Edit stand alone programs
• Edit configuration data

Programs and configuration data can be load and store from and to files and can be send to PRO CONTROLLER RGB DMX.

DMX/RDM Mode

Set RGB-3 DMX LED DRIVER to DMX/RDM mode

In DMX mode there is two way communications, from PC to Device and back. The PC software can send commands by special RDM package (start code = 0xCC) to devices, and the devices can send answers. Every RDM devices has own identification number, this is Unique ID.

Set RGB-3 DMX LED DRIVER to DMX/RDM mode:
set the code switches to 600.

Set PC software to DMX mode:
Click on the menu: Configure – Mode… . The Mode window opens and selects the DMX/RDM radio button. Press OK.

Functions for RGB-3 DMX LED DRIVER in DMX/RDM mode:

- Software update of RGB-3 DMX LED DRIVER
- Edit stand alone programs
- Edit configuration data of RGB-3 DMX LED DRIVER
- Edit LED characteristics
- Set DMX address
- Set DMX personality
- Set unique device label
- Set mode: DMX, SINGLE, MASTER
- Set number of stand alone program

First using of RDM mode

Set the RGB-3 DMX LED DRIVER to RDM mode by code switches to 600.
Set the DMX/RDM mode in PC software.
Connect the Interface to PC by USB cable.
Connect the PRO RGB-3 DMX LED DRIVER to Interface by DMX cable.
Make power for RGB-3 DMX LED DRIVER
Select View menu RDM window
Click on the button DISCOVERY to start discovery procedure. The PC software will automatically find the connected RDM devices.

The RDM window

On the left side you can see all the connected RDM devices. On right side of the display you can see the left side selected device data.
There are four pages of this part:

- Details
- DMX issue
- Sensors
- Special (can be only see if RGB-3 DMX LED DRIVER device selected)

Details

Unique ID: this is the own identify number of the device
Device model: description of the device. It can be configured by the user. Give any name until 32 characters long and click Modify.
Manufacturer: manufacturer of the device
Product category: the product category of the device
Software version ID: software version of the device
Number of DMX personality: so many DMX personalities the device has.
Current DMX personality: this personality actually selected. It can be configured by the user. Select one row from the drop-down list and click Modify.
DMX start address: actually selected DMX address of the device. It can be configured by user. Select any DMX address and click Modify.

Sensor count: so many sensors the device has.
Sensor description: descriptions for the sensors the device has.

Identify ON: send start identify command to device. The RGB-3 DMX LED DRIVER will start to blink with white color.

Identify OFF: send stopping identify command to device. The RGB-3 DMX LED DRIVER will stop blinking.

Factory default: send load factory default command to device. The RGB-3 DMX LED DRIVER will load its factory settings.

DMX Issue

Will be filling later…

Sensors

Will be filling later…

Special

These parameters are typical of the selected device. In this case for RGB-3 DMX LED DRIVER.
It has three different working modes: DMX, Single, Master.

DMX mode: We need it in two different ways. Normally the device has a DMX address, and can be controlled by any DMX Controller on this address. Other possibility if we have other RGB-3 DMX LED DRIVER as Master and this device we want to use as Slave. In this case also select DMX mode, and select the number of slave. The DMX address will be automatically set.

Single mode: The device will run its stand alone programs. We can select one of the built in programs and also we can set speed/wait time and master brightness, and also we can set the fade mode.

Master mode: Similar like Single mode, the only one difference is that in master mode the device will send DMX signal. 5 second after activating master mode and the device will start DMX sending. But we can also send RDM commands from PC software because the device will notice it and will stop sending DMX signal!

Get configuration button: By clicking of this button we can read the configuration data from the device. The configuration window will be automatically opened after loading data.

Get program button: By clicking of this button we can read stand alone programs form the device. The program window will be automatically opened after loading data.

The configuration window

This window has two pages: configuration and characteristic

Configuration – default
These values are loading automatically to the channels output after switching on the device.

Configuration – Channels off if overheating
The device continuously measures the temperature. If the value is too high then the channels output automatically switched off.

Configuration – Program switch
There are nine possibilities to get speed and wait values. The values can be set in 5 hundred seconds from 00:00.05 to 30:00.00 second. These values can be used for stand alone programs.

Configuration – Brightness
There are 10 level of brightness. These values can be used for stand alone programs.

Characteristic – Maximum
These are the channels maximum value. The channel will never higher then this selected value.

Characteristic – Minimum
These are the channels minimum value. The channel will never lower then this selected value.

Characteristic – Gamma
The channel characteristic can be modify. The right value depends on the used LED type and the connected amount of last (WATT).

Characteristic – Offset correction
The different kind of LED are opens (starting lit) in different power level. Here we can set the lowest but also working value.

Characteristic – White balance
This is for optimizing the channel value changing between the minimum and maximum value.

Configuration process of dimming characteristics for controlled LED-s

1.) Connect and switch on LED-s to the led driver
2.) Connect a simply DMX controller which has slider.
3.) If white balance is on, then switch it off.
4.) Set channels maximum to 255
5.) Set channels minimum to 0
6.) Set channels gamma to 1
7.) Set offset correction to 0
8.) Send these settings to the device by clicking SEND button.
9.) Set all channels to 255.
10.) If one of the colors is stronger than others then set its maximum value to lower level.

11.) Move sliders by channels between the two endpoint (min/max) and watch the light brightness changing.
12.) Change the gamma value and if the brightness changing seems to be linear than we have the optimal gamma value.
13.) Set all channels to DMX 1.
14.) Set the offset correction to all channels to 0 and increase by one. If the LED are lit (not flickering but lit) then we have the correct offset correction.
15.) Switching on the white balance is recommend

The program window

Select programs by drop-down list from 1 to 9. One square means an RGB color of one LED. By right mouse click possible to select new RGB color by sliders. By left mouse click possible to select new RGB color by normal Windows color window.

Step: So many step will the selected program has.

Step mode: The programs scene will load after pushing program button on the remote control.

Speed: Own program speed time.

Wait: Own program wait time.

SEND button: the edited programs can be send to the device.